

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL062422\
 Data File : VL039341.D
 Acq On : 24 Jun 2022 15:02
 Operator : SY/AP
 Sample : N3489-02 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA L
 ClientSampleId :
 SV-4-20220622

Quant Time: Jun 27 01:49:04 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	5.66	49	1225464	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.17	114	3399564	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3109534	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	2380038	9.26	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	92.60%

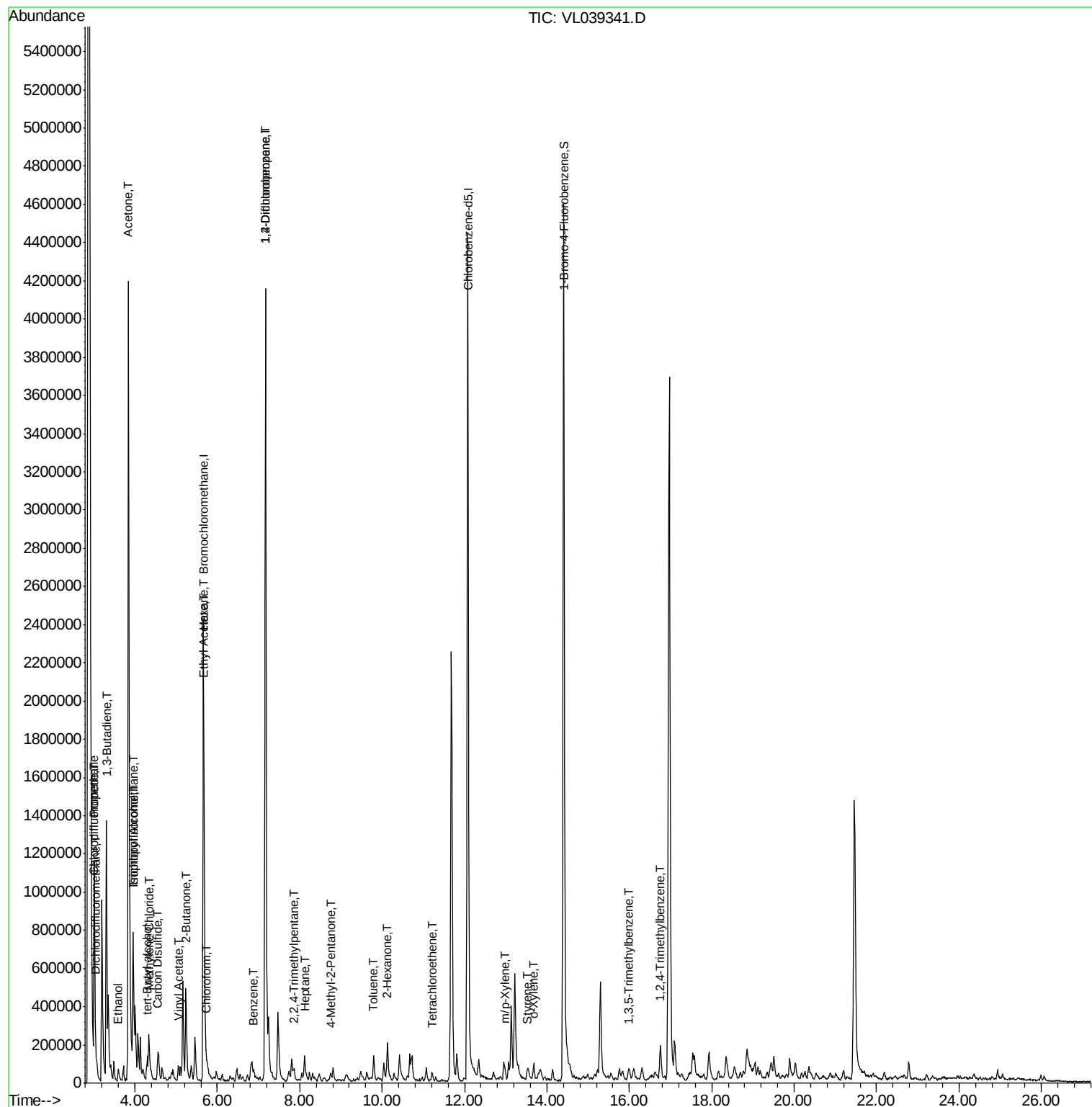
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	23847	0.111 ppbv	96
3) Chlorodifluoromethane	2.99	51	10559	0.068 ppbv	96
9) Propene	3.01	41	567602	8.348 ppbv	91
10) Heptane	8.11	43	27412	0.173 ppbv #	26
11) Trichlorofluoromethane	3.95	101	8410	0.043 ppbv	93
13) Ethanol	3.59	45	71304	19.231 ppbv #	100
15) Acetone	3.84	43	5488971	42.999 ppbv	93
16) 1,3-Butadiene	3.31	39	445000	6.485 ppbv #	18
17) tert-Butyl alcohol	4.28	59	54115	0.547 ppbv	94
19) Isopropyl Alcohol	3.95	45	892986	14.915 ppbv #	93
20) Methylene Chloride	4.34	84	94173	1.751 ppbv	95
23) Vinyl Acetate	5.06	43	19704	0.187 ppbv #	89
25) Ethyl Acetate	5.68	43	80398	0.279 ppbv #	81
26) Hexane	5.68	57	110900	0.877 ppbv #	36
27) Carbon Disulfide	4.55	76	147387	1.125 ppbv #	92
29) Chloroform	5.75	83	12767	0.060 ppbv	86
34) 2-Butanone	5.24	43	604610	3.274 ppbv	96
36) Benzene	6.89	78	12577	0.046 ppbv #	85
39) 1,2-Dichloropropane	7.17	63	845151	7.699 ppbv #	25
44) 2,2,4-Trimethylpentane	7.87	57	19771	0.041 ppbv #	1
50) 4-Methyl-2-Pentanone	8.75	43	9739	0.035 ppbv #	39
51) 2-Hexanone	10.13	43	80260	0.373 ppbv #	28
52) Tetrachloroethene	11.22	164	4952	0.046 ppbv #	75
53) Toluene	9.80	91	57106	0.180 ppbv #	80
59) m/p-Xylene	12.99	91	16460	0.044 ppbv #	33
60) o-Xylene	13.68	91	46404	0.131 ppbv	83
61) Styrene	13.52	104	6786	0.036 ppbv #	65
73) 1,3,5-Trimethylbenzene	15.98	105	35573	0.095 ppbv	91
74) 1,2,4-Trimethylbenzene	16.75	105	117555	0.281 ppbv #	66

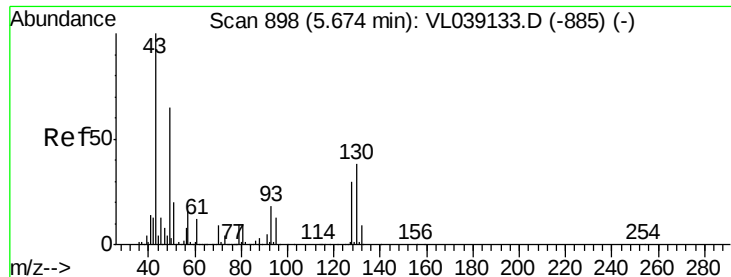
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SV-4-20220622

Acq: 24 Jun 2022 15:02

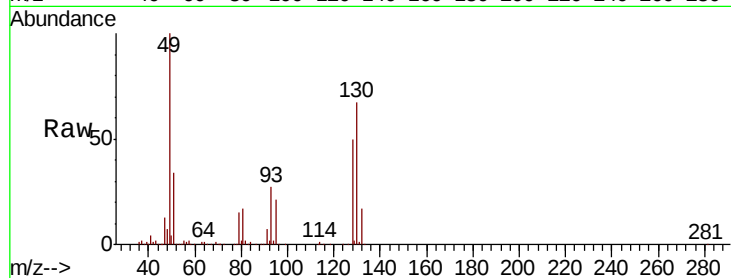
Tot Ion: 49 Resp: 1225464

Ion Ratio Lower Upper

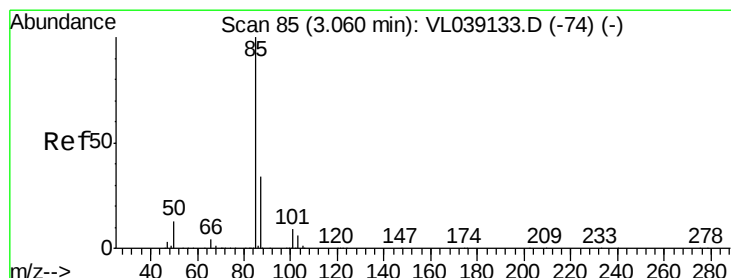
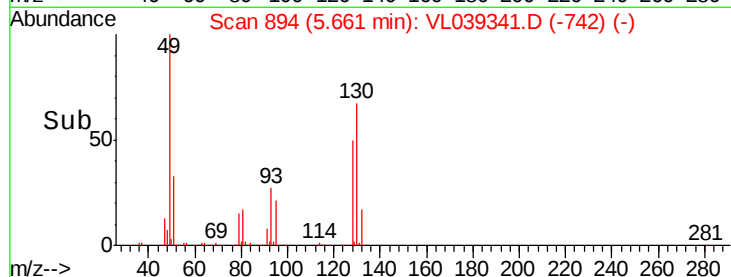
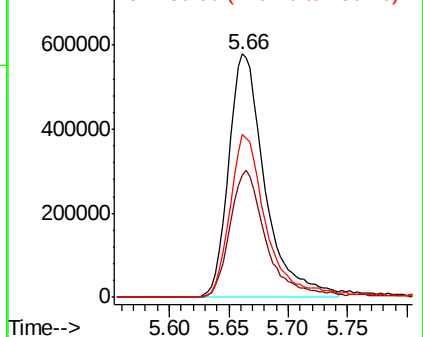
49 100

128 52.8 24.7 74.1

130 69.0 31.4 94.0



Abundance Ion 49.10 (48.80 to 49.80): VL0
Ion 128.00 (127.70 to 128.70): V
Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.111 ppbv

RT: 3.05 min Scan# 81

Delta R.T. -0.01 min

Lab File: VL039341.D

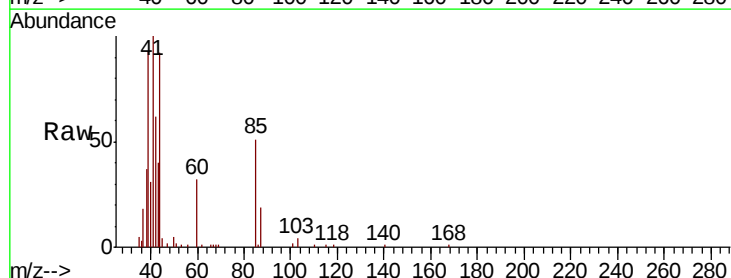
Acq: 24 Jun 2022 15:02

Tgt Ion: 85 Resp: 23847

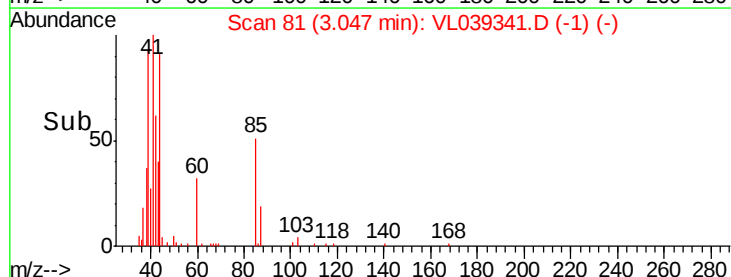
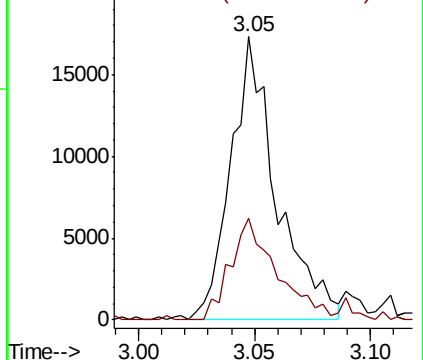
Ion Ratio Lower Upper

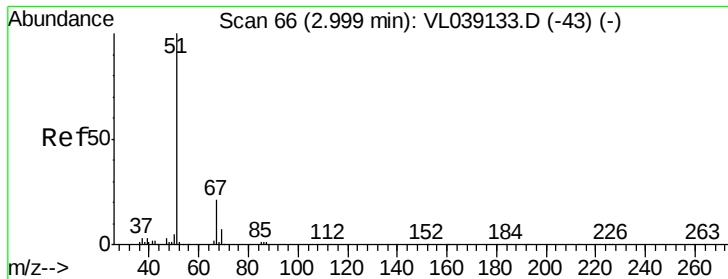
85 100

87 36.1 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.068 ppbv

RT: 2.99 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SV-4-20220622

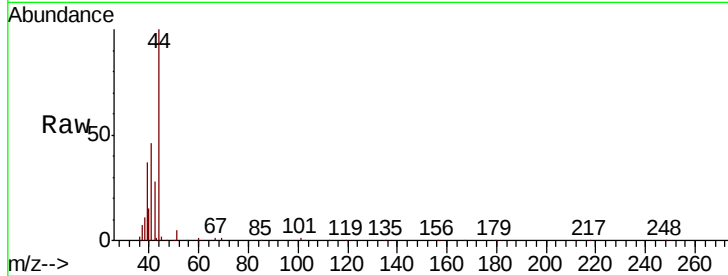
Acq: 24 Jun 2022 15:02

Tot Ion: 51 Resp: 10559

Ion Ratio Lower Upper

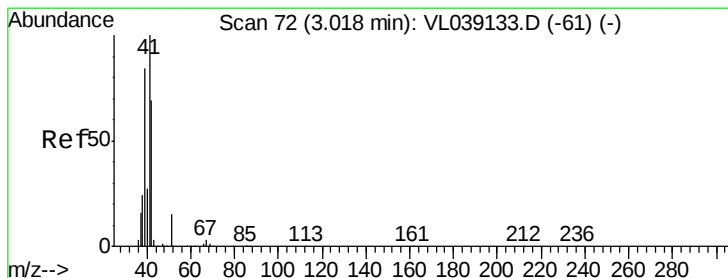
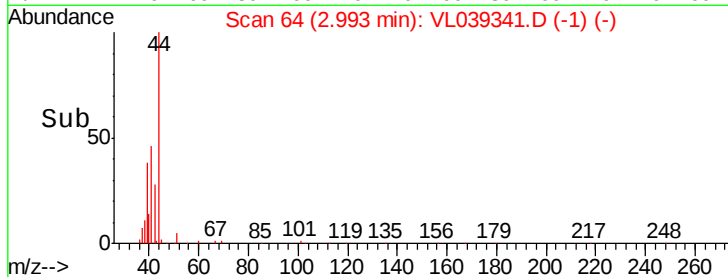
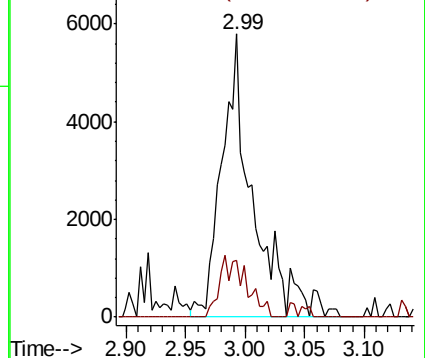
51 100

67 18.4 16.2 24.4



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#9

Propene

Concen: 8.348 ppbv

RT: 3.01 min Scan# 69

Delta R.T. -0.01 min

Lab File: VL039341.D

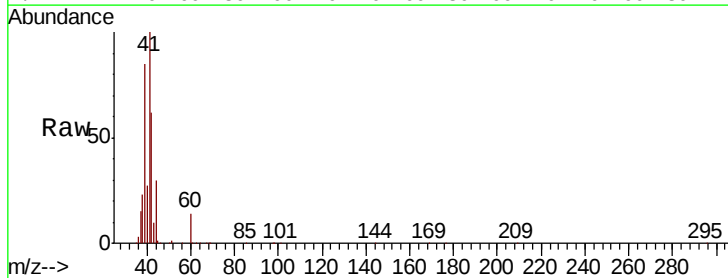
Acq: 24 Jun 2022 15:02

Tgt Ion: 41 Resp: 567602

Ion Ratio Lower Upper

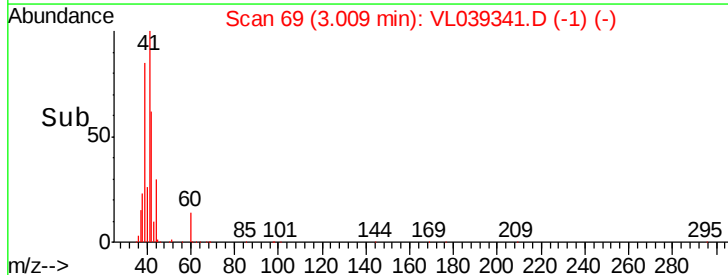
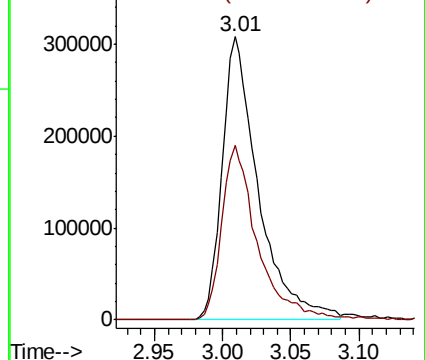
41 100

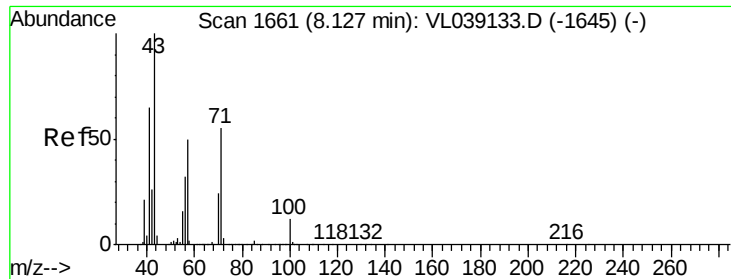
42 61.7 55.4 83.2



Abundance Ion 41.10 (40.80 to 41.80): VL0

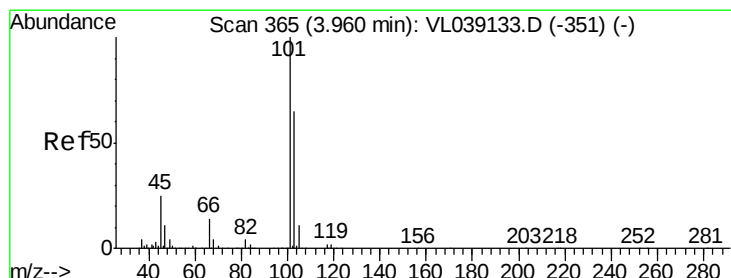
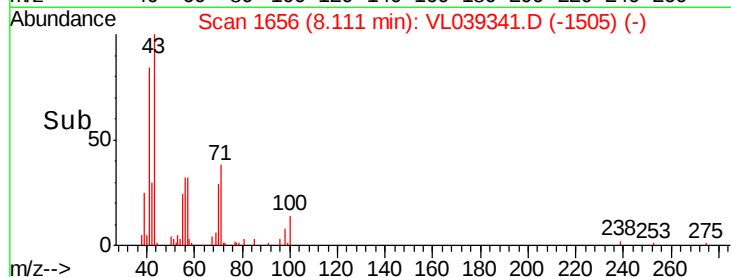
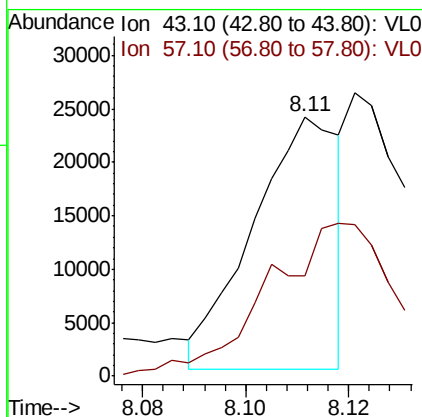
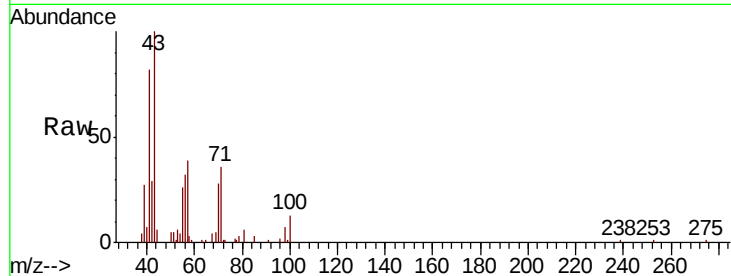
Ion 42.10 (41.80 to 42.80): VL0





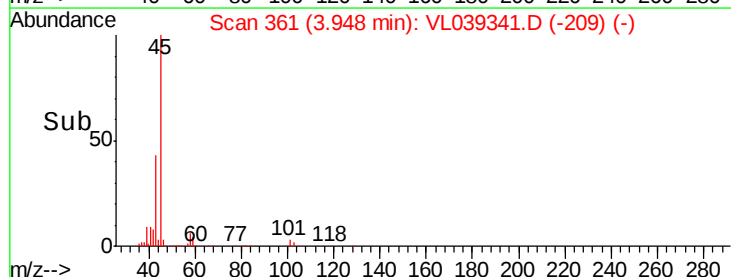
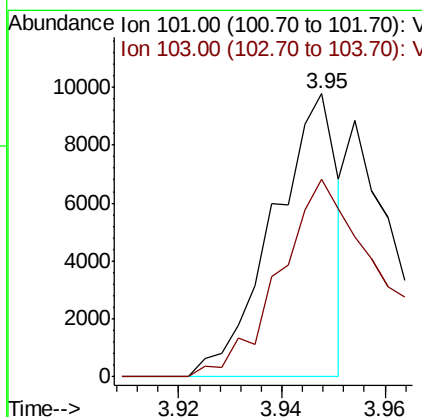
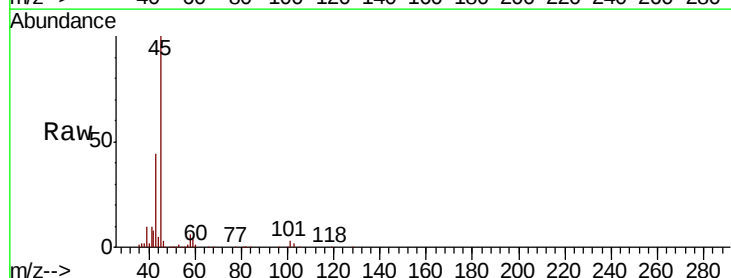
#10
 Heptane
 Concen: 0.173 ppbv
 RT: 8.11
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-4-20220622
 Acq: 24 Jun 2022 15:02

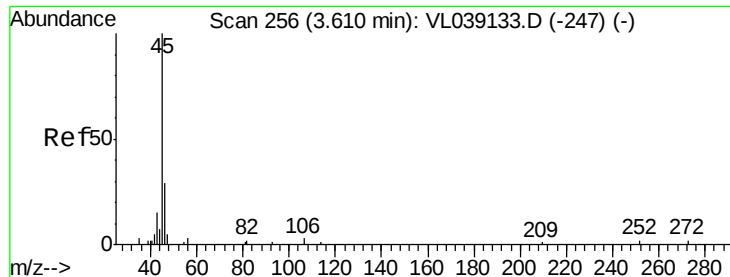
Tot Ion: 43 Resp: 27412
 Ion Ratio Lower Upper
 43 100
 57 0.0 41.4 62.2#



#11
 Trichlorofluoromethane
 Concen: 0.043 ppbv
 RT: 3.95 min Scan# 361
 Delta R.T. -0.01 min
 Lab File: VL039341.D
 Acq: 24 Jun 2022 15:02

Tgt Ion: 101 Resp: 8410
 Ion Ratio Lower Upper
 101 100
 103 69.9 51.7 77.5





#13

Ethanol

Concen: 19.231 ppbv

RT: 3.59 Instrument: MSVOA_1

Delta R.T. -0.01 min

Lab File: VL039341.D ClientSampleId: SV-4-20220622

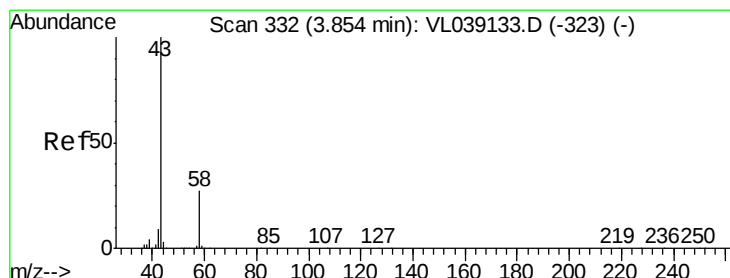
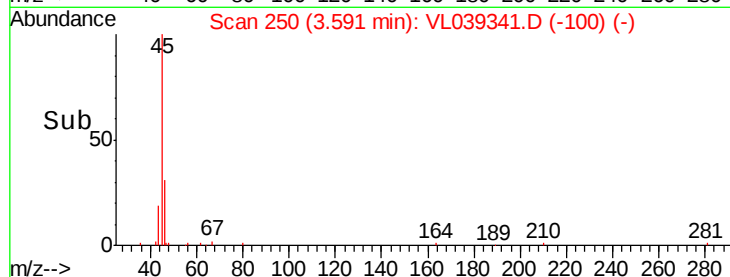
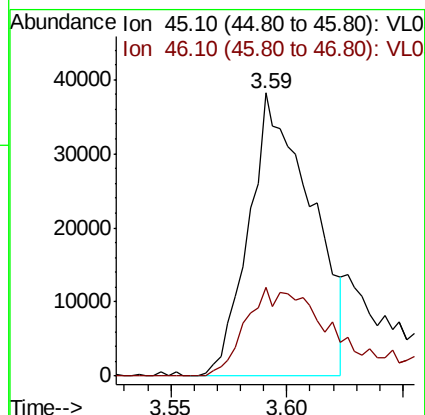
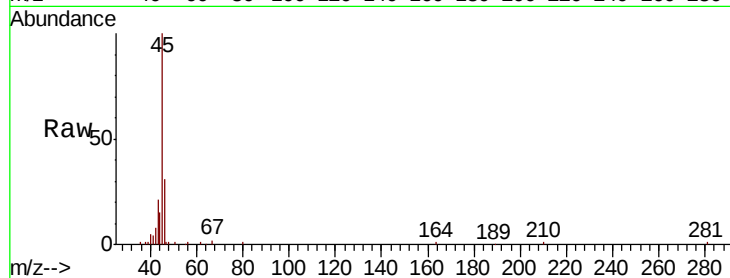
Acq: 24 Jun 2022 15:02

Tot Ion: 45 Resp: 71304

Ion Ratio Lower Upper

45 100

46 50.2 0.0 0.0#



#15

Acetone

Concen: 42.999 ppbv

RT: 3.84 min Scan# 328

Delta R.T. -0.01 min

Lab File: VL039341.D

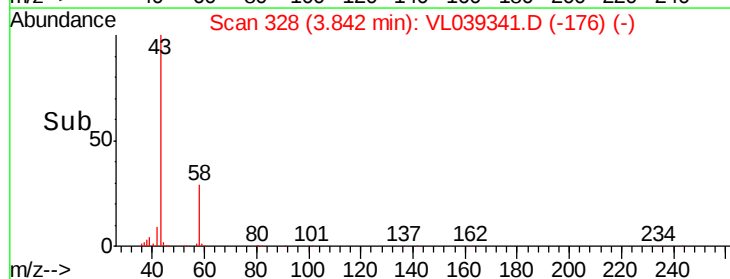
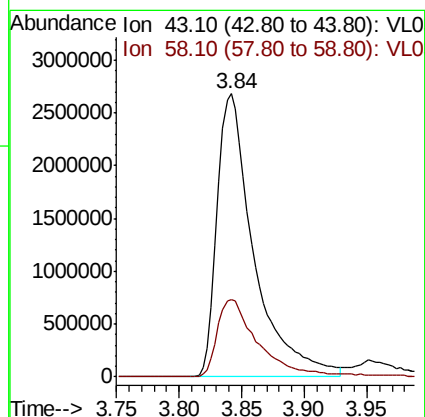
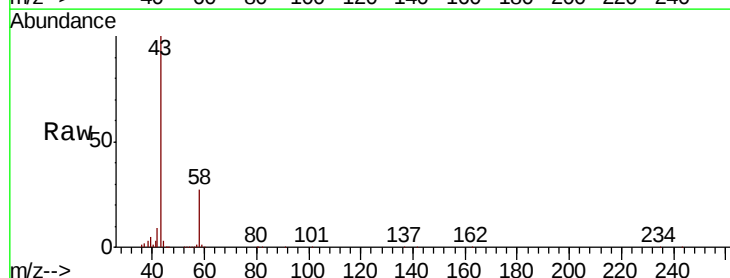
Acq: 24 Jun 2022 15:02

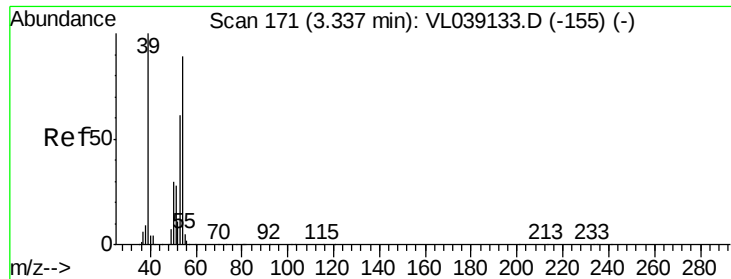
Tgt Ion: 43 Resp: 5488971

Ion Ratio Lower Upper

43 100

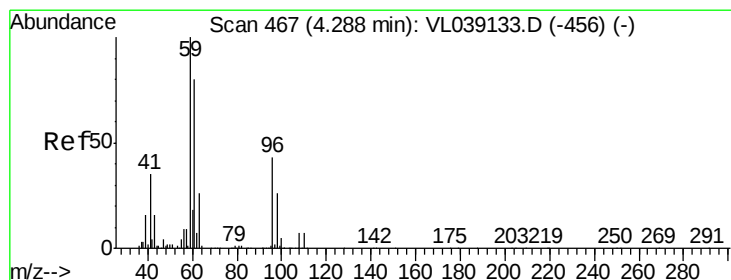
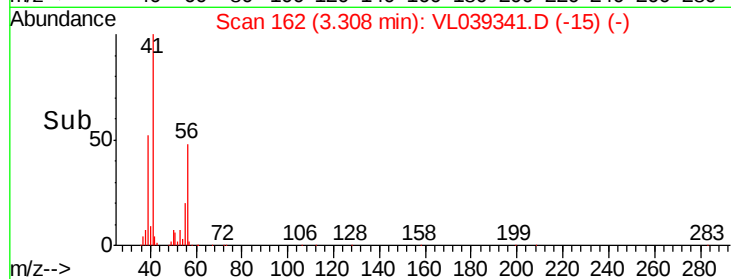
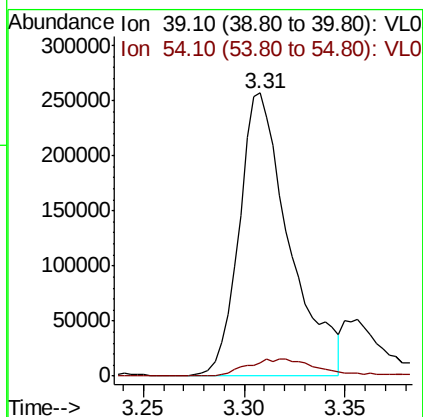
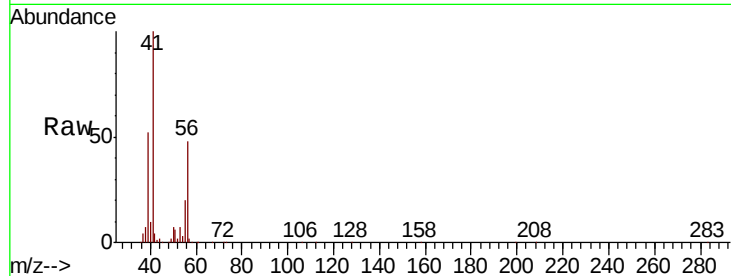
58 31.6 22.5 33.7





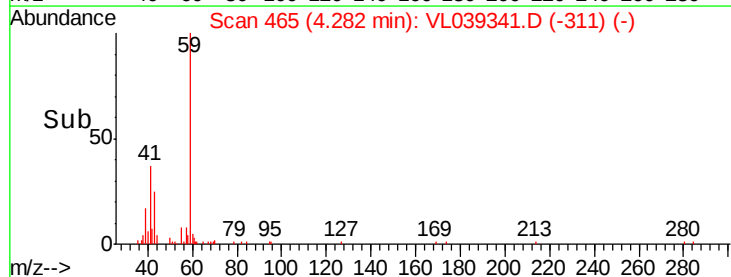
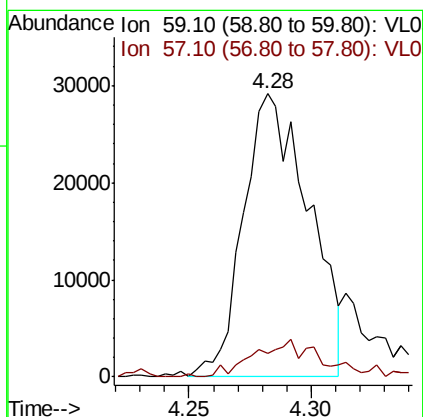
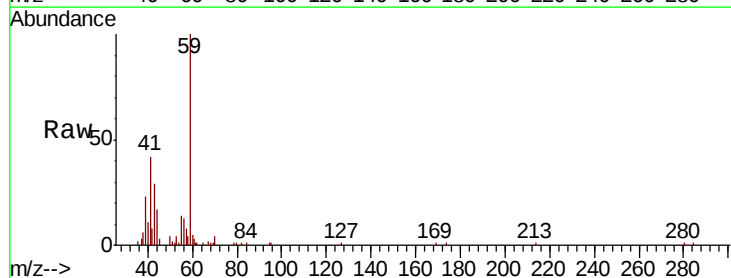
#16
 1,3-Butadiene
 Concen: 6.485 ppbv
 RT: 3.31
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-4-20220622
 Acq: 24 Jun 2022 15:02

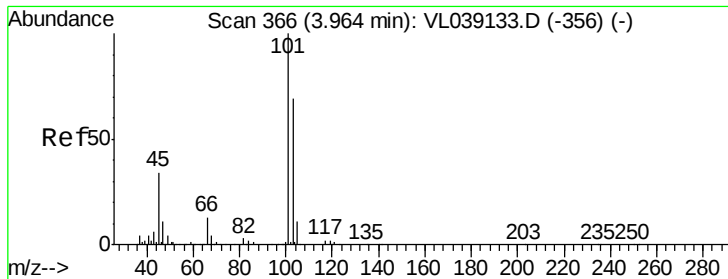
Tot Ion: 39 Resp: 445000
 Ion Ratio Lower Upper
 39 100
 54 8.7 65.8 98.6#



#17
 tert-Butyl alcohol
 Concen: 0.547 ppbv
 RT: 4.28 min Scan# 465
 Delta R.T. -0.01 min
 Lab File: VL039341.D
 Acq: 24 Jun 2022 15:02

Tgt Ion: 59 Resp: 54115
 Ion Ratio Lower Upper
 59 100
 57 13.5 9.1 13.7





#19

Isopropyl Alcohol

Concen: 14.915 ppbv

RT: 3.95 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

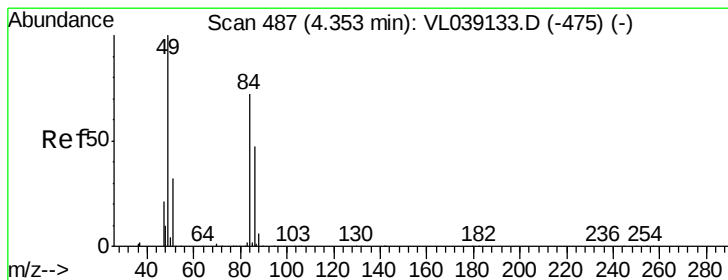
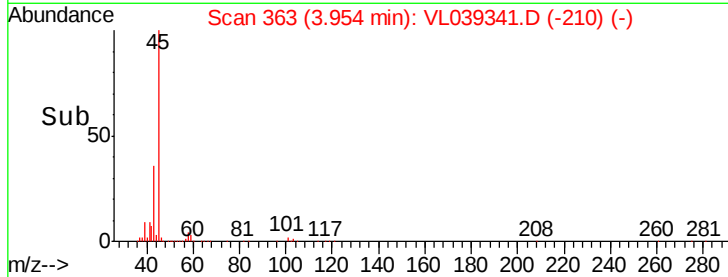
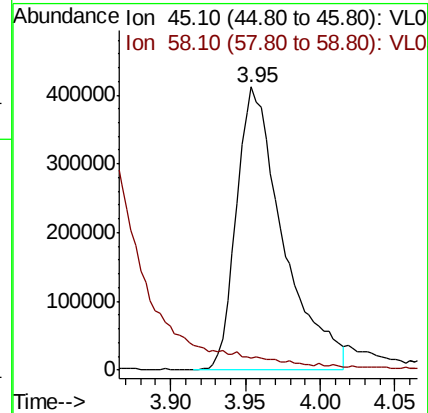
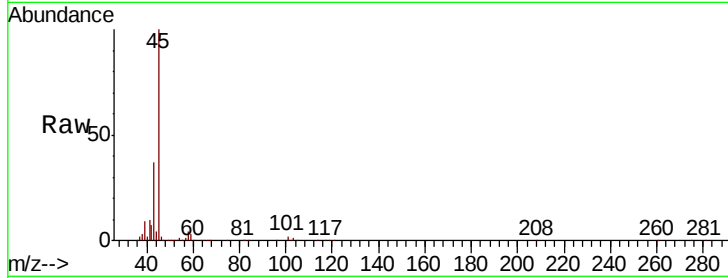
Acq: 24 Jun 2022 15:02

Tot Ion: 45 Resp: 892986

Ion Ratio Lower Upper

45 100

58 0.0 1.8 2.8#



#20

Methylene Chloride

Concen: 1.751 ppbv

RT: 4.34 min Scan# 483

Delta R.T. -0.01 min

Lab File: VL039341.D

Acq: 24 Jun 2022 15:02

Tgt Ion: 84 Resp: 94173

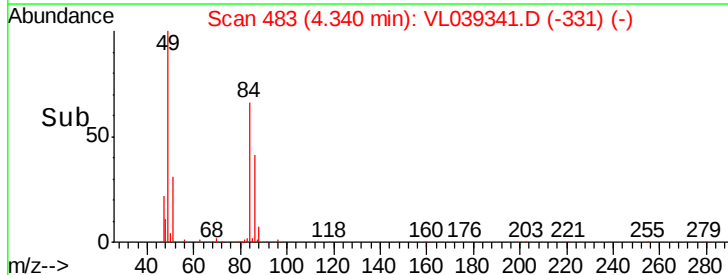
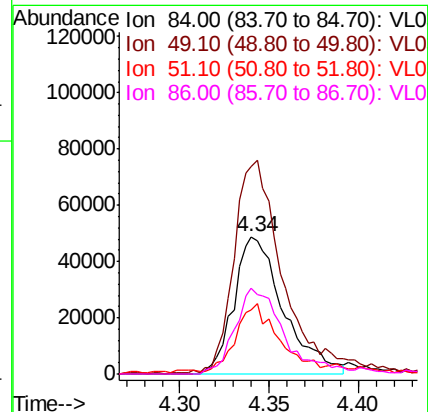
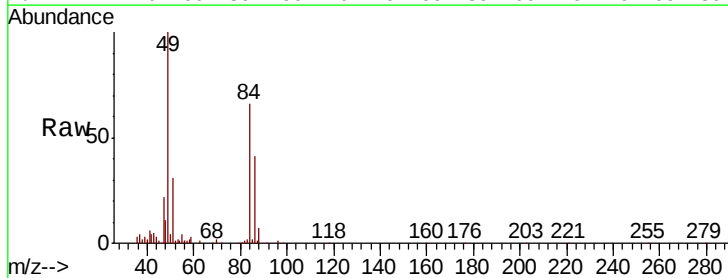
Ion Ratio Lower Upper

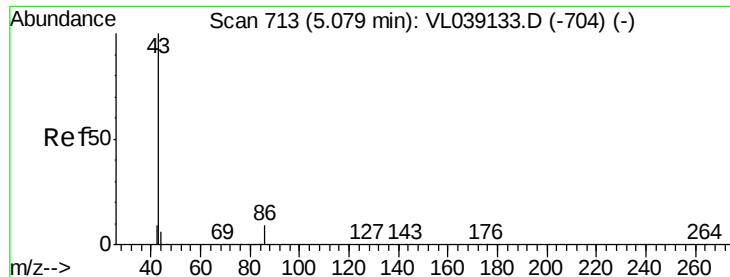
84 100

49 148.5 111.1 166.7

51 43.8 35.3 52.9

86 62.3 51.9 77.9





#23

Vinyl Acetate

Concen: 0.187 ppbv

RT: 5.06 Instrument:

Delta R.T. MSVOA_L

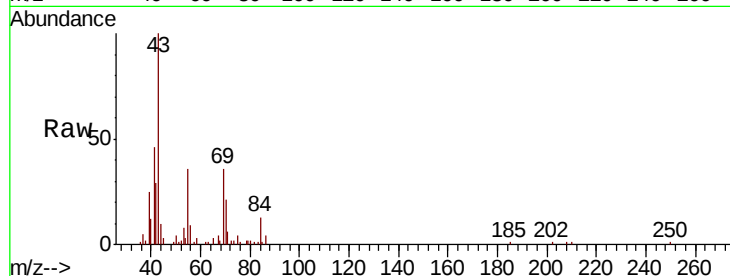
Lab File: ClientSampleId:

SV-4-20220622

Acq: 24 Jun 2022 15:02

Tot Ion: 43 Resp: 19704

Ion	Ratio	Lower	Upper
43	100		
86	7.3	6.0	9.0
42	17.1	8.2	12.4#
44	1.0	4.3	6.5#

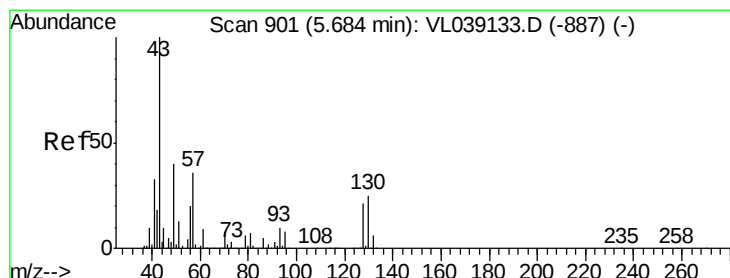
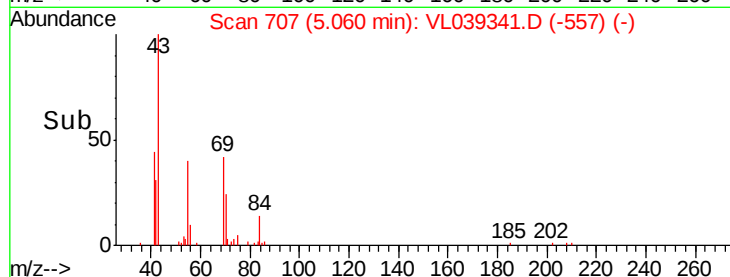
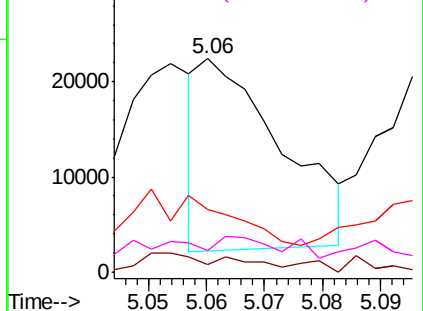


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.279 ppbv

RT: 5.68 min Scan# 901

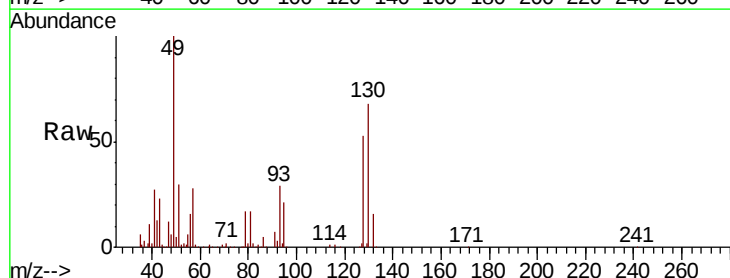
Delta R.T. 0.00 min

Lab File: VL039341.D

Acq: 24 Jun 2022 15:02

Tgt Ion: 43 Resp: 80398

Ion	Ratio	Lower	Upper
43	100		
45	3.6	8.2	12.2#
61	0.9	8.4	12.6#
70	3.7	5.6	8.4#

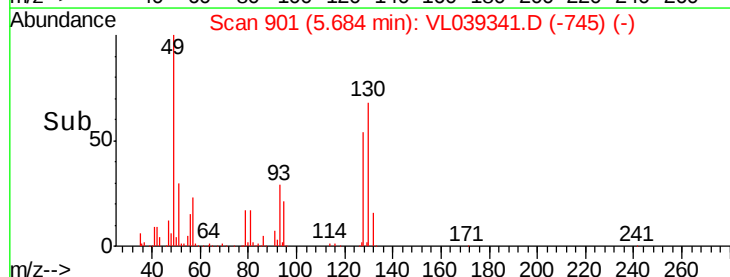
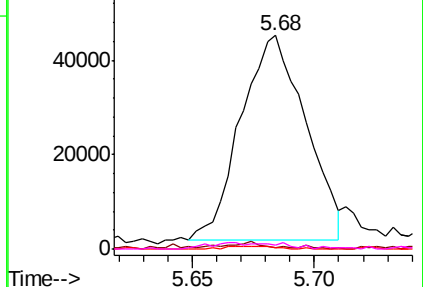


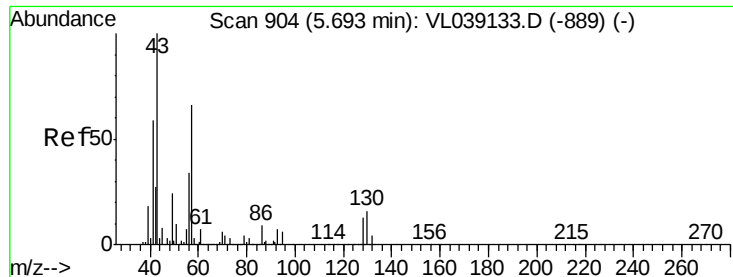
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

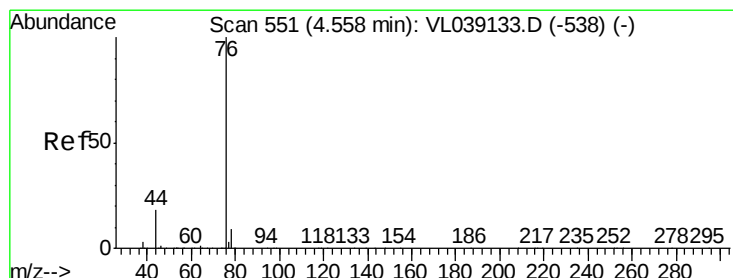
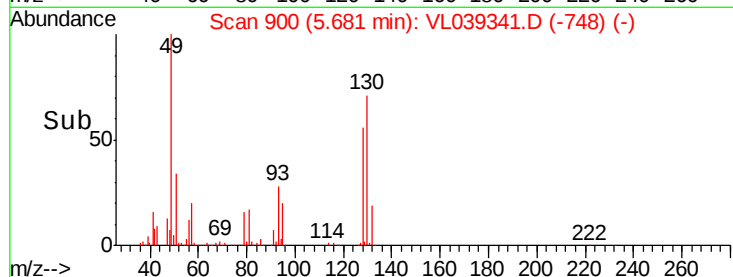
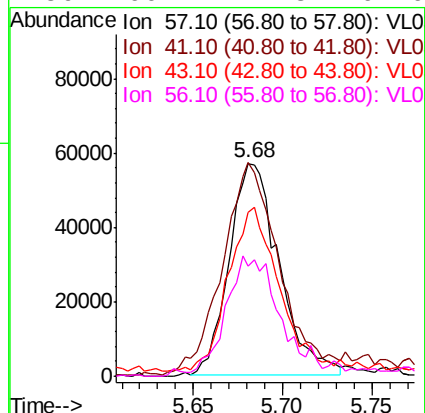
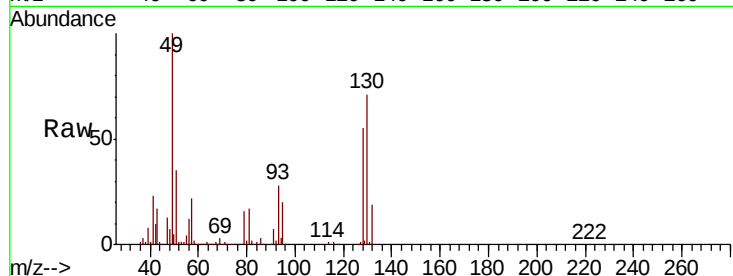
Ion 70.10 (69.80 to 70.80): VL0





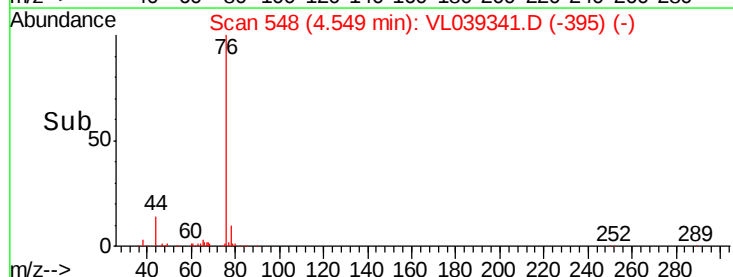
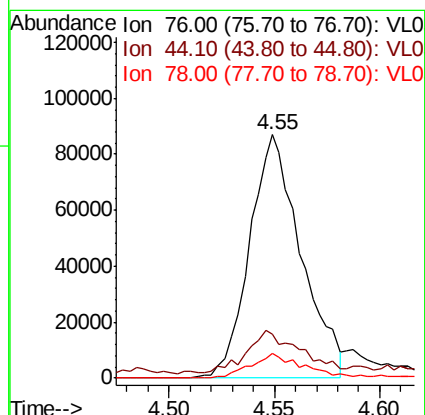
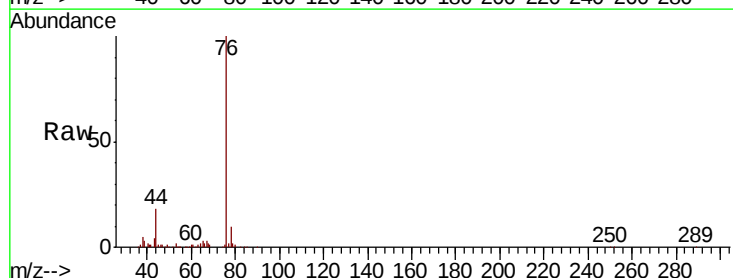
#26
Hexane
Concen: 0.877 ppbv
RT: 5.68
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 24 Jun 2022 15:02 SV-4-20220622

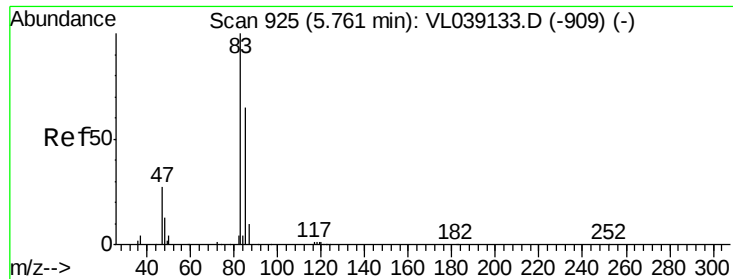
Tot Ion:	57	Resp:	110900
Ion	Ratio	Lower	Upper
57	100		
41	122.8	72.4	108.6#
43	90.8	187.0	280.6#
56	66.4	41.8	62.6#



#27
Carbon Disulfide
Concen: 1.125 ppbv
RT: 4.55 min Scan# 548
Delta R.T. -0.01 min
Lab File: VL039341.D
Acq: 24 Jun 2022 15:02

Tgt Ion:	76	Resp:	147387
Ion	Ratio	Lower	Upper
76	100		
44	22.5	14.4	21.6#
78	11.5	7.7	11.5





#29

Chloroform

Concen: 0.060 ppbv

RT: 5.75 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SV-4-20220622

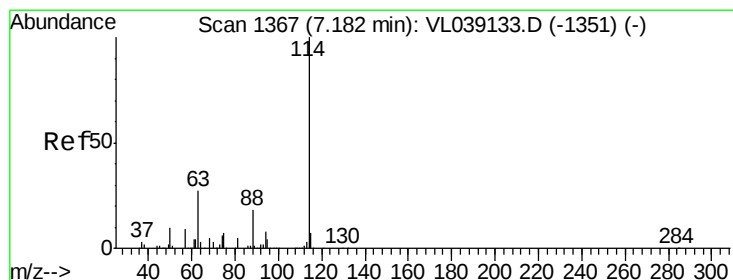
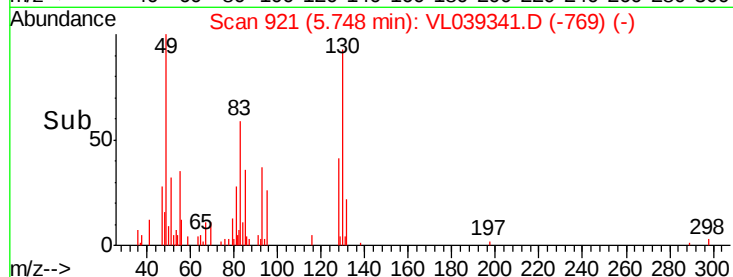
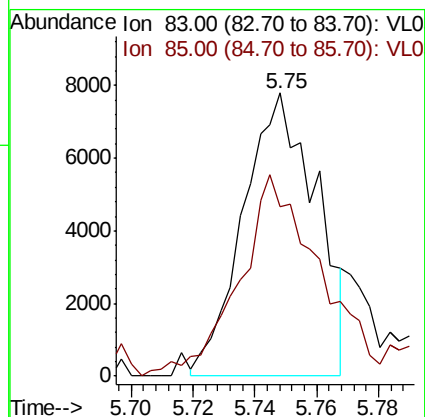
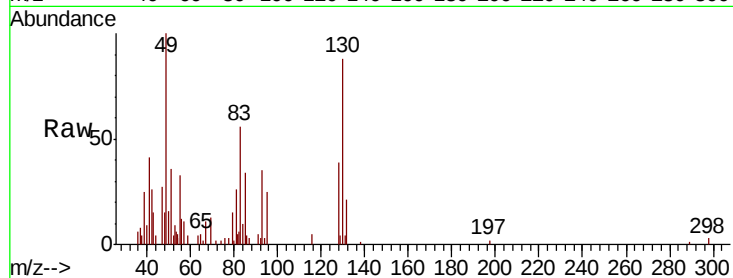
Acq: 24 Jun 2022 15:02

Tot Ion: 83 Resp: 12767

Ion Ratio Lower Upper

83 100

85 54.4 52.4 78.6



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.01 min

Lab File: VL039341.D

Acq: 24 Jun 2022 15:02

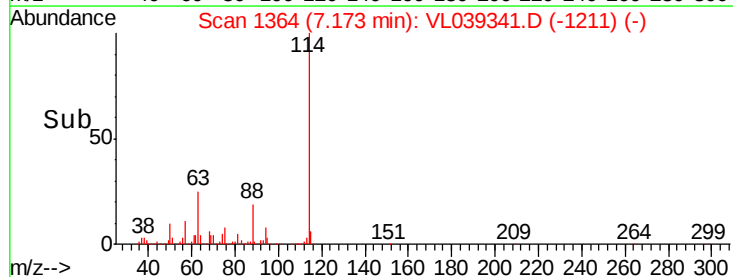
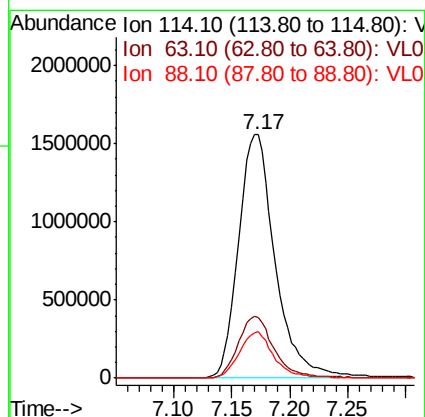
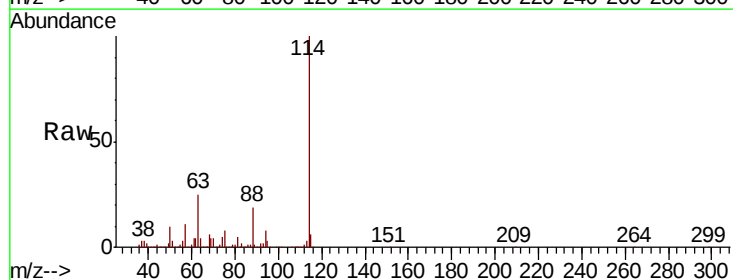
Tgt Ion: 114 Resp: 3399564

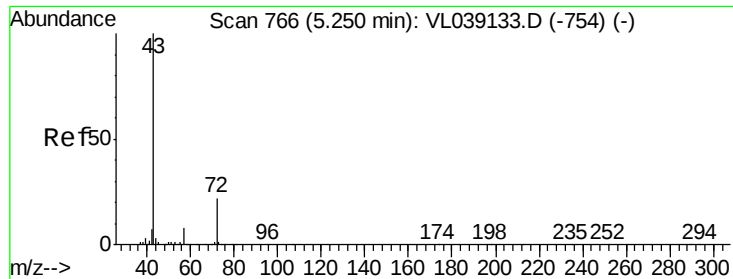
Ion Ratio Lower Upper

114 100

63 25.3 21.7 32.5

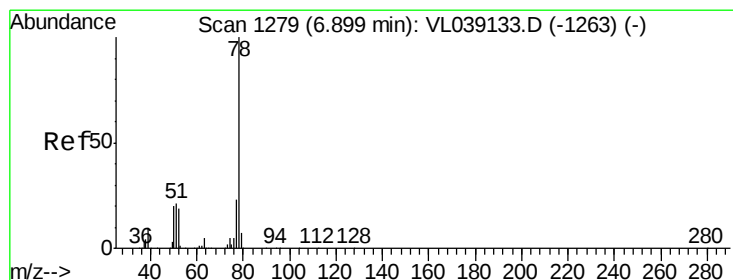
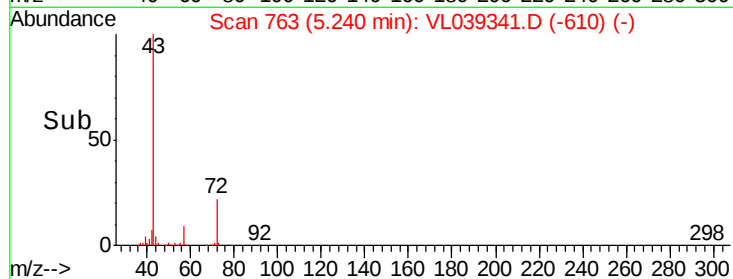
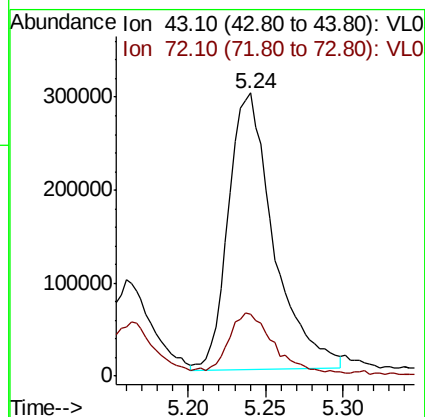
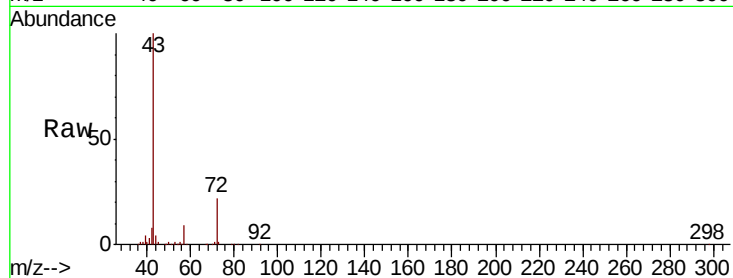
88 18.2 14.8 22.2





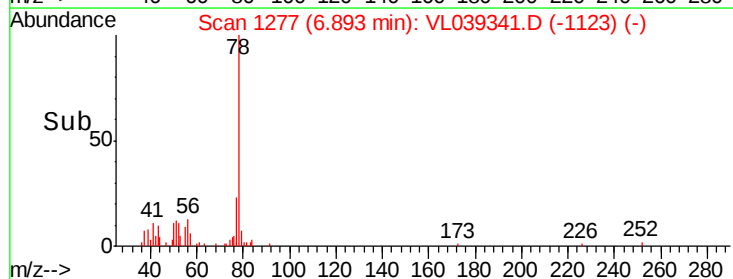
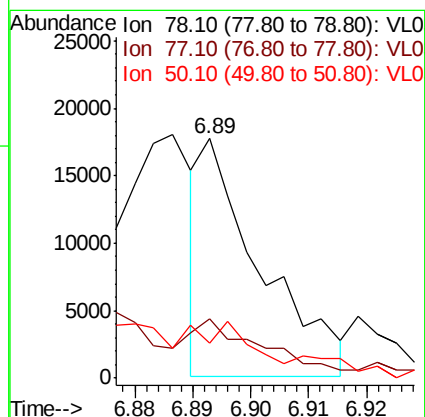
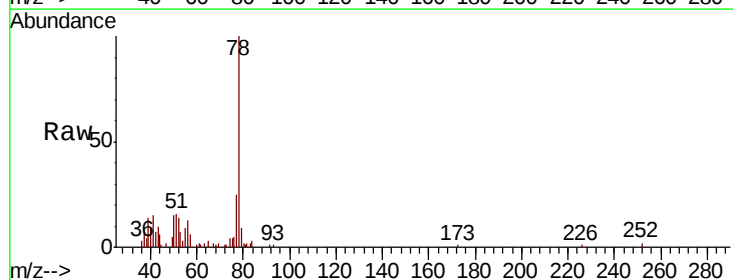
#34
 2-Butanone
 Concen: 3.274 ppbv
 RT: 5.24
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-4-20220622
 Acq: 24 Jun 2022 15:02

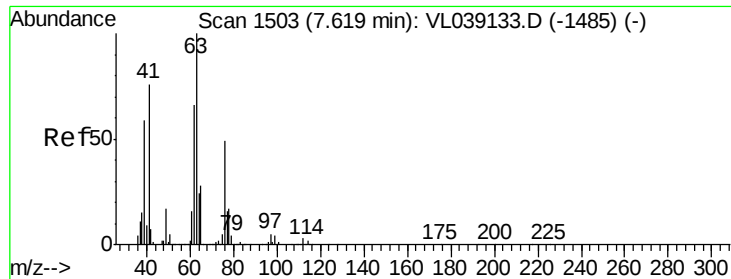
Tot Ion: 43 Resp: 604610
 Ion Ratio Lower Upper
 43 100
 72 24.6 18.2 27.2



#36
 Benzene
 Concen: 0.046 ppbv
 RT: 6.89 min Scan# 1277
 Delta R.T. -0.01 min
 Lab File: VL039341.D
 Acq: 24 Jun 2022 15:02

Tgt Ion: 78 Resp: 12577
 Ion Ratio Lower Upper
 78 100
 77 25.3 18.6 27.8
 50 7.6 15.8 23.8#





#39

1,2-Dichloropropane

Concen: 7.699 ppbv

RT: 7.17 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 24 Jun 2022 15:02 SV-4-20220622

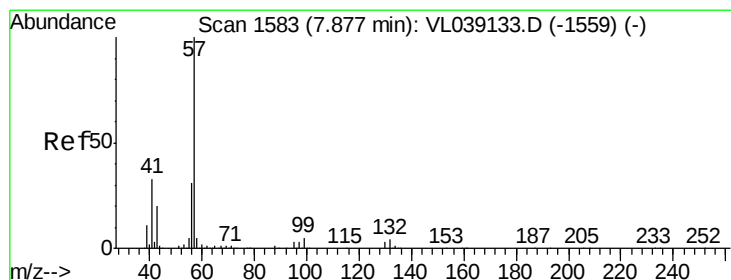
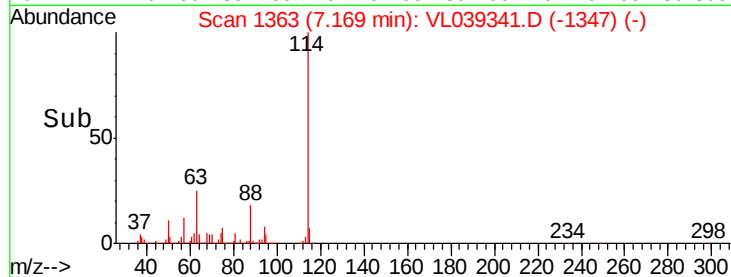
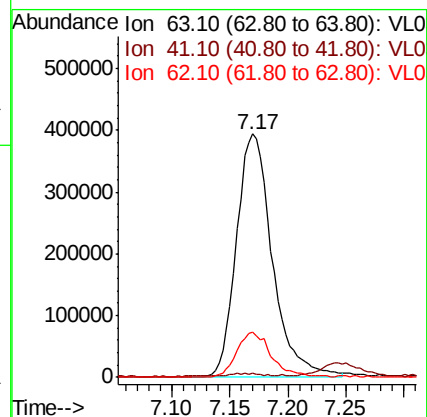
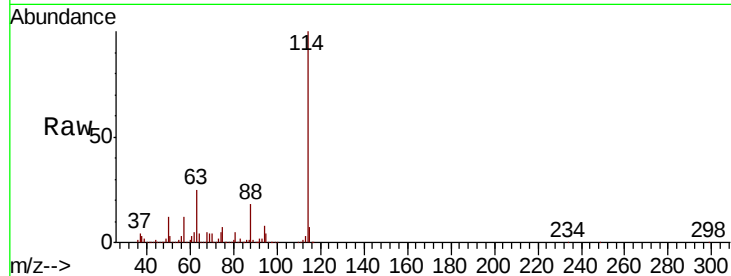
Tot Ion: 63 Resp: 845151

Ion Ratio Lower Upper

63 100

41 0.7 60.8 91.2#

62 18.7 52.9 79.3#



#44

2,2,4-Trimethylpentane

Concen: 0.041 ppbv

RT: 7.87 min Scan# 1580

Delta R.T. -0.01 min

Lab File: VL039341.D

Acq: 24 Jun 2022 15:02

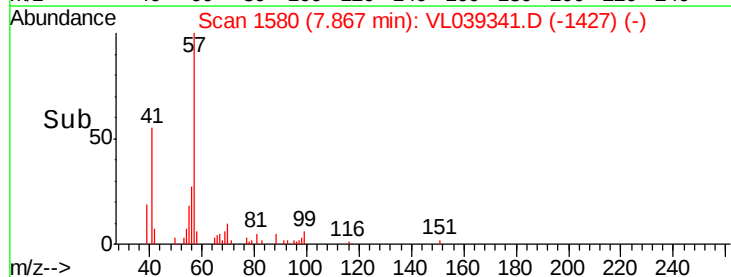
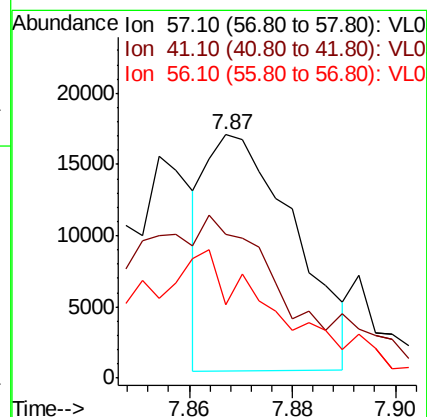
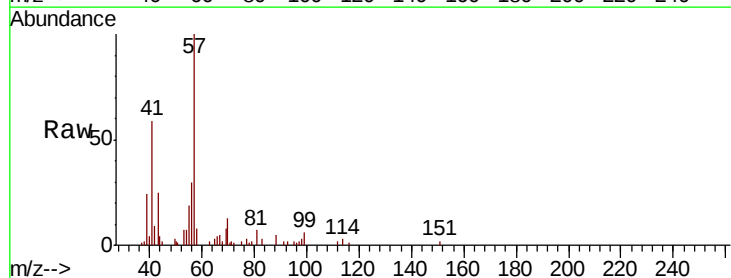
Tgt Ion: 57 Resp: 19771

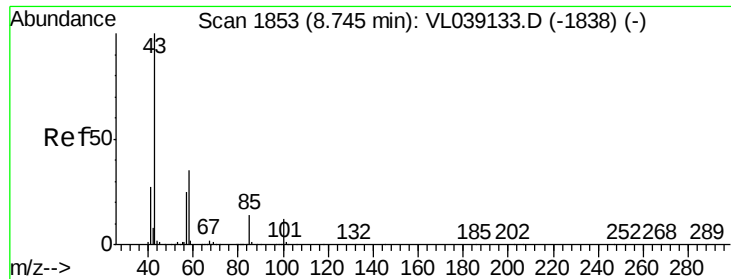
Ion Ratio Lower Upper

57 100

41 103.6 26.2 39.4#

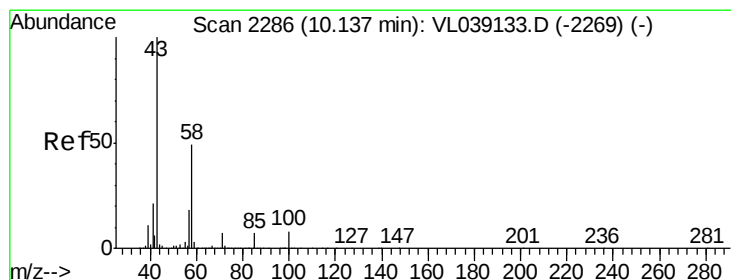
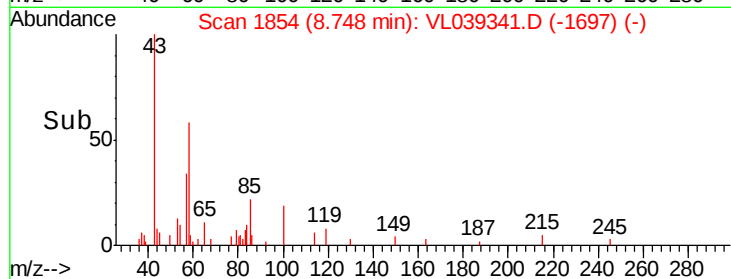
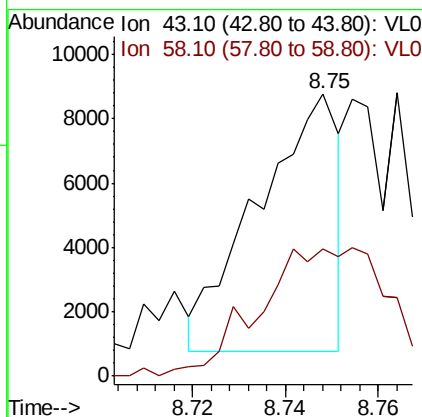
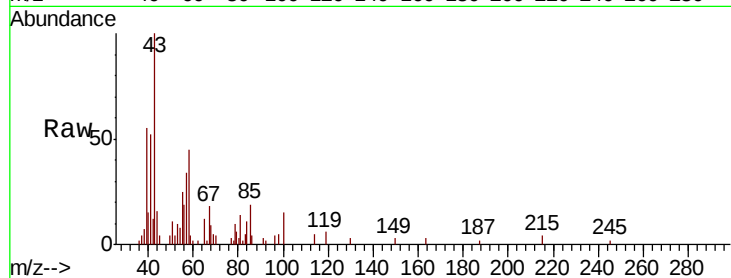
56 78.0 24.7 37.1#





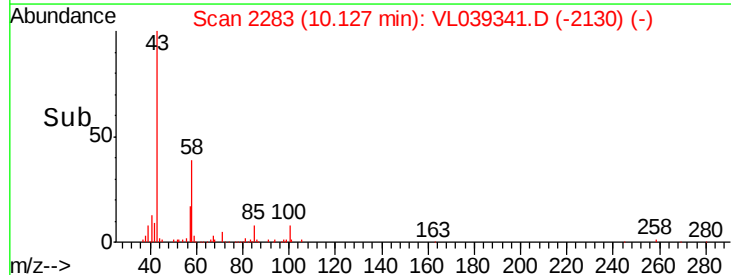
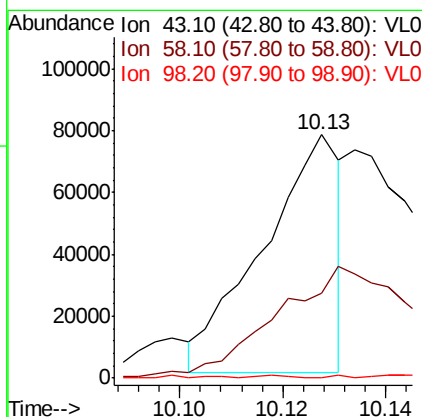
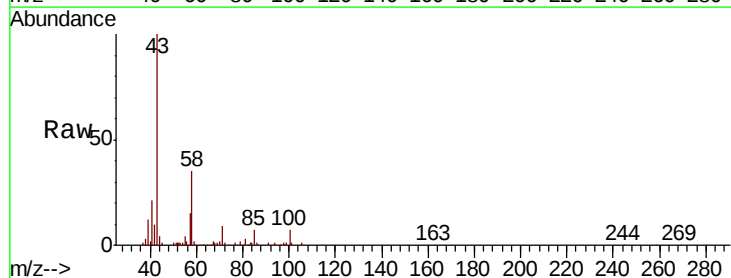
#50
4-Methyl-2-Pentanone
Concen: 0.035 ppbv
RT: 8.75
Delta R.T. MSVOA_L
Lab File: ClientSampleId:
SV-4-20220622
Acq: 24 Jun 2022 15:02

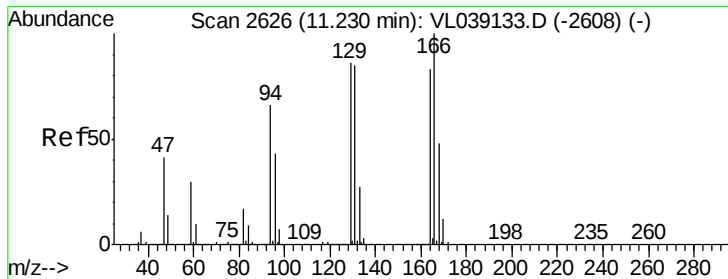
Tot Ion: 43 Resp: 9739
Ion Ratio Lower Upper
43 100
58 0.0 28.7 43.1#



#51
2-Hexanone
Concen: 0.373 ppbv
RT: 10.13 min Scan# 2283
Delta R.T. -0.01 min
Lab File: VL039341.D
Acq: 24 Jun 2022 15:02

Tgt Ion: 43 Resp: 80260
Ion Ratio Lower Upper
43 100
58 0.0 40.0 60.0#
98 1.4 0.1 0.1#





#52

Tetrachloroethene

Concen: 0.046 ppbv

RT: 11.22

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 24 Jun 2022 15:02

Tot Ion:164 Resp: 4952

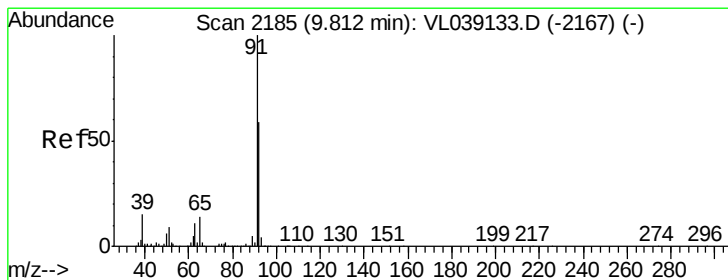
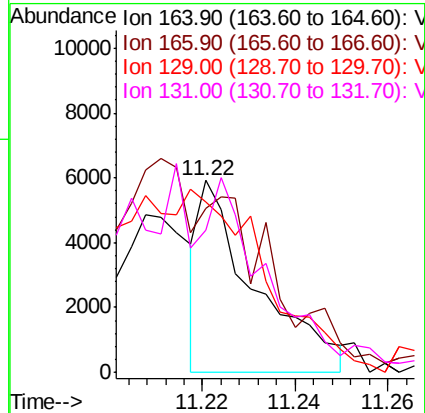
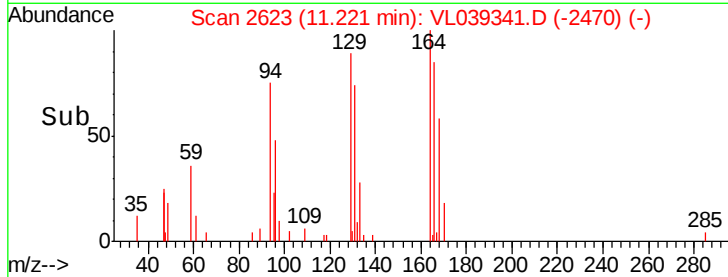
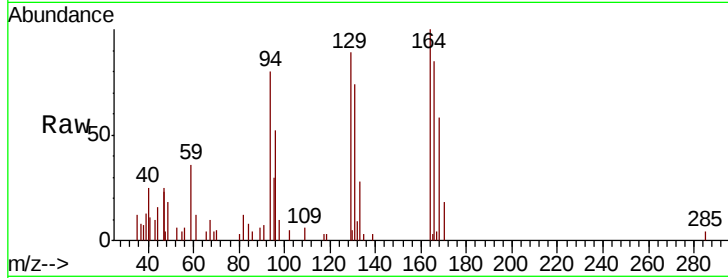
Ion Ratio Lower Upper

164 100

166 81.5 96.3 144.5#

129 89.9 82.5 123.7

131 76.2 82.1 123.1#



#53

Toluene

Concen: 0.180 ppbv

RT: 9.80 min Scan# 2181

Delta R.T. -0.01 min

Lab File: VL039341.D

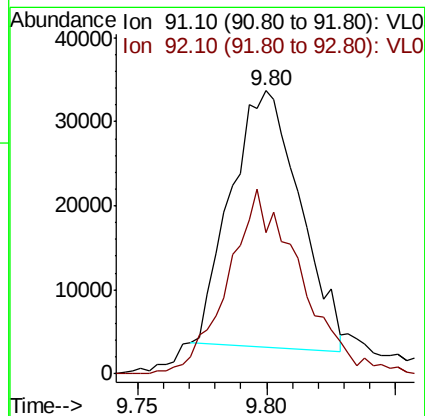
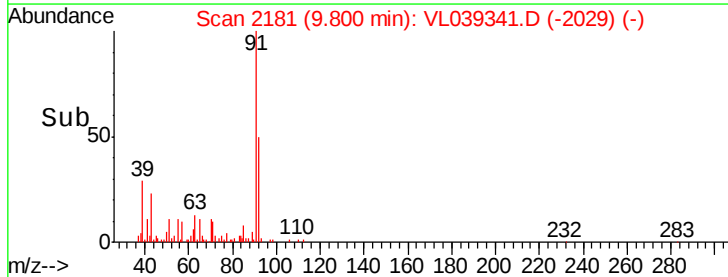
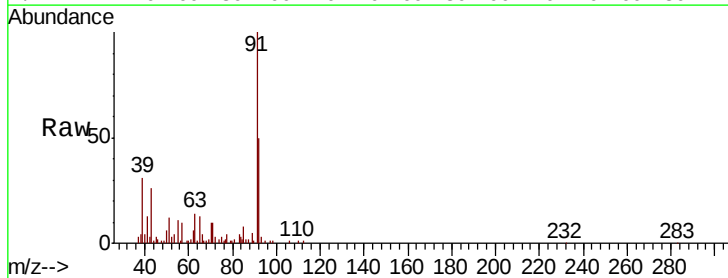
Acq: 24 Jun 2022 15:02

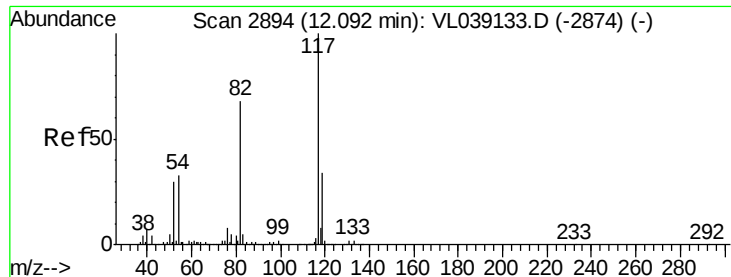
Tgt Ion: 91 Resp: 57106

Ion Ratio Lower Upper

91 100

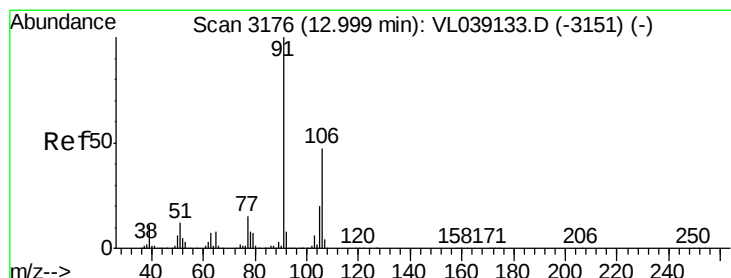
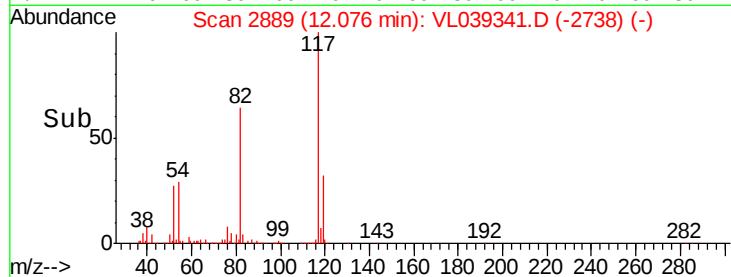
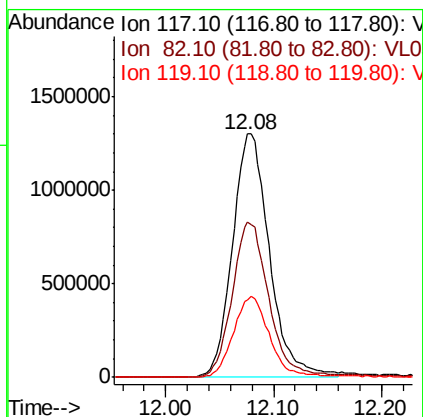
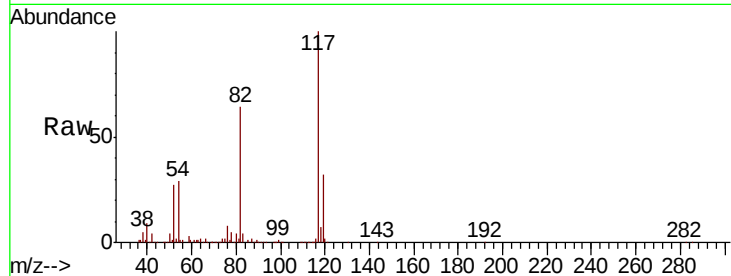
92 75.1 48.1 72.1#





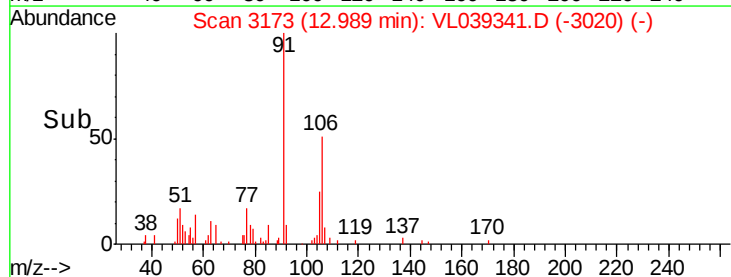
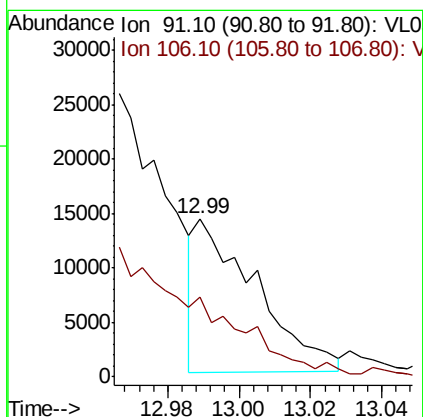
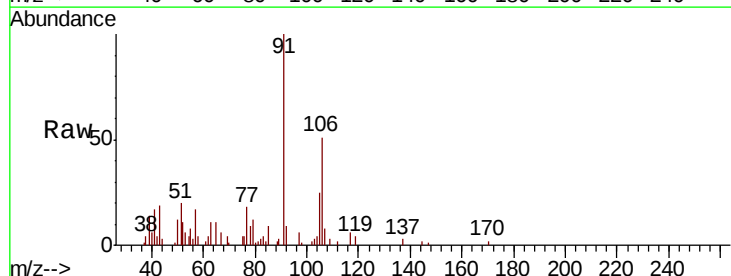
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.08 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
SV-4-20220622
Acq: 24 Jun 2022 15:02

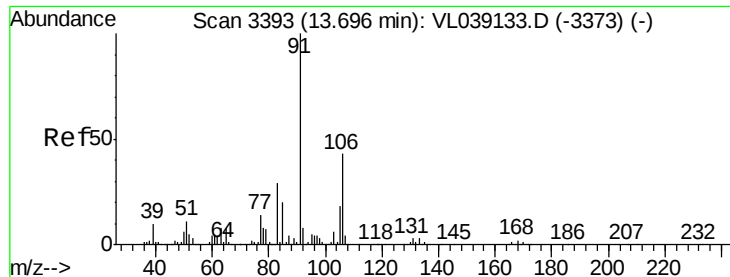
Tot Ion:117 Resp: 3109534
Ion Ratio Lower Upper
117 100
82 65.3 55.1 82.7
119 33.4 24.7 37.1



#59
m/p-Xylene
Concen: 0.044 ppbv
RT: 12.99 min Scan# 3173
Delta R.T. -0.01 min
Lab File: VL039341.D
Acq: 24 Jun 2022 15:02

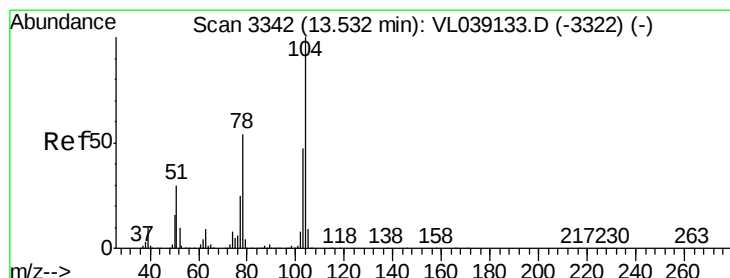
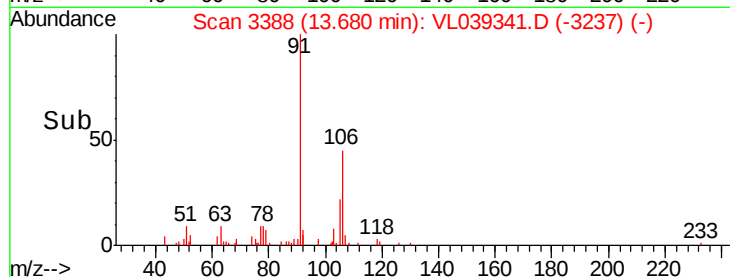
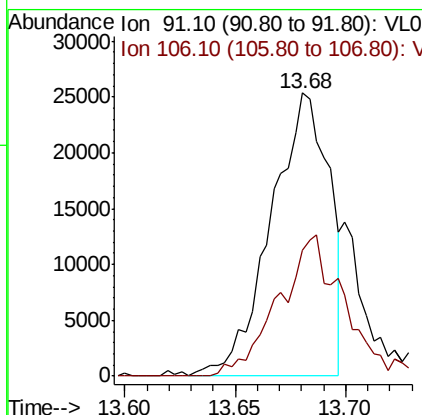
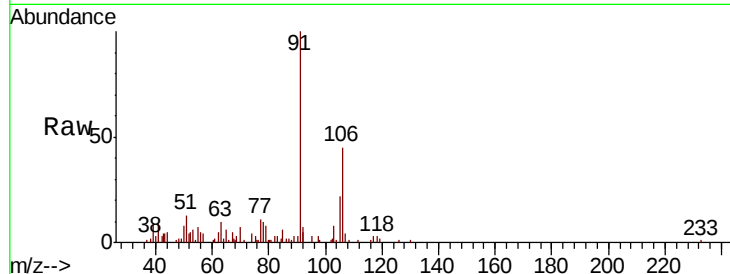
Tgt Ion: 91 Resp: 16460
Ion Ratio Lower Upper
91 100
106 0.0 34.3 51.5#





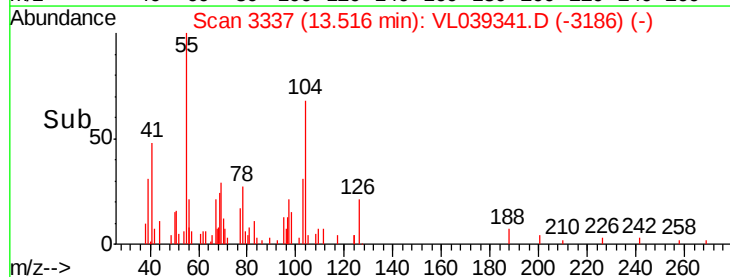
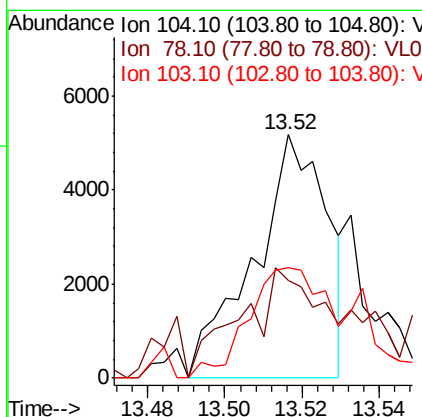
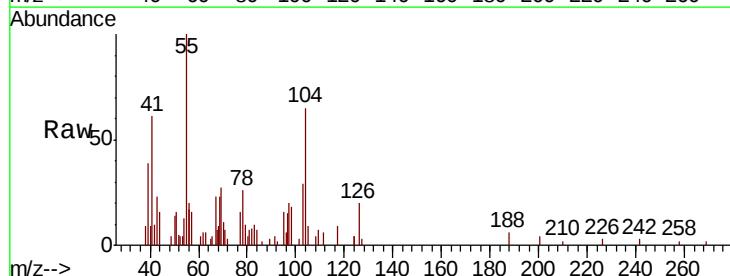
#60
o-Xylene
Concen: 0.131 ppbv
RT: 13.68
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-4-20220622
Acq: 24 Jun 2022 15:02

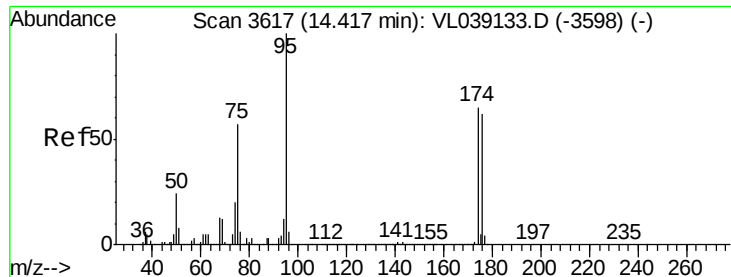
Tot Ion: 91 Resp: 46404
Ion Ratio Lower Upper
91 100
106 56.0 22.3 66.9



#61
Styrene
Concen: 0.036 ppbv
RT: 13.52 min Scan# 3337
Delta R.T. -0.02 min
Lab File: VL039341.D
Acq: 24 Jun 2022 15:02

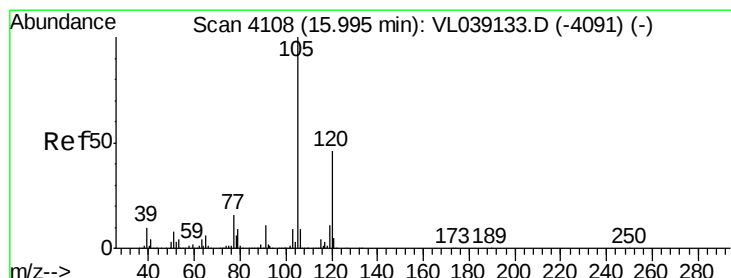
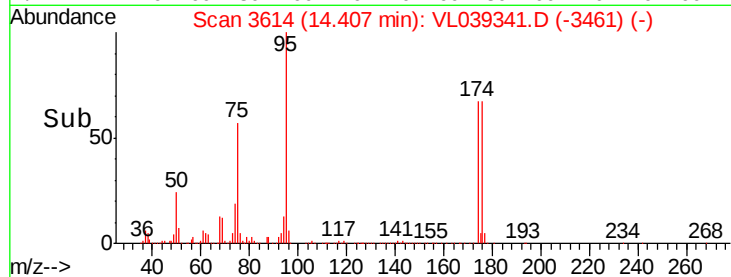
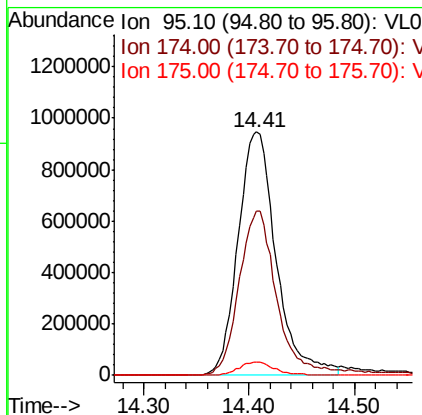
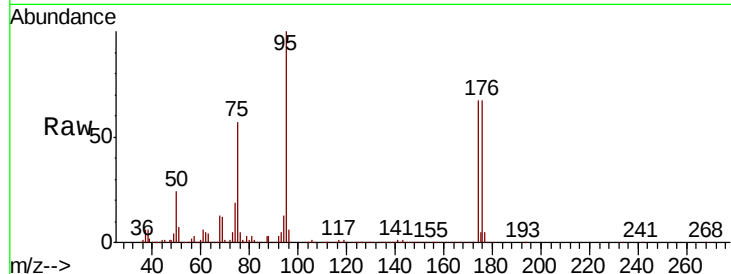
Tgt Ion: 104 Resp: 6786
Ion Ratio Lower Upper
104 100
78 85.3 45.7 68.5#
103 71.0 39.6 59.4#





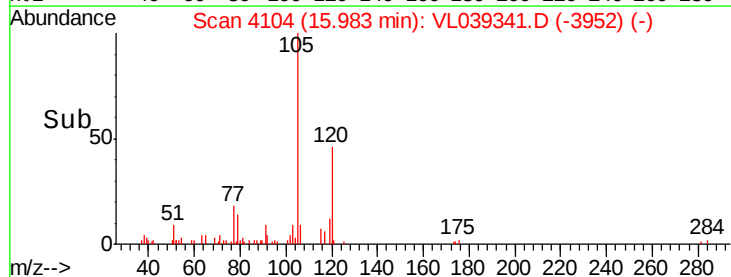
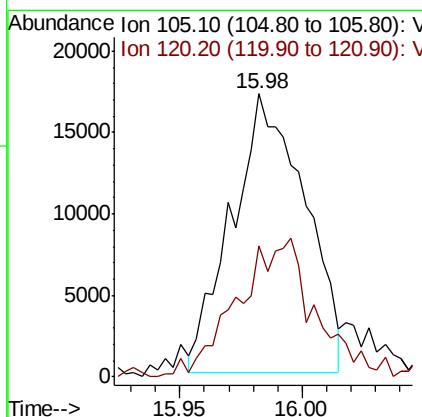
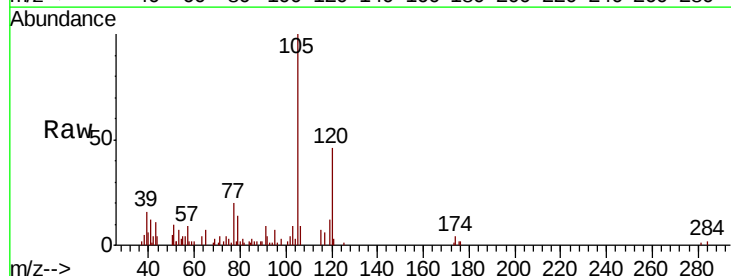
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.258 ppbv
 RT: 14.41 min
 Delta R.T. MSVOA.L
 Lab File: ClientSampleId :
 SV-4-20220622
 Acq: 24 Jun 2022 15:02

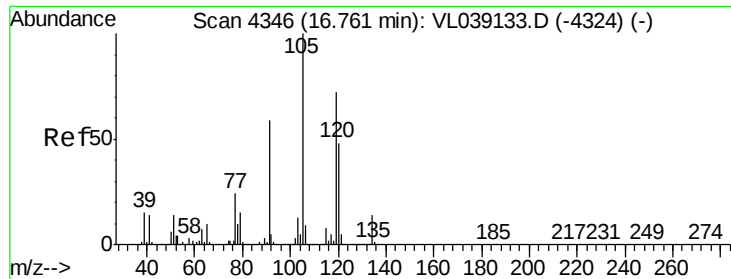
Tot Ion: 95 Resp: 2380038
 Ion Ratio Lower Upper
 95 100
 174 69.5 53.8 80.8
 175 5.4 4.1 6.1



#73
 1,3,5-Trimethylbenzene
 Concen: 0.095 ppbv
 RT: 15.98 min Scan# 4104
 Delta R.T. -0.01 min
 Lab File: VL039341.D
 Acq: 24 Jun 2022 15:02

Tgt Ion: 105 Resp: 35573
 Ion Ratio Lower Upper
 105 100
 120 51.5 36.7 55.1





#74
 1,2,4-Trimethylbenzene
 Concen: 0.281 ppbv
 RT: 16.75
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 SV-4-20220622
 Acq: 24 Jun 2022 15:02

Tot Ion:	105	Resp:	117555
Ion	Ratio	Lower	Upper
105	100		
120	42.4	38.1	57.1
91	12.2	47.4	71.0#
77	15.3	19.5	29.3#

