

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL071222\
 Data File : VL039466.D
 Acq On : 13 Jul 2022 3:23
 Operator : SY/AP
 Sample : N3660-09DL 5X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-2DL

Quant Time: Jul 13 05:57:31 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL062922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jul 06 02:15:38 2022
 QLast Update : Wed Jul 06 02:15:38 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1420871	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.19	114	3890706	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.10	117	3515691	10.00	ppbv	0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	2674652	10.26	ppbv	0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.60%

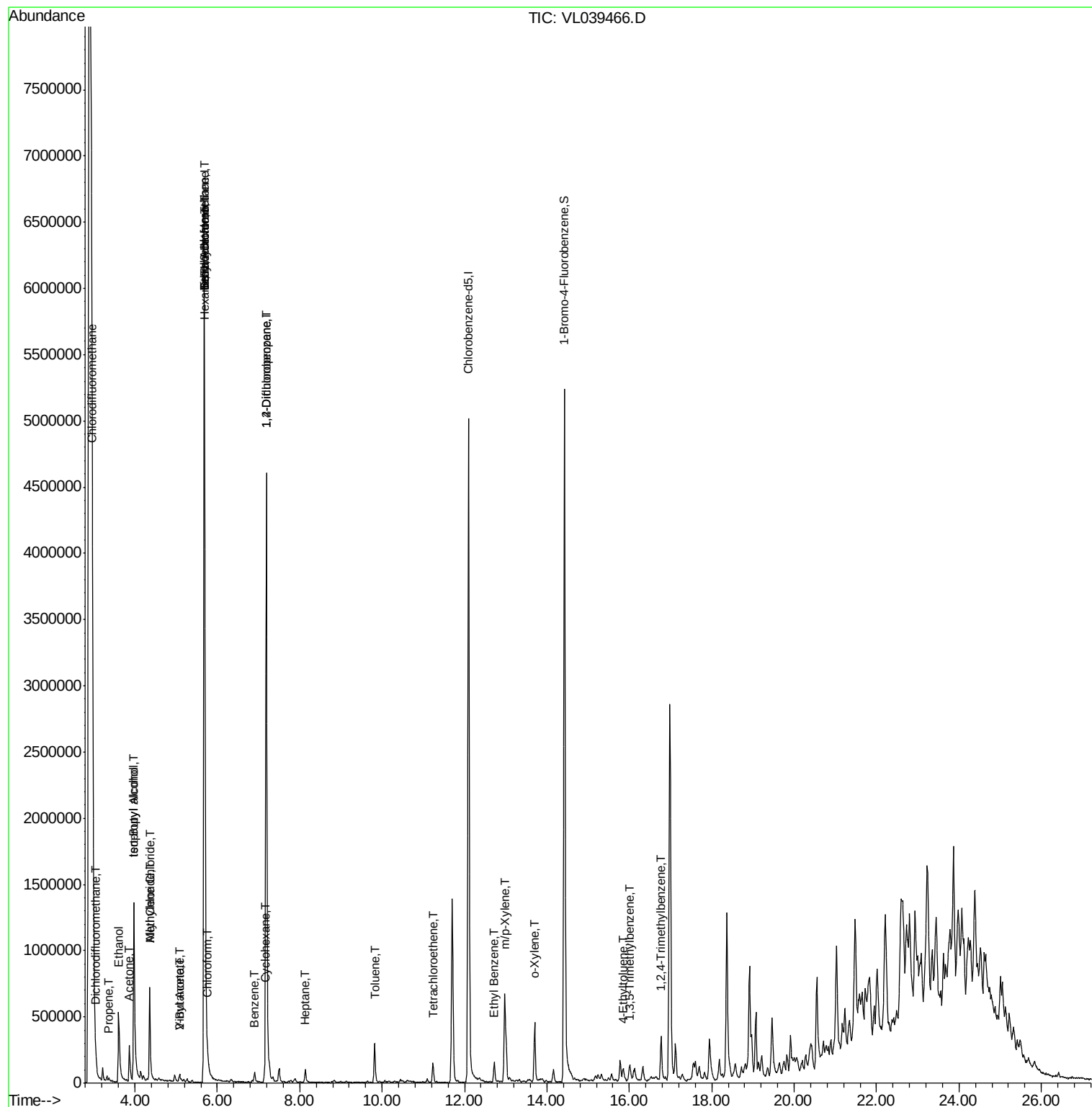
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.06	85	28623	0.14	ppbv	91
3) Chlorodifluoromethane	2.98	51	56709	0.31	ppbv #	63
9) Propene	3.37	41	4956	0.06	ppbv	86
10) Heptane	8.14	43	17888	0.09	ppbv #	6
13) Ethanol	3.61	45	731102	154.79	ppbv	75
15) Acetone	3.86	43	321400	1.91	ppbv	94
17) tert-Butyl alcohol	3.97	59	67418	0.47	ppbv	97
19) Isopropyl Alcohol	3.97	45	1876114	20.92	ppbv #	93
20) Methylene Chloride	4.36	84	288170	4.30	ppbv	97
21) Allyl Chloride	4.36	41	4504	0.04	ppbv #	1
23) Vinyl Acetate	5.09	43	71570	0.64	ppbv	99
25) Ethyl Acetate	5.68	43	5416367	15.71	ppbv #	91
26) Hexane	5.70	57	427393	3.08	ppbv #	1
29) Chloroform	5.76	83	15442	0.06	ppbv	94
30) Cyclohexane	7.15	84	11606	0.09	ppbv #	1
31) cis-1,2-Dichloroethene	5.68	61	690791	4.69	ppbv #	23
34) 2-Butanone	5.09	43	71306	0.36	ppbv #	65
36) Benzene	6.91	78	34127	0.11	ppbv #	89
39) 1,2-Dichloropropane	7.19	63	950954	8.45	ppbv #	24
41) Tetrahydrofuran	5.68	42	520831	4.59	ppbv #	43
52) Tetrachloroethene	11.25	164	7726	0.06	ppbv #	67
53) Toluene	9.82	91	238461	0.69	ppbv	99
58) Ethyl Benzene	12.72	91	129514	0.29	ppbv	93
59) m/p-Xylene	12.98	91	703770	1.76	ppbv	94
60) o-Xylene	13.70	91	351332	0.93	ppbv	99
72) 4-Ethyltoluene	15.85	105	26627	0.06	ppbv #	44
73) 1,3,5-Trimethylbenzene	16.01	105	78777	0.19	ppbv	97
74) 1,2,4-Trimethylbenzene	16.77	105	253124	0.56	ppbv #	70

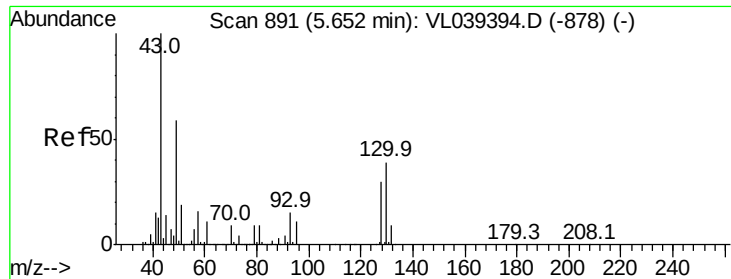
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed Jul 06 02:15:38 2022
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.68 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 13 Jul 2022 3:23 SG-2DL

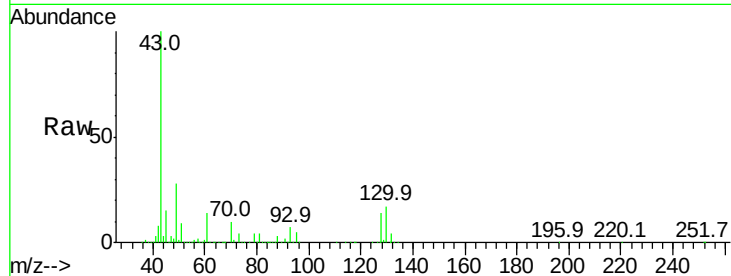
Tgt Ion: 49 Resp: 1420871

Ion Ratio Lower Upper

49 100

128 49.9 26.7 80.0

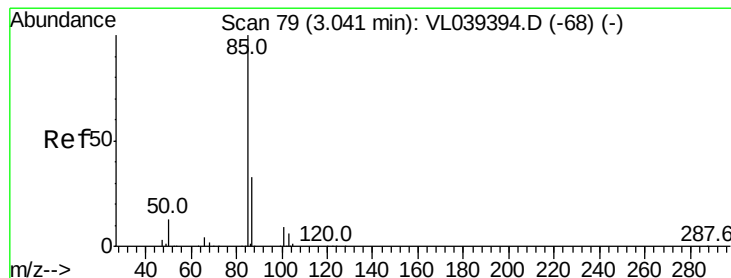
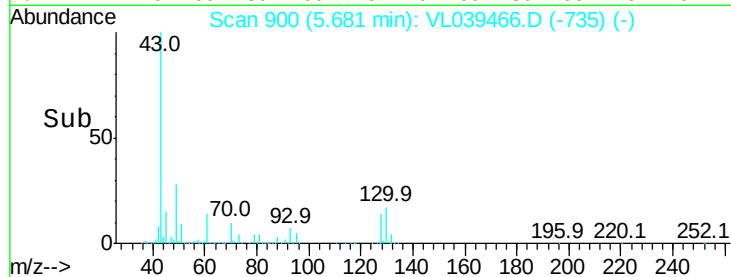
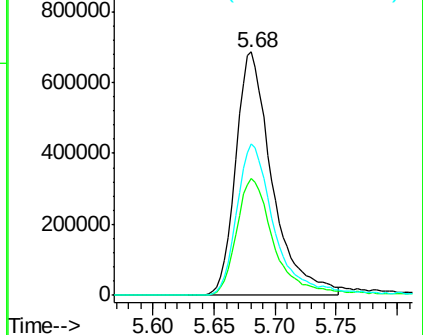
130 65.3 34.3 102.8



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: 0.14 ppbv

RT: 3.06 min Scan# 84

Delta R.T. 0.02 min

Lab File: VL039466.D

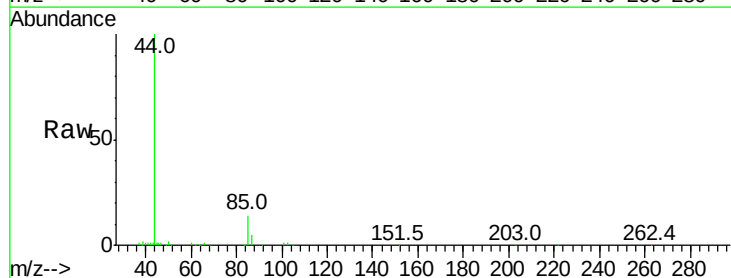
Acq: 13 Jul 2022 3:23

Tgt Ion: 85 Resp: 28623

Ion Ratio Lower Upper

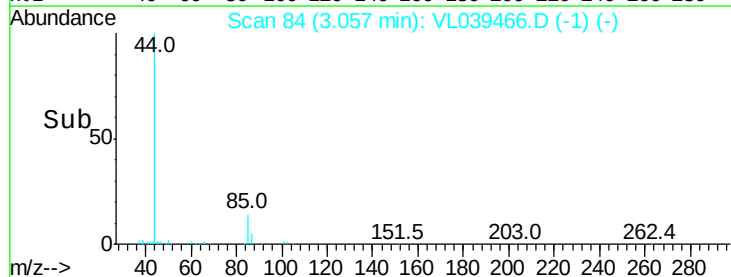
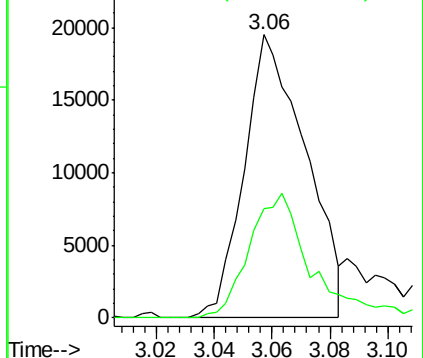
85 100

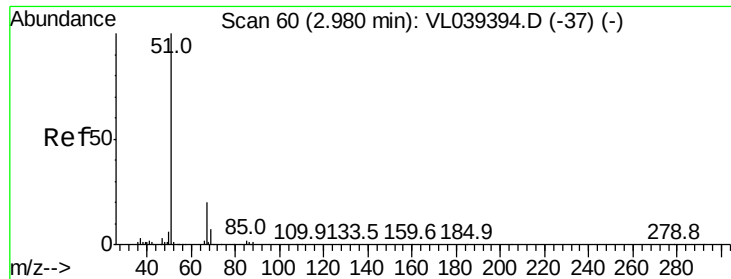
87 38.8 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.31 ppbv

RT: 2.98 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SG-2DL

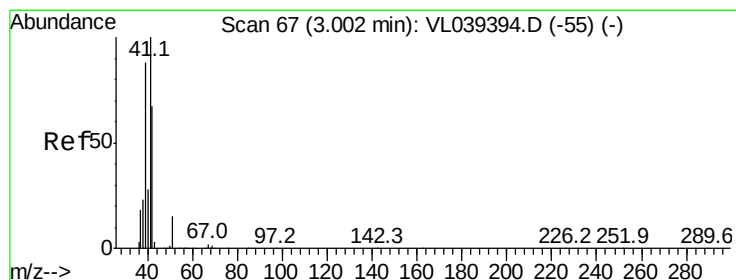
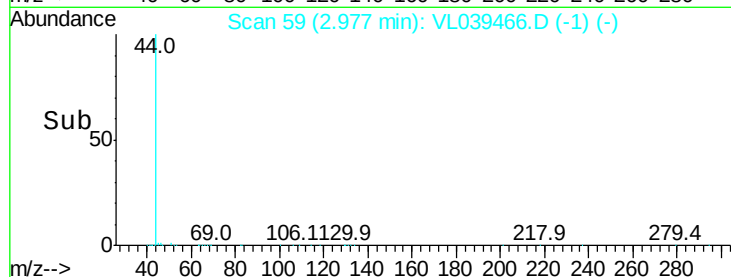
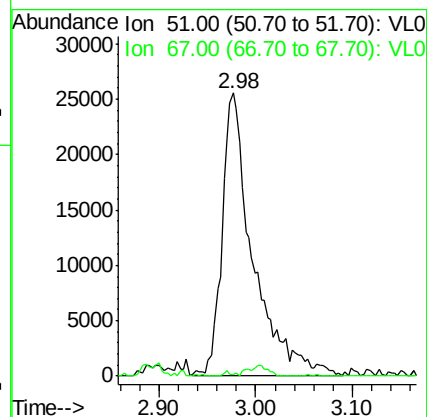
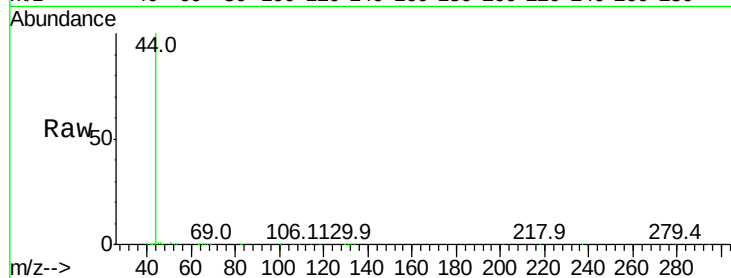
Acq: 13 Jul 2022 3:23

Tgt Ion: 51 Resp: 56709

Ion Ratio Lower Upper

51 100

67 2.9 15.7 23.5#



#9

Propene

Concen: 0.06 ppbv

RT: 3.37 min Scan# 181

Delta R.T. 0.37 min

Lab File: VL039466.D

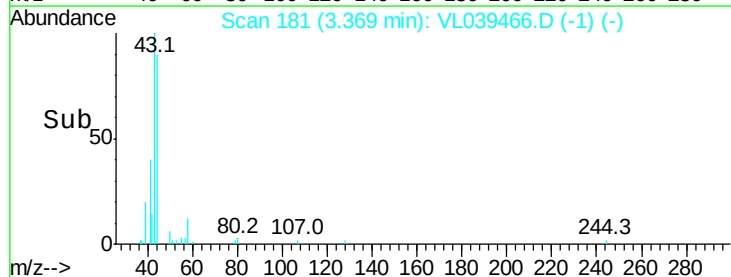
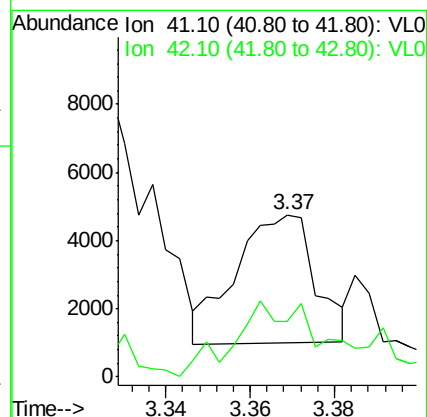
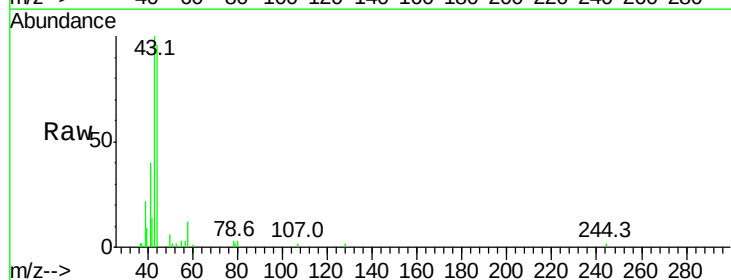
Acq: 13 Jul 2022 3:23

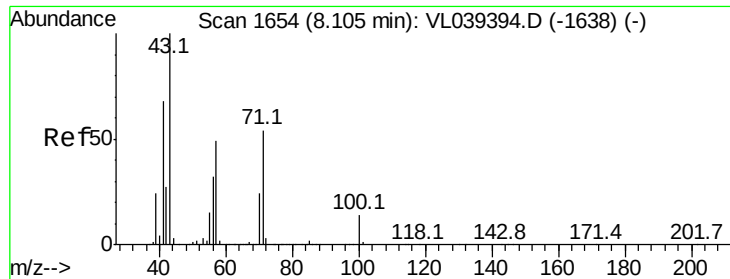
Tgt Ion: 41 Resp: 4956

Ion Ratio Lower Upper

41 100

42 80.3 55.2 82.8





#10

Heptane

Concen: 0.09 ppbv

RT: 8.14 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

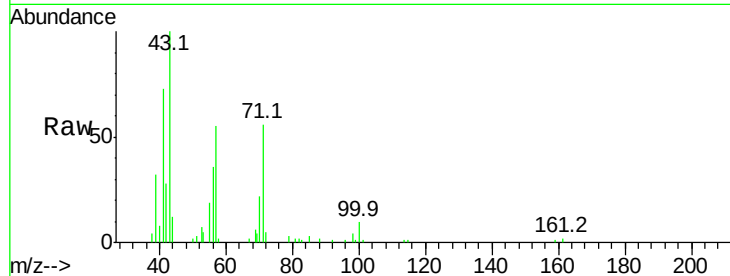
Acq: 13 Jul 2022 3:23

Tgt Ion: 43 Resp: 17888

Ion Ratio Lower Upper

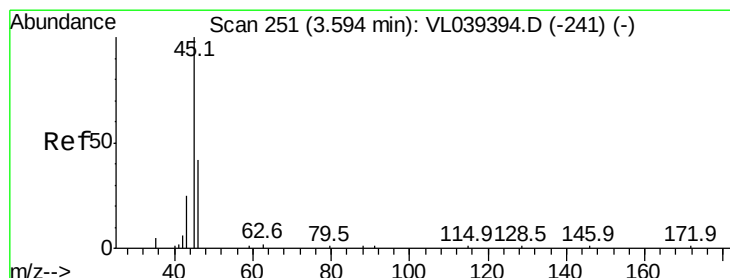
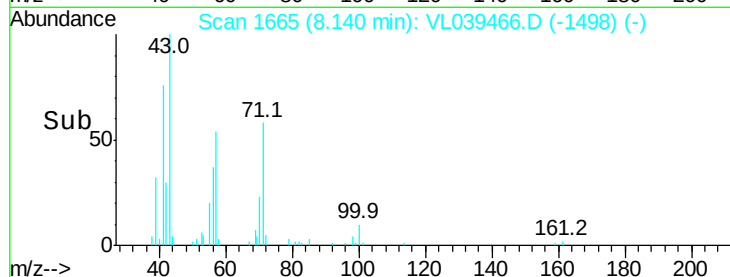
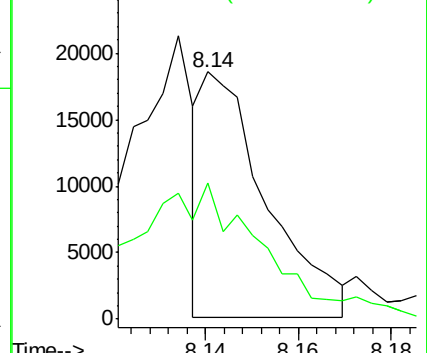
43 100

57 115.6 40.5 60.7#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#13

Ethanol

Concen: 154.79 ppbv

RT: 3.61 min Scan# 255

Delta R.T. 0.01 min

Lab File: VL039466.D

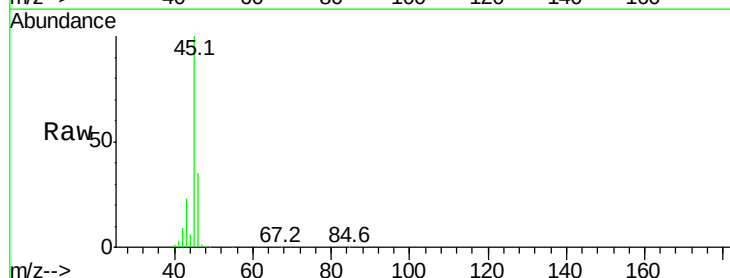
Acq: 13 Jul 2022 3:23

Tgt Ion: 45 Resp: 731102

Ion Ratio Lower Upper

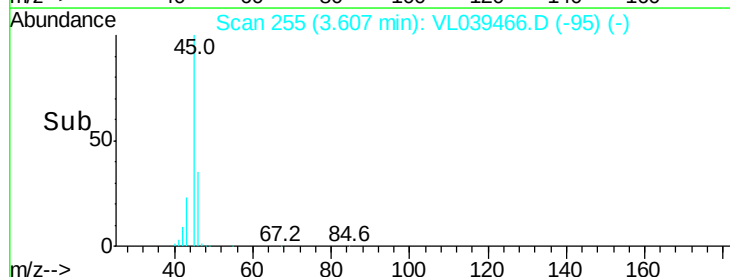
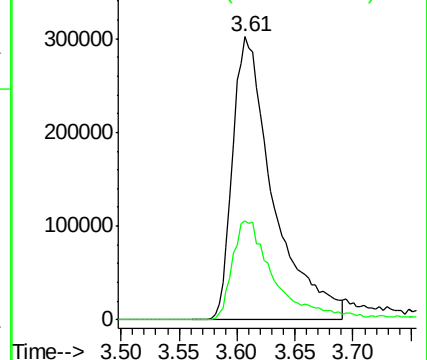
45 100

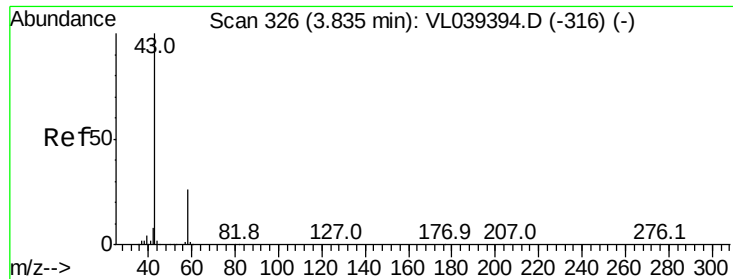
46 38.6 22.8 91.2



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 1.91 ppbv

RT: 3.86 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

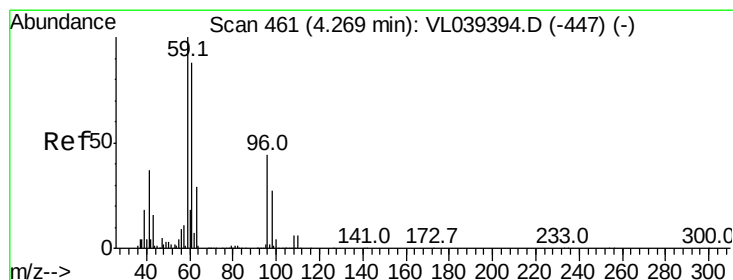
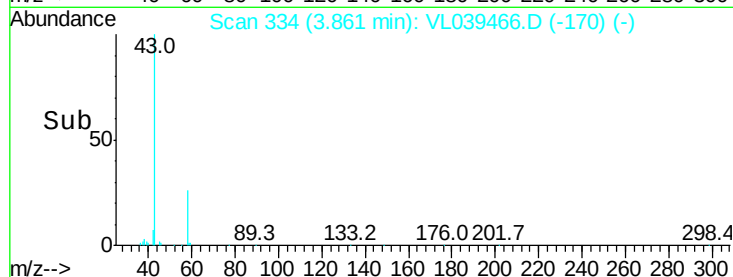
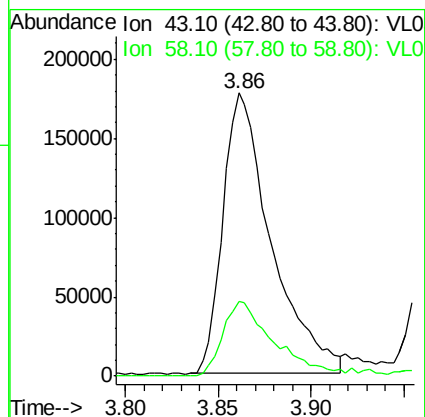
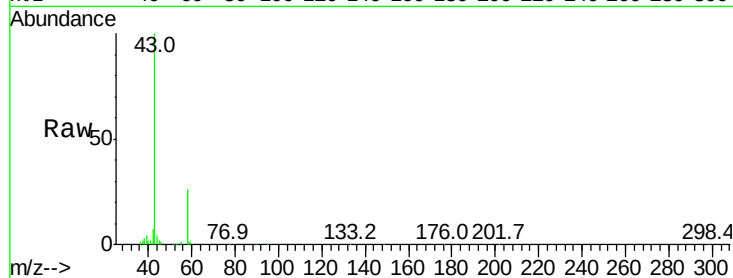
Acq: 13 Jul 2022 3:23

Tgt Ion: 43 Resp: 321400

Ion Ratio Lower Upper

43 100

58 29.2 21.0 31.6



#17

tert-Butyl alcohol

Concen: 0.47 ppbv

RT: 3.97 min Scan# 369

Delta R.T. -0.30 min

Lab File: VL039466.D

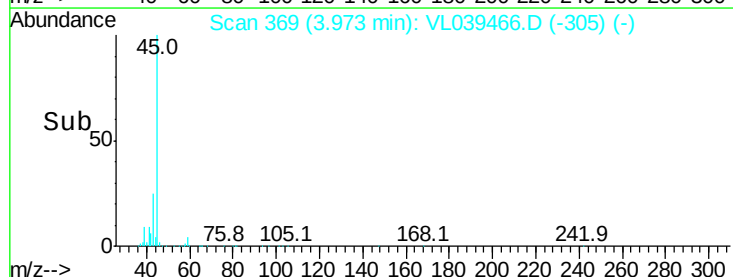
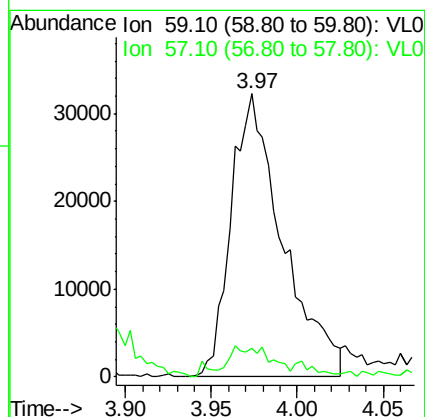
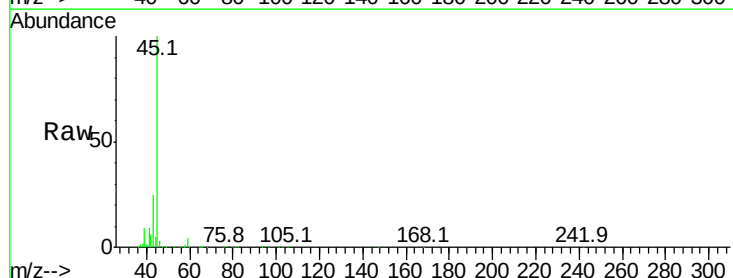
Acq: 13 Jul 2022 3:23

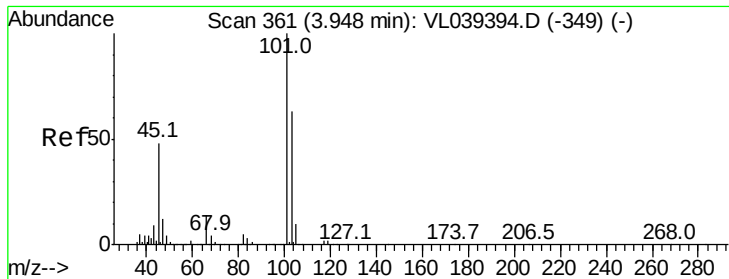
Tgt Ion: 59 Resp: 67418

Ion Ratio Lower Upper

59 100

57 11.9 8.7 13.1





#19

Isopropyl Alcohol

Concen: 20.92 ppbv

RT: 3.97 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

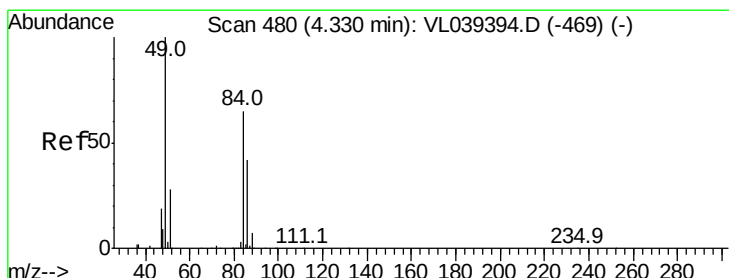
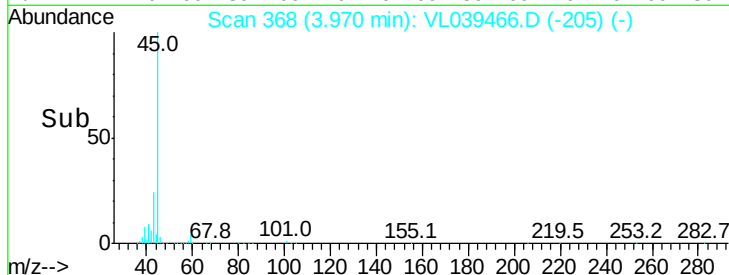
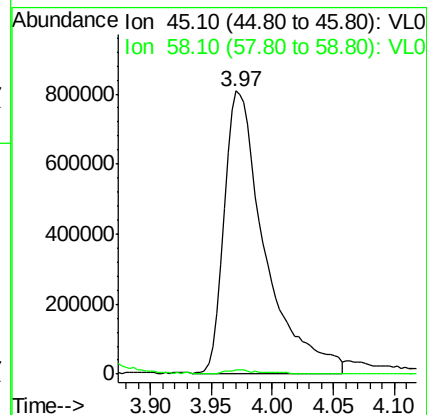
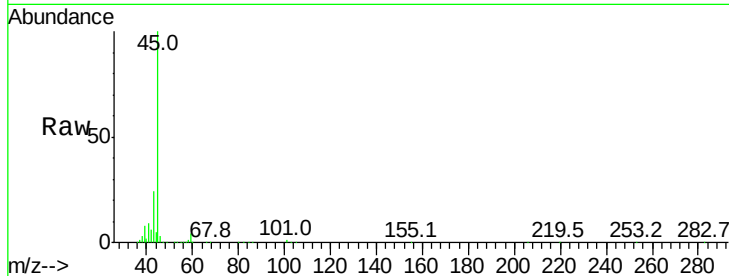
Acq: 13 Jul 2022 3:23

Tgt Ion: 45 Resp: 1876114

Ion Ratio Lower Upper

45 100

58 1.7 3.2 4.8#



#20

Methylene Chloride

Concen: 4.30 ppbv

RT: 4.36 min Scan# 489

Delta R.T. 0.03 min

Lab File: VL039466.D

Acq: 13 Jul 2022 3:23

Tgt Ion: 84 Resp: 288170

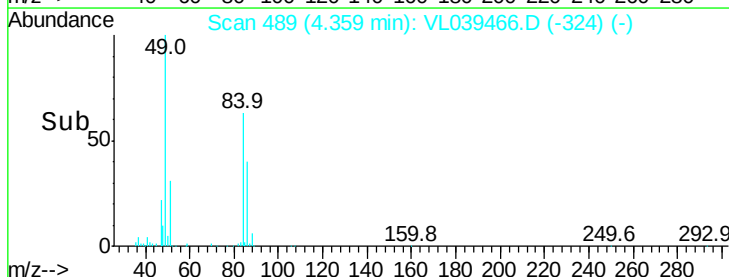
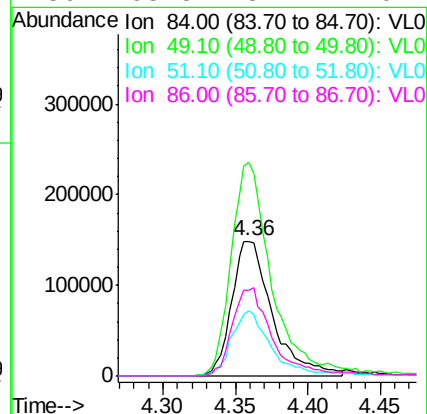
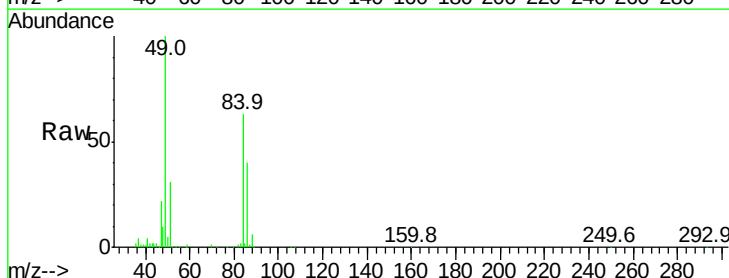
Ion Ratio Lower Upper

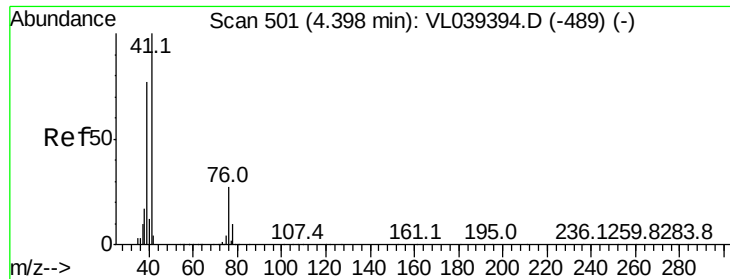
84 100

49 157.8 123.1 184.7

51 48.6 34.4 51.6

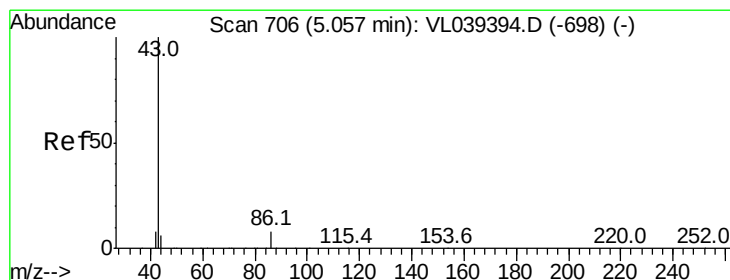
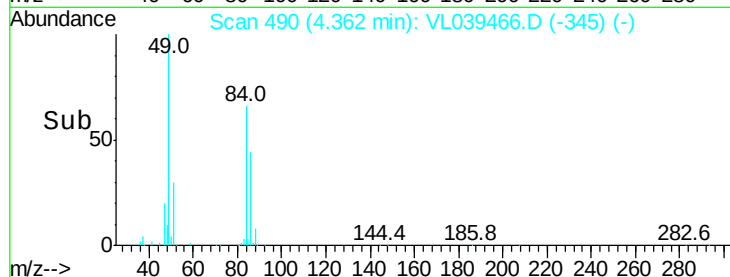
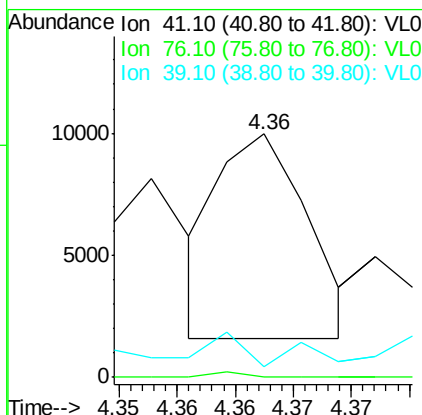
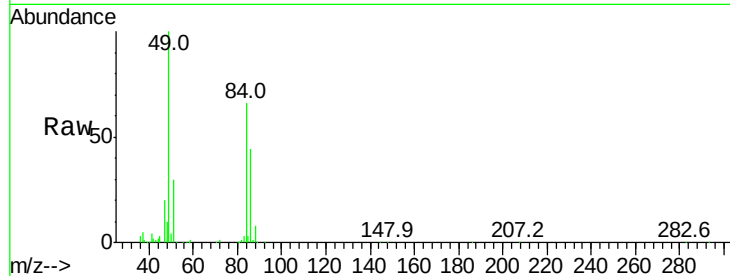
86 63.3 51.1 76.7





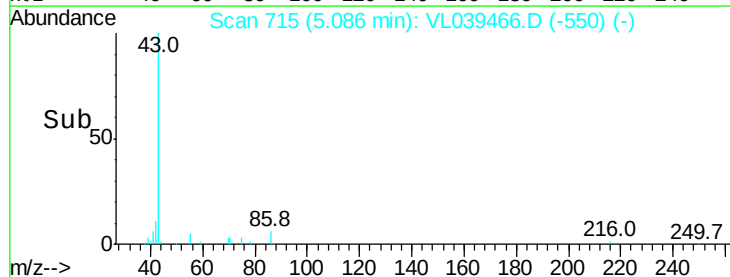
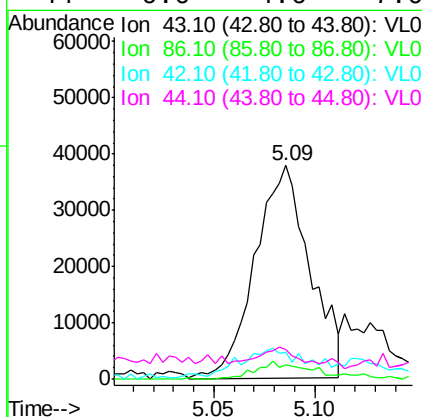
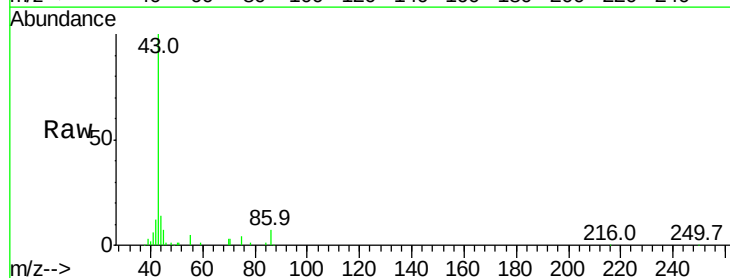
#21
 Allyl Chloride
 Concen: 0.04 ppbv
 RT: 4.36
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 13 Jul 2022 3:23

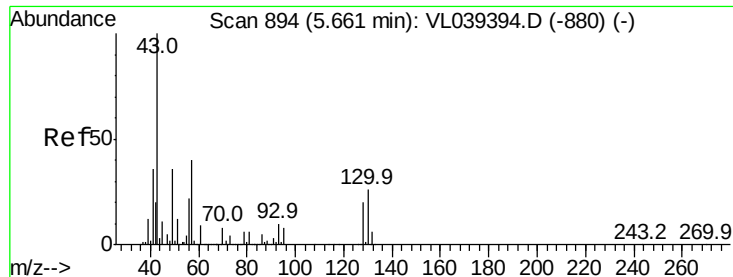
Tgt Ion: 41 Resp: 4504
 Ion Ratio Lower Upper
 41 100
 76 152.6 24.4 36.6#
 39 0.0 63.5 95.3#



#23
 Vinyl Acetate
 Concen: 0.64 ppbv
 RT: 5.09 min Scan# 715
 Delta R.T. 0.03 min
 Lab File: VL039466.D
 Acq: 13 Jul 2022 3:23

Tgt Ion: 43 Resp: 71570
 Ion Ratio Lower Upper
 43 100
 86 6.3 5.0 7.6
 42 10.1 7.7 11.5
 44 6.0 4.6 7.0

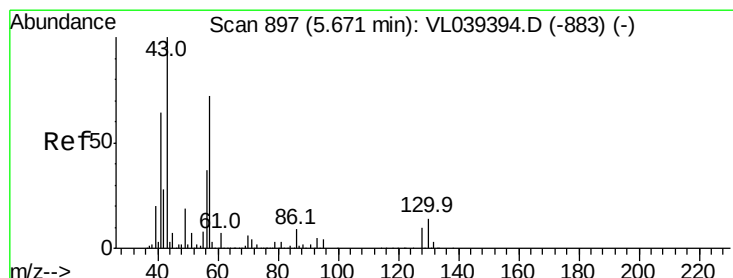
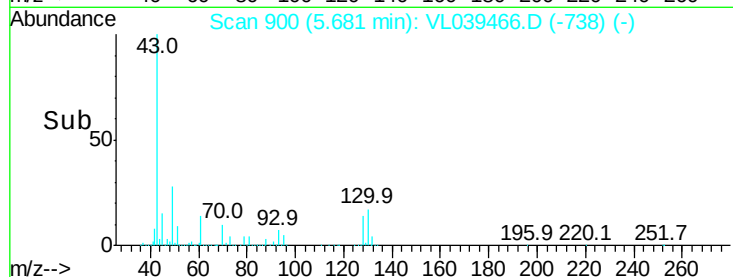
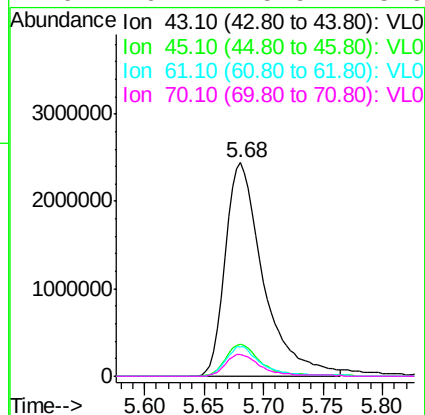
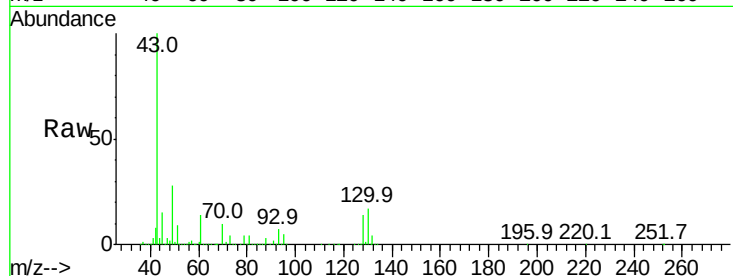




#25
 Ethyl Acetate
 Concen: 15.71 ppbv
 RT: 5.68
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 13 Jul 2022 3:23

Tgt Ion: 43 Resp: 5416367

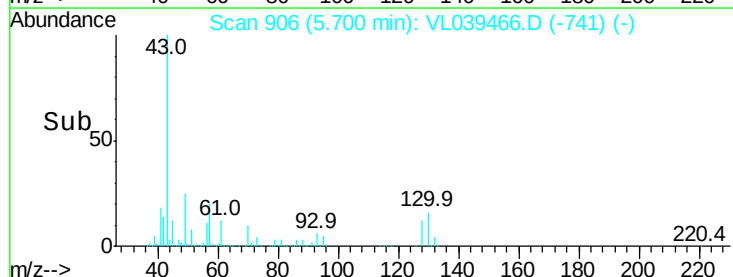
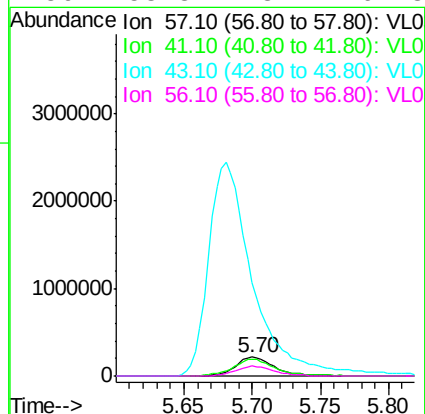
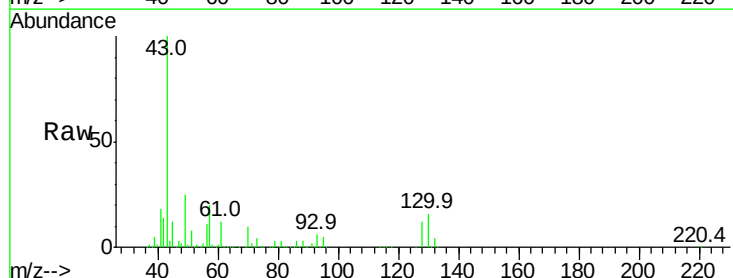
Ion	Ratio	Lower	Upper
43	100		
45	14.5	8.2	12.4#
61	13.3	8.3	12.5#
70	10.1	5.9	8.9#

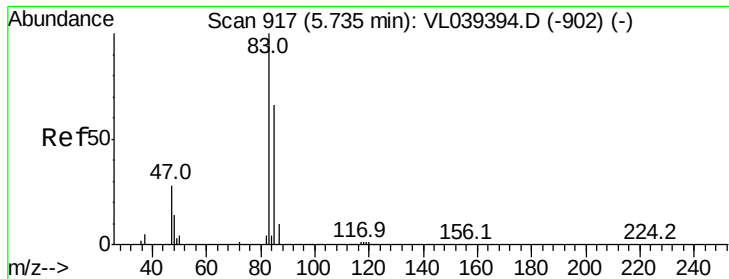


#26
 Hexane
 Concen: 3.08 ppbv
 RT: 5.70 min Scan# 906
 Delta R.T.: 0.03 min
 Lab File: VL039466.D
 Acq: 13 Jul 2022 3:23

Tgt Ion: 57 Resp: 427393

Ion	Ratio	Lower	Upper
57	100		
41	100.6	76.9	115.3
43	1322.9	191.0	286.6#
56	53.3	43.2	64.8





#29

Chloroform

Concen: 0.06 ppbv

RT: 5.76 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

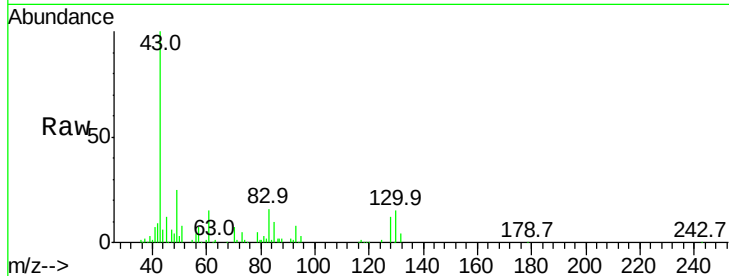
Acq: 13 Jul 2022 3:23 SG-2DL

Tgt Ion: 83 Resp: 15442

Ion Ratio Lower Upper

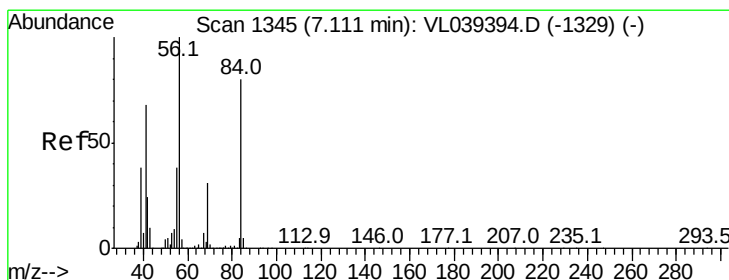
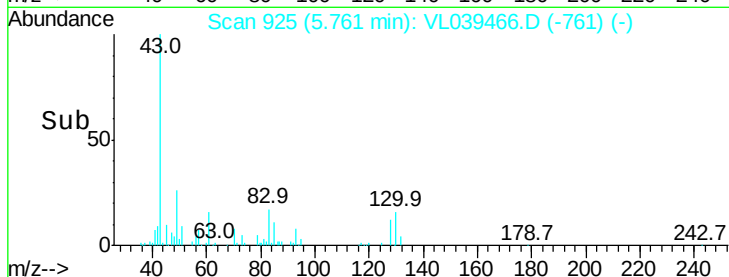
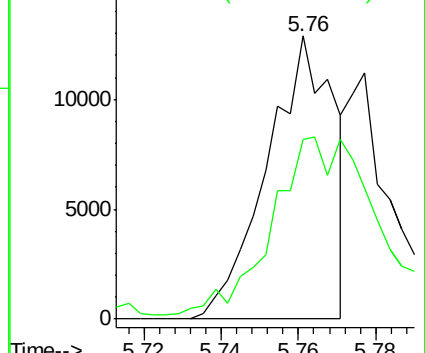
83 100

85 60.8 52.8 79.2



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#30

Cyclohexane

Concen: 0.09 ppbv

RT: 7.15 min Scan# 1357

Delta R.T. 0.04 min

Lab File: VL039466.D

Acq: 13 Jul 2022 3:23

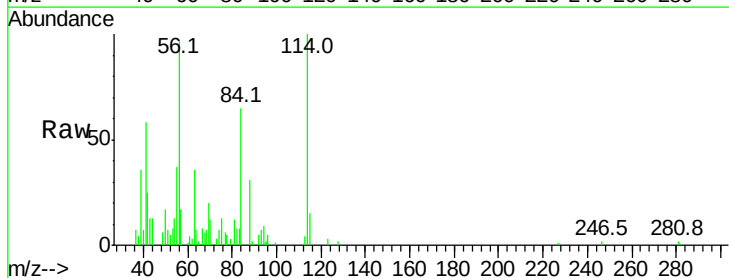
Tgt Ion: 84 Resp: 11606

Ion Ratio Lower Upper

84 100

56 0.0 107.7 161.5#

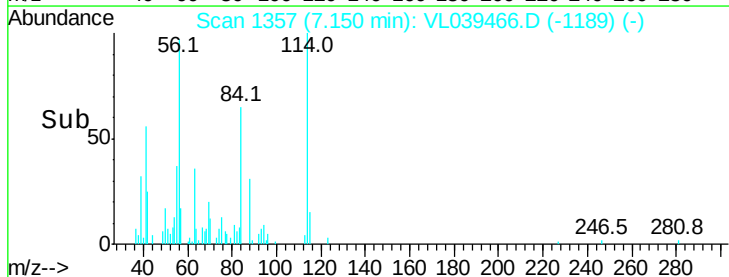
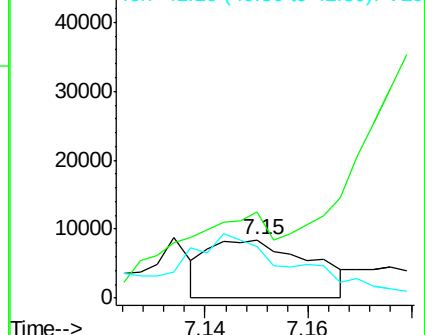
41 156.3 67.7 101.5#

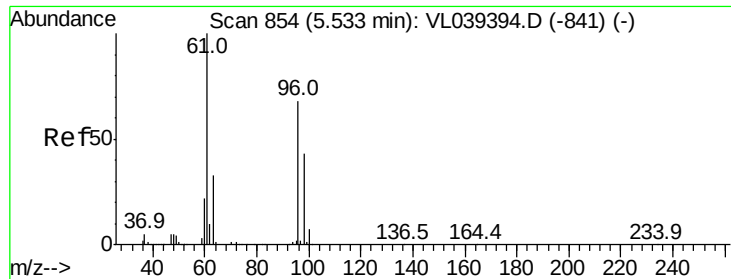


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0





#31

cis-1,2-Dichloroethene

Concen: 4.69 ppbv

RT: 5.68

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 13 Jul 2022 3:23

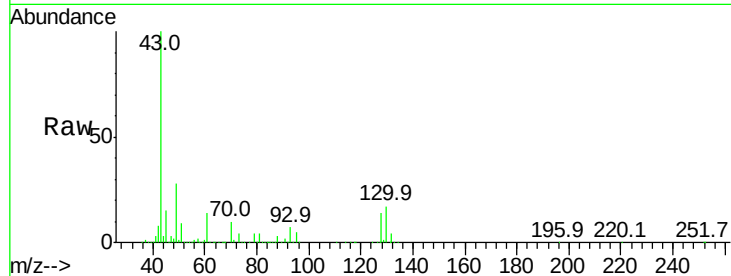
Tgt Ion: 61 Resp: 690791

Ion Ratio Lower Upper

61 100

96 0.7 54.1 81.1#

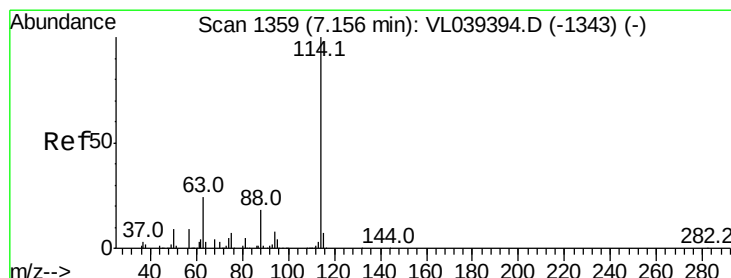
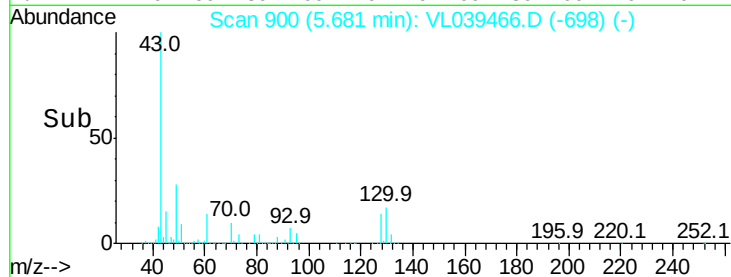
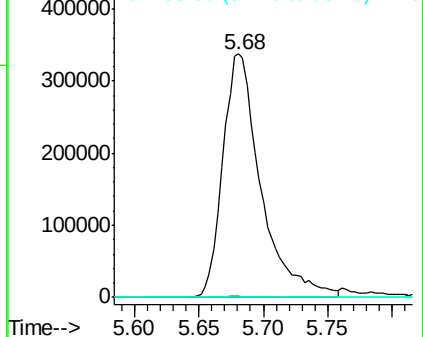
98 0.0 34.6 52.0#



Abundance Ion 61.10 (60.80 to 61.80): VL0

Ion 96.00 (95.70 to 96.70): VL0

Ion 98.00 (97.70 to 98.70): VL0



#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.19 min Scan# 1369

Delta R.T. 0.03 min

Lab File: VL039466.D

Acq: 13 Jul 2022 3:23

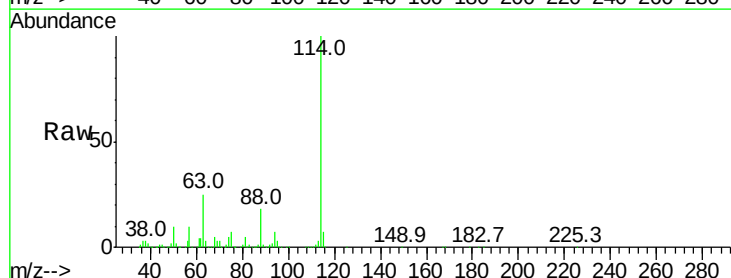
Tgt Ion: 114 Resp: 3890706

Ion Ratio Lower Upper

114 100

63 24.7 20.2 30.4

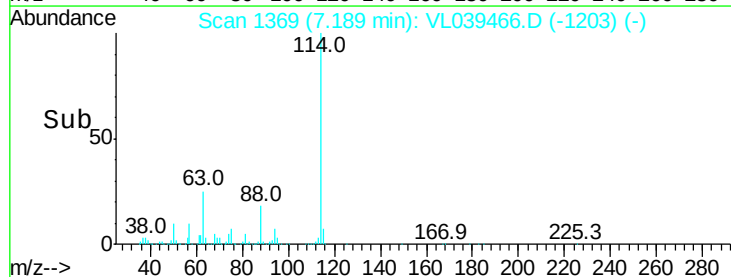
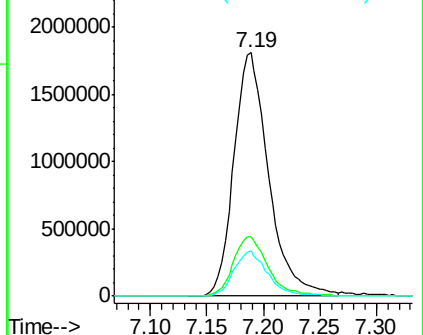
88 18.2 14.5 21.7

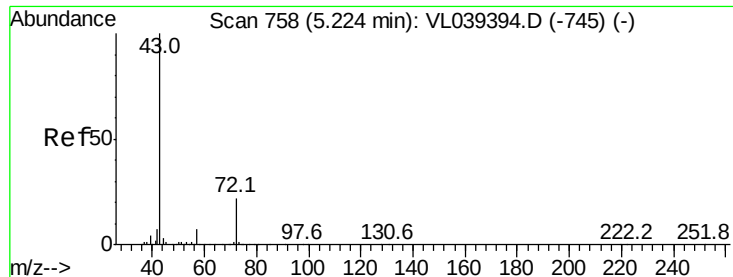


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

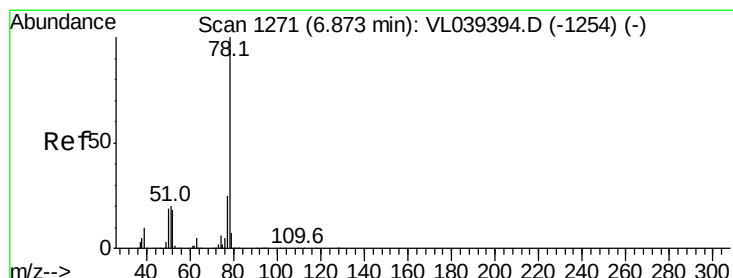
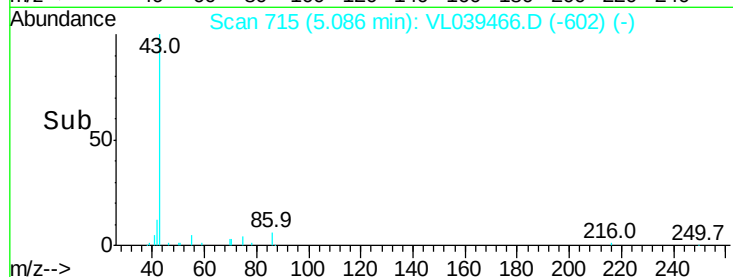
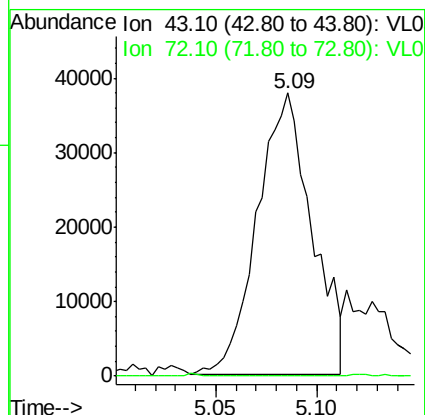
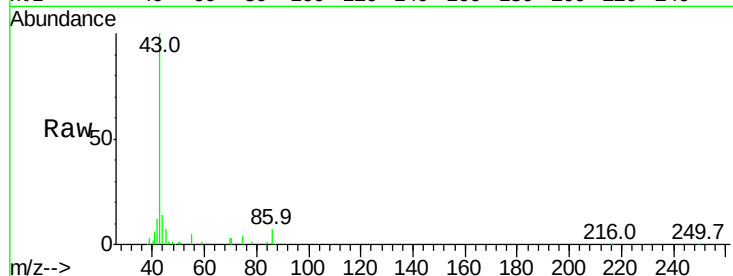
Ion 88.10 (87.80 to 88.80): VL0





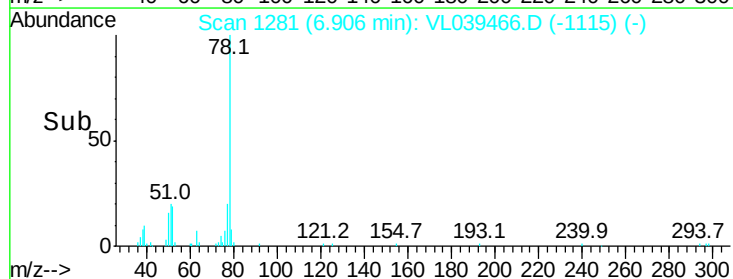
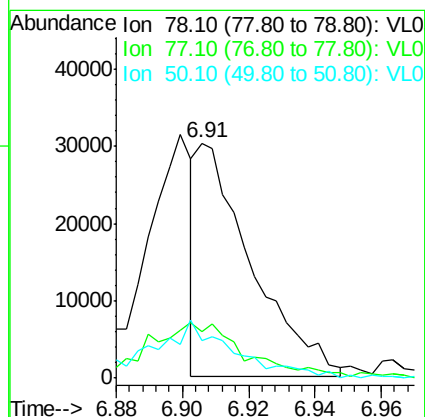
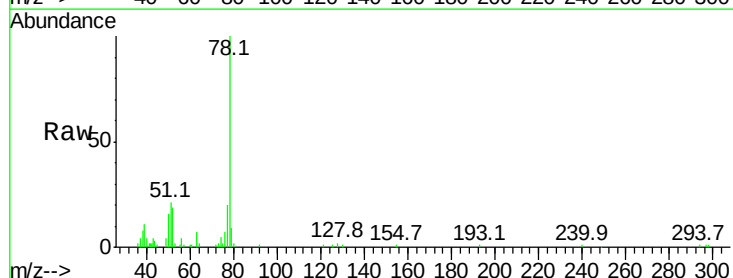
#34
 2-Butanone
 Concen: 0.36 ppbv
 RT: 5.09
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 13 Jul 2022 3:23

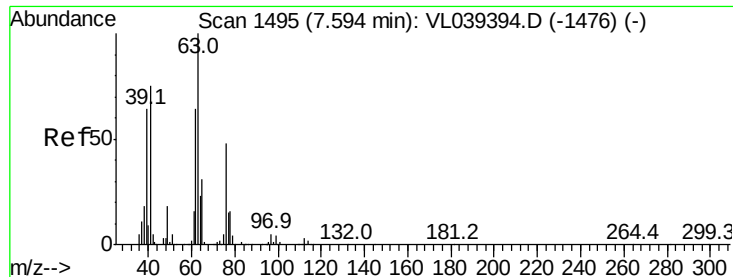
Tgt Ion: 43 Resp: 71306
 Ion Ratio Lower Upper
 43 100
 72 5.4 17.9 26.9#



#36
 Benzene
 Concen: 0.11 ppbv
 RT: 6.91 min Scan# 1281
 Delta R.T. 0.03 min
 Lab File: VL039466.D
 Acq: 13 Jul 2022 3:23

Tgt Ion: 78 Resp: 34127
 Ion Ratio Lower Upper
 78 100
 77 18.3 20.3 30.5#
 50 16.5 15.5 23.3





#39

1,2-Dichloropropane

Concen: 8.45 ppbv

RT: 7.19 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 13 Jul 2022 3:23

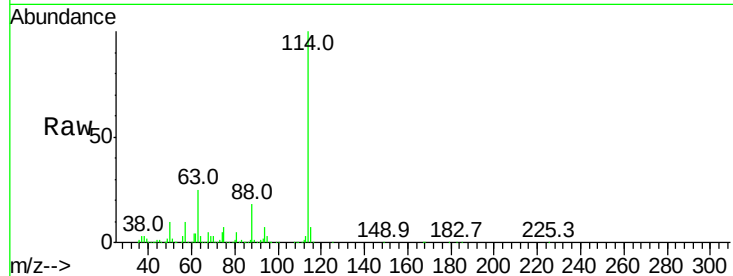
Tgt Ion: 63 Resp: 950954

Ion Ratio Lower Upper

63 100

41 0.0 59.6 89.4#

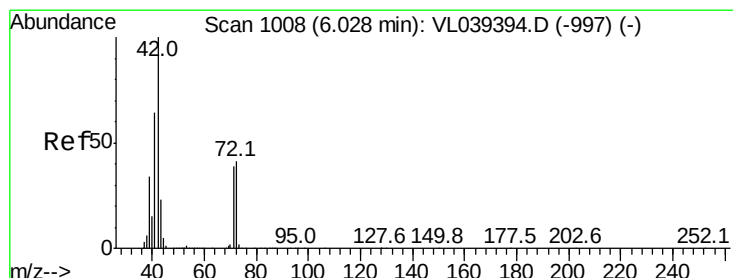
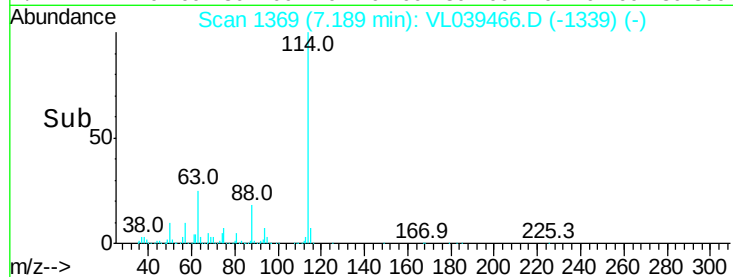
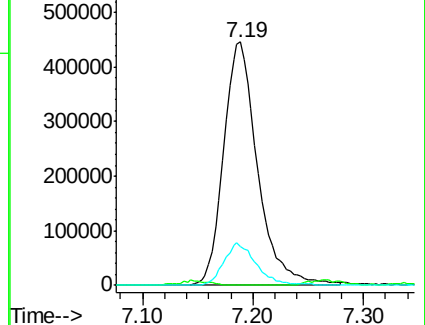
62 16.0 51.4 77.0#



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



#41

Tetrahydrofuran

Concen: 4.59 ppbv

RT: 5.68 min Scan# 901

Delta R.T. -0.34 min

Lab File: VL039466.D

Acq: 13 Jul 2022 3:23

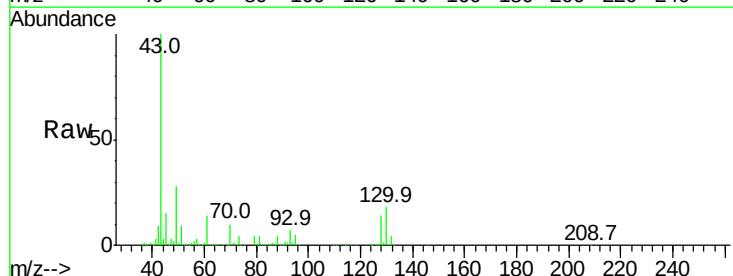
Tgt Ion: 42 Resp: 520831

Ion Ratio Lower Upper

42 100

72 0.6 31.8 47.8#

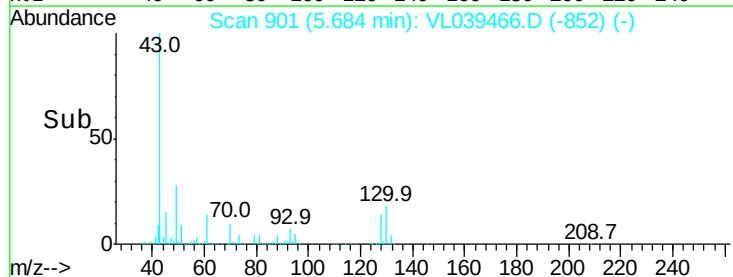
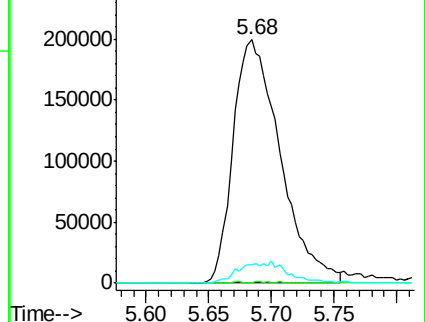
71 9.3 31.8 47.8#

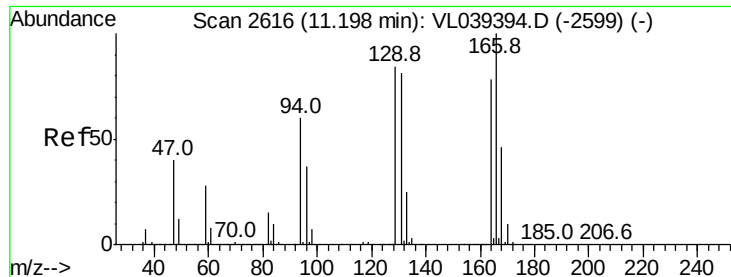


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0





#52

Tetrachloroethene

Concen: 0.06 ppbv

RT: 11.25

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 13 Jul 2022 3:23

Tgt Ion: 164 Resp: 7726

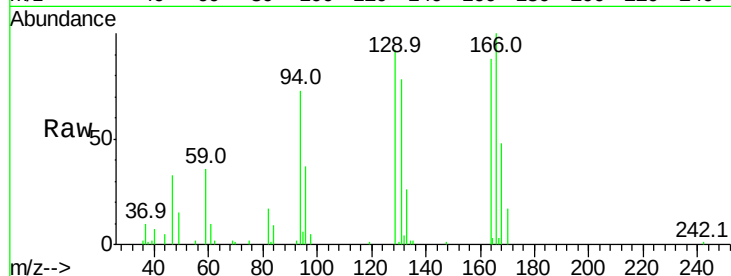
Ion Ratio Lower Upper

164 100

166 83.4 102.2 153.2#

129 88.7 85.8 128.8

131 62.8 83.3 124.9#

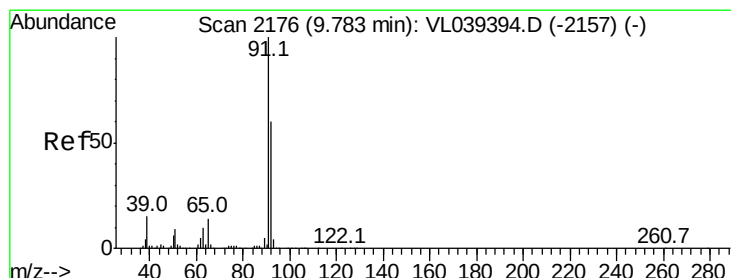
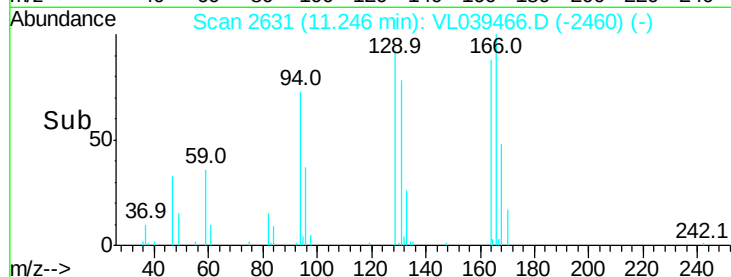
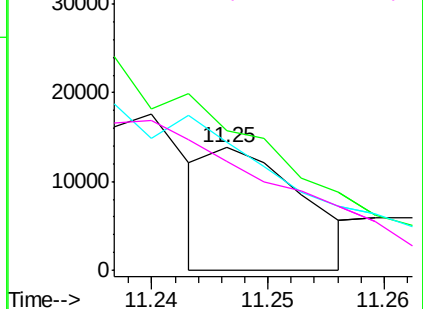


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.69 ppbv

RT: 9.82 min Scan# 2186

Delta R.T. 0.03 min

Lab File: VL039466.D

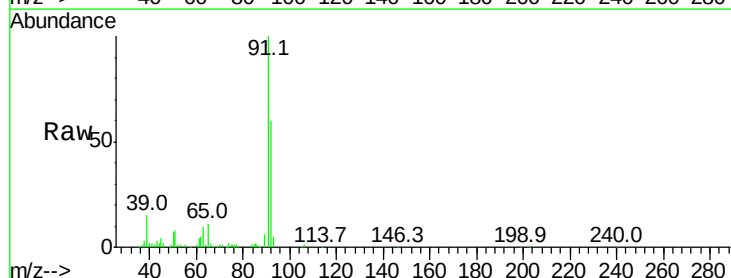
Acq: 13 Jul 2022 3:23

Tgt Ion: 91 Resp: 238461

Ion Ratio Lower Upper

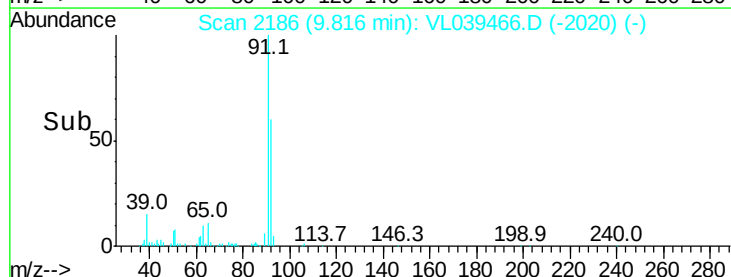
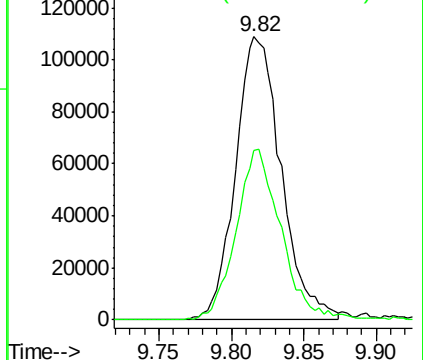
91 100

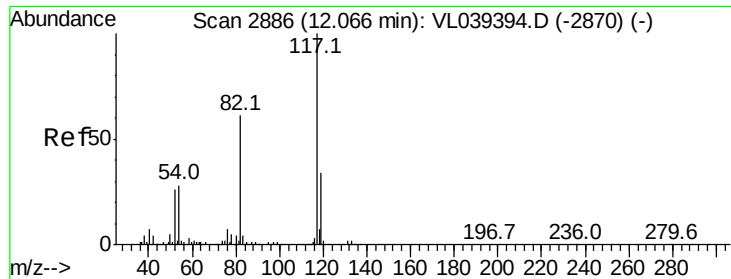
92 59.7 48.2 72.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

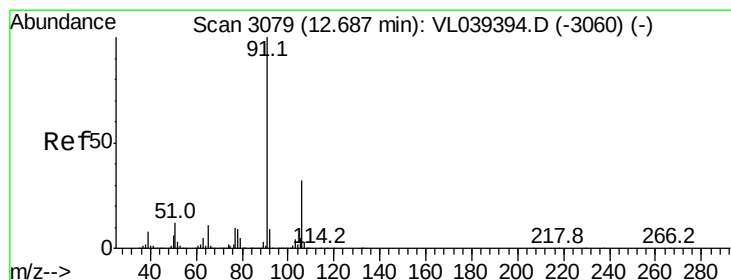
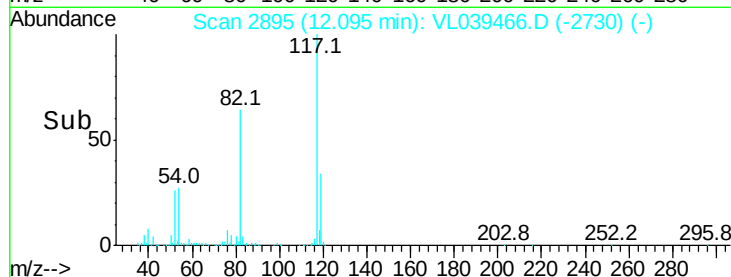
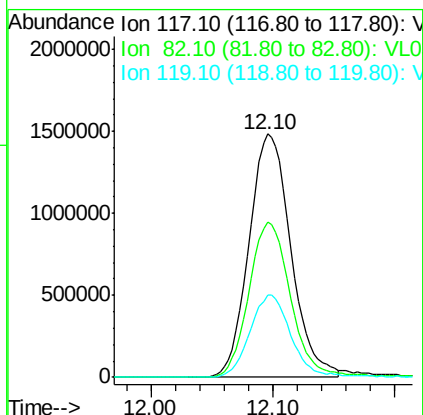
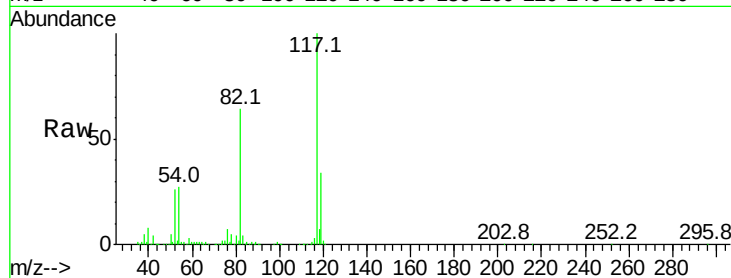




#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.10 min
Instrument: MSVOA_1
Delta R.T.: 0.03 min
Lab File: ClientSampleId : SG-2DL
Acq: 13 Jul 2022 3:23

Tgt Ion: 117 Resp: 3515691

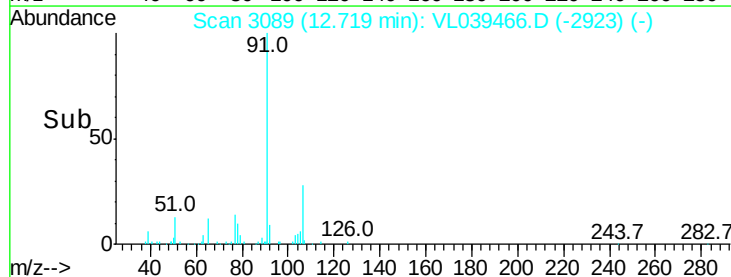
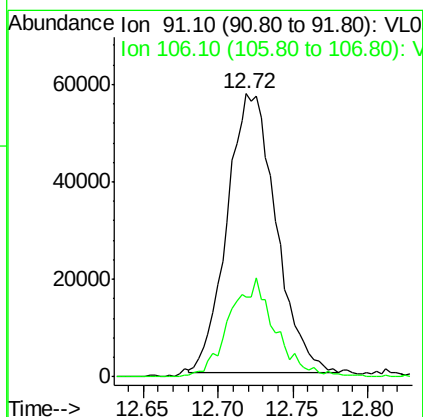
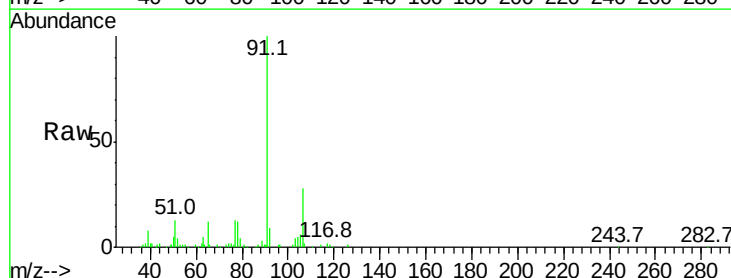
Ion	Ratio	Lower	Upper
117	100		
82	65.1	50.8	76.2
119	33.8	24.1	36.1

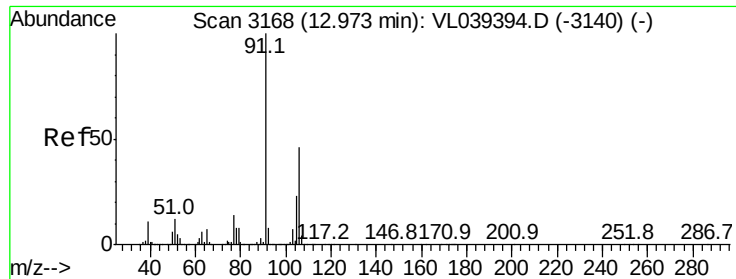


#58
Ethyl Benzene
Concen: 0.29 ppbv
RT: 12.72 min Scan# 3089
Delta R.T.: 0.03 min
Lab File: VL039466.D
Acq: 13 Jul 2022 3:23

Tgt Ion: 91 Resp: 129514

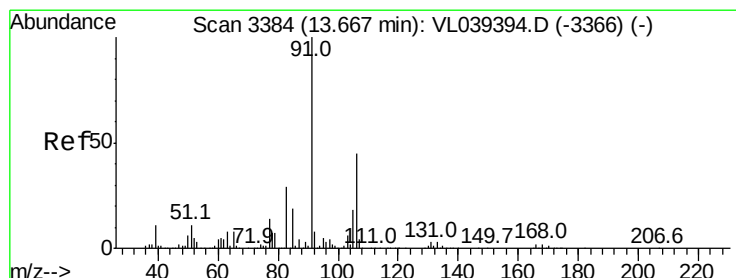
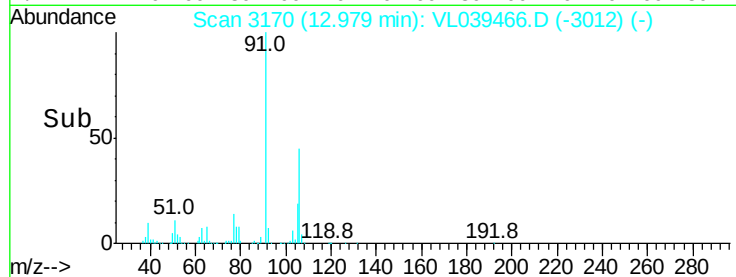
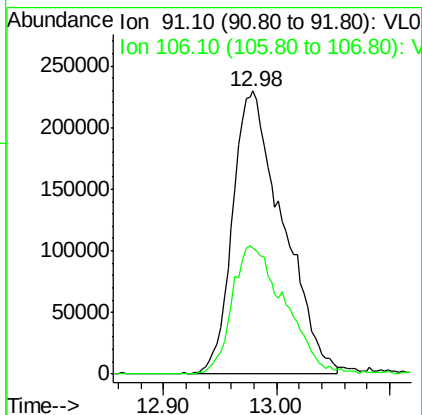
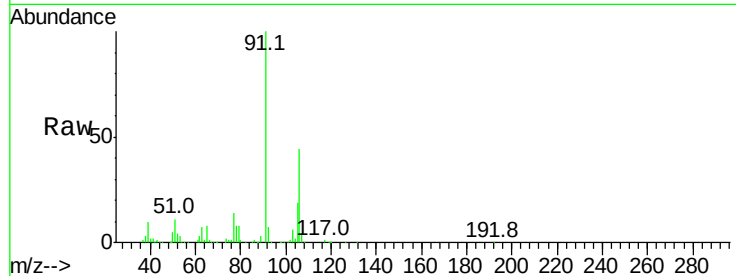
Ion	Ratio	Lower	Upper
91	100		
106	28.1	25.4	38.0





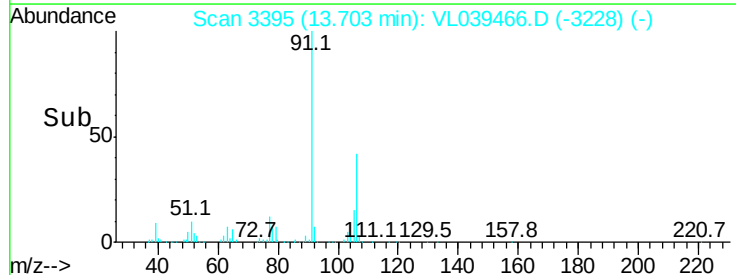
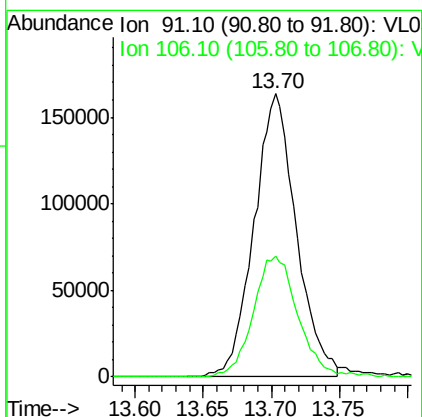
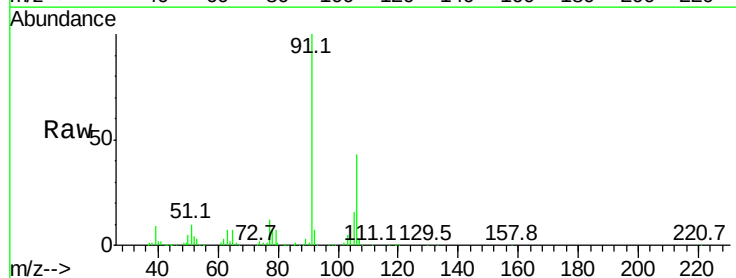
#59
m/p-Xylene
Concen: 1.76 ppbv
RT: 12.98 min
Delta R.T. MSVOA.L
Lab File: ClientSampleId :
Acq: 13 Jul 2022 3:23

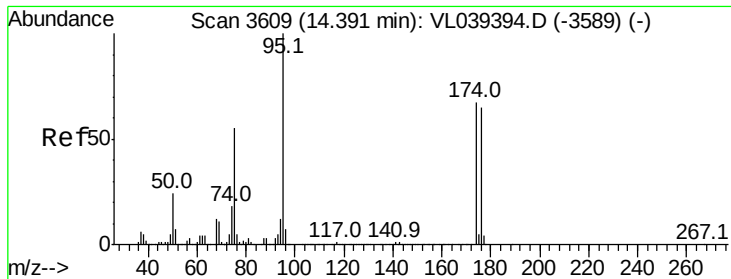
Tgt Ion: 91 Resp: 703770
Ion Ratio Lower Upper
91 100
106 47.9 35.4 53.2



#60
o-Xylene
Concen: 0.93 ppbv
RT: 13.70 min Scan# 3395
Delta R.T. 0.04 min
Lab File: VL039466.D
Acq: 13 Jul 2022 3:23

Tgt Ion: 91 Resp: 351332
Ion Ratio Lower Upper
91 100
106 45.4 22.4 67.3

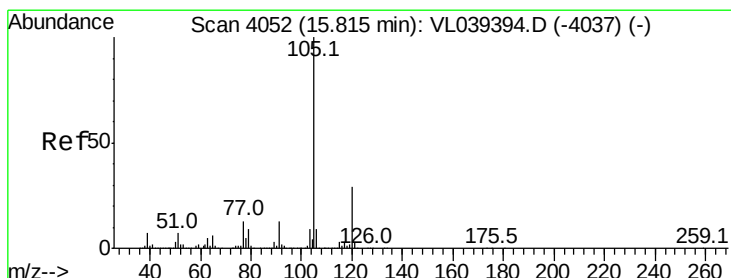
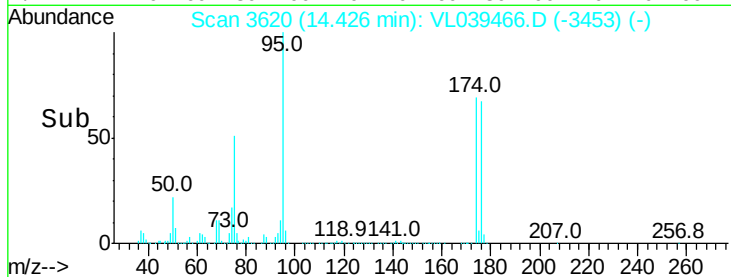
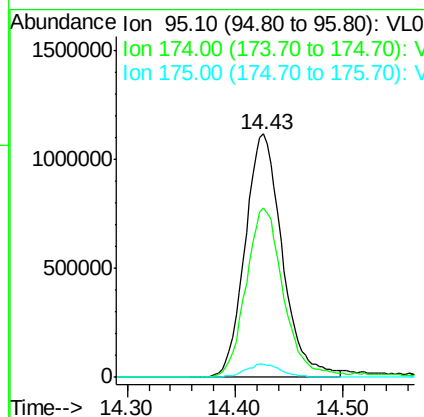
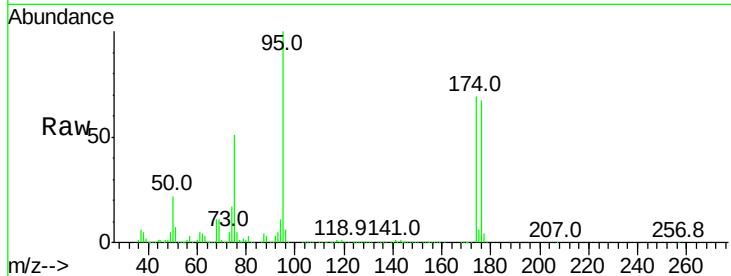




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.26 ppbv
 RT: 14.43 min
 Delta R.T.: 0.04 min
 Lab File: VL039466.D
 Acq: 13 Jul 2022 3:23

Tgt Ion: 95 Resp: 2674652

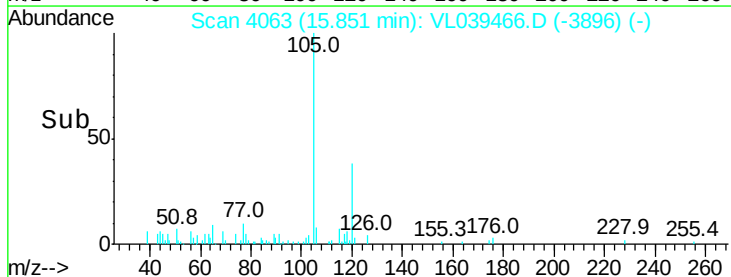
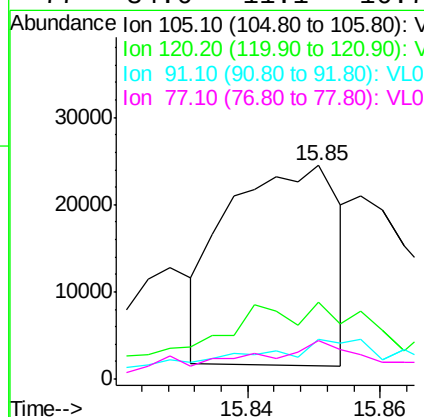
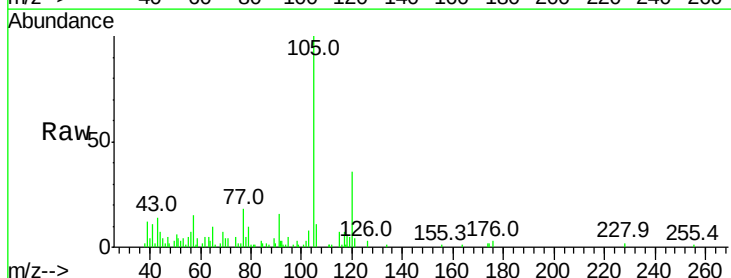
Ion	Ratio	Lower	Upper
95	100		
174	72.9	55.9	83.9
175	5.4	4.2	6.4

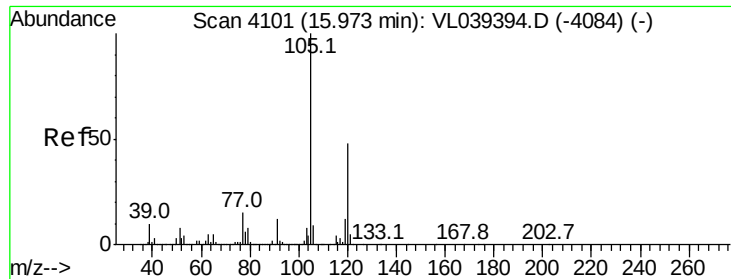


#72
 4-Ethyltoluene
 Concen: 0.06 ppbv
 RT: 15.85 min Scan# 4063
 Delta R.T.: 0.04 min
 Lab File: VL039466.D
 Acq: 13 Jul 2022 3:23

Tgt Ion: 105 Resp: 26627

Ion	Ratio	Lower	Upper
105	100		
120	67.7	24.2	36.2#
91	0.0	10.2	15.4#
77	34.6	11.1	16.7#





#73

1,3,5-Trimethylbenzene

Concen: 0.19 ppbv

RT: 16.01

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

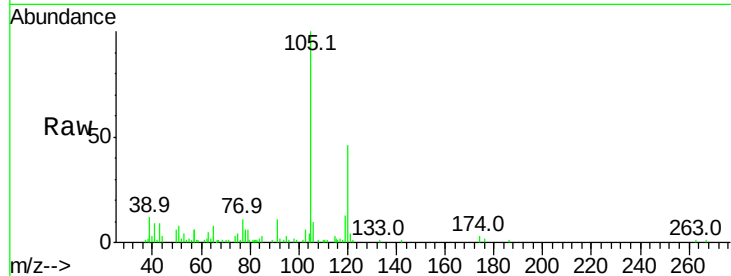
Acq: 13 Jul 2022 3:23

Tgt Ion:105 Resp: 78777

Ion Ratio Lower Upper

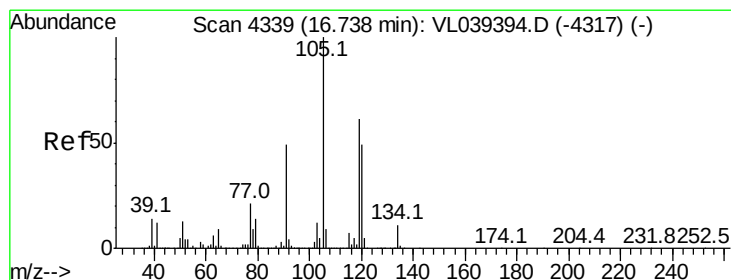
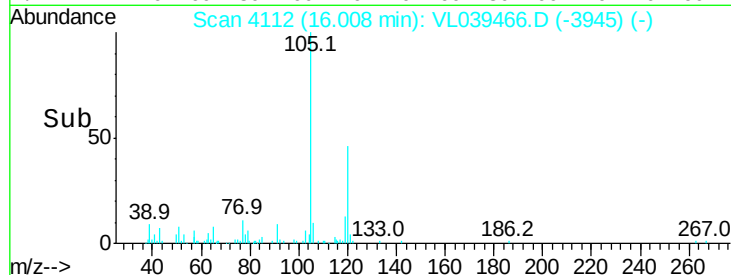
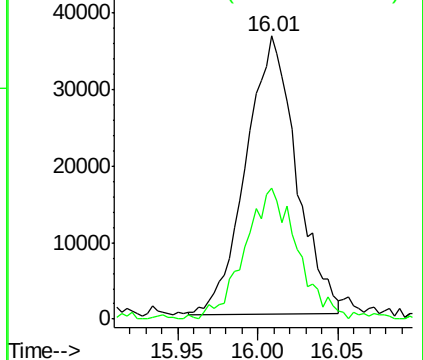
105 100

120 45.8 38.2 57.4



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.56 ppbv

RT: 16.77 min Scan# 4350

Delta R.T. 0.04 min

Lab File: VL039466.D

Acq: 13 Jul 2022 3:23

Tgt Ion:105 Resp: 253124

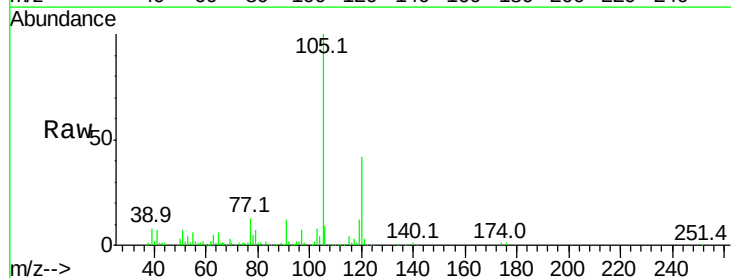
Ion Ratio Lower Upper

105 100

120 41.9 39.5 59.3

91 11.7 39.2 58.8#

77 13.1 17.2 25.8#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

