

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL032122\
 Data File : VL038673.D
 Acq On : 22 Mar 2022 5:55
 Operator : SY/AP
 Sample : N1964-15
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 C0P85

Quant Time: Mar 22 06:46:09 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL032122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Mon Mar 21 17:09:26 2022
 QLast Update : Mon Mar 21 17:09:26 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	855201	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	2154230	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	1926760	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	1400495	9.48	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.80%

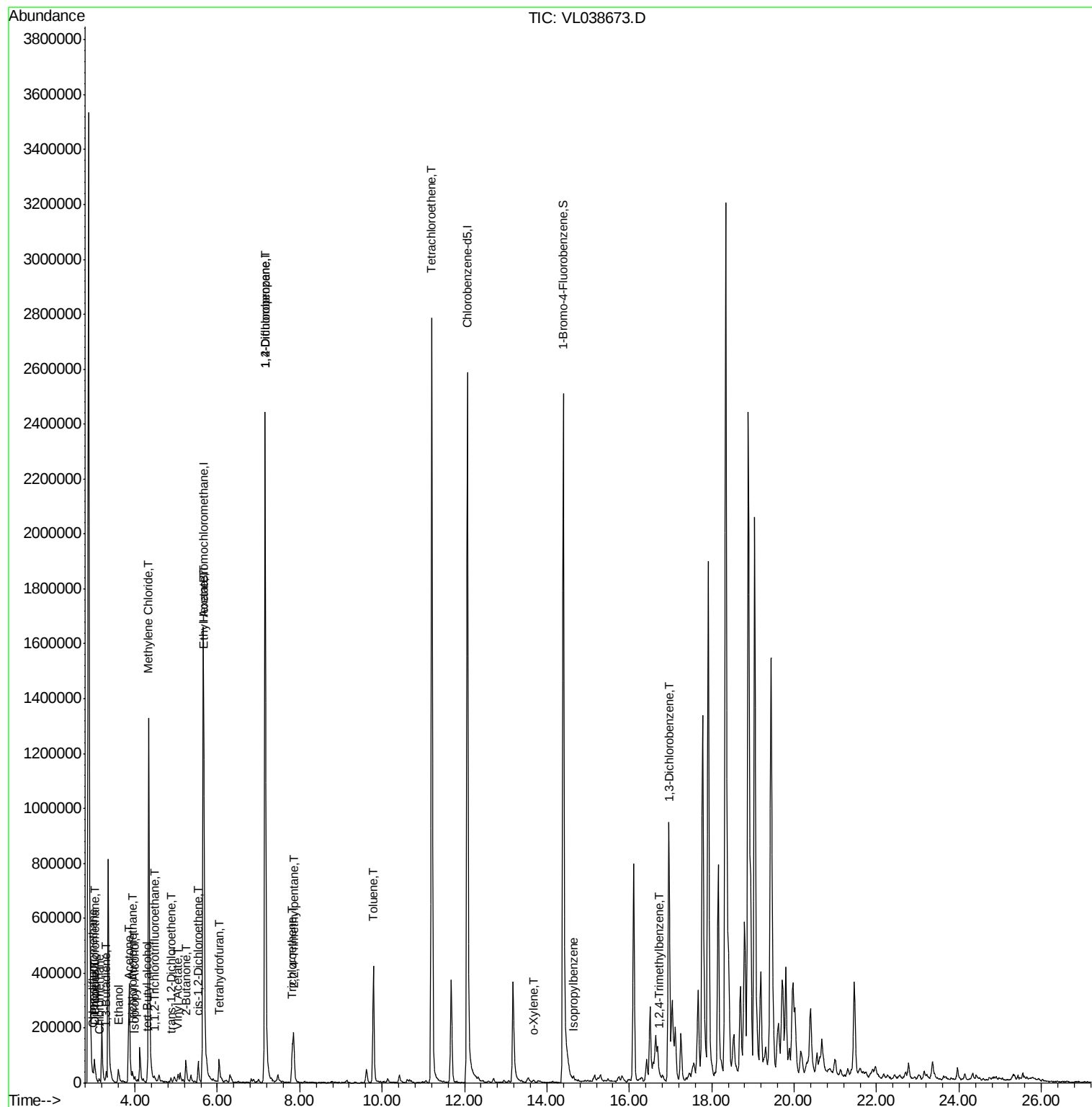
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	23815	0.21	ppbv	93
3) Chlorodifluoromethane	2.98	51	30540	0.34	ppbv #	92
4) Chloromethane	3.13	50	11590	0.23	ppbv	97
9) Propene	3.01	41	26093	0.60	ppbv	86
11) Trichlorofluoromethane	3.94	101	22502	0.22	ppbv	97
12) 1,1,2-Trichlorotrifluoroet	4.48	101	3296	0.04	ppbv #	38
13) Ethanol	3.60	45	63963	13.30	ppbv	97
15) Acetone	3.84	43	181389	2.46	ppbv #	78
16) 1,3-Butadiene	3.30	39	9515	0.23	ppbv #	16
17) tert-Butyl alcohol	4.29	59	3888	0.06	ppbv #	73
19) Isopropyl Alcohol	3.98	45	2224	0.05	ppbv #	91
20) Methylene Chloride	4.33	84	618556	19.90	ppbv	97
22) trans-1,2-Dichloroethene	4.89	96	1062	0.03	ppbv	84
23) Vinyl Acetate	5.04	43	12599	0.18	ppbv #	1
25) Ethyl Acetate	5.68	43	185228	1.00	ppbv #	76
26) Hexane	5.67	57	266601	3.21	ppbv #	39
31) cis-1,2-Dichloroethene	5.54	61	50202	0.64	ppbv	99
34) 2-Butanone	5.24	43	113397	1.33	ppbv	94
38) Trichloroethene	7.82	130	43510	0.62	ppbv	93
39) 1,2-Dichloropropane	7.16	63	511212	7.87	ppbv #	29
41) Tetrahydrofuran	6.05	42	46393	0.73	ppbv	97
44) 2,2,4-Trimethylpentane	7.85	57	157153	0.56	ppbv #	87
52) Tetrachloroethene	11.20	164	786125	12.92	ppbv	95
53) Toluene	9.79	91	291594	1.63	ppbv	98
60) o-Xylene	13.67	91	3802	0.02	ppbv #	30
62) Isopropylbenzene	14.65	105	11771	0.04	ppbv	92
74) 1,2,4-Trimethylbenzene	16.74	105	7654	0.03	ppbv #	70
75) 1,3-Dichlorobenzene	16.98	146	2966	0.02	ppbv #	1

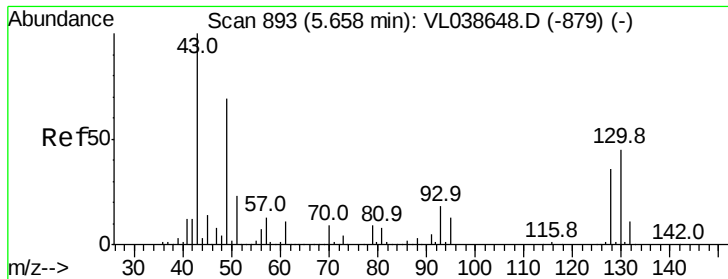
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.65 Instrument: MSVOA_1

Delta R.T.:

Lab File: ClientSampleId:

Acq: 22 Mar 2022 5:55

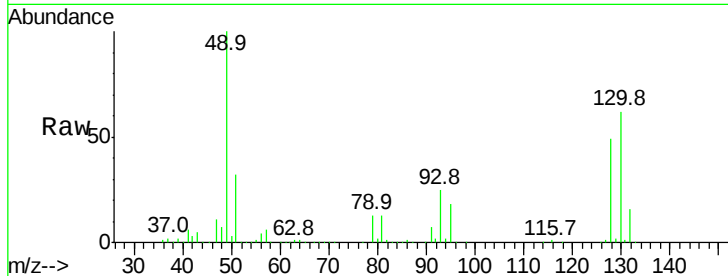
Tgt Ion: 49 Resp: 855201

Ion Ratio Lower Upper

49 100

128 52.2 26.2 78.6

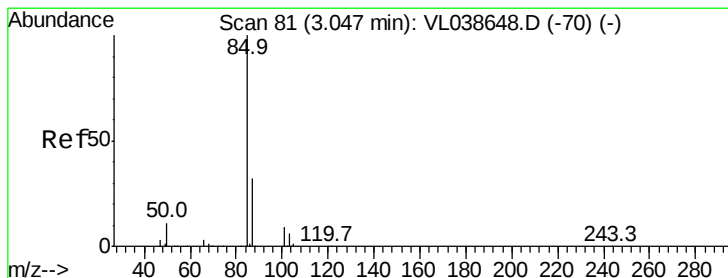
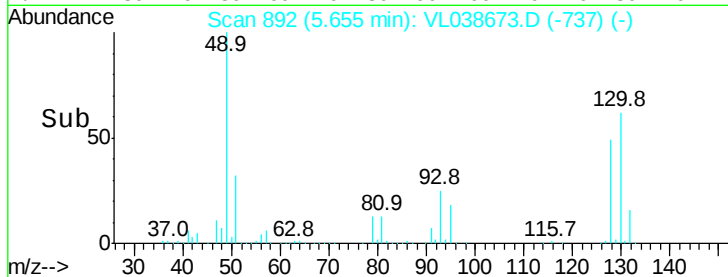
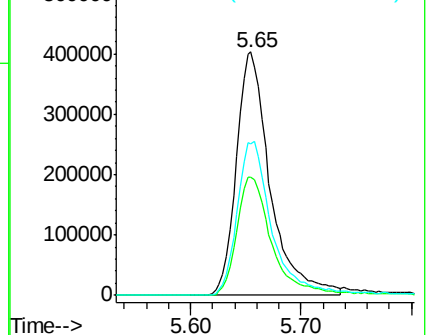
130 66.6 33.7 101.1



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: 0.21 ppbv

RT: 3.04 min Scan# 80

Delta R.T. -0.00 min

Lab File: VL038673.D

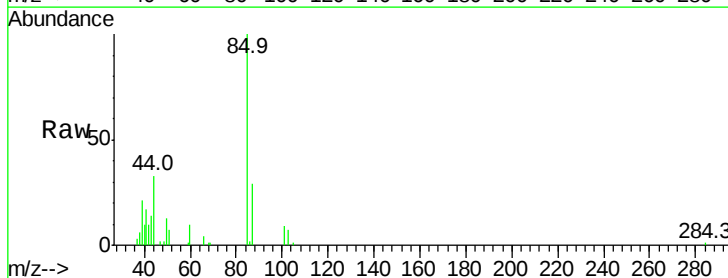
Acq: 22 Mar 2022 5:55

Tgt Ion: 85 Resp: 23815

Ion Ratio Lower Upper

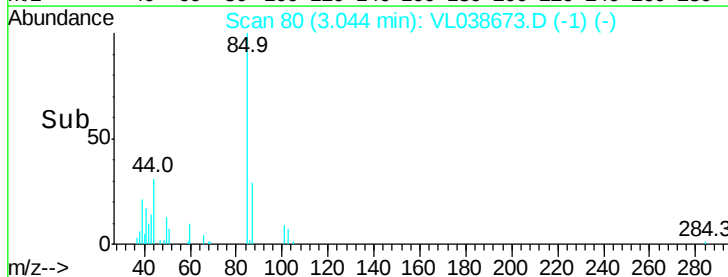
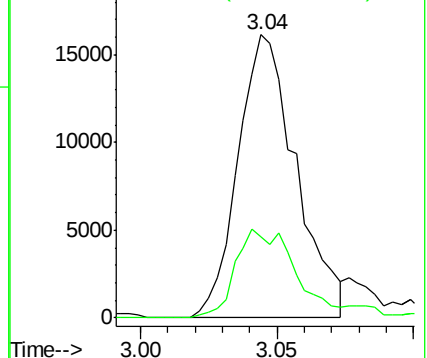
85 100

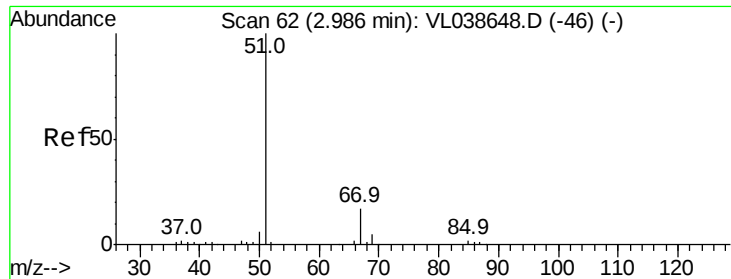
87 28.6 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.34 ppbv

RT: 2.98 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: COP85

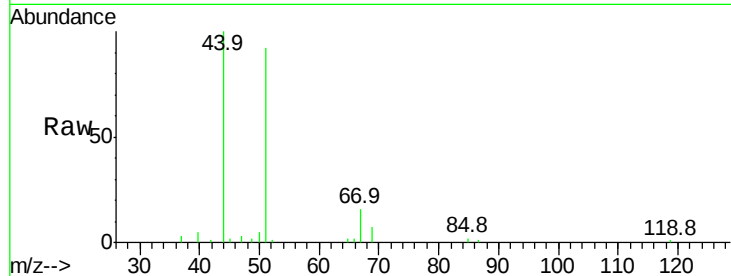
Acq: 22 Mar 2022 5:55

Tgt Ion: 51 Resp: 30540

Ion Ratio Lower Upper

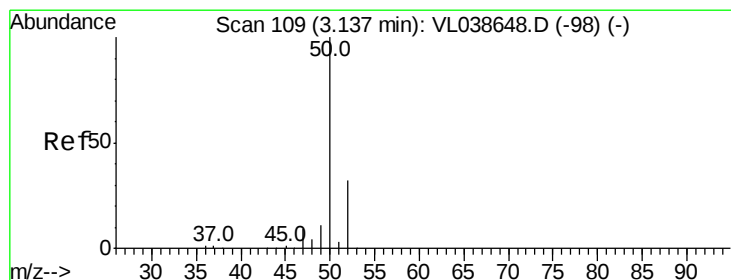
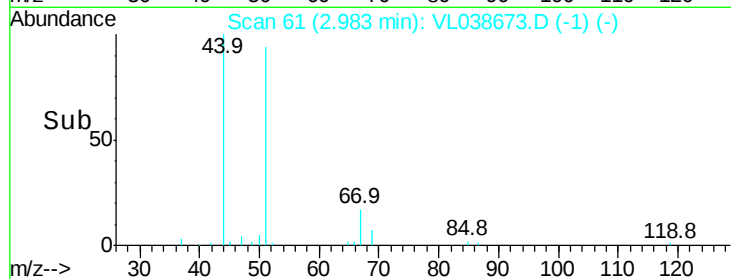
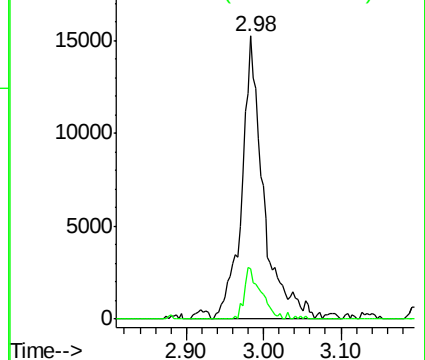
51 100

67 14.0 14.1 21.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.23 ppbv

RT: 3.13 min Scan# 108

Delta R.T. -0.00 min

Lab File: VL038673.D

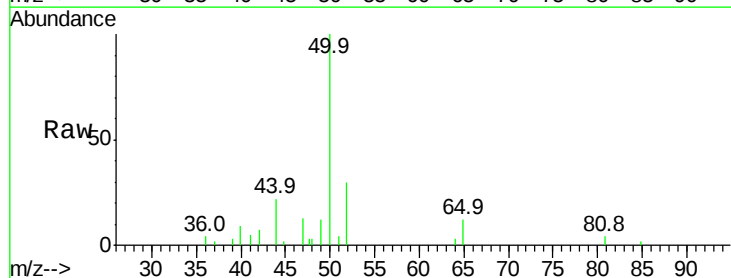
Acq: 22 Mar 2022 5:55

Tgt Ion: 50 Resp: 11590

Ion Ratio Lower Upper

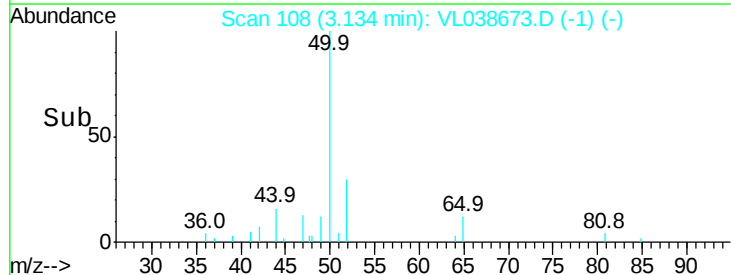
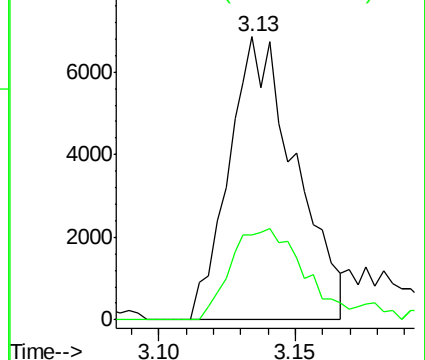
50 100

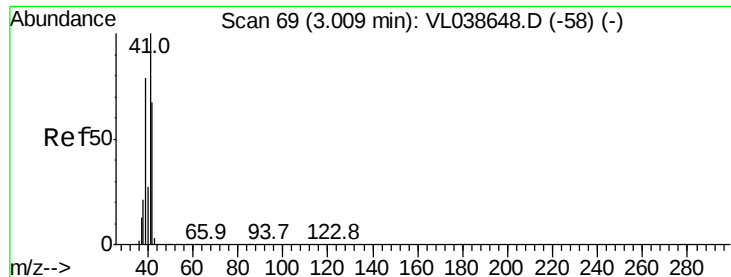
52 30.1 25.5 38.3



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.60 ppbv

RT: 3.01 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

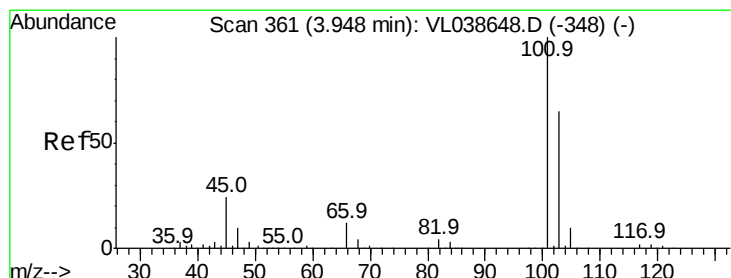
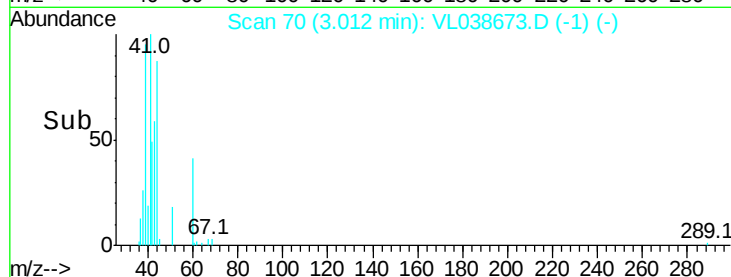
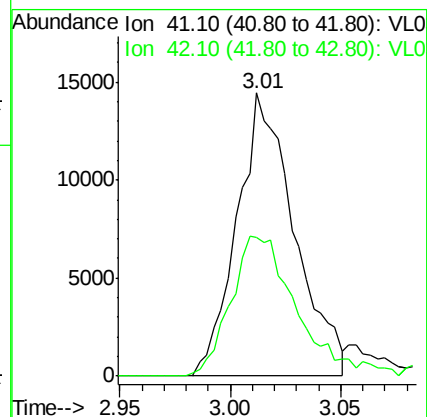
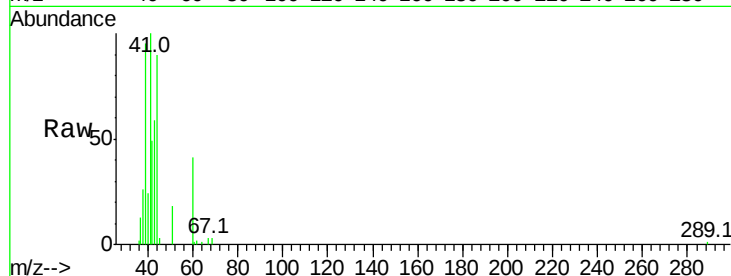
Acq: 22 Mar 2022 5:55

Tgt Ion: 41 Resp: 26093

Ion Ratio Lower Upper

41 100

42 58.9 56.2 84.4



#11

Trichlorofluoromethane

Concen: 0.22 ppbv

RT: 3.94 min Scan# 359

Delta R.T. -0.01 min

Lab File: VL038673.D

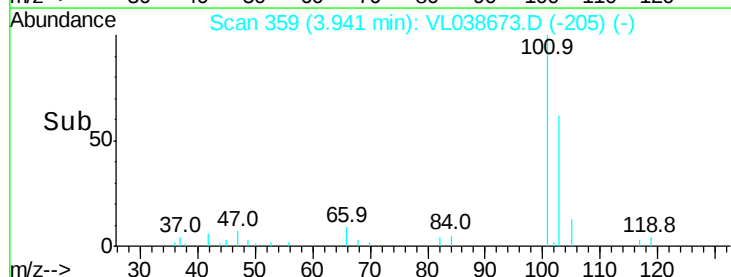
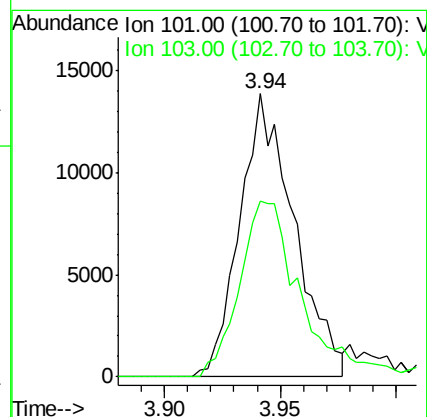
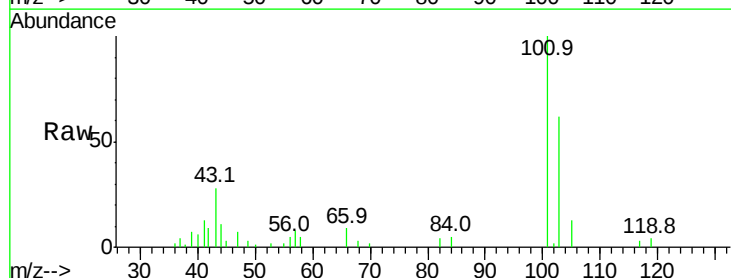
Acq: 22 Mar 2022 5:55

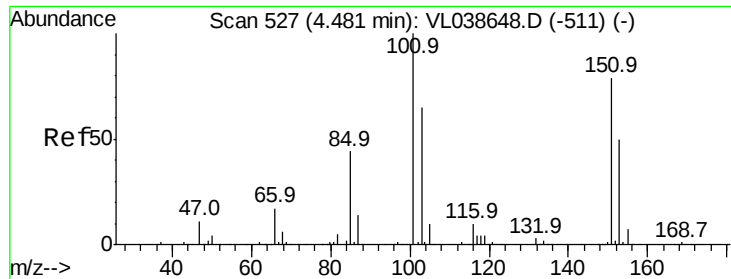
Tgt Ion: 101 Resp: 22502

Ion Ratio Lower Upper

101 100

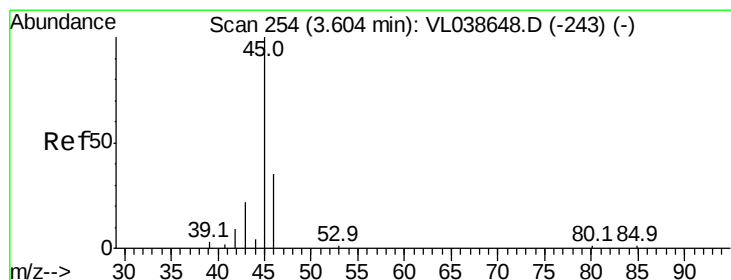
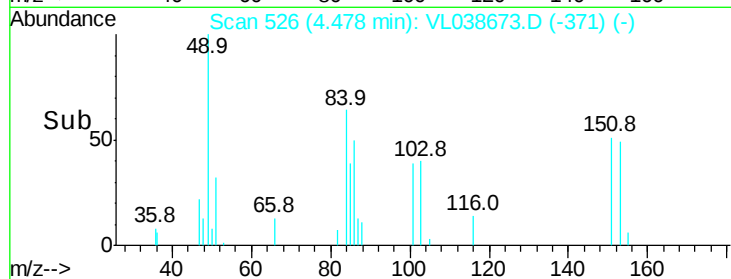
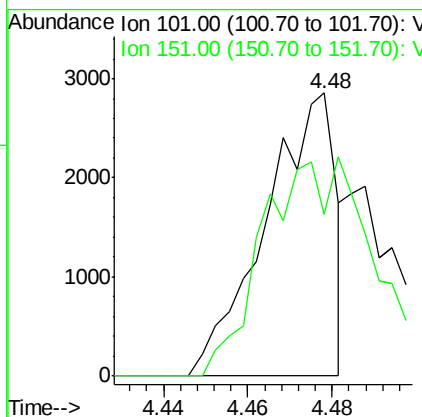
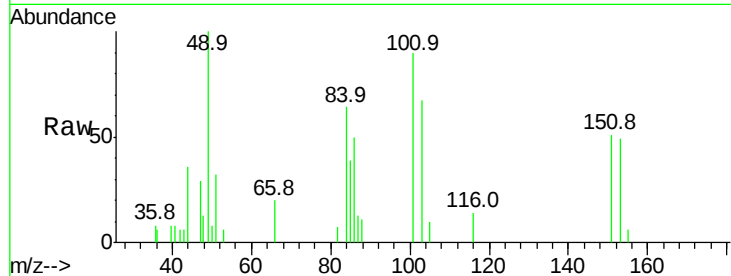
103 62.2 51.9 77.9





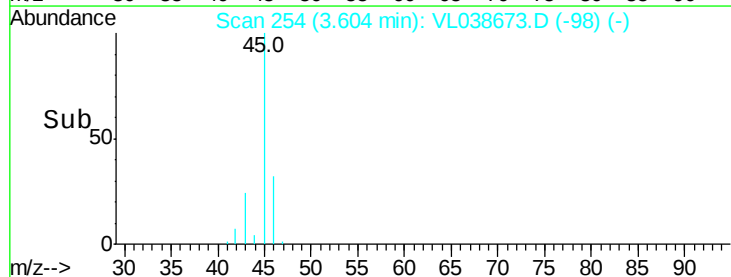
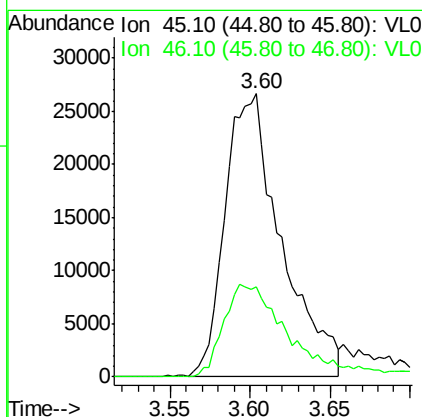
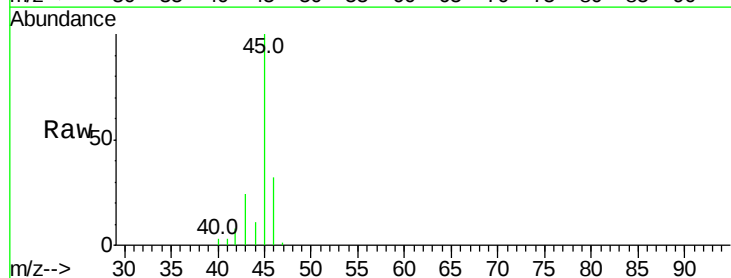
#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.04 ppbv
 RT: 4.48
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 22 Mar 2022 5:55

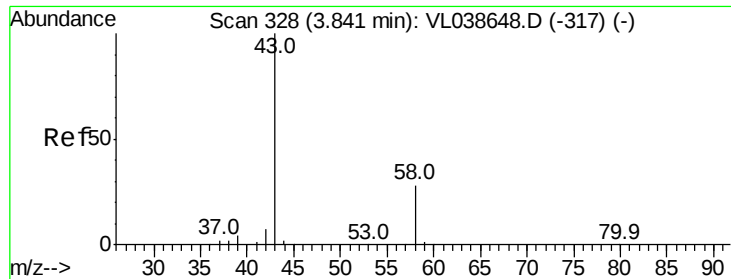
Tgt Ion: 101 Resp: 3296
 Ion Ratio Lower Upper
 101 100
 151 132.4 62.9 94.3#



#13
 Ethanol
 Concen: 13.30 ppbv
 RT: 3.60 min Scan# 254
 Delta R.T. 0.00 min
 Lab File: VL038673.D
 Acq: 22 Mar 2022 5:55

Tgt Ion: 45 Resp: 63963
 Ion Ratio Lower Upper
 45 100
 46 39.4 15.1 60.5





#15

Acetone

Concen: 2.46 ppbv

RT: 3.84 Instrument: MSVOA_1

Delta R.T. -0.02 min

Lab File: VL038673.D ClientSampleId: COP85

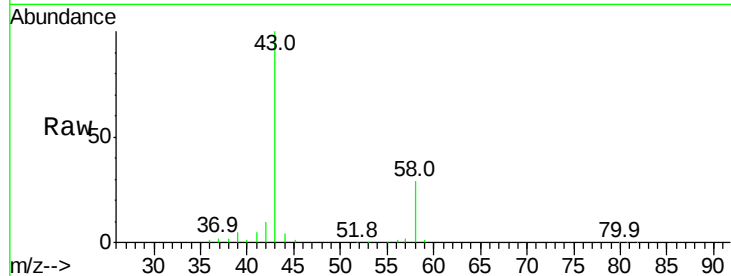
Acq: 22 Mar 2022 5:55

Tgt Ion: 43 Resp: 181389

Ion Ratio Lower Upper

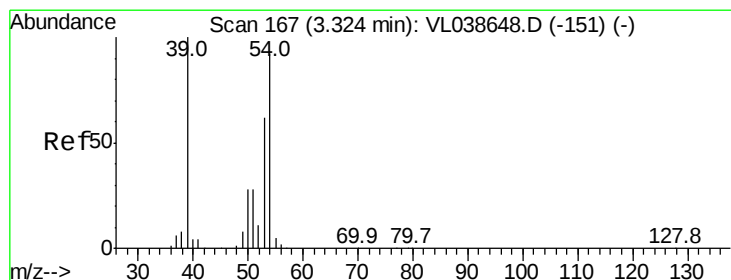
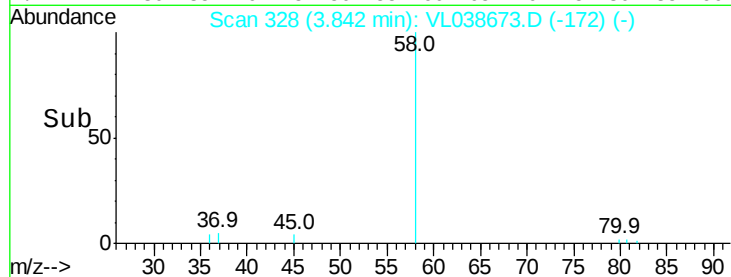
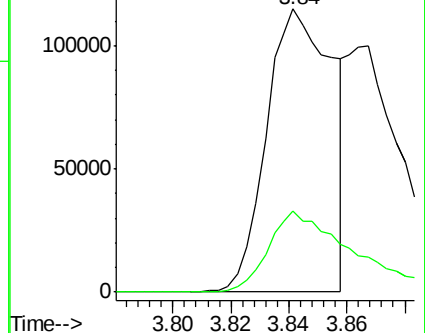
43 100

58 41.1 23.3 34.9#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.23 ppbv

RT: 3.30 min Scan# 161

Delta R.T. -0.02 min

Lab File: VL038673.D

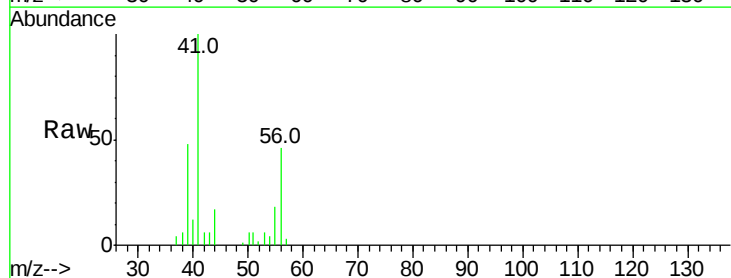
Acq: 22 Mar 2022 5:55

Tgt Ion: 39 Resp: 9515

Ion Ratio Lower Upper

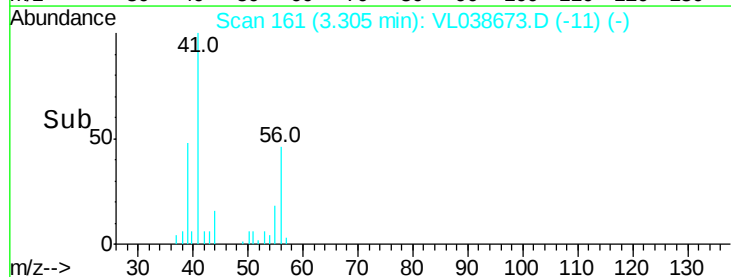
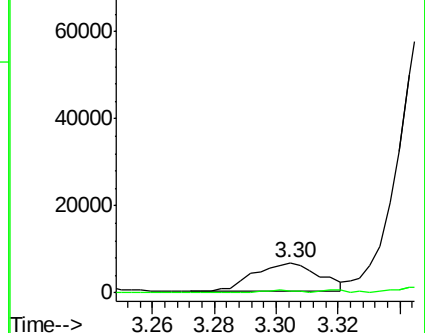
39 100

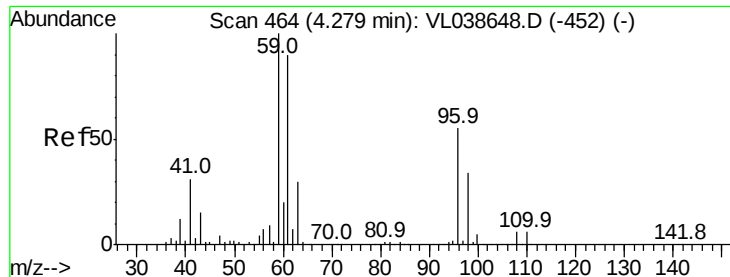
54 9.1 69.1 103.7#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#17

tert-Butyl alcohol

Concen: 0.06 ppbv

RT: 4.29 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

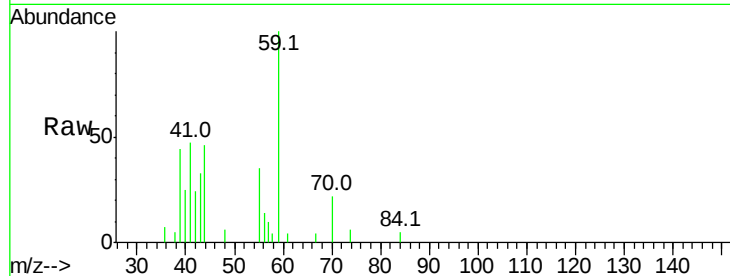
Acq: 22 Mar 2022 5:55

Tgt Ion: 59 Resp: 3888

Ion Ratio Lower Upper

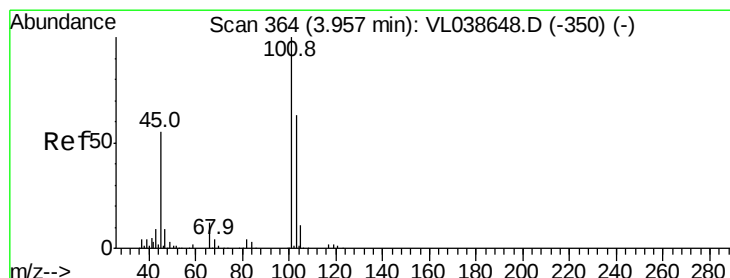
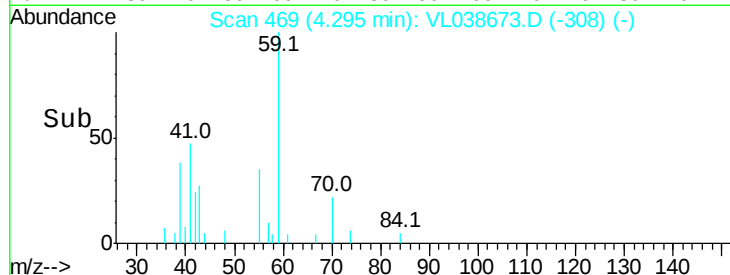
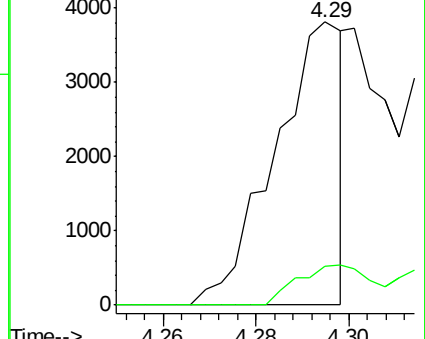
59 100

57 0.0 8.2 12.2#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#19

Isopropyl Alcohol

Concen: 0.05 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.02 min

Lab File: VL038673.D

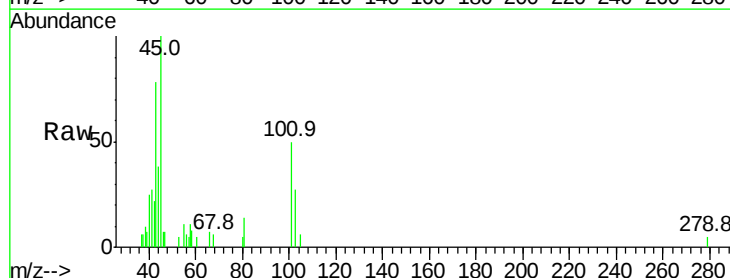
Acq: 22 Mar 2022 5:55

Tgt Ion: 45 Resp: 2224

Ion Ratio Lower Upper

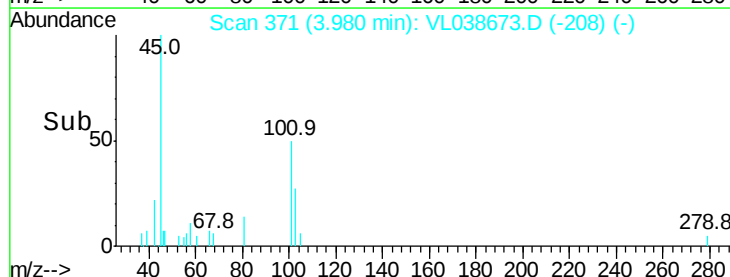
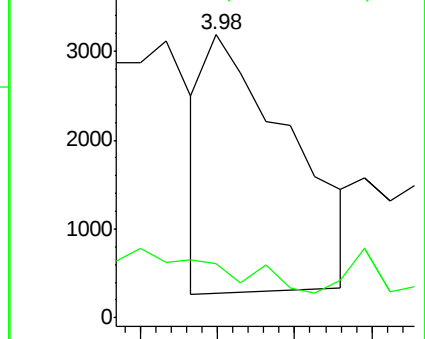
45 100

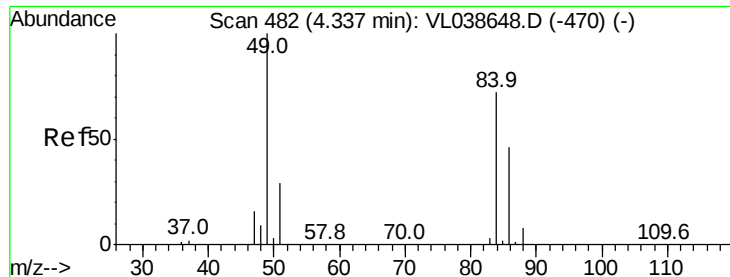
58 0.0 2.3 3.5#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





#20

Methylene Chloride

Concen: 19.90 ppbv

RT: 4.33 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 22 Mar 2022 5:55

Tgt Ion: 84 Resp: 618556

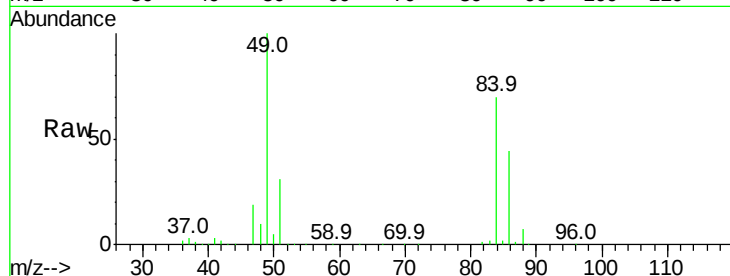
Ion Ratio Lower Upper

84 100

49 142.9 111.2 166.8

51 44.2 32.8 49.2

86 63.1 51.4 77.0

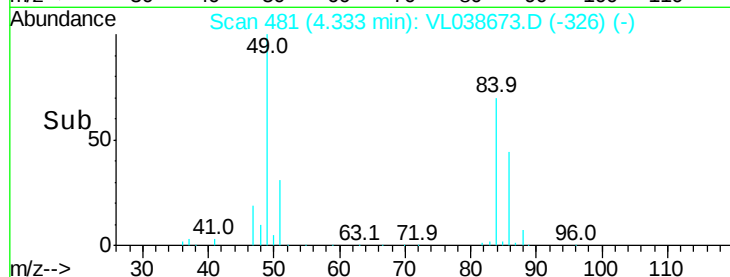


Abundance Ion 84.00 (83.70 to 84.70): VL0

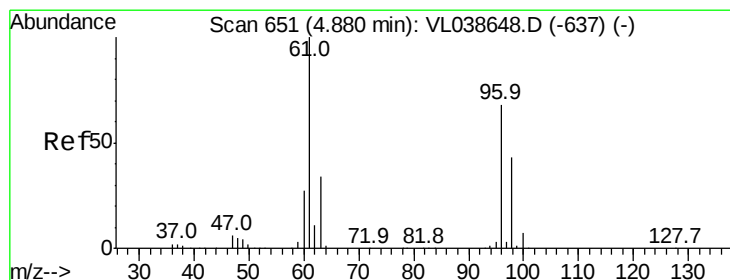
Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



Time-->



#22

trans-1,2-Dichloroethene

Concen: 0.03 ppbv

RT: 4.89 min Scan# 653

Delta R.T. 0.01 min

Lab File: VL038673.D

Acq: 22 Mar 2022 5:55

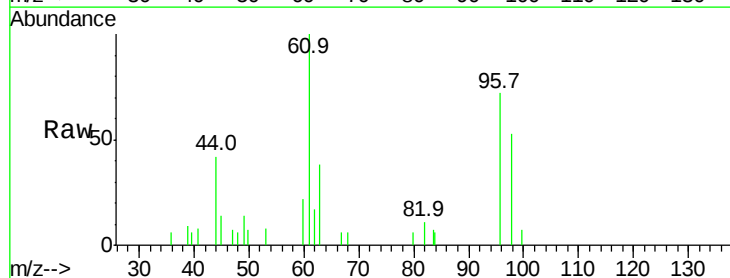
Tgt Ion: 96 Resp: 1062

Ion Ratio Lower Upper

96 100

61 171.5 118.3 177.5

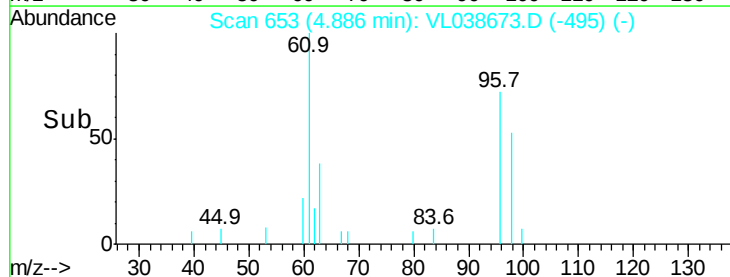
98 70.7 51.3 76.9



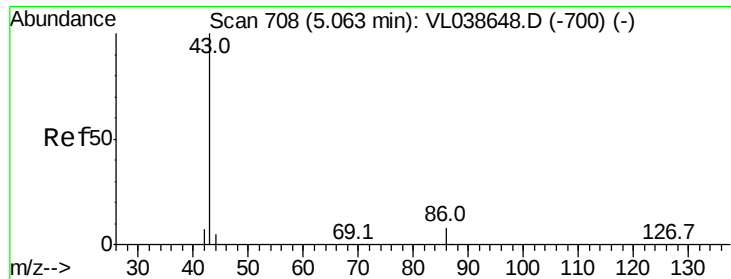
Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

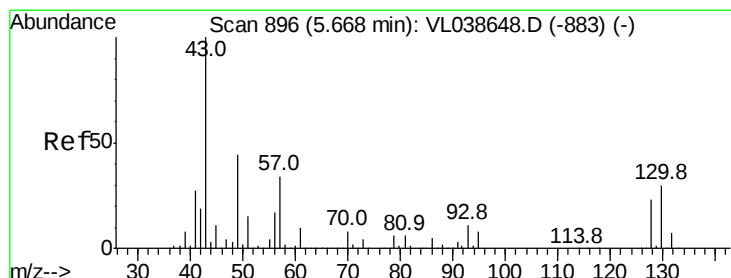
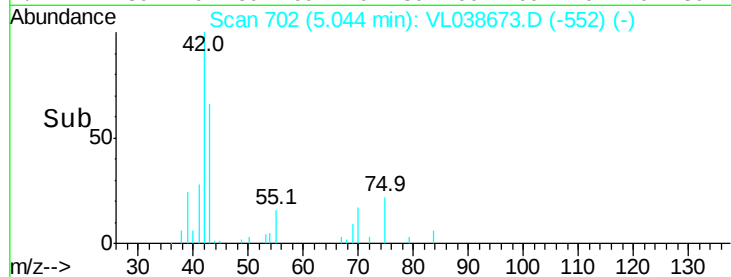
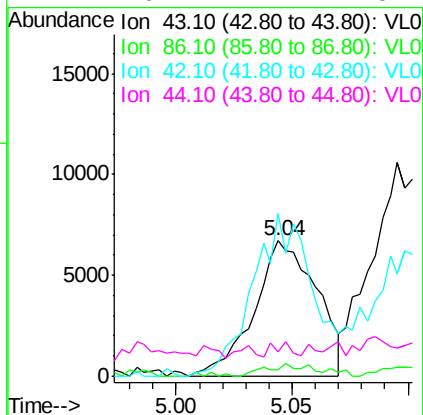
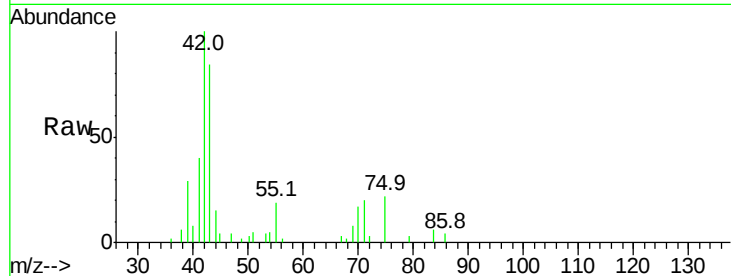


Time-->



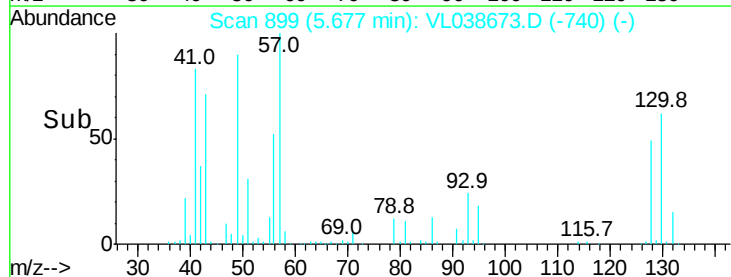
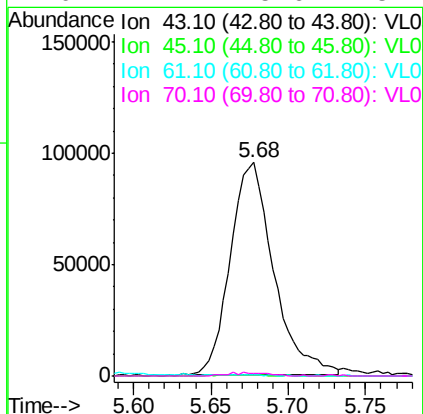
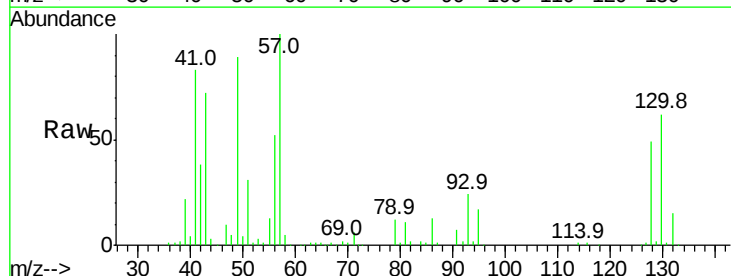
#23
 Vinyl Acetate
 Concen: 0.18 ppbv
 RT: 5.04
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 COP85
 Acq: 22 Mar 2022 5:55

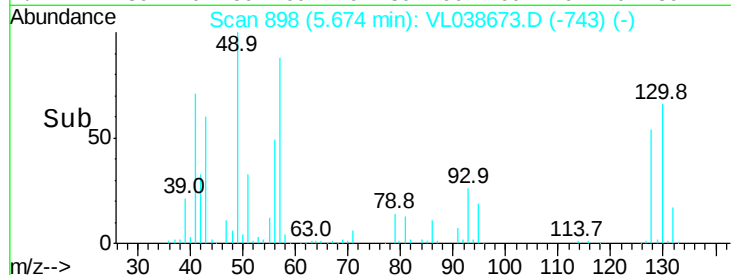
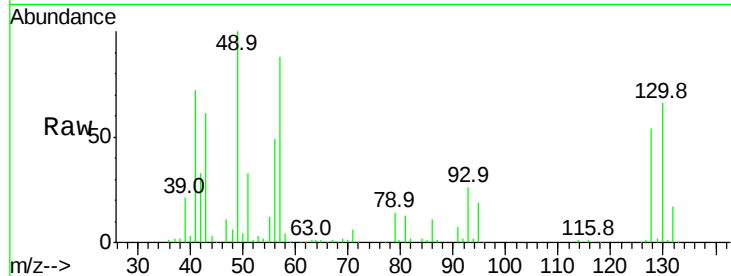
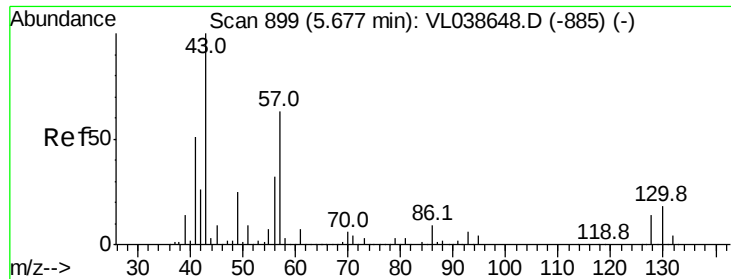
Tgt Ion:	43	Resp:	12599
Ion	Ratio	Lower	Upper
43	100		
86	5.8	5.6	8.4
42	144.8	6.8	10.2#
44	0.2	4.2	6.2#



#25
 Ethyl Acetate
 Concen: 1.00 ppbv
 RT: 5.68 min Scan# 899
 Delta R.T. 0.01 min
 Lab File: VL038673.D
 Acq: 22 Mar 2022 5:55

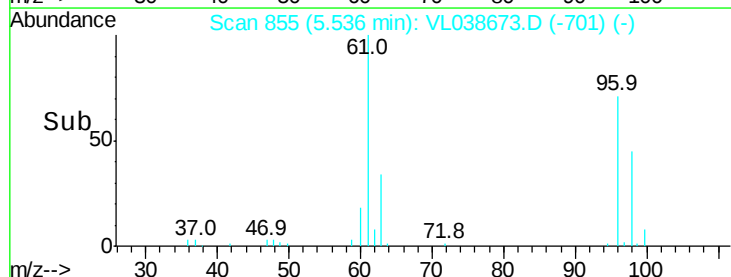
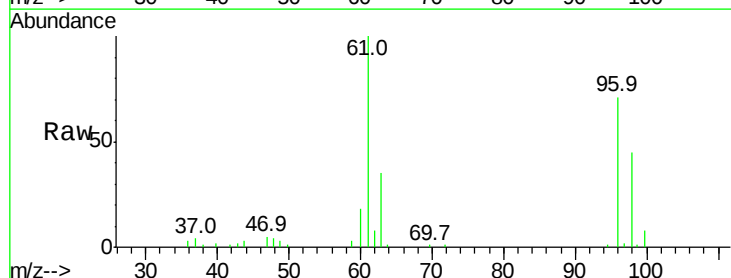
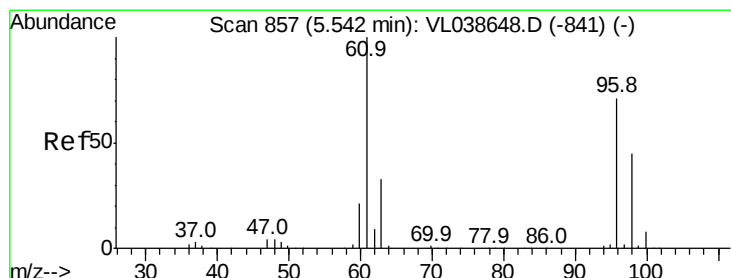
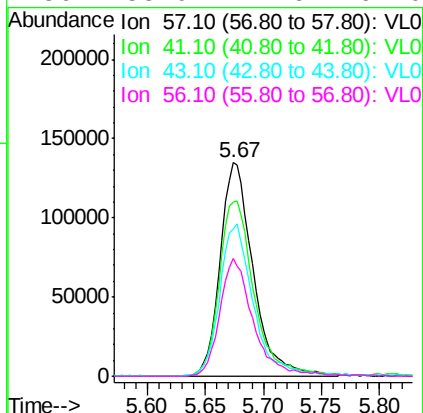
Tgt Ion:	43	Resp:	185228
Ion	Ratio	Lower	Upper
43	100		
45	0.8	8.2	12.4#
61	0.0	8.3	12.5#
70	1.7	5.6	8.4#





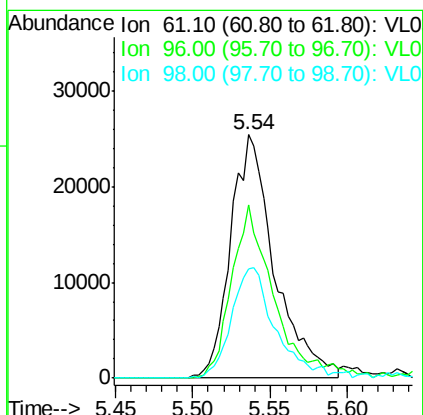
#26
Hexane
Concen: 3.21 ppbv
RT: 5.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 22 Mar 2022 5:55
COP85

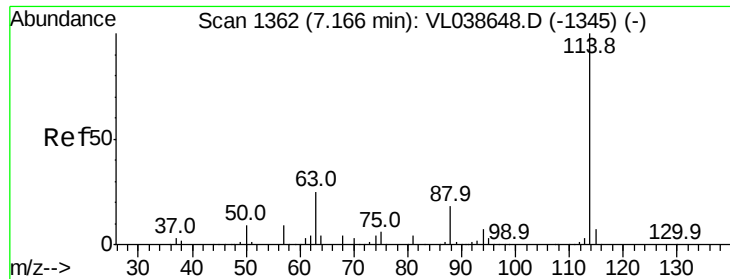
Tgt Ion	Ratio	Lower	Upper
57	100		
41	87.1	67.0	100.4
43	72.5	184.2	276.2#
56	55.9	42.6	64.0



#31
cis-1,2-Dichloroethene
Concen: 0.64 ppbv
RT: 5.54 min Scan# 855
Delta R.T. -0.01 min
Lab File: VL038673.D
Acq: 22 Mar 2022 5:55

Tgt Ion	Ratio	Lower	Upper
61	100		
96	71.4	56.6	84.8
98	45.8	36.3	54.5





#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.16 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 22 Mar 2022 5:55

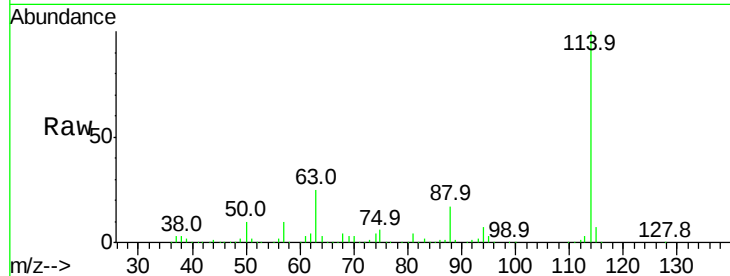
Tgt Ion: 114 Resp: 2154230

Ion Ratio Lower Upper

114 100

63 24.1 19.4 29.0

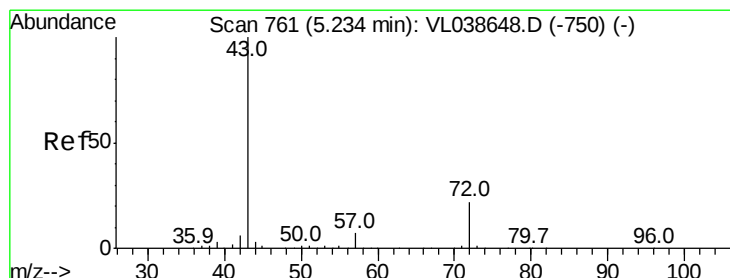
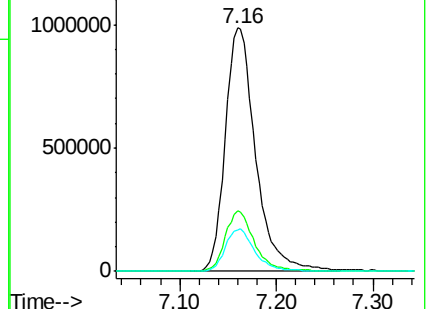
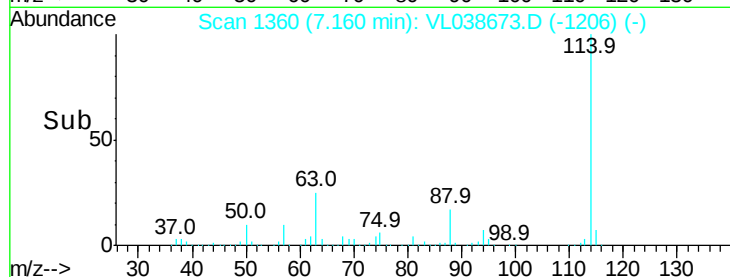
88 17.3 13.9 20.9



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 1.33 ppbv

RT: 5.24 min Scan# 762

Delta R.T. 0.00 min

Lab File: VL038673.D

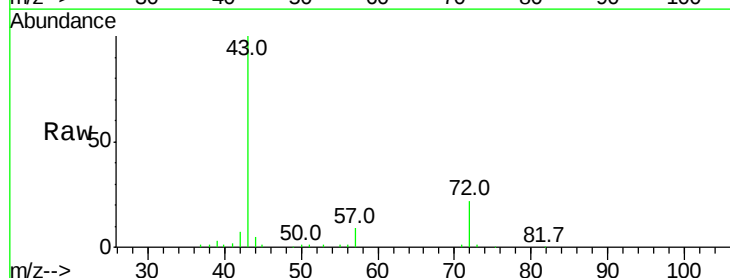
Acq: 22 Mar 2022 5:55

Tgt Ion: 43 Resp: 113397

Ion Ratio Lower Upper

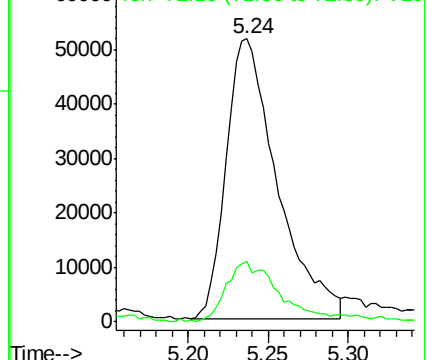
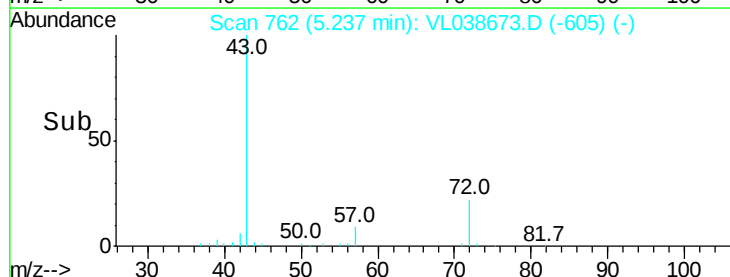
43 100

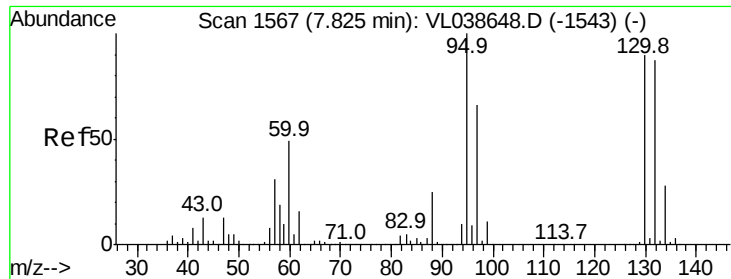
72 25.1 17.8 26.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#38

Trichloroethene

Concen: 0.62 ppbv

RT: 7.82 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 22 Mar 2022 5:55

Tgt Ion: 130 Resp: 43510

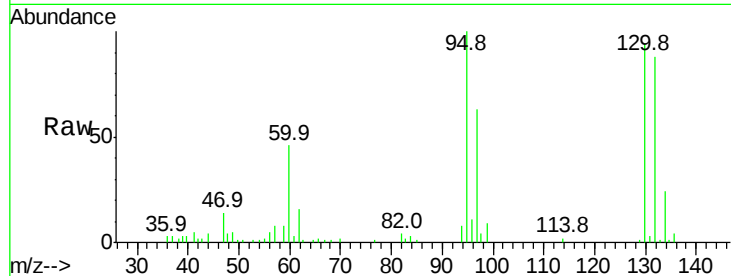
Ion Ratio Lower Upper

130 100

95 100.8 88.9 133.3

132 93.5 77.4 116.0

97 67.0 58.2 87.4

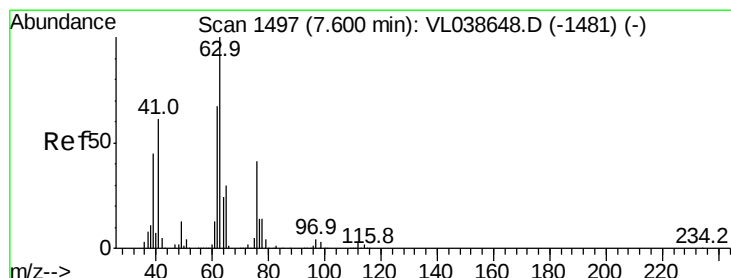
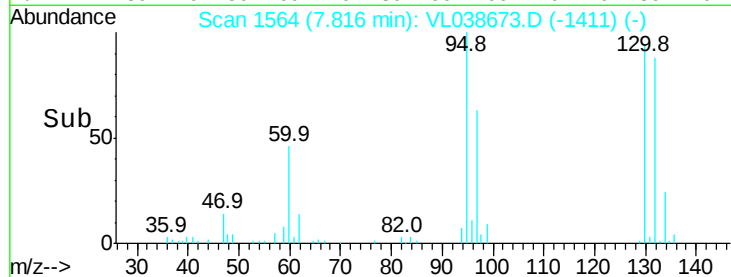
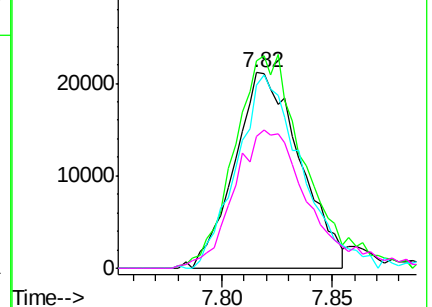


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#39

1,2-Dichloropropane

Concen: 7.87 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.44 min

Lab File: VL038673.D

Acq: 22 Mar 2022 5:55

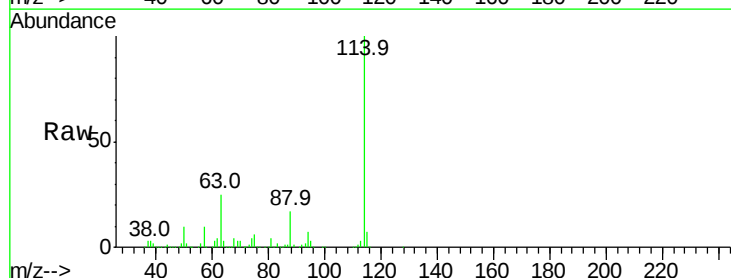
Tgt Ion: 63 Resp: 511212

Ion Ratio Lower Upper

63 100

41 0.0 49.0 73.6#

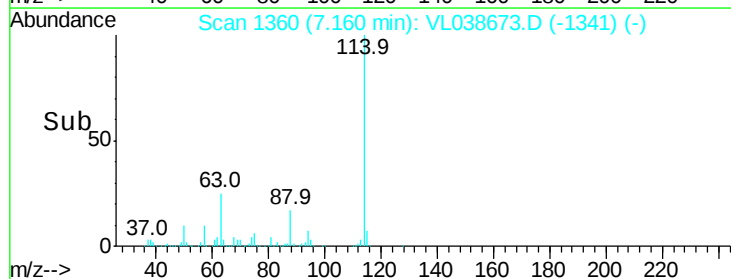
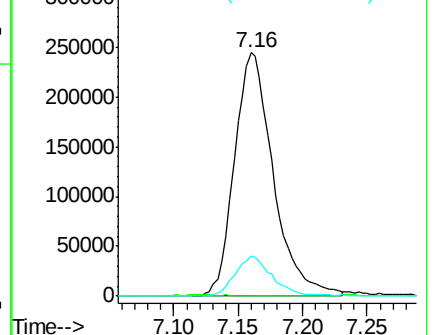
62 16.6 53.9 80.9#

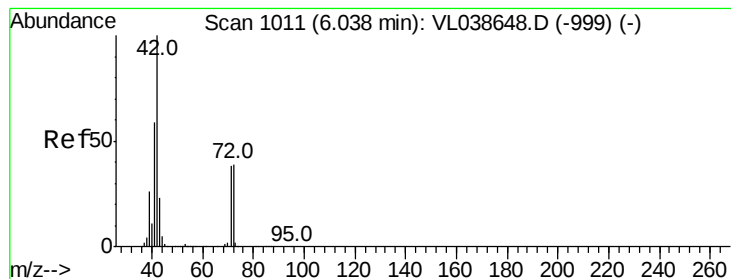


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#41

Tetrahydrofuran

Concen: 0.73 ppbv

RT: 6.05 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: COP85

Acq: 22 Mar 2022 5:55

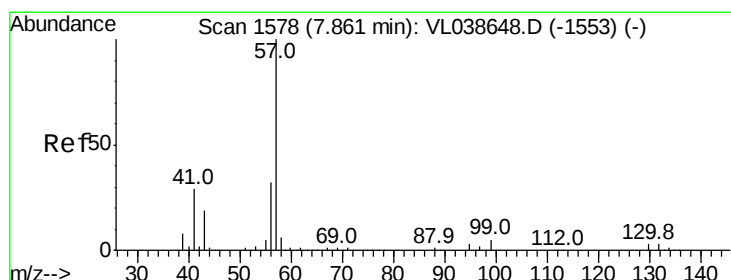
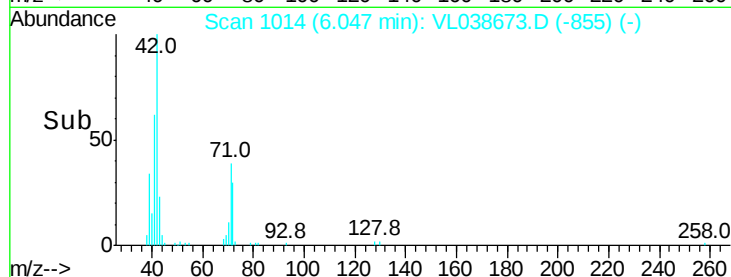
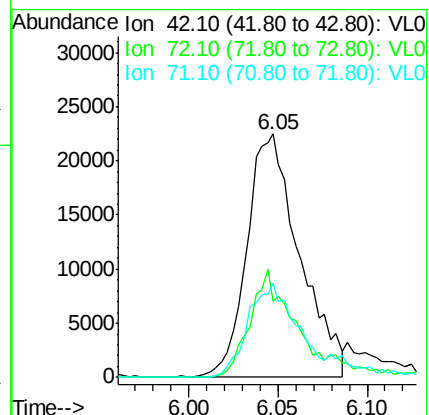
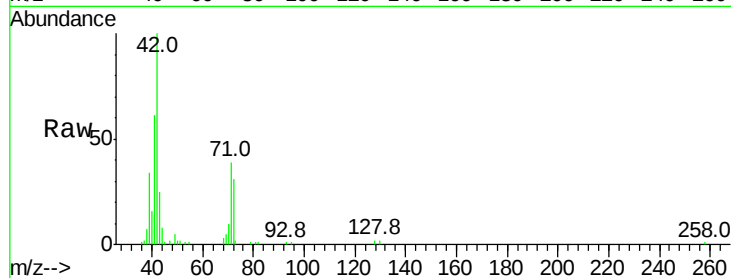
Tgt Ion: 42 Resp: 46393

Ion Ratio Lower Upper

42 100

72 42.0 32.5 48.7

71 41.5 31.4 47.2



#44

2,2,4-Trimethylpentane

Concen: 0.56 ppbv

RT: 7.85 min Scan# 1575

Delta R.T. -0.01 min

Lab File: VL038673.D

Acq: 22 Mar 2022 5:55

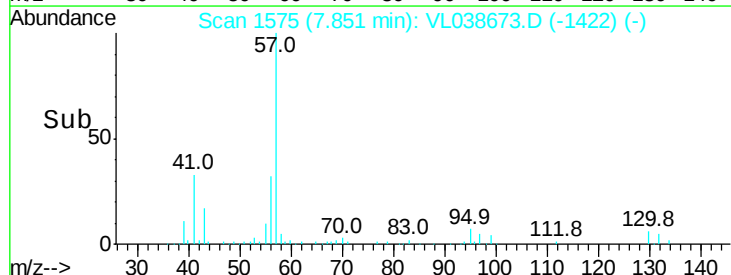
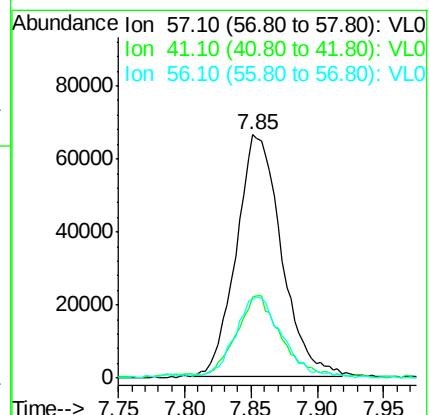
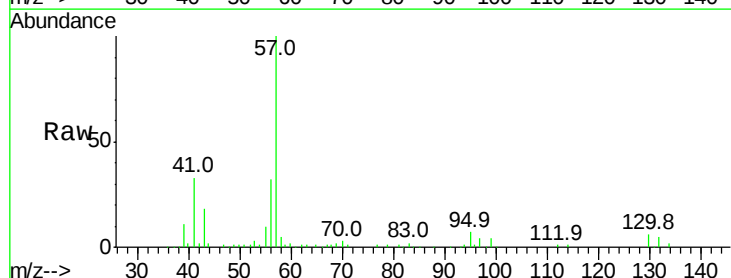
Tgt Ion: 57 Resp: 157153

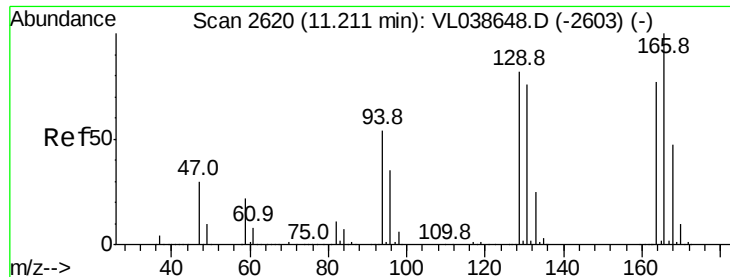
Ion Ratio Lower Upper

57 100

41 36.8 23.0 34.4#

56 37.2 25.3 37.9





#52

Tetrachloroethene

Concen: 12.92 ppbv

RT: 11.20

Delta R.T. MSVOA_L

Lab File:

Acq: 22 Mar 2022 5:55

ClientSampleId :

COP85

Tgt Ion:164 Resp: 786125

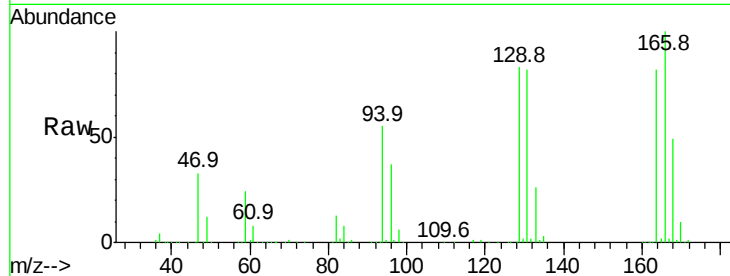
Ion Ratio Lower Upper

164 100

166 121.3 103.3 154.9

129 100.2 85.2 127.8

131 99.1 78.3 117.5

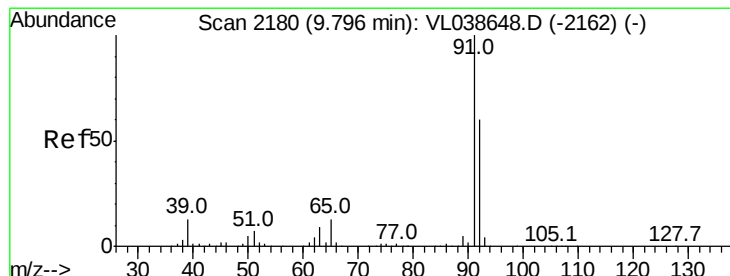
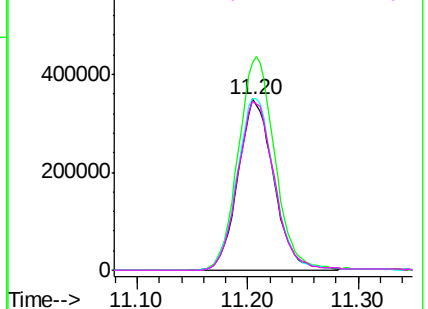
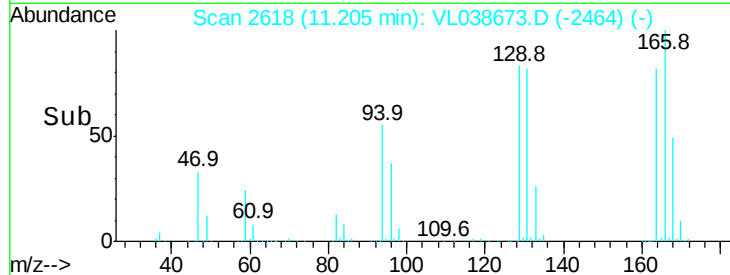


Abundance Ion 163.90 (163.60 to 164.60): V

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: 1.63 ppbv

RT: 9.79 min Scan# 2178

Delta R.T. -0.01 min

Lab File: VL038673.D

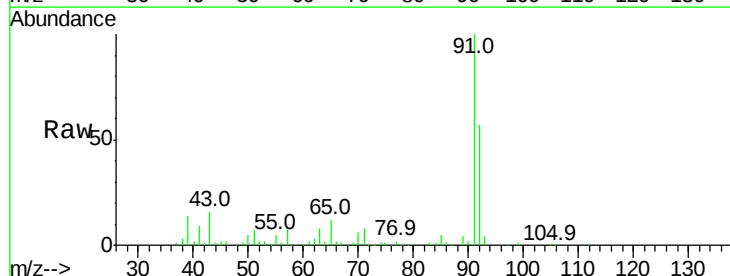
Acq: 22 Mar 2022 5:55

Tgt Ion: 91 Resp: 291594

Ion Ratio Lower Upper

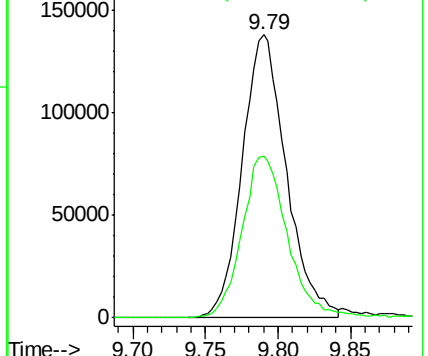
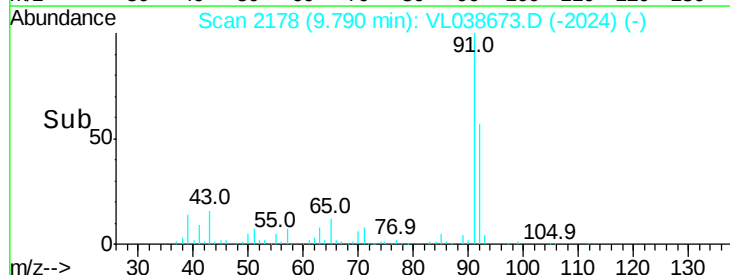
91 100

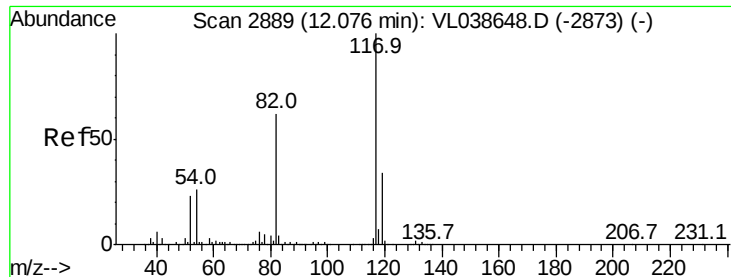
92 59.4 48.7 73.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

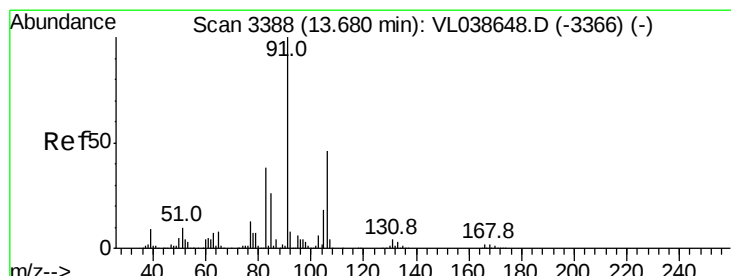
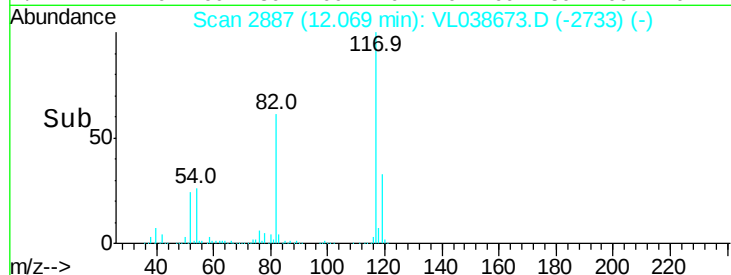
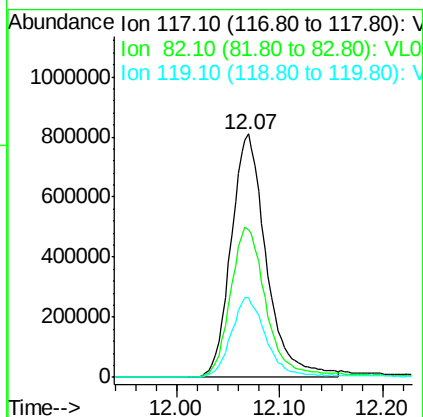
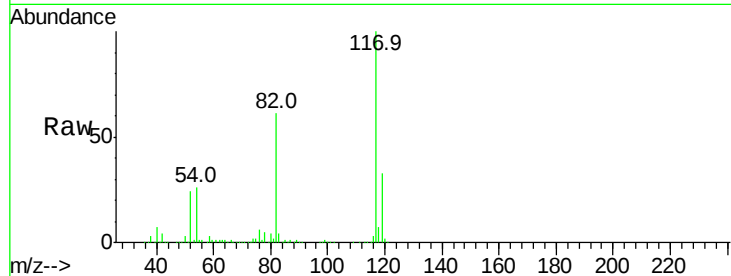
Ion 92.10 (91.80 to 92.80): VL0





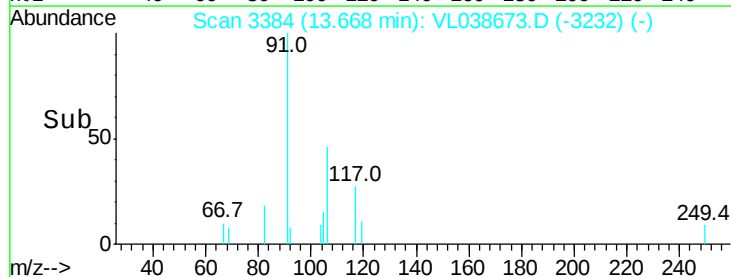
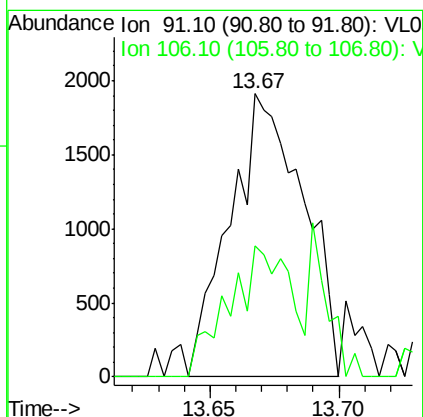
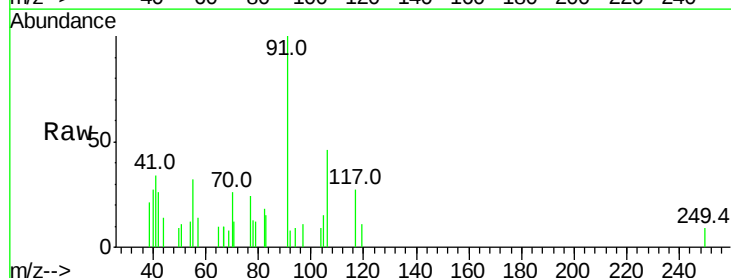
#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.07 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
COP85
Acq: 22 Mar 2022 5:55

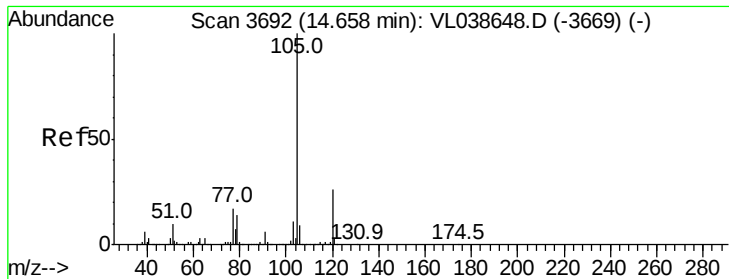
Tgt Ion: 117 Resp: 1926760
Ion Ratio Lower Upper
117 100
82 65.6 51.6 77.4
119 34.3 26.9 40.3



#60
o-Xylene
Concen: 0.02 ppbv
RT: 13.67 min Scan# 3384
Delta R.T. -0.01 min
Lab File: VL038673.D
Acq: 22 Mar 2022 5:55

Tgt Ion: 91 Resp: 3802
Ion Ratio Lower Upper
91 100
106 0.0 23.5 70.5#





#62

Isopropylbenzene

Concen: 0.04 ppbv

RT: 14.65

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

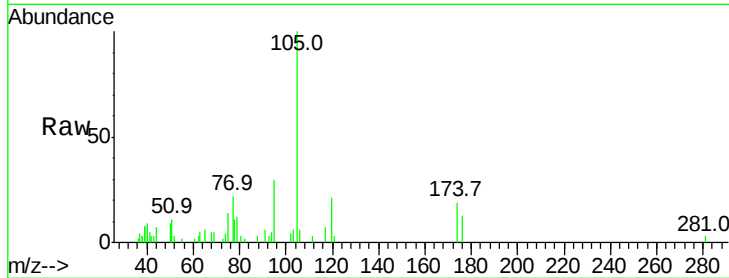
Acq: 22 Mar 2022 5:55

Tgt Ion: 105 Resp: 11771

Ion Ratio Lower Upper

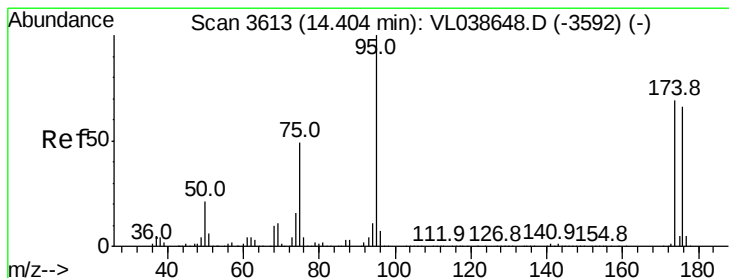
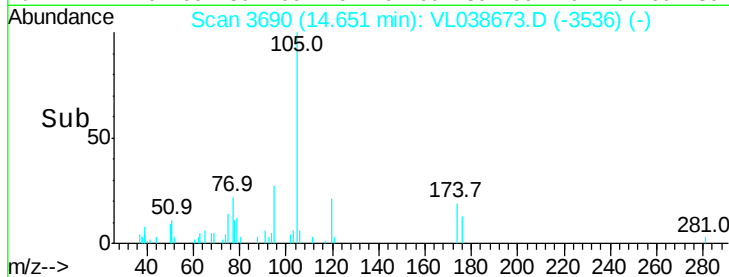
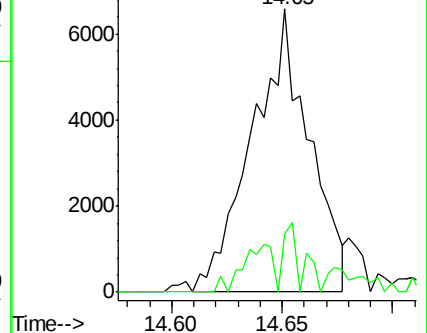
105 100

120 22.3 21.2 31.8



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 9.48 ppbv

RT: 14.40 min Scan# 3611

Delta R.T. -0.01 min

Lab File: VL038673.D

Acq: 22 Mar 2022 5:55

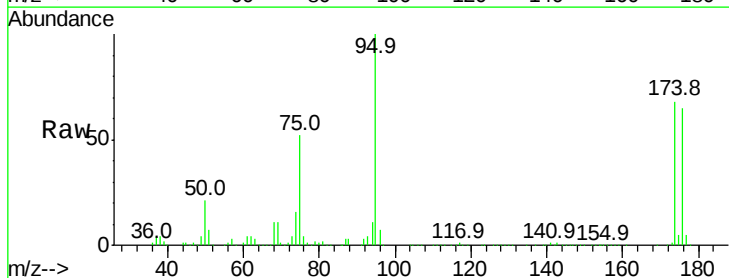
Tgt Ion: 95 Resp: 1400495

Ion Ratio Lower Upper

95 100

174 73.8 56.1 84.1

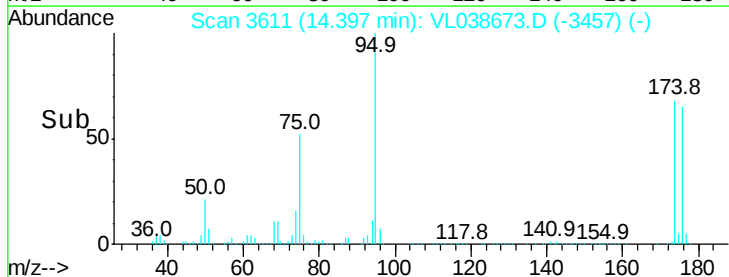
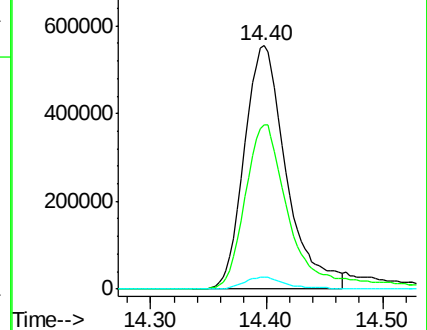
175 5.4 4.2 6.2

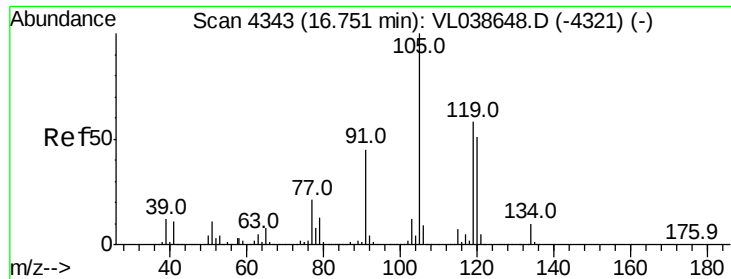


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#74

1,2,4-Trimethylbenzene

Concen: 0.03 ppbv

RT: 16.74

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 22 Mar 2022 5:55

Tgt Ion:105 Resp: 7654

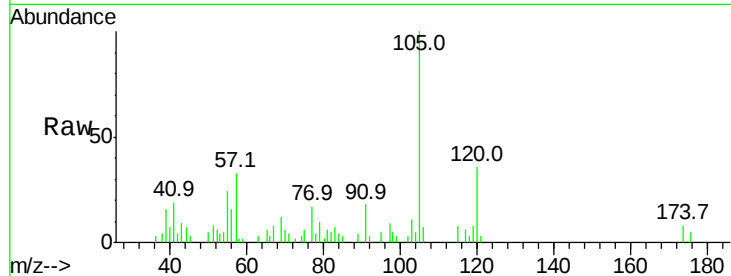
Ion Ratio Lower Upper

105 100

120 39.0 40.5 60.7#

91 12.3 35.9 53.9#

77 11.9 16.6 25.0#

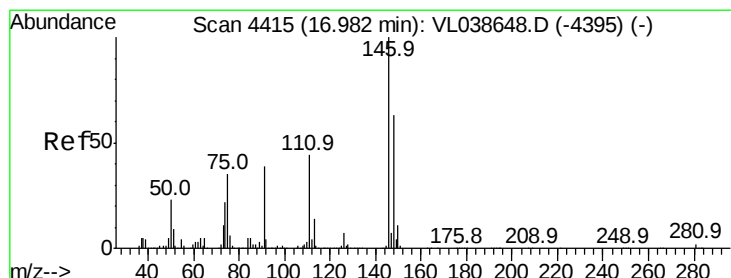
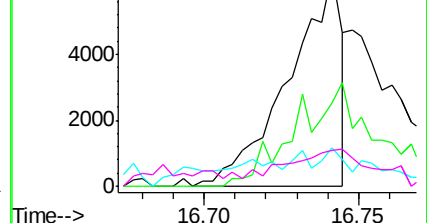
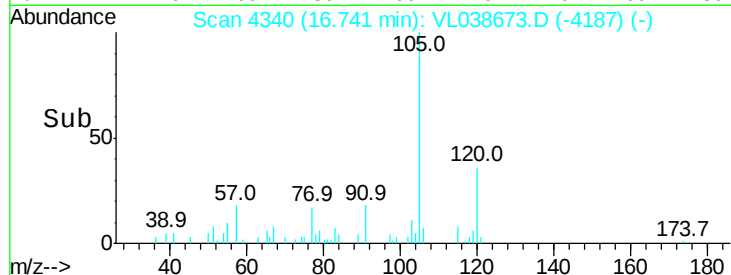


Abundance Ion 105.10 (104.80 to 105.80): V

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



#75

1,3-Dichlorobenzene

Concen: 0.02 ppbv

RT: 16.98 min Scan# 4414

Delta R.T. -0.00 min

Lab File: VL038673.D

Acq: 22 Mar 2022 5:55

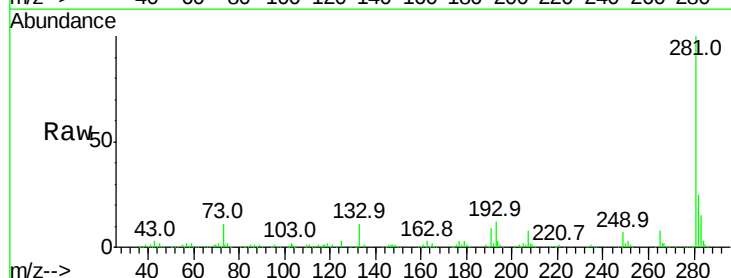
Tgt Ion:146 Resp: 2966

Ion Ratio Lower Upper

146 100

111 262.9 22.2 66.6#

148 149.2 32.5 97.5#



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V

