

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040921\
 Data File : VL036779.D
 Acq On : 9 Apr 2021 18:09
 Operator : SY/AP
 Sample : M1987-03
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 GOI-AA(2021)

Quant Time: Apr 10 02:01:16 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1309922	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	3081200	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.08	117	2431533	10.00	ppbv	-0.02

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.41	95	1694166	8.74	ppbv	-0.02	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	87.40%	

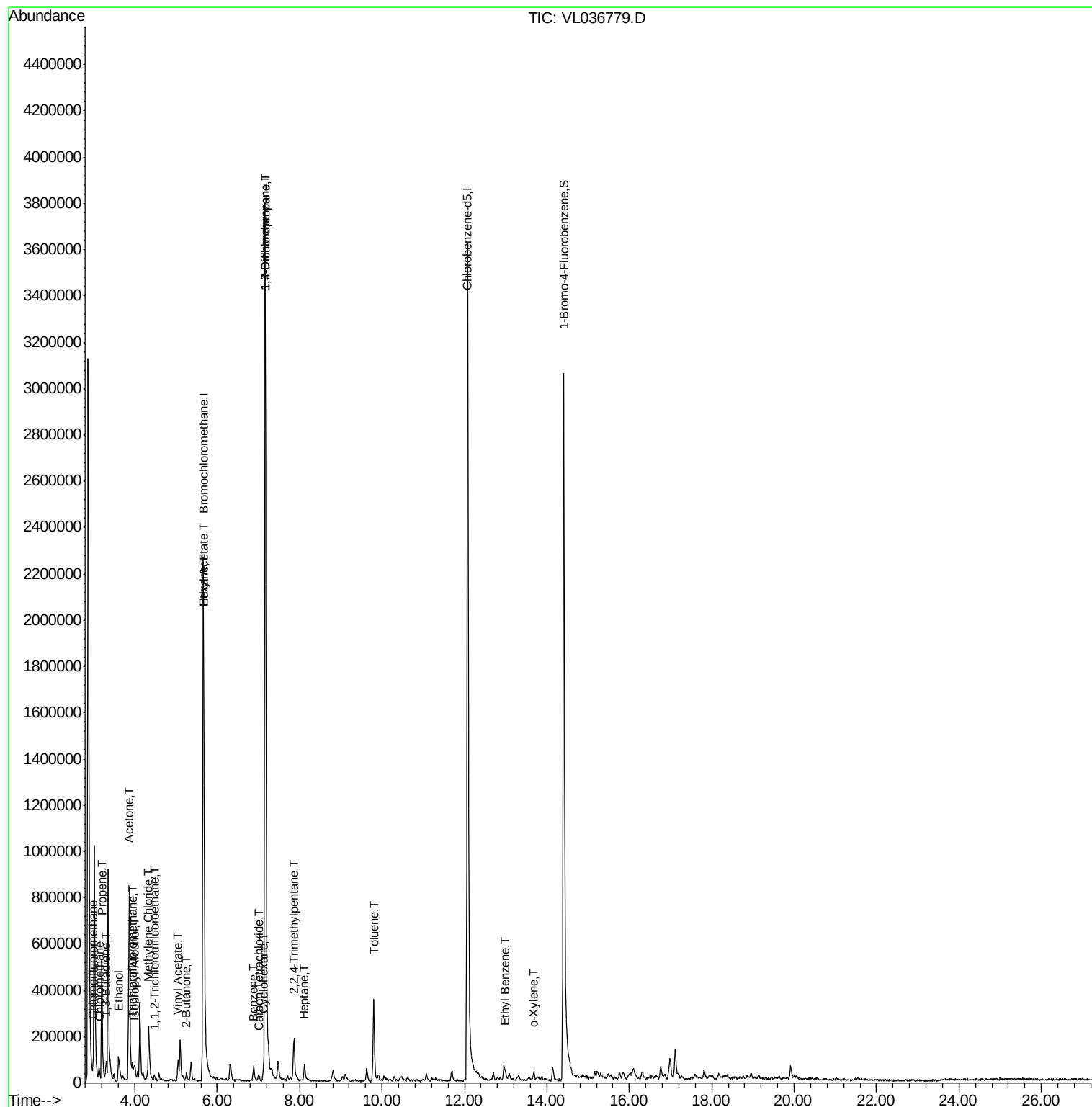
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.98	51	68031	0.278	ppbv	93
4) Chloromethane	3.13	50	50133	0.580	ppbv	92
9) Propene	3.20	41	165995	2.128	ppbv	97
10) Heptane	8.10	43	6419	0.032	ppbv #	28
11) Trichlorofluoromethane	3.94	101	40372	0.185	ppbv	86
12) 1,1,2-Trichlorotrifluoroet	4.48	101	6247	0.045	ppbv #	66
13) Ethanol	3.61	45	84197	9.062	ppbv #	58
15) Acetone	3.86	43	603468	4.681	ppbv #	83
16) 1,3-Butadiene	3.30	39	26663	0.297	ppbv #	13
19) Isopropyl Alcohol	3.98	45	25247	0.356	ppbv #	89
20) Methylene Chloride	4.33	84	79612	1.319	ppbv #	85
23) Vinyl Acetate	5.05	43	27673	0.125	ppbv #	21
25) Ethyl Acetate	5.68	43	135356	0.442	ppbv #	87
26) Hexane	5.68	57	149690	1.052	ppbv #	50
30) Cyclohexane	7.12	84	3471	0.030	ppbv #	1
34) 2-Butanone	5.25	43	29036	0.193	ppbv #	55
35) Carbon Tetrachloride	7.01	117	7827	0.033	ppbv	95
36) Benzene	6.88	78	31203	0.110	ppbv #	94
39) 1,2-Dichloropropane	7.16	63	825032	7.157	ppbv #	24
44) 2,2,4-Trimethylpentane	7.86	57	142524	0.285	ppbv #	80
53) Toluene	9.80	91	239090	0.790	ppbv	99
58) Ethyl Benzene	13.00	91	12052	0.034	ppbv	98
60) o-Xylene	13.68	91	11602	0.039	ppbv #	34

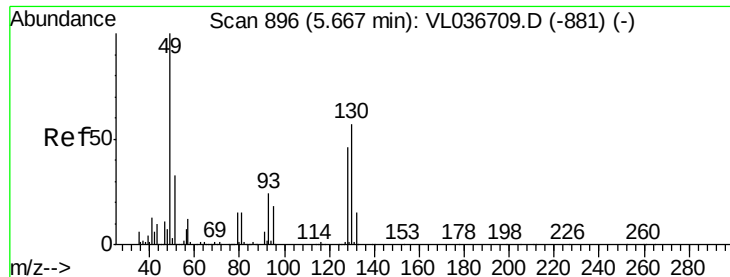
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.02 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

Instrument :

MSVOA_L

ClientSampleId :

GOI-AA(2021)

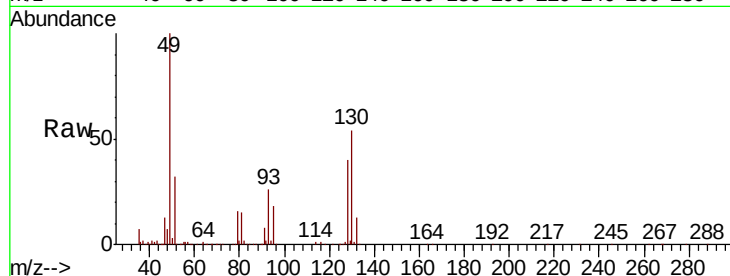
Tot Ion: 49 Resp: 1309922

Ion Ratio Lower Upper

49 100

128 44.9 23.5 70.6

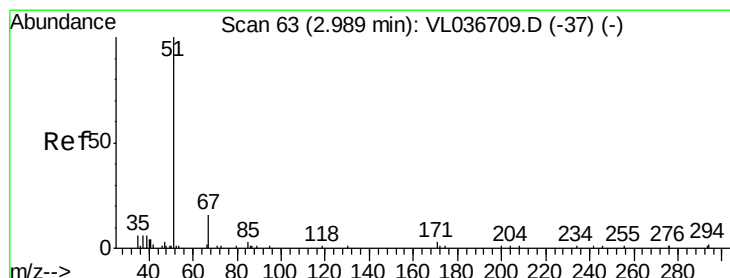
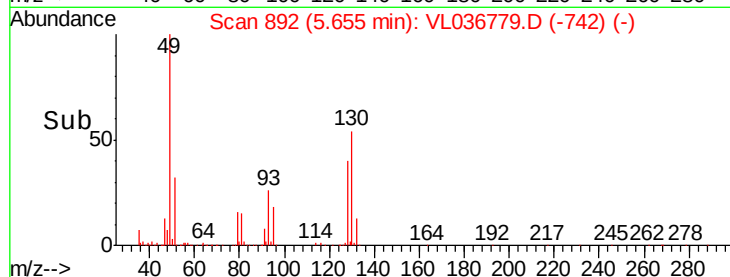
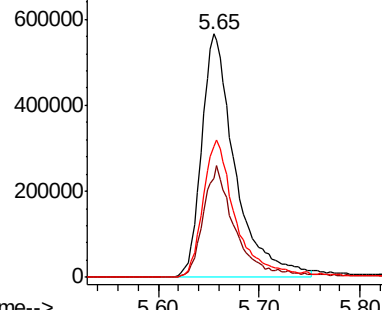
130 57.1 29.1 87.4



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



#3

Chlorodifluoromethane

Concen: 0.278 ppbv

RT: 2.98 min Scan# 59

Delta R.T. -0.01 min

Lab File: VL036779.D

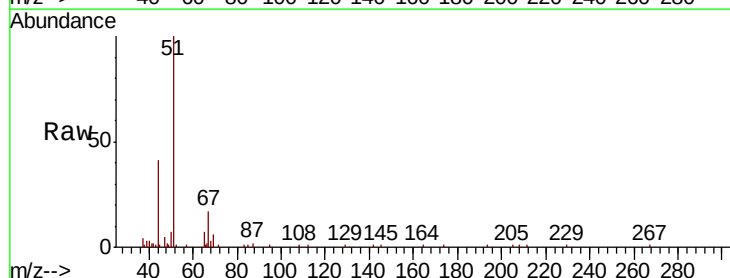
Acq: 9 Apr 2021 18:09

Tgt Ion: 51 Resp: 68031

Ion Ratio Lower Upper

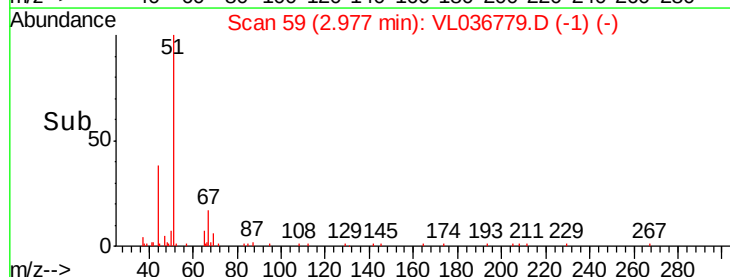
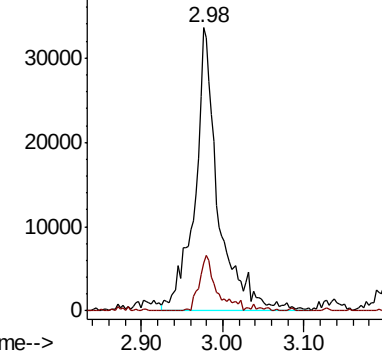
51 100

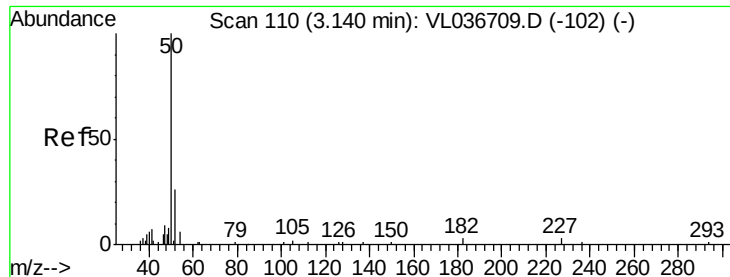
67 15.4 14.7 22.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.580 ppbv

RT: 3.13 min Scan# 108

Delta R.T. -0.01 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

Instrument :

MSVOA_L

ClientSampleId :

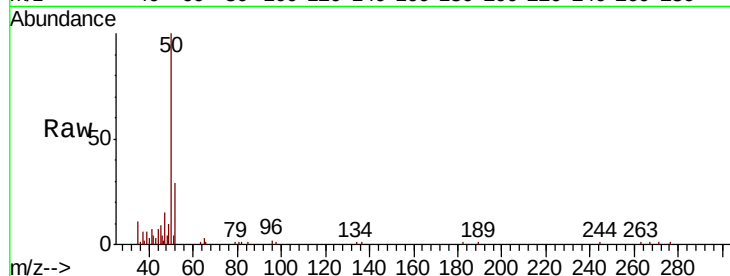
GOI-AA(2021)

Tot Ion: 50 Resp: 50133

Ion Ratio Lower Upper

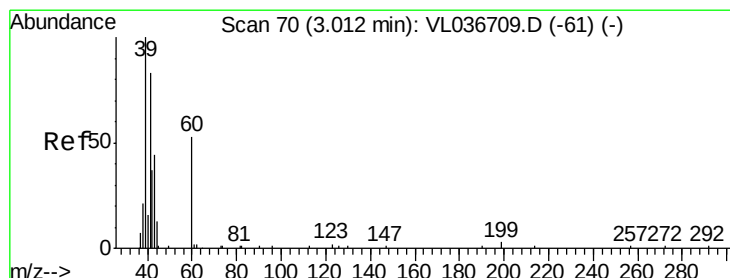
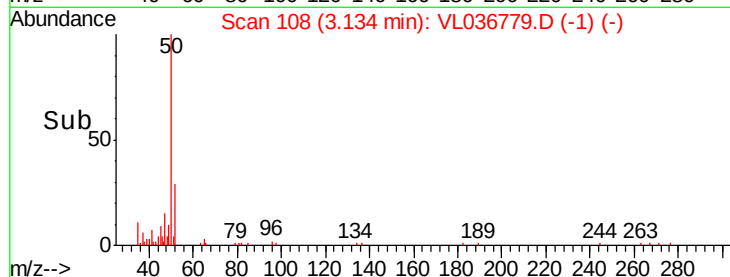
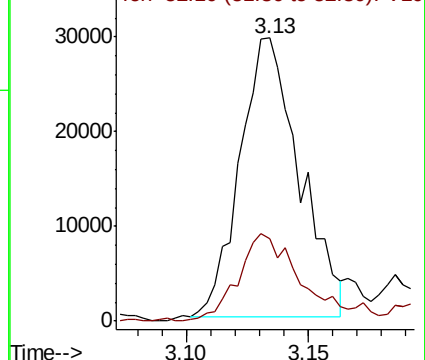
50 100

52 29.1 27.0 40.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#9

Propene

Concen: 2.128 ppbv

RT: 3.20 min Scan# 127

Delta R.T. 0.19 min

Lab File: VL036779.D

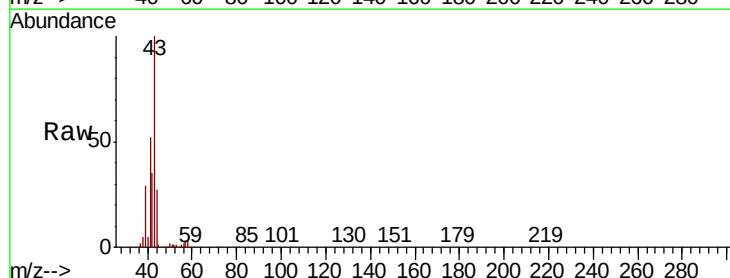
Acq: 9 Apr 2021 18:09

Tgt Ion: 41 Resp: 165995

Ion Ratio Lower Upper

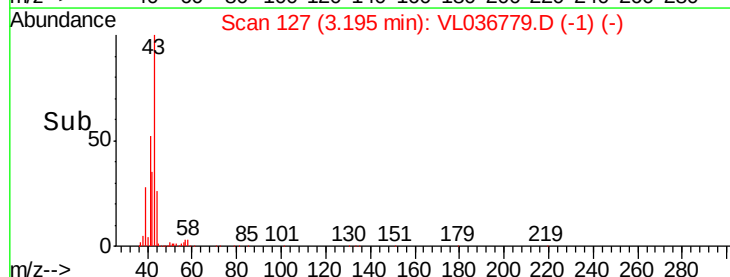
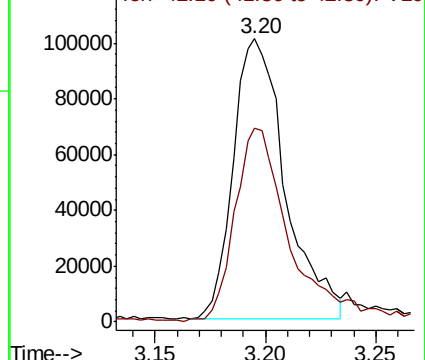
41 100

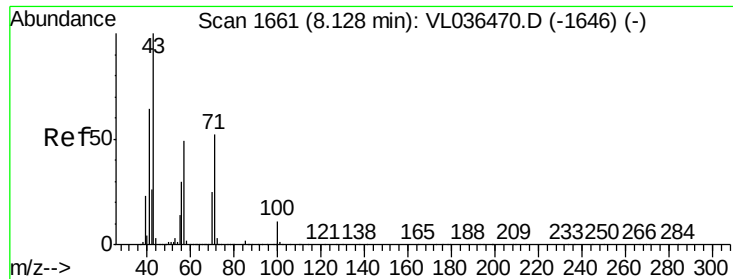
42 73.8 57.0 85.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

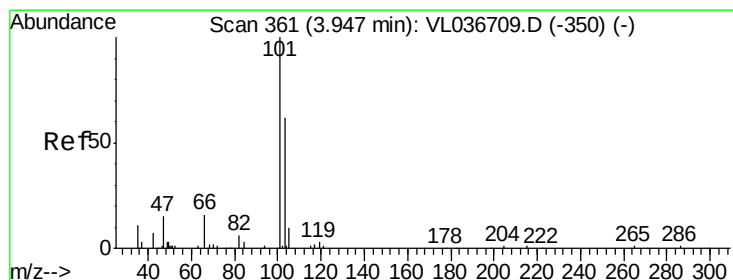
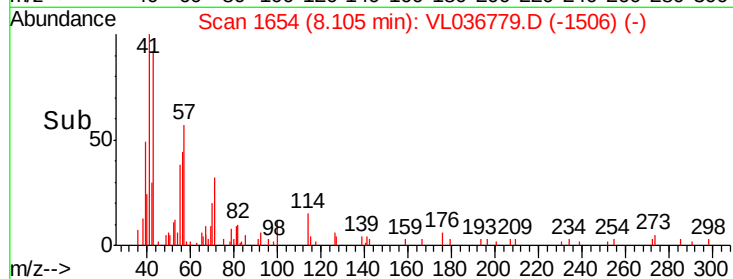
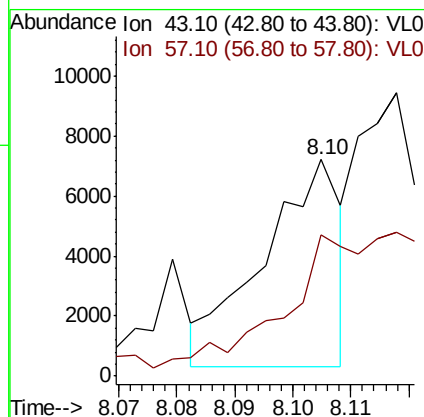
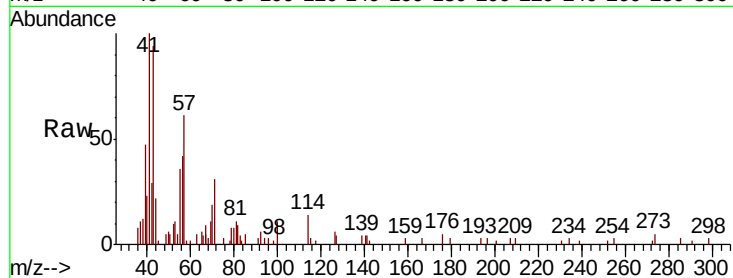




#10
Heptane
Concen: 0.032 ppbv
RT: 8.10 min Scan# 1654
Delta R.T. -0.02 min
Lab File: VL036779.D
Acq: 9 Apr 2021 18:09

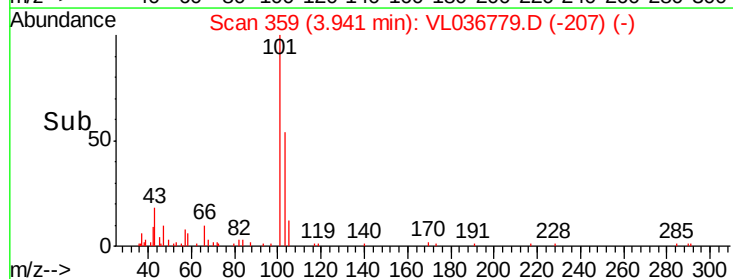
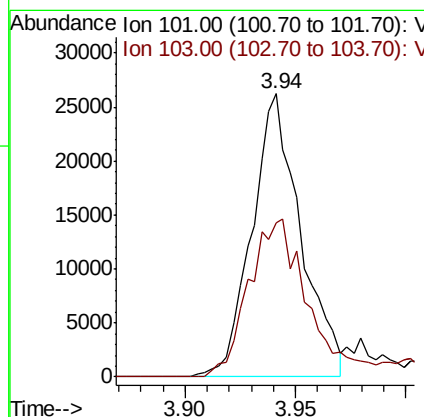
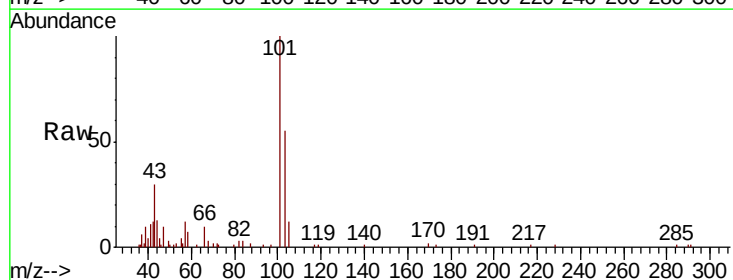
Instrument :
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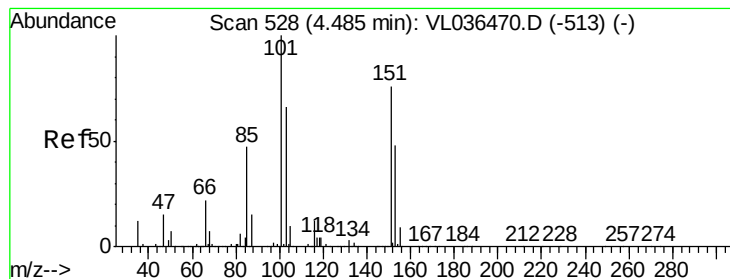
Tot Ion: 43 Resp: 6419
Ion Ratio Lower Upper
43 100
57 0.0 39.0 58.6#



#11
Trichlorofluoromethane
Concen: 0.185 ppbv
RT: 3.94 min Scan# 359
Delta R.T. -0.01 min
Lab File: VL036779.D
Acq: 9 Apr 2021 18:09

Tgt Ion:101 Resp: 40372
Ion Ratio Lower Upper
101 100
103 54.6 52.5 78.7





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.045 ppbv

RT: 4.48 min Scan# 526

Delta R.T. -0.01 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

Instrument :

MSVOA_L

ClientSampleId :

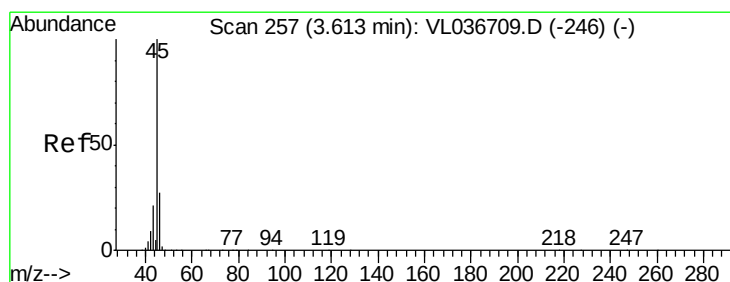
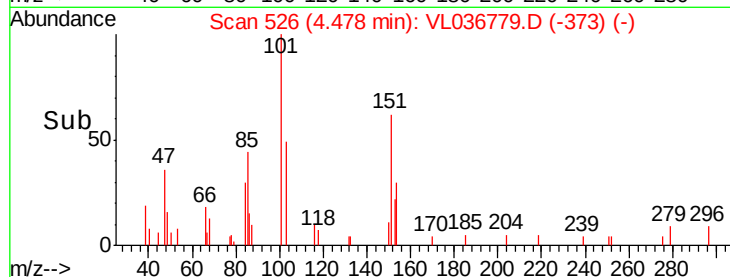
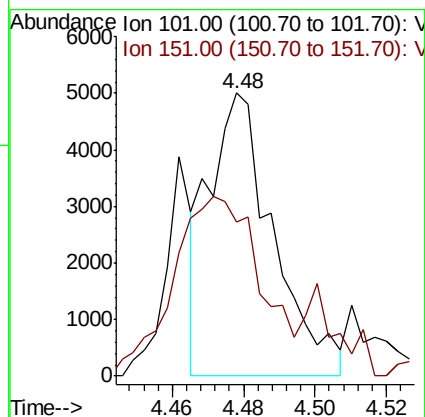
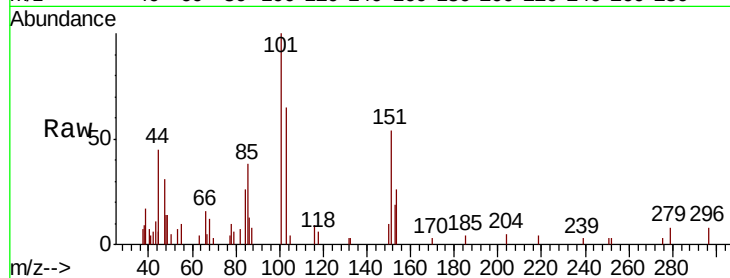
GOI-AA(2021)

Tot Ion:101 Resp: 6247

Ion Ratio Lower Upper

101 100

151 105.1 60.9 91.3#



#13

Ethanol

Concen: 9.062 ppbv

RT: 3.61 min Scan# 256

Delta R.T. 0.00 min

Lab File: VL036779.D

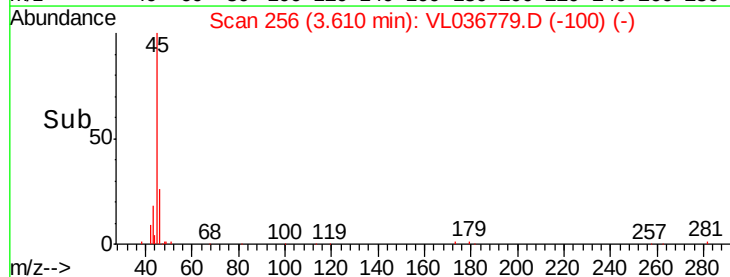
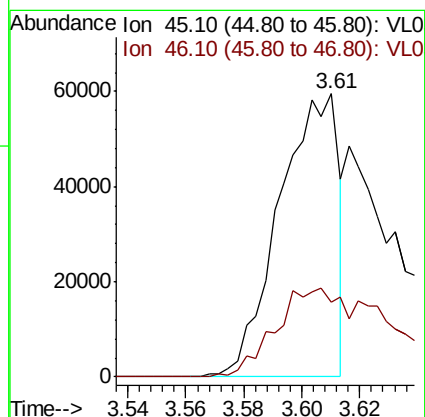
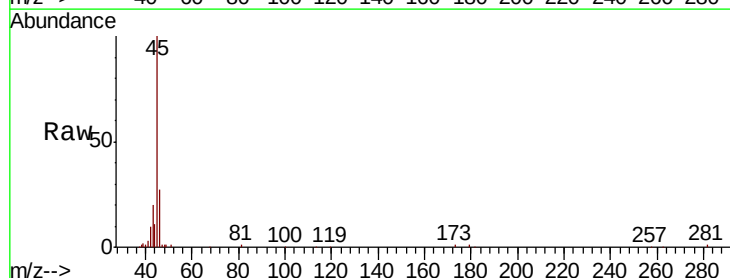
Acq: 9 Apr 2021 18:09

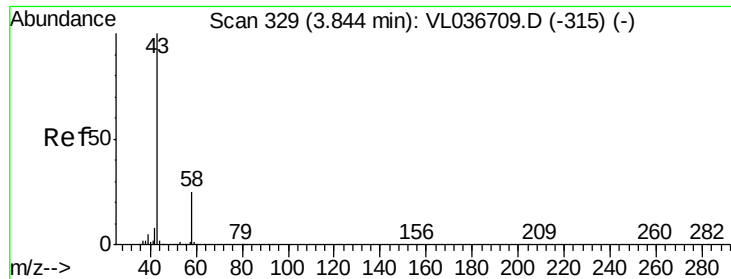
Tgt Ion: 45 Resp: 84197

Ion Ratio Lower Upper

45 100

46 68.1 16.6 66.2#





#15

Acetone

Concen: 4.681 ppbv

RT: 3.86 min Scan# 334

Delta R.T. 0.01 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

Instrument :

MSVOA_L

ClientSampleId :

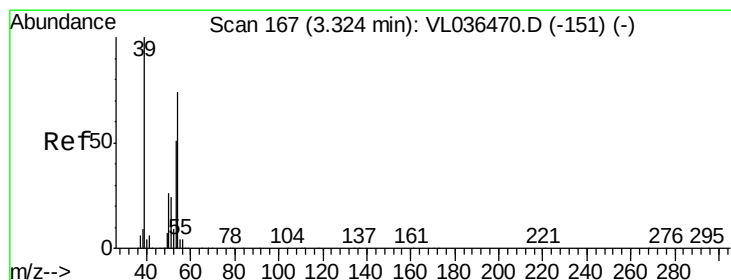
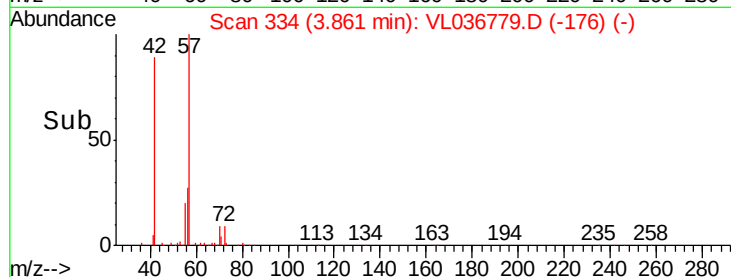
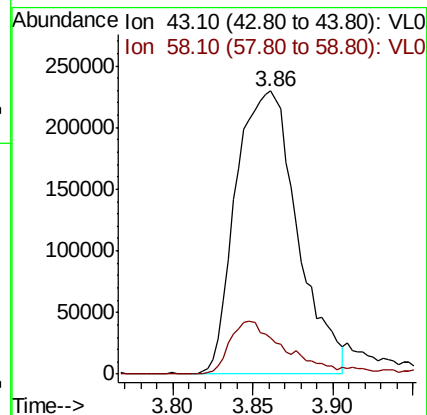
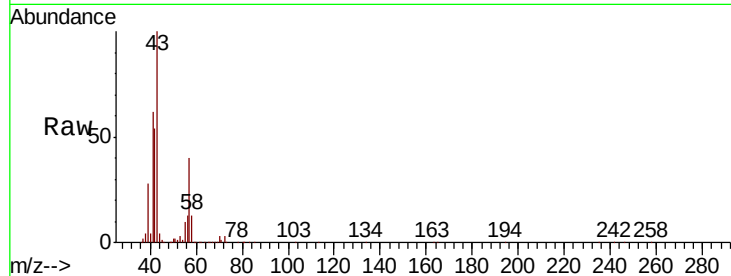
GOI-AA(2021)

Tot Ion: 43 Resp: 603468

Ion Ratio Lower Upper

43 100

58 17.8 21.2 31.8#



#16

1,3-Butadiene

Concen: 0.297 ppbv

RT: 3.30 min Scan# 159

Delta R.T. -0.03 min

Lab File: VL036779.D

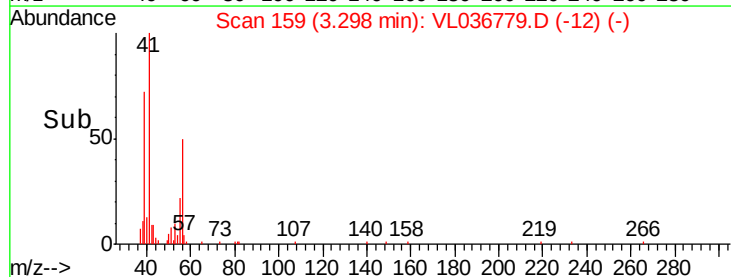
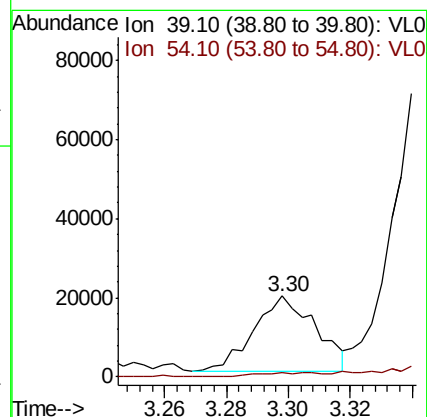
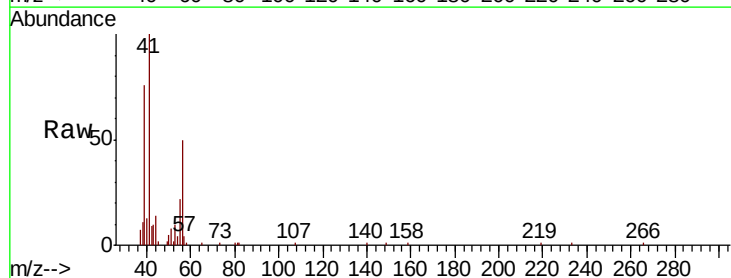
Acq: 9 Apr 2021 18:09

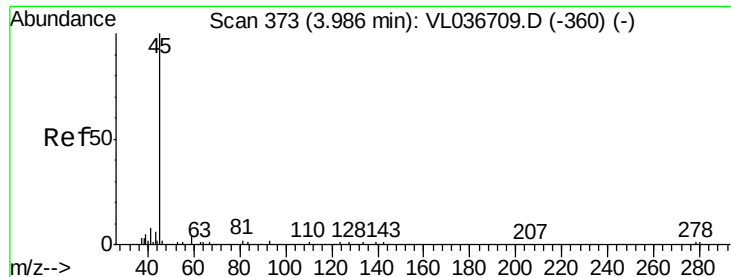
Tgt Ion: 39 Resp: 26663

Ion Ratio Lower Upper

39 100

54 0.0 58.8 88.2#





#19

Isopropyl Alcohol

Concen: 0.356 ppbv

RT: 3.98 min Scan# 370

Delta R.T. 0.01 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

Instrument :

MSVOA_L

ClientSampleId :

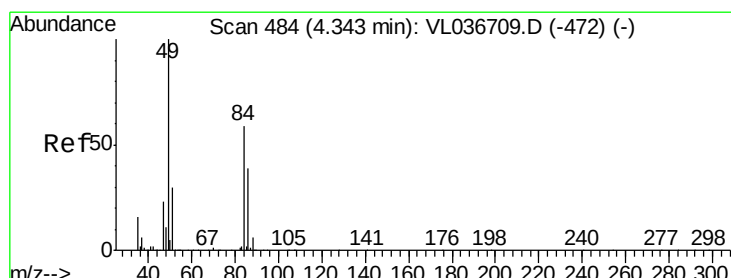
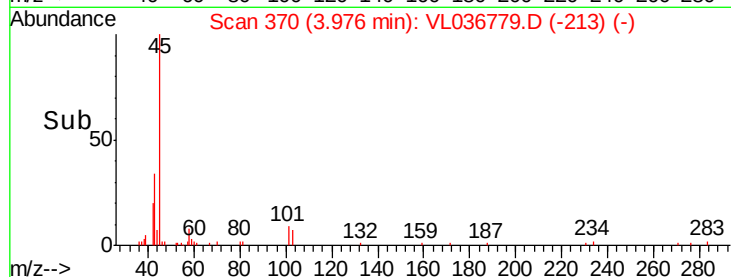
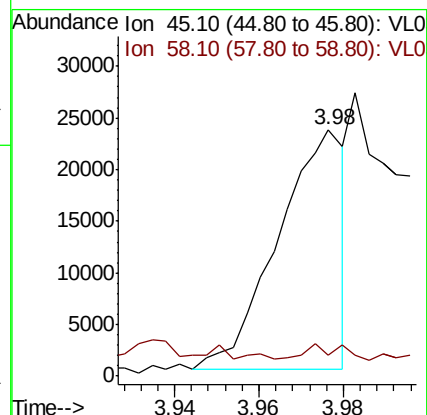
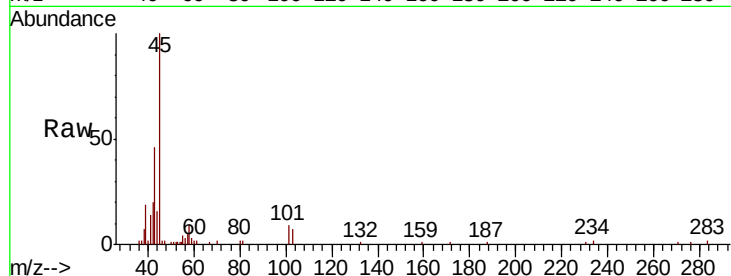
GOI-AA(2021)

Tot Ion: 45 Resp: 25247

Ion Ratio Lower Upper

45 100

58 0.0 2.9 4.3#



#20

Methylene Chloride

Concen: 1.319 ppbv

RT: 4.33 min Scan# 481

Delta R.T. -0.01 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

Tgt Ion: 84 Resp: 79612

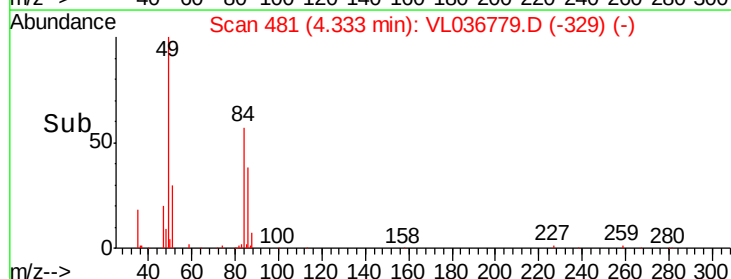
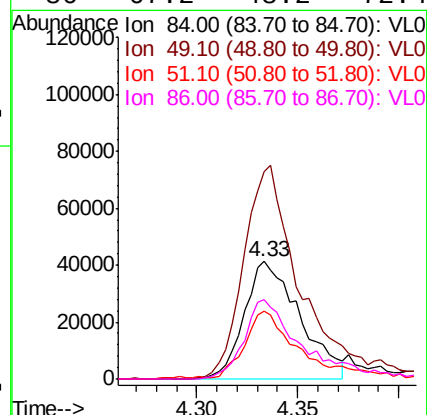
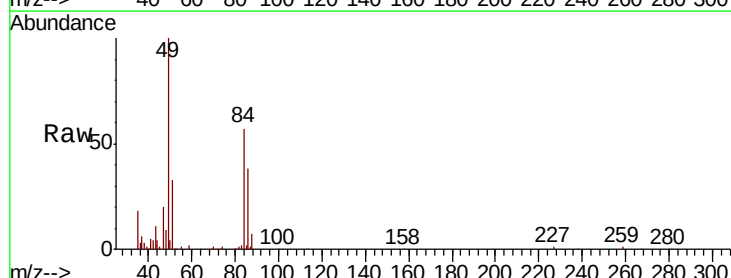
Ion Ratio Lower Upper

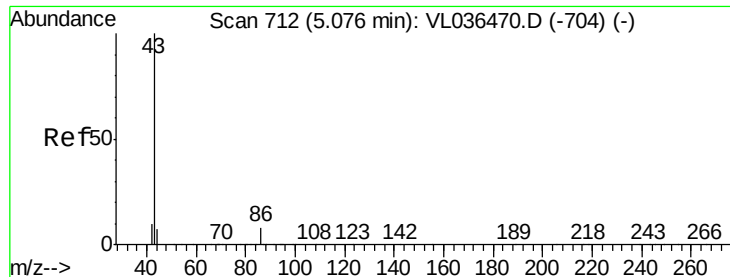
84 100

49 175.2 122.9 184.3

51 57.2 36.9 55.3#

86 67.2 48.2 72.4

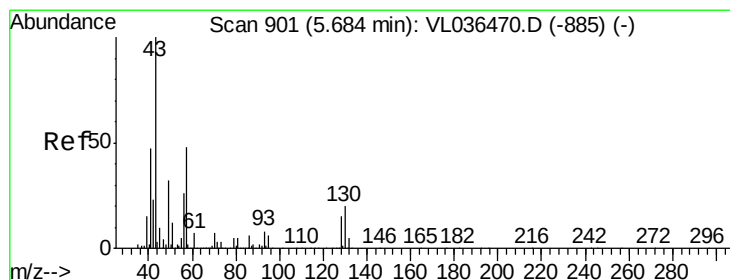
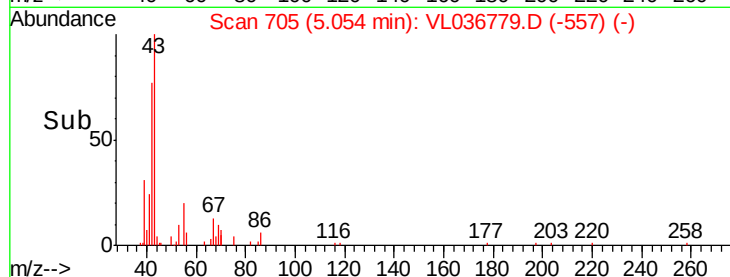
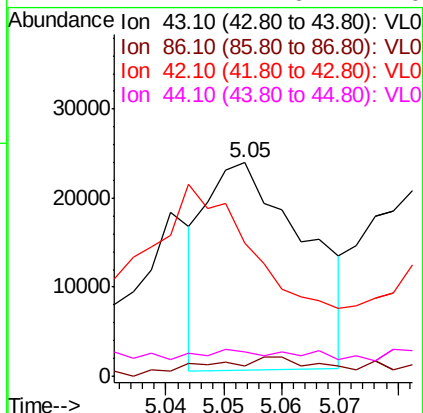
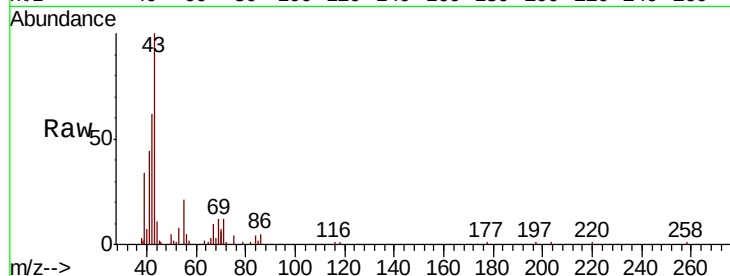




#23
 Vinyl Acetate
 Concen: 0.125 ppbv
 RT: 5.05 min Scan# 705
 Delta R.T. -0.02 min
 Lab File: VL036779.D
 Acq: 9 Apr 2021 18:09

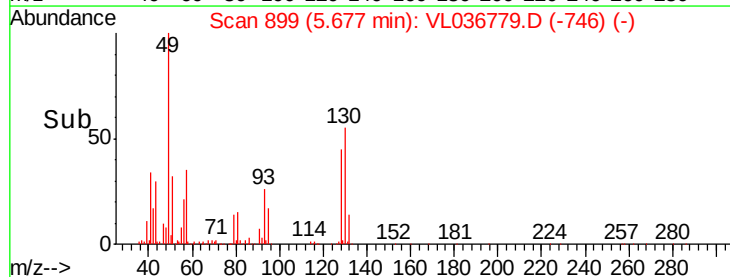
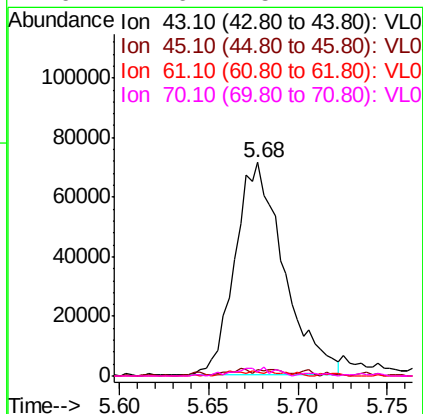
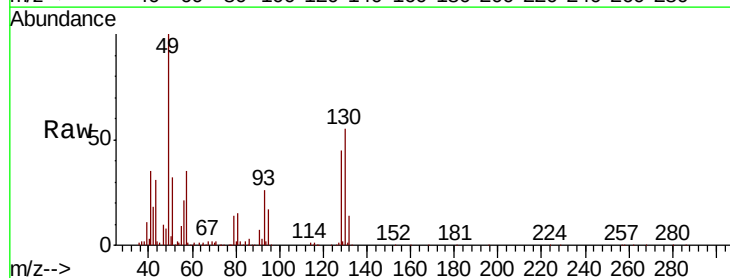
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 MSVOA_L
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 GOI-AA(2021)

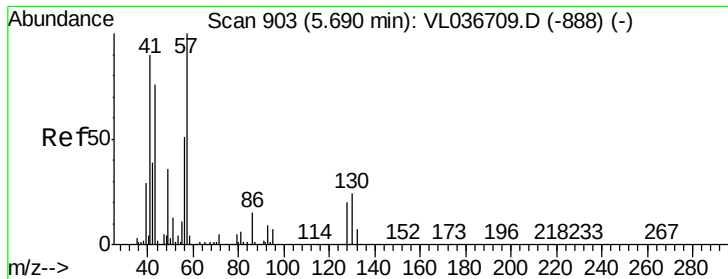
Tot Ion:	43	Resp:	27673
Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.4	8.0#
42	69.5	8.5	12.7#
44	7.4	4.6	7.0#



#25
 Ethyl Acetate
 Concen: 0.442 ppbv
 RT: 5.68 min Scan# 899
 Delta R.T. -0.01 min
 Lab File: VL036779.D
 Acq: 9 Apr 2021 18:09

Tgt Ion:	43	Resp:	135356
Ion	Ratio	Lower	Upper
43	100		
45	4.9	7.9	11.9#
61	3.1	7.4	11.2#
70	4.6	5.1	7.7#

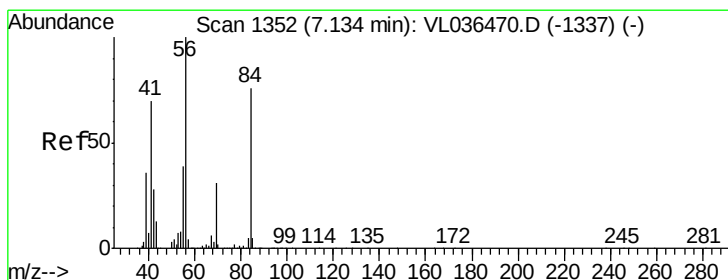
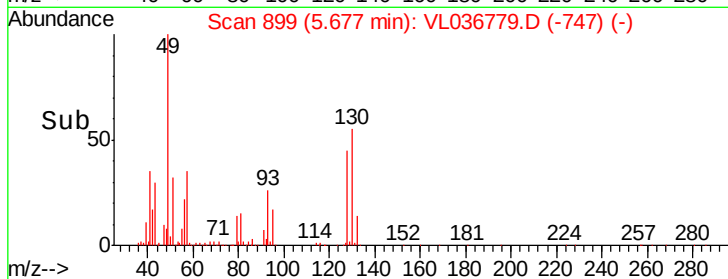
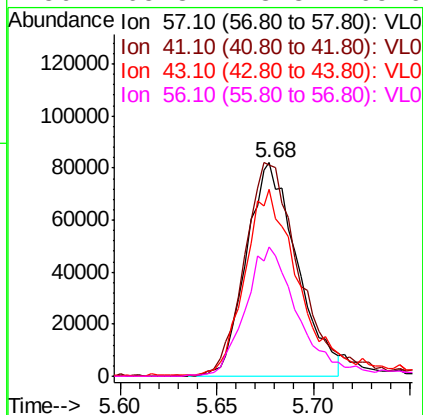
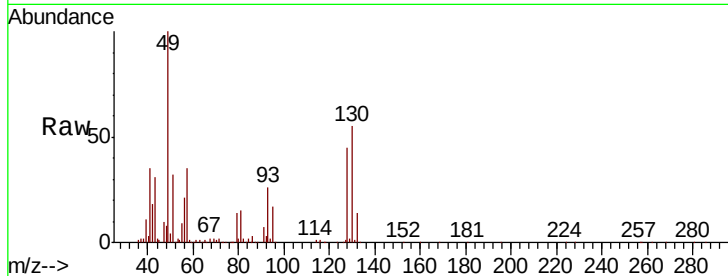




#26
Hexane
Concen: 1.052 ppbv
RT: 5.68 min Scan# 899
Delta R.T. -0.01 min
Lab File: VL036779.D
Acq: 9 Apr 2021 18:09

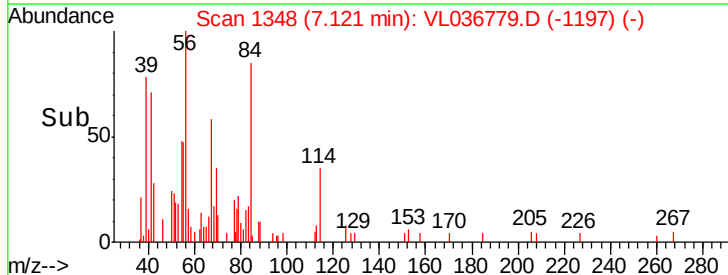
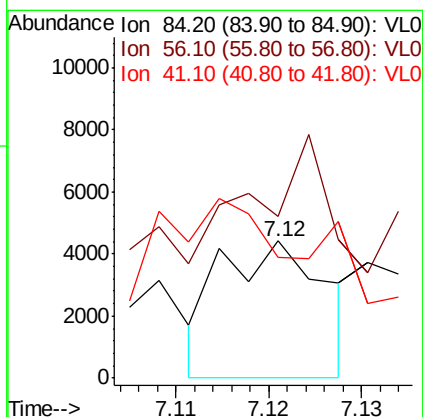
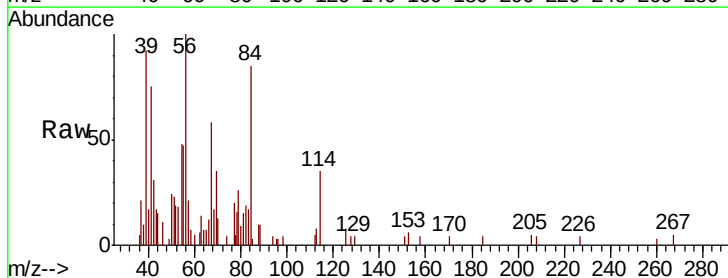
Instrument :
MSVOA_L
ClientSampleId :
GOI-AA(2021)

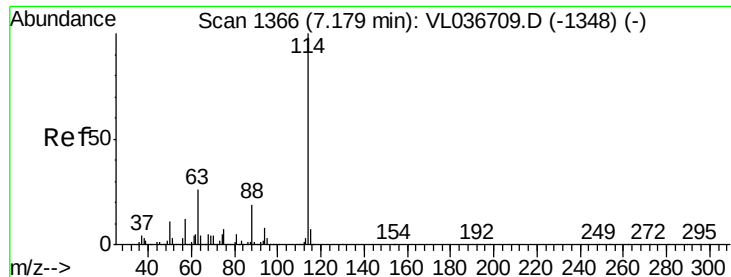
Tot Ion: 57 Resp: 149690
Ion Ratio Lower Upper
57 100
41 112.8 77.2 115.8
43 98.8 173.8 260.6#
56 65.8 43.8 65.6#



#30
Cyclohexane
Concen: 0.030 ppbv
RT: 7.12 min Scan# 1348
Delta R.T. -0.01 min
Lab File: VL036779.D
Acq: 9 Apr 2021 18:09

Tgt Ion: 84 Resp: 3471
Ion Ratio Lower Upper
84 100
56 0.0 114.6 171.8#
41 433.0 75.3 112.9#

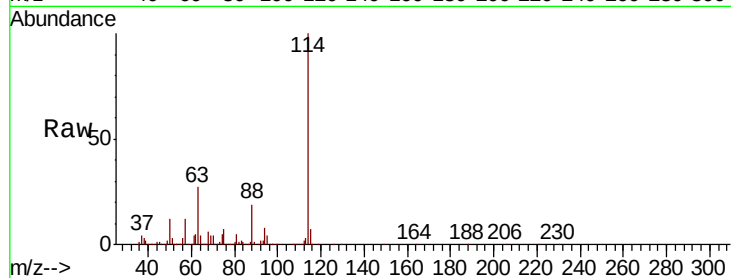




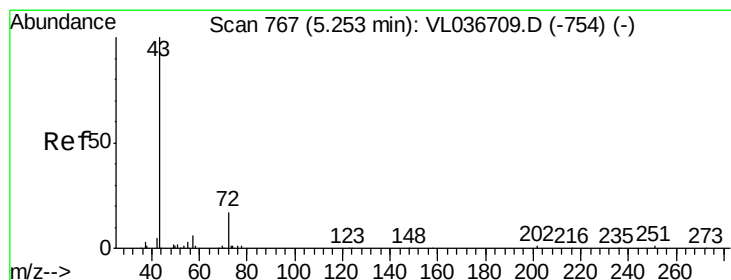
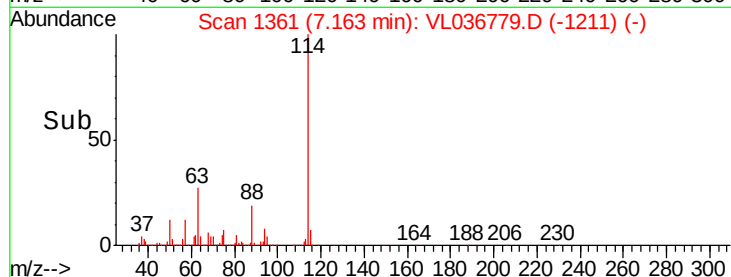
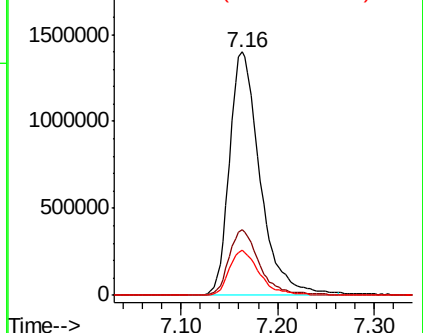
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1361
 Delta R.T. -0.02 min
 Lab File: VL036779.D
 Acq: 9 Apr 2021 18:09

Instrument :
 MSVOA_L
 ClientSampleId :
 GOI-AA(2021)

Tot Ion:114 Resp: 3081200
 Ion Ratio Lower Upper
 114 100
 63 27.4 22.4 33.6
 88 18.6 15.4 23.0

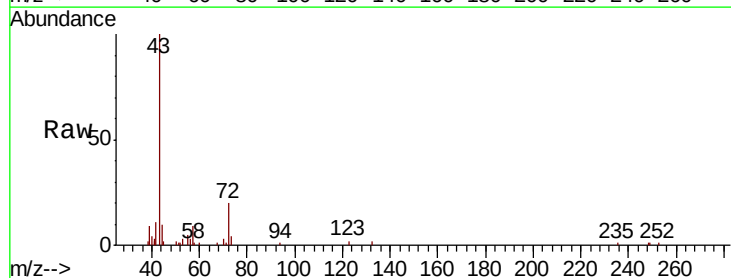


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

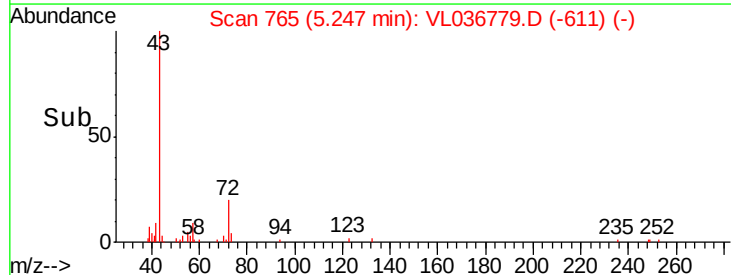
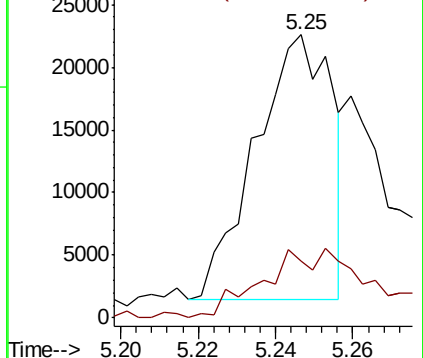


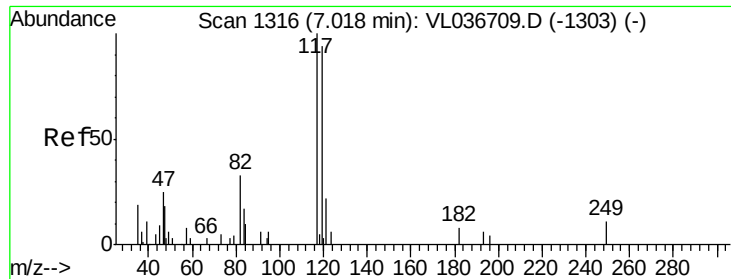
#34
 2-Butanone
 Concen: 0.193 ppbv
 RT: 5.25 min Scan# 765
 Delta R.T. -0.00 min
 Lab File: VL036779.D
 Acq: 9 Apr 2021 18:09

Tgt Ion: 43 Resp: 29036
 Ion Ratio Lower Upper
 43 100
 72 0.0 17.0 25.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.033 ppbv

RT: 7.01 min Scan# 1313

Delta R.T. -0.01 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

Instrument :

MSVOA_L

ClientSampleId :

GOI-AA(2021)

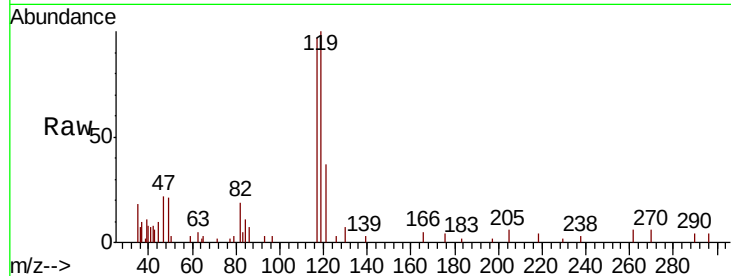
Tot Ion:117 Resp: 7827

Ion Ratio Lower Upper

117 100

119 95.0 78.2 117.2

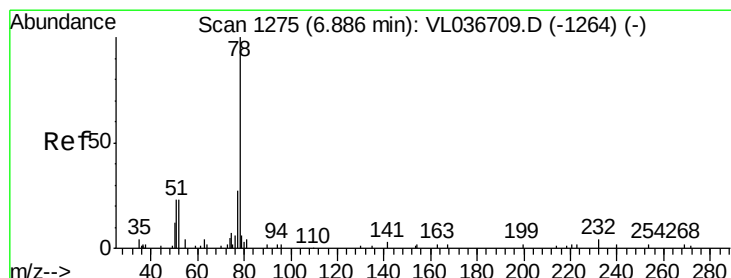
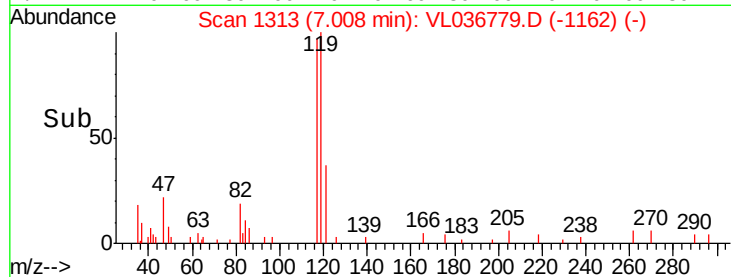
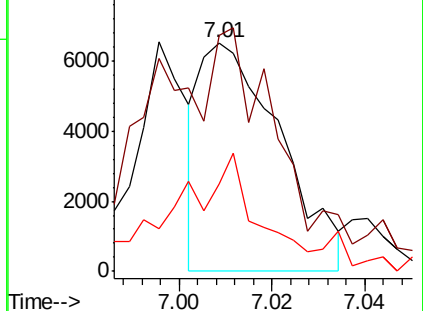
121 25.0 24.5 36.7



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.110 ppbv

RT: 6.88 min Scan# 1274

Delta R.T. -0.01 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

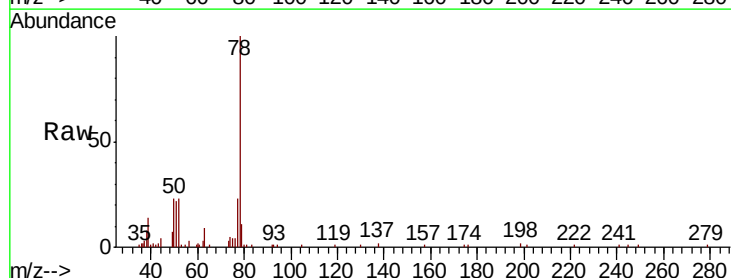
Tgt Ion: 78 Resp: 31203

Ion Ratio Lower Upper

78 100

77 17.7 18.0 27.0#

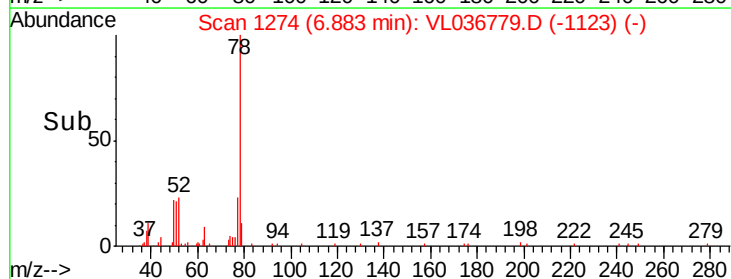
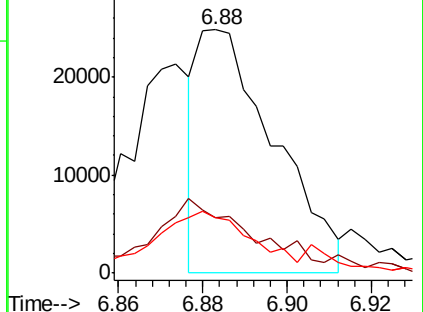
50 21.8 16.5 24.7

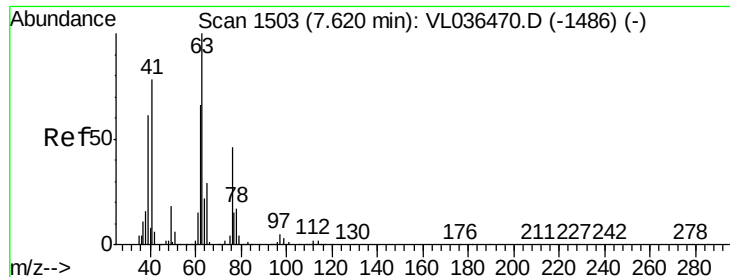


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 7.157 ppbv

RT: 7.16 min Scan# 1361

Delta R.T. -0.46 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

Instrument :

MSVOA_L

ClientSampleId :

GOI-AA(2021)

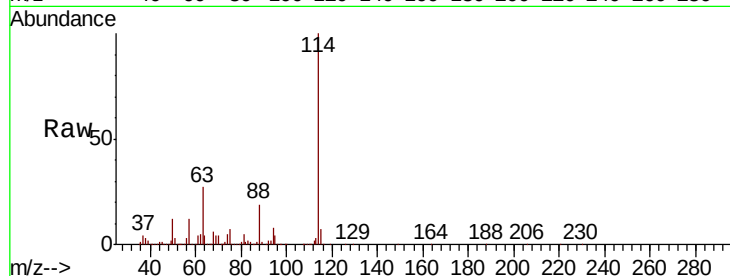
Tot Ion: 63 Resp: 825032

Ion Ratio Lower Upper

63 100

41 0.0 62.4 93.6#

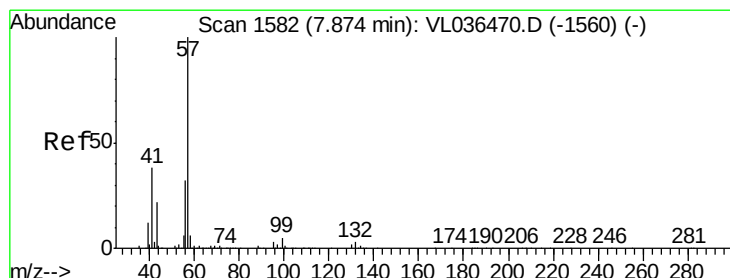
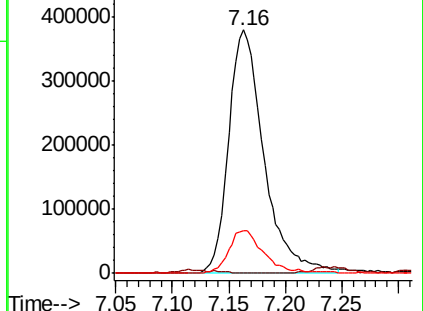
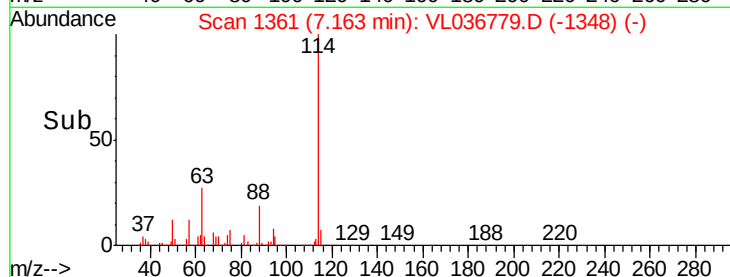
62 17.5 52.8 79.2#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.285 ppbv

RT: 7.86 min Scan# 1577

Delta R.T. -0.02 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

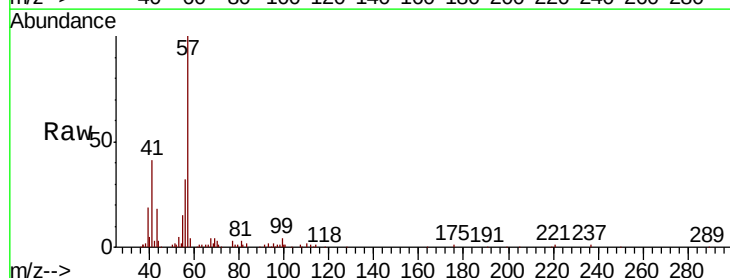
Tgt Ion: 57 Resp: 142524

Ion Ratio Lower Upper

57 100

41 49.7 28.8 43.2#

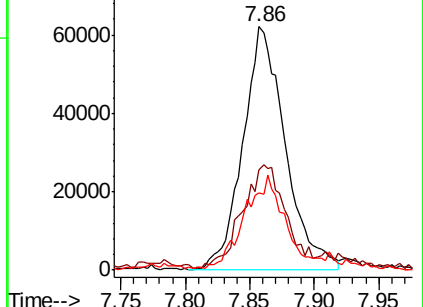
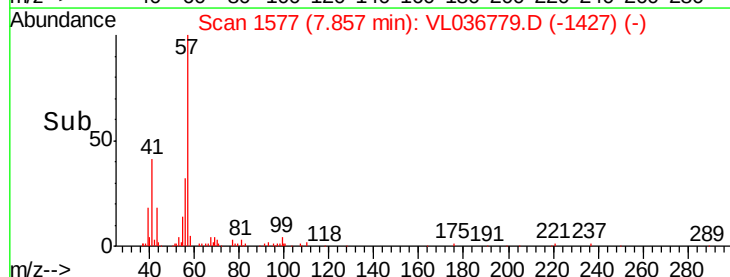
56 42.2 26.1 39.1#

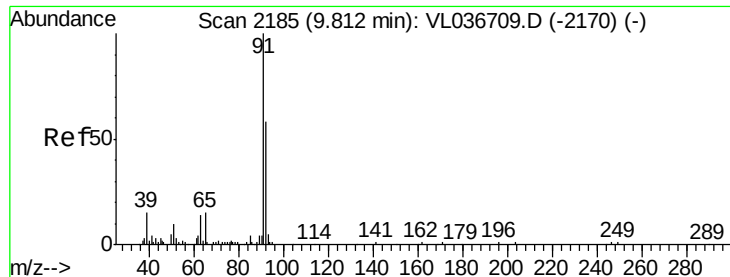


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 0.790 ppbv

RT: 9.80 min Scan# 2181

Delta R.T. -0.01 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

Instrument :

MSVOA_L

ClientSampleId :

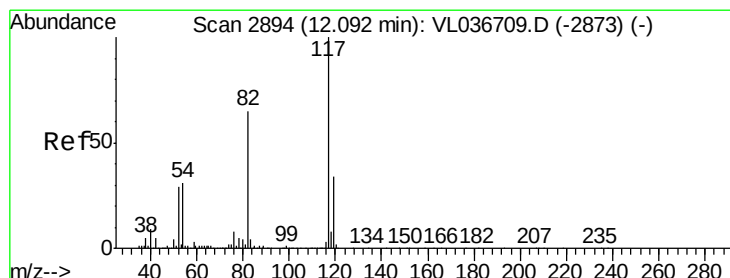
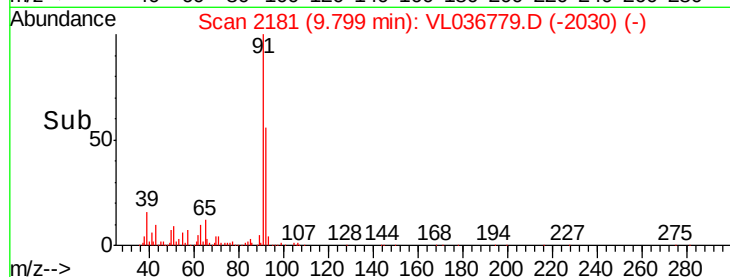
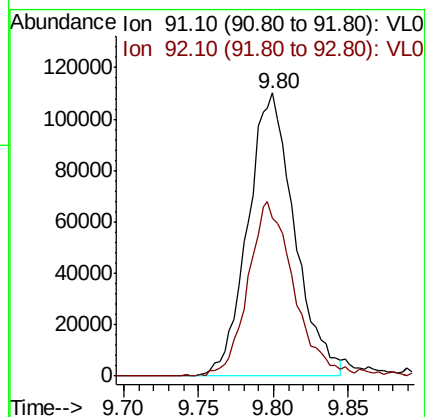
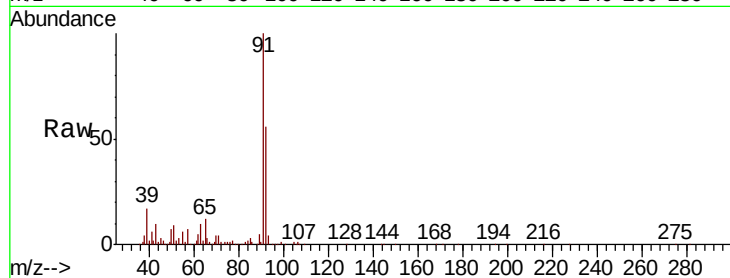
GOI-AA(2021)

Tot Ion: 91 Resp: 239090

Ion Ratio Lower Upper

91 100

92 61.5 48.8 73.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2889

Delta R.T. -0.02 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

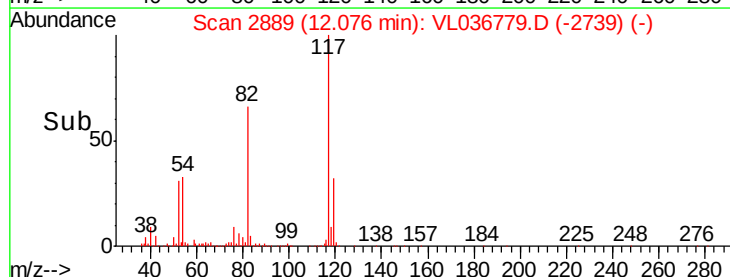
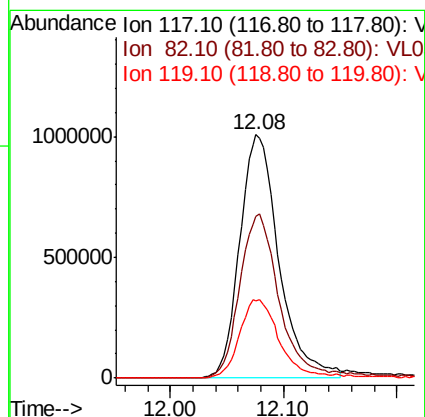
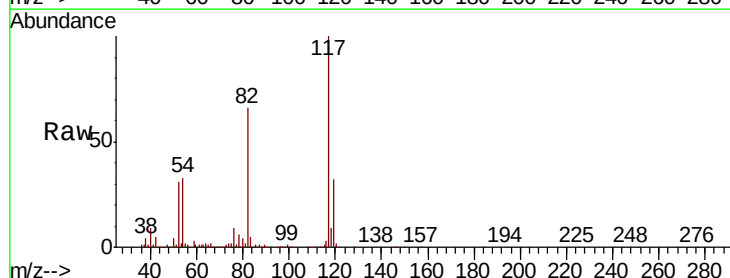
Tgt Ion: 117 Resp: 2431533

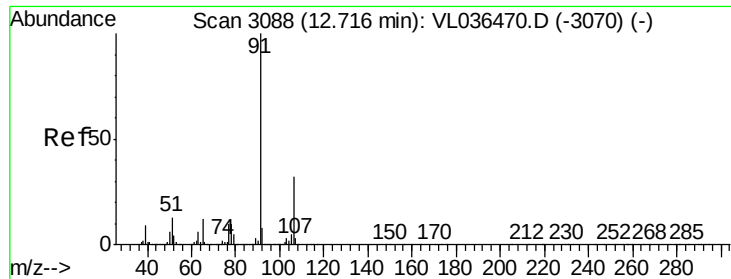
Ion Ratio Lower Upper

117 100

82 70.5 57.4 86.0

119 34.2 47.4 71.0#





#58

Ethyl Benzene

Concen: 0.034 ppbv

RT: 13.00 min Scan# 3175

Delta R.T. 0.28 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

Instrument :

MSVOA_L

ClientSampleId :

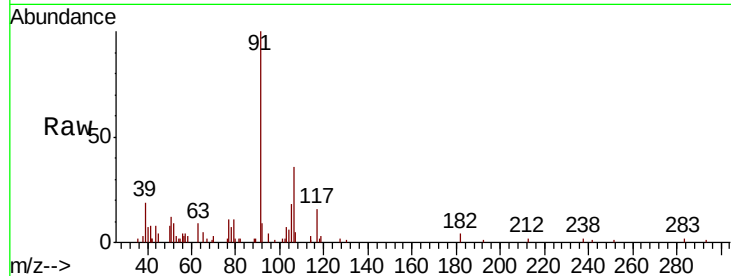
GOI-AA(2021)

Tot Ion: 91 Resp: 12052

Ion Ratio Lower Upper

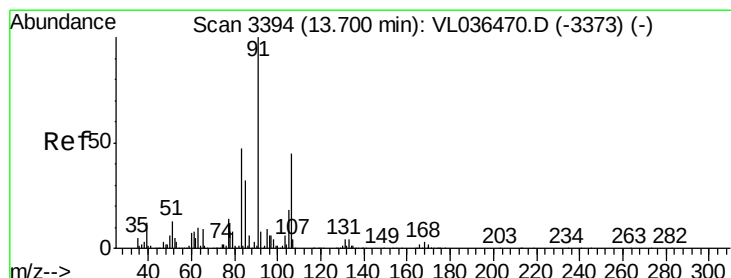
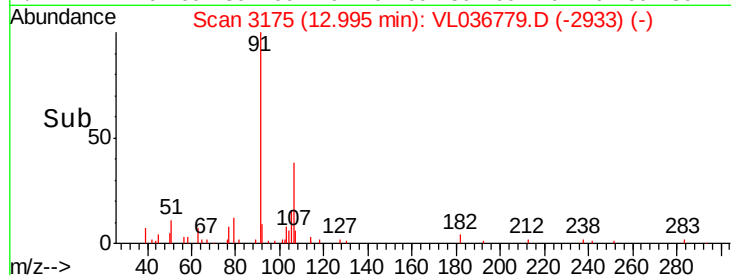
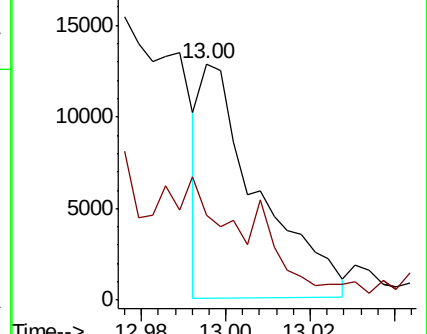
91 100

106 32.5 25.3 37.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 0.039 ppbv

RT: 13.68 min Scan# 3389

Delta R.T. -0.02 min

Lab File: VL036779.D

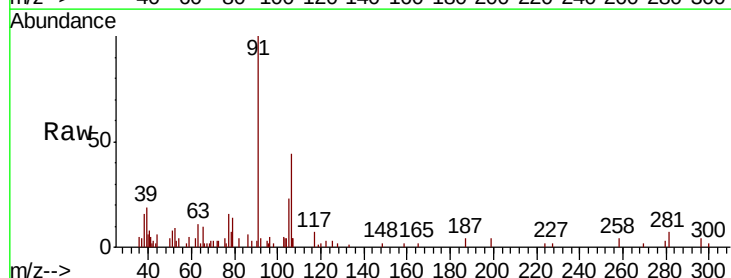
Acq: 9 Apr 2021 18:09

Tgt Ion: 91 Resp: 11602

Ion Ratio Lower Upper

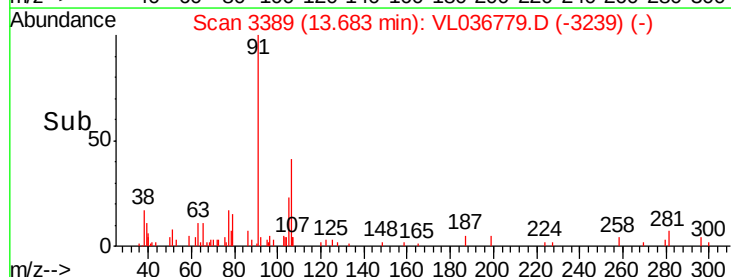
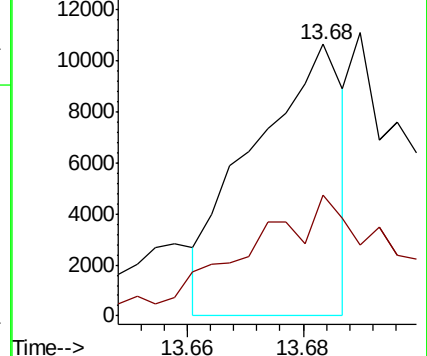
91 100

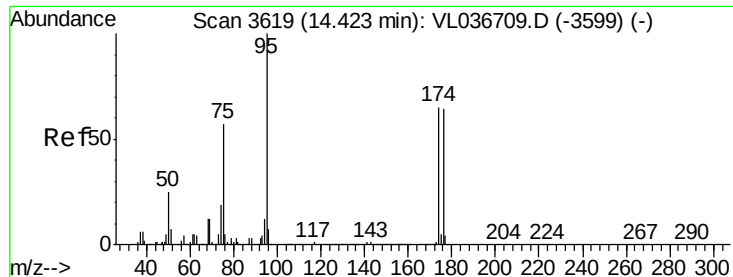
106 87.4 22.3 66.9#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 8.742 ppbv

RT: 14.41 min Scan# 3614

Delta R.T. -0.02 min

Lab File: VL036779.D

Acq: 9 Apr 2021 18:09

Instrument :

MSVOA_L

ClientSampleId :

GOI-AA(2021)

Tot Ion: 95 Resp: 1694166

Ion Ratio Lower Upper

95 100

174 63.2 51.0 76.6

175 4.7 3.9 5.9

