

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL042821\
 Data File : VL036887.D
 Acq On : 28 Apr 2021 19:57
 Operator : SY/AP
 Sample : M2172-06DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

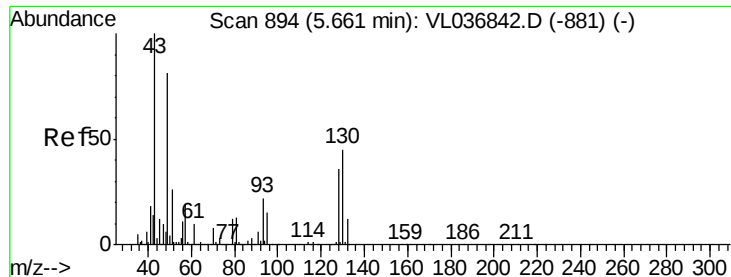
Quant Time: Apr 29 03:11:04 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL042721AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Apr 27 16:56:35 2021
 QLast Update : Tue Apr 27 16:56:35 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.69	49	1498969	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.20	114	3341209	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.11	117	3102572	10.00	ppbv	0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.44	95	2424013	9.73	ppbv	0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.30%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.06	85	9864	0.042 ppbv	96
3) Chlorodifluoromethane	3.00	51	20627	0.076 ppbv	99
9) Propene	3.02	41	8070	0.097 ppbv #	15
13) Ethanol	3.62	45	2100413	197.957 ppbv	92
15) Acetone	3.87	43	1072440	7.591 ppbv	97
17) tert-Butyl alcohol	4.31	59	34443	0.300 ppbv #	19
19) Isopropyl Alcohol	3.99	45	1586422	22.663 ppbv	98
20) Methylene Chloride	4.36	84	107690	1.594 ppbv	96
23) Vinyl Acetate	5.09	43	49118	0.256 ppbv #	92
25) Ethyl Acetate	5.70	43	43952	0.127 ppbv #	84
26) Hexane	5.71	57	70595	0.437 ppbv #	53
29) Chloroform	5.77	83	72655	0.289 ppbv	96
31) cis-1,2-Dichloroethene	5.57	61	31786	0.219 ppbv	94
34) 2-Butanone	5.27	43	96247	0.658 ppbv #	86
35) Carbon Tetrachloride	7.03	117	21214	0.094 ppbv #	95
36) Benzene	6.91	78	10831	0.038 ppbv	93
39) 1,2-Dichloropropane	7.19	63	908815	8.058 ppbv #	24
52) Tetrachloroethene	11.25	164	22201	0.232 ppbv #	71
53) Toluene	9.83	91	40365	0.137 ppbv	91
65) tert-Butylbenzene	17.00	119	216511	0.529 ppbv #	25
66) Benzyl Chloride	17.03	91	2092	0.052 ppbv #	66
75) 1,3-Dichlorobenzene	17.03	146	93657	0.421 ppbv #	1

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.69 min Scan# 902

Delta R.T. 0.03 min

Lab File: VL036887.D

Acq: 28 Apr 2021 19:57

Instrument :

MSVOA_L

ClientSampleId :

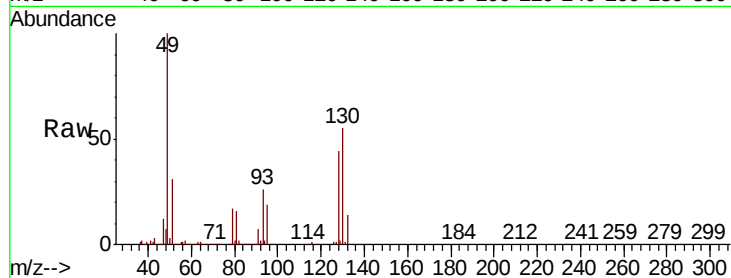
Tot Ion: 49 Resp: 1498969

Ion Ratio Lower Upper

49 100

128 46.1 24.4 73.2

130 56.7 30.3 90.8



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

800000

600000

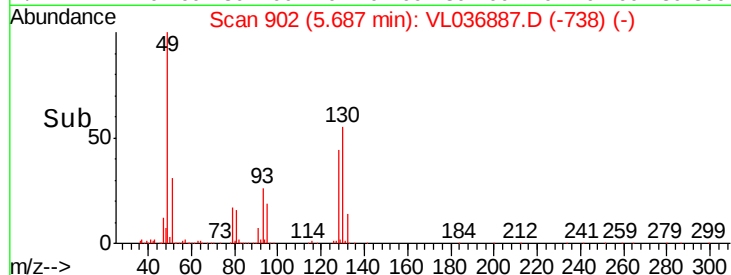
400000

200000

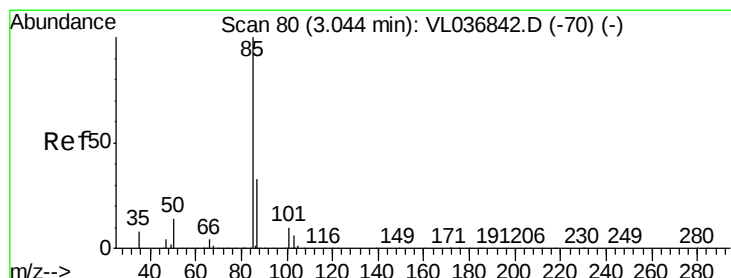
0

5.69

Time-->



Time-->



#2

Dichlorodifluoromethane

Concen: 0.042 ppbv

RT: 3.06 min Scan# 86

Delta R.T. 0.02 min

Lab File: VL036887.D

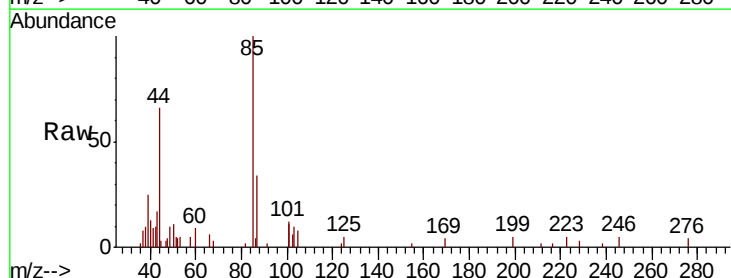
Acq: 28 Apr 2021 19:57

Tgt Ion: 85 Resp: 9864

Ion Ratio Lower Upper

85 100

87 35.0 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

8000

6000

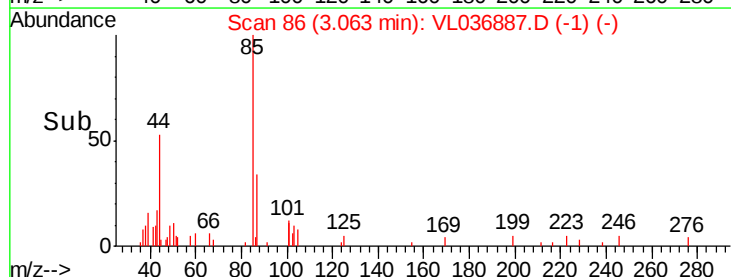
4000

2000

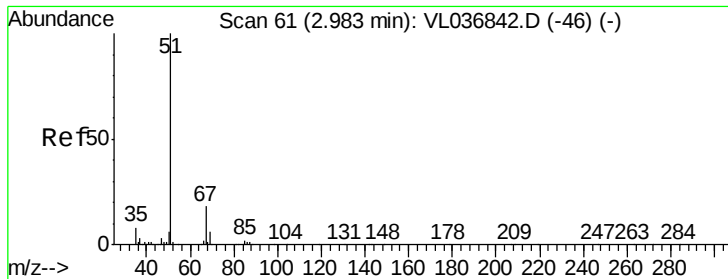
0

3.06

Time-->



Time-->



#3

Chlorodifluoromethane

Concen: 0.076 ppbv

RT: 3.00 min Scan# 67

Delta R.T. 0.02 min

Lab File: VL036887.D

Acq: 28 Apr 2021 19:57

Instrument :

MSVOA_L

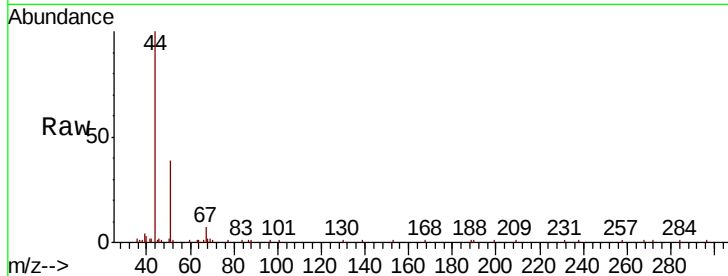
ClientSampleId :

Tot Ion: 51 Resp: 20627

Ion Ratio Lower Upper

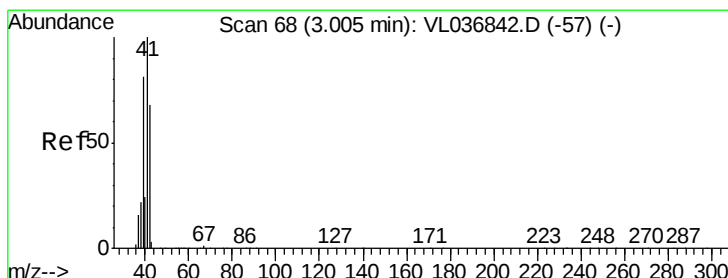
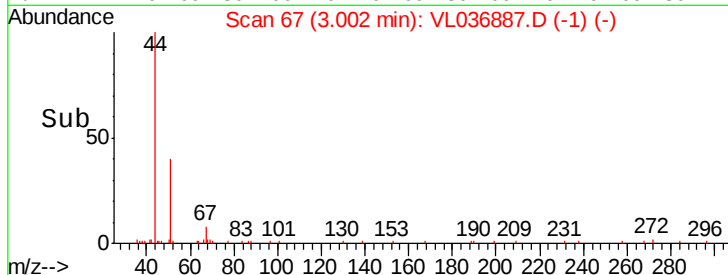
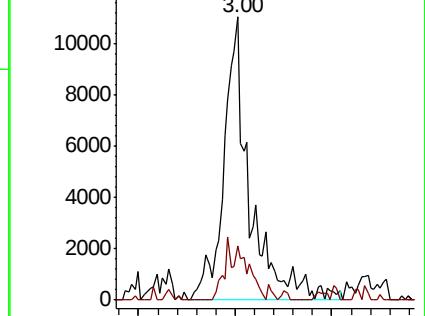
51 100

67 18.2 14.8 22.2



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#9

Propene

Concen: 0.097 ppbv

RT: 3.02 min Scan# 74

Delta R.T. 0.02 min

Lab File: VL036887.D

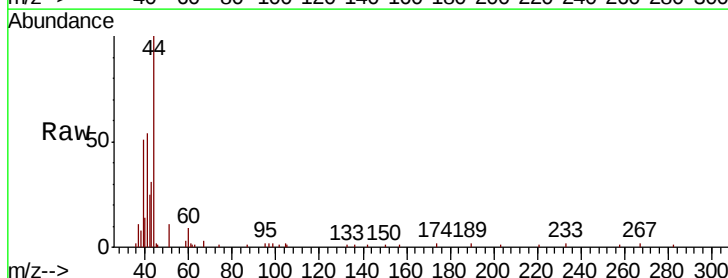
Acq: 28 Apr 2021 19:57

Tgt Ion: 41 Resp: 8070

Ion Ratio Lower Upper

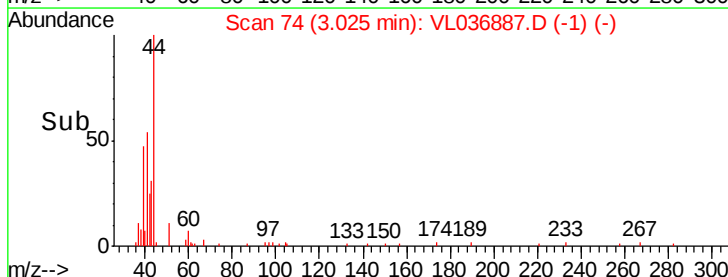
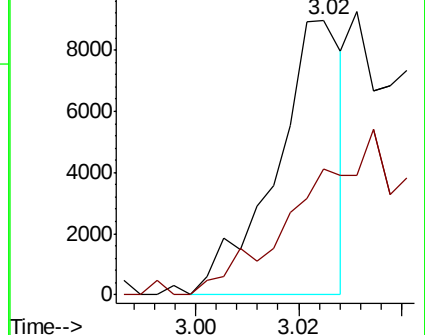
41 100

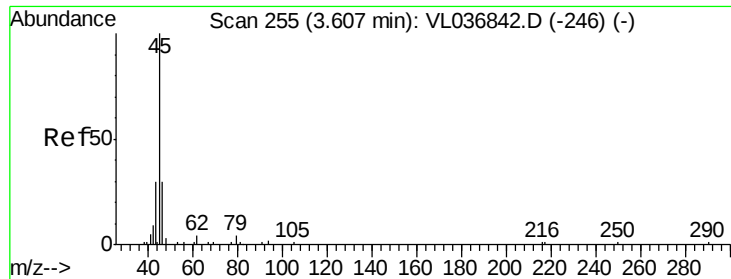
42 0.0 56.0 84.0#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

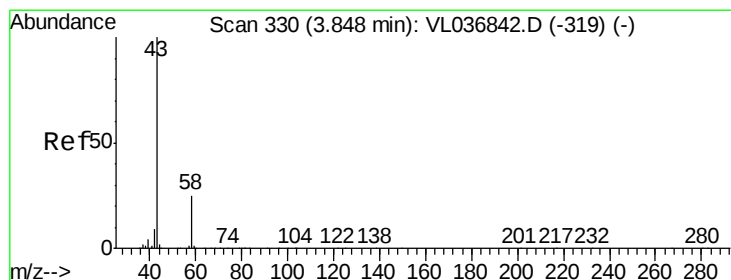
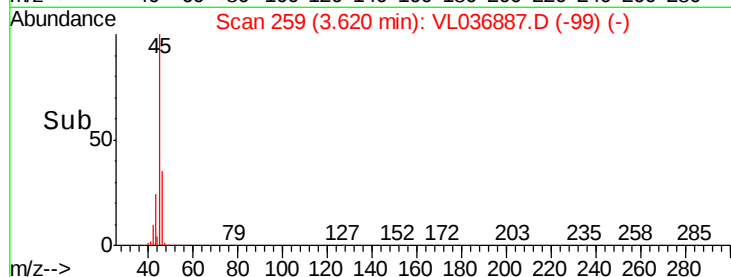
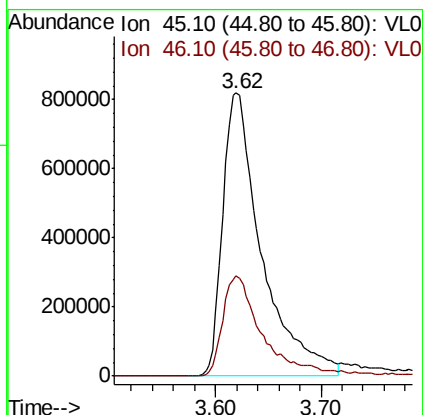
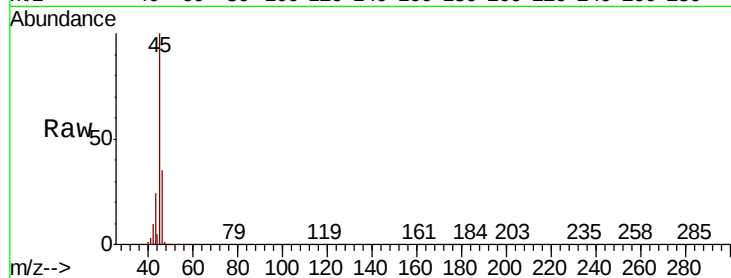




#13
Ethanol
Concen: 197.957 ppbv
RT: 3.62 min Scan# 259
Delta R.T. 0.01 min
Lab File: VL036887.D
Acq: 28 Apr 2021 19:57

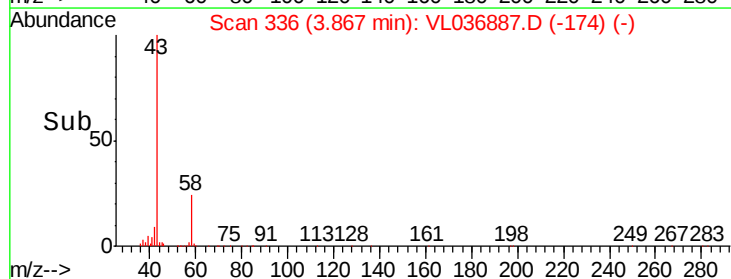
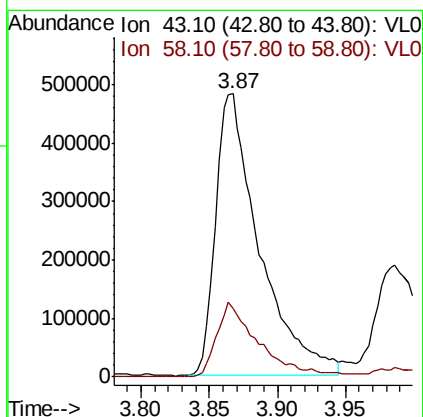
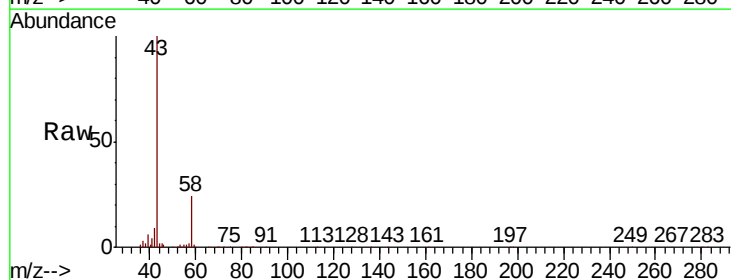
Instrument :
MSVOA_L
ClientSampleId :

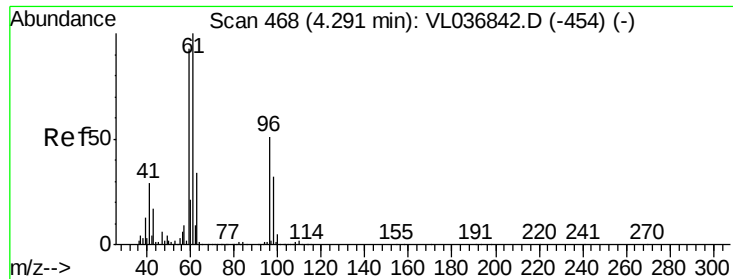
Tot Ion: 45 Resp: 2100413
Ion Ratio Lower Upper
45 100
46 37.2 16.8 67.4



#15
Acetone
Concen: 7.591 ppbv
RT: 3.87 min Scan# 336
Delta R.T. 0.02 min
Lab File: VL036887.D
Acq: 28 Apr 2021 19:57

Tgt Ion: 43 Resp: 1072440
Ion Ratio Lower Upper
43 100
58 25.6 21.7 32.5



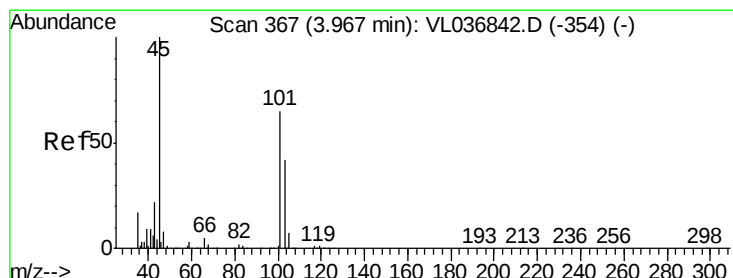
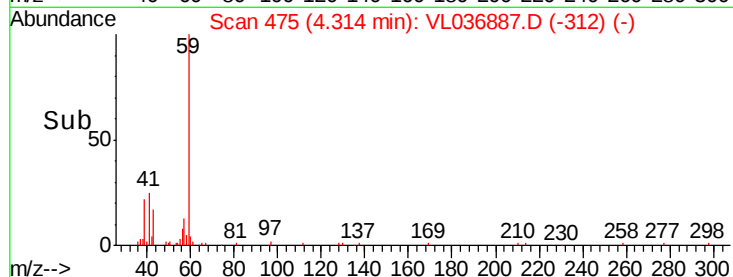
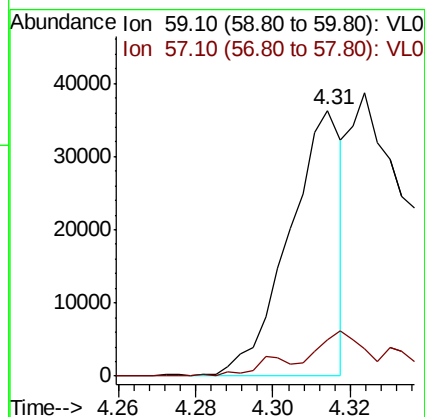
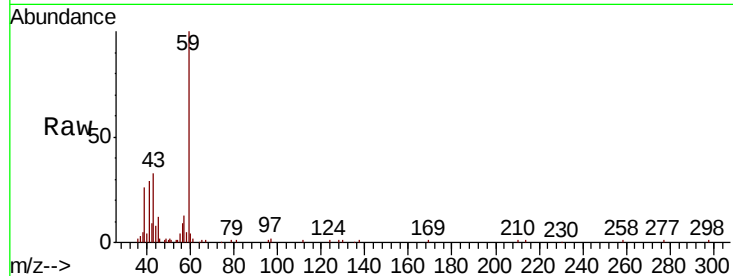


#17

tert-Butyl alcohol
 Concen: 0.300 ppbv
 RT: 4.31 min Scan# 475
 Delta R.T. 0.02 min
 Lab File: VL036887.D
 Acq: 28 Apr 2021 19:57

Instrument :
 MSVOA_L
 ClientSampleId :

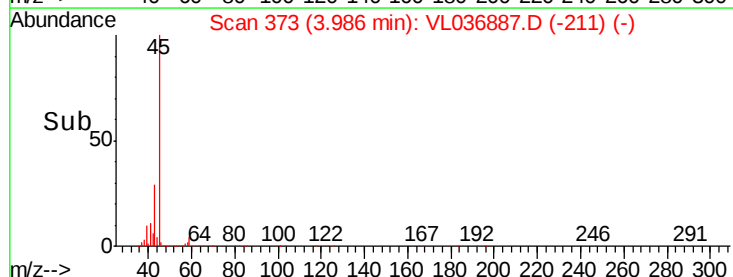
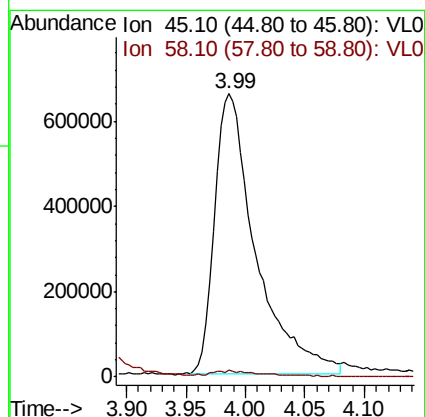
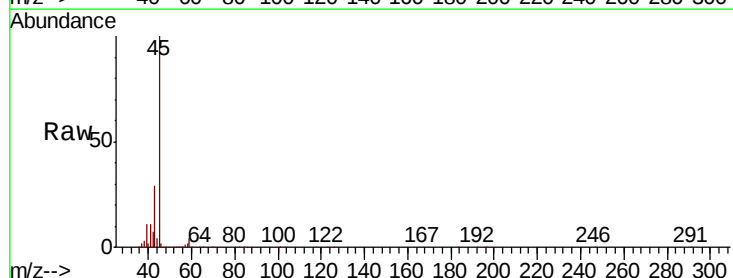
Tot Ion: 59 Resp: 34443
 Ion Ratio Lower Upper
 59 100
 57 40.5 8.3 12.5#

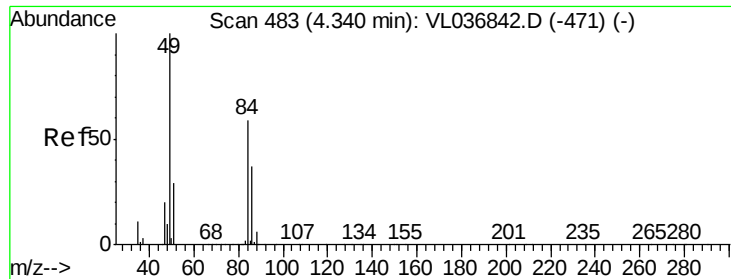


#19

Isopropyl Alcohol
 Concen: 22.663 ppbv
 RT: 3.99 min Scan# 373
 Delta R.T. 0.02 min
 Lab File: VL036887.D
 Acq: 28 Apr 2021 19:57

Tgt Ion: 45 Resp: 1586422
 Ion Ratio Lower Upper
 45 100
 58 2.9 2.8 4.2

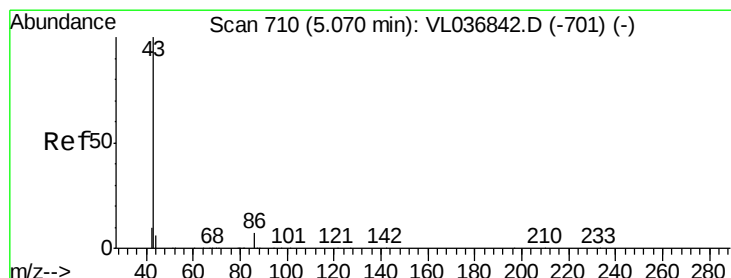
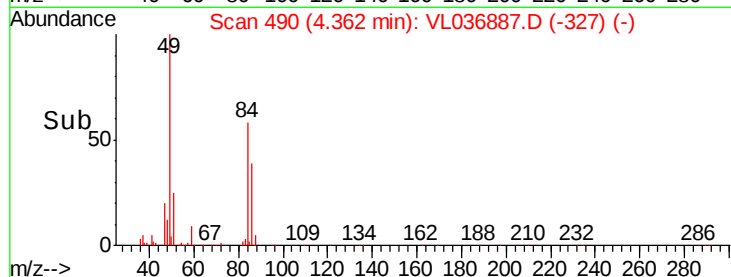
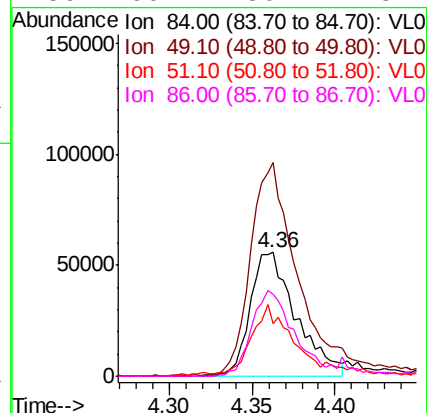
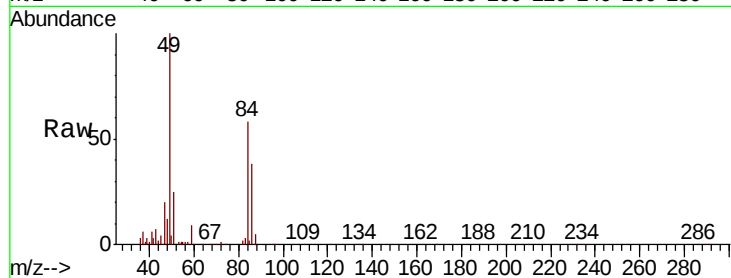




#20
Methylene Chloride
Concen: 1.594 ppbv
RT: 4.36 min Scan# 490
Delta R.T. 0.02 min
Lab File: VL036887.D
Acq: 28 Apr 2021 19:57

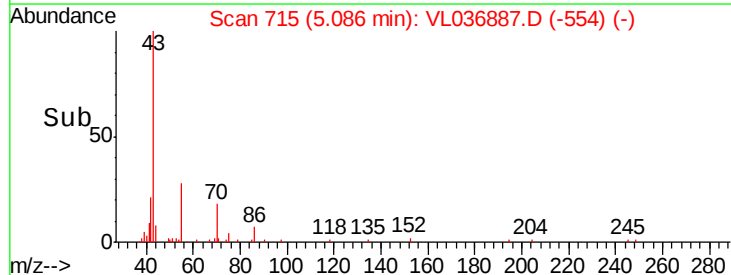
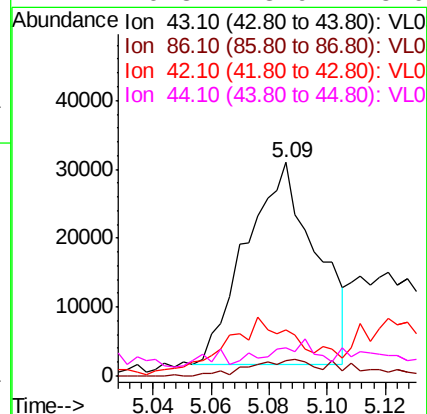
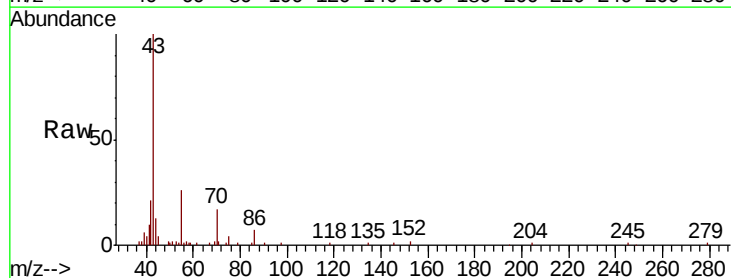
Instrument :
MSVOA_L
ClientSampled :

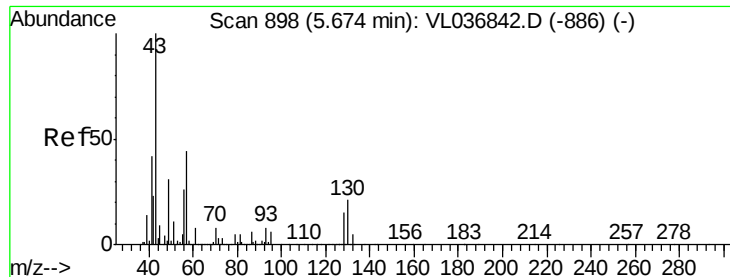
Tot Ion:	84	Resp:	107690
Ion	Ratio	Lower	Upper
84	100		
49	170.7	135.4	203.0
51	41.9	39.3	58.9
86	66.4	50.2	75.2



#23
Vinyl Acetate
Concen: 0.256 ppbv
RT: 5.09 min Scan# 715
Delta R.T. 0.02 min
Lab File: VL036887.D
Acq: 28 Apr 2021 19:57

Tgt Ion:	43	Resp:	49118
Ion	Ratio	Lower	Upper
43	100		
86	7.4	5.3	7.9
42	15.5	8.7	13.1#
44	6.3	3.9	5.9#

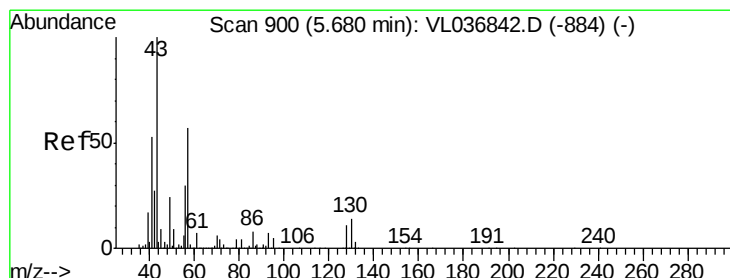
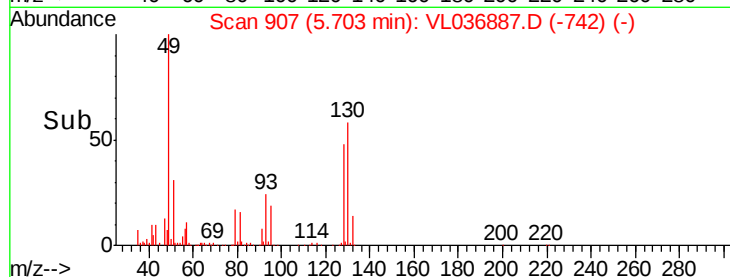
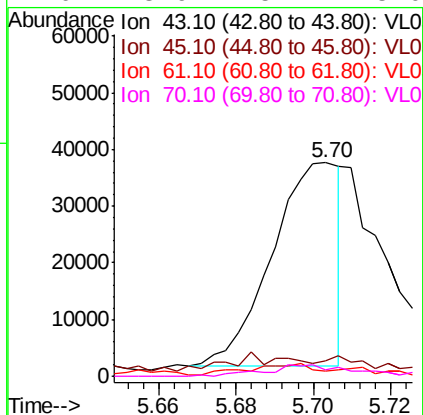
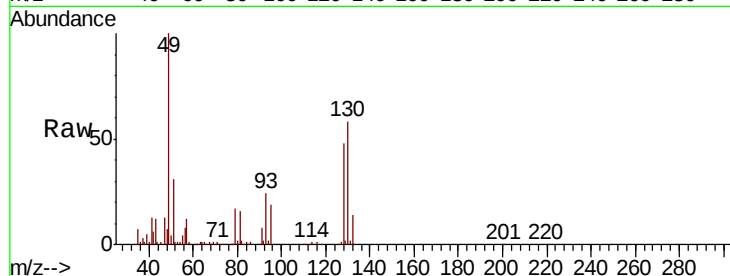




#25
Ethyl Acetate
Concen: 0.127 ppbv
RT: 5.70 min Scan# 907
Delta R.T. 0.03 min
Lab File: VL036887.D
Acq: 28 Apr 2021 19:57

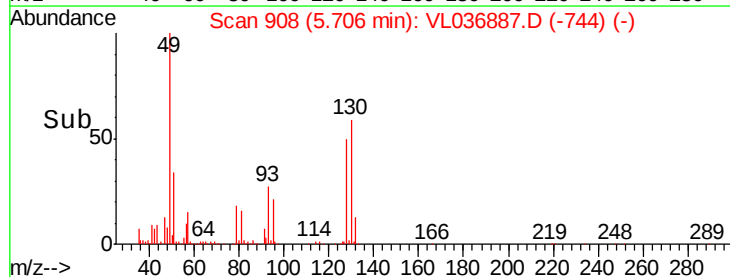
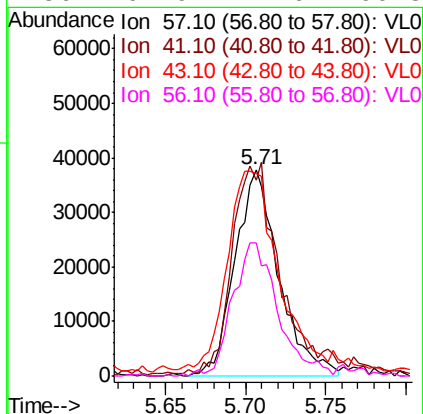
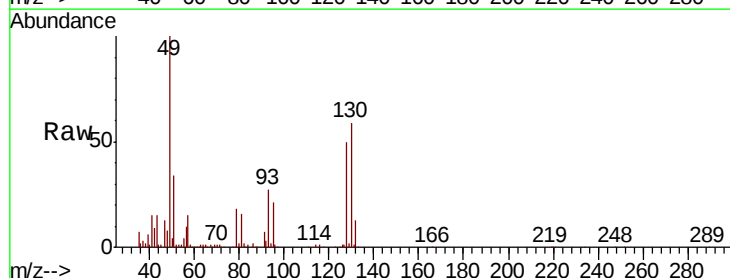
Instrument :
MSVOA_L
ClientSampled :

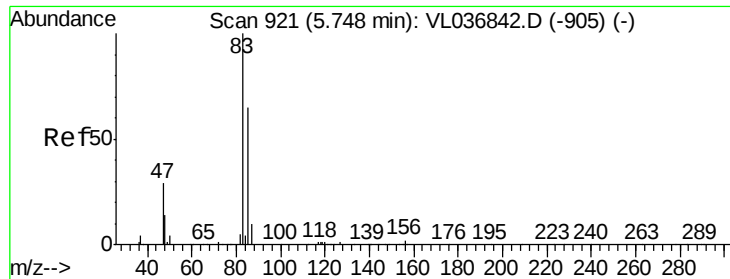
Tot Ion:	43	Resp:	43952
Ion	Ratio	Lower	Upper
43	100		
45	22.7	7.8	11.8#
61	10.5	7.4	11.0
70	8.9	5.4	8.0#



#26
Hexane
Concen: 0.437 ppbv
RT: 5.71 min Scan# 908
Delta R.T. 0.03 min
Lab File: VL036887.D
Acq: 28 Apr 2021 19:57

Tgt Ion:	57	Resp:	70595
Ion	Ratio	Lower	Upper
57	100		
41	121.3	77.7	116.5#
43	119.8	180.5	270.7#
56	67.9	44.6	66.8#





#29

Chloroform

Concen: 0.289 ppbv

RT: 5.77 min Scan# 927

Delta R.T. 0.02 min

Lab File: VL036887.D

Acq: 28 Apr 2021 19:57

Instrument :

MSVOA_L

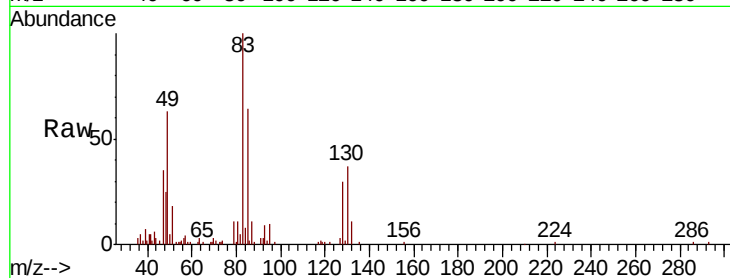
ClientSampleId :

Tot Ion: 83 Resp: 72655

Ion Ratio Lower Upper

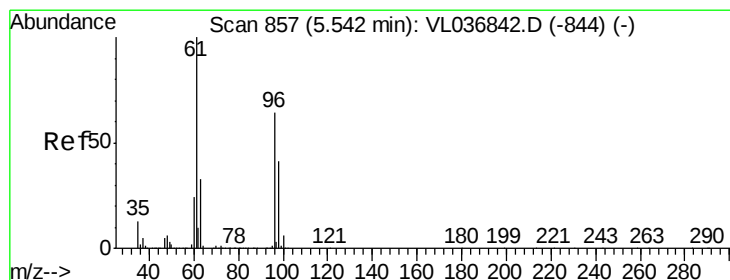
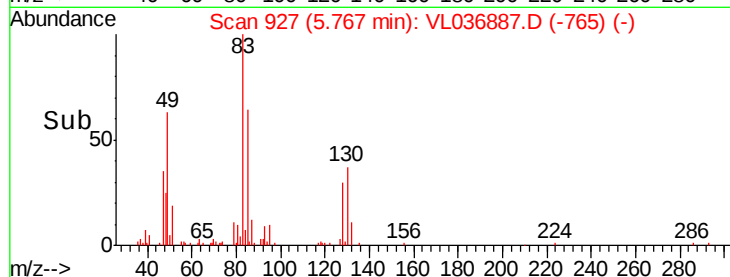
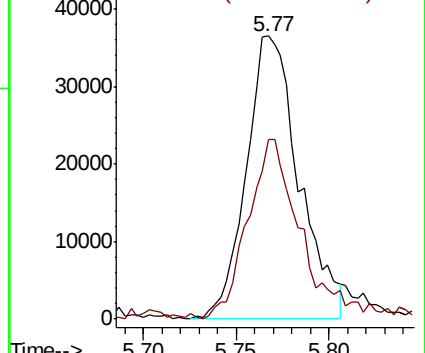
83 100

85 61.8 52.2 78.4



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#31

cis-1,2-Dichloroethene

Concen: 0.219 ppbv

RT: 5.57 min Scan# 865

Delta R.T. 0.03 min

Lab File: VL036887.D

Acq: 28 Apr 2021 19:57

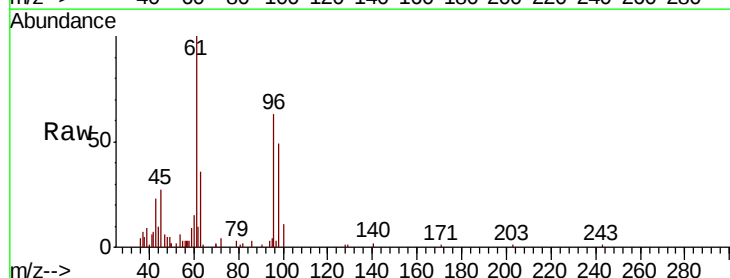
Tgt Ion: 61 Resp: 31786

Ion Ratio Lower Upper

61 100

96 62.8 51.0 76.6

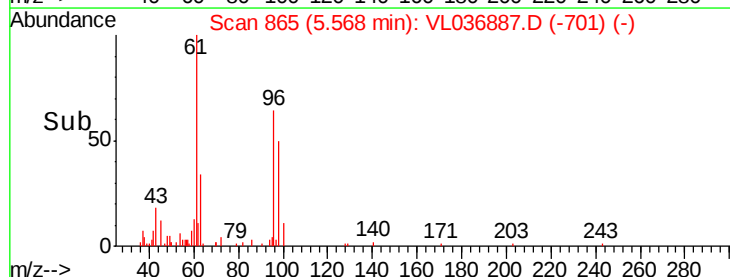
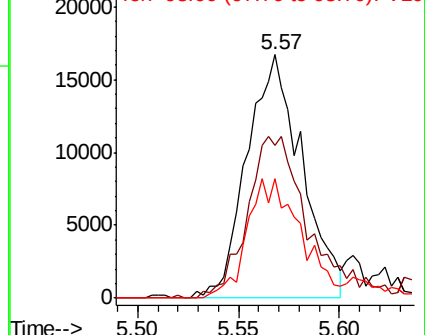
98 48.8 32.7 49.1

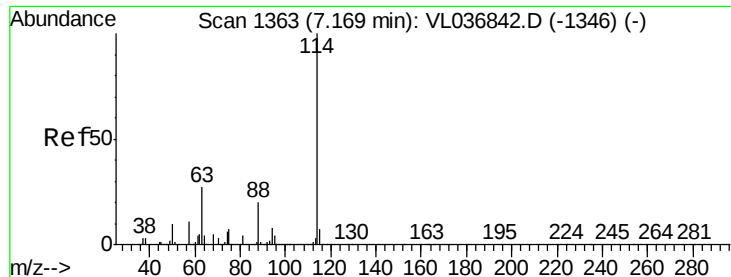


Abundance Ion 61.10 (60.80 to 61.80): VL0

Ion 96.00 (95.70 to 96.70): VL0

Ion 98.00 (97.70 to 98.70): VL0

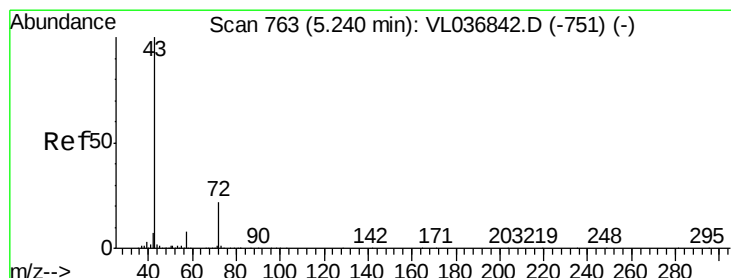
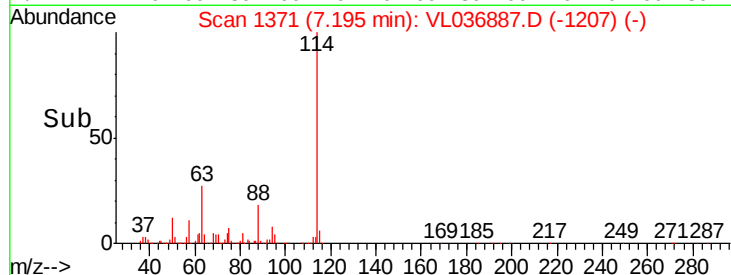
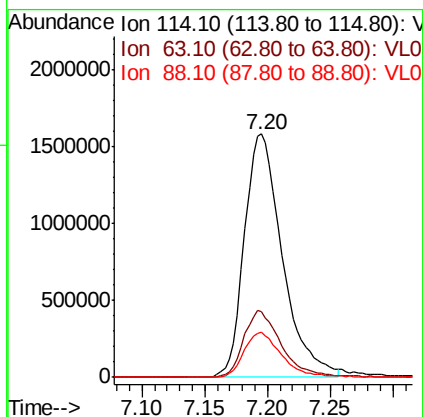
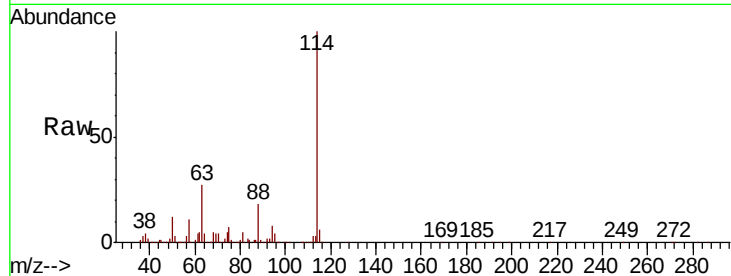




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.20 min Scan# 1371
 Delta R.T. 0.03 min
 Lab File: VL036887.D
 Acq: 28 Apr 2021 19:57

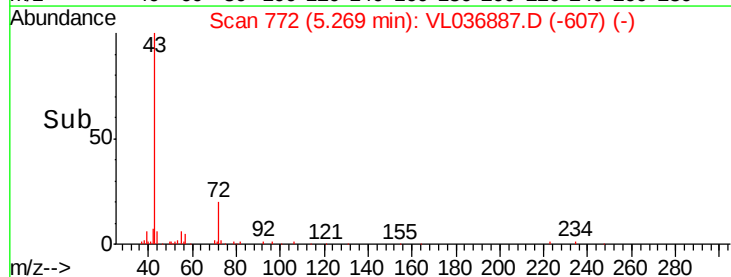
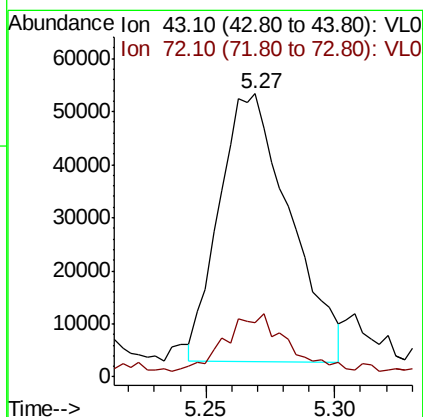
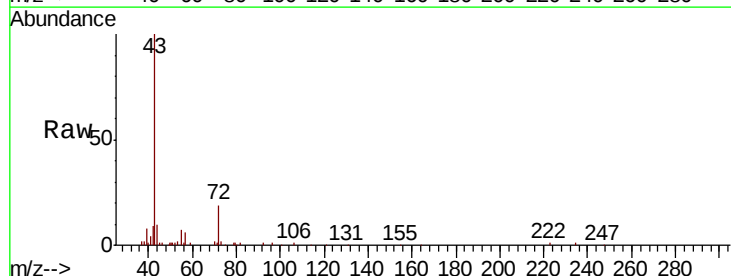
Instrument :
 MSVOA_L
 ClientSampleId :

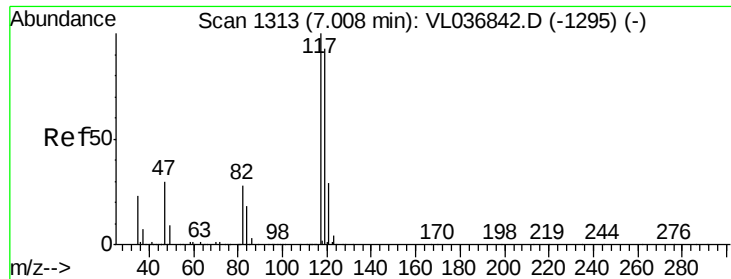
Tot Ion:114 Resp: 3341209
 Ion Ratio Lower Upper
 114 100
 63 27.6 21.9 32.9
 88 18.8 15.1 22.7



#34
 2-Butanone
 Concen: 0.658 ppbv
 RT: 5.27 min Scan# 772
 Delta R.T. 0.03 min
 Lab File: VL036887.D
 Acq: 28 Apr 2021 19:57

Tgt Ion: 43 Resp: 96247
 Ion Ratio Lower Upper
 43 100
 72 28.5 17.6 26.4#





#35

Carbon Tetrachloride

Concen: 0.094 ppbv

RT: 7.03 min Scan# 1321

Delta R.T. 0.03 min

Lab File: VL036887.D

Acq: 28 Apr 2021 19:57

Instrument :

MSVOA_L

ClientSampleId :

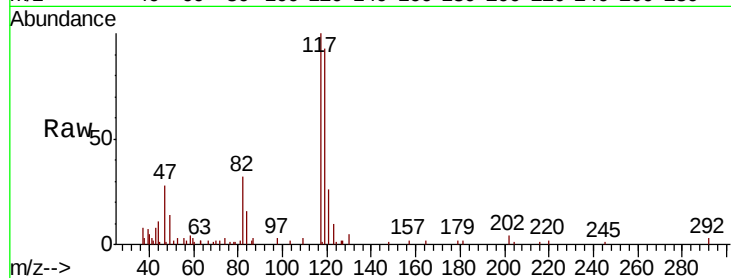
Tot Ion:117 Resp: 21214

Ion Ratio Lower Upper

117 100

119 90.6 74.6 111.8

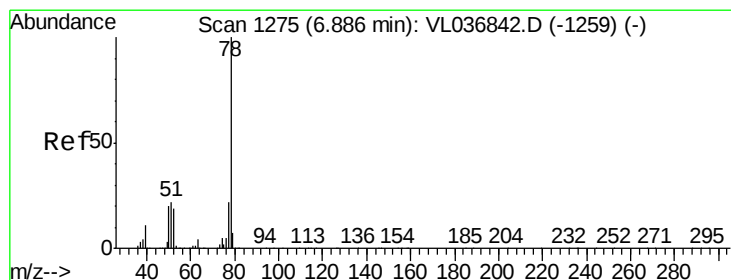
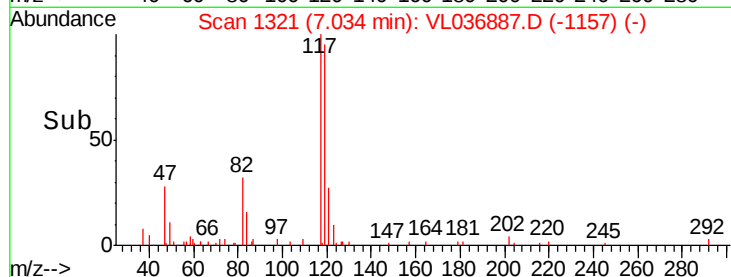
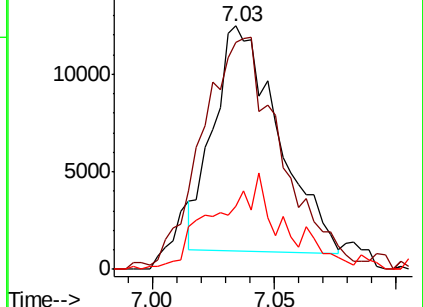
121 23.1 23.3 34.9#



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: 0.038 ppbv

RT: 6.91 min Scan# 1282

Delta R.T. 0.02 min

Lab File: VL036887.D

Acq: 28 Apr 2021 19:57

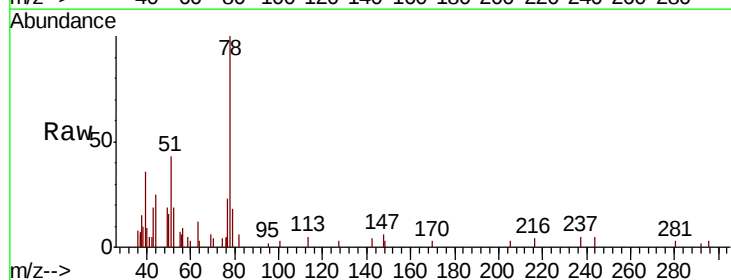
Tgt Ion: 78 Resp: 10831

Ion Ratio Lower Upper

78 100

77 24.8 17.6 26.4

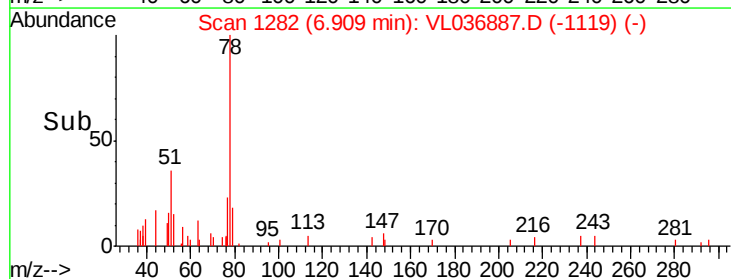
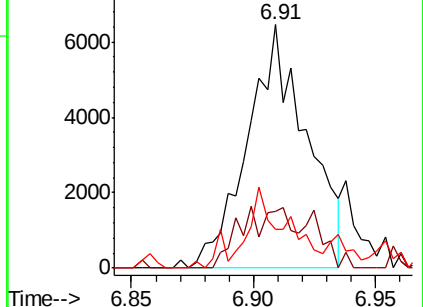
50 16.7 16.3 24.5

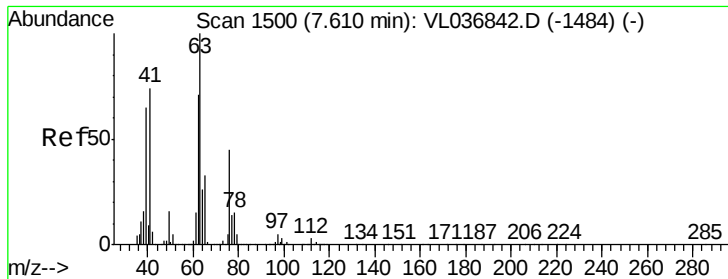


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0

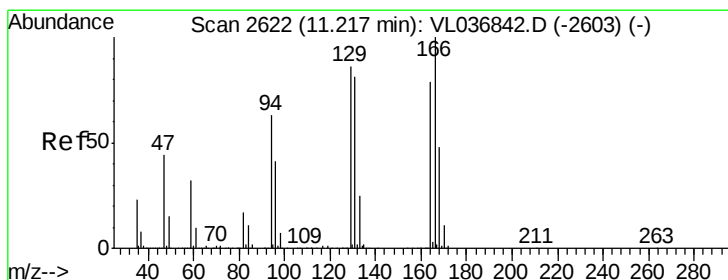
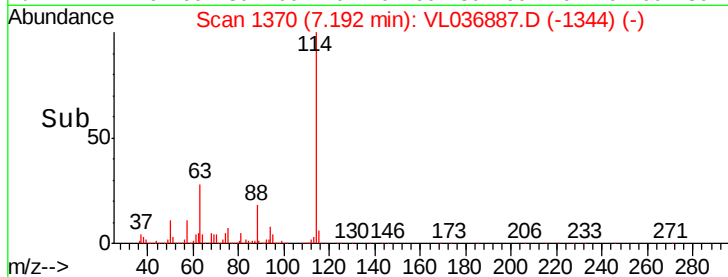
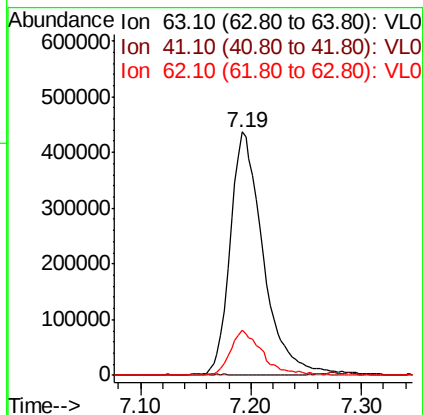
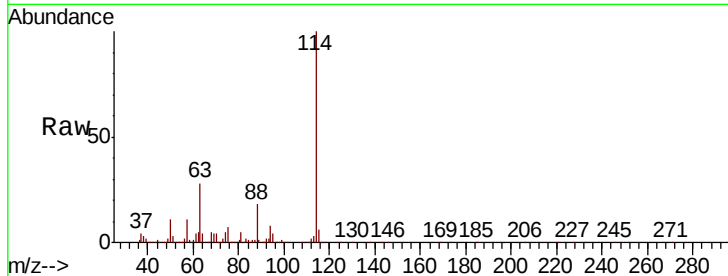




#39
 1,2-Dichloropropane
 Concen: 8.058 ppbv
 RT: 7.19 min Scan# 1370
 Delta R.T. -0.42 min
 Lab File: VL036887.D
 Acq: 28 Apr 2021 19:57

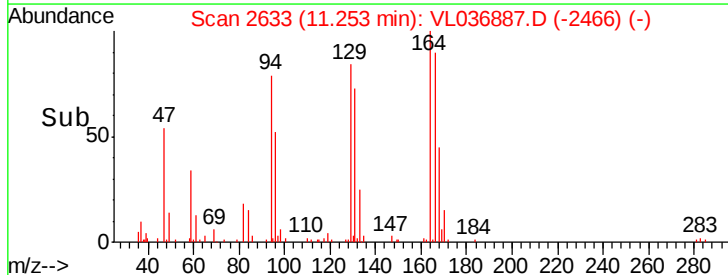
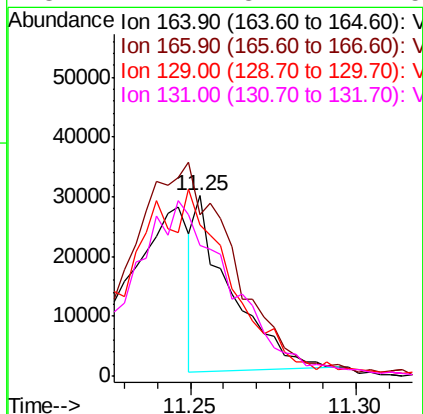
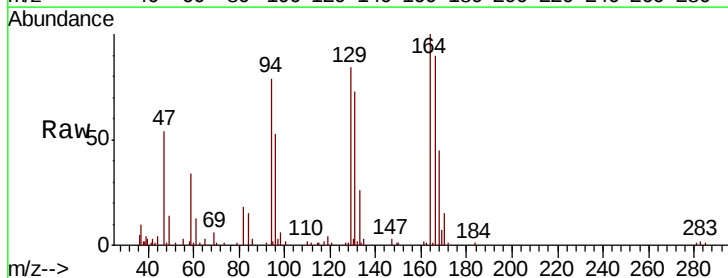
Instrument :
 MSVOA_L
 ClientSampled :

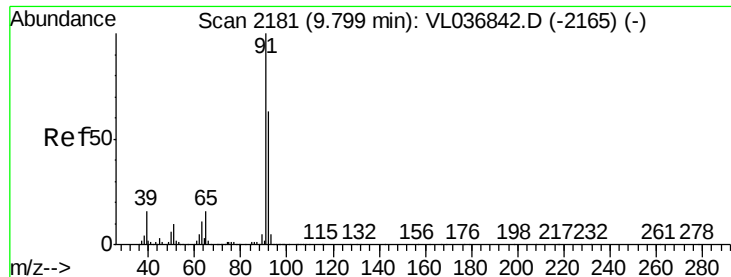
Tot Ion	Ratio	Lower	Upper
63	100		
41	0.0	59.1	88.7#
62	18.6	56.9	85.3#



#52
 Tetrachloroethene
 Concen: 0.232 ppbv
 RT: 11.25 min Scan# 2633
 Delta R.T. 0.04 min
 Lab File: VL036887.D
 Acq: 28 Apr 2021 19:57

Tgt Ion	Ratio	Lower	Upper
164	100		
166	87.5	100.9	151.3#
129	83.9	87.0	130.4#
131	72.1	81.7	122.5#





#53

Toluene

Concen: 0.137 ppbv

RT: 9.83 min Scan# 2189

Delta R.T. 0.03 min

Lab File: VL036887.D

Acq: 28 Apr 2021 19:57

Instrument :

MSVOA_L

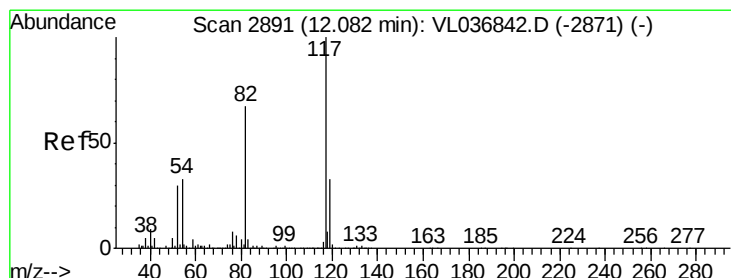
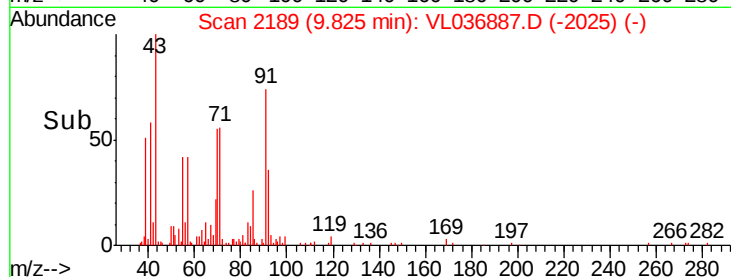
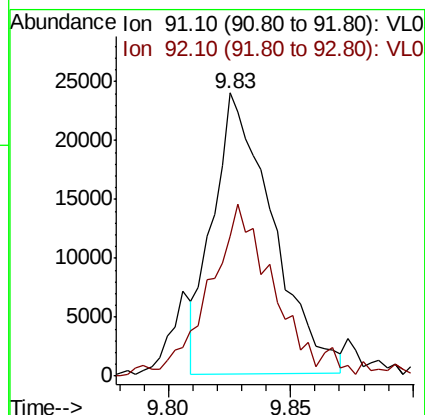
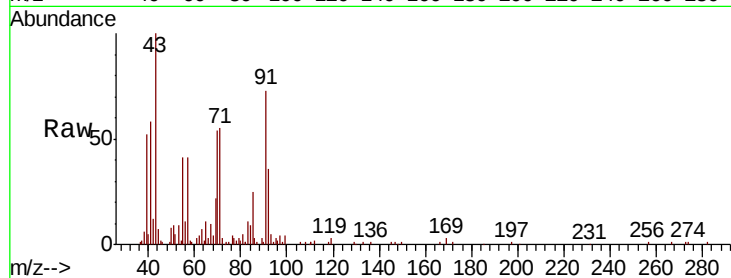
ClientSampleId :

Tot Ion: 91 Resp: 40365

Ion Ratio Lower Upper

91 100

92 68.2 49.0 73.4



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.11 min Scan# 2899

Delta R.T. 0.03 min

Lab File: VL036887.D

Acq: 28 Apr 2021 19:57

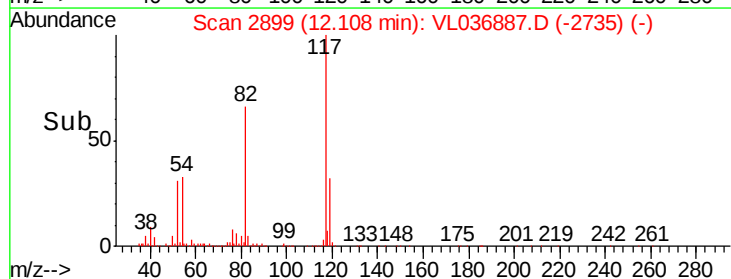
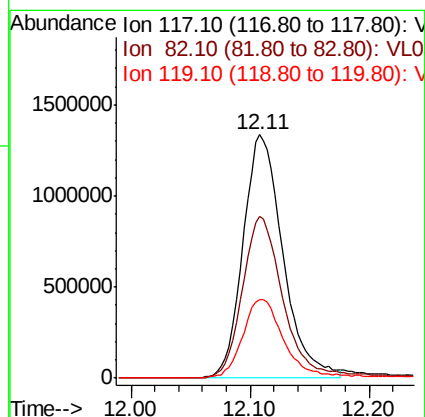
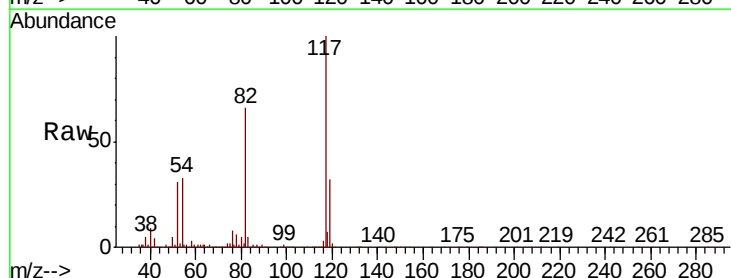
Tgt Ion: 117 Resp: 3102572

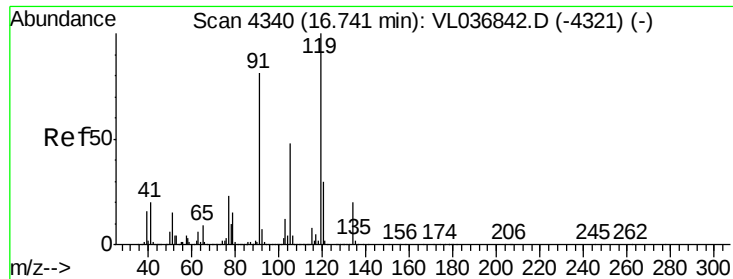
Ion Ratio Lower Upper

117 100

82 70.1 53.5 80.3

119 33.9 25.6 38.4





#65

tert-Butylbenzene

Concen: 0.529 ppbv

RT: 17.00 min Scan# 4422

Delta R.T. 0.26 min

Lab File: VL036887.D

Acq: 28 Apr 2021 19:57

Instrument :

MSVOA_L

ClientSampleId :

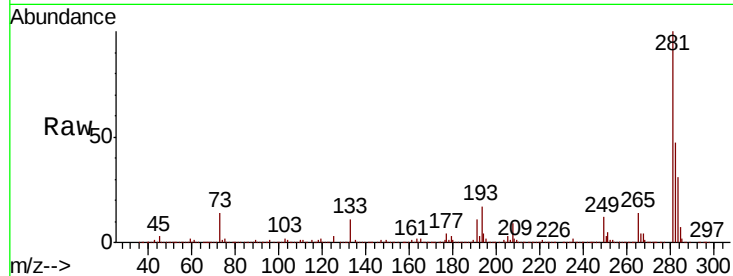
Tot Ion:119 Resp: 216511

Ion Ratio Lower Upper

119 100

91 0.2 67.0 100.6#

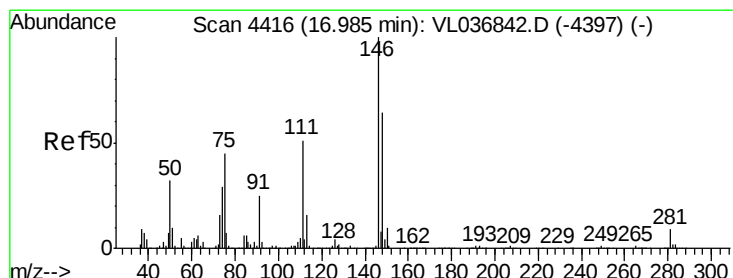
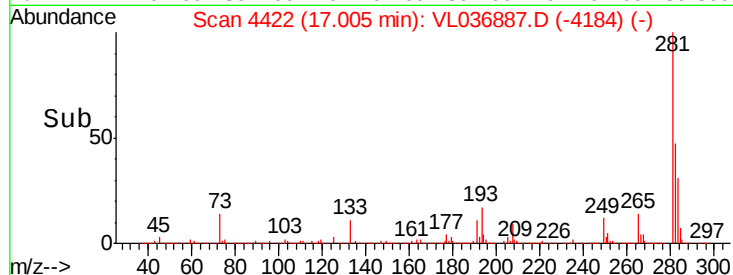
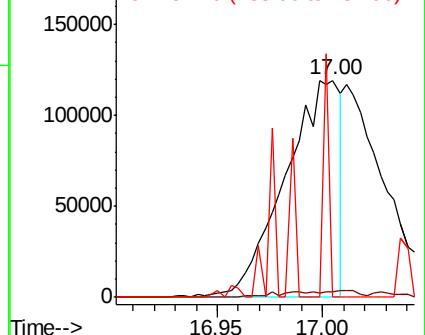
134 20.2 15.8 23.6



Abundance Ion 119.20 (118.90 to 119.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 134.20 (133.90 to 134.90): V



#66

Benzyl Chloride

Concen: 0.052 ppbv

RT: 17.03 min Scan# 4429

Delta R.T. 0.04 min

Lab File: VL036887.D

Acq: 28 Apr 2021 19:57

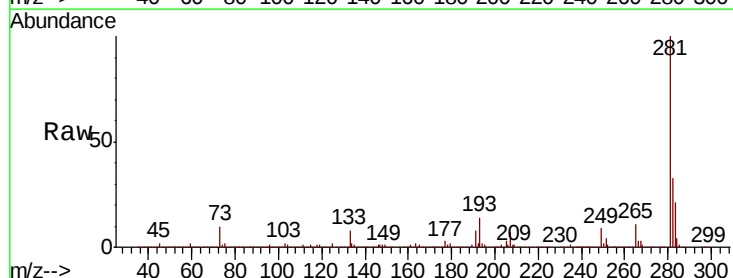
Tgt Ion: 91 Resp: 2092

Ion Ratio Lower Upper

91 100

126 0.0 14.1 21.1#

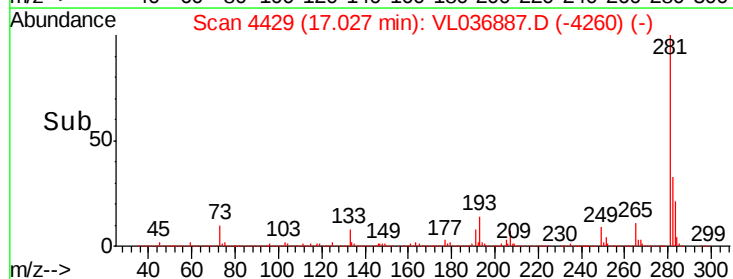
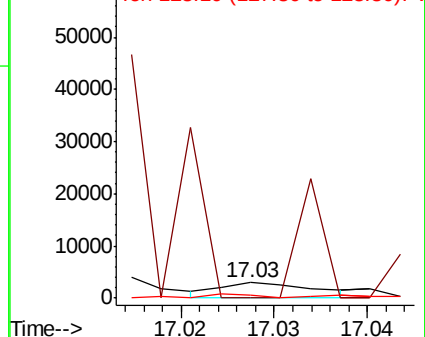
128 0.0 4.8 7.2#

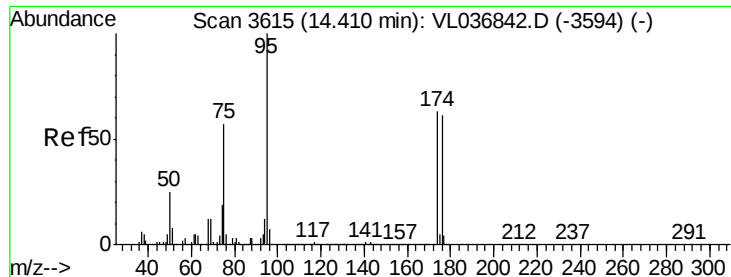


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

Ion 128.10 (127.80 to 128.80): V

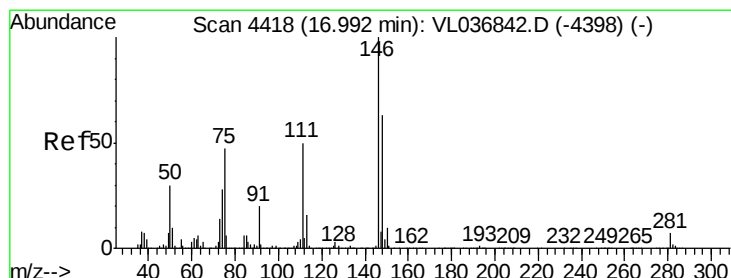
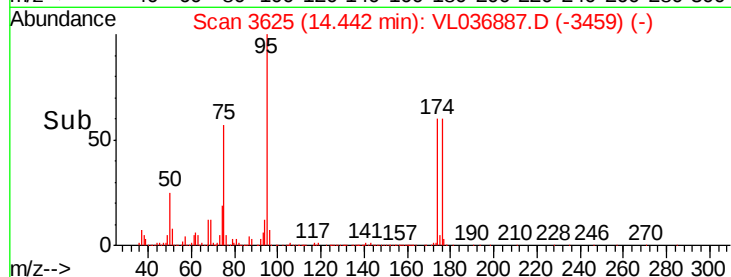
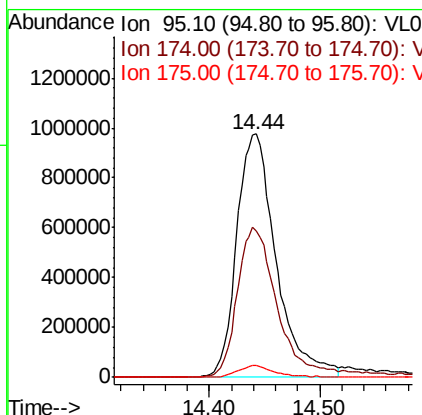
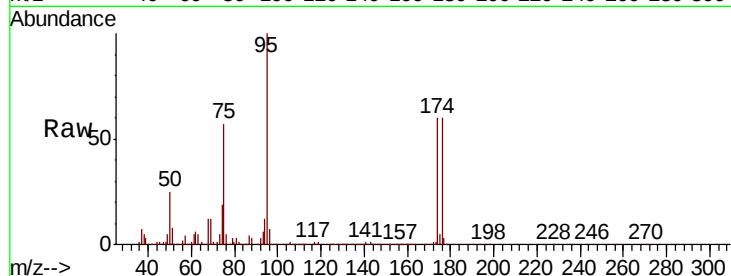




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.733 ppbv
 RT: 14.44 min Scan# 3625
 Delta R.T. 0.03 min
 Lab File: VL036887.D
 Acq: 28 Apr 2021 19:57

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion: 95 Resp: 2424013
 Ion Ratio Lower Upper
 95 100
 174 66.1 52.2 78.2
 175 4.6 4.0 6.0



#75
 1,3-Dichlorobenzene
 Concen: 0.421 ppbv
 RT: 17.03 min Scan# 4429
 Delta R.T. 0.04 min
 Lab File: VL036887.D
 Acq: 28 Apr 2021 19:57

Tgt Ion: 146 Resp: 93657
 Ion Ratio Lower Upper
 146 100
 111 164.2 24.2 72.6#
 148 113.0 32.1 96.3#

