

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032621\
 Data File : VL036528.D
 Acq On : 27 Mar 2021 00:30
 Operator : SY/AP
 Sample : M1760-17
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

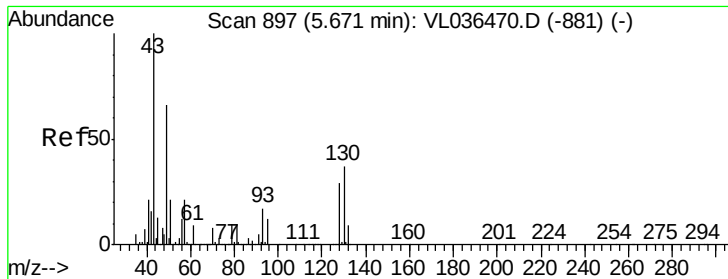
Quant Time: Mar 27 03:32:00 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1362359	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	3112149	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	2770703	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2194610	9.94	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.40%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.04	85	48018	0.216	ppbv 90
3) Chlorodifluoromethane	3.02	51	590651	2.320	ppbv # 59
4) Chloromethane	3.13	50	21422	0.238	ppbv 93
9) Propene	3.20	41	400220	4.932	ppbv 96
10) Heptane	8.11	43	8479	0.041	ppbv # 28
11) Trichlorofluoromethane	3.95	101	46171	0.204	ppbv 86
12) 1,1,2-Trichlorotrifluoroet	4.48	101	4809	0.033	ppbv # 18
13) Ethanol	3.62	45	1567274	162.191	ppbv 94
15) Acetone	3.85	43	1227901	9.157	ppbv 98
16) 1,3-Butadiene	3.30	39	5182	0.056	ppbv # 55
17) tert-Butyl alcohol	4.31	59	5062	0.043	ppbv # 72
19) Isopropyl Alcohol	3.98	45	417272	5.657	ppbv # 98
20) Methylene Chloride	4.34	84	744789	11.863	ppbv 93
23) Vinyl Acetate	5.07	43	8447	0.037	ppbv # 78
25) Ethyl Acetate	5.69	43	374016	1.173	ppbv # 81
26) Hexane	5.68	57	468586	3.167	ppbv # 48
29) Chloroform	5.75	83	9990	0.042	ppbv # 70
34) 2-Butanone	5.25	43	38981	0.257	ppbv # 82
35) Carbon Tetrachloride	7.02	117	7430	0.031	ppbv 89
36) Benzene	6.89	78	18600	0.065	ppbv # 91
39) 1,2-Dichloropropane	7.17	63	859197	7.379	ppbv # 23
41) Tetrahydrofuran	5.69	42	215275	3.073	ppbv # 53
53) Toluene	9.81	91	50198	0.164	ppbv 94
60) o-Xylene	13.70	91	26115	0.077	ppbv 94
76) 1,4-Dichlorobenzene	17.14	146	7066	0.034	ppbv # 22

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 895

Delta R.T. -0.01 min

Lab File: VL036528.D

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MSVOA_L

ClientSampleId :

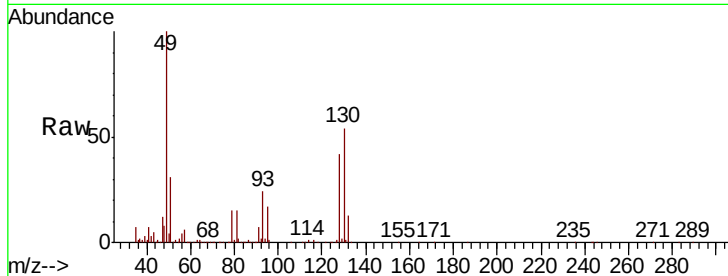
Tot Ion: 49 Resp: 1362359

Ion Ratio Lower Upper

49 100

128 45.1 23.5 70.6

130 57.4 29.1 87.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V

800000

600000

400000

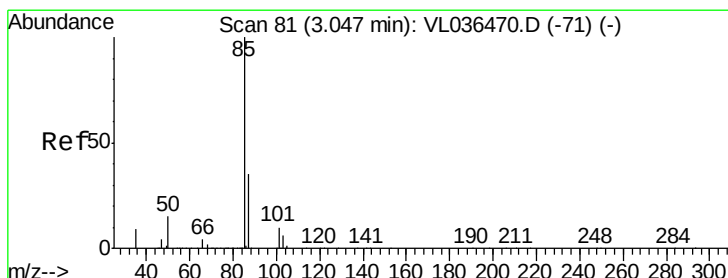
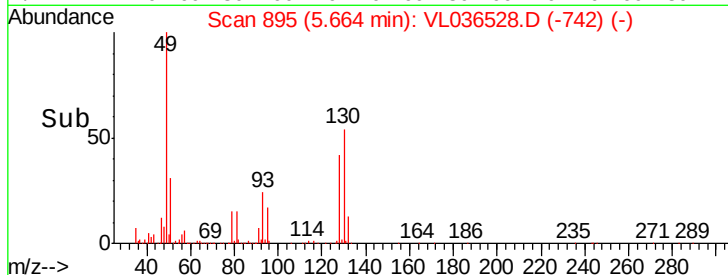
200000

0

5.66

5.60 5.65 5.70 5.75

Time-->



#2

Dichlorodifluoromethane

Concen: 0.216 ppbv

RT: 3.04 min Scan# 80

Delta R.T. -0.00 min

Lab File: VL036528.D

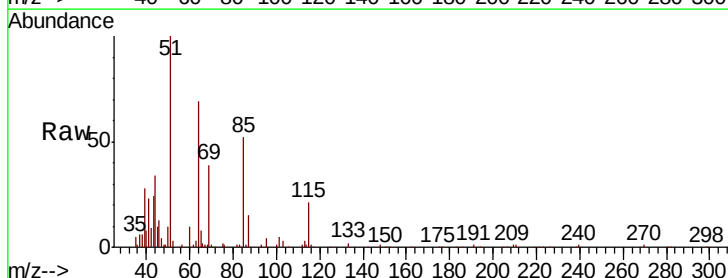
Acq: 27 Mar 2021 00:30

Tgt Ion: 85 Resp: 48018

Ion Ratio Lower Upper

85 100

87 29.0 27.8 41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

40000

30000

20000

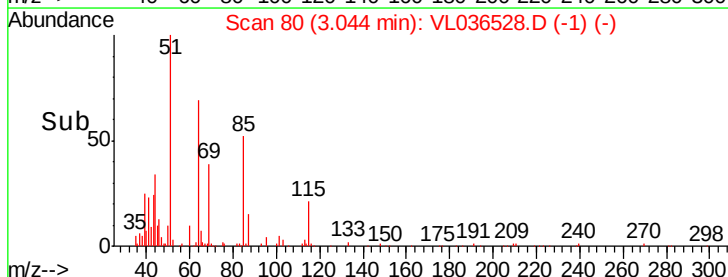
10000

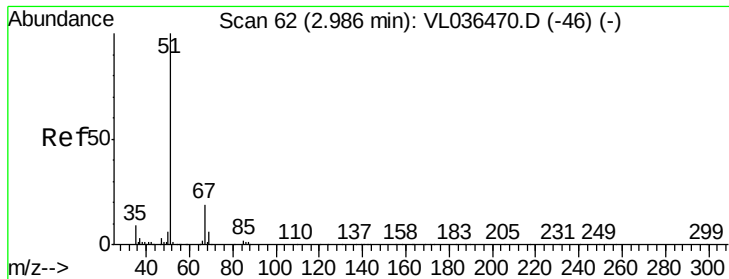
0

3.04

3.00 3.05

Time-->





#3

Chlorodifluoromethane

Concen: 2.320 ppbv

RT: 3.02 min Scan# 73

Delta R.T. 0.04 min

Lab File: VL036528.D

Acq: 27 Mar 2021 00:30

Instrument :

MSVOA_L

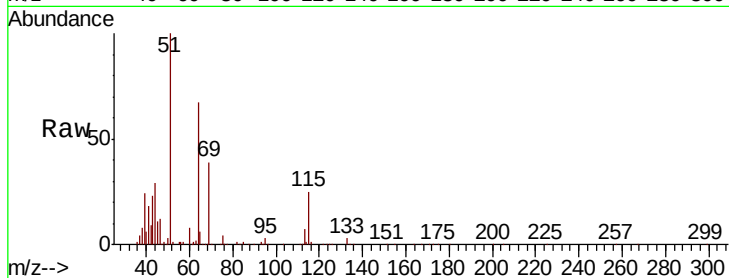
ClientSampleId :

Tot Ion: 51 Resp: 590651

Ion Ratio Lower Upper

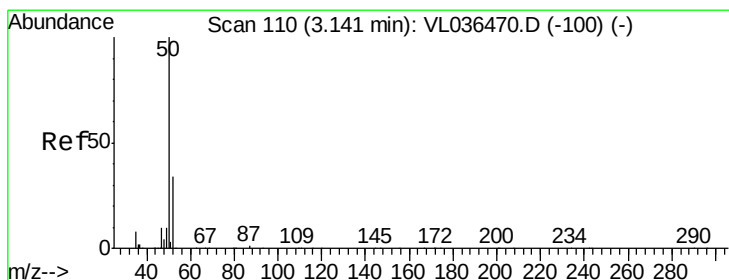
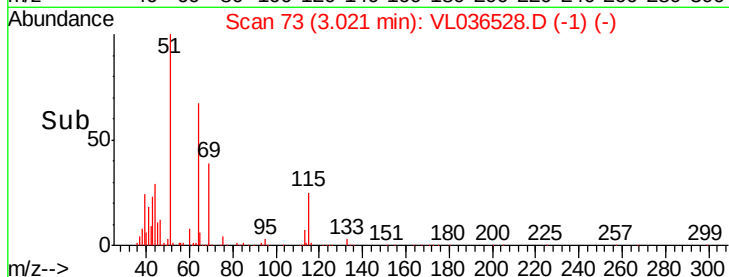
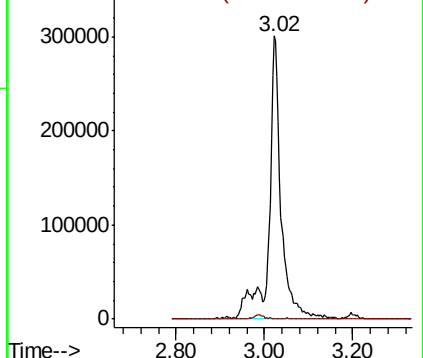
51 100

67 0.1 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: 0.238 ppbv

RT: 3.13 min Scan# 108

Delta R.T. -0.01 min

Lab File: VL036528.D

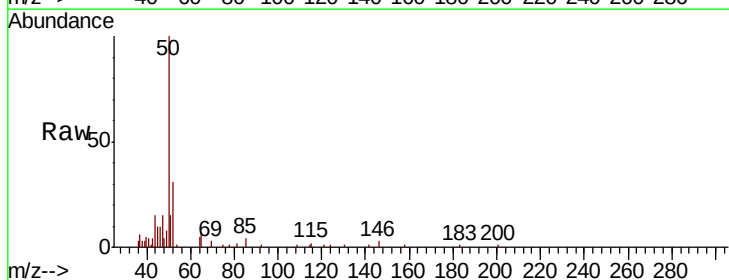
Acq: 27 Mar 2021 00:30

Tgt Ion: 50 Resp: 21422

Ion Ratio Lower Upper

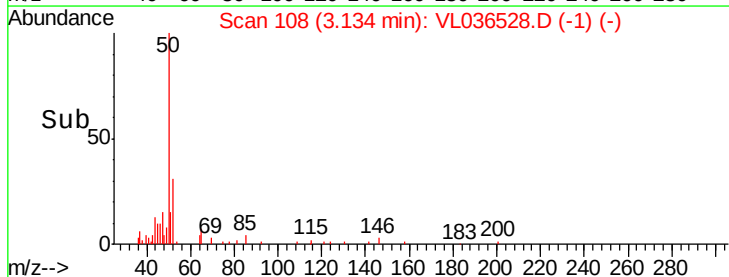
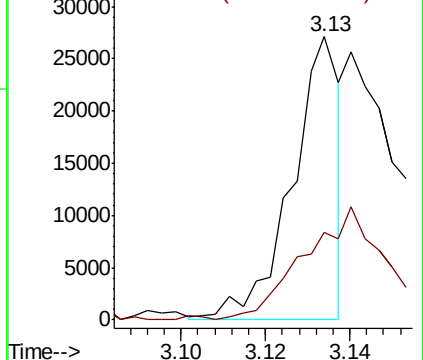
50 100

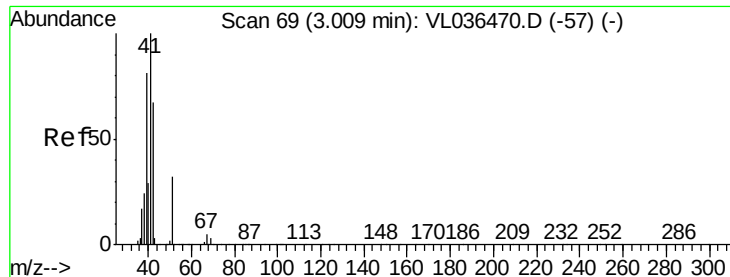
52 30.0 27.0 40.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 4.932 ppbv

RT: 3.20 min Scan# 128

Delta R.T. 0.19 min

Lab File: VL036528.D

Acq: 27 Mar 2021 00:30

Instrument :

MSVOA_L

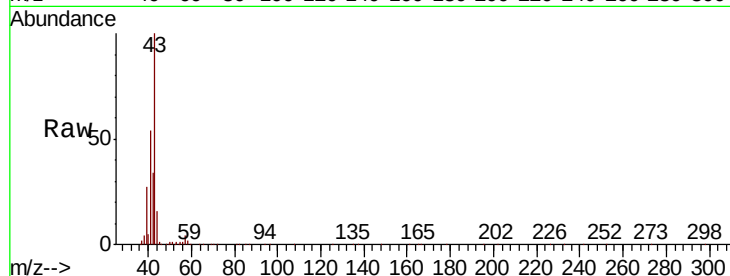
ClientSampleId :

Tot Ion: 41 Resp: 400220

Ion Ratio Lower Upper

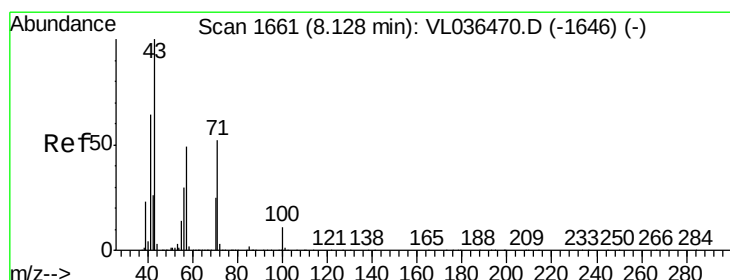
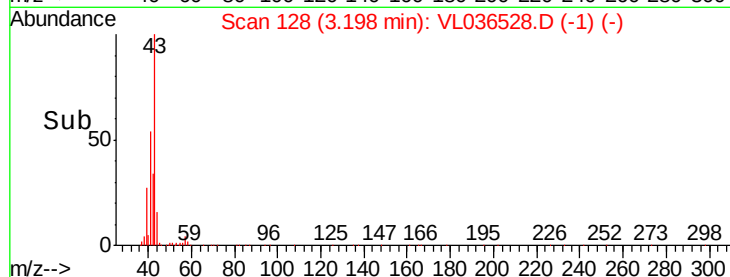
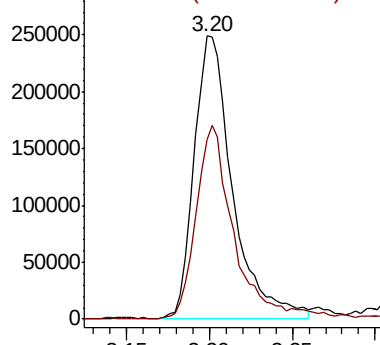
41 100

42 67.9 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: 0.041 ppbv

RT: 8.11 min Scan# 1657

Delta R.T. -0.01 min

Lab File: VL036528.D

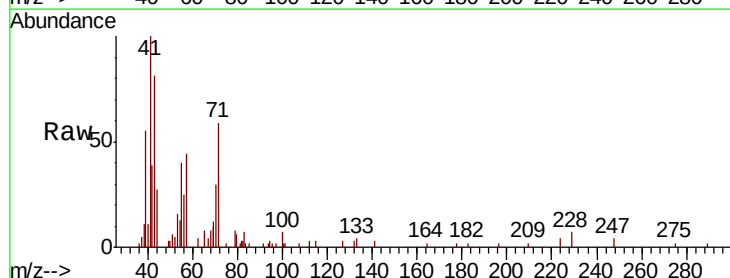
Acq: 27 Mar 2021 00:30

Tgt Ion: 43 Resp: 8479

Ion Ratio Lower Upper

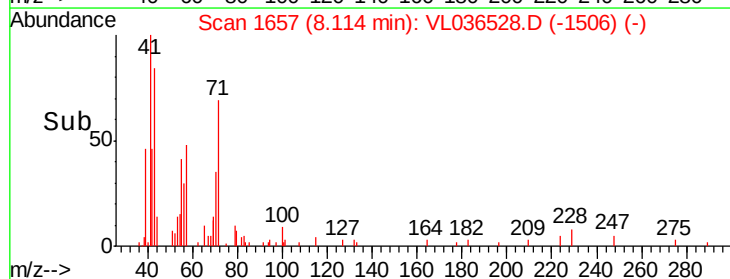
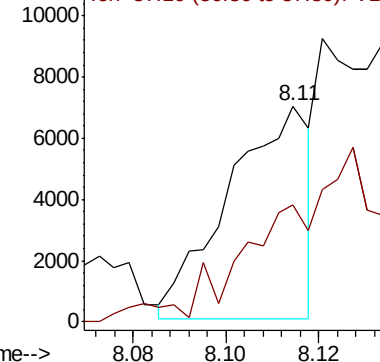
43 100

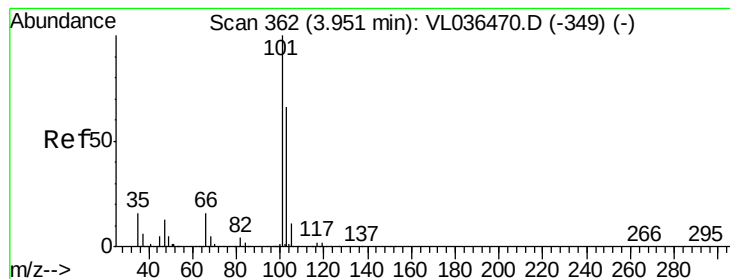
57 0.0 39.0 58.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#11

Trichlorofluoromethane

Concen: 0.204 ppbv

RT: 3.95 min Scan# 362

Delta R.T. -0.00 min

Lab File: VL036528.D

Acq: 27 Mar 2021 00:30

Instrument :

MSVOA_L

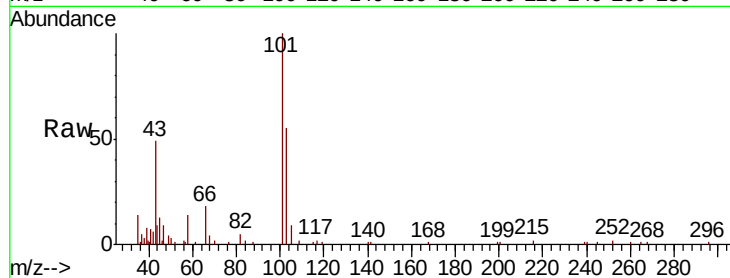
ClientSampleId :

Tot Ion:101 Resp: 46171

Ion Ratio Lower Upper

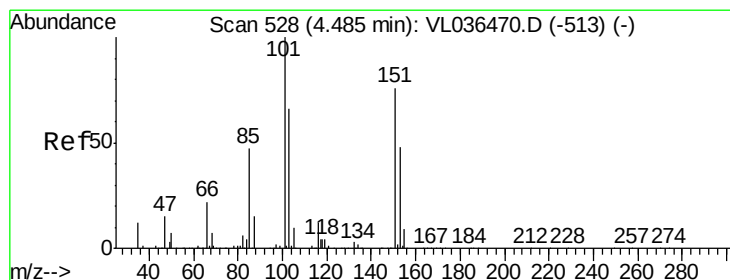
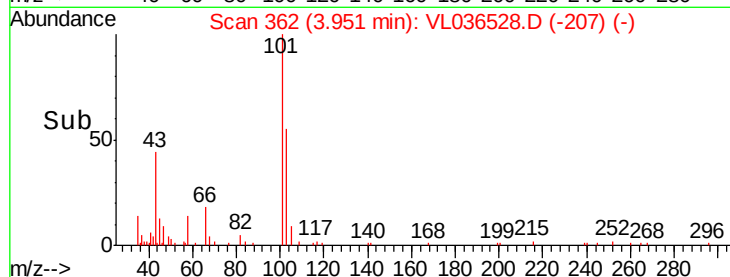
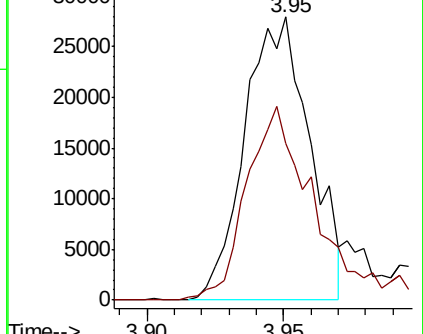
101 100

103 54.1 52.5 78.7



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.033 ppbv

RT: 4.48 min Scan# 528

Delta R.T. -0.00 min

Lab File: VL036528.D

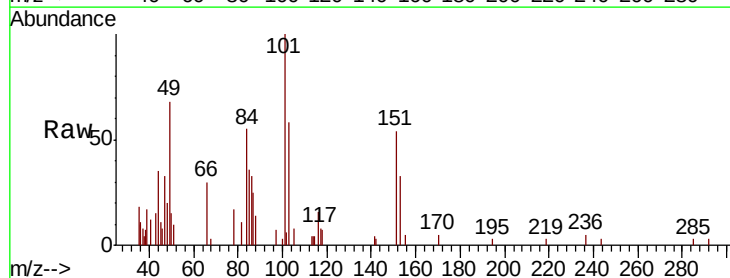
Acq: 27 Mar 2021 00:30

Tgt Ion:101 Resp: 4809

Ion Ratio Lower Upper

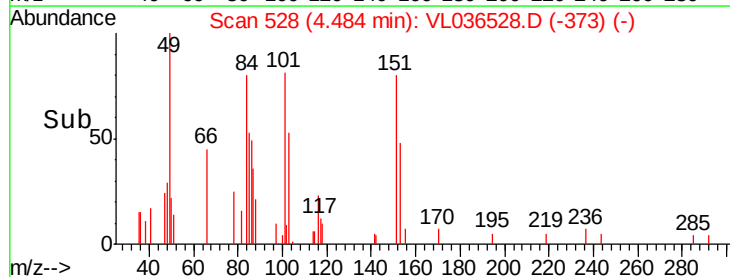
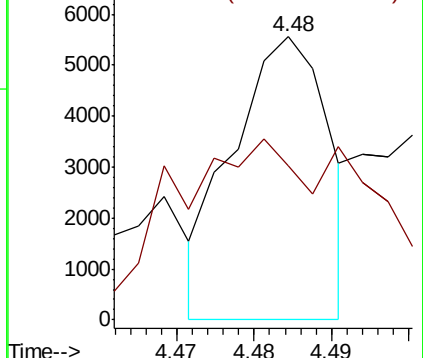
101 100

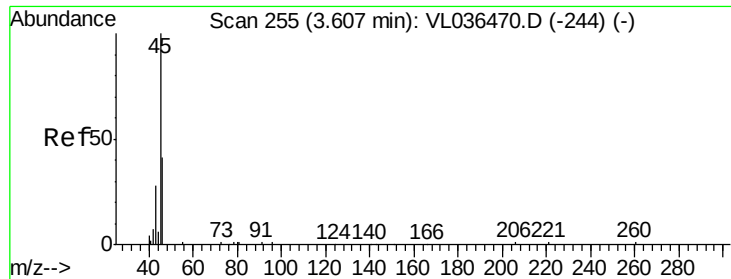
151 146.7 60.9 91.3#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

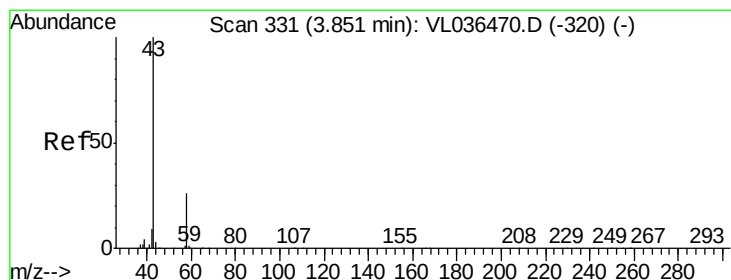
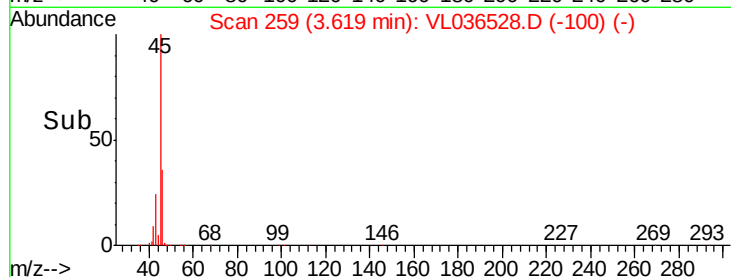
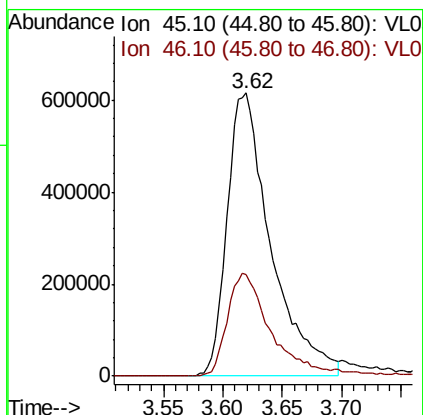
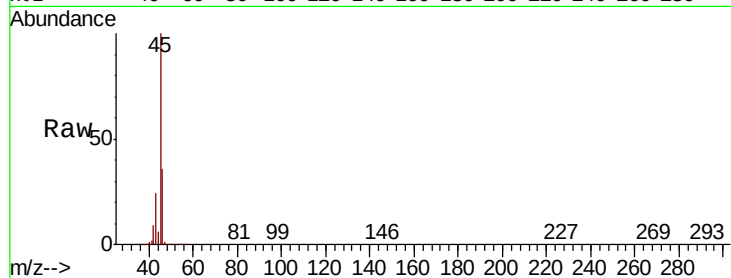




#13
Ethanol
Concen: 162.191 ppbv
RT: 3.62 min Scan# 259
Delta R.T. 0.01 min
Lab File: VL036528.D
Acq: 27 Mar 2021 00:30

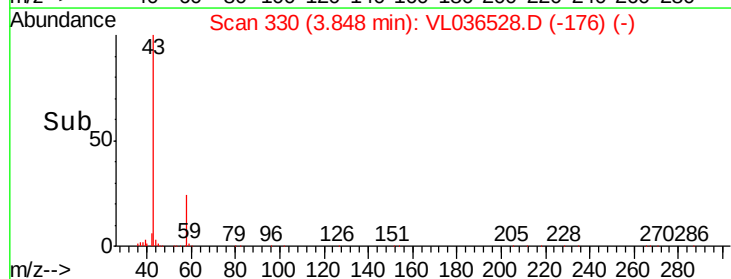
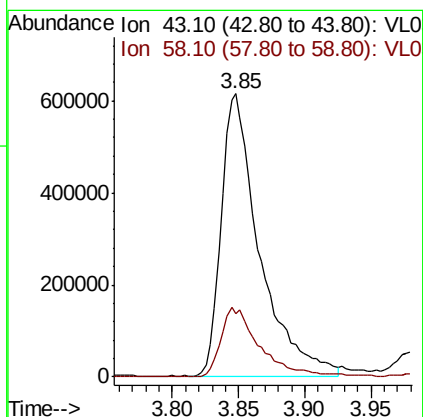
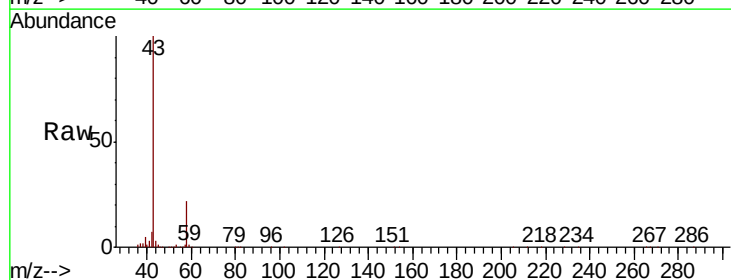
Instrument :
MSVOA_L
ClientSampleId :

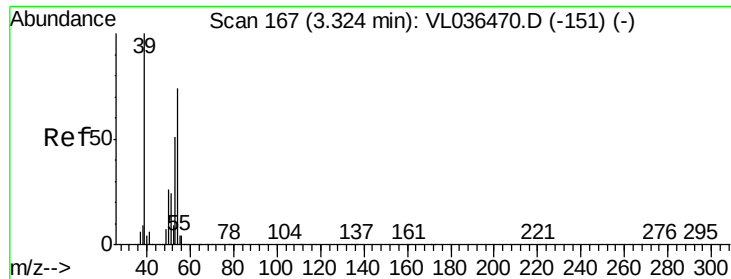
Tot Ion: 45 Resp: 1567274
Ion Ratio Lower Upper
45 100
46 37.5 16.6 66.2



#15
Acetone
Concen: 9.157 ppbv
RT: 3.85 min Scan# 330
Delta R.T. -0.00 min
Lab File: VL036528.D
Acq: 27 Mar 2021 00:30

Tgt Ion: 43 Resp: 1227901
Ion Ratio Lower Upper
43 100
58 25.6 21.2 31.8

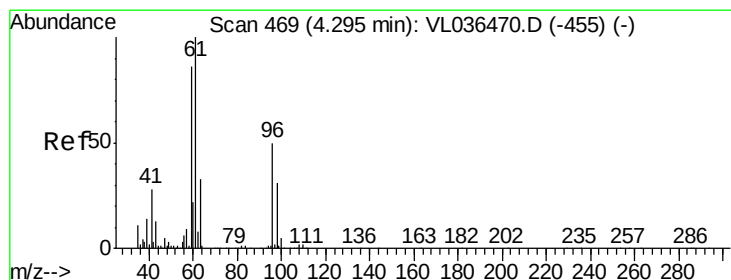
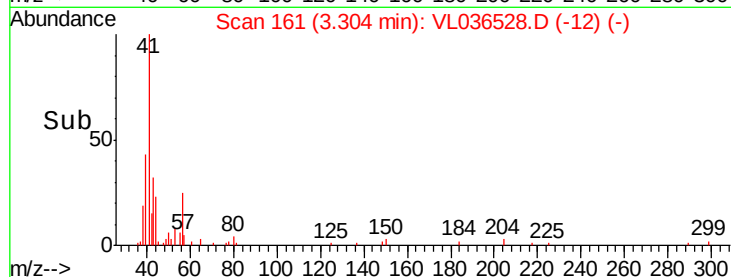
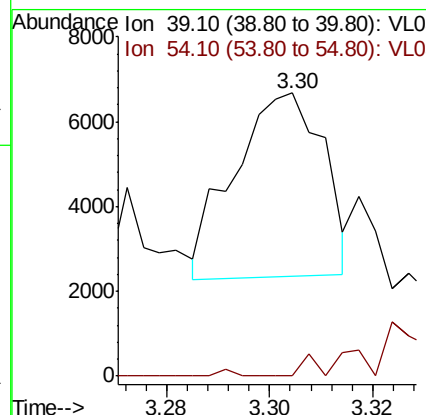
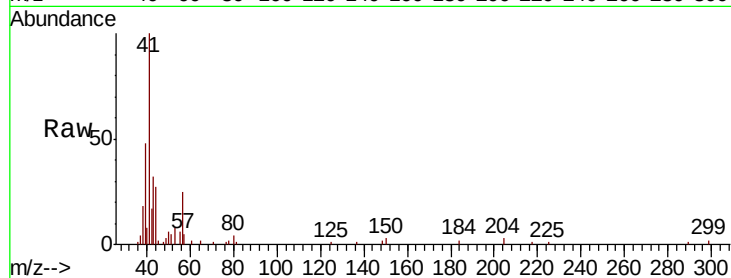




#16
 1,3-Butadiene
 Concen: 0.056 ppbv
 RT: 3.30 min Scan# 161
 Delta R.T. -0.02 min
 Lab File: VL036528.D
 Acq: 27 Mar 2021 00:30

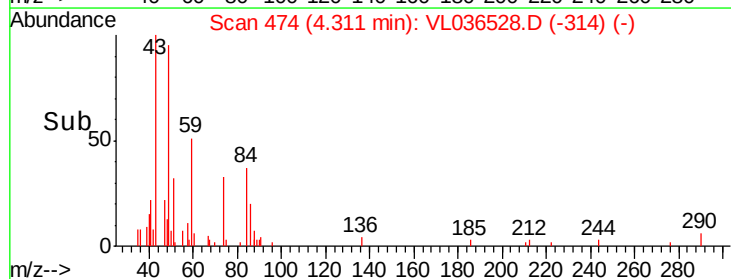
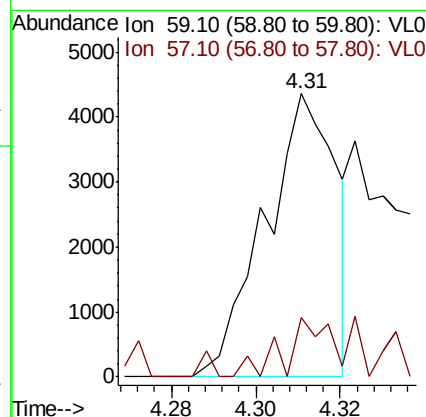
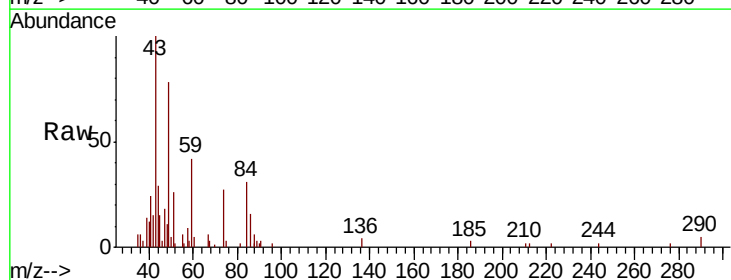
Instrument :
 MSVOA_L
 ClientSampleId :

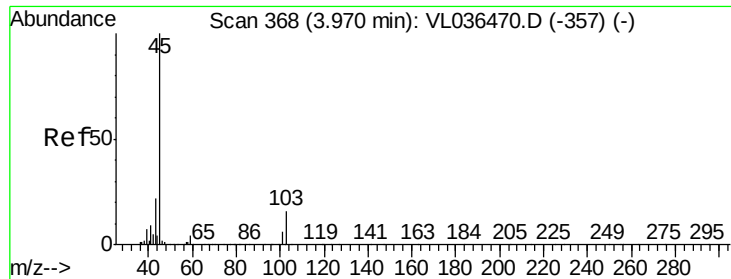
Tot Ion: 39 Resp: 5182
 Ion Ratio Lower Upper
 39 100
 54 36.0 58.8 88.2#



#17
 tert-Butyl alcohol
 Concen: 0.043 ppbv
 RT: 4.31 min Scan# 474
 Delta R.T. 0.02 min
 Lab File: VL036528.D
 Acq: 27 Mar 2021 00:30

Tgt Ion: 59 Resp: 5062
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.6 12.8#





#19

Isopropyl Alcohol

Concen: 5.657 ppbv

RT: 3.98 min Scan# 372

Delta R.T. 0.01 min

Lab File: VL036528.D

Acq: 27 Mar 2021 00:30

Instrument :

MSVOA_L

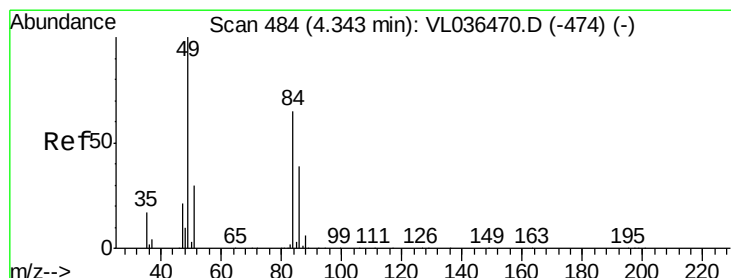
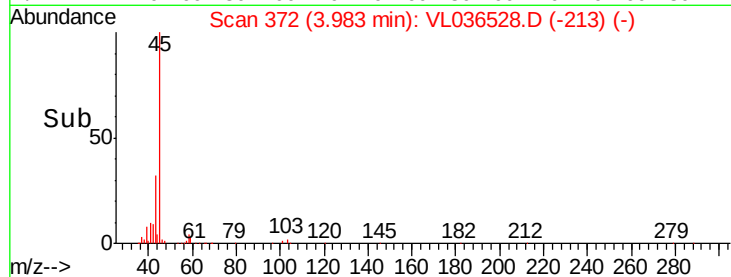
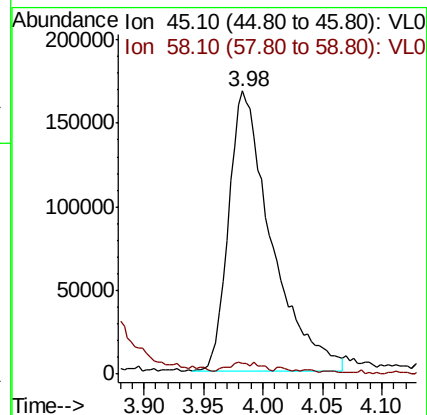
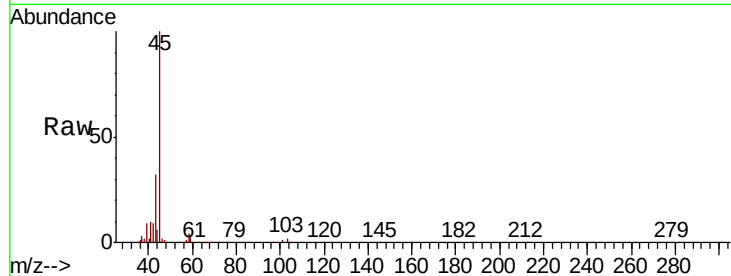
ClientSampleId :

Tot Ion: 45 Resp: 417272

Ion Ratio Lower Upper

45 100

58 4.3 2.9 4.3#



#20

Methylene Chloride

Concen: 11.863 ppbv

RT: 4.34 min Scan# 484

Delta R.T. -0.00 min

Lab File: VL036528.D

Acq: 27 Mar 2021 00:30

Tgt Ion: 84 Resp: 744789

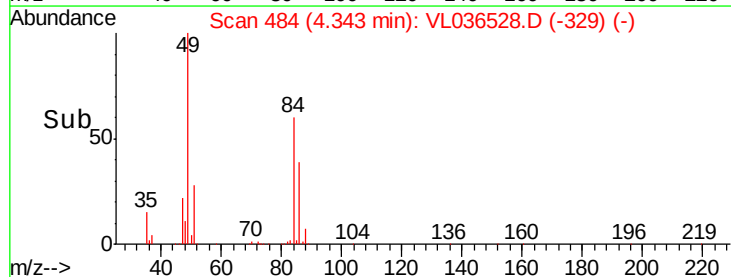
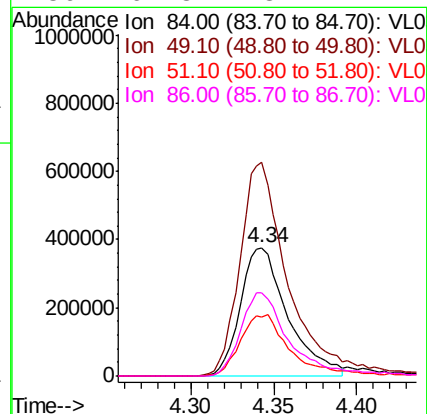
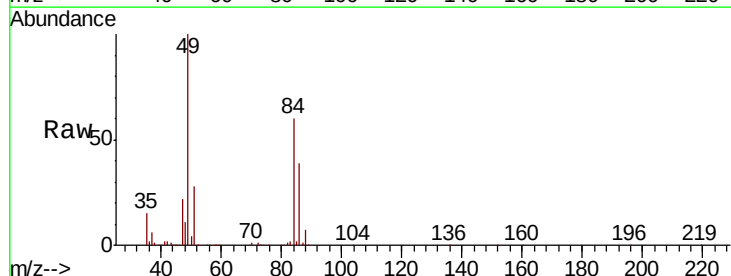
Ion Ratio Lower Upper

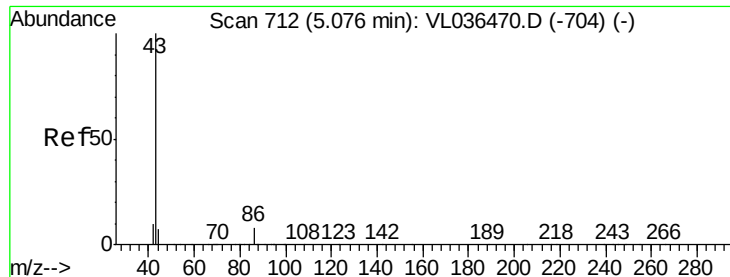
84 100

49 166.6 122.9 184.3

51 46.4 36.9 55.3

86 64.8 48.2 72.4





#23

Vinyl Acetate

Concen: 0.037 ppbv

RT: 5.07 min Scan# 710

Delta R.T. -0.01 min

Lab File: VL036528.D

Acq: 27 Mar 2021 00:30

Instrument :

MSVOA_L

ClientSampled :

Tot Ion: 43 Resp: 8447

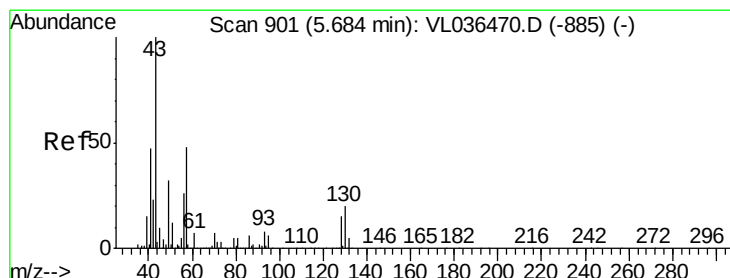
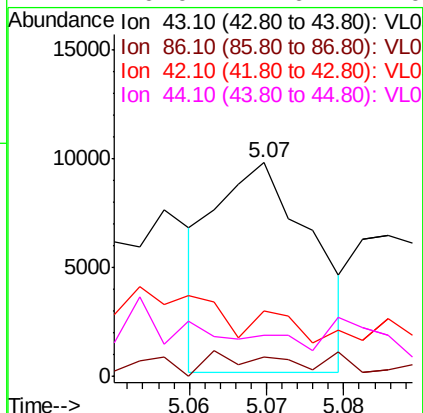
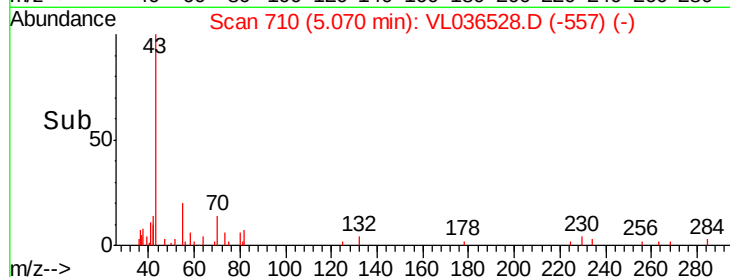
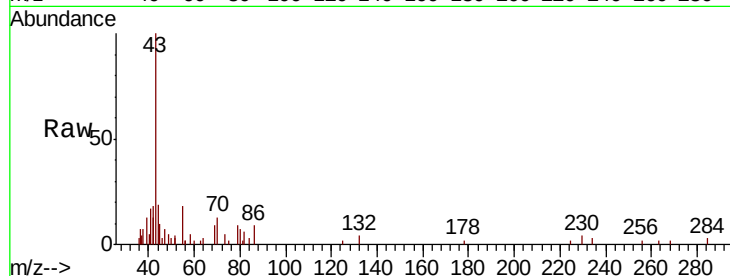
Ion Ratio Lower Upper

43 100

86 17.1 5.4 8.0#

42 17.8 8.5 12.7#

44 0.0 4.6 7.0#



#25

Ethyl Acetate

Concen: 1.173 ppbv

RT: 5.69 min Scan# 902

Delta R.T. 0.00 min

Lab File: VL036528.D

Acq: 27 Mar 2021 00:30

Tgt Ion: 43 Resp: 374016

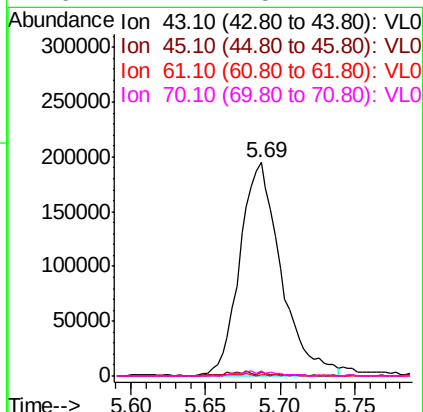
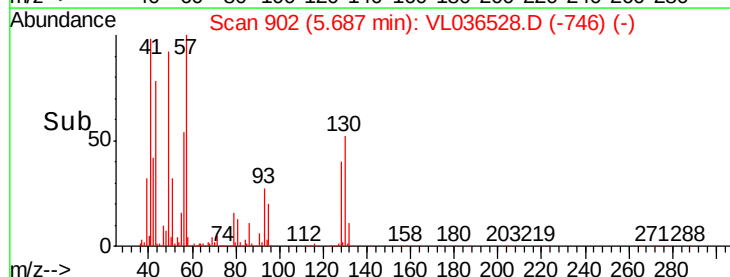
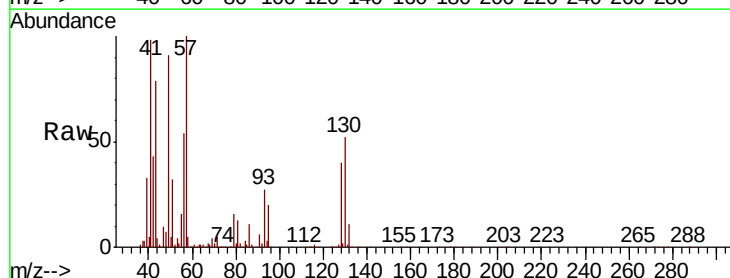
Ion Ratio Lower Upper

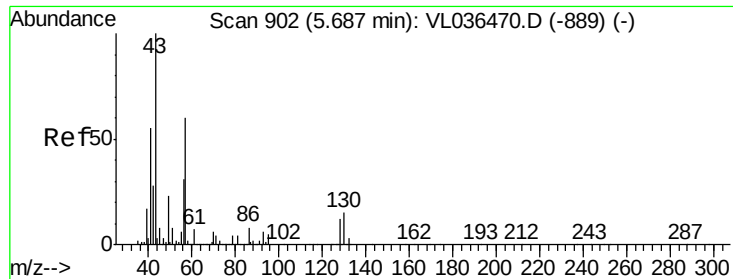
43 100

45 2.3 7.9 11.9#

61 1.4 7.4 11.2#

70 2.2 5.1 7.7#

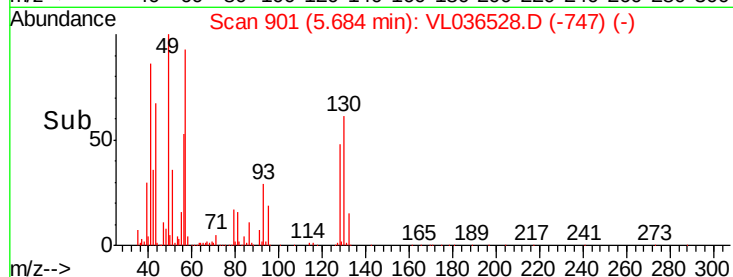
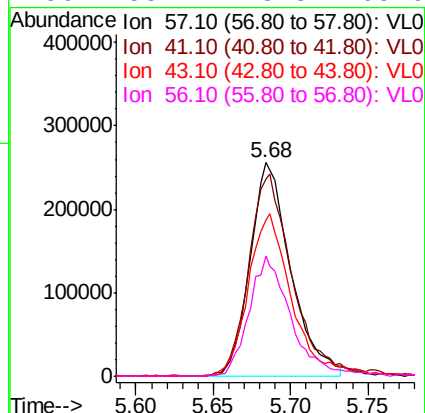
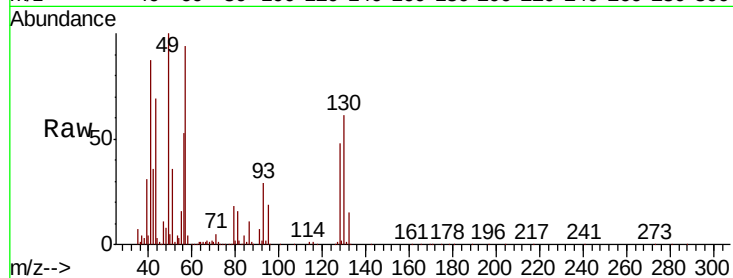




#26
Hexane
Concen: 3.167 ppbv
RT: 5.68 min Scan# 901
Delta R.T. -0.00 min
Lab File: VL036528.D
Acq: 27 Mar 2021 00:30

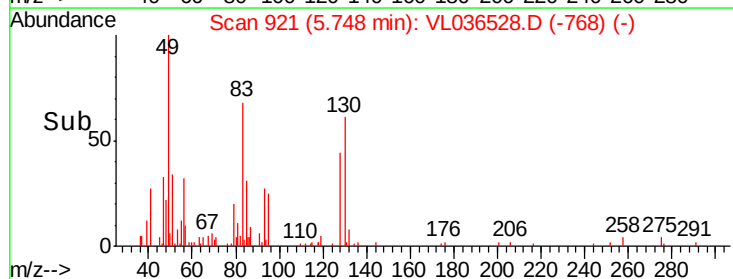
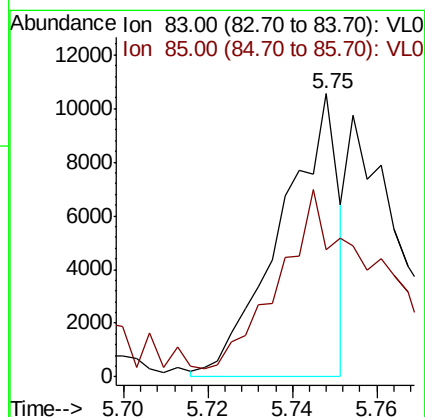
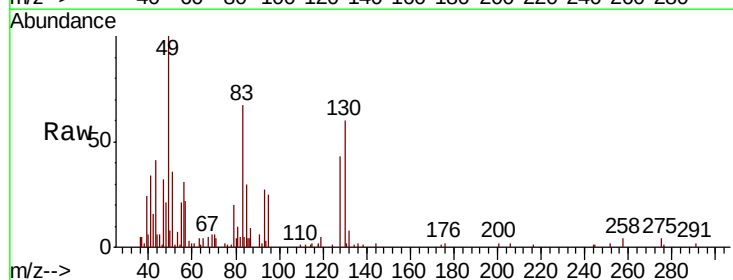
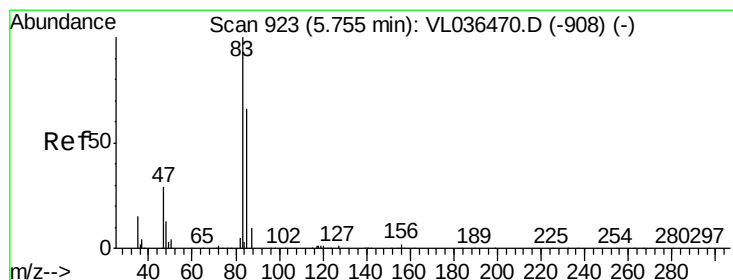
Instrument :
MSVOA_L
ClientSampled :

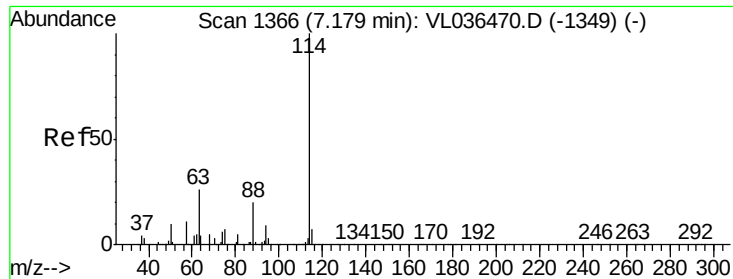
Tot Ion	Ratio	Lower	Upper
57	100		
41	103.2	77.2	115.8
43	82.3	173.8	260.6#
56	58.7	43.8	65.6



#29
Chloroform
Concen: 0.042 ppbv
RT: 5.75 min Scan# 921
Delta R.T. -0.01 min
Lab File: VL036528.D
Acq: 27 Mar 2021 00:30

Tgt Ion	Ratio	Lower	Upper
83	100		
85	41.8	52.6	78.8#

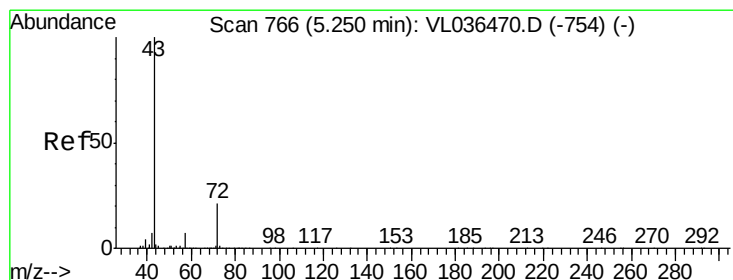
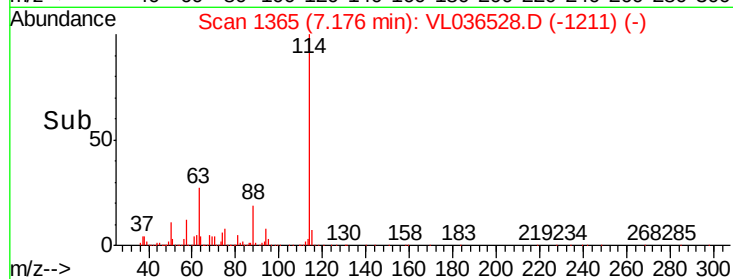
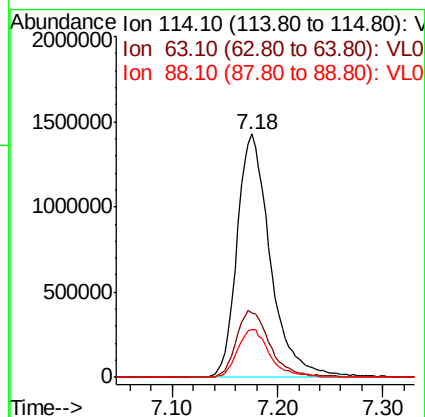
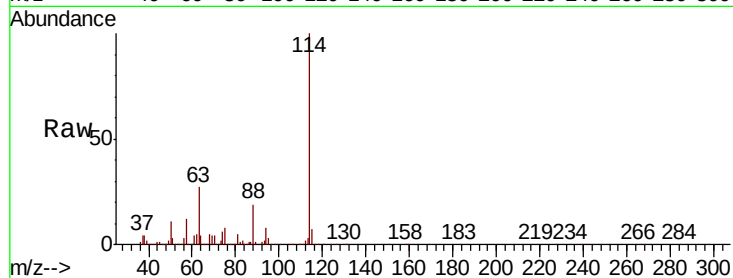




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1365
 Delta R.T. -0.00 min
 Lab File: VL036528.D
 Acq: 27 Mar 2021 00:30

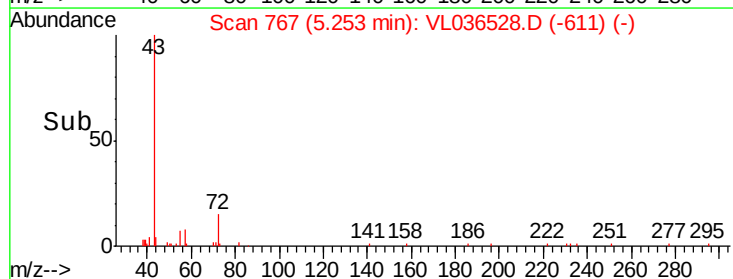
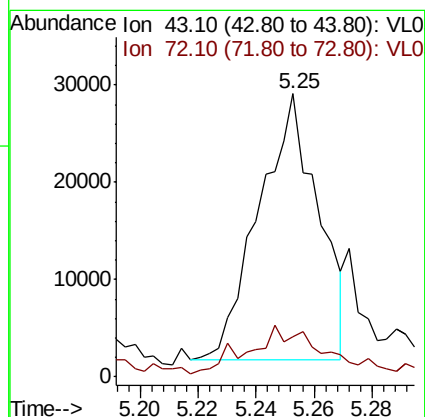
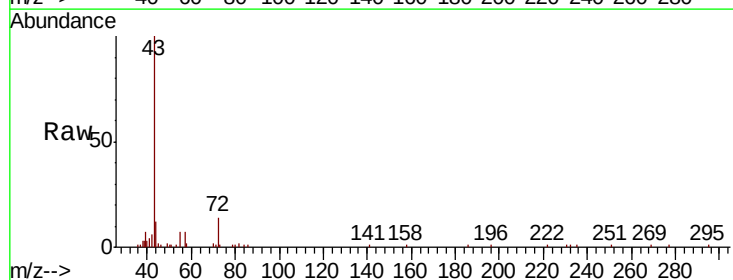
Instrument :
 MSVOA_L
 ClientSampleId :

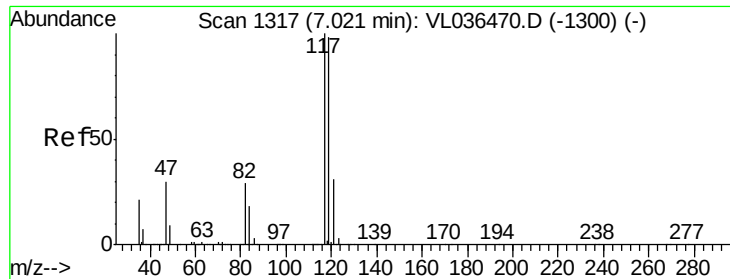
Tot Ion:114 Resp: 3112149
 Ion Ratio Lower Upper
 114 100
 63 28.3 22.4 33.6
 88 19.6 15.4 23.0



#34
 2-Butanone
 Concen: 0.257 ppbv
 RT: 5.25 min Scan# 767
 Delta R.T. 0.00 min
 Lab File: VL036528.D
 Acq: 27 Mar 2021 00:30

Tgt Ion: 43 Resp: 38981
 Ion Ratio Lower Upper
 43 100
 72 29.8 17.0 25.6#

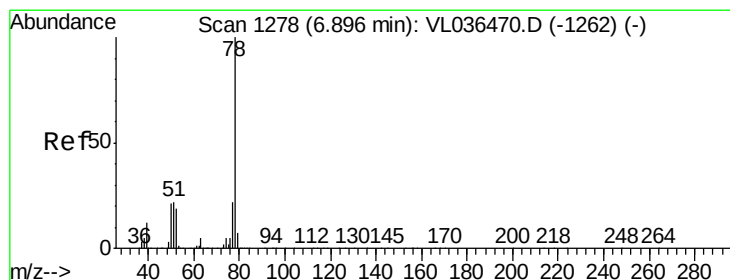
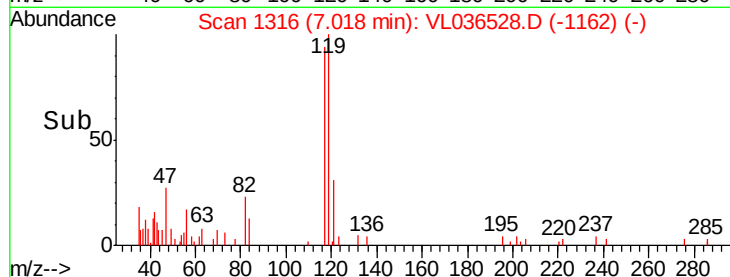
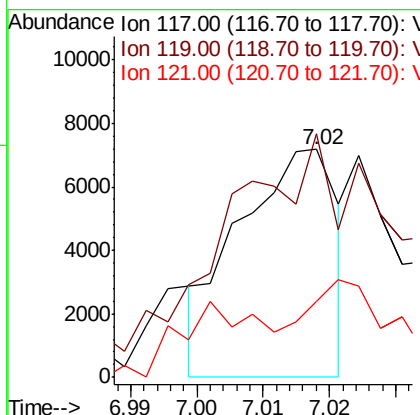
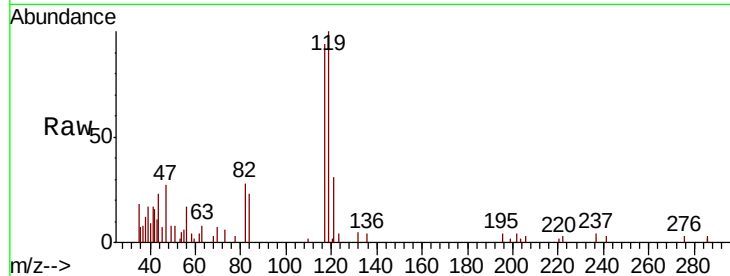




#35
Carbon Tetrachloride
Concen: 0.031 ppbv
RT: 7.02 min Scan# 1316
Delta R.T. -0.00 min
Lab File: VL036528.D
Acq: 27 Mar 2021 00:30

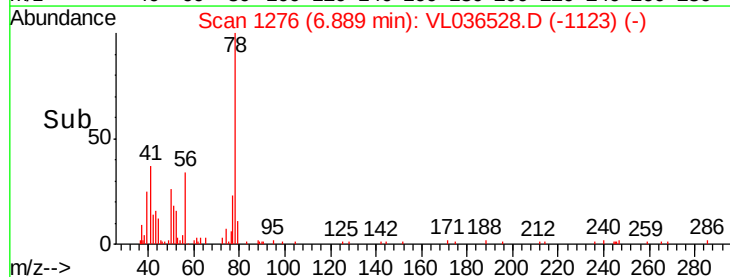
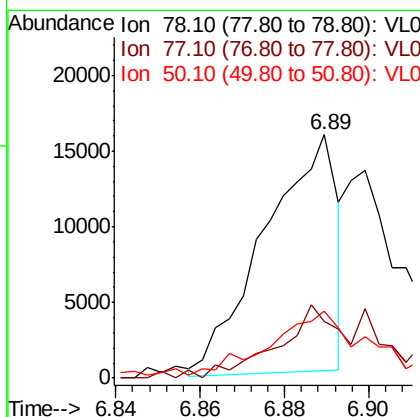
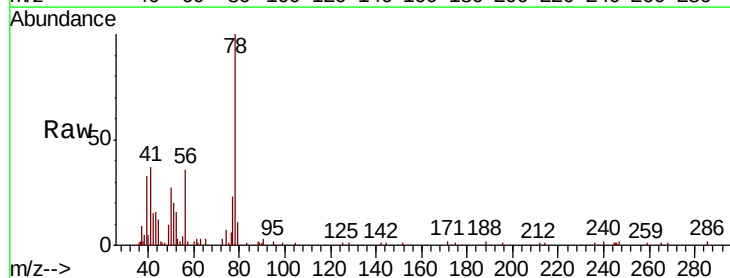
Instrument :
MSVOA_L
ClientSampled :

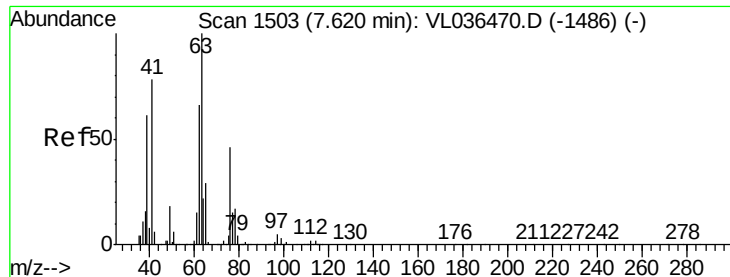
Tot Ion:117 Resp: 7430
Ion Ratio Lower Upper
117 100
119 110.1 78.2 117.2
121 28.1 24.5 36.7



#36
Benzene
Concen: 0.065 ppbv
RT: 6.89 min Scan# 1276
Delta R.T. -0.01 min
Lab File: VL036528.D
Acq: 27 Mar 2021 00:30

Tgt Ion: 78 Resp: 18600
Ion Ratio Lower Upper
78 100
77 20.7 18.0 27.0
50 27.2 16.5 24.7#

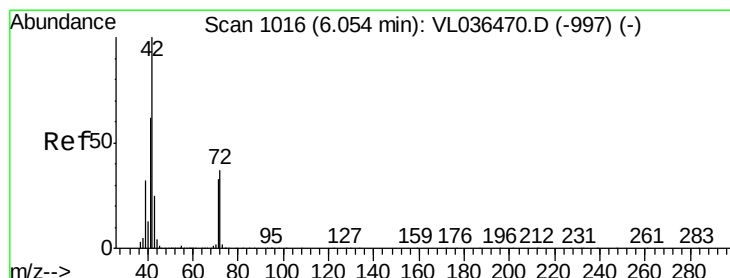
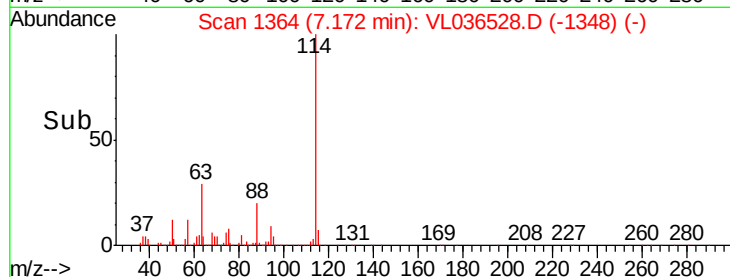
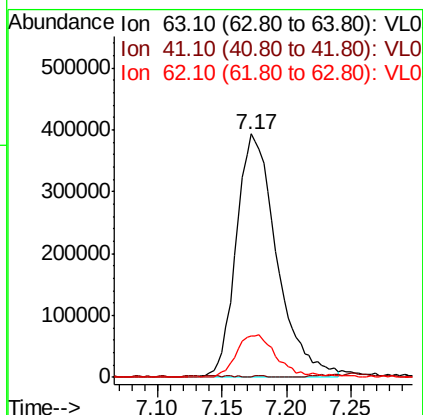
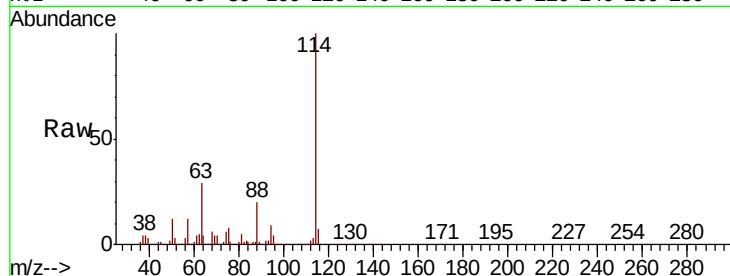




#39
 1,2-Dichloropropane
 Concen: 7.379 ppbv
 RT: 7.17 min Scan# 1364
 Delta R.T. -0.45 min
 Lab File: VL036528.D
 Acq: 27 Mar 2021 00:30

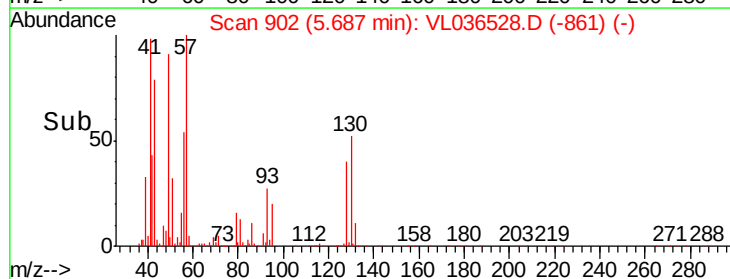
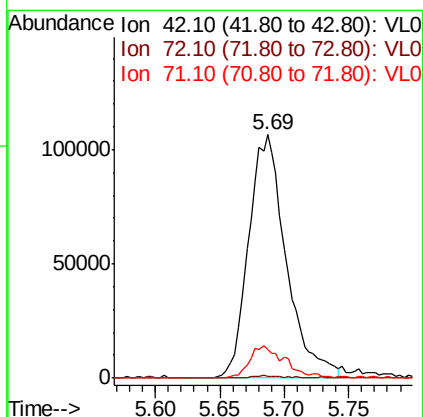
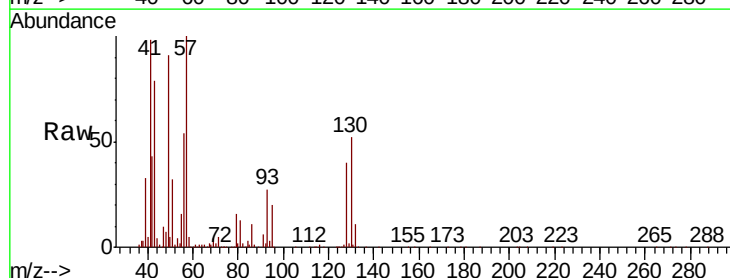
Instrument :
 MSVOA_L
 ClientSampled :

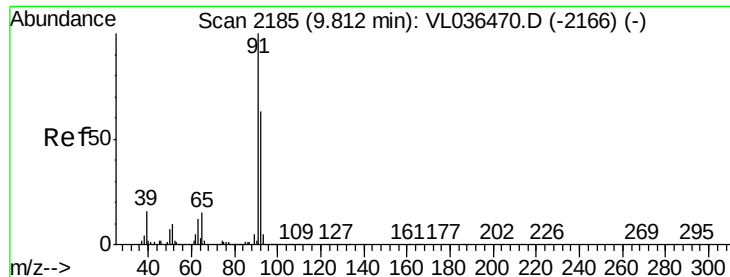
Tot Ion	Ratio	Lower	Upper
63	100		
41	0.0	62.4	93.6#
62	17.1	52.8	79.2#



#41
 Tetrahydrofuran
 Concen: 3.073 ppbv
 RT: 5.69 min Scan# 902
 Delta R.T. -0.37 min
 Lab File: VL036528.D
 Acq: 27 Mar 2021 00:30

Tgt Ion	Ratio	Lower	Upper
42	100		
72	1.0	27.6	41.4#
71	13.1	27.0	40.4#





#53

Toluene

Concen: 0.164 ppbv

RT: 9.81 min Scan# 2185

Delta R.T. -0.00 min

Lab File: VL036528.D

Acq: 27 Mar 2021 00:30

Instrument :

MSVOA_L

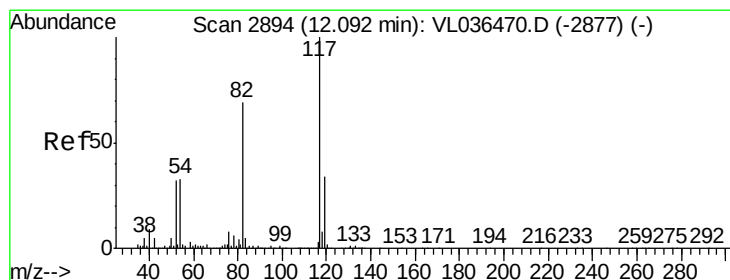
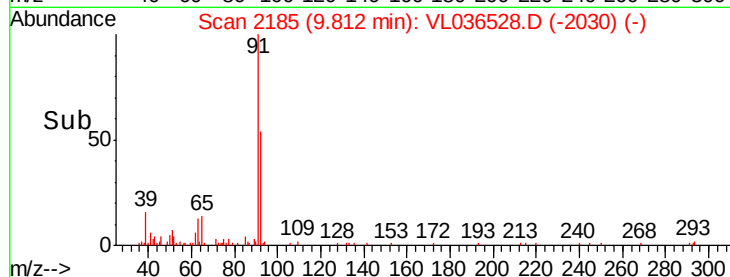
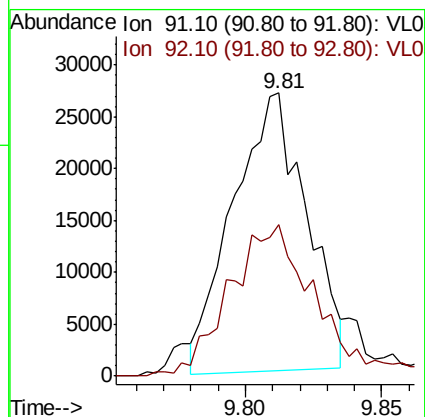
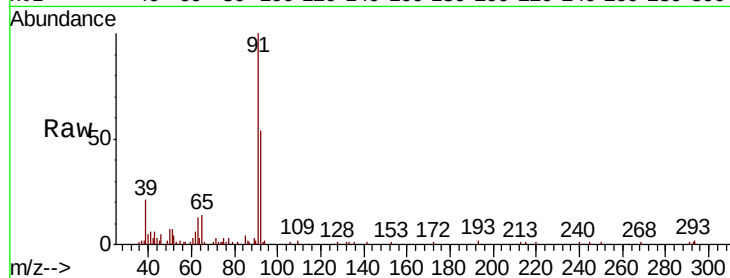
ClientSampleId :

Tot Ion: 91 Resp: 50198

Ion Ratio Lower Upper

91 100

92 65.2 48.8 73.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2893

Delta R.T. -0.00 min

Lab File: VL036528.D

Acq: 27 Mar 2021 00:30

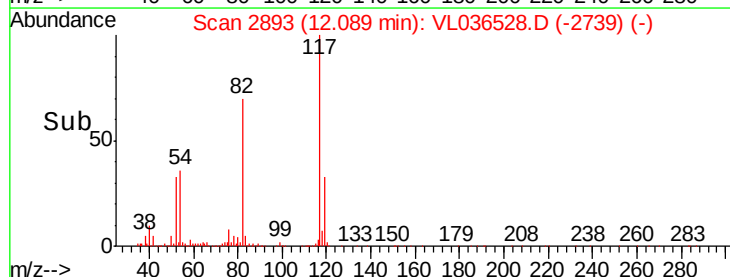
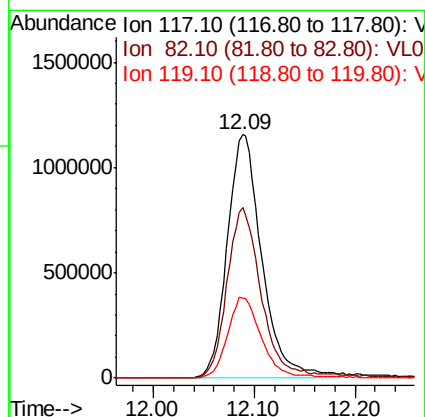
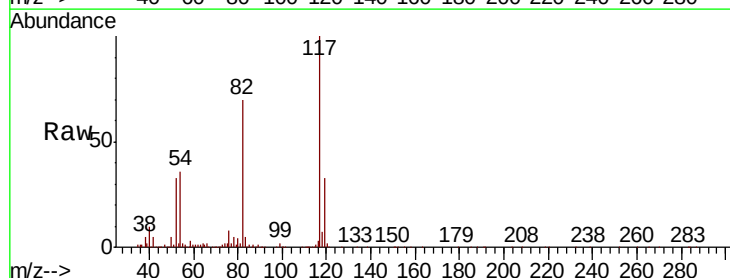
Tgt Ion: 117 Resp: 2770703

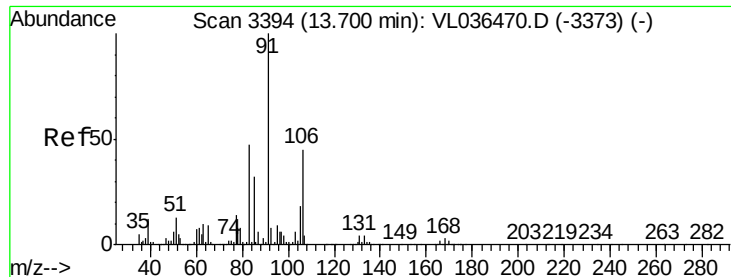
Ion Ratio Lower Upper

117 100

82 70.7 57.4 86.0

119 33.4 47.4 71.0#





#60

o-Xylene

Concen: 0.077 ppbv

RT: 13.70 min Scan# 3393

Delta R.T. -0.00 min

Lab File: VL036528.D

Acq: 27 Mar 2021 00:30

Instrument :

MSVOA_L

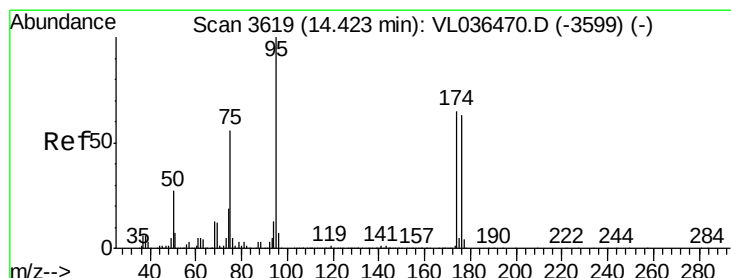
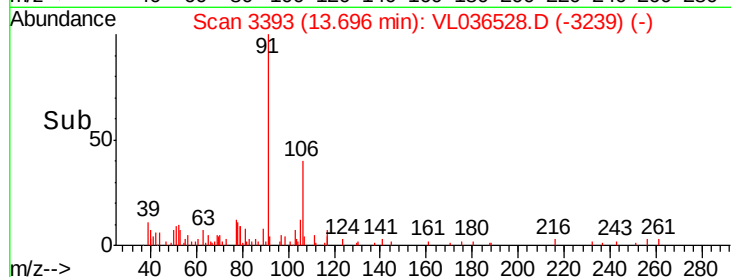
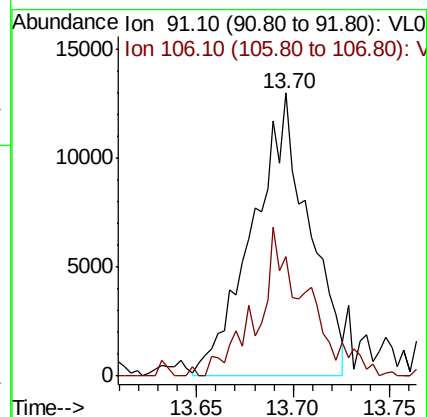
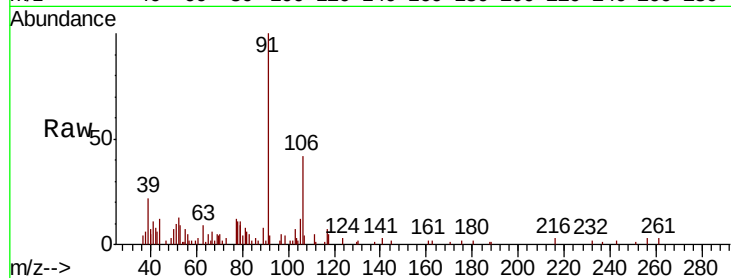
ClientSampled :

Tot Ion: 91 Resp: 26115

Ion Ratio Lower Upper

91 100

106 48.3 22.3 66.9



#68

1-Bromo-4-Fluorobenzene

Concen: 9.938 ppbv

RT: 14.42 min Scan# 3617

Delta R.T. -0.01 min

Lab File: VL036528.D

Acq: 27 Mar 2021 00:30

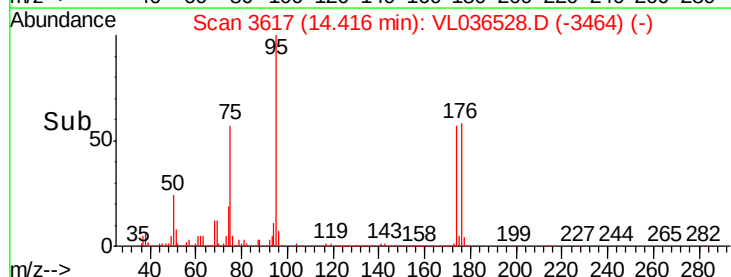
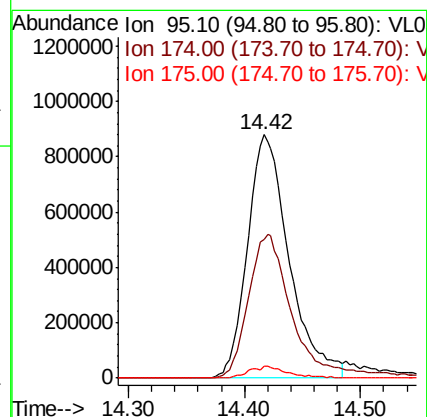
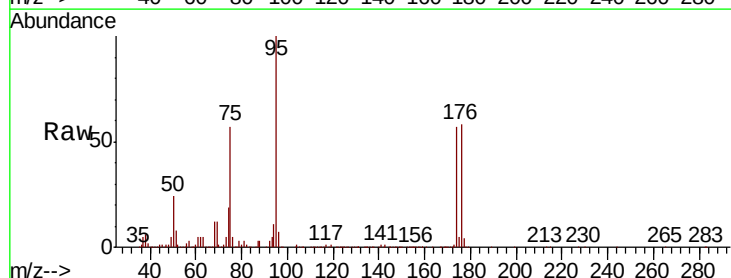
Tgt Ion: 95 Resp: 2194610

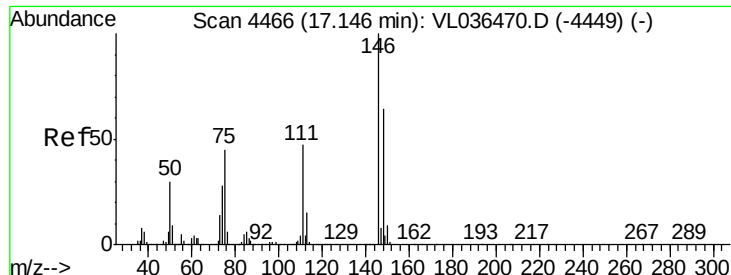
Ion Ratio Lower Upper

95 100

174 64.7 51.0 76.6

175 4.7 3.9 5.9





#76

1,4-Dichlorobenzene

Concen: 0.034 ppbv

RT: 17.14 min Scan# 4463

Delta R.T. -0.01 min

Lab File: VL036528.D

Acq: 27 Mar 2021 00:30

Instrument :

MSVOA_L

ClientSampleId :

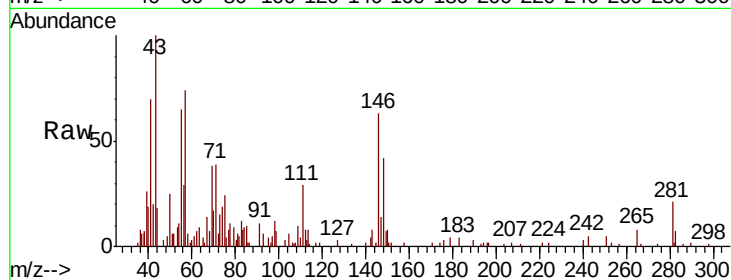
Tot Ion:146 Resp: 7066

Ion Ratio Lower Upper

146 100

111 0.0 24.3 72.8#

148 0.0 33.0 98.9#



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

