

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032921\
 Data File : VL036542.D
 Acq On : 29 Mar 2021 16:48
 Operator : SY/AP
 Sample : M1760-06
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Mar 30 06:41:01 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

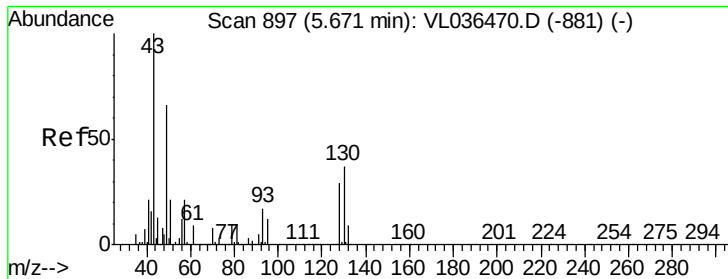
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1574004	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3436298	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3111758	10.00	ppbv	-0.01

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	2497546	10.07	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.70%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.04	85	59279	0.231	ppbv 89
3) Chlorodifluoromethane	2.96	51	173676	0.591	ppbv # 77
4) Chloromethane	3.14	50	48436	0.466	ppbv 90
6) Bromomethane	3.47	94	1189	0.020	ppbv # 42
9) Propene	3.20	41	364997	3.893	ppbv 96
10) Heptane	8.12	43	156091	0.654	ppbv 94
11) Trichlorofluoromethane	3.94	101	54122	0.207	ppbv 86
12) 1,1,2-Trichlorotrifluoroet	4.47	101	7316	0.044	ppbv # 76
13) Ethanol	3.62	45	8774776	785.967	ppbv 95
15) Acetone	3.84	43	2035598	13.140	ppbv 97
16) 1,3-Butadiene	3.31	39	6185	0.057	ppbv # 29
19) Isopropyl Alcohol	3.98	45	2097086	24.608	ppbv # 96
20) Methylene Chloride	4.34	84	648452	8.940	ppbv 98
21) Allyl Chloride	4.35	41	6254	0.051	ppbv # 19
23) Vinyl Acetate	5.06	43	29060	0.110	ppbv # 43
25) Ethyl Acetate	5.68	43	894615	2.429	ppbv # 82
26) Hexane	5.68	57	1050832	6.148	ppbv # 51
34) 2-Butanone	5.24	43	88460	0.527	ppbv # 86
35) Carbon Tetrachloride	7.02	117	7087	0.027	ppbv # 58
36) Benzene	6.89	78	44019	0.139	ppbv 97
39) 1,2-Dichloropropane	7.17	63	972612	7.566	ppbv # 23
41) Tetrahydrofuran	5.68	42	457315	5.913	ppbv # 52
44) 2,2,4-Trimethylpentane	7.86	57	41159	0.074	ppbv # 25
53) Toluene	9.80	91	702397	2.081	ppbv 100
58) Ethyl Benzene	12.70	91	22064	0.049	ppbv 91
59) m/p-Xylene	13.00	91	50394	0.128	ppbv # 32
60) o-Xylene	13.69	91	67744	0.177	ppbv 98
74) 1,2,4-Trimethylbenzene	16.76	105	16005	0.038	ppbv # 61

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.01 min

Lab File: VL036542.D

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Instrument :
MSVOA_L
ClientSampleId :

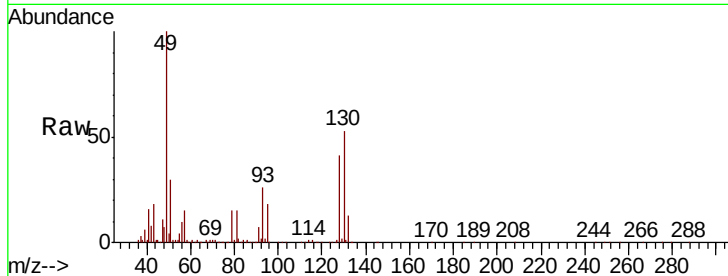
Tot Ion: 49 Resp: 1574004

Ion Ratio Lower Upper

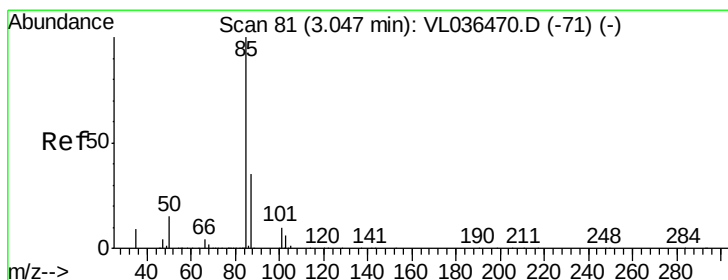
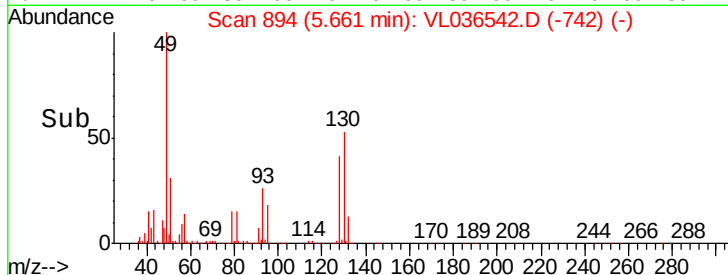
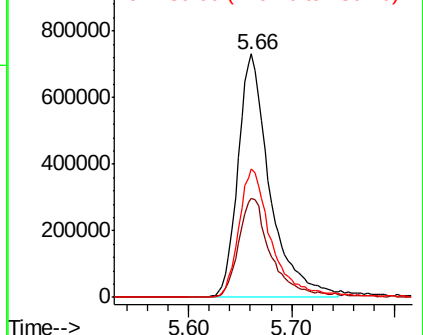
49 100

128 42.7 23.5 70.6

130 54.9 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



#2

Dichlorodifluoromethane

Concen: 0.231 ppbv

RT: 3.04 min Scan# 80

Delta R.T. -0.00 min

Lab File: VL036542.D

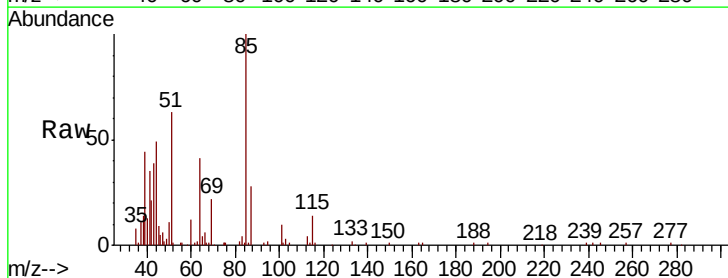
Acq: 29 Mar 2021 16:48

Tgt Ion: 85 Resp: 59279

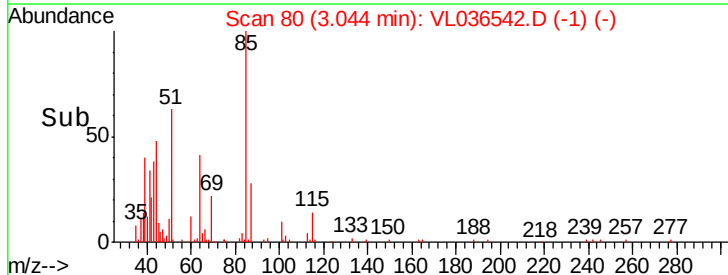
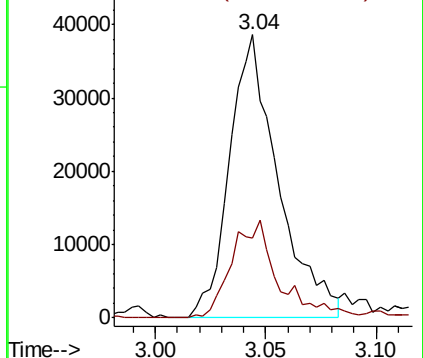
Ion Ratio Lower Upper

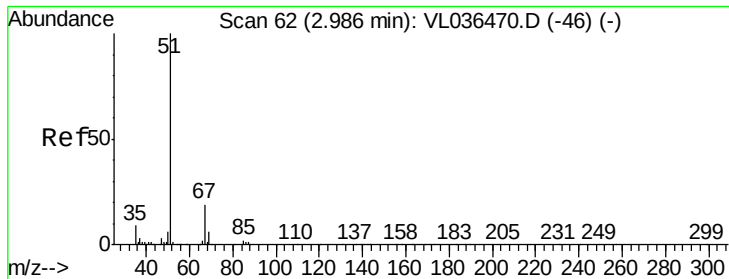
85 100

87 28.2 27.8 41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.591 ppbv

RT: 2.96 min Scan# 54

Delta R.T. -0.03 min

Lab File: VL036542.D

Acq: 29 Mar 2021 16:48

Instrument :

MSVOA_L

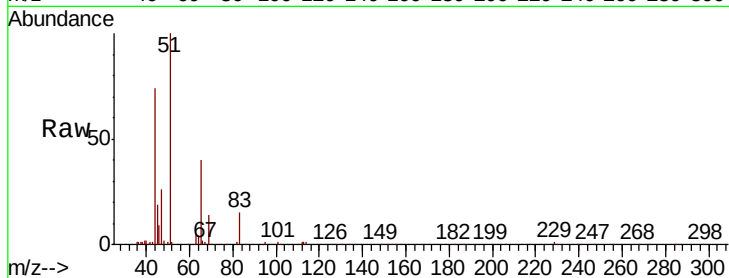
ClientSampleId :

Tot Ion: 51 Resp: 173676

Ion Ratio Lower Upper

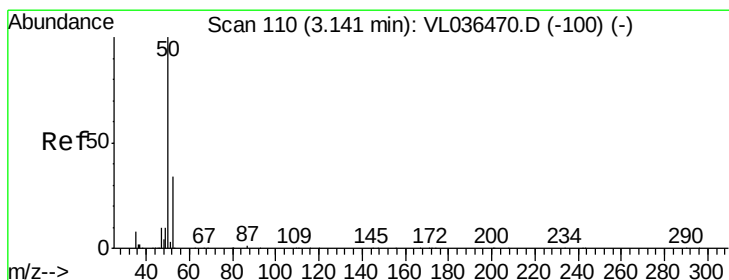
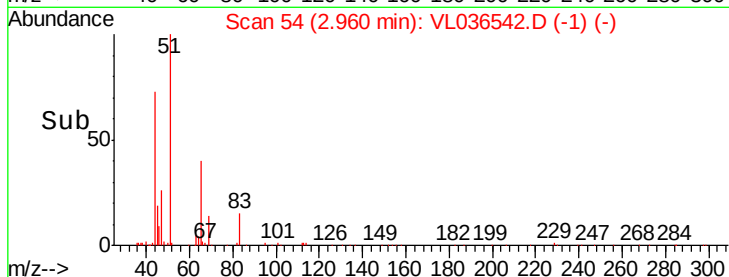
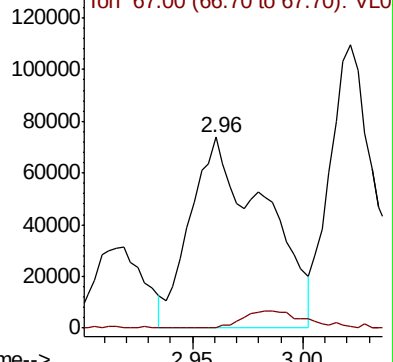
51 100

67 8.0 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: 0.466 ppbv

RT: 3.14 min Scan# 109

Delta R.T. -0.00 min

Lab File: VL036542.D

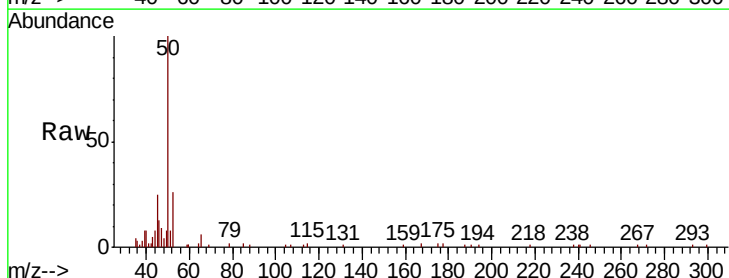
Acq: 29 Mar 2021 16:48

Tgt Ion: 50 Resp: 48436

Ion Ratio Lower Upper

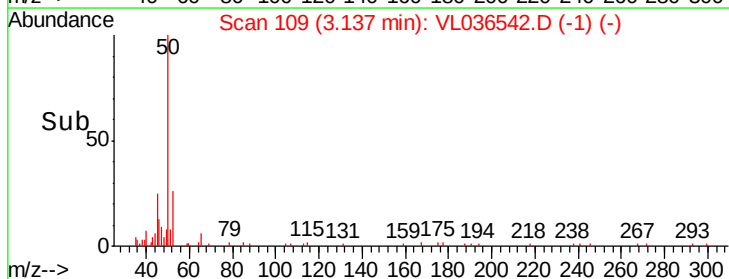
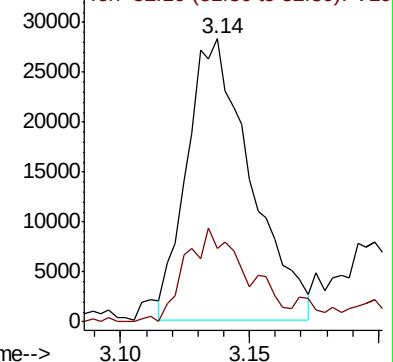
50 100

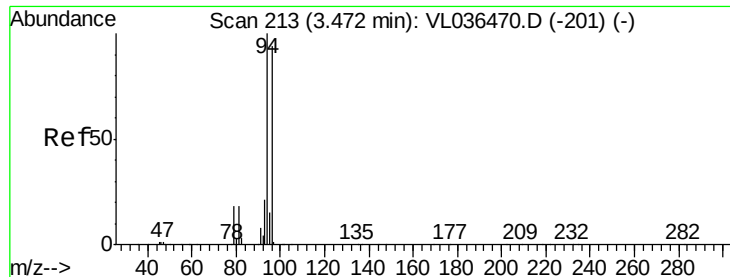
52 28.3 27.0 40.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#6

Bromomethane

Concen: 0.020 ppbv

RT: 3.47 min Scan# 212

Delta R.T. -0.00 min

Lab File: VL036542.D

Acq: 29 Mar 2021 16:48

Instrument :

MSVOA_L

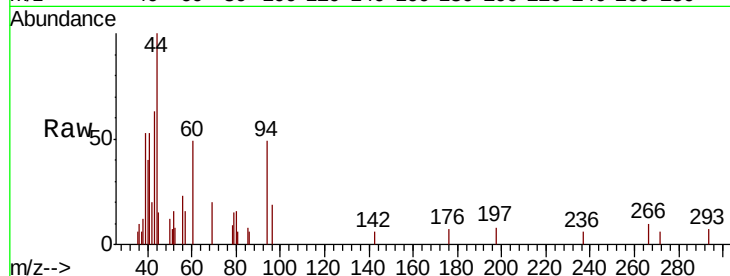
ClientSampleId :

Tot Ion: 94 Resp: 1189

Ion Ratio Lower Upper

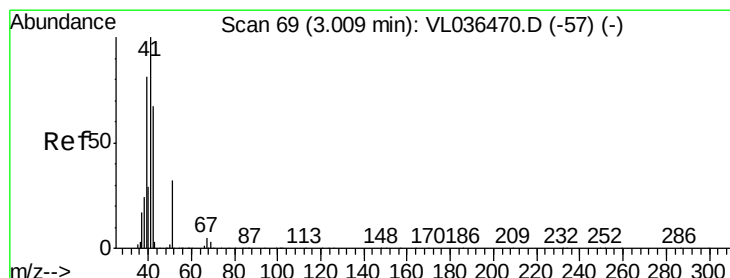
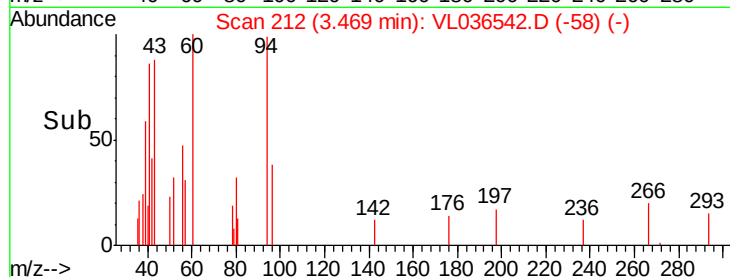
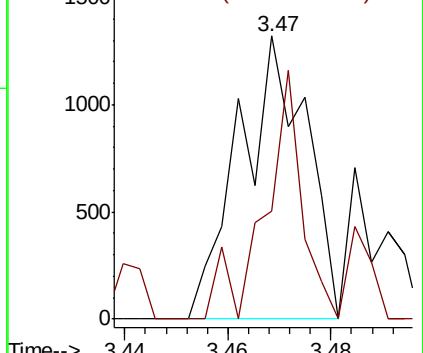
94 100

96 38.1 74.9 112.3#



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0



#9

Propene

Concen: 3.893 ppbv

RT: 3.20 min Scan# 128

Delta R.T. 0.19 min

Lab File: VL036542.D

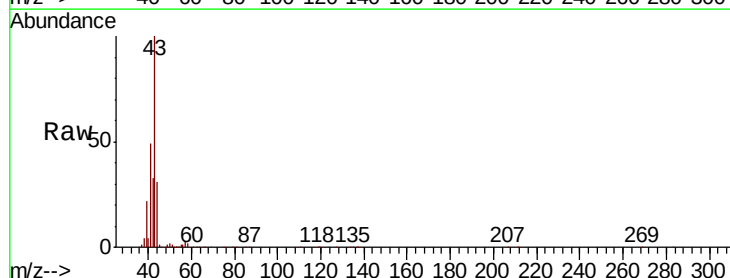
Acq: 29 Mar 2021 16:48

Tgt Ion: 41 Resp: 364997

Ion Ratio Lower Upper

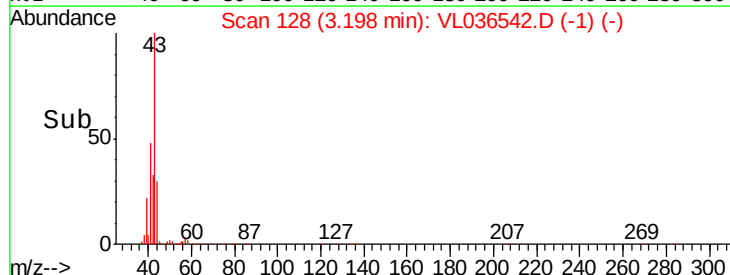
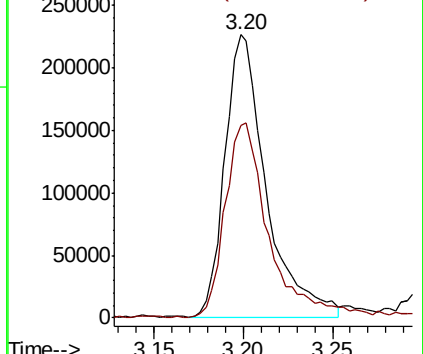
41 100

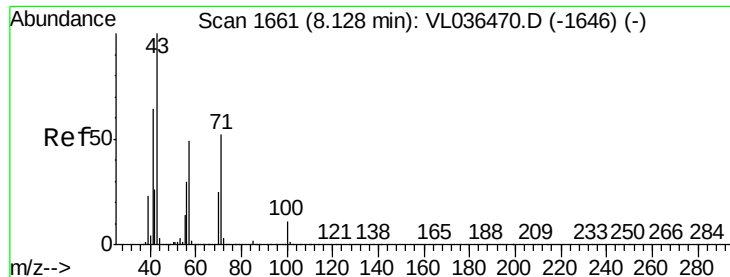
42 74.3 57.0 85.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.654 ppbv

RT: 8.12 min Scan# 1659

Delta R.T. -0.01 min

Lab File: VL036542.D

Acq: 29 Mar 2021 16:48

Instrument :

MSVOA_L

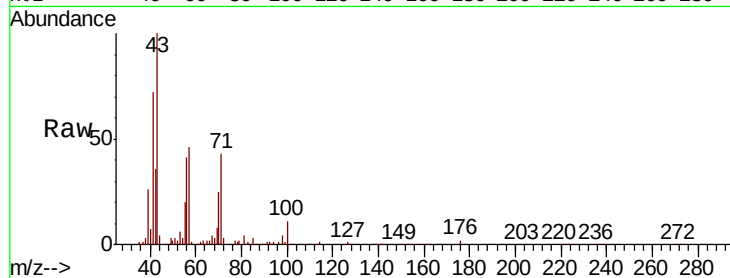
ClientSampleId :

Tot Ion: 43 Resp: 156091

Ion Ratio Lower Upper

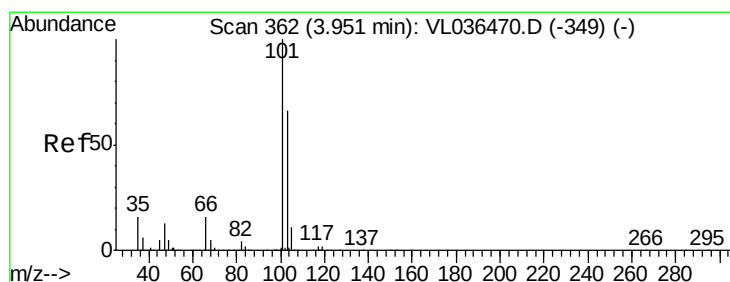
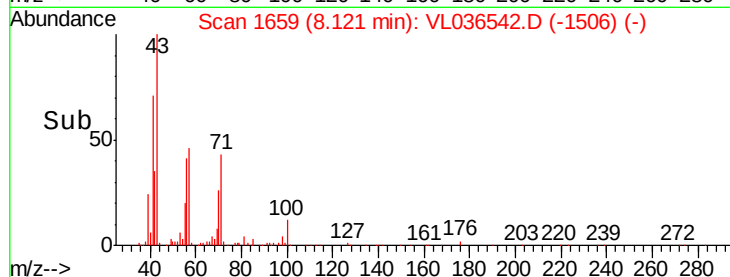
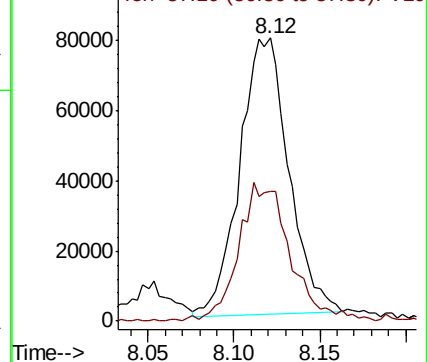
43 100

57 52.6 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: 0.207 ppbv

RT: 3.94 min Scan# 360

Delta R.T. -0.01 min

Lab File: VL036542.D

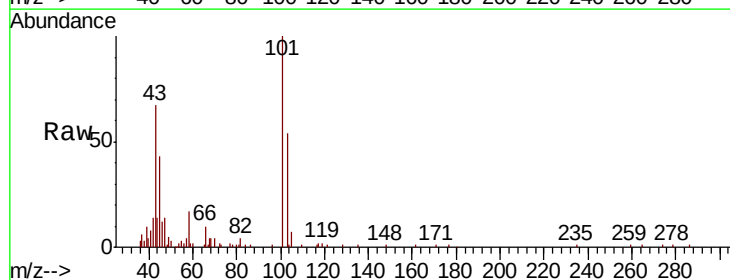
Acq: 29 Mar 2021 16:48

Tgt Ion: 101 Resp: 54122

Ion Ratio Lower Upper

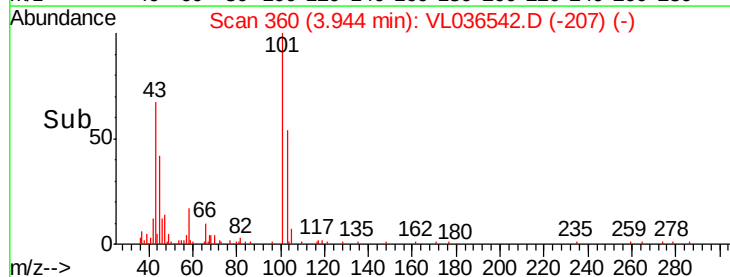
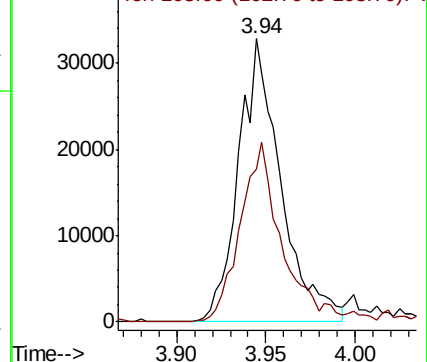
101 100

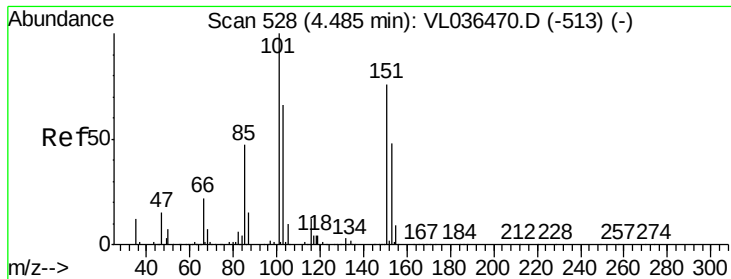
103 54.2 52.5 78.7



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: 0.044 ppbv

RT: 4.47 min Scan# 525

Delta R.T. -0.01 min

Lab File: VL036542.D

Acq: 29 Mar 2021 16:48

Instrument :

MSVOA_L

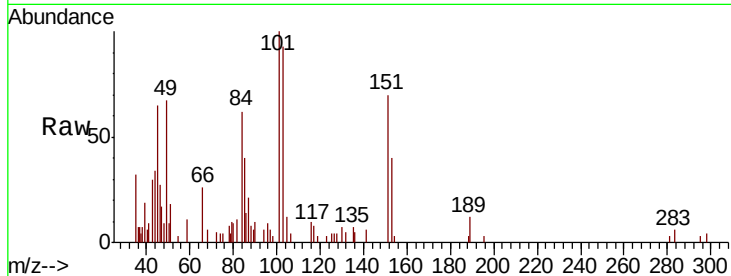
ClientSampleId :

Tot Ion:101 Resp: 7316

Ion Ratio Lower Upper

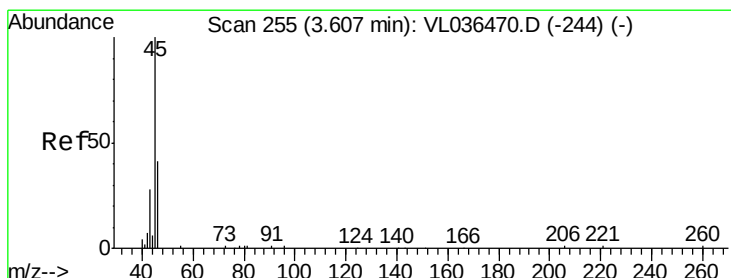
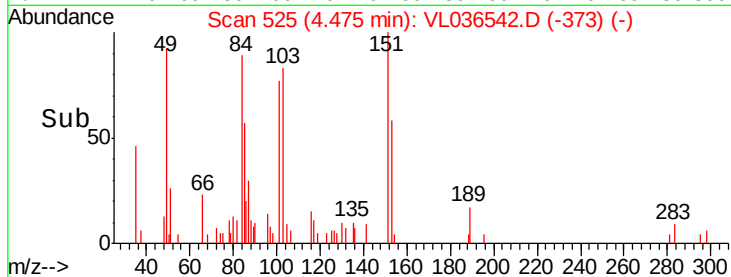
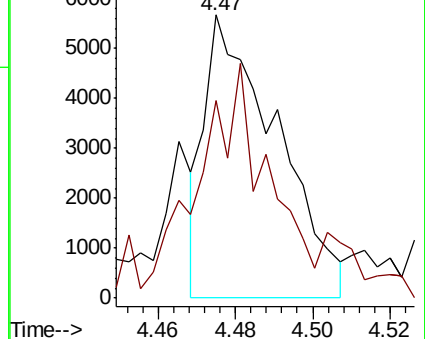
101 100

151 97.1 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: 785.967 ppbv

RT: 3.62 min Scan# 258

Delta R.T. 0.01 min

Lab File: VL036542.D

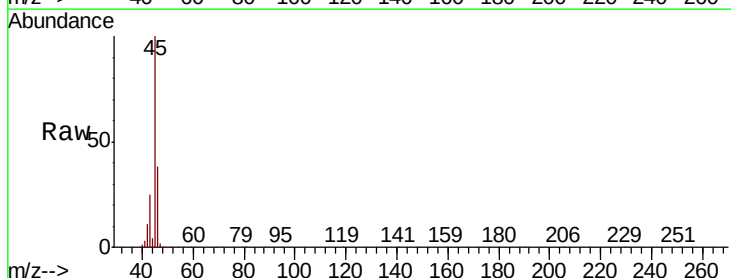
Acq: 29 Mar 2021 16:48

Tgt Ion: 45 Resp: 8774776

Ion Ratio Lower Upper

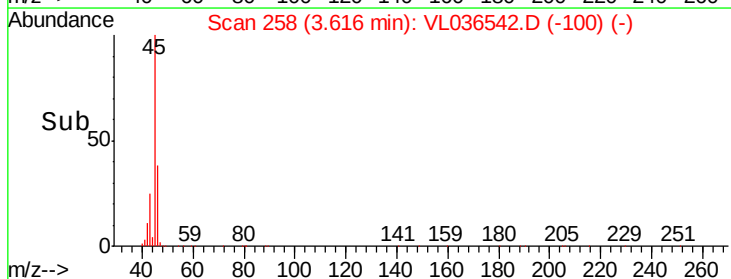
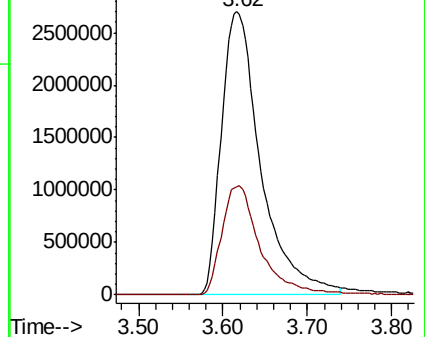
45 100

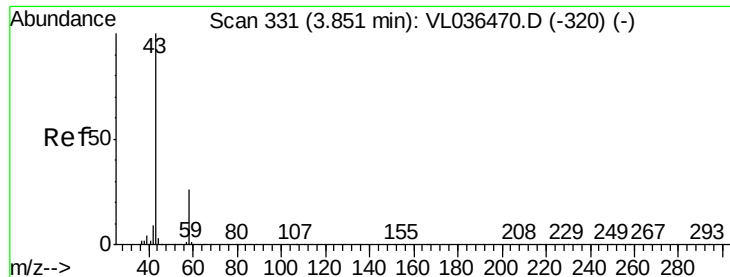
46 38.3 16.6 66.2



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 13.140 ppbv

RT: 3.84 min Scan# 328

Delta R.T. -0.01 min

Lab File: VL036542.D

Acq: 29 Mar 2021 16:48

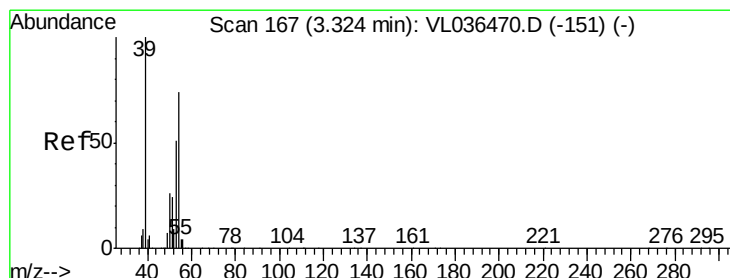
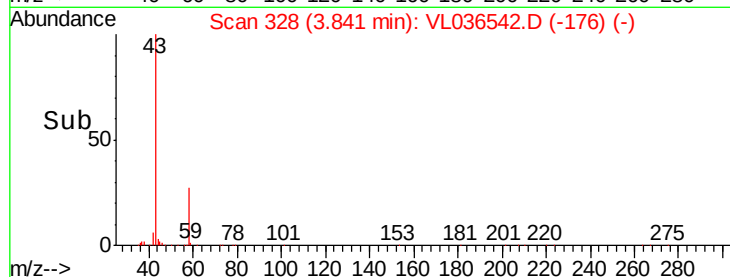
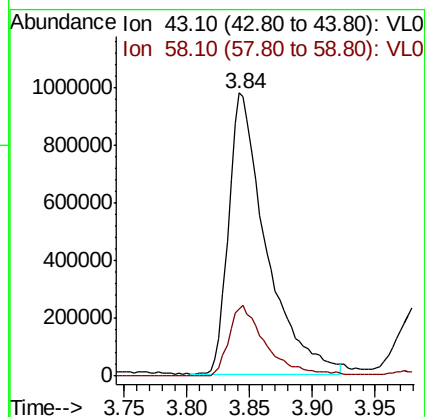
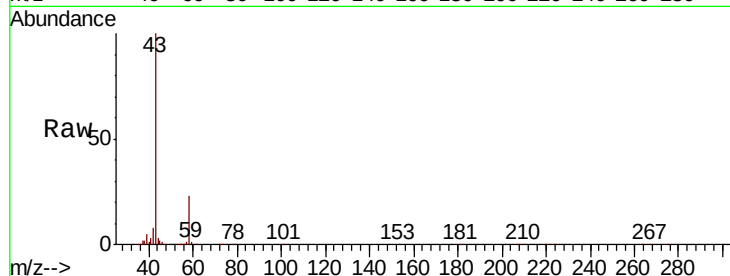
Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 43 Resp: 2035598

Ion Ratio Lower Upper

43 100

58 25.2 21.2 31.8



#16

1,3-Butadiene

Concen: 0.057 ppbv

RT: 3.31 min Scan# 163

Delta R.T. -0.01 min

Lab File: VL036542.D

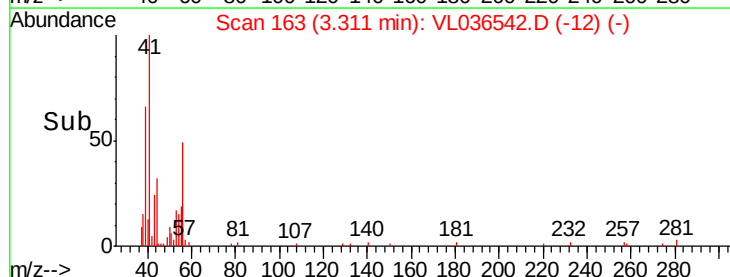
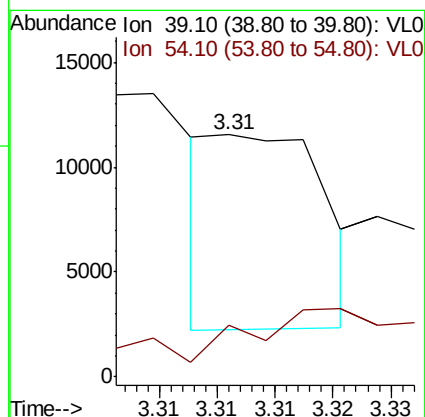
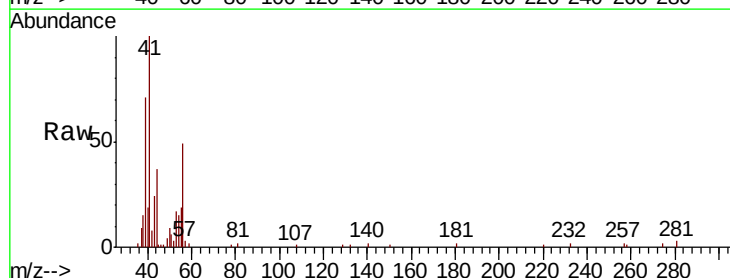
Acq: 29 Mar 2021 16:48

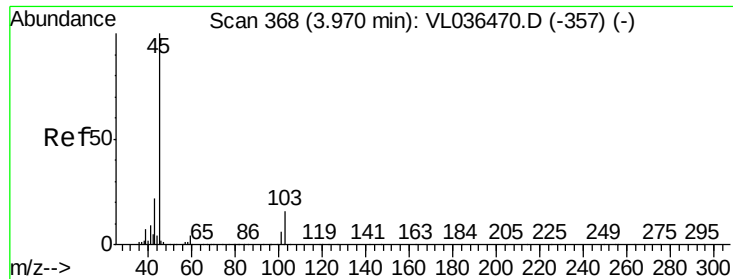
Tgt Ion: 39 Resp: 6185

Ion Ratio Lower Upper

39 100

54 133.6 58.8 88.2#



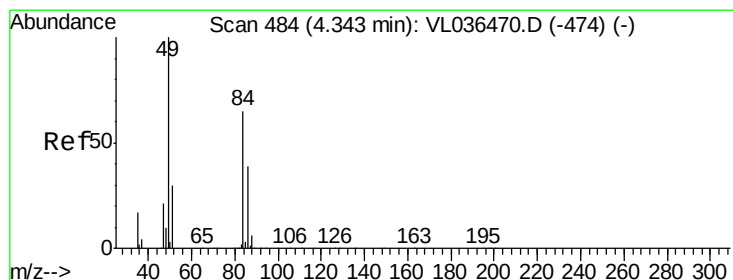
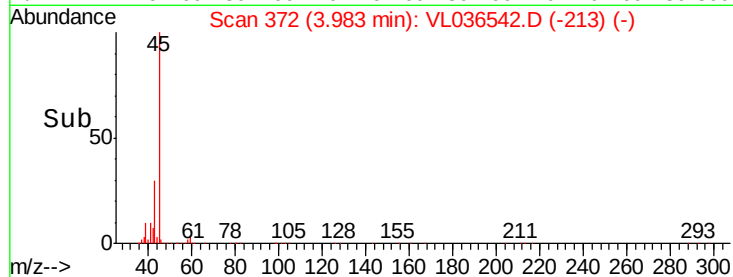
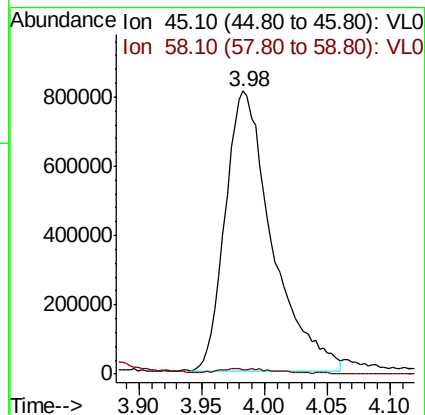
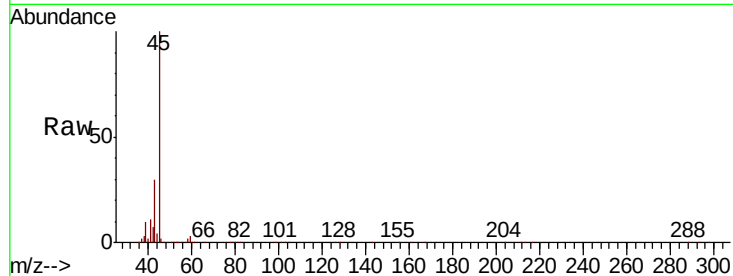


#19

Isopropyl Alcohol
 Concen: 24.608 ppbv
 RT: 3.98 min Scan# 372
 Delta R.T. 0.01 min
 Lab File: VL036542.D
 Acq: 29 Mar 2021 16:48

Instrument :
 MSVOA_L
 ClientSampleId :

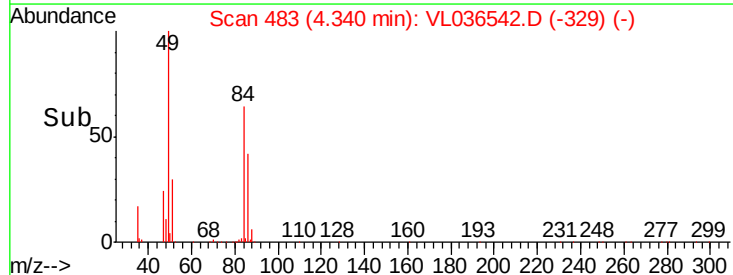
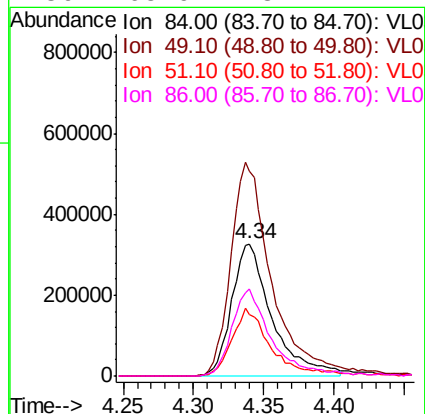
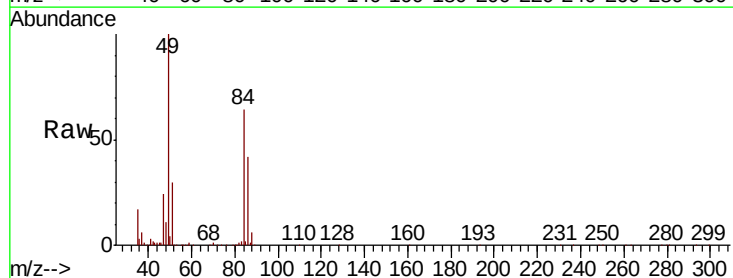
Tot Ion: 45 Resp: 2097086
 Ion Ratio Lower Upper
 45 100
 58 2.4 2.9 4.3#

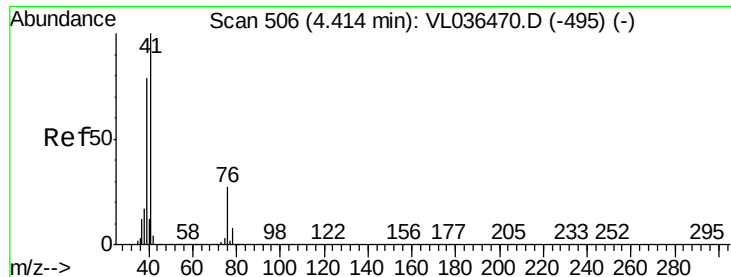


#20

Methylene Chloride
 Concen: 8.940 ppbv
 RT: 4.34 min Scan# 483
 Delta R.T. -0.00 min
 Lab File: VL036542.D
 Acq: 29 Mar 2021 16:48

Tgt Ion: 84 Resp: 648452
 Ion Ratio Lower Upper
 84 100
 49 155.1 122.9 184.3
 51 46.1 36.9 55.3
 86 65.9 48.2 72.4





#21

Allvl Chloride

Concen: 0.051 ppbv

RT: 4.35 min Scan# 486

Delta R.T. -0.06 min

Lab File: VL036542.D

Acq: 29 Mar 2021 16:48

Instrument :

MSVOA_L

ClientSampleId :

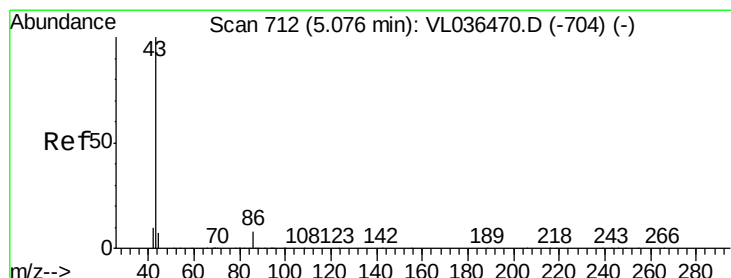
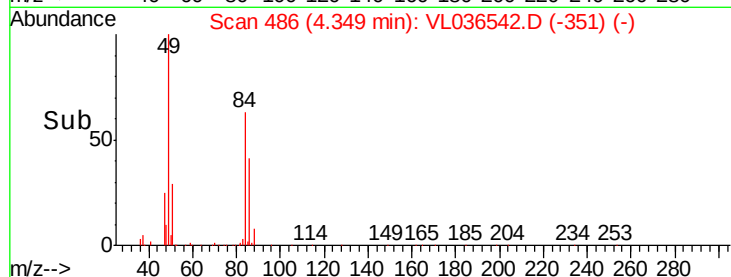
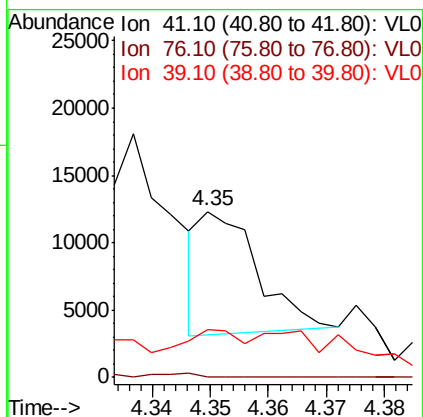
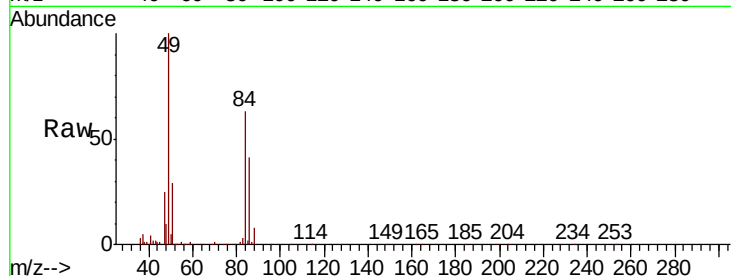
Tot Ion: 41 Resp: 6254

Ion Ratio Lower Upper

41 100

76 2.9 22.9 34.3#

39 0.0 67.3 100.9#



#23

Vinyl Acetate

Concen: 0.110 ppbv

RT: 5.06 min Scan# 706

Delta R.T. -0.02 min

Lab File: VL036542.D

Acq: 29 Mar 2021 16:48

Tgt Ion: 43 Resp: 29060

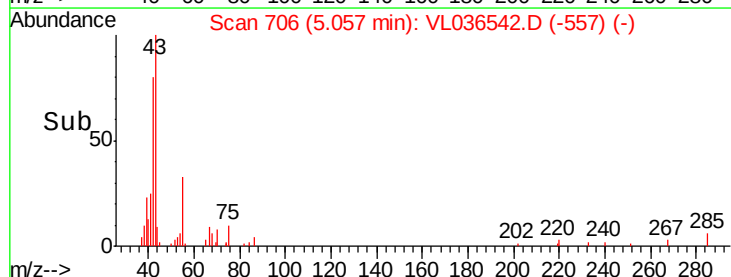
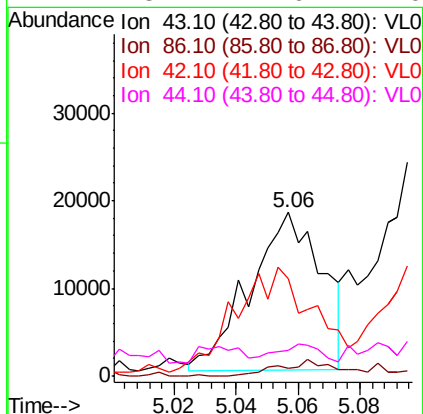
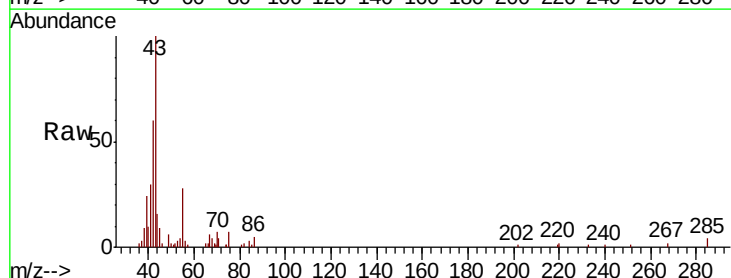
Ion Ratio Lower Upper

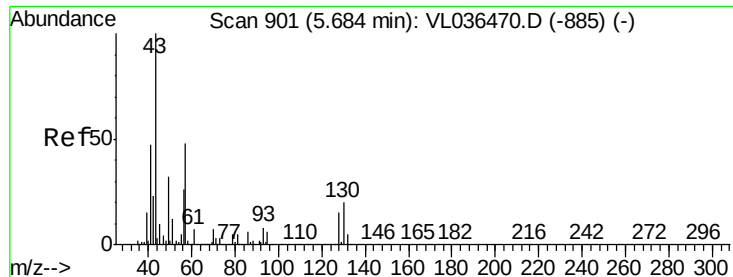
43 100

86 5.4 5.4 8.0

42 55.0 8.5 12.7#

44 8.1 4.6 7.0#

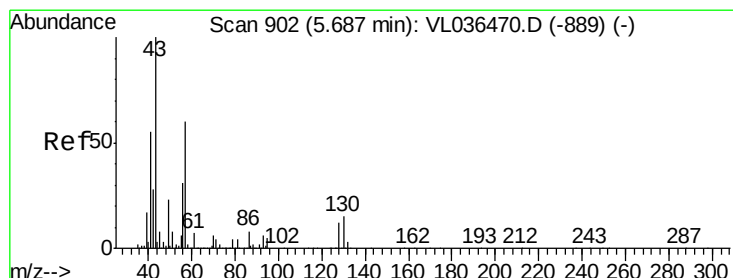
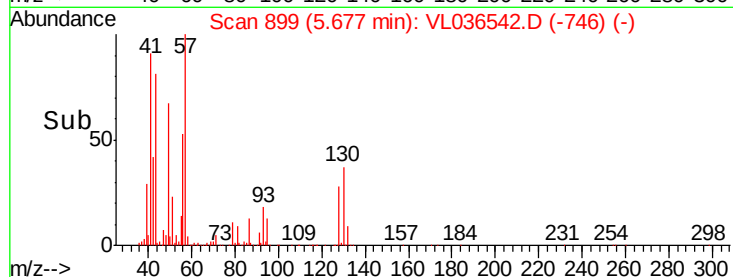
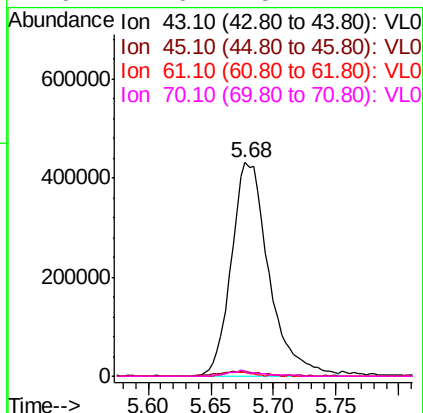
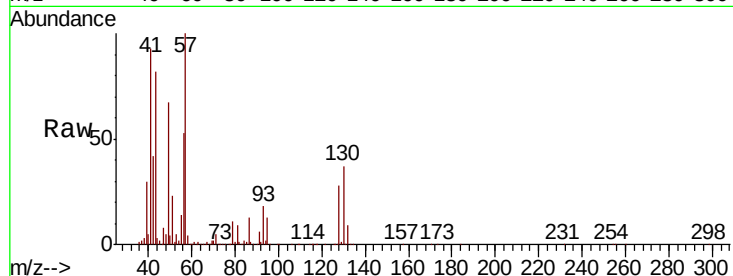




#25
Ethyl Acetate
Concen: 2.429 ppbv
RT: 5.68 min Scan# 899
Delta R.T. -0.01 min
Lab File: VL036542.D
Acq: 29 Mar 2021 16:48

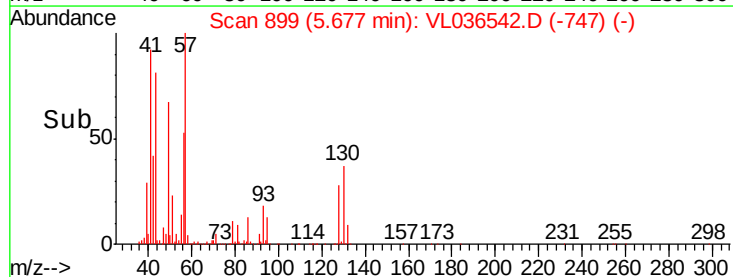
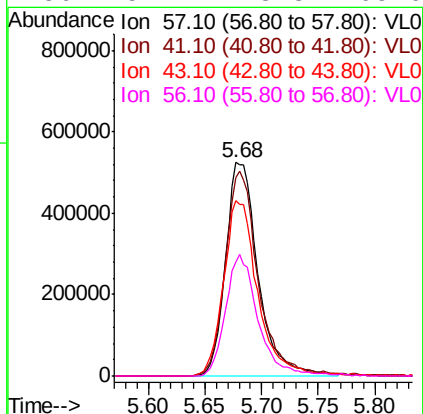
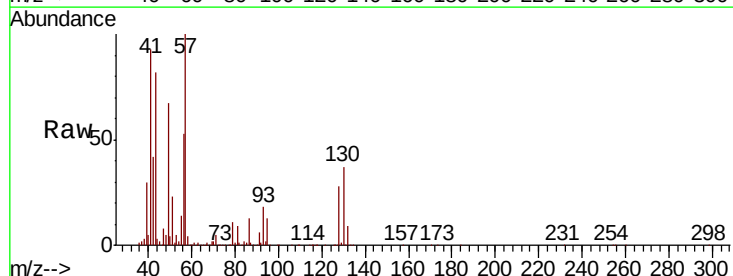
Instrument :
MSVOA_L
ClientSampleId :

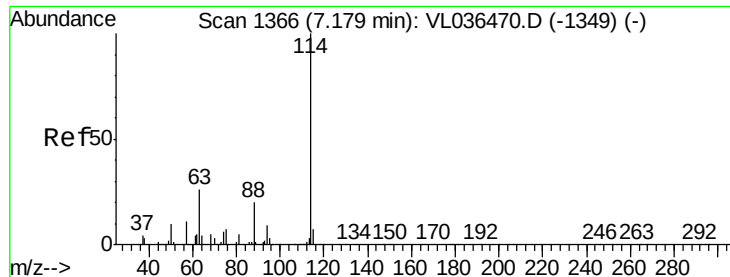
Tot Ion:	43	Resp:	894615
Ion	Ratio	Lower	Upper
43	100		
45	2.7	7.9	11.9#
61	1.9	7.4	11.2#
70	2.6	5.1	7.7#



#26
Hexane
Concen: 6.148 ppbv
RT: 5.68 min Scan# 899
Delta R.T. -0.01 min
Lab File: VL036542.D
Acq: 29 Mar 2021 16:48

Tgt Ion:	57	Resp:	1050832
Ion	Ratio	Lower	Upper
57	100		
41	98.3	77.2	115.8
43	86.6	173.8	260.6#
56	57.2	43.8	65.6

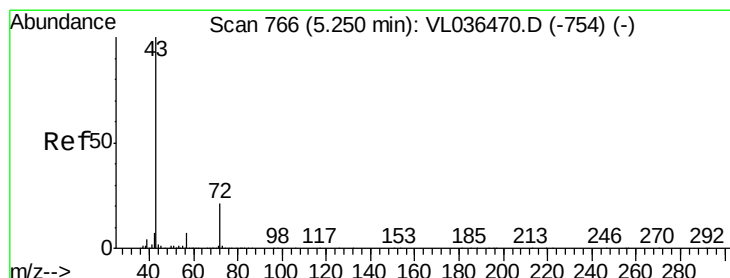
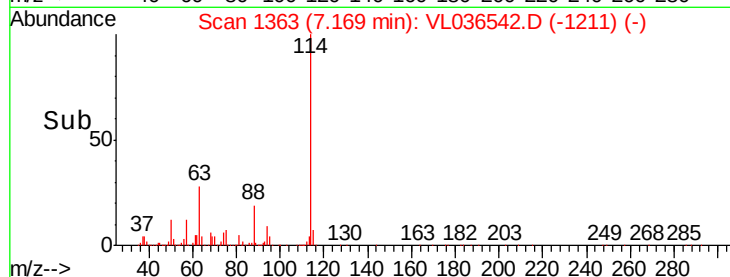
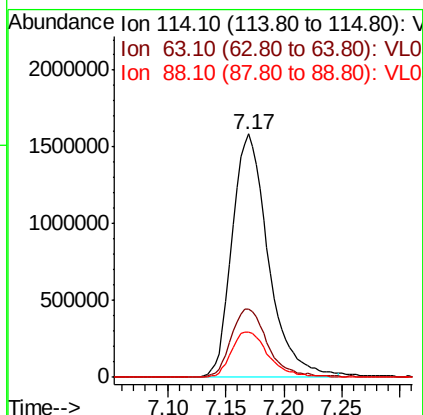
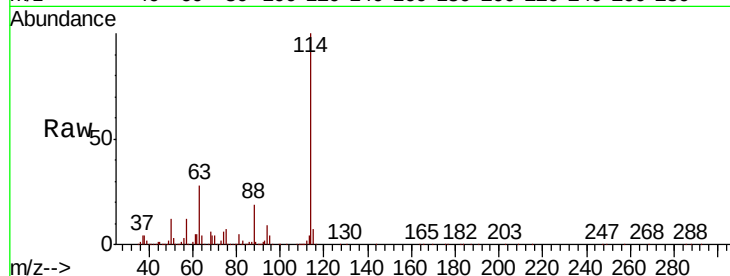




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1363
 Delta R.T. -0.01 min
 Lab File: VL036542.D
 Acq: 29 Mar 2021 16:48

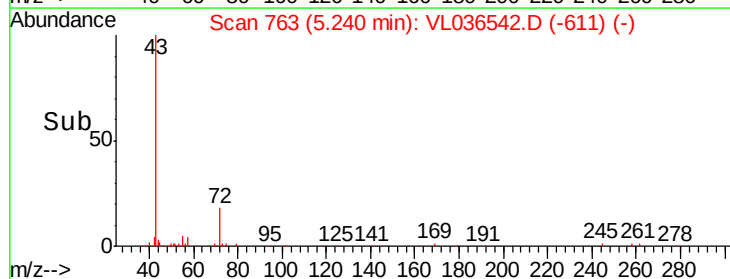
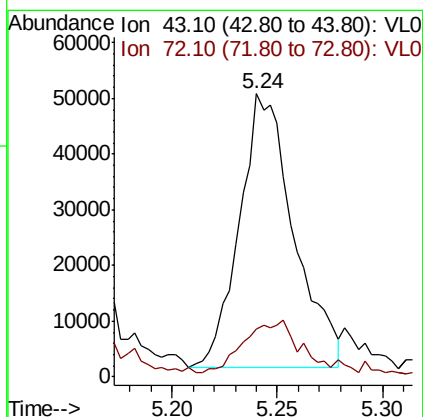
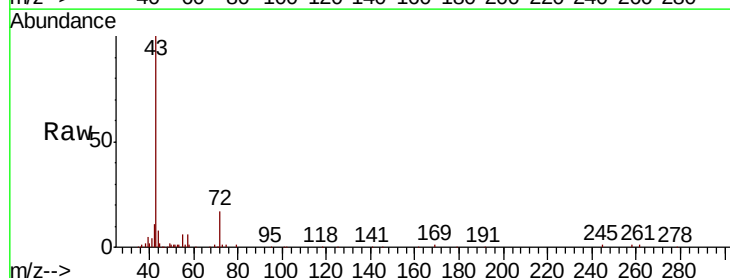
Instrument :
 MSVOA_L
 ClientSampleId :

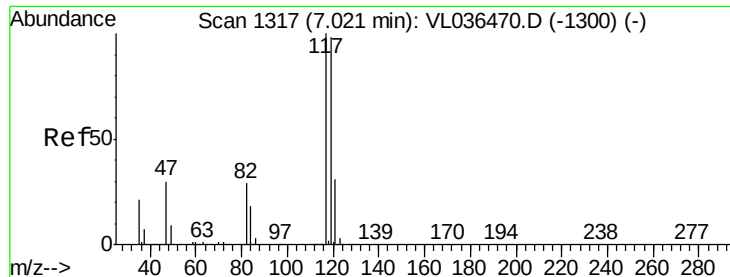
Tot Ion:114 Resp: 3436298
 Ion Ratio Lower Upper
 114 100
 63 28.9 22.4 33.6
 88 19.3 15.4 23.0



#34
 2-Butanone
 Concen: 0.527 ppbv
 RT: 5.24 min Scan# 763
 Delta R.T. -0.01 min
 Lab File: VL036542.D
 Acq: 29 Mar 2021 16:48

Tgt Ion: 43 Resp: 88460
 Ion Ratio Lower Upper
 43 100
 72 27.8 17.0 25.6#





#35

Carbon Tetrachloride

Concen: 0.027 ppbv

RT: 7.02 min Scan# 1316

Delta R.T. -0.00 min

Lab File: VL036542.D

Acq: 29 Mar 2021 16:48

Instrument :

MSVOA_L

ClientSampled :

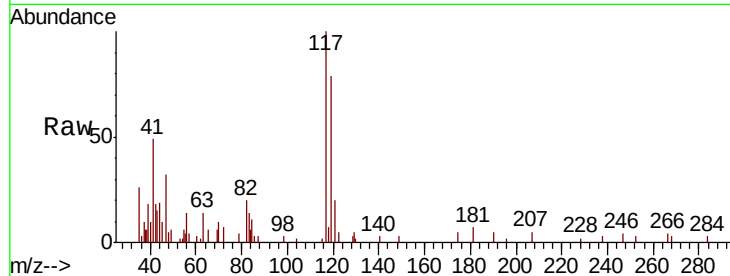
Tot Ion:117 Resp: 7087

Ion Ratio Lower Upper

117 100

119 55.3 78.2 117.2#

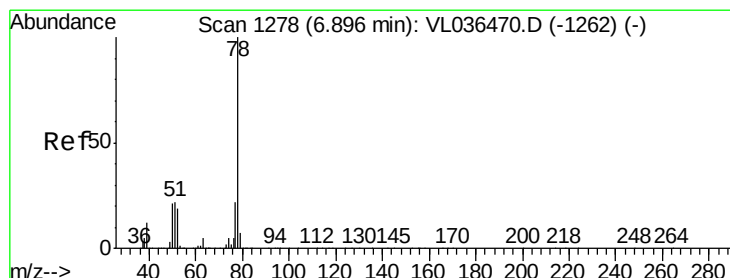
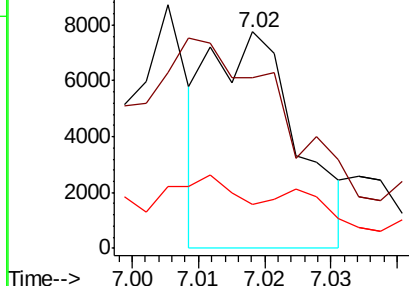
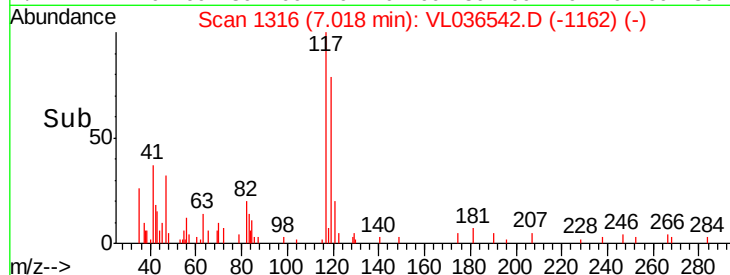
121 9.2 24.5 36.7#



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: 0.139 ppbv

RT: 6.89 min Scan# 1276

Delta R.T. -0.01 min

Lab File: VL036542.D

Acq: 29 Mar 2021 16:48

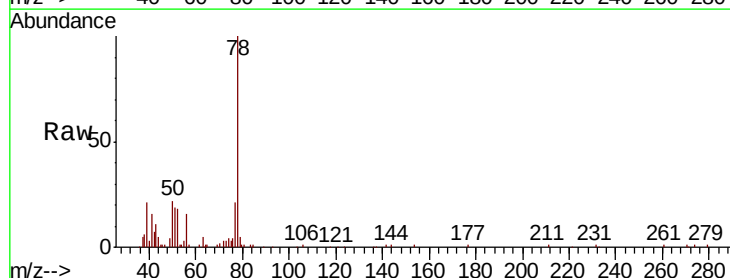
Tgt Ion: 78 Resp: 44019

Ion Ratio Lower Upper

78 100

77 21.1 18.0 27.0

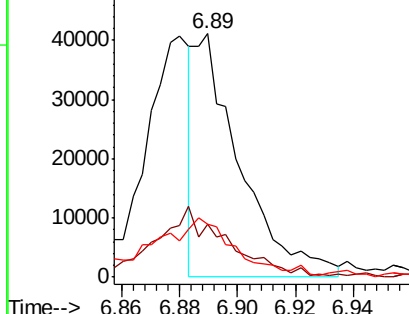
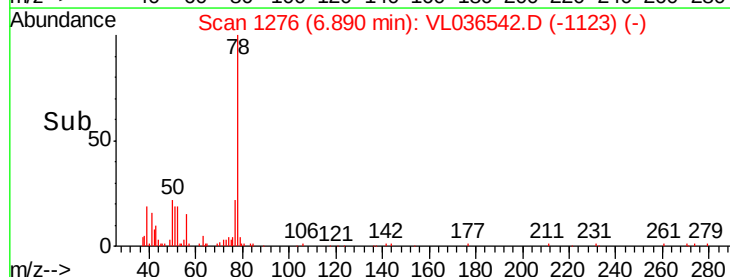
50 19.5 16.5 24.7

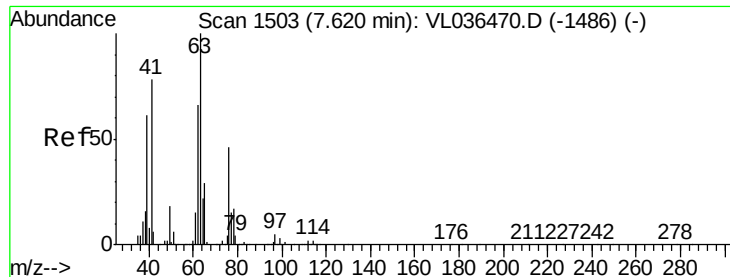


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 7.566 ppbv

RT: 7.17 min Scan# 1363

Delta R.T. -0.45 min

Lab File: VL036542.D

Acq: 29 Mar 2021 16:48

Instrument :

MSVOA_L

ClientSampleId :

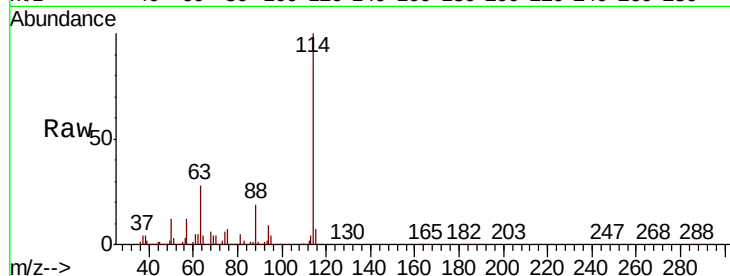
Tot Ion: 63 Resp: 972612

Ion Ratio Lower Upper

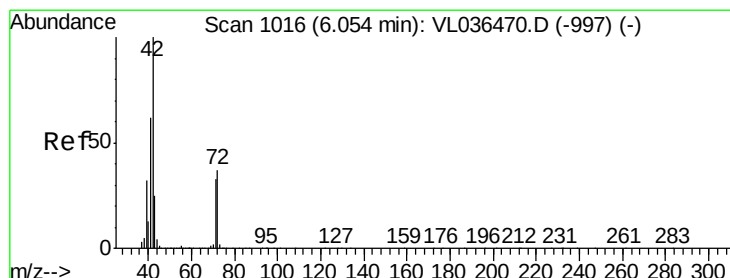
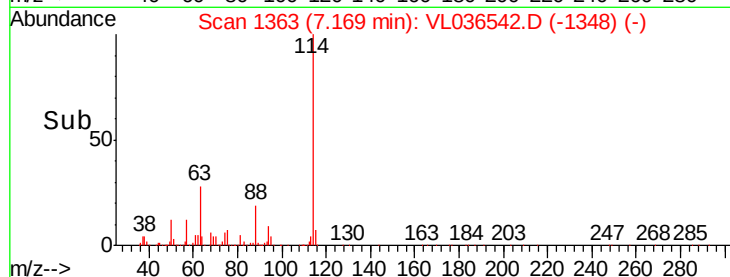
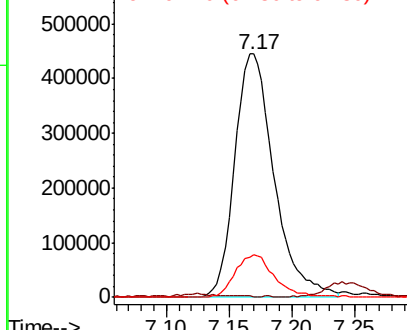
63 100

41 0.0 62.4 93.6#

62 17.4 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



#41

Tetrahydrofuran

Concen: 5.913 ppbv

RT: 5.68 min Scan# 900

Delta R.T. -0.37 min

Lab File: VL036542.D

Acq: 29 Mar 2021 16:48

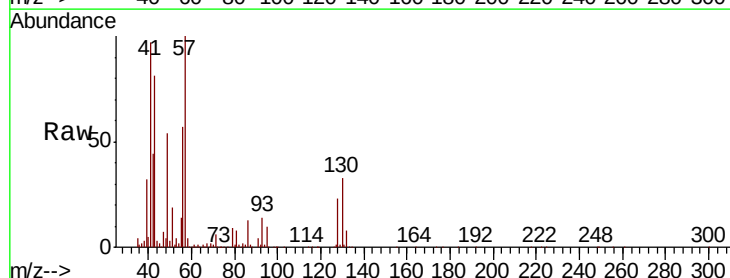
Tgt Ion: 42 Resp: 457315

Ion Ratio Lower Upper

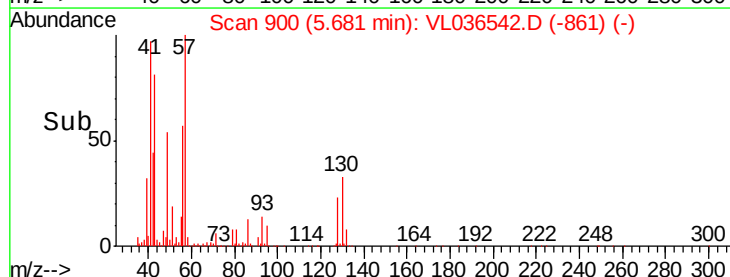
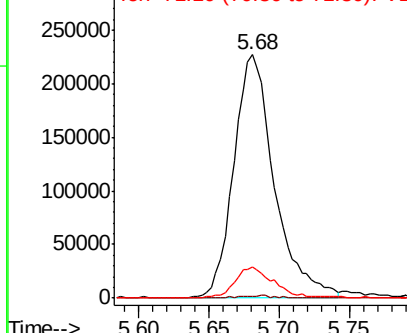
42 100

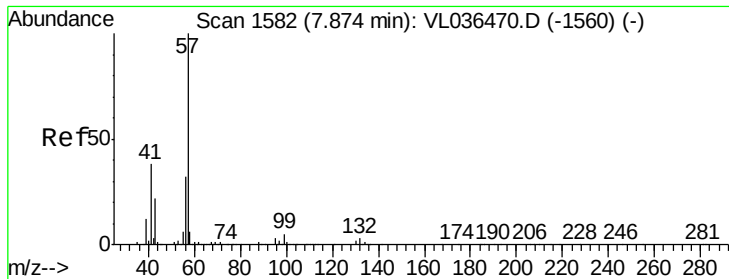
72 0.9 27.6 41.4#

71 12.6 27.0 40.4#



Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0

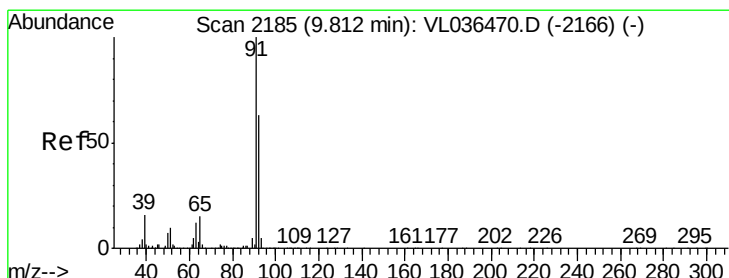
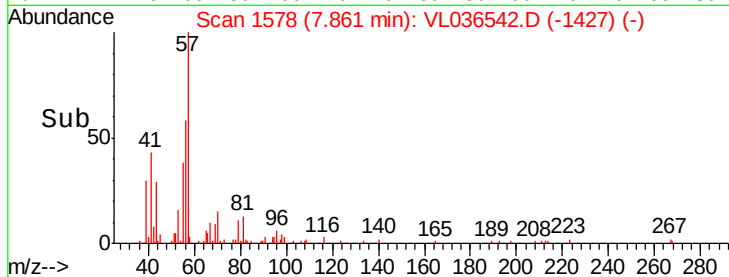
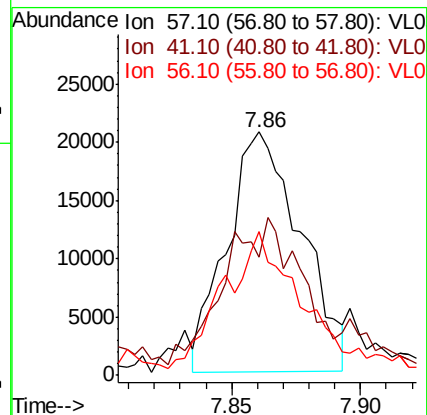
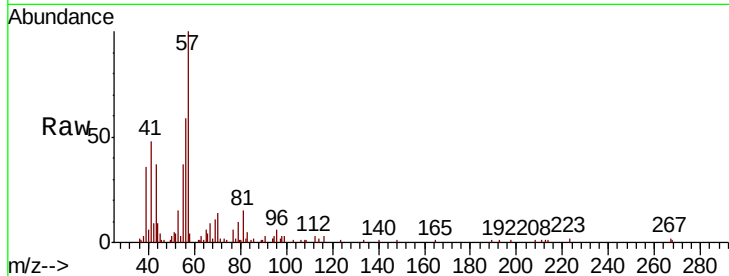




#44
 2,2,4-Trimethylpentane
 Concen: 0.074 ppbv
 RT: 7.86 min Scan# 1578
 Delta R.T. -0.01 min
 Lab File: VL036542.D
 Acq: 29 Mar 2021 16:48

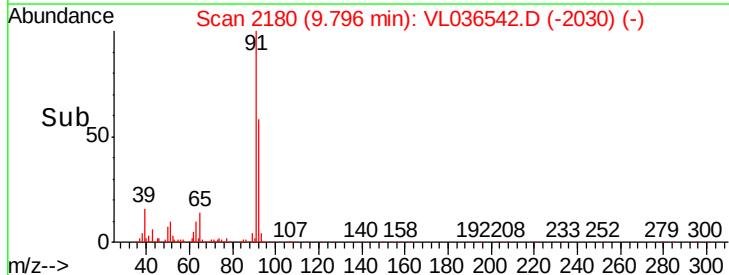
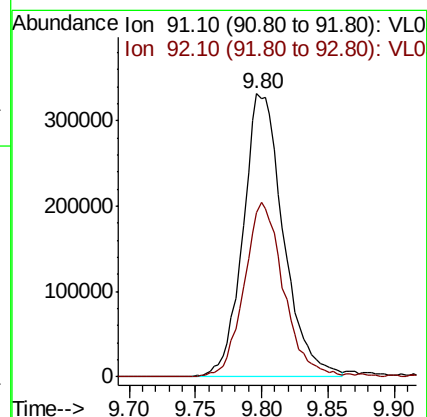
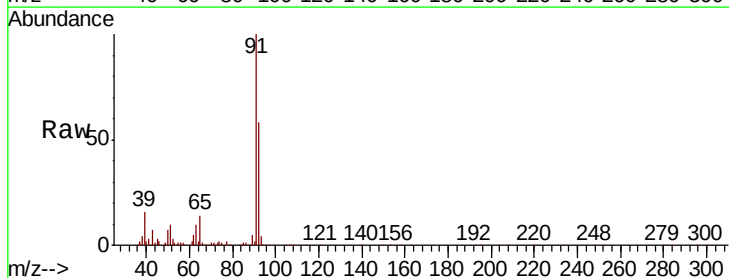
Instrument :
 MSVOA_L
 ClientSampleId :

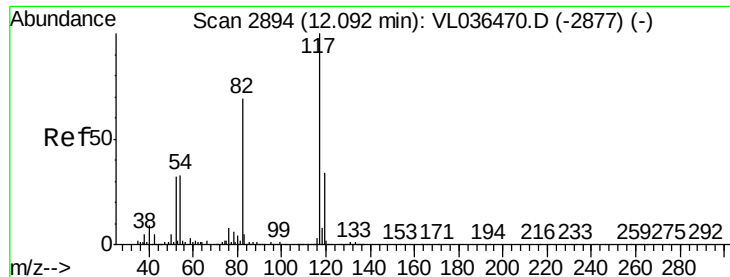
Tot Ion: 57 Resp: 41159
 Ion Ratio Lower Upper
 57 100
 41 84.1 28.8 43.2#
 56 70.9 26.1 39.1#



#53
 Toluene
 Concen: 2.081 ppbv
 RT: 9.80 min Scan# 2180
 Delta R.T. -0.02 min
 Lab File: VL036542.D
 Acq: 29 Mar 2021 16:48

Tgt Ion: 91 Resp: 702397
 Ion Ratio Lower Upper
 91 100
 92 60.9 48.8 73.2

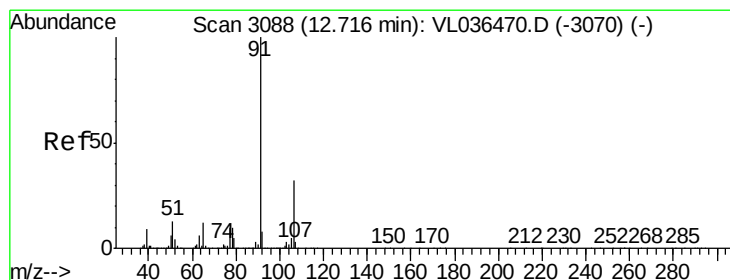
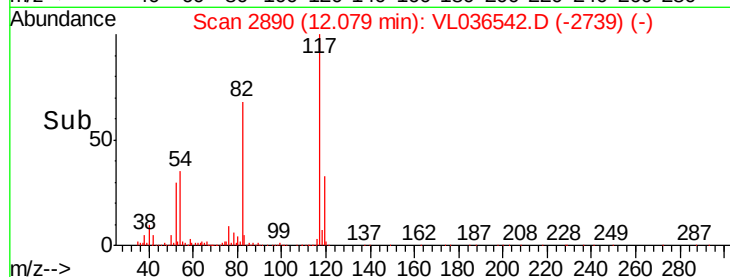
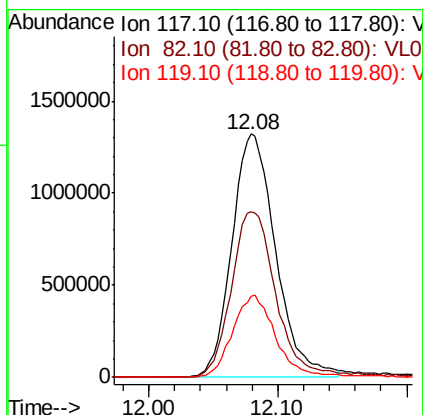
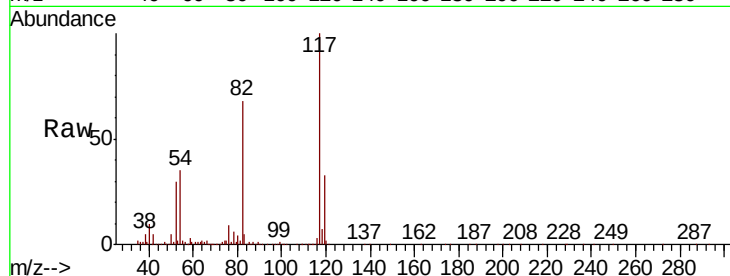




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.08 min Scan# 2890
Delta R.T. -0.01 min
Lab File: VL036542.D
Acq: 29 Mar 2021 16:48

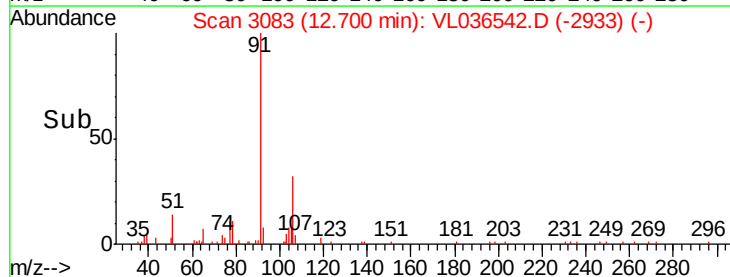
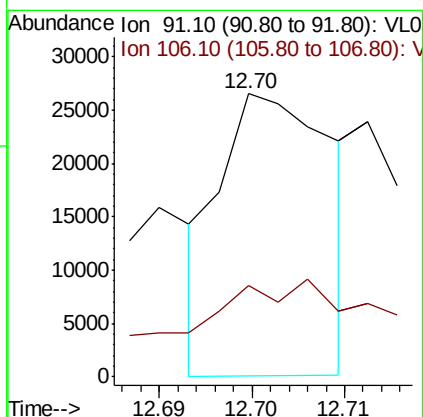
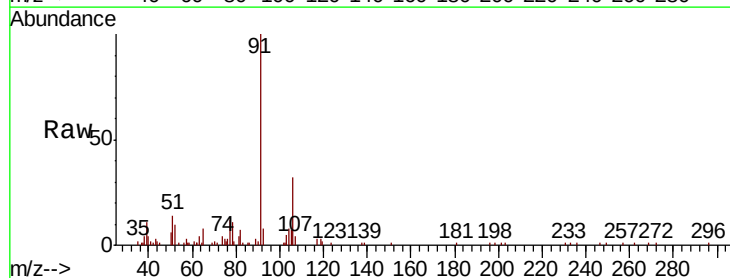
Instrument :
MSVOA_L
ClientSampleId :

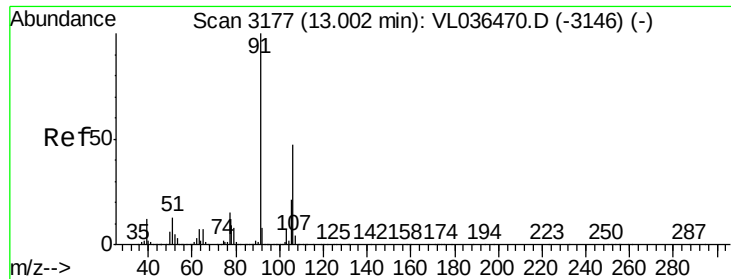
Tot Ion:117 Resp: 3111758
Ion Ratio Lower Upper
117 100
82 71.7 57.4 86.0
119 34.2 47.4 71.0#



#58
Ethyl Benzene
Concen: 0.049 ppbv
RT: 12.70 min Scan# 3083
Delta R.T. -0.02 min
Lab File: VL036542.D
Acq: 29 Mar 2021 16:48

Tgt Ion: 91 Resp: 22064
Ion Ratio Lower Upper
91 100
106 36.8 25.3 37.9

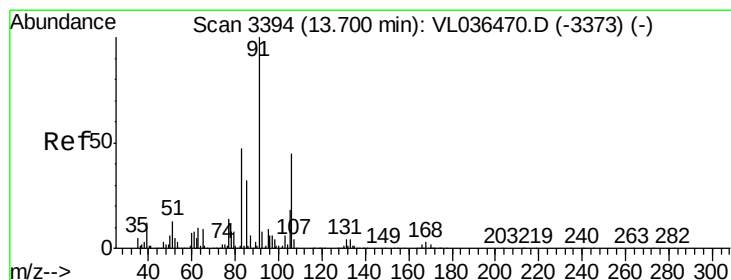
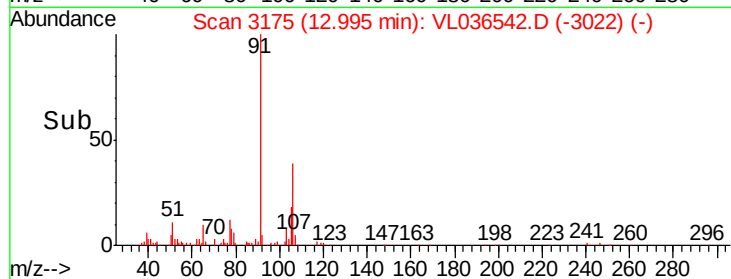
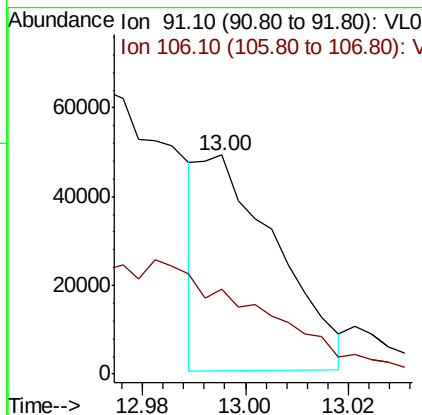
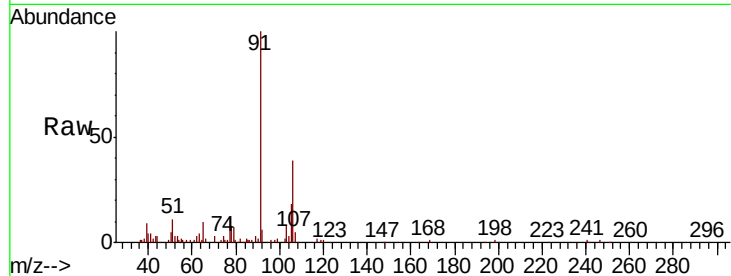




#59
m/p-Xylene
Concen: 0.128 ppbv
RT: 13.00 min Scan# 3175
Delta R.T. -0.01 min
Lab File: VL036542.D
Acq: 29 Mar 2021 16:48

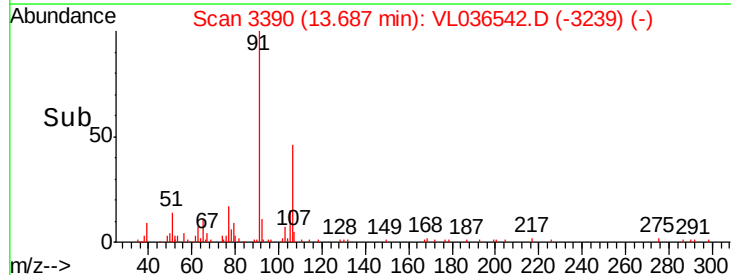
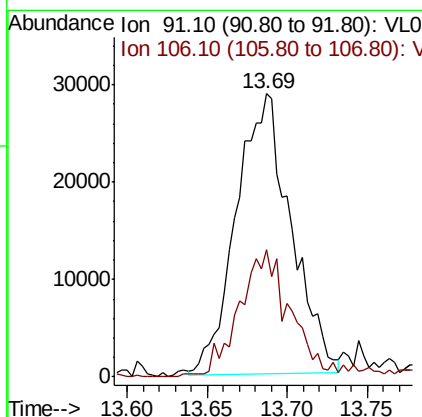
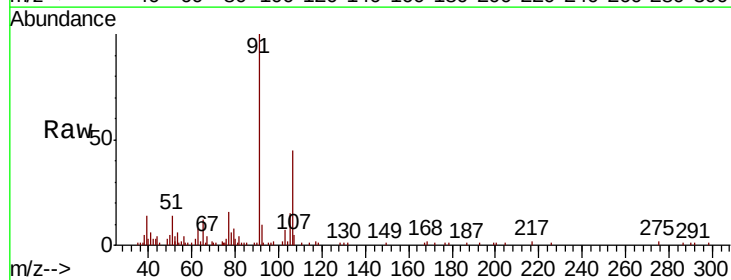
Instrument :
MSVOA_L
ClientSampleId :

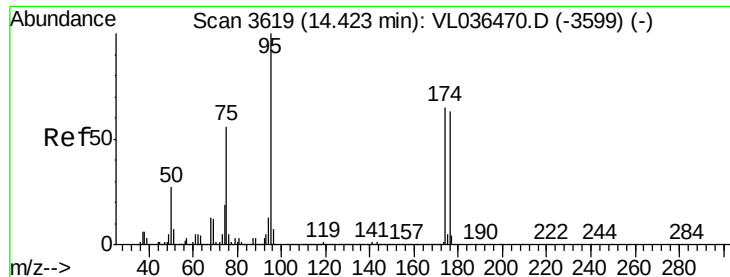
Tot Ion: 91 Resp: 50394
Ion Ratio Lower Upper
91 100
106 0.0 35.3 52.9#



#60
o-Xylene
Concen: 0.177 ppbv
RT: 13.69 min Scan# 3390
Delta R.T. -0.01 min
Lab File: VL036542.D
Acq: 29 Mar 2021 16:48

Tgt Ion: 91 Resp: 67744
Ion Ratio Lower Upper
91 100
106 43.4 22.3 66.9





#68

1-Bromo-4-Fluorobenzene

Concen: 10.070 ppbv

RT: 14.41 min Scan# 3614

Delta R.T. -0.02 min

Lab File: VL036542.D

Acq: 29 Mar 2021 16:48

Instrument :

MSVOA_L

ClientSampleId :

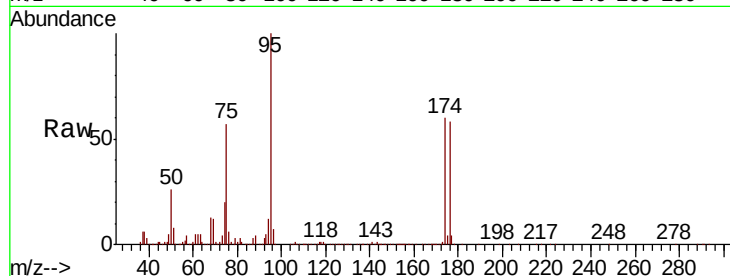
Tot Ion: 95 Resp: 2497546

Ion Ratio Lower Upper

95 100

174 65.2 51.0 76.6

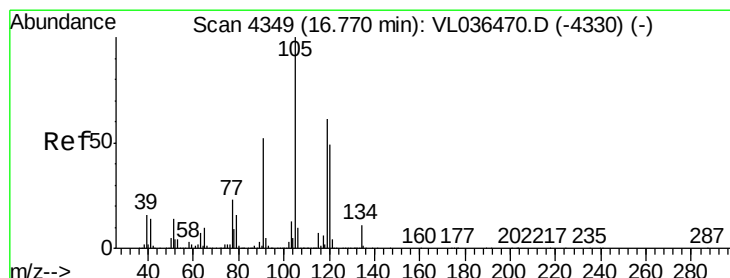
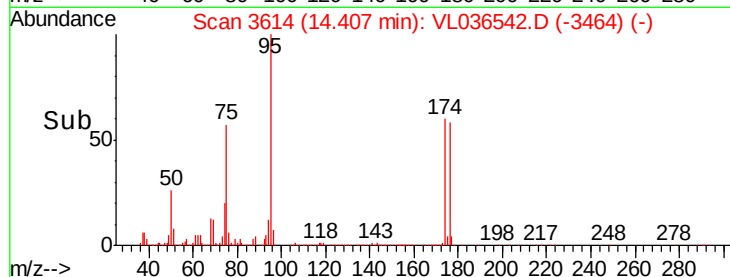
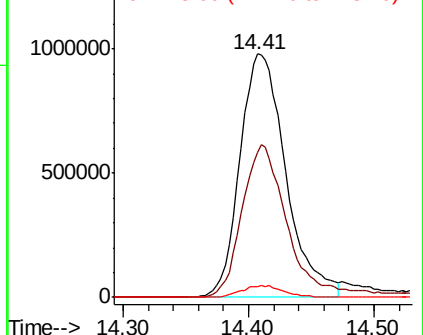
175 4.8 3.9 5.9



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: 0.038 ppbv

RT: 16.76 min Scan# 4345

Delta R.T. -0.01 min

Lab File: VL036542.D

Acq: 29 Mar 2021 16:48

Tgt Ion: 105 Resp: 16005

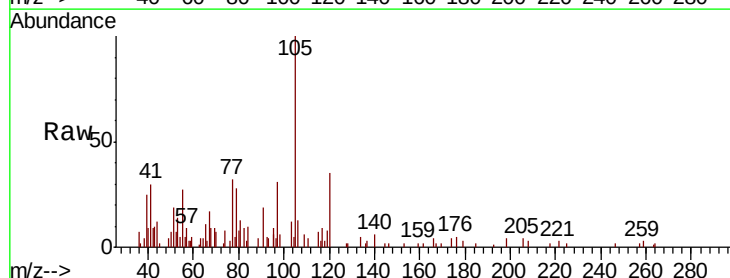
Ion Ratio Lower Upper

105 100

120 40.6 39.2 58.8

91 4.0 42.6 64.0#

77 37.1 18.6 28.0#



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

