

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032621\
 Data File : VL036523.D
 Acq On : 26 Mar 2021 21:10
 Operator : SY/AP
 Sample : M1760-01
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Mar 27 03:31:02 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

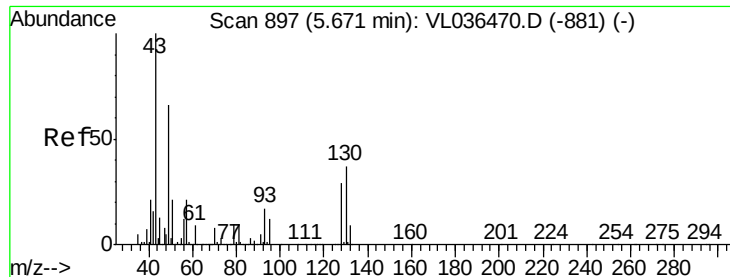
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1416356	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	3198169	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	2750738	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	2209197	10.08	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.80%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	54085	0.234	ppbv 88
3) Chlorodifluoromethane	2.96	51	196102	0.741	ppbv # 73
4) Chloromethane	3.14	50	50206	0.537	ppbv # 81
9) Propene	3.02	41	58468	0.693	ppbv 94
11) Trichlorofluoromethane	3.95	101	50471	0.214	ppbv 98
12) 1,1,2-Trichlorotrifluoroet	4.48	101	3890	0.026	ppbv # 11
13) Ethanol	3.61	45	661909	65.887	ppbv 95
15) Acetone	3.85	43	950767	6.820	ppbv 97
16) 1,3-Butadiene	3.32	39	3010	0.031	ppbv # 1
19) Isopropyl Alcohol	3.98	45	160470	2.093	ppbv # 77
20) Methylene Chloride	4.35	84	226203	3.466	ppbv 96
23) Vinyl Acetate	5.07	43	11402	0.048	ppbv # 77
25) Ethyl Acetate	5.69	43	573464	1.730	ppbv # 80
26) Hexane	5.69	57	690675	4.491	ppbv # 48
30) Cyclohexane	7.14	84	6408	0.051	ppbv # 1
34) 2-Butanone	5.25	43	71671	0.459	ppbv # 90
35) Carbon Tetrachloride	7.03	117	5007	0.020	ppbv 97
36) Benzene	6.89	78	65538	0.222	ppbv # 95
39) 1,2-Dichloropropane	7.18	63	911271	7.616	ppbv # 24
41) Tetrahydrofuran	5.69	42	307735	4.275	ppbv # 53
44) 2,2,4-Trimethylpentane	7.88	57	29370	0.057	ppbv # 51
52) Tetrachloroethene	11.24	164	2270	0.021	ppbv # 45
53) Toluene	9.82	91	491985	1.566	ppbv 97
58) Ethyl Benzene	12.72	91	12853	0.032	ppbv 93
59) m/p-Xylene	13.01	91	12290	0.035	ppbv # 32
60) o-Xylene	13.71	91	13754	0.041	ppbv # 31
74) 1,2,4-Trimethylbenzene	16.77	105	8514	0.023	ppbv # 52

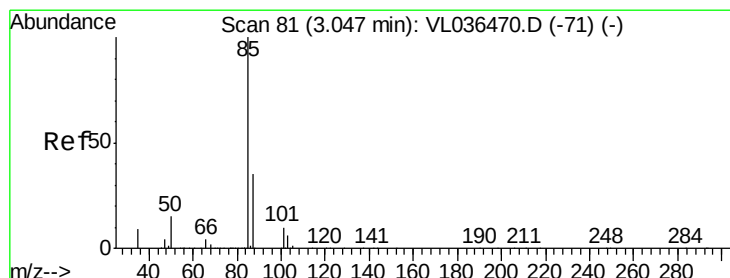
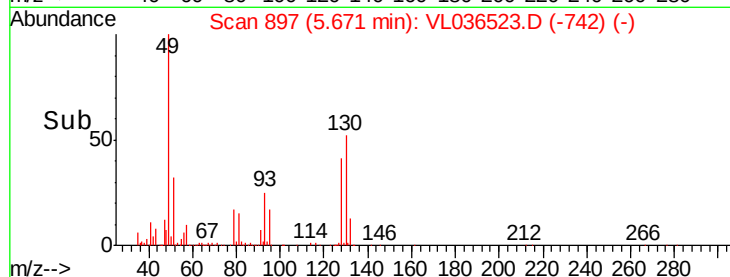
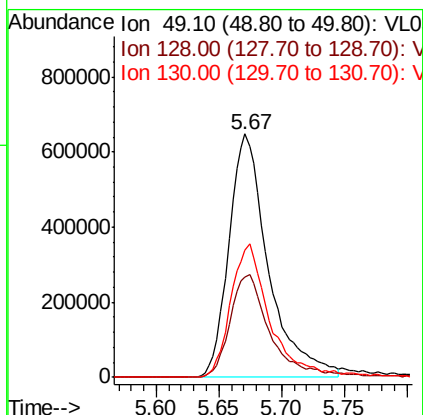
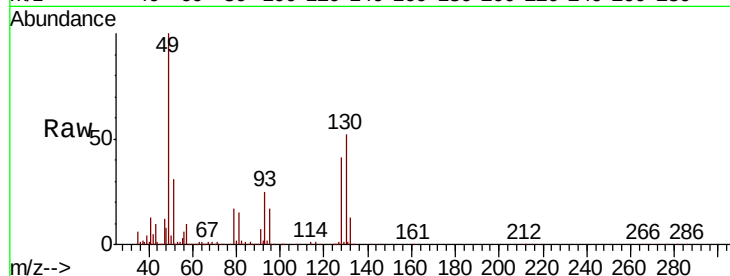
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.67 min Scan# 897
 Delta R.T. -0.00 min
 Lab File: VL036523.D
 Acq: 26 Mar 2021 21:10

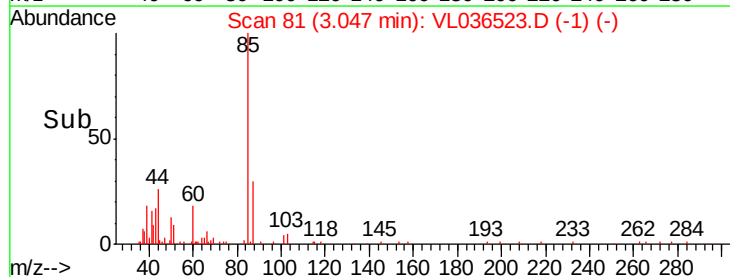
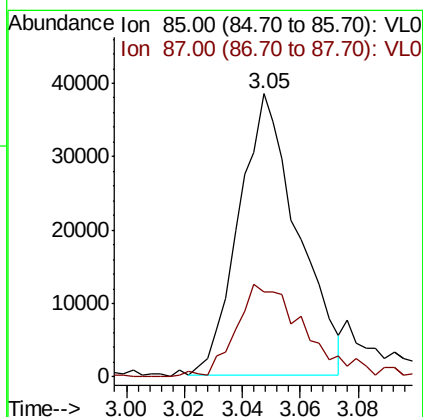
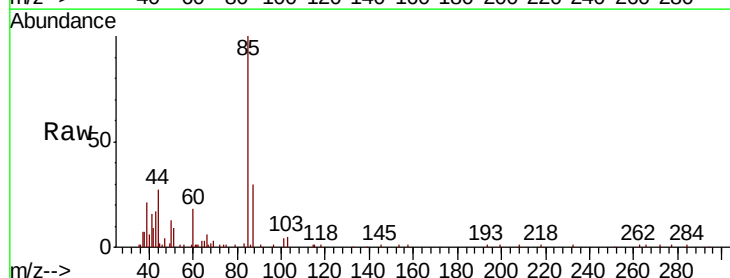
Instrument :
 MSVOA_L
 ClientSampleId :

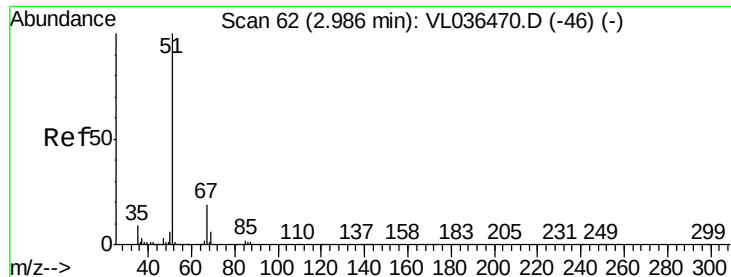
Tot Ion: 49 Resp: 1416356
 Ion Ratio Lower Upper
 49 100
 128 43.8 23.5 70.6
 130 55.6 29.1 87.4



#2
 Dichlorodifluoromethane
 Concen: 0.234 ppbv
 RT: 3.05 min Scan# 81
 Delta R.T. -0.00 min
 Lab File: VL036523.D
 Acq: 26 Mar 2021 21:10

Tgt Ion: 85 Resp: 54085
 Ion Ratio Lower Upper
 85 100
 87 27.9 27.8 41.8





#3

Chlorodifluoromethane

Concen: 0.741 ppbv

RT: 2.96 min Scan# 55

Delta R.T. -0.02 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

Instrument :

MSVOA_L

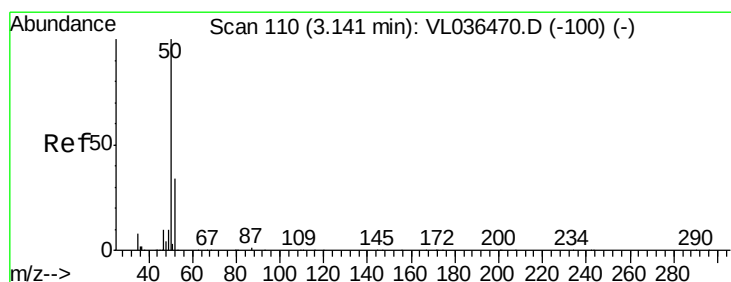
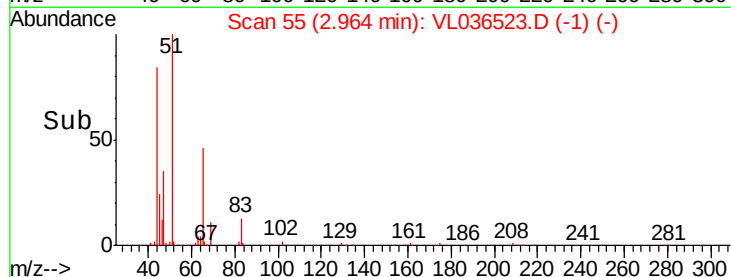
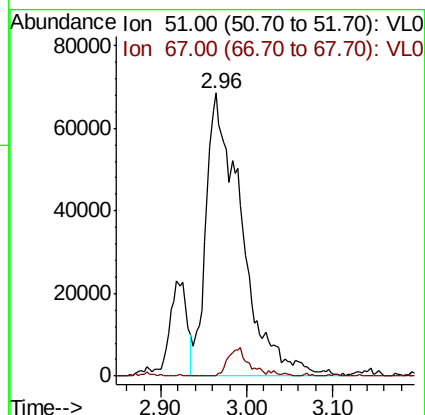
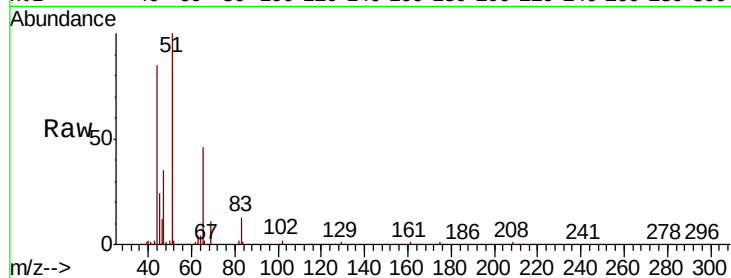
ClientSampleId :

Tot Ion: 51 Resp: 196102

Ion Ratio Lower Upper

51 100

67 6.4 14.7 22.1#



#4

Chloromethane

Concen: 0.537 ppbv

RT: 3.14 min Scan# 111

Delta R.T. 0.00 min

Lab File: VL036523.D

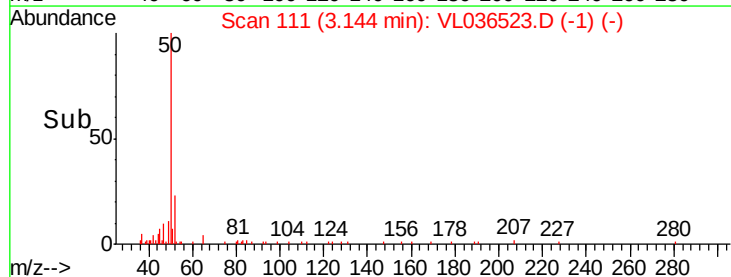
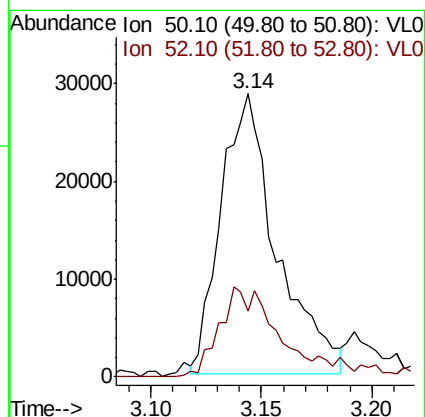
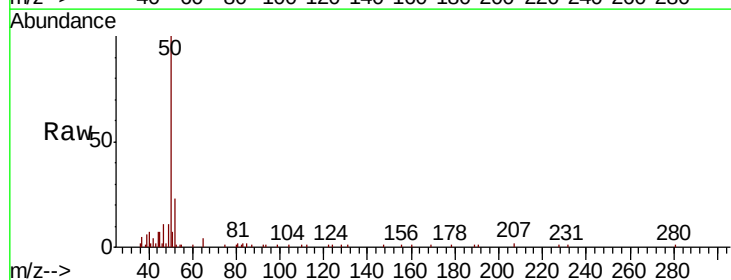
Acq: 26 Mar 2021 21:10

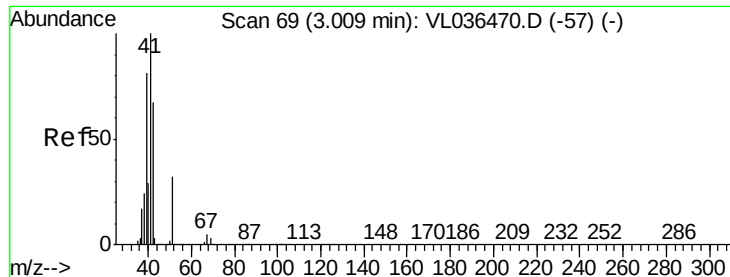
Tgt Ion: 50 Resp: 50206

Ion Ratio Lower Upper

50 100

52 22.9 27.0 40.6#





#9

Propene

Concen: 0.693 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.01 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

Instrument :

MSVOA_L

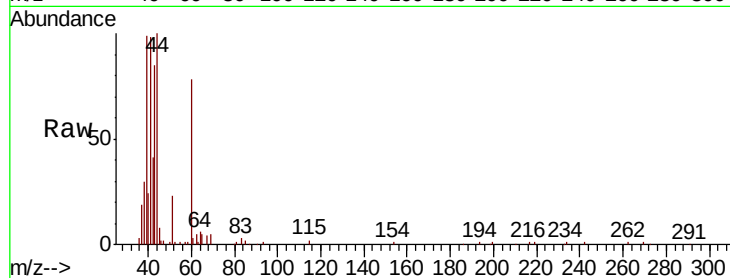
ClientSampleId :

Tot Ion: 41 Resp: 58468

Ion Ratio Lower Upper

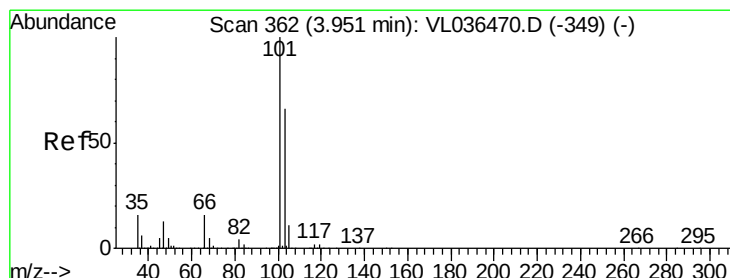
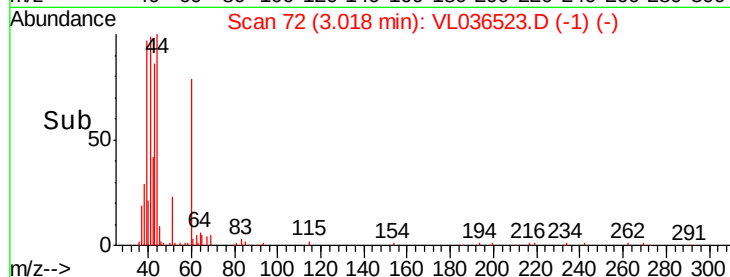
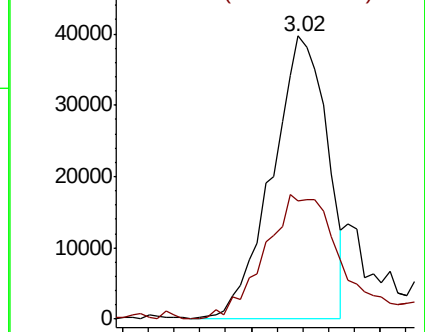
41 100

42 66.5 57.0 85.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 0.214 ppbv

RT: 3.95 min Scan# 363

Delta R.T. 0.00 min

Lab File: VL036523.D

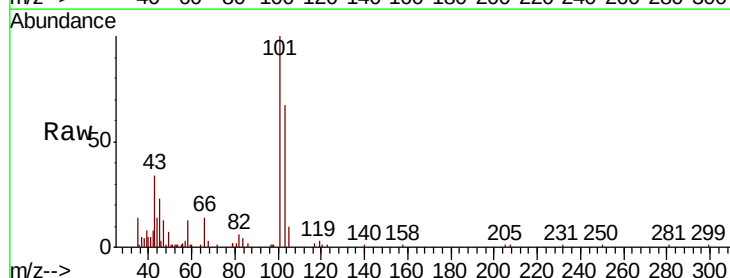
Acq: 26 Mar 2021 21:10

Tgt Ion: 101 Resp: 50471

Ion Ratio Lower Upper

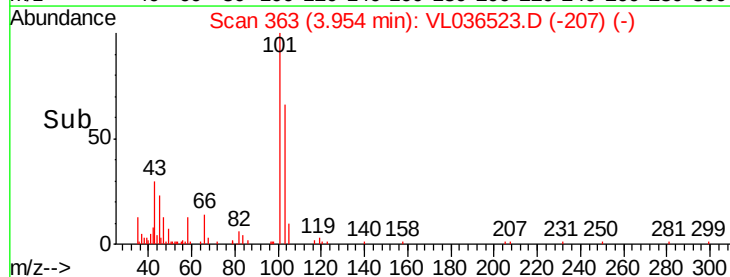
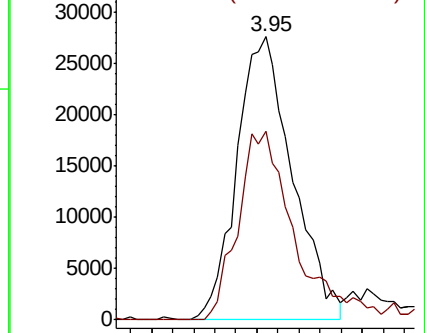
101 100

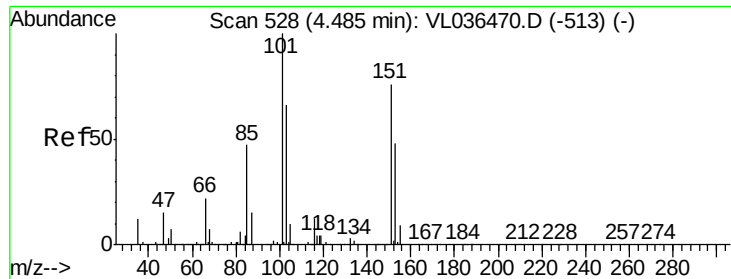
103 66.9 52.5 78.7



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: 0.026 ppbv

RT: 4.48 min Scan# 527

Delta R.T. -0.00 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

Instrument :

MSVOA_L

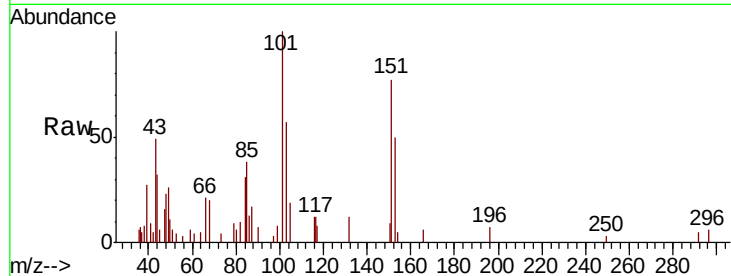
ClientSampleId :

Tot Ion:101 Resp: 3890

Ion Ratio Lower Upper

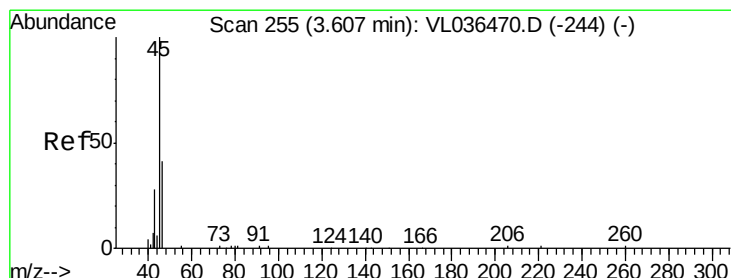
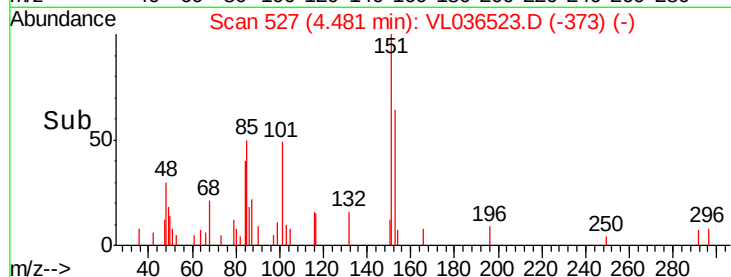
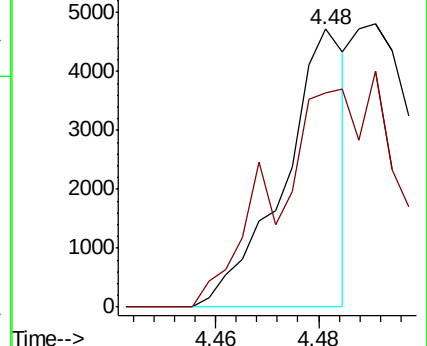
101 100

151 0.0 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: 65.887 ppbv

RT: 3.61 min Scan# 257

Delta R.T. 0.01 min

Lab File: VL036523.D

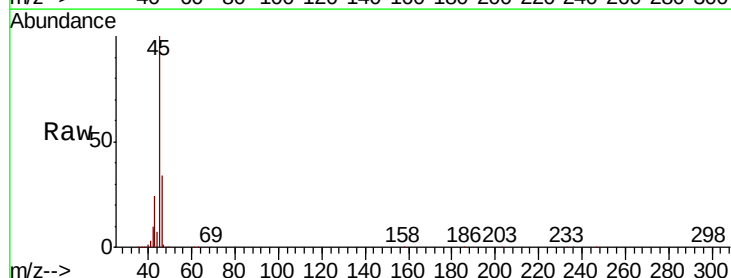
Acq: 26 Mar 2021 21:10

Tgt Ion: 45 Resp: 661909

Ion Ratio Lower Upper

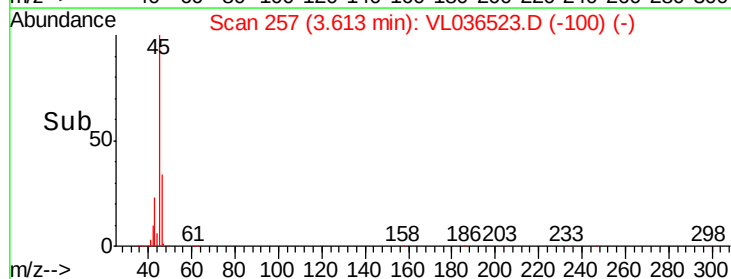
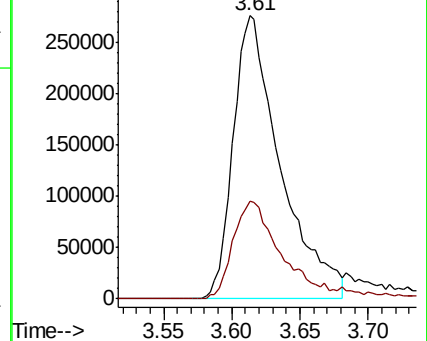
45 100

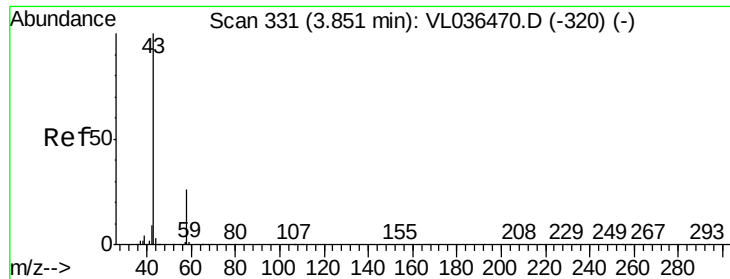
46 38.5 16.6 66.2



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0

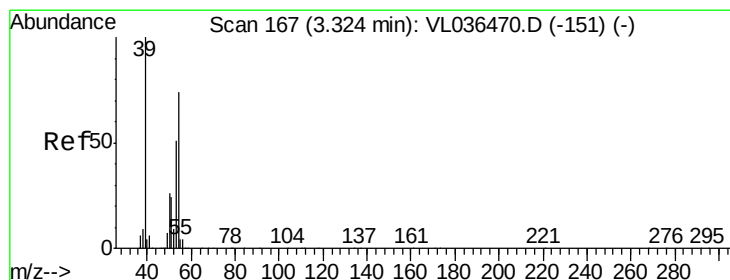
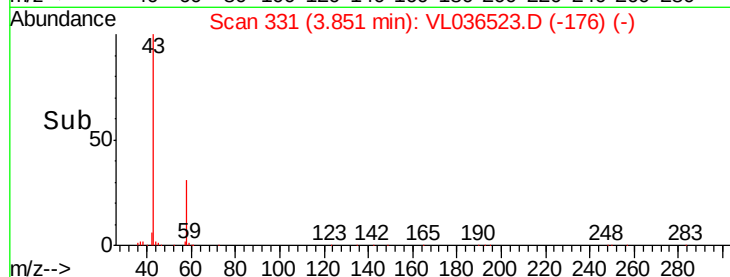
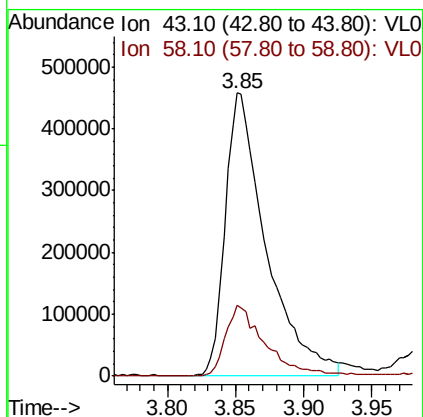
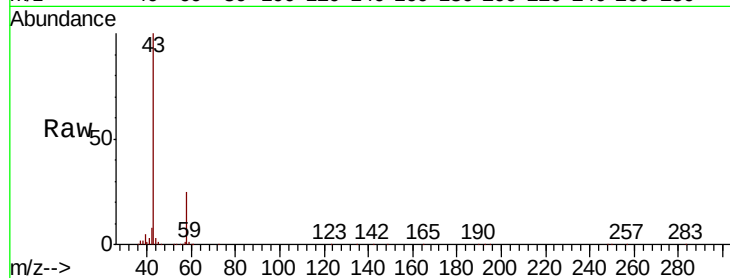




#15
Acetone
Concen: 6.820 ppbv
RT: 3.85 min Scan# 331
Delta R.T. -0.00 min
Lab File: VL036523.D
Acq: 26 Mar 2021 21:10

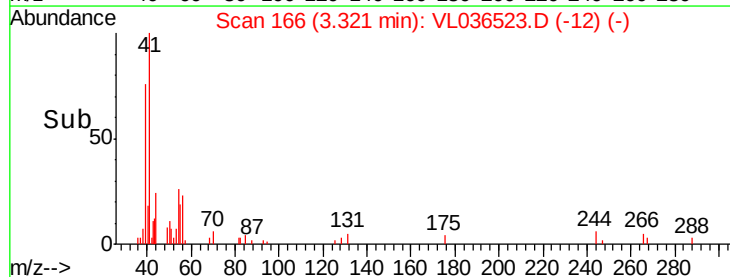
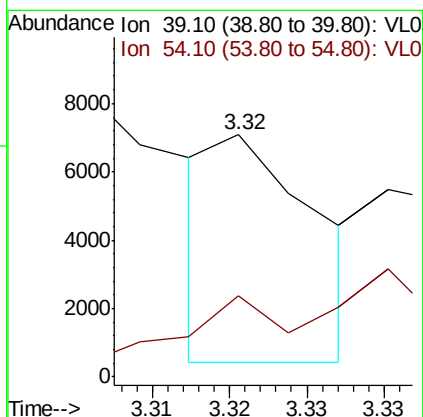
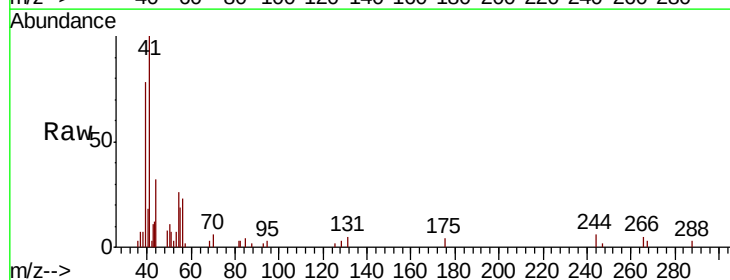
Instrument :
MSVOA_L
ClientSampled :

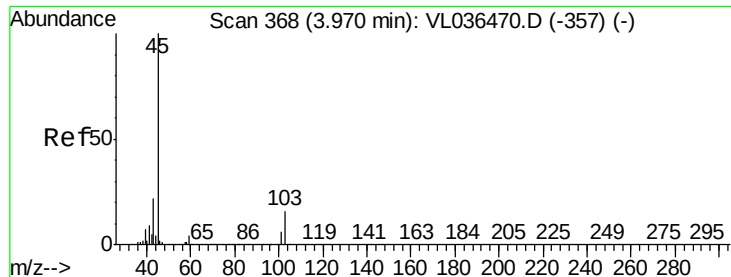
Tot Ion: 43 Resp: 950767
Ion Ratio Lower Upper
43 100
58 24.8 21.2 31.8



#16
1,3-Butadiene
Concen: 0.031 ppbv
RT: 3.32 min Scan# 166
Delta R.T. -0.00 min
Lab File: VL036523.D
Acq: 26 Mar 2021 21:10

Tgt Ion: 39 Resp: 3010
Ion Ratio Lower Upper
39 100
54 191.8 58.8 88.2#





#19

Isopropyl Alcohol

Concen: 2.093 ppbv

RT: 3.98 min Scan# 372

Delta R.T. 0.01 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

Instrument :

MSVOA_L

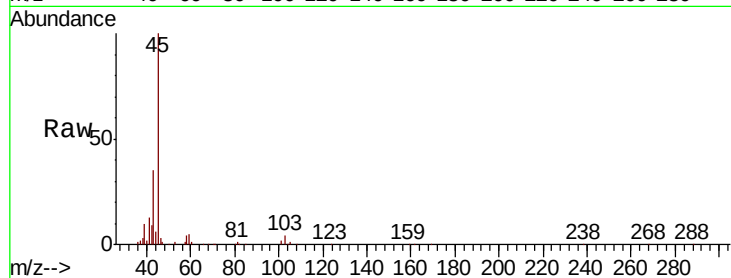
ClientSampled :

Tot Ion: 45 Resp: 160470

Ion Ratio Lower Upper

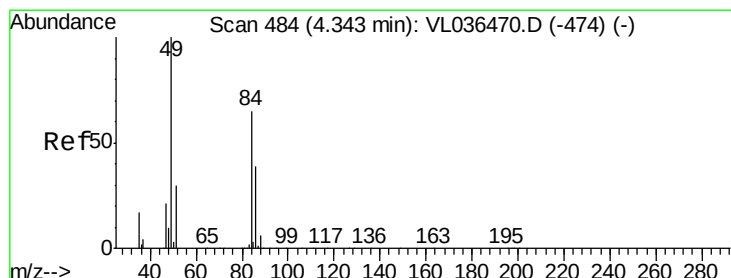
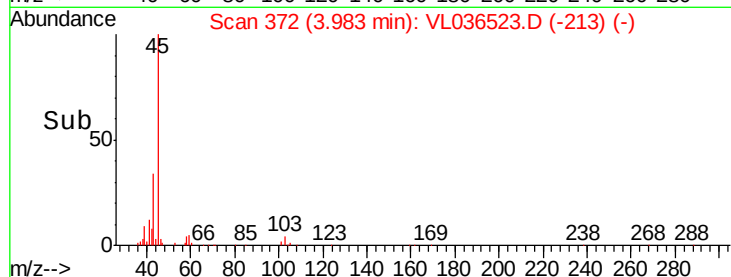
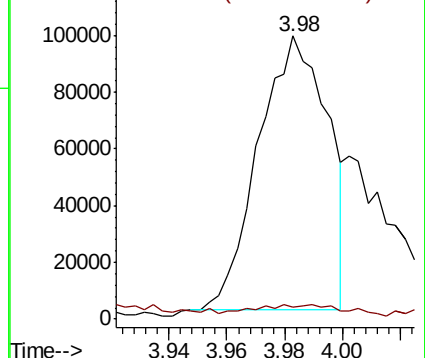
45 100

58 11.2 2.9 4.3#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 3.466 ppbv

RT: 4.35 min Scan# 485

Delta R.T. 0.00 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

Tgt Ion: 84 Resp: 226203

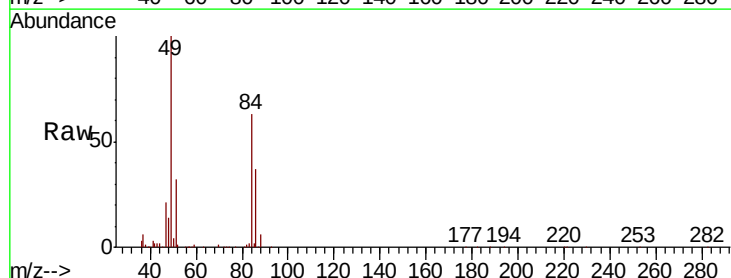
Ion Ratio Lower Upper

84 100

49 158.7 122.9 184.3

51 51.0 36.9 55.3

86 59.3 48.2 72.4

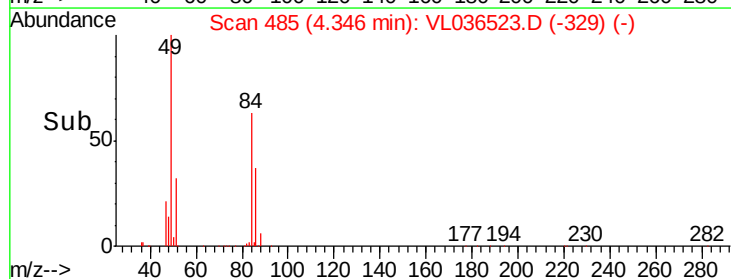
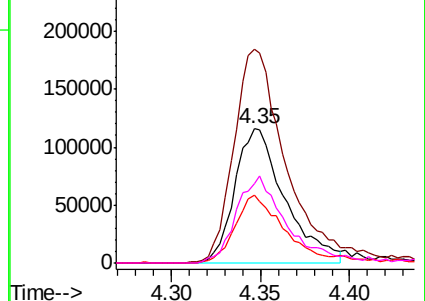


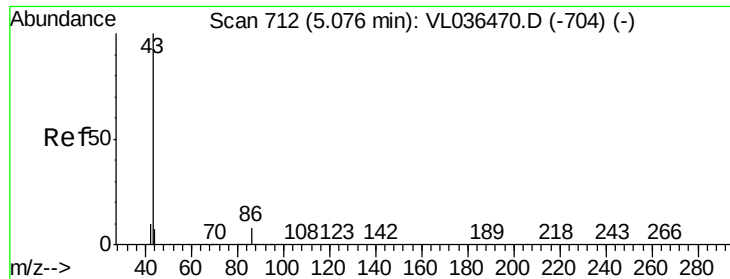
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

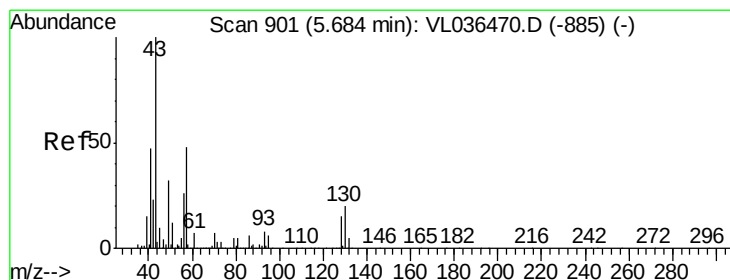
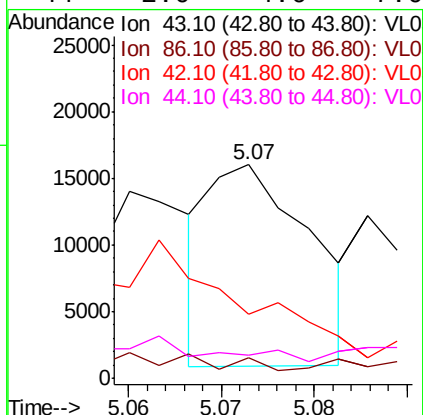
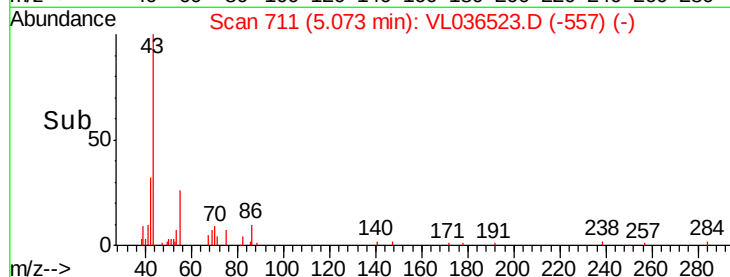
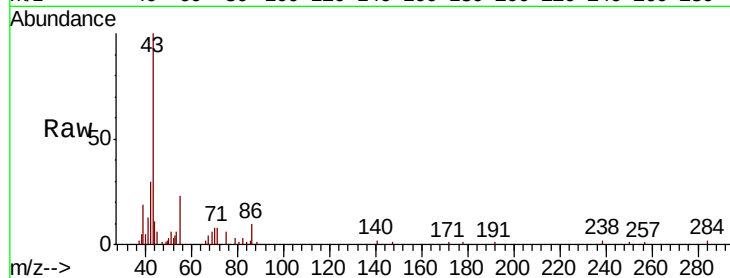




#23
 Vinyl Acetate
 Concen: 0.048 ppbv
 RT: 5.07 min Scan# 711
 Delta R.T. -0.00 min
 Lab File: VL036523.D
 Acq: 26 Mar 2021 21:10

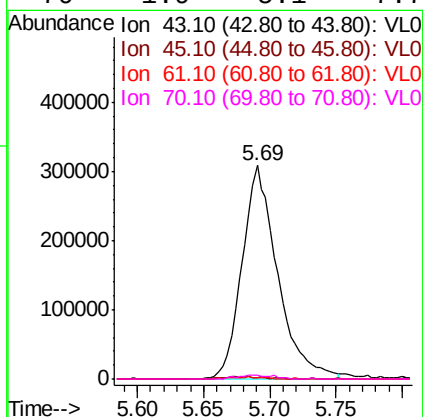
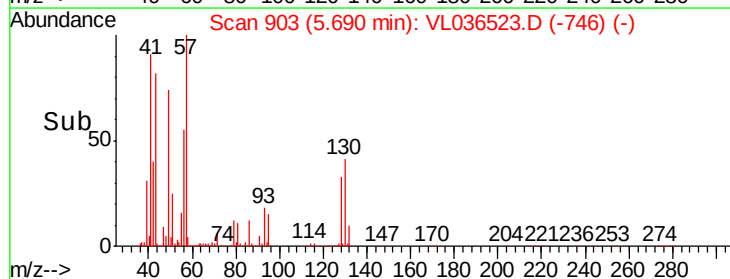
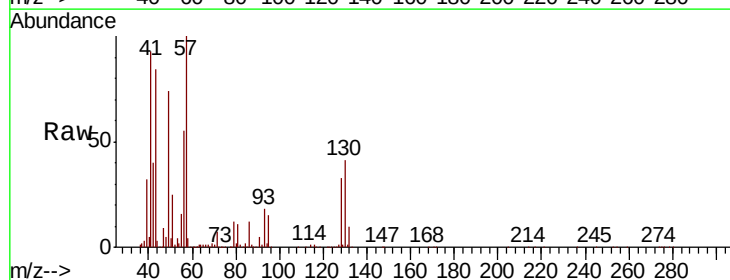
Instrument :
 MSVOA_L
 ClientSampled :

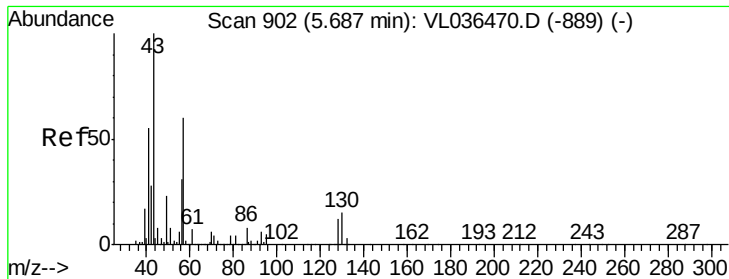
Tot Ion:	43	Resp:	11402
Ion	Ratio	Lower	Upper
43	100		
86	0.7	5.4	8.0#
42	23.3	8.5	12.7#
44	2.0	4.6	7.0#



#25
 Ethyl Acetate
 Concen: 1.730 ppbv
 RT: 5.69 min Scan# 903
 Delta R.T. 0.01 min
 Lab File: VL036523.D
 Acq: 26 Mar 2021 21:10

Tgt Ion:	43	Resp:	573464
Ion	Ratio	Lower	Upper
43	100		
45	1.4	7.9	11.9#
61	1.0	7.4	11.2#
70	1.9	5.1	7.7#





#26

Hexane

Concen: 4.491 ppbv

RT: 5.69 min Scan# 903

Delta R.T. 0.00 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

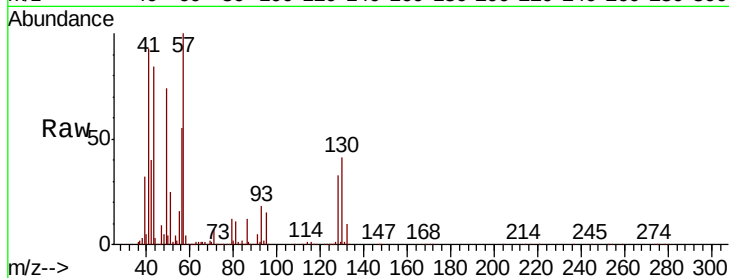
Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 57 Resp: 690675

Ion	Ratio	Lower	Upper
57	100		
41	105.0	77.2	115.8
43	85.3	173.8	260.6#
56	60.2	43.8	65.6

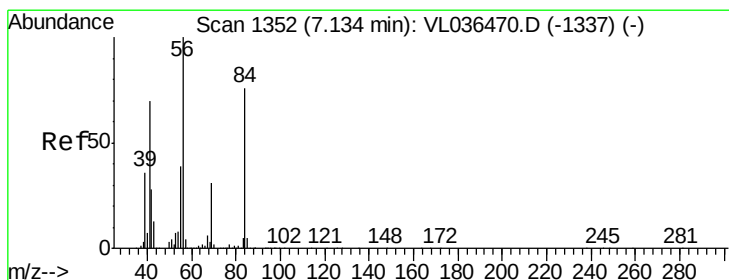
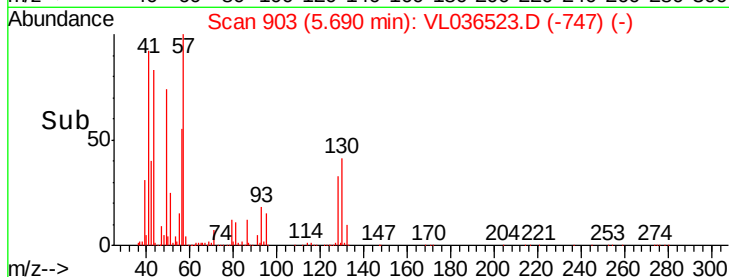
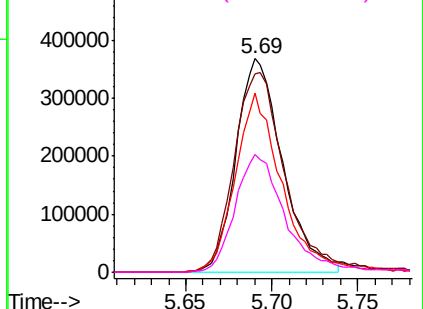


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#30

Cyclohexane

Concen: 0.051 ppbv

RT: 7.14 min Scan# 1354

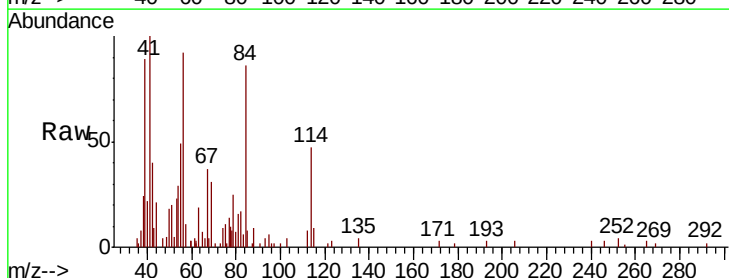
Delta R.T. 0.01 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

Tgt Ion: 84 Resp: 6408

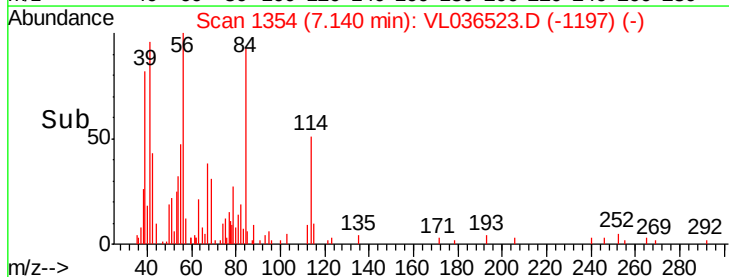
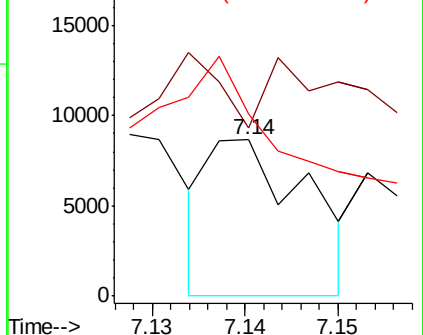
Ion	Ratio	Lower	Upper
84	100		
56	0.0	114.6	171.8#
41	453.8	75.3	112.9#

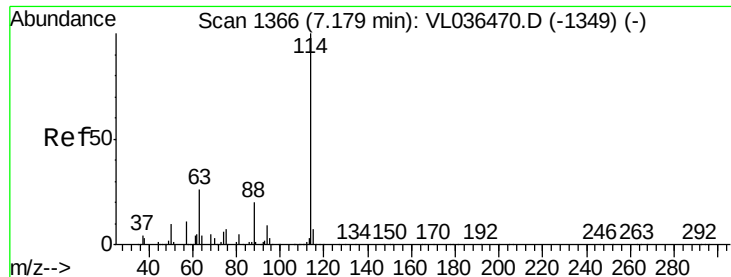


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

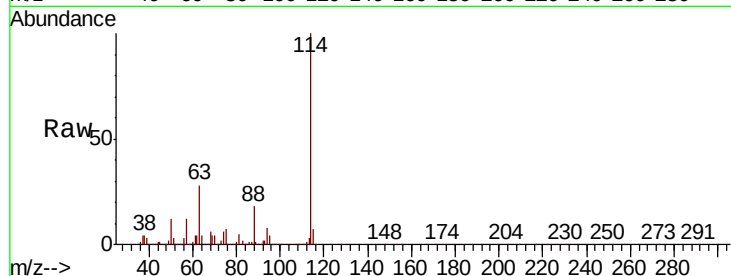




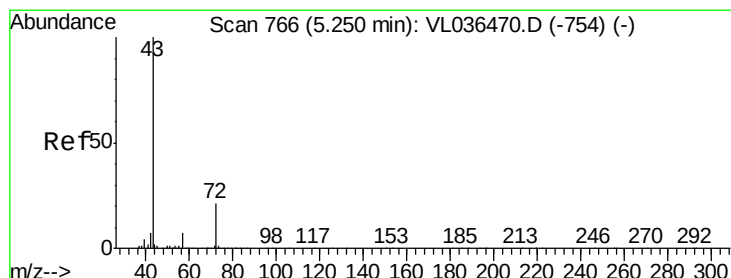
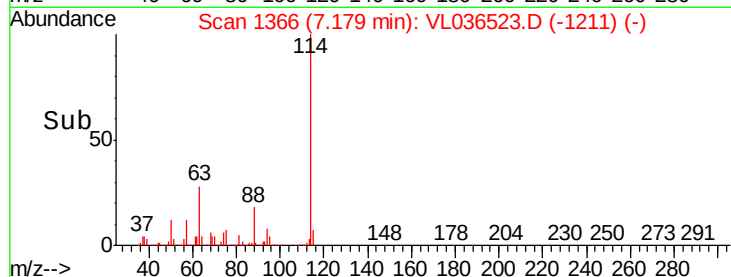
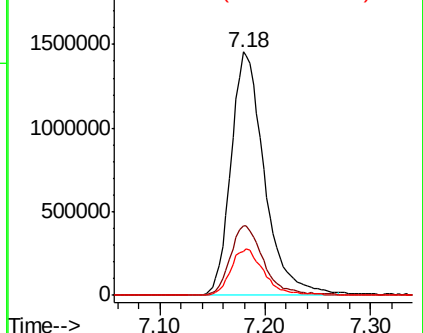
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1366
 Delta R.T. -0.00 min
 Lab File: VL036523.D
 Acq: 26 Mar 2021 21:10

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 3198169
 Ion Ratio Lower Upper
 114 100
 63 28.9 22.4 33.6
 88 19.3 15.4 23.0

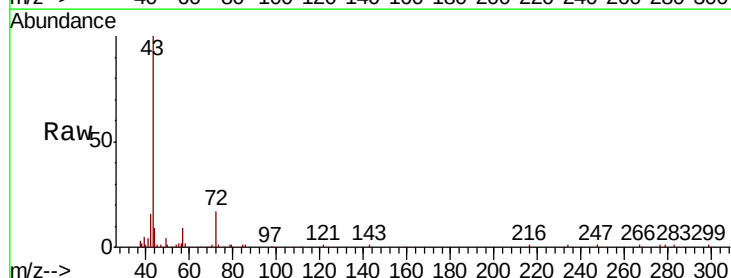


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

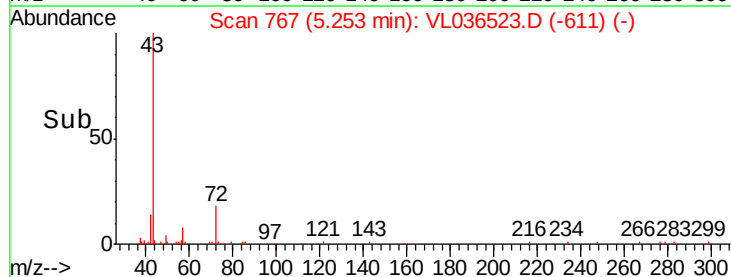
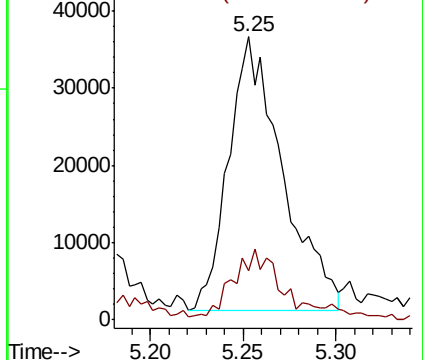


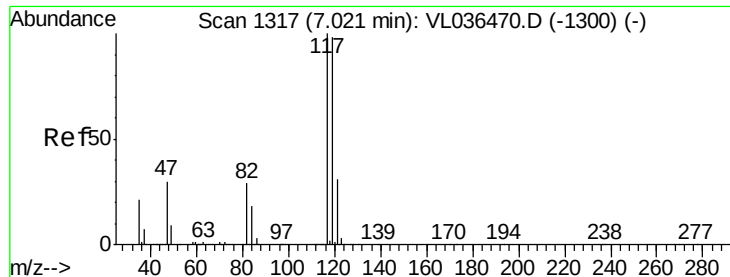
#34
 2-Butanone
 Concen: 0.459 ppbv
 RT: 5.25 min Scan# 767
 Delta R.T. 0.00 min
 Lab File: VL036523.D
 Acq: 26 Mar 2021 21:10

Tgt Ion: 43 Resp: 71671
 Ion Ratio Lower Upper
 43 100
 72 26.2 17.0 25.6#



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

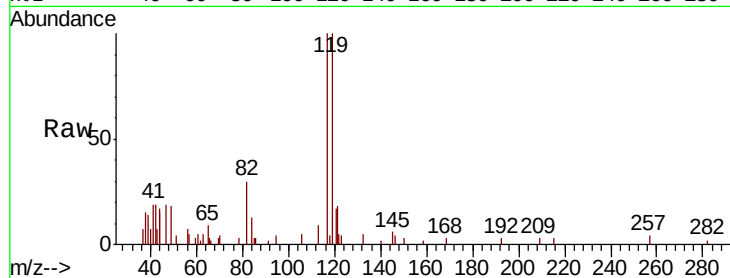




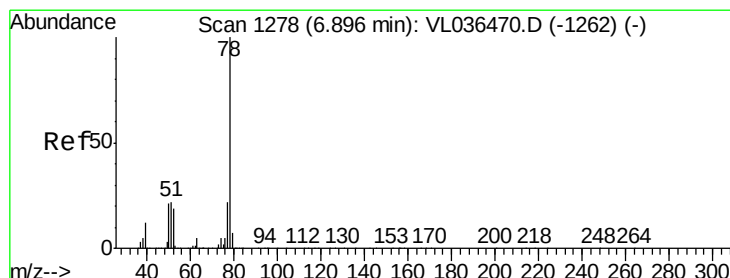
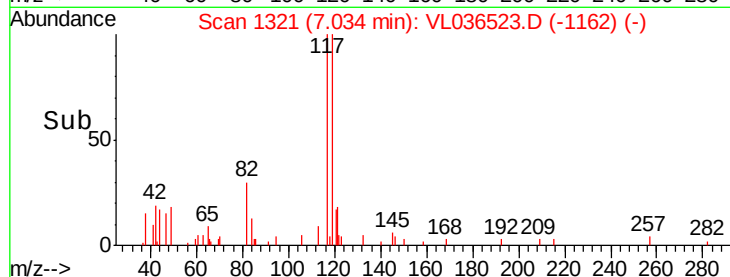
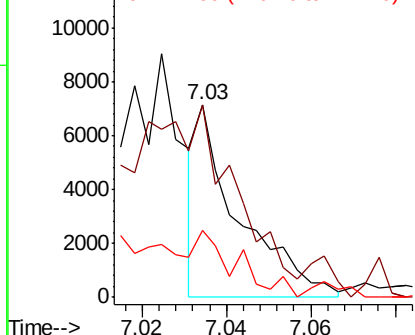
#35
Carbon Tetrachloride
Concen: 0.020 ppbv
RT: 7.03 min Scan# 1321
Delta R.T. 0.01 min
Lab File: VL036523.D
Acq: 26 Mar 2021 21:10

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:117 Resp: 5007
Ion Ratio Lower Upper
117 100
119 94.3 78.2 117.2
121 31.3 24.5 36.7

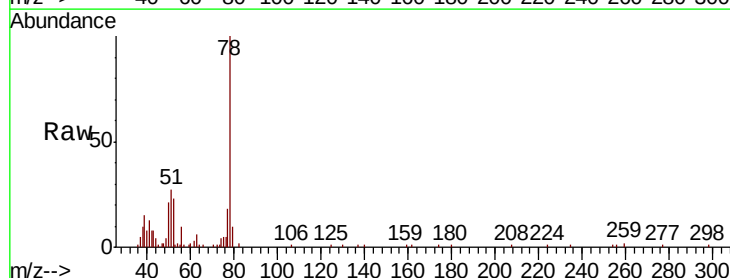


Abundance Ion 117.00 (116.70 to 117.70): V
Ion 119.00 (118.70 to 119.70): V
Ion 121.00 (120.70 to 121.70): V

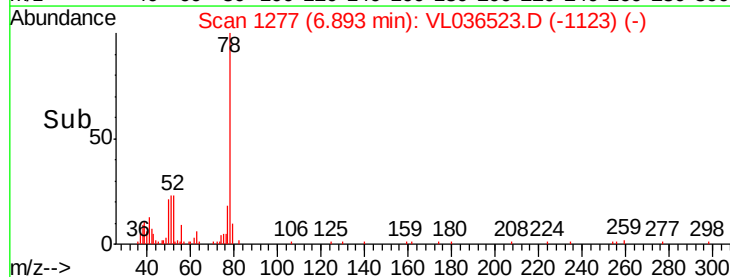
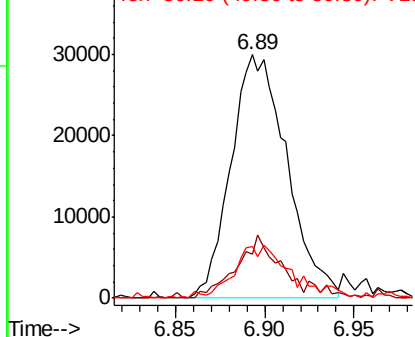


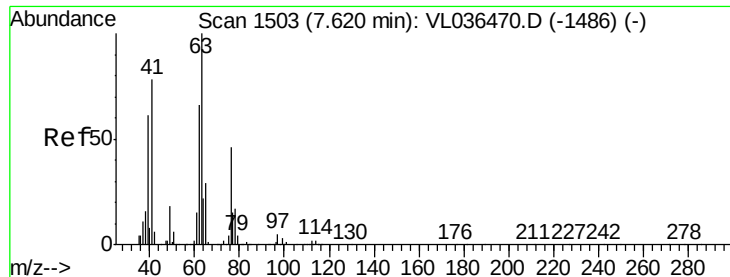
#36
Benzene
Concen: 0.222 ppbv
RT: 6.89 min Scan# 1277
Delta R.T. -0.00 min
Lab File: VL036523.D
Acq: 26 Mar 2021 21:10

Tgt Ion: 78 Resp: 65538
Ion Ratio Lower Upper
78 100
77 18.0 18.0 27.0#
50 21.1 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: 7.616 ppbv

RT: 7.18 min Scan# 1367

Delta R.T. -0.44 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

Instrument :

MSVOA_L

ClientSampleId :

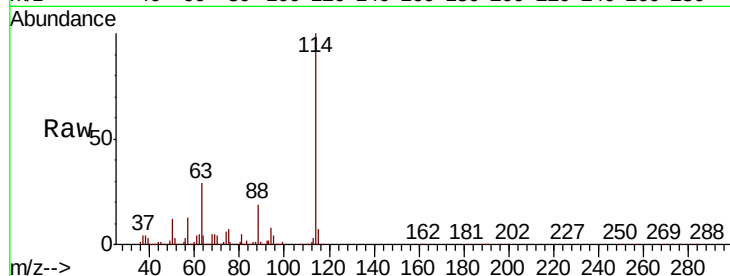
Tot Ion: 63 Resp: 911271

Ion Ratio Lower Upper

63 100

41 0.0 62.4 93.6#

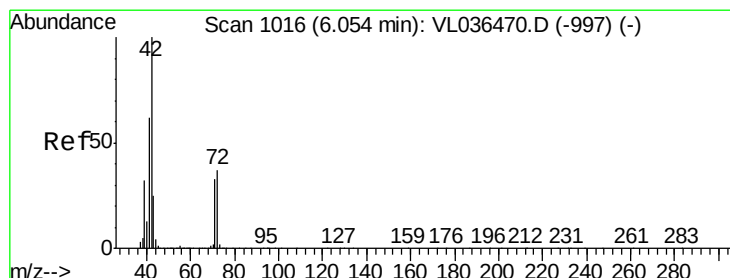
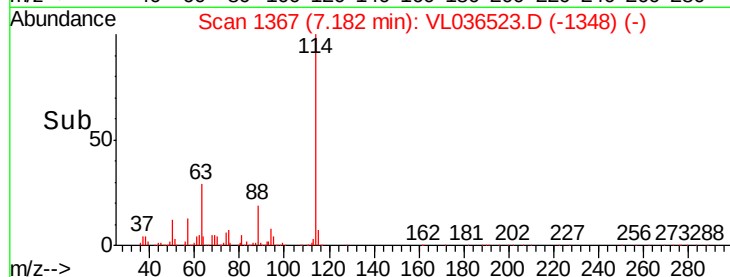
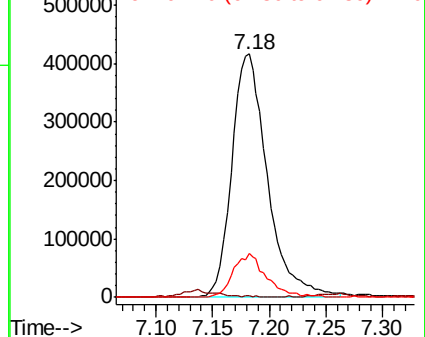
62 17.8 52.8 79.2#



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: 4.275 ppbv

RT: 5.69 min Scan# 904

Delta R.T. -0.36 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

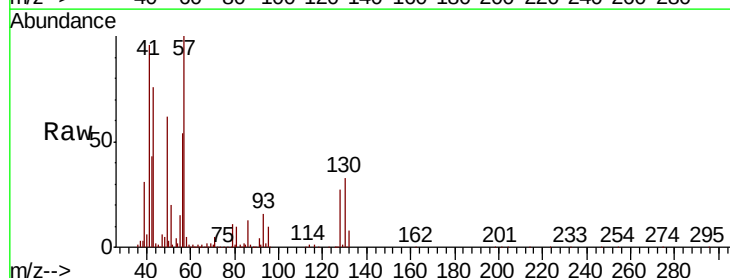
Tgt Ion: 42 Resp: 307735

Ion Ratio Lower Upper

42 100

72 1.0 27.6 41.4#

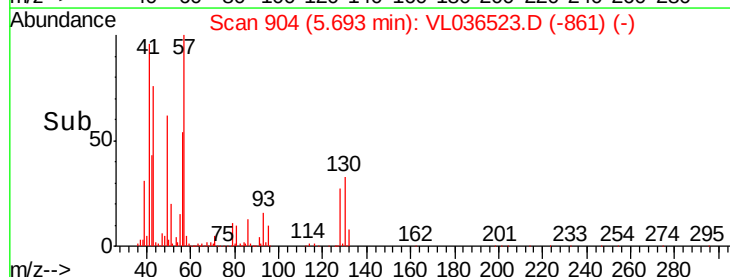
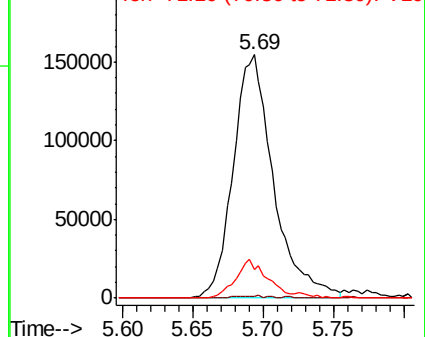
71 13.7 27.0 40.4#

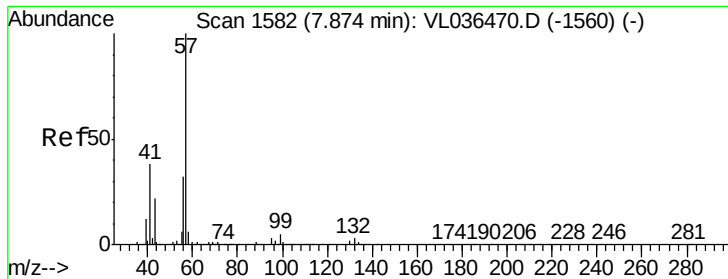


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0





#44

2,2,4-Trimethylpentane

Concen: 0.057 ppbv

RT: 7.88 min Scan# 1585

Delta R.T. 0.01 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

Instrument :

MSVOA_L

ClientSampleId :

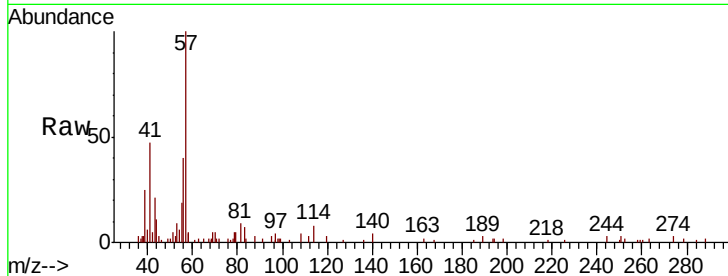
Tot Ion: 57 Resp: 29370

Ion Ratio Lower Upper

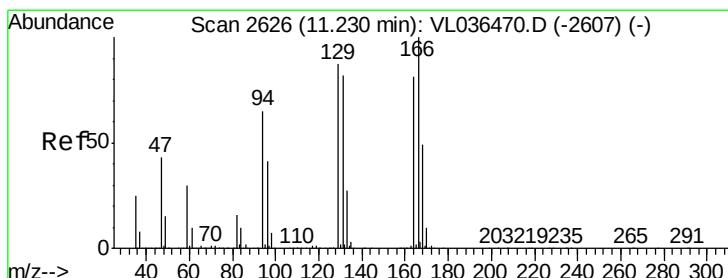
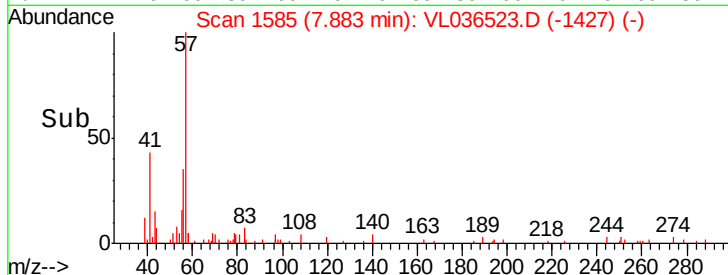
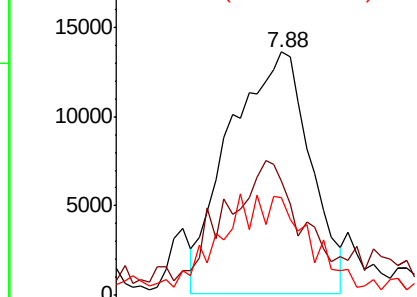
57 100

41 71.1 28.8 43.2#

56 53.6 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



#52

Tetrachloroethene

Concen: 0.021 ppbv

RT: 11.24 min Scan# 2628

Delta R.T. 0.01 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

Tgt Ion:164 Resp: 2270

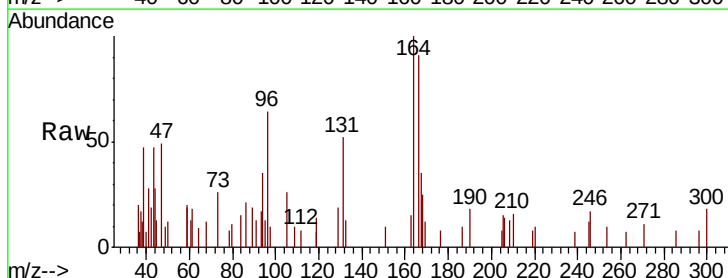
Ion Ratio Lower Upper

164 100

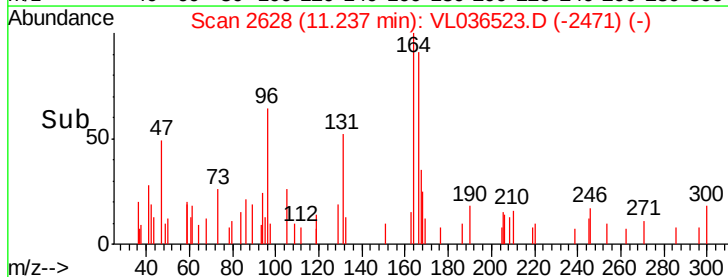
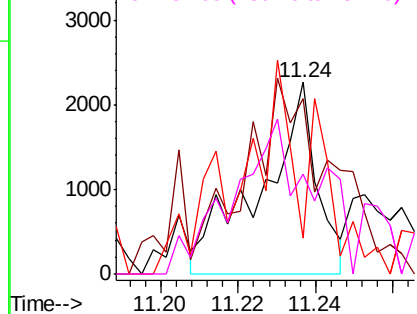
166 94.9 98.3 147.5#

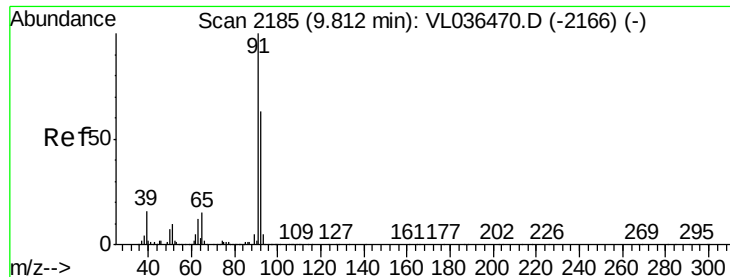
129 10.8 85.8 128.8#

131 49.5 80.9 121.3#



Abundance Ion 163.90 (163.60 to 164.60): V
Ion 165.90 (165.60 to 166.60): V
Ion 129.00 (128.70 to 129.70): V
Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 1.566 ppbv

RT: 9.82 min Scan# 2187

Delta R.T. 0.01 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

Instrument :

MSVOA_L

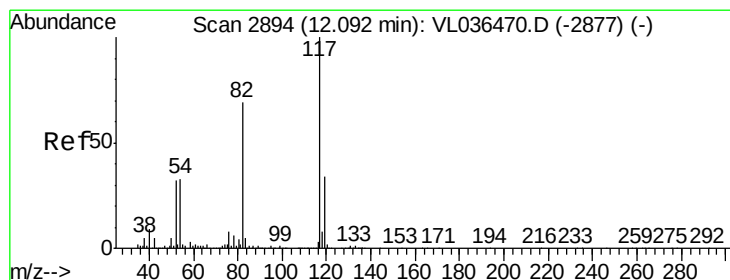
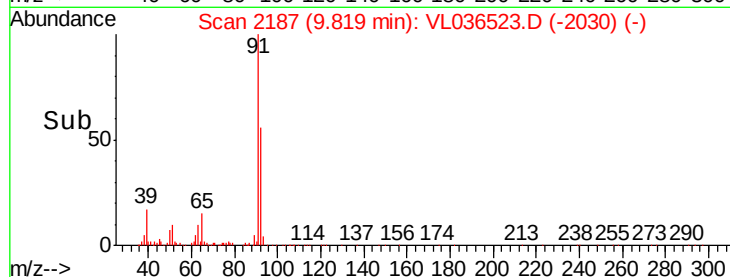
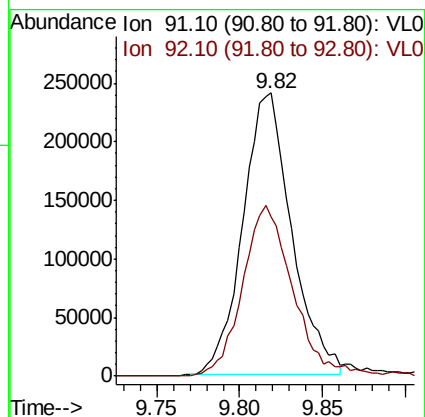
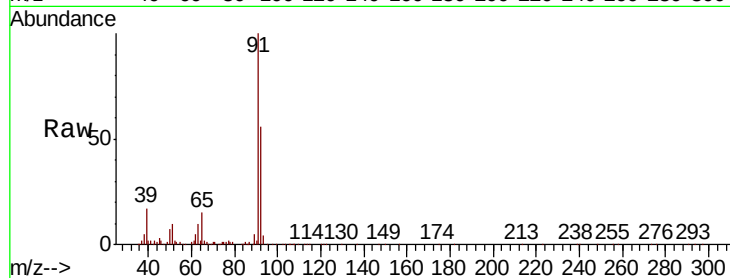
ClientSampleId :

Tot Ion: 91 Resp: 491985

Ion Ratio Lower Upper

91 100

92 63.5 48.8 73.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2894

Delta R.T. -0.00 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

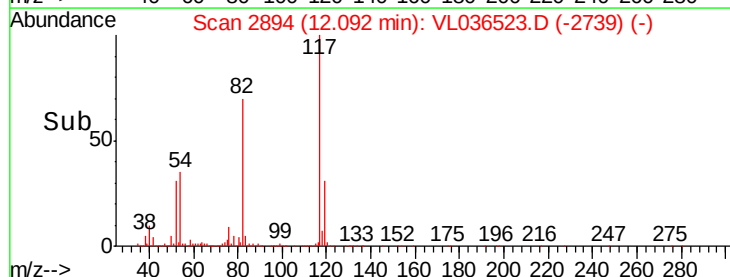
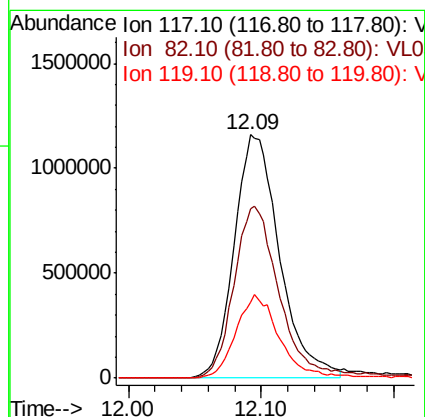
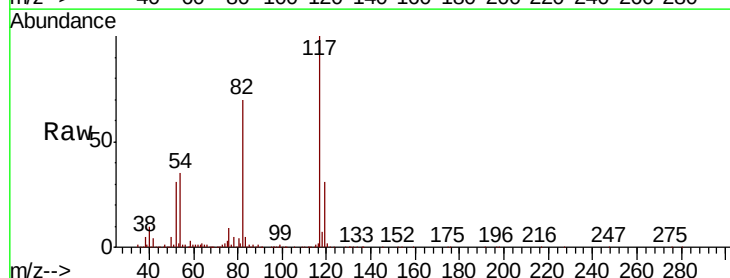
Tgt Ion: 117 Resp: 2750738

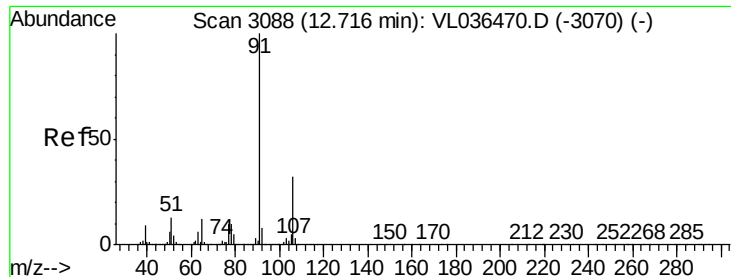
Ion Ratio Lower Upper

117 100

82 72.4 57.4 86.0

119 34.3 47.4 71.0#





#58

Ethyl Benzene

Concen: 0.032 ppbv

RT: 12.72 min Scan# 3088

Delta R.T. -0.00 min

Lab File: VL036523.D

Acq: 26 Mar 2021 21:10

Instrument :

MSVOA_L

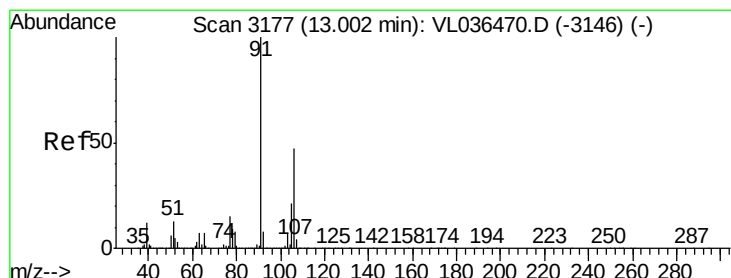
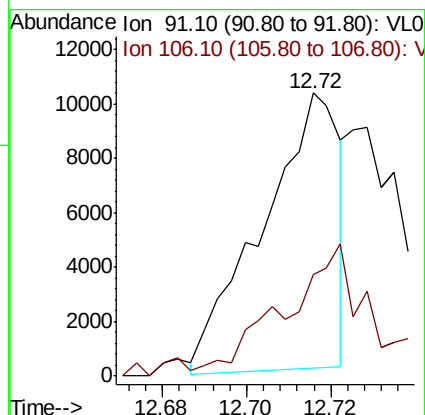
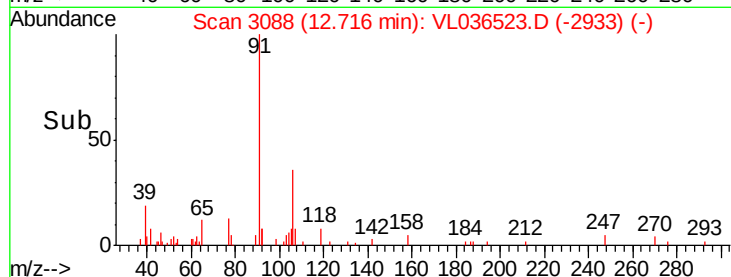
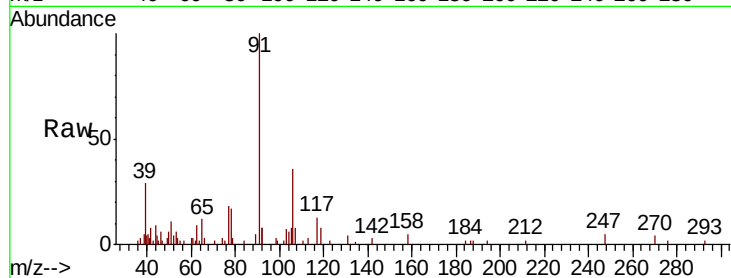
ClientSampled :

Tot Ion: 91 Resp: 12853

Ion Ratio Lower Upper

91 100

106 35.4 25.3 37.9



#59

m/p-Xylene

Concen: 0.035 ppbv

RT: 13.01 min Scan# 3178

Delta R.T. 0.00 min

Lab File: VL036523.D

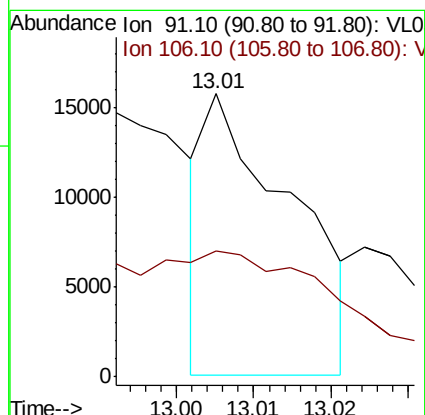
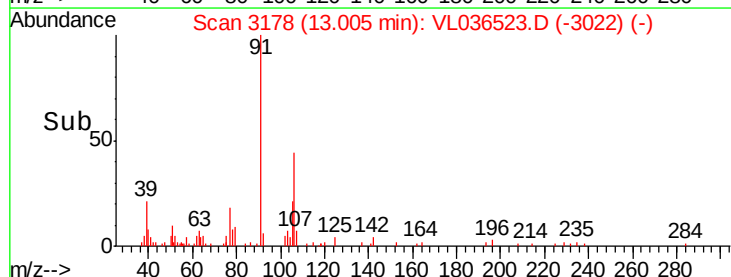
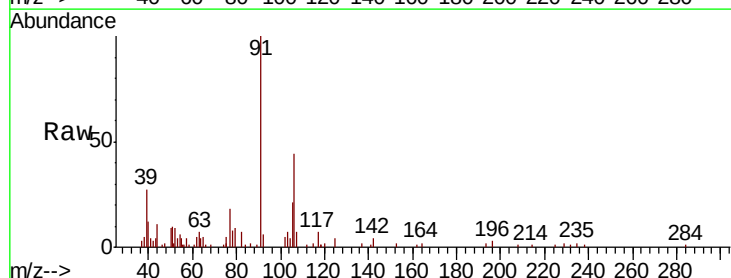
Acq: 26 Mar 2021 21:10

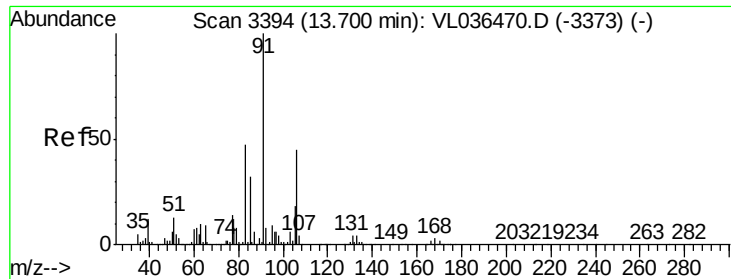
Tgt Ion: 91 Resp: 12290

Ion Ratio Lower Upper

91 100

106 0.0 35.3 52.9#

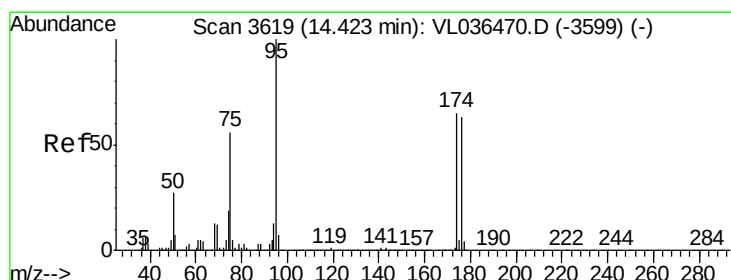
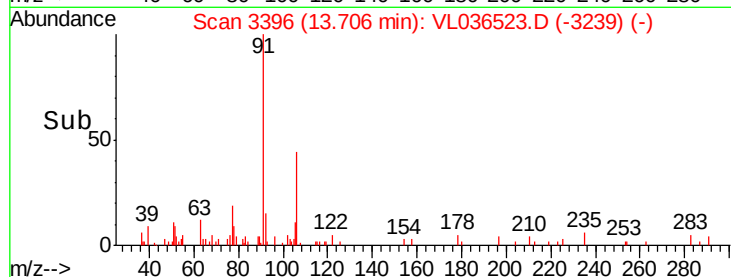
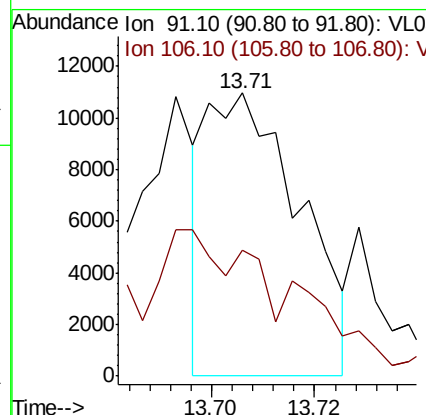
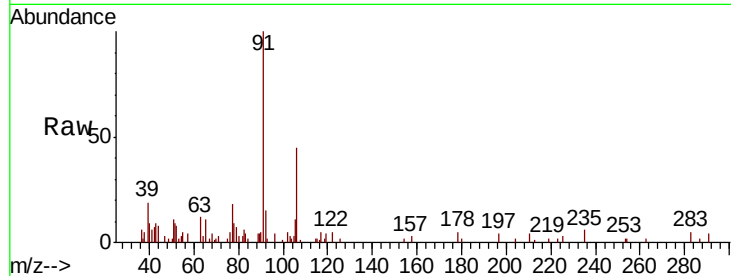




#60
o-Xylene
Concen: 0.041 ppbv
RT: 13.71 min Scan# 3396
Delta R.T. 0.01 min
Lab File: VL036523.D
Acq: 26 Mar 2021 21:10

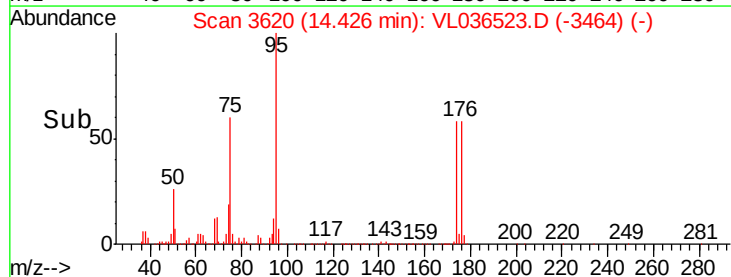
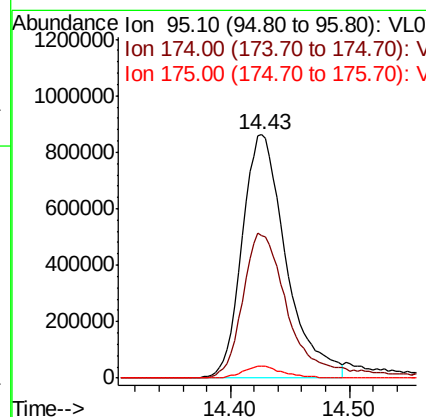
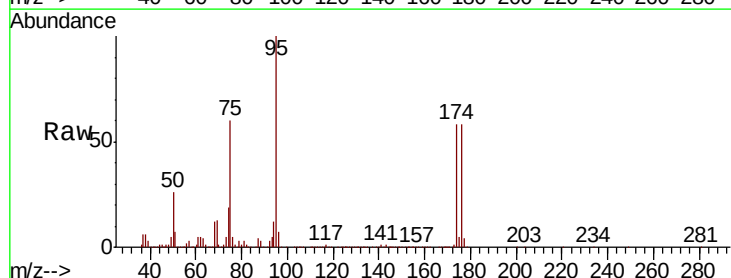
Instrument :
MSVOA_L
ClientSampleId :

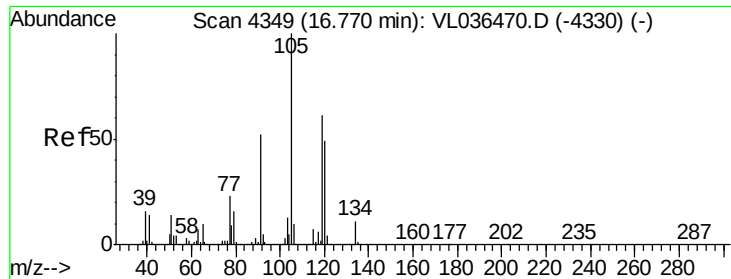
Tot Ion: 91 Resp: 13754
Ion Ratio Lower Upper
91 100
106 0.0 22.3 66.9#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.077 ppbv
RT: 14.43 min Scan# 3620
Delta R.T. 0.00 min
Lab File: VL036523.D
Acq: 26 Mar 2021 21:10

Tgt Ion: 95 Resp: 2209197
Ion Ratio Lower Upper
95 100
174 64.9 51.0 76.6
175 5.0 3.9 5.9





#74
 1,2,4-Trimethylbenzene
 Concen: 0.023 ppbv
 RT: 16.77 min Scan# 4348
 Delta R.T. -0.00 min
 Lab File: VL036523.D
 Acq: 26 Mar 2021 21:10

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:	105	Resp:	8514
Ion	Ratio	Lower	Upper
105	100		
120	20.8	39.2	58.8#
91	0.0	42.6	64.0#
77	22.3	18.6	28.0

