

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL020321\
 Data File : VL036304.D
 Acq On : 3 Feb 2021 21:54
 Operator : SY/AP
 Sample : M1295-02DUP
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

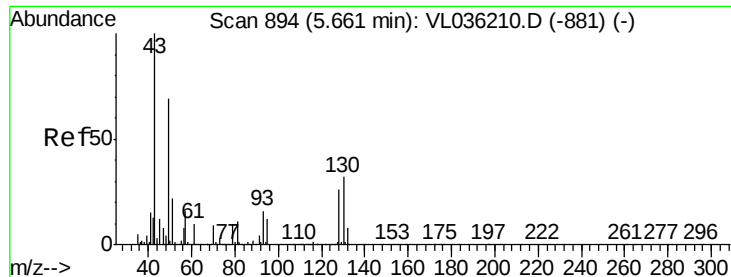
Quant Time: Feb 04 01:48:40 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL011321AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Jan 14 16:13:38 2021
 QLast Update : Thu Jan 14 16:13:38 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1471575	10.00	ppbv	0.02
33) 1,4-Difluorobenzene	7.19	114	3098905	10.00	ppbv	0.02
55) Chlorobenzene-d5	12.11	117	2785505	10.00	ppbv	0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.44	95	2267525	9.83	ppbv	0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.06	85	32047	0.162	ppbv	100
3) Chlorodifluoromethane	3.00	51	58997	0.326	ppbv	93
4) Chloromethane	3.15	50	12839	0.144	ppbv #	66
9) Propene	3.03	41	21079	0.245	ppbv	98
10) Heptane	8.14	43	9188	0.043	ppbv #	51
11) Trichlorofluoromethane	3.96	101	53968	0.269	ppbv	99
12) 1,1,2-Trichlorotrifluoroet	4.50	101	4097	0.034	ppbv #	29
13) Ethanol	3.62	45	520473	38.514	ppbv	88
15) Acetone	3.86	43	838616	4.653	ppbv	96
16) 1,3-Butadiene	3.32	39	4814	0.055	ppbv #	10
19) Isopropyl Alcohol	3.99	45	47672	0.439	ppbv #	53
20) Methylene Chloride	4.36	84	309133	5.374	ppbv	93
22) trans-1,2-Dichloroethene	4.90	96	2729	0.052	ppbv #	59
23) Vinyl Acetate	5.08	43	20100	0.092	ppbv #	63
25) Ethyl Acetate	5.71	43	208040	0.575	ppbv #	87
26) Hexane	5.70	57	233804	1.552	ppbv #	42
29) Chloroform	5.76	83	19778	0.092	ppbv	90
31) cis-1,2-Dichloroethene	5.56	61	282496	1.962	ppbv	96
34) 2-Butanone	5.27	43	157342	0.689	ppbv	93
35) Carbon Tetrachloride	7.03	117	8918	0.046	ppbv	94
36) Benzene	6.92	78	23921	0.084	ppbv	98
38) Trichloroethene	7.85	130	11052	0.105	ppbv #	85
39) 1,2-Dichloropropane	7.19	63	912253	7.913	ppbv #	22
41) Tetrahydrofuran	6.09	42	5181	0.039	ppbv #	1
52) Tetrachloroethene	11.25	164	91060	0.870	ppbv	98
53) Toluene	9.83	91	915505	2.882	ppbv	99

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 901

Delta R.T. 0.02 min

Lab File: VL036304.D

Acq: 3 Feb 2021 21:54

Instrument :
MSVOA_L
ClientSampled :

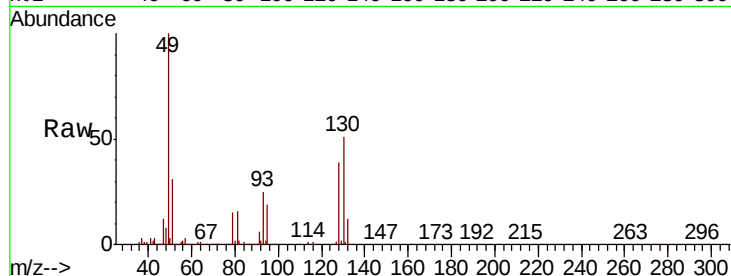
Tot Ion: 49 Resp: 1471575

Ion Ratio Lower Upper

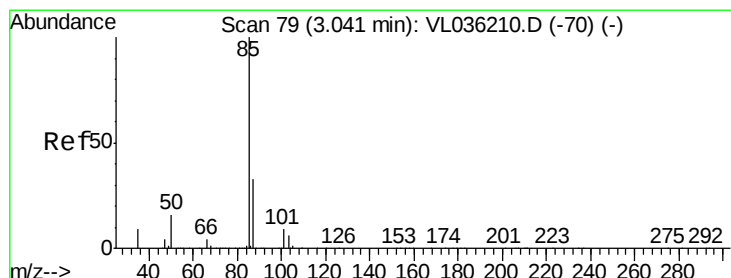
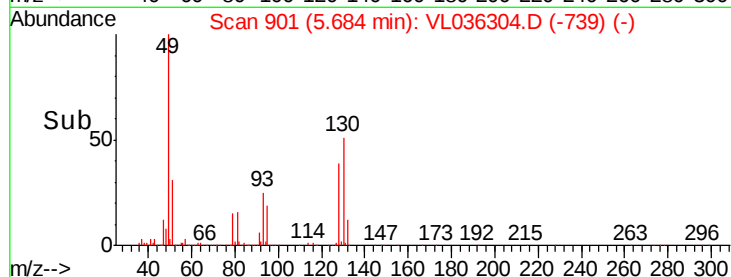
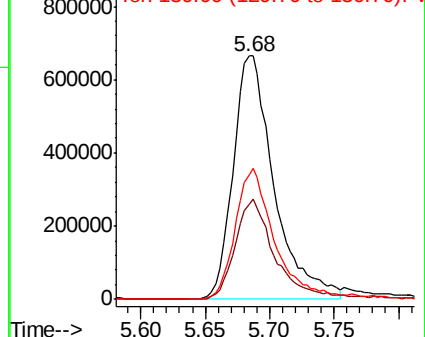
49 100

128 40.4 20.1 60.2

130 53.3 25.3 75.9



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: 0.162 ppbv

RT: 3.06 min Scan# 84

Delta R.T. 0.02 min

Lab File: VL036304.D

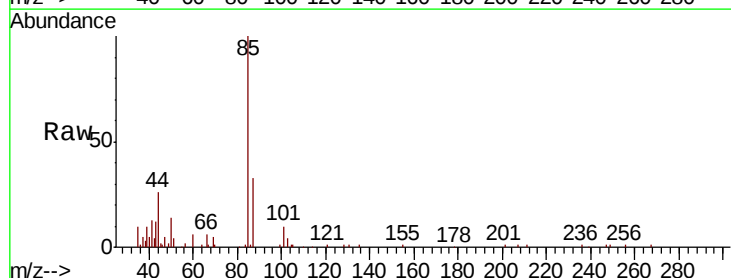
Acq: 3 Feb 2021 21:54

Tgt Ion: 85 Resp: 32047

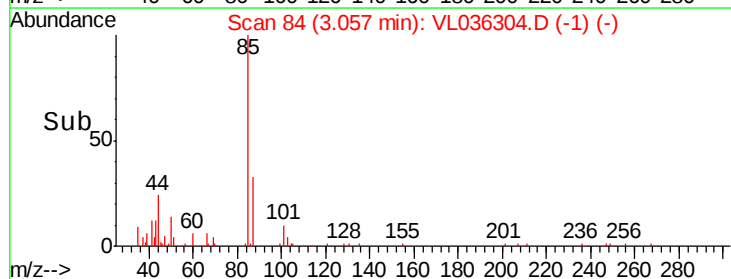
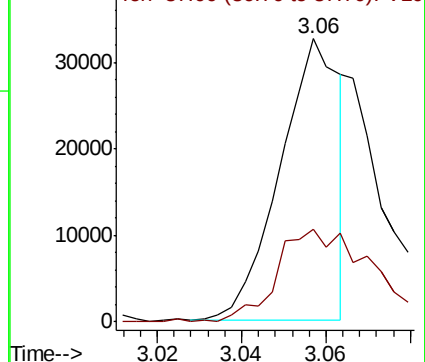
Ion Ratio Lower Upper

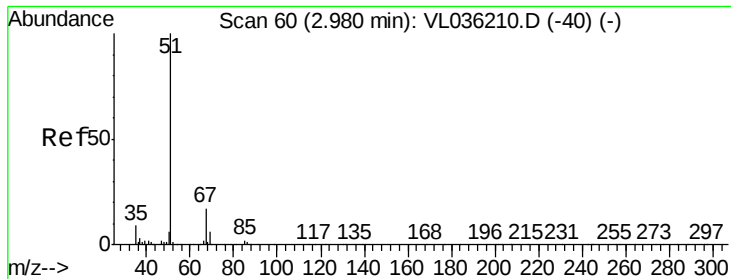
85 100

87 32.9 26.4 39.6



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





#3

Chlorodifluoromethane

Concen: 0.326 ppbv

RT: 3.00 min Scan# 66

Delta R.T. 0.02 min

Lab File: VL036304.D

Acq: 3 Feb 2021 21:54

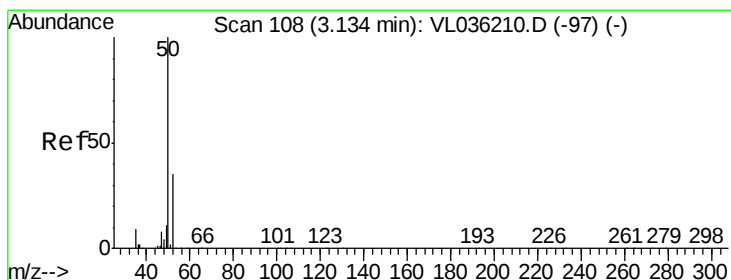
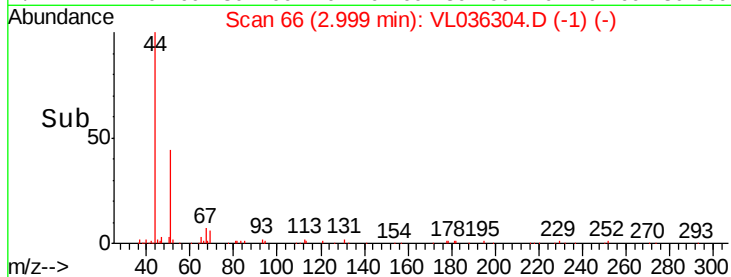
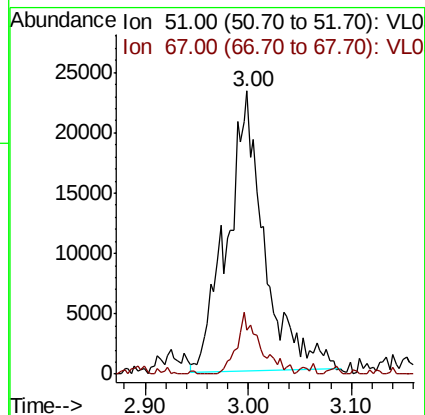
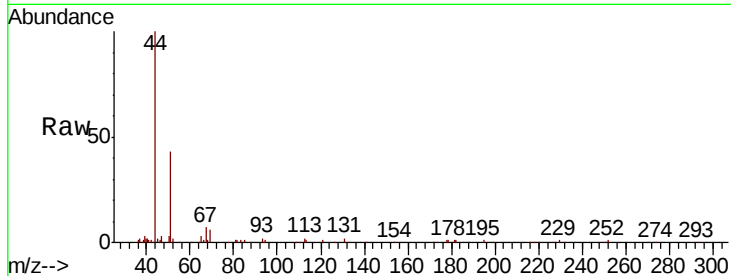
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 51 Resp: 58997

Ion Ratio Lower Upper

51 100

67 14.5 14.0 21.0



#4

Chloromethane

Concen: 0.144 ppbv

RT: 3.15 min Scan# 112

Delta R.T. 0.01 min

Lab File: VL036304.D

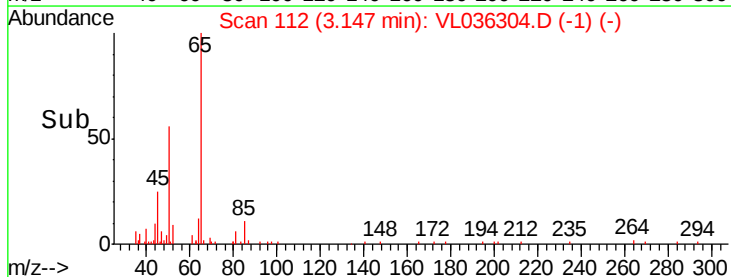
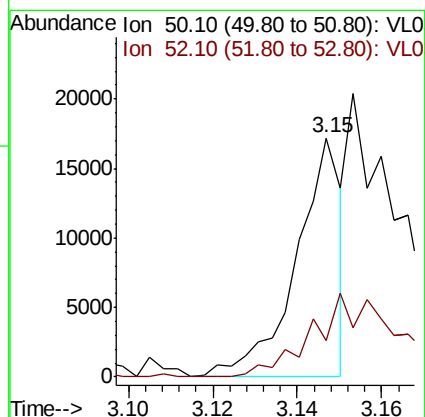
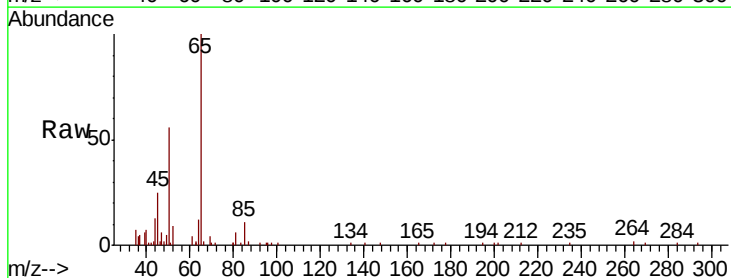
Acq: 3 Feb 2021 21:54

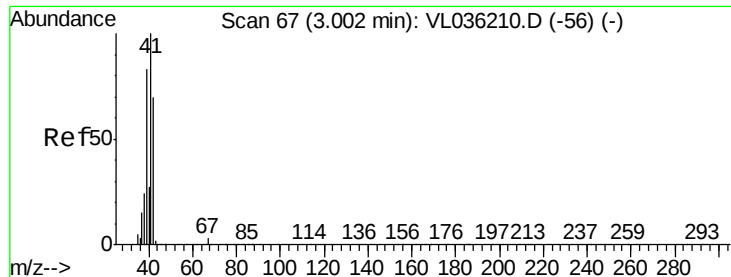
Tgt Ion: 50 Resp: 12839

Ion Ratio Lower Upper

50 100

52 15.3 27.8 41.8#





#9

Propene

Concen: 0.245 ppbv

RT: 3.03 min Scan# 76

Delta R.T. 0.03 min

Lab File: VL036304.D

Acq: 3 Feb 2021 21:54

Instrument :

MSVOA_L

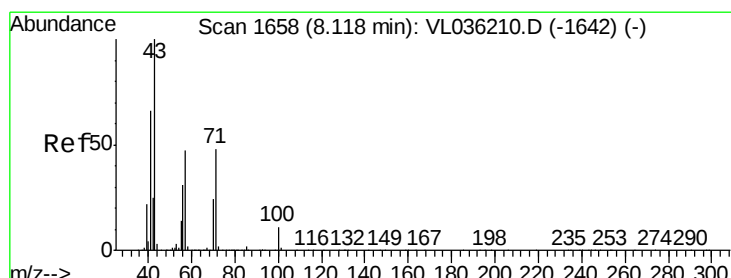
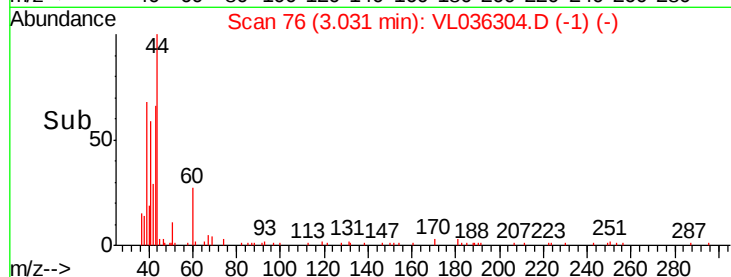
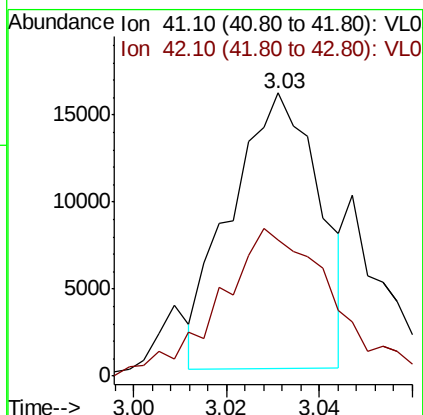
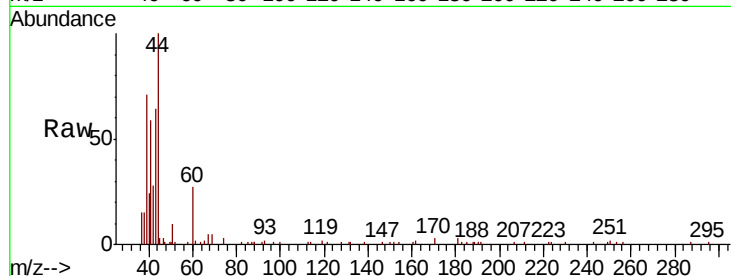
ClientSampleId :

Tot Ion: 41 Resp: 21079

Ion Ratio Lower Upper

41 100

42 69.7 57.1 85.7



#10

Heptane

Concen: 0.043 ppbv

RT: 8.14 min Scan# 1666

Delta R.T. 0.03 min

Lab File: VL036304.D

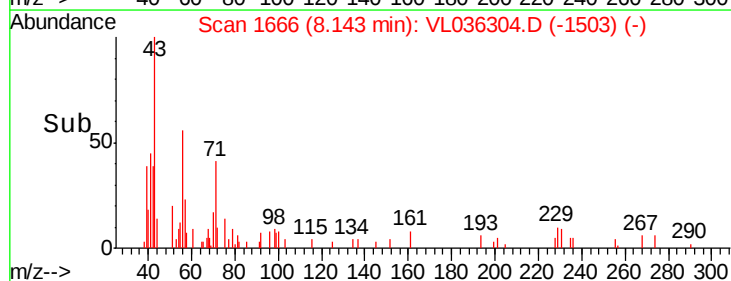
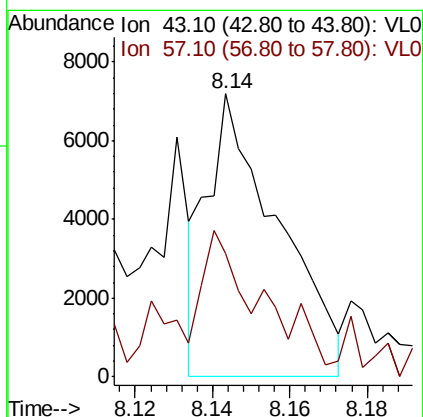
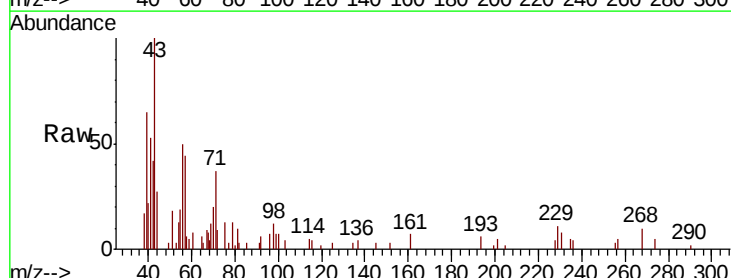
Acq: 3 Feb 2021 21:54

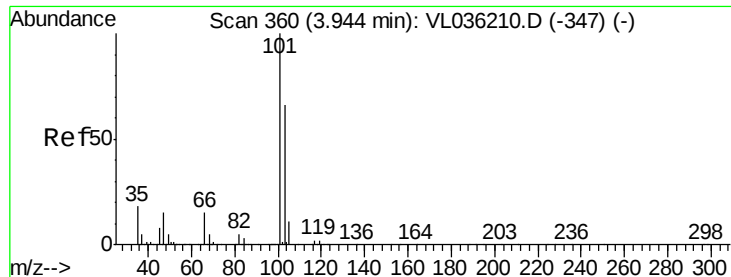
Tgt Ion: 43 Resp: 9188

Ion Ratio Lower Upper

43 100

57 80.7 38.1 57.1#

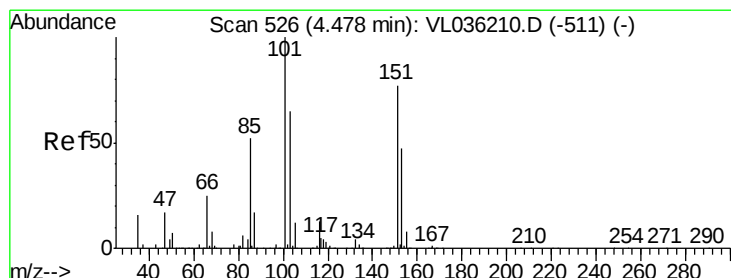
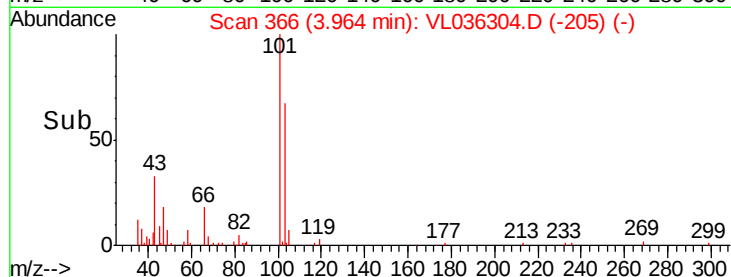
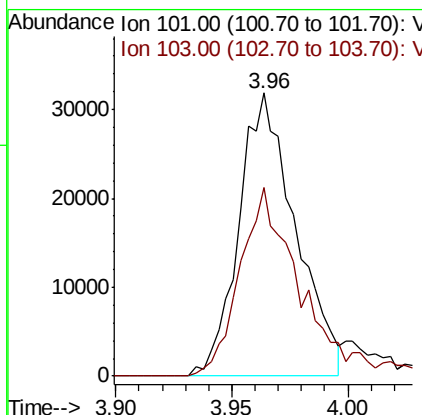
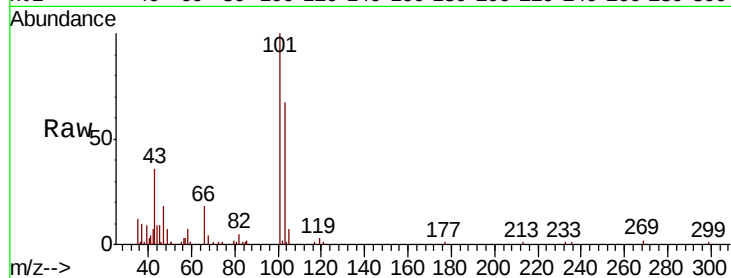




#11
 Trichlorofluoromethane
 Concen: 0.269 ppbv
 RT: 3.96 min Scan# 366
 Delta R.T. 0.02 min
 Lab File: VL036304.D
 Acq: 3 Feb 2021 21:54

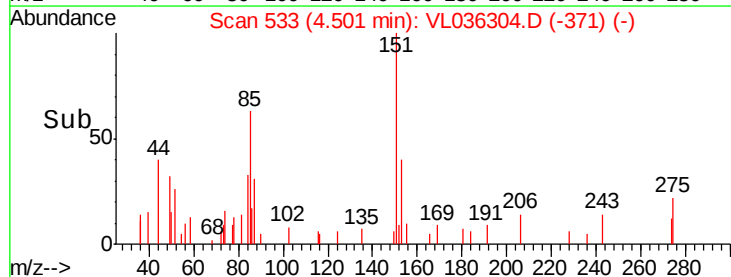
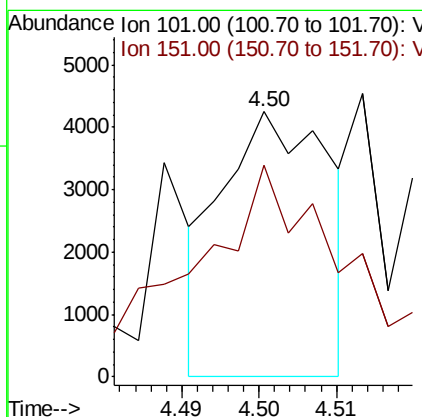
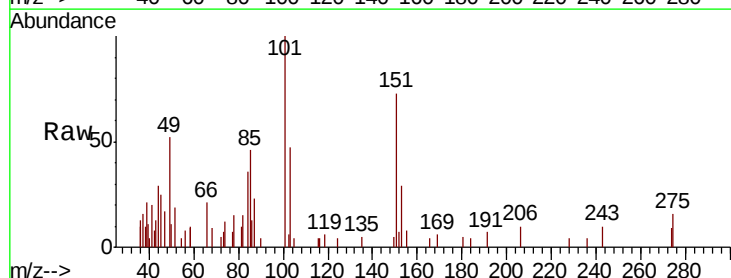
Instrument :
 MSVOA_L
 ClientSampleId :

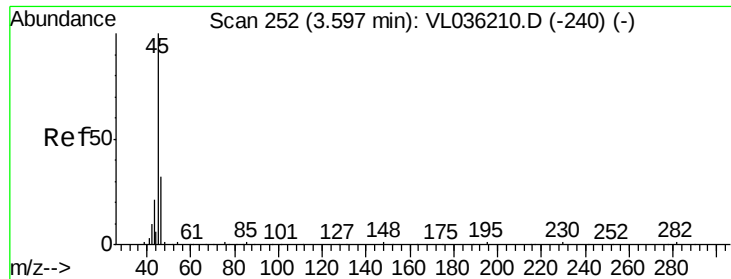
Tot Ion:101 Resp: 53968
 Ion Ratio Lower Upper
 101 100
 103 66.8 52.6 78.8



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.034 ppbv
 RT: 4.50 min Scan# 533
 Delta R.T. 0.02 min
 Lab File: VL036304.D
 Acq: 3 Feb 2021 21:54

Tgt Ion:101 Resp: 4097
 Ion Ratio Lower Upper
 101 100
 151 135.3 59.8 89.6#

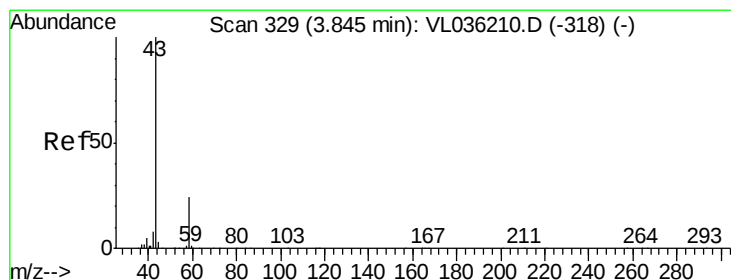
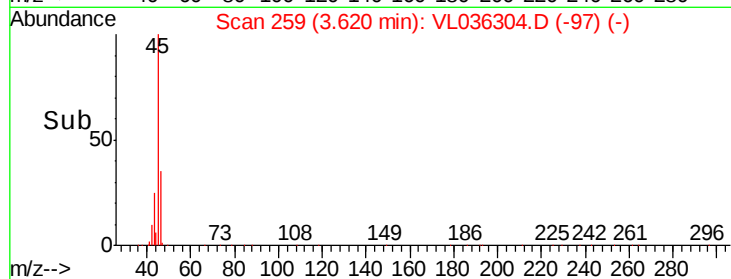
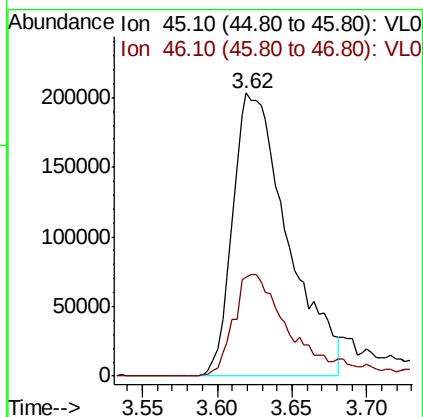
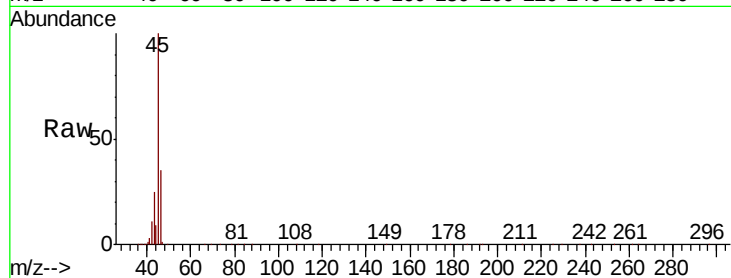




#13
Ethanol
Concen: 38.514 ppbv
RT: 3.62 min Scan# 259
Delta R.T. 0.02 min
Lab File: VL036304.D
Acq: 3 Feb 2021 21:54

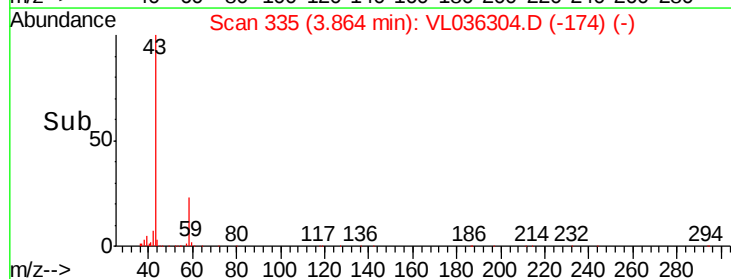
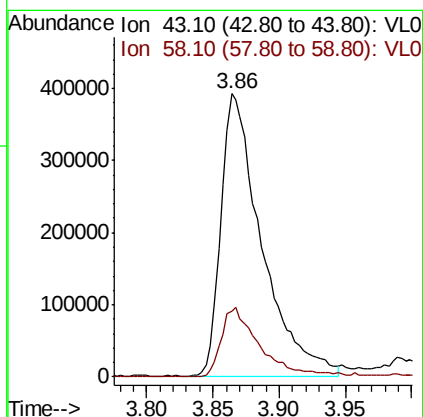
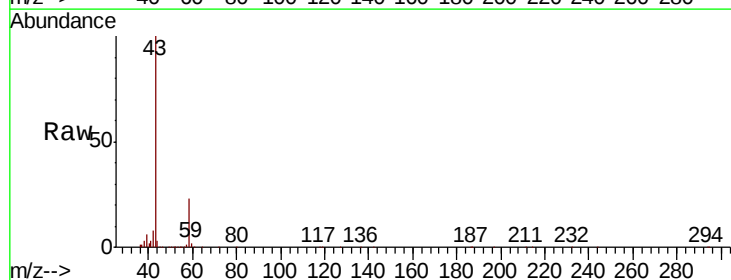
Instrument :
MSVOA_L
ClientSampleId :

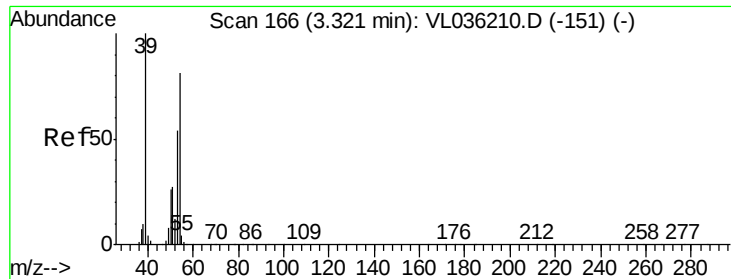
Tot Ion: 45 Resp: 520473
Ion Ratio Lower Upper
45 100
46 40.2 19.2 77.0



#15
Acetone
Concen: 4.653 ppbv
RT: 3.86 min Scan# 335
Delta R.T. 0.02 min
Lab File: VL036304.D
Acq: 3 Feb 2021 21:54

Tgt Ion: 43 Resp: 838616
Ion Ratio Lower Upper
43 100
58 23.9 20.9 31.3

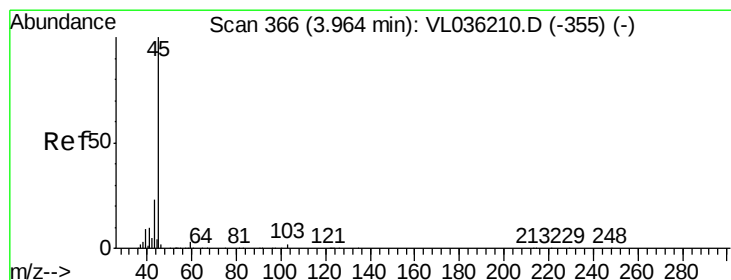
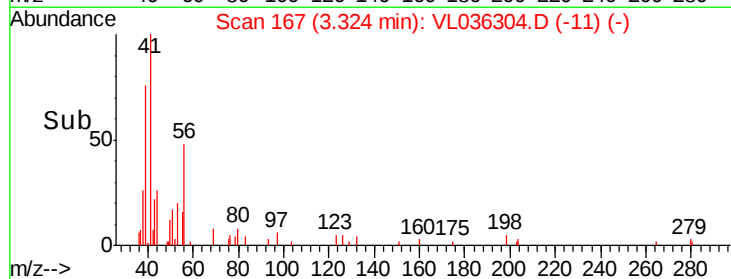
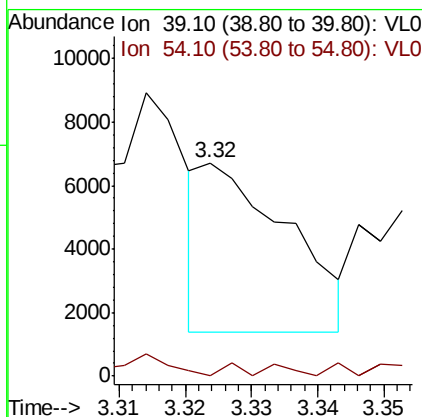
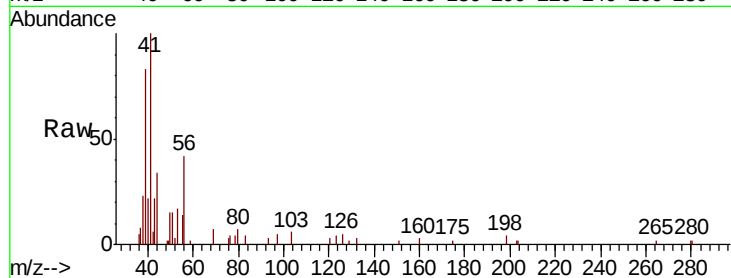




#16
 1,3-Butadiene
 Concen: 0.055 ppbv
 RT: 3.32 min Scan# 167
 Delta R.T. 0.00 min
 Lab File: VL036304.D
 Acq: 3 Feb 2021 21:54

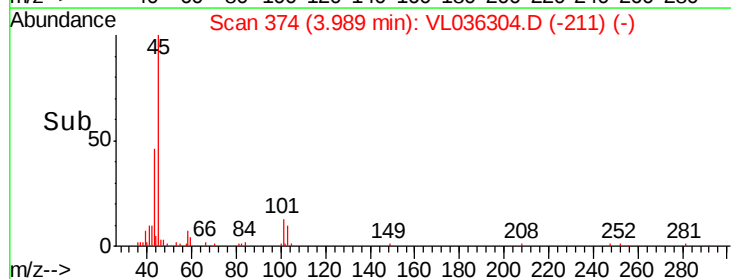
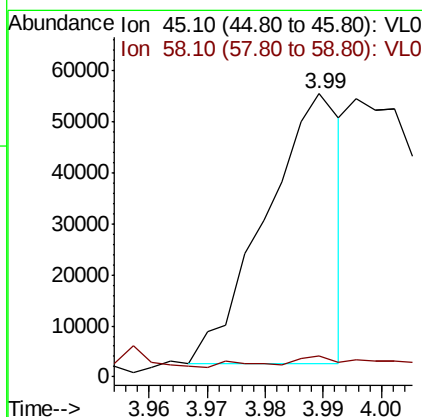
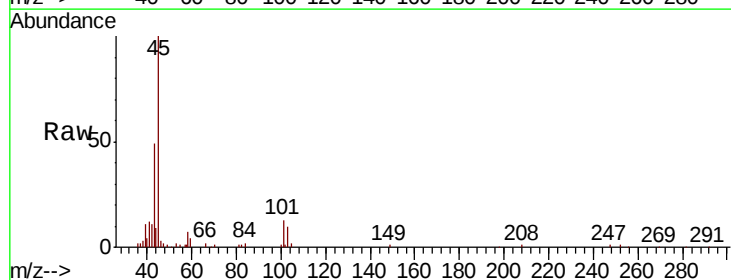
Instrument :
 MSVOA_L
 ClientSampleId :

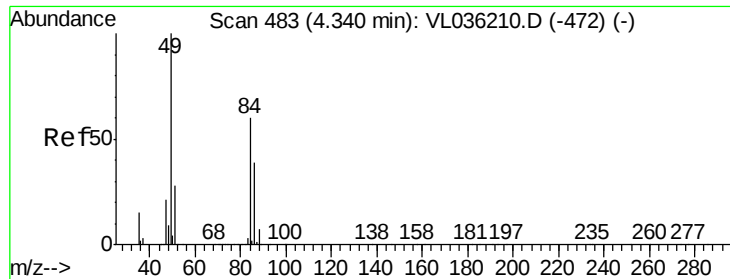
Tot Ion: 39 Resp: 4814
 Ion Ratio Lower Upper
 39 100
 54 0.0 62.5 93.7#



#19
 Isopropyl Alcohol
 Concen: 0.439 ppbv
 RT: 3.99 min Scan# 374
 Delta R.T. 0.03 min
 Lab File: VL036304.D
 Acq: 3 Feb 2021 21:54

Tgt Ion: 45 Resp: 47672
 Ion Ratio Lower Upper
 45 100
 58 18.5 1.9 2.9#

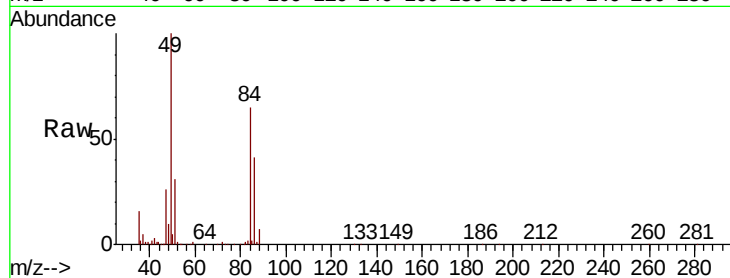




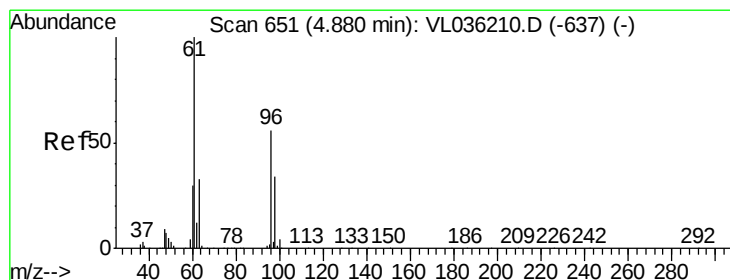
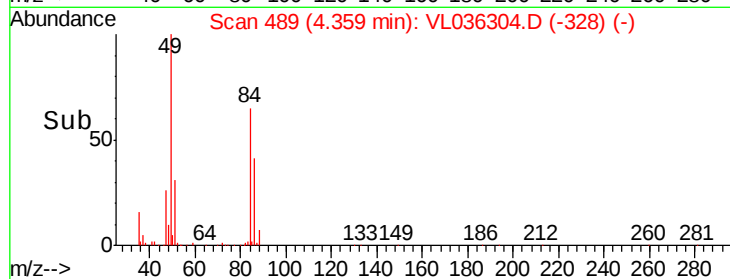
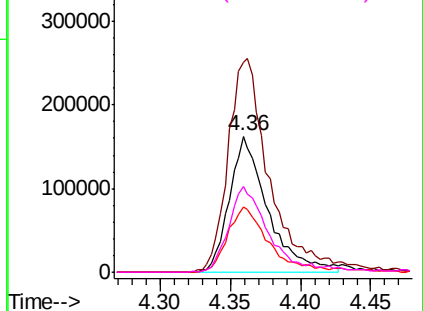
#20
Methylene Chloride
Concen: 5.374 ppbv
RT: 4.36 min Scan# 489
Delta R.T. 0.02 min
Lab File: VL036304.D
Acq: 3 Feb 2021 21:54

Instrument :
MSVOA_L
ClientSampled :

Tot Ion:	84	Resp:	309133
Ion	Ratio	Lower	Upper
84	100		
49	154.1	134.1	201.1
51	47.9	37.4	56.0
86	62.9	52.6	78.8

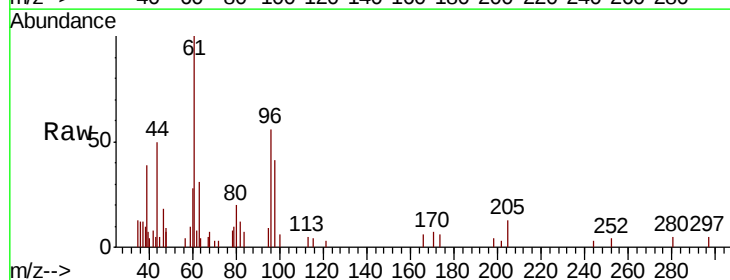


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

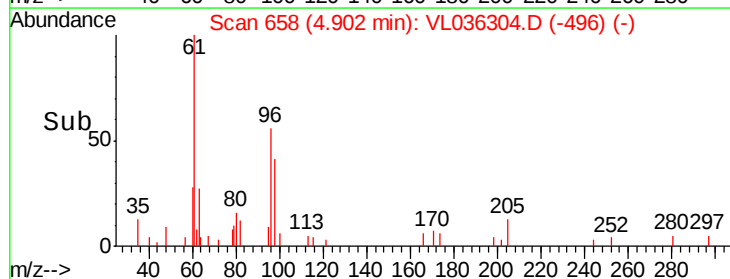
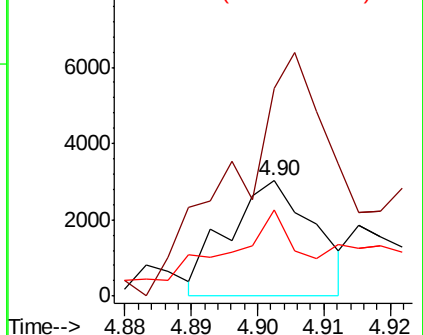


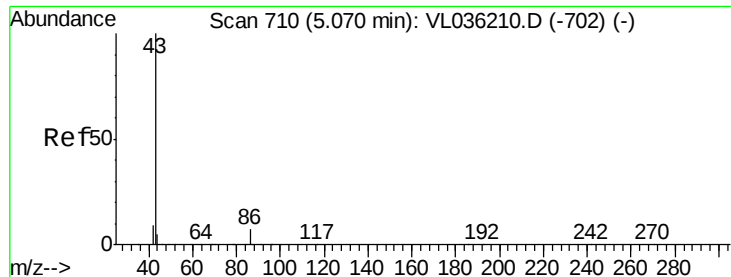
#22
trans-1,2-Dichloroethene
Concen: 0.052 ppbv
RT: 4.90 min Scan# 658
Delta R.T. 0.02 min
Lab File: VL036304.D
Acq: 3 Feb 2021 21:54

Tgt Ion:	96	Resp:	2729
Ion	Ratio	Lower	Upper
96	100		
61	117.7	142.7	214.1#
98	34.1	48.7	73.1#



Abundance Ion 96.00 (95.70 to 96.70): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 98.00 (97.70 to 98.70): VL0





#23

Vinyl Acetate

Concen: 0.092 ppbv

RT: 5.08 min Scan# 714

Delta R.T. 0.01 min

Lab File: VL036304.D

Acq: 3 Feb 2021 21:54

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 43 Resp: 20100

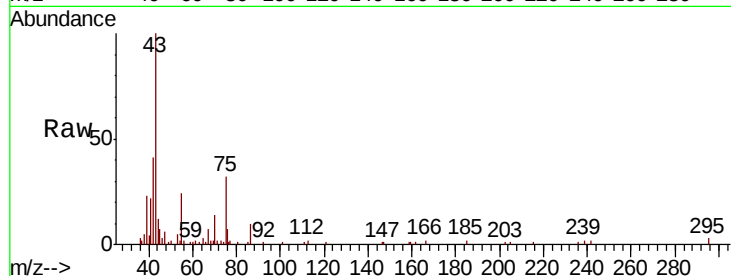
Ion Ratio Lower Upper

43 100

86 3.9 4.9 7.3#

42 32.0 7.8 11.6#

44 14.4 3.7 5.5#

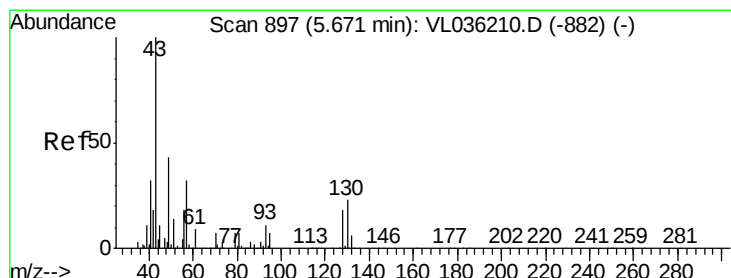
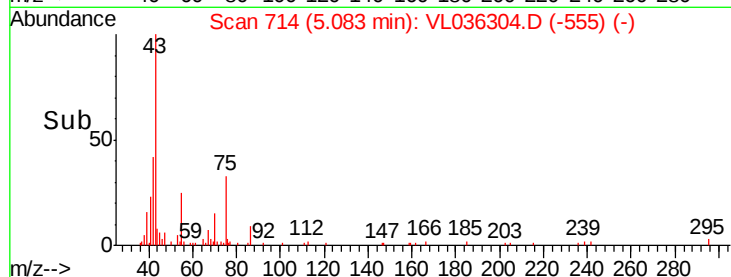
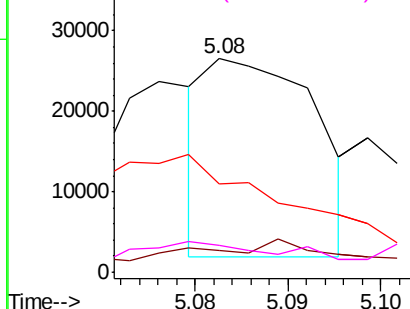


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.575 ppbv

RT: 5.71 min Scan# 908

Delta R.T. 0.04 min

Lab File: VL036304.D

Acq: 3 Feb 2021 21:54

Tgt Ion: 43 Resp: 208040

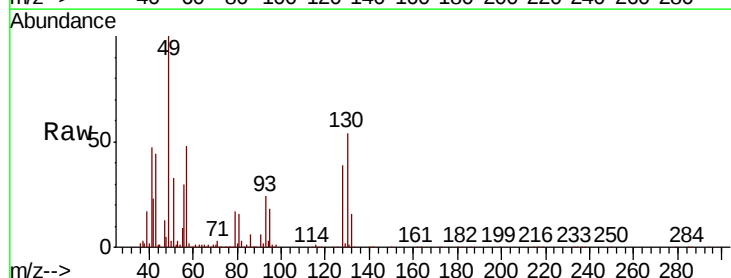
Ion Ratio Lower Upper

43 100

45 4.3 8.3 12.5#

61 4.7 7.4 11.2#

70 3.6 5.5 8.3#

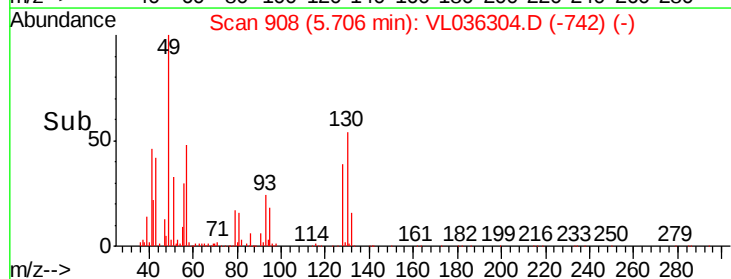
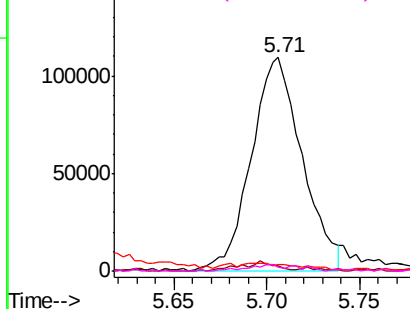


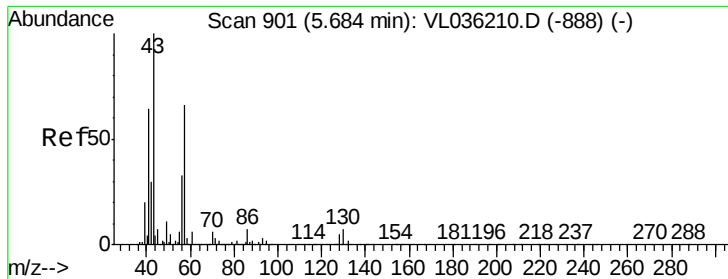
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

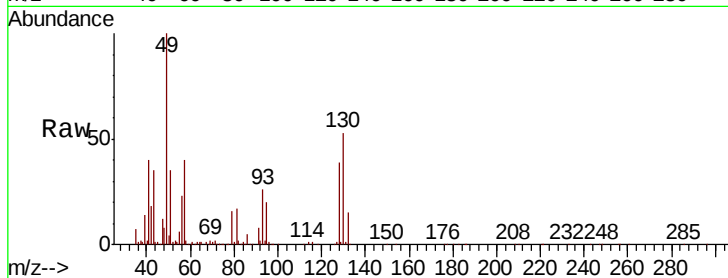




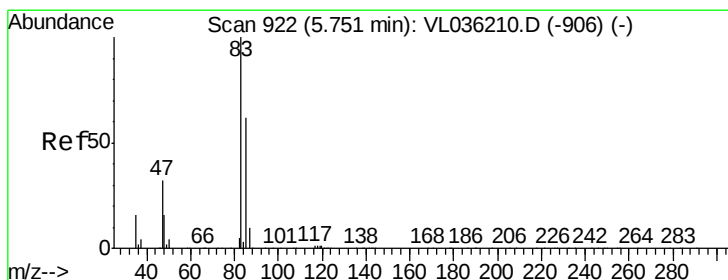
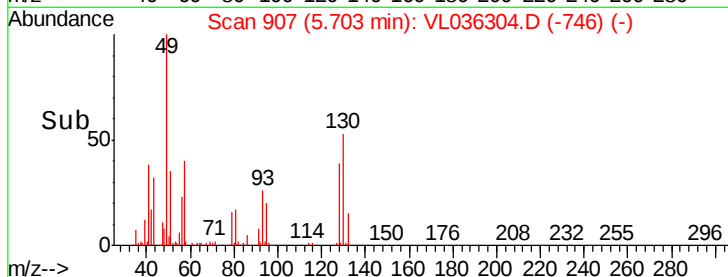
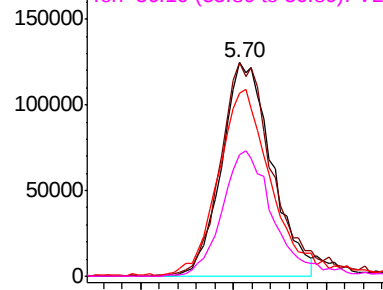
#26
Hexane
Concen: 1.552 ppbv
RT: 5.70 min Scan# 907
Delta R.T. 0.02 min
Lab File: VL036304.D
Acq: 3 Feb 2021 21:54

Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 57 Resp: 233804
Ion Ratio Lower Upper
57 100
41 108.4 83.0 124.6
43 95.2 202.4 303.6#
56 62.1 43.4 65.0

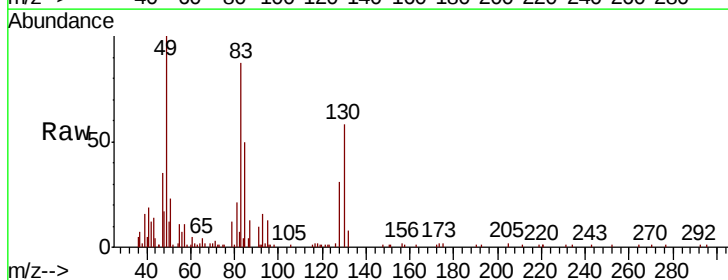


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

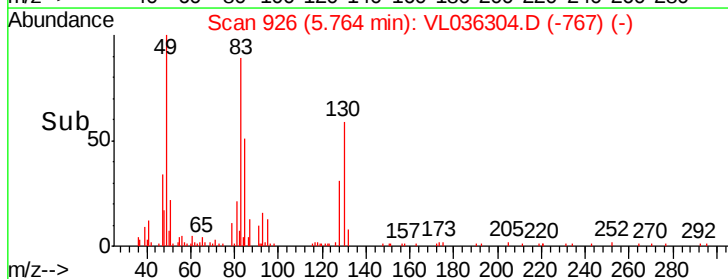
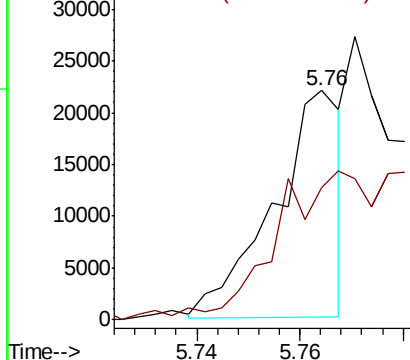


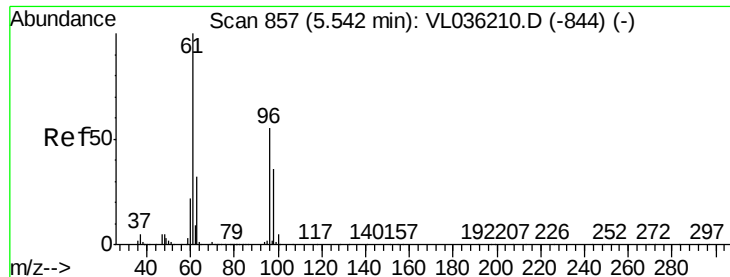
#29
Chloroform
Concen: 0.092 ppbv
RT: 5.76 min Scan# 926
Delta R.T. 0.01 min
Lab File: VL036304.D
Acq: 3 Feb 2021 21:54

Tgt Ion: 83 Resp: 19778
Ion Ratio Lower Upper
83 100
85 53.9 49.3 73.9



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0



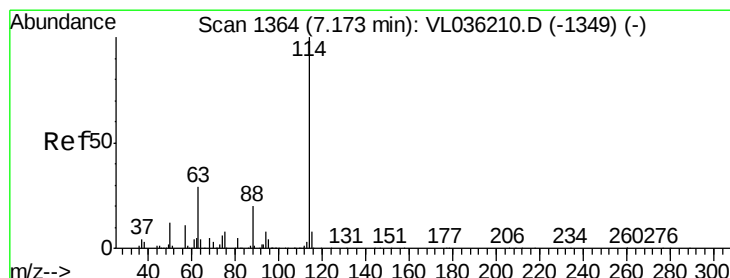
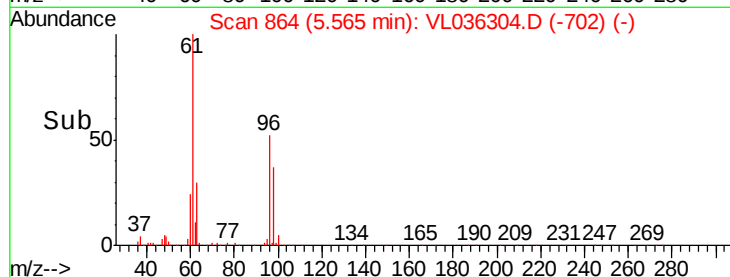
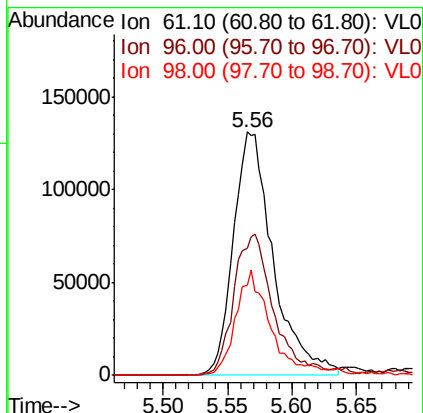
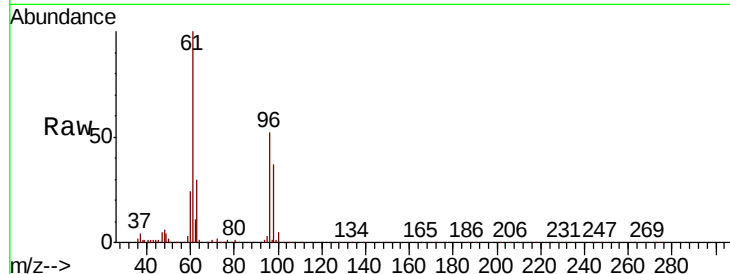


#31

cis-1,2-Dichloroethene
 Concen: 1.962 ppbv
 RT: 5.56 min Scan# 864
 Delta R.T. 0.02 min
 Lab File: VL036304.D
 Acq: 3 Feb 2021 21:54

Instrument :
 MSVOA_L
 ClientSampleId :

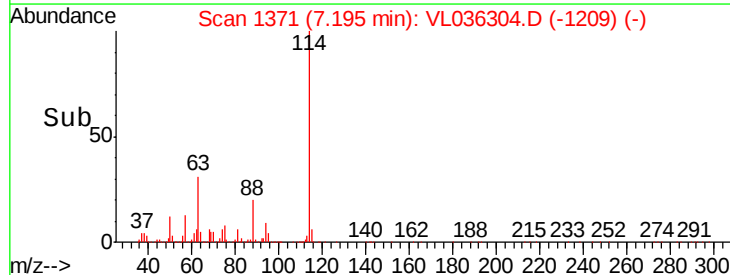
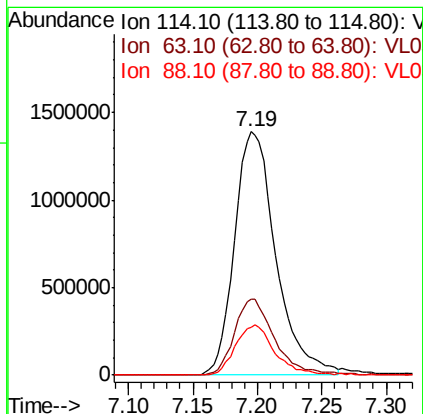
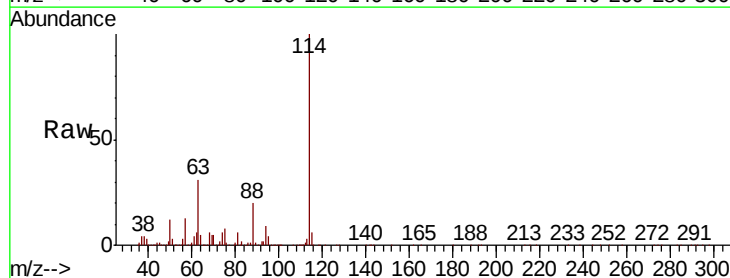
Tot Ion	61	Resp	282496
Ion Ratio	Lower	Upper	
61	100		
96	52.0	44.1	66.1
98	37.1	28.6	42.8

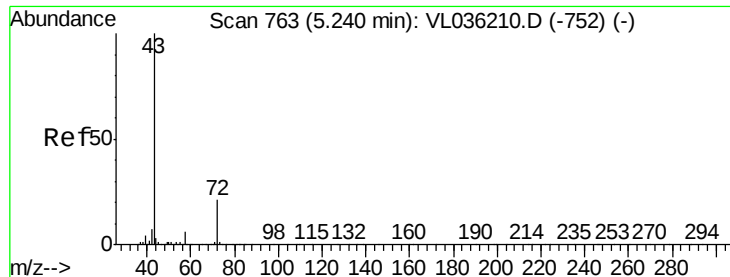


#33

1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19 min Scan# 1371
 Delta R.T. 0.02 min
 Lab File: VL036304.D
 Acq: 3 Feb 2021 21:54

Tgt Ion	114	Resp	3098905
Ion Ratio	Lower	Upper	
114	100		
63	31.1	24.7	37.1
88	20.2	16.6	24.8

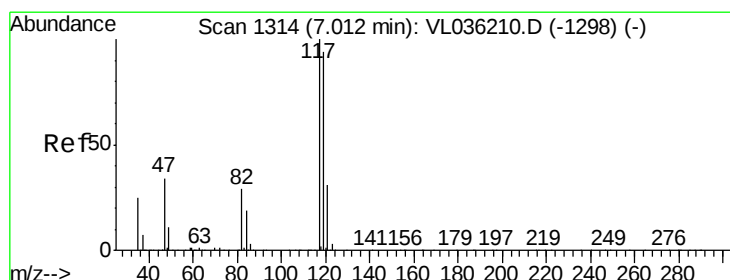
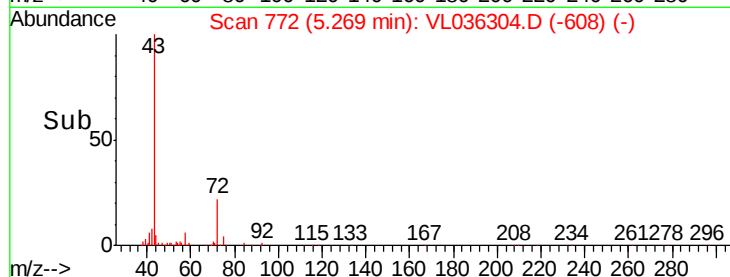
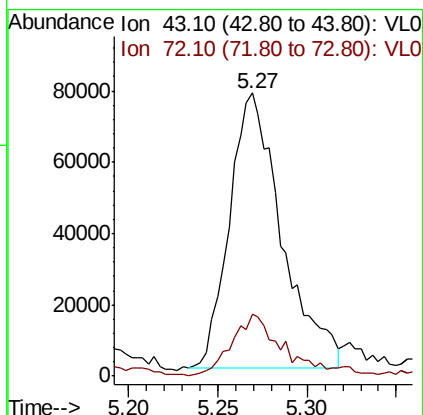
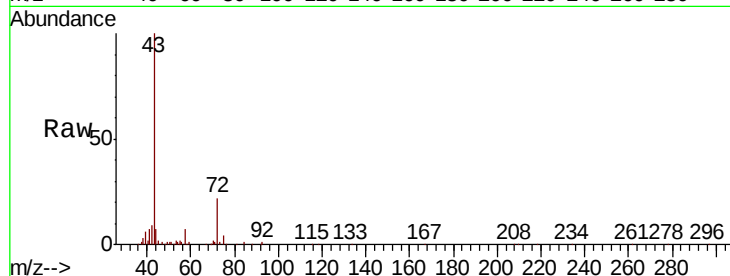




#34
2-Butanone
Concen: 0.689 ppbv
RT: 5.27 min Scan# 772
Delta R.T. 0.03 min
Lab File: VL036304.D
Acq: 3 Feb 2021 21:54

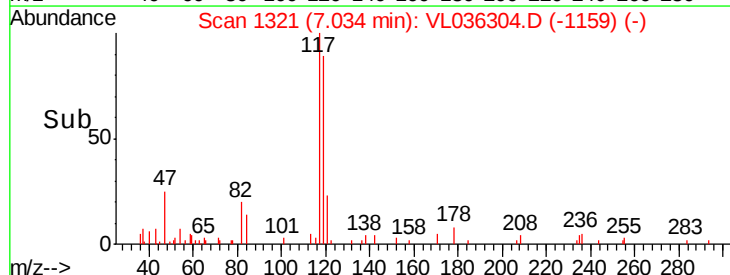
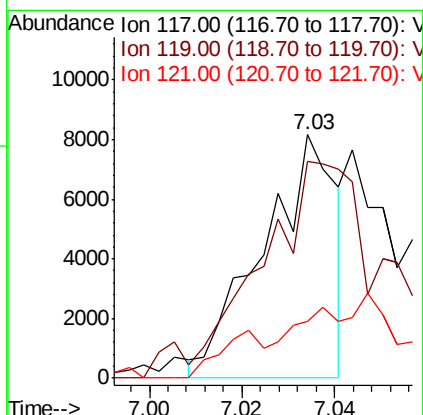
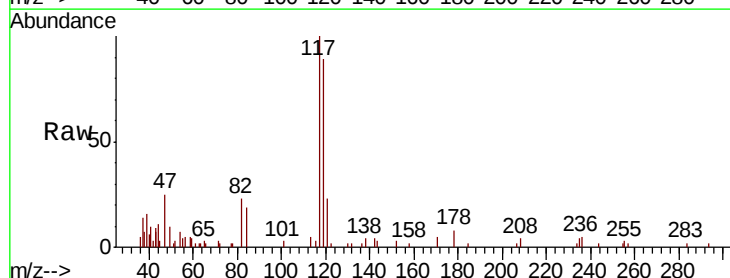
Instrument :
MSVOA_L
ClientSampleId :

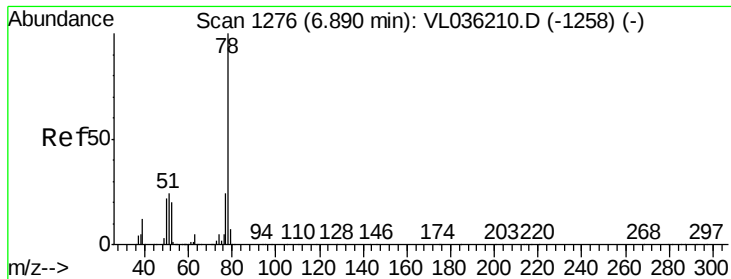
Tot Ion: 43 Resp: 157342
Ion Ratio Lower Upper
43 100
72 23.1 16.1 24.1



#35
Carbon Tetrachloride
Concen: 0.046 ppbv
RT: 7.03 min Scan# 1321
Delta R.T. 0.02 min
Lab File: VL036304.D
Acq: 3 Feb 2021 21:54

Tgt Ion: 117 Resp: 8918
Ion Ratio Lower Upper
117 100
119 90.0 74.9 112.3
121 25.2 25.0 37.6





#36

Benzene

Concen: 0.084 ppbv

RT: 6.92 min Scan# 1284

Delta R.T. 0.03 min

Lab File: VL036304.D

Acq: 3 Feb 2021 21:54

Instrument :
MSVOA_L
ClientSampleId :

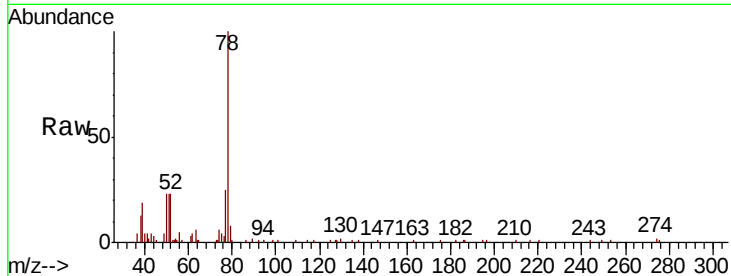
Tot Ion: 78 Resp: 23921

Ion Ratio Lower Upper

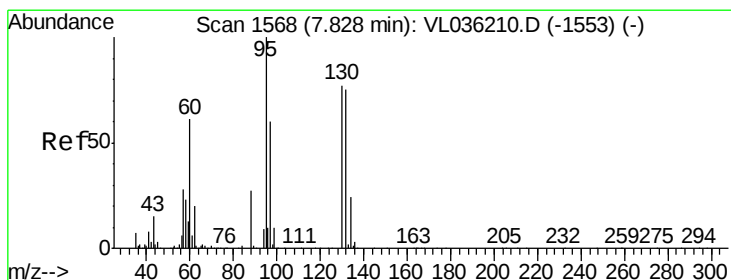
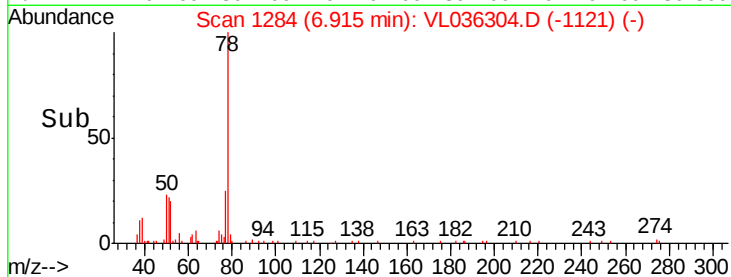
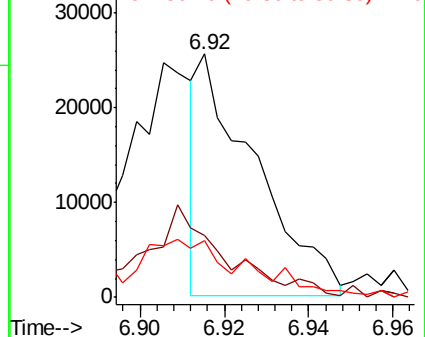
78 100

77 26.1 19.4 29.0

50 21.9 17.4 26.2



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



#38

Trichloroethene

Concen: 0.105 ppbv

RT: 7.85 min Scan# 1576

Delta R.T. 0.03 min

Lab File: VL036304.D

Acq: 3 Feb 2021 21:54

Tgt Ion: 130 Resp: 11052

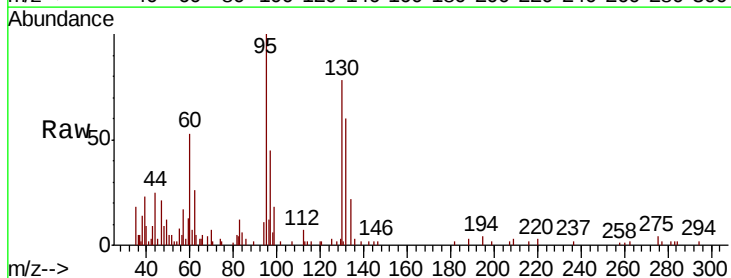
Ion Ratio Lower Upper

130 100

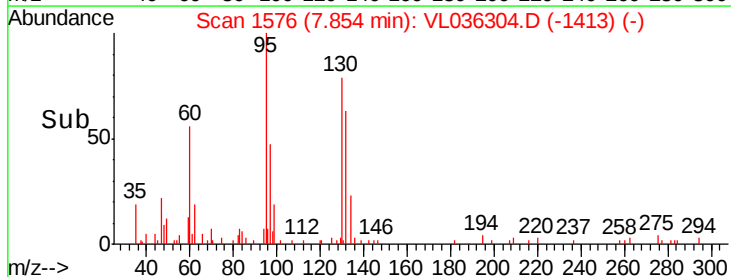
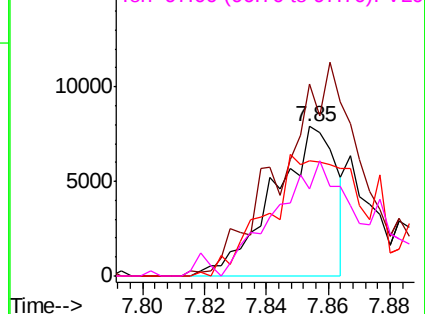
95 125.3 103.9 155.9

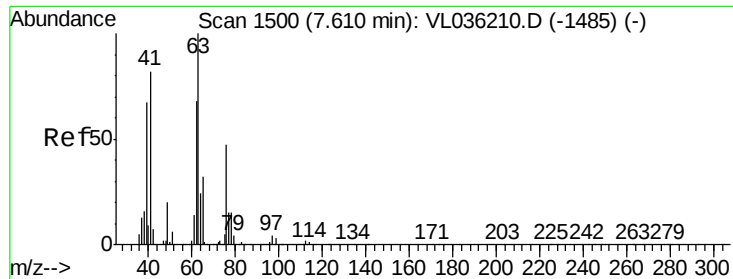
132 77.5 77.4 116.2

97 54.7 62.5 93.7#



Abundance Ion 130.00 (129.70 to 130.70): V
Ion 95.00 (94.70 to 95.70): VL0
Ion 132.00 (131.70 to 132.70): V
Ion 97.00 (96.70 to 97.70): VL0

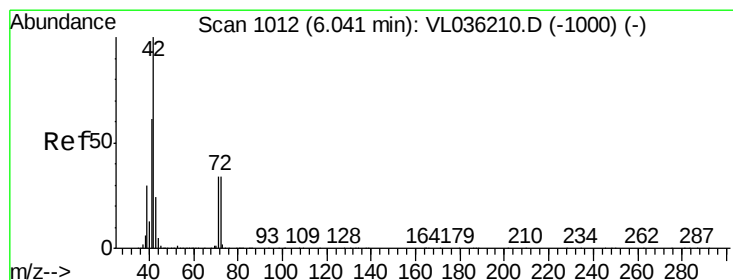
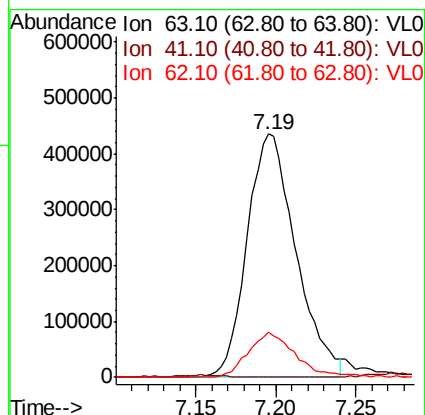
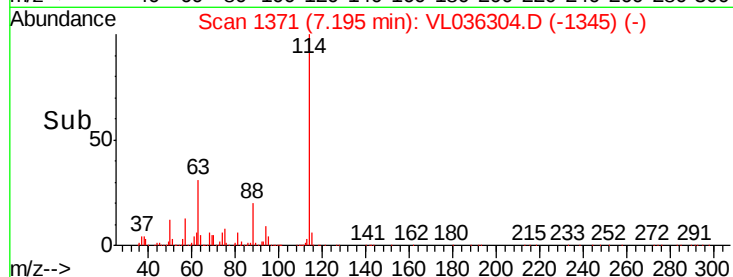
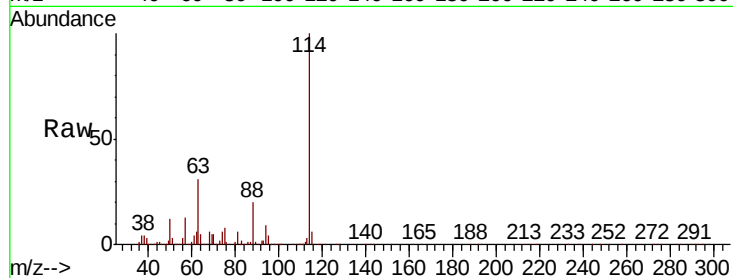




#39
 1,2-Dichloropropane
 Concen: 7.913 ppbv
 RT: 7.19 min Scan# 1371
 Delta R.T. -0.41 min
 Lab File: VL036304.D
 Acq: 3 Feb 2021 21:54

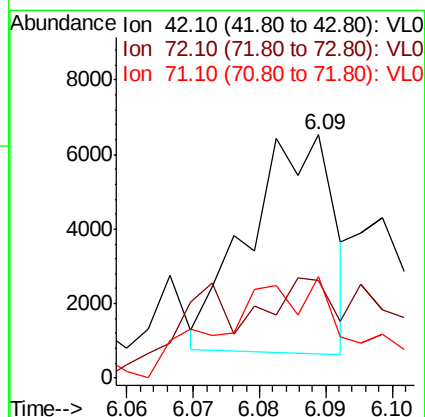
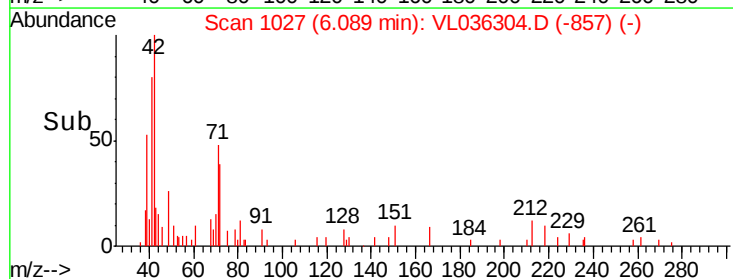
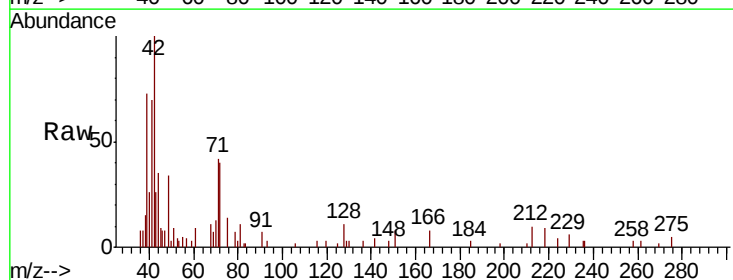
Instrument :
 MSVOA_L
 ClientSampled :

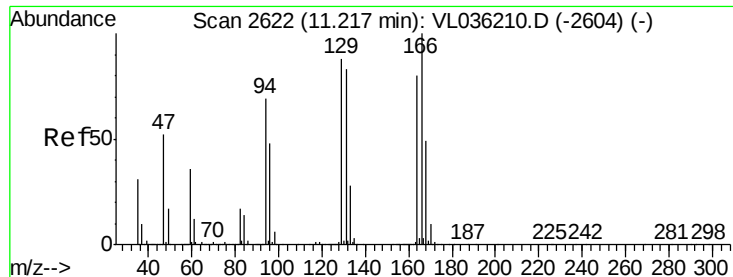
Tot Ion	Ratio	Lower	Upper
63	100		
41	0.0	66.1	99.1#
62	18.5	54.8	82.2#



#41
 Tetrahydrofuran
 Concen: 0.039 ppbv
 RT: 6.09 min Scan# 1027
 Delta R.T. 0.05 min
 Lab File: VL036304.D
 Acq: 3 Feb 2021 21:54

Tgt Ion	Ratio	Lower	Upper
42	100		
72	115.0	29.5	44.3#
71	99.2	29.1	43.7#





#52

Tetrachloroethene

Concen: 0.870 ppbv

RT: 11.25 min Scan# 2632

Delta R.T. 0.03 min

Lab File: VL036304.D

Acq: 3 Feb 2021 21:54

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:164 Resp: 91060

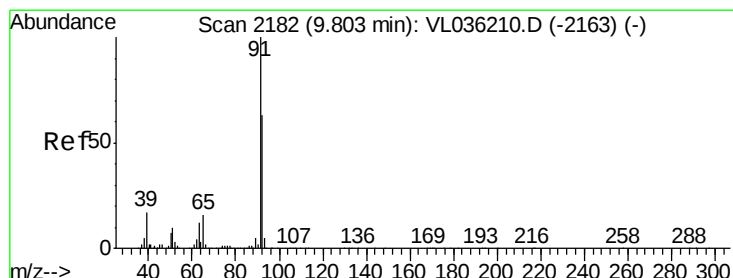
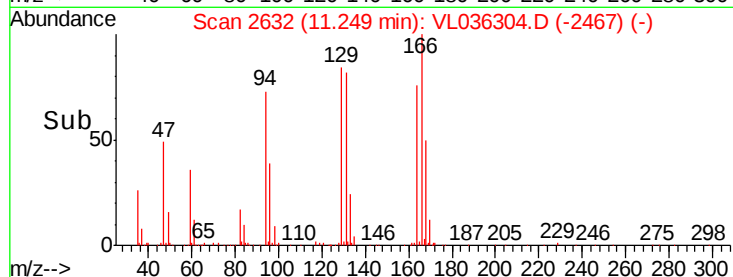
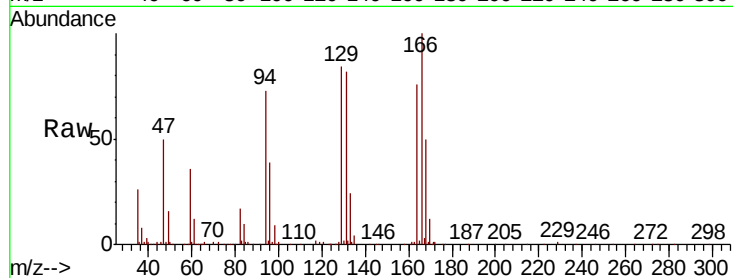
Ion Ratio Lower Upper

164 100

166 130.4 99.9 149.9

129 110.0 88.2 132.4

131 105.9 83.0 124.6



#53

Toluene

Concen: 2.882 ppbv

RT: 9.83 min Scan# 2190

Delta R.T. 0.03 min

Lab File: VL036304.D

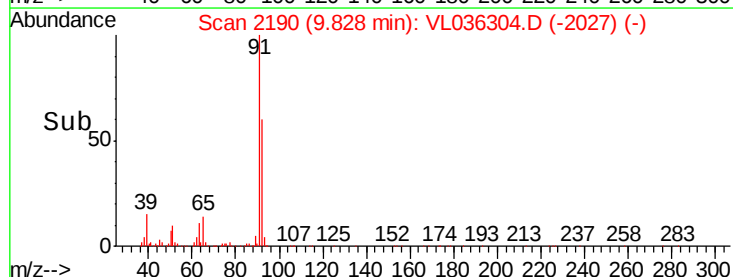
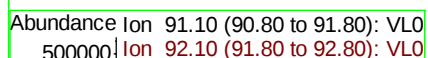
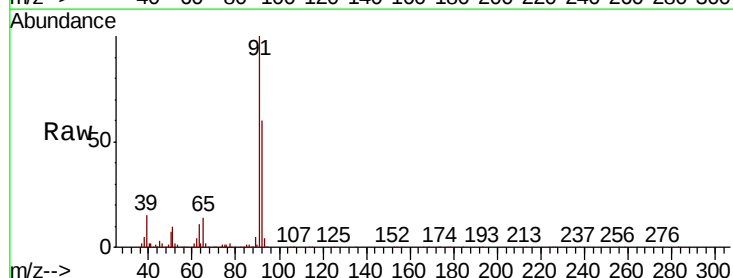
Acq: 3 Feb 2021 21:54

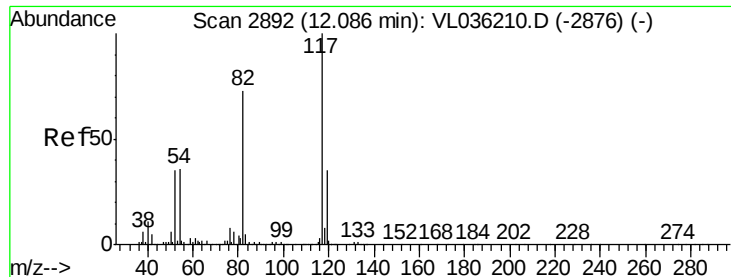
Tgt Ion: 91 Resp: 915505

Ion Ratio Lower Upper

91 100

92 61.2 48.5 72.7

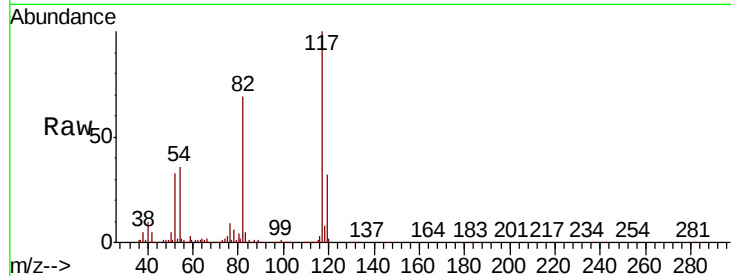




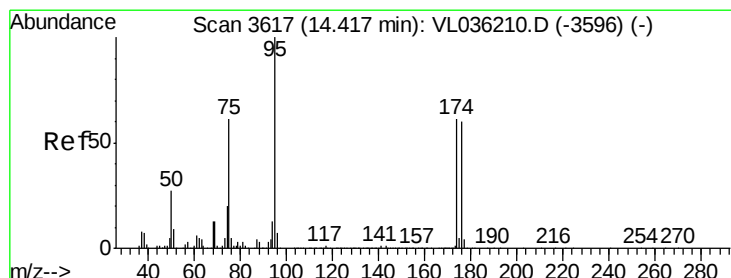
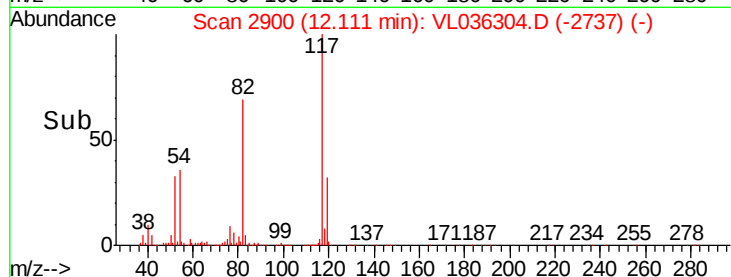
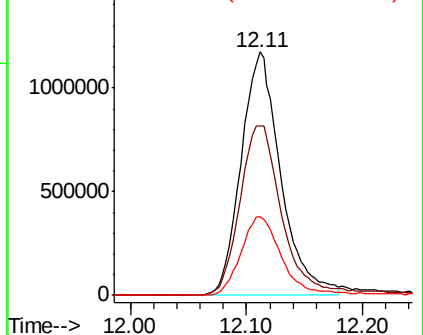
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.11 min Scan# 2900
Delta R.T. 0.03 min
Lab File: VL036304.D
Acq: 3 Feb 2021 21:54

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:117 Resp: 2785505
Ion Ratio Lower Upper
117 100
82 76.4 59.7 89.5
119 34.1 28.6 43.0

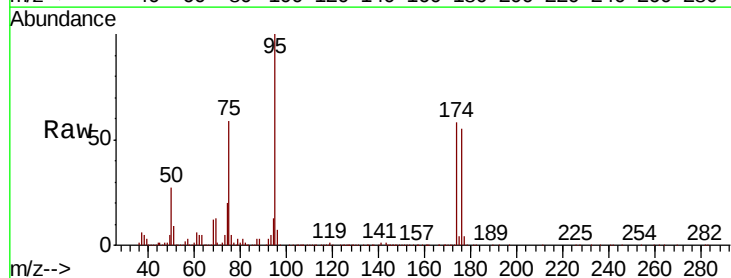


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V



#68
1-Bromo-4-Fluorobenzene
Concen: 9.835 ppbv
RT: 14.44 min Scan# 3625
Delta R.T. 0.03 min
Lab File: VL036304.D
Acq: 3 Feb 2021 21:54

Tgt Ion: 95 Resp: 2267525
Ion Ratio Lower Upper
95 100
174 65.3 49.4 74.0
175 4.7 3.8 5.8



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

