

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032621\
 Data File : VL036532.D
 Acq On : 27 Mar 2021 3:12
 Operator : SY/AP
 Sample : M1760-19
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Mar 27 05:52:50 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	1413548	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3056092	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	2804910	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2164504	9.68	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.80%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.96	51	625027	2.367	ppbv #	62
4) Chloromethane	3.13	50	37832	0.406	ppbv	95
7) Chloroethane	3.55	64	1735	0.053	ppbv #	78
9) Propene	3.02	41	32525	0.386	ppbv	96
11) Trichlorofluoromethane	3.94	101	45884	0.195	ppbv #	81
13) Ethanol	3.63	45	1807429	180.271	ppbv	95
15) Acetone	3.84	43	1001598	7.199	ppbv	98
16) 1,3-Butadiene	3.32	39	4911	0.051	ppbv #	46
19) Isopropyl Alcohol	3.99	45	493757	6.452	ppbv #	97
20) Methylene Chloride	4.34	84	849475	13.041	ppbv	93
23) Vinyl Acetate	5.06	43	38224	0.161	ppbv #	82
25) Ethyl Acetate	5.68	43	790138	2.389	ppbv #	93
26) Hexane	5.68	57	584423	3.807	ppbv #	69
30) Cyclohexane	7.13	84	3427	0.028	ppbv #	1
31) cis-1,2-Dichloroethene	5.55	61	23685	0.160	ppbv	92
34) 2-Butanone	5.25	43	38963	0.261	ppbv #	68
36) Benzene	6.89	78	17874	0.063	ppbv	97
38) Trichloroethene	7.83	130	148712	1.356	ppbv	95
39) 1,2-Dichloropropane	7.22	63	10840	0.095	ppbv #	24
41) Tetrahydrofuran	5.73	42	9031	0.131	ppbv #	45
53) Toluene	9.81	91	88272	0.294	ppbv	100
61) Styrene	13.53	104	4793	0.028	ppbv #	1
66) Benzyl Chloride	16.99	91	1040	0.023	ppbv #	66
74) 1,2,4-Trimethylbenzene	16.76	105	13549	0.036	ppbv #	42
76) 1,4-Dichlorobenzene	17.14	146	13239	0.063	ppbv #	1

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 895

Delta R.T. -0.01 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

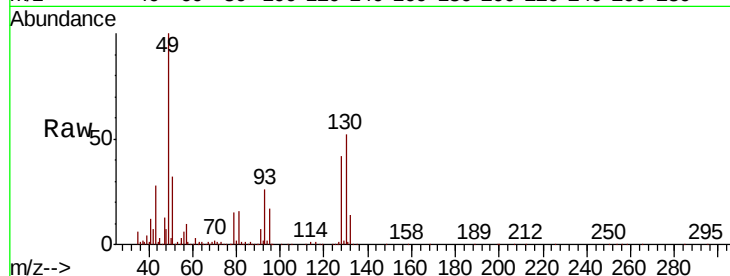
Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 49 Resp: 1413548

Ion	Ratio	Lower	Upper
49	100		
128	43.1	23.5	70.6
130	55.3	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

5.66

Time-->

5.60 5.65 5.70 5.75

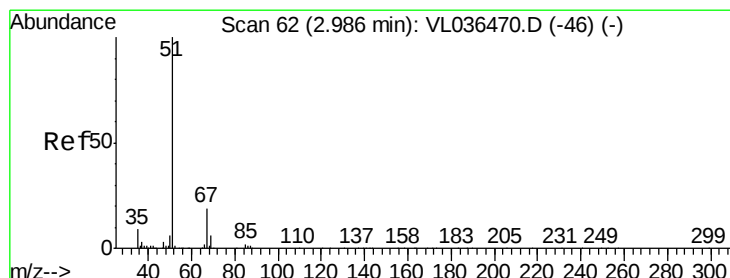
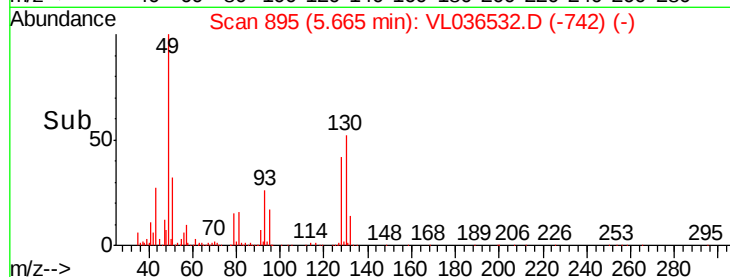
800000

600000

400000

200000

0



#3

Chlorodifluoromethane

Concen: 2.367 ppbv

RT: 2.96 min Scan# 54

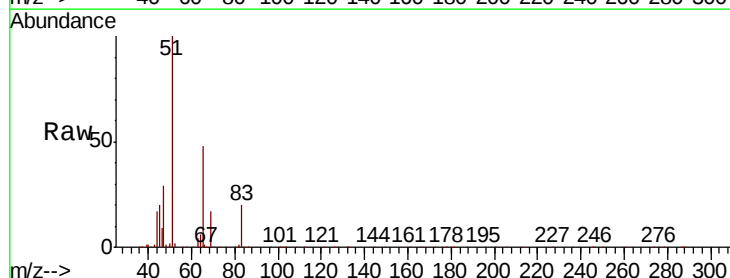
Delta R.T. -0.03 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

Tgt Ion: 51 Resp: 625027

Ion	Ratio	Lower	Upper
51	100		
67	1.6	14.7	22.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

2.96

Time-->

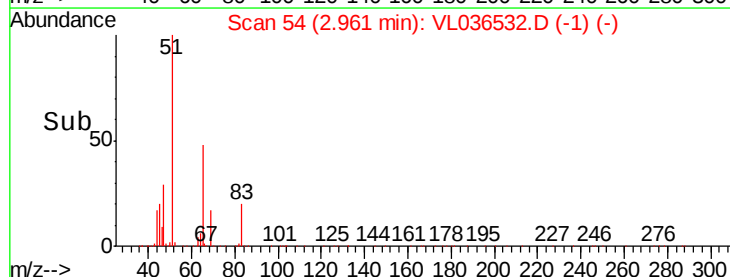
2.90 3.00 3.10

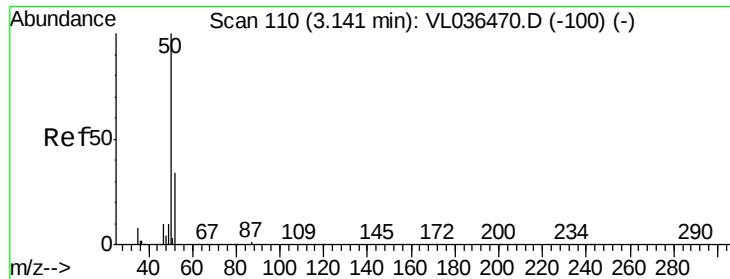
300000

200000

100000

0





#4

Chloromethane

Concen: 0.406 ppbv

RT: 3.13 min Scan# 108

Delta R.T. -0.01 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

Instrument :

MSVOA_L

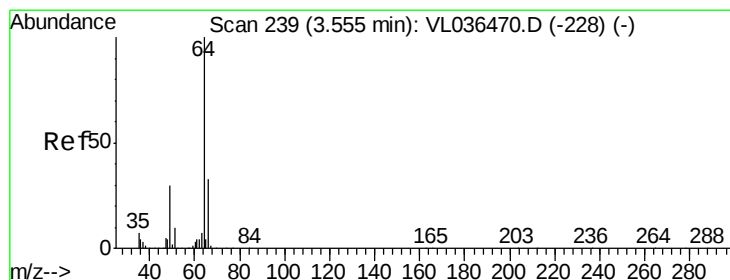
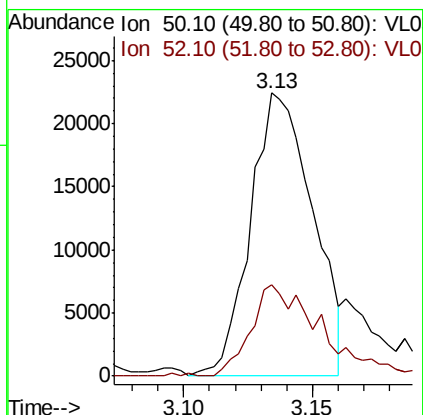
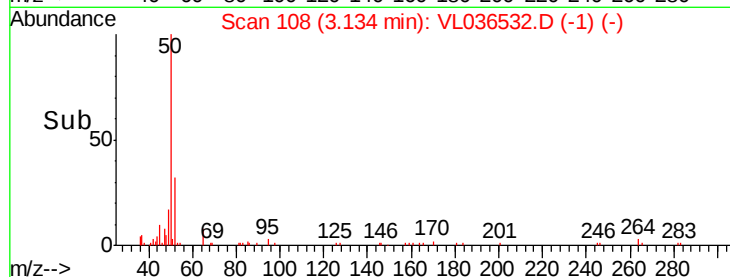
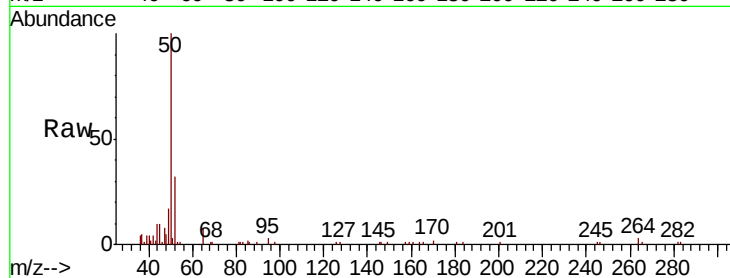
ClientSampleId :

Tot Ion: 50 Resp: 37832

Ion Ratio Lower Upper

50 100

52 31.1 27.0 40.6



#7

Chloroethane

Concen: 0.053 ppbv

RT: 3.55 min Scan# 238

Delta R.T. -0.00 min

Lab File: VL036532.D

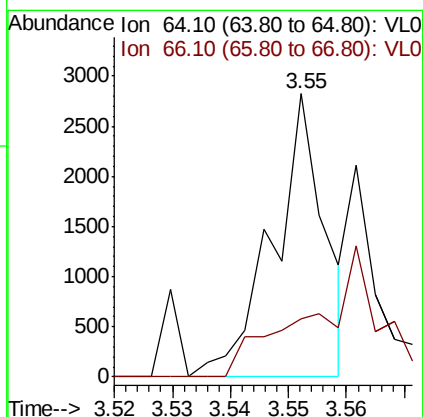
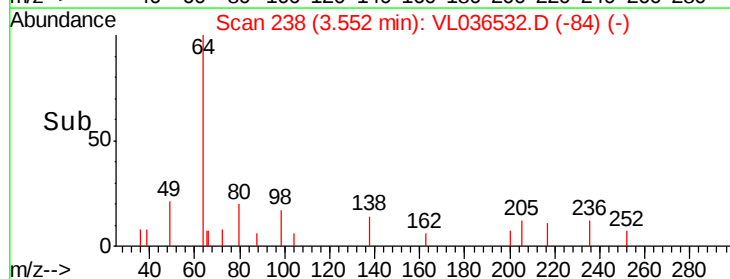
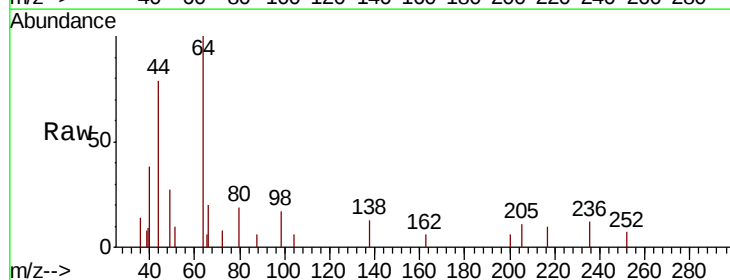
Acq: 27 Mar 2021 3:12

Tgt Ion: 64 Resp: 1735

Ion Ratio Lower Upper

64 100

66 20.4 26.2 39.2#





#9

Propene

Concen: 0.386 ppbv

RT: 3.02 min Scan# 71

Delta R.T. 0.01 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

Instrument :

MSVOA_L

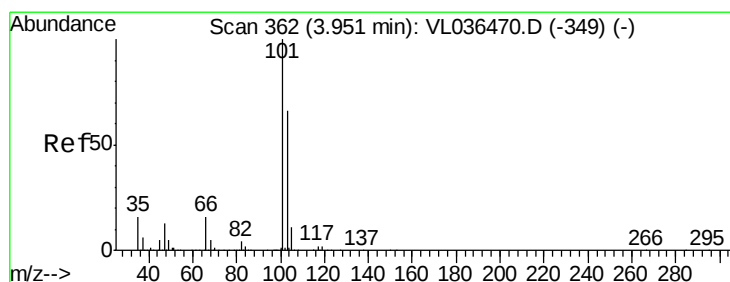
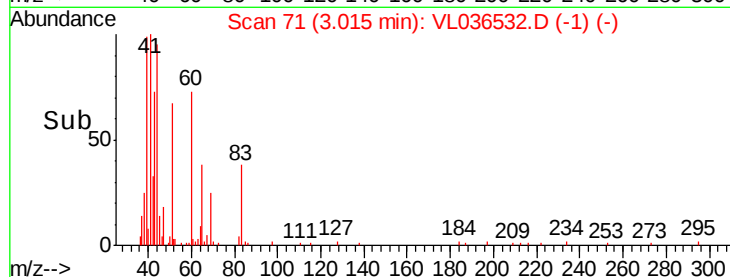
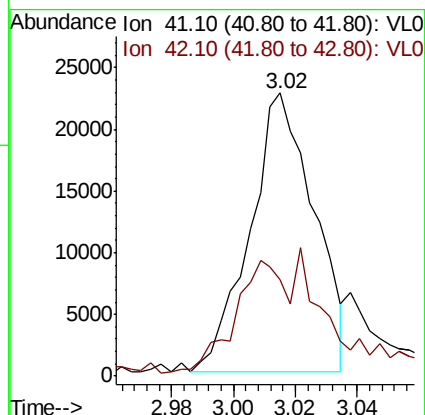
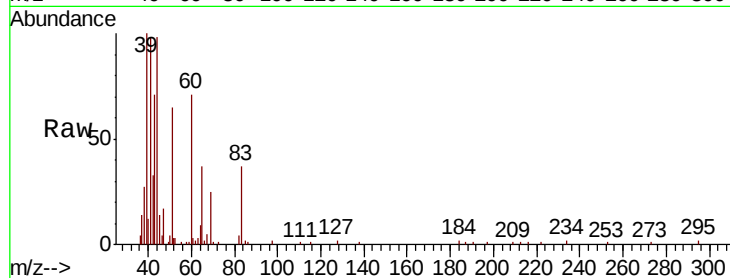
ClientSampleId :

Tot Ion: 41 Resp: 32525

Ion Ratio Lower Upper

41 100

42 67.5 57.0 85.4



#11

Trichlorofluoromethane

Concen: 0.195 ppbv

RT: 3.94 min Scan# 360

Delta R.T. -0.01 min

Lab File: VL036532.D

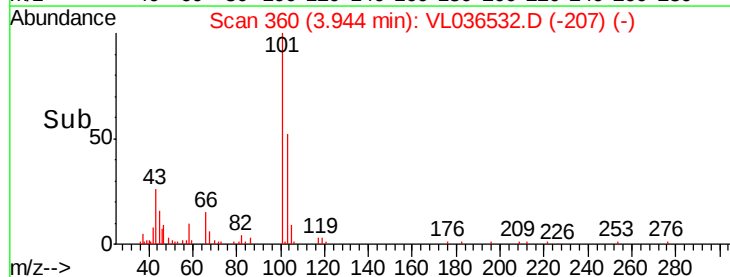
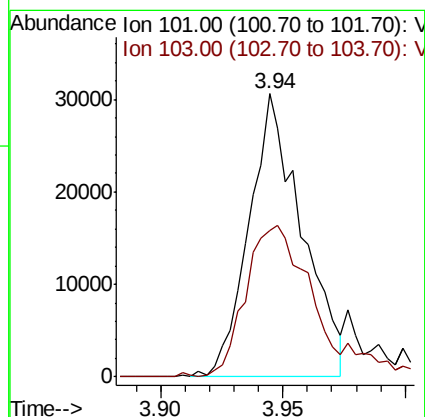
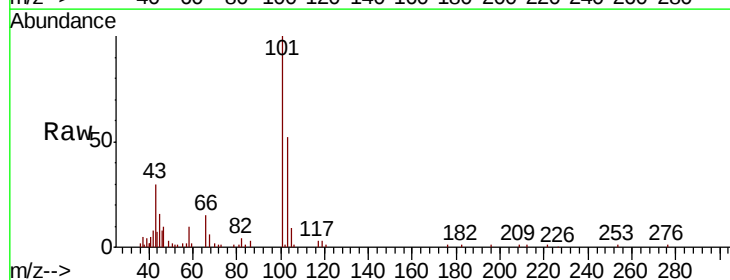
Acq: 27 Mar 2021 3:12

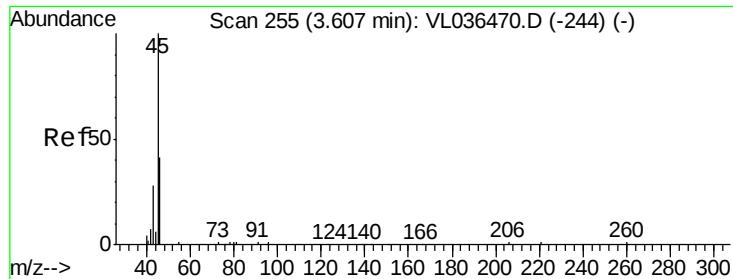
Tgt Ion: 101 Resp: 45884

Ion Ratio Lower Upper

101 100

103 50.8 52.5 78.7#

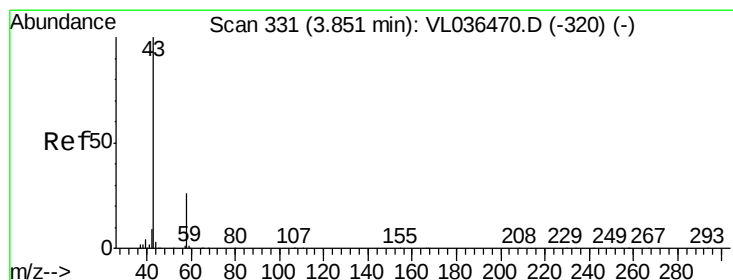
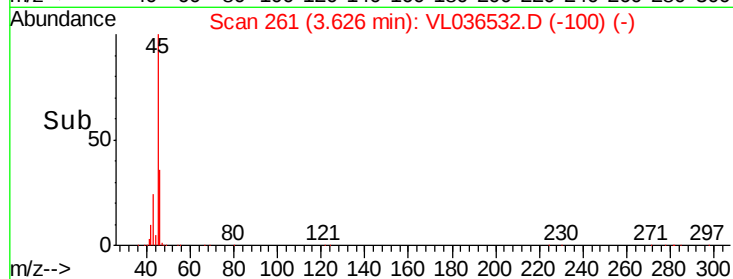
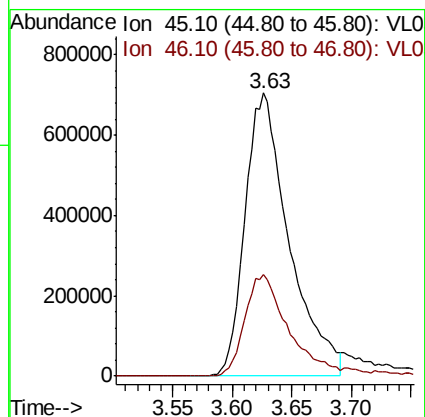
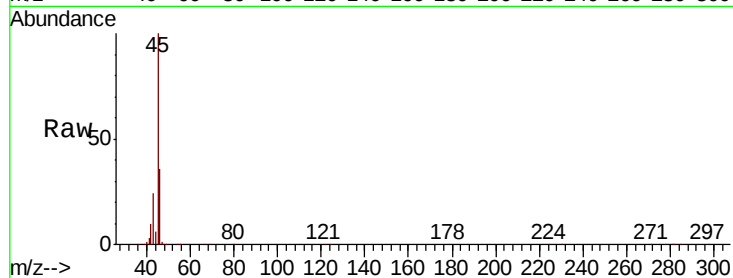




#13
 Ethanol
 Concen: 180.271 ppbv
 RT: 3.63 min Scan# 261
 Delta R.T. 0.02 min
 Lab File: VL036532.D
 Acq: 27 Mar 2021 3:12

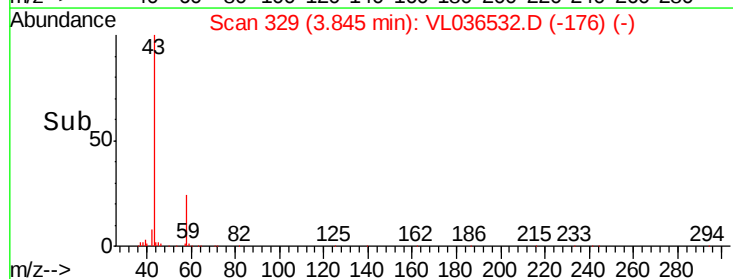
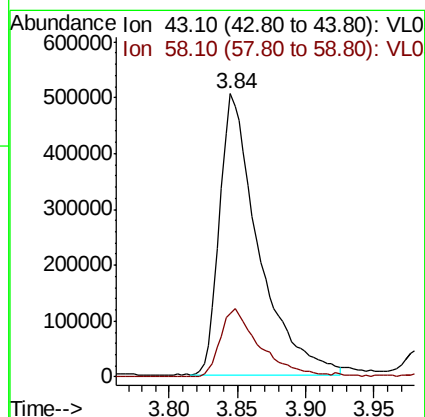
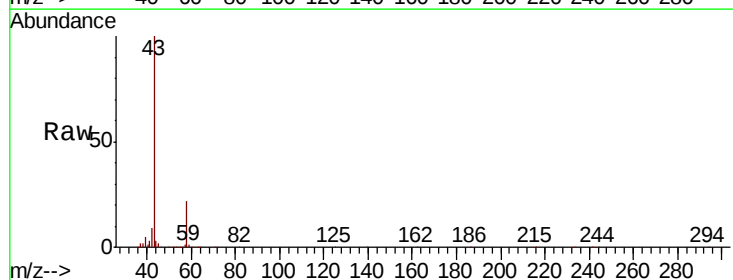
Instrument :
 MSVOA_L
 ClientSampleId :

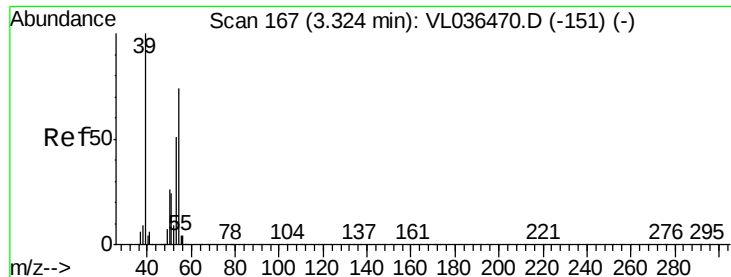
Tot Ion: 45 Resp: 1807429
 Ion Ratio Lower Upper
 45 100
 46 38.3 16.6 66.2



#15
 Acetone
 Concen: 7.199 ppbv
 RT: 3.84 min Scan# 329
 Delta R.T. -0.01 min
 Lab File: VL036532.D
 Acq: 27 Mar 2021 3:12

Tgt Ion: 43 Resp: 1001598
 Ion Ratio Lower Upper
 43 100
 58 25.4 21.2 31.8

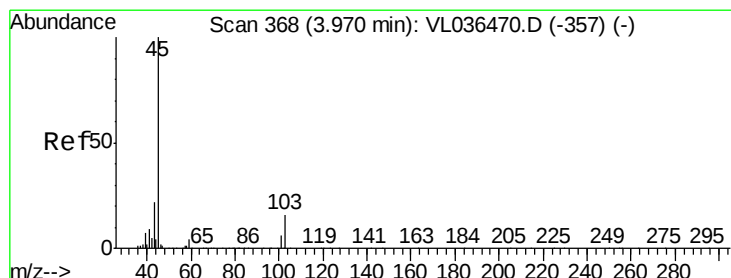
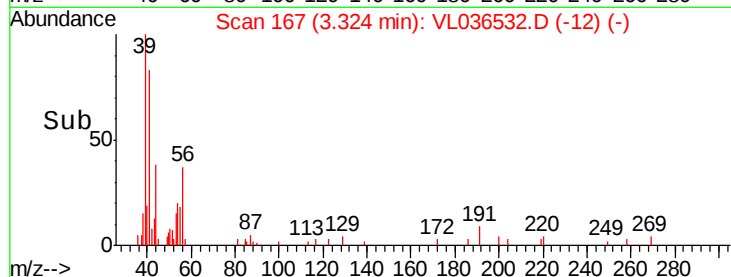
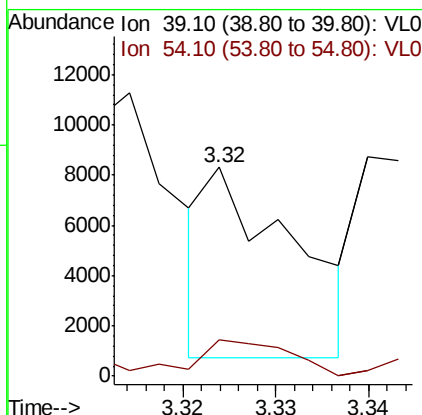
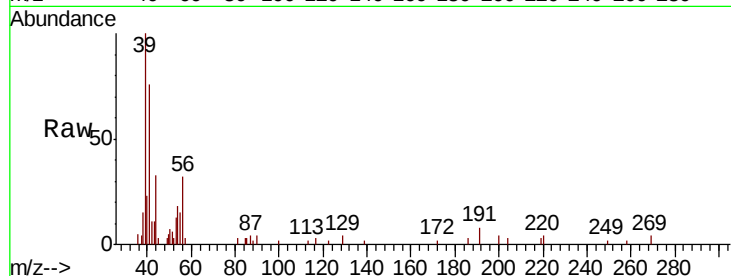




#16
 1,3-Butadiene
 Concen: 0.051 ppbv
 RT: 3.32 min Scan# 167
 Delta R.T. -0.00 min
 Lab File: VL036532.D
 Acq: 27 Mar 2021 3:12

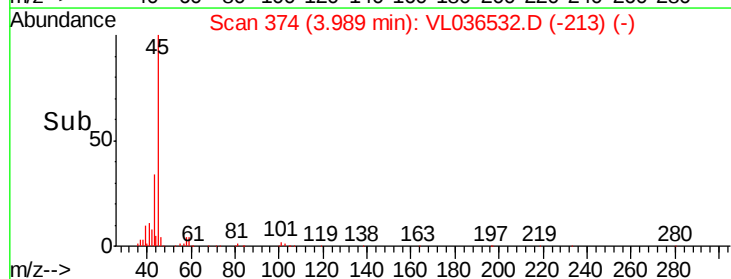
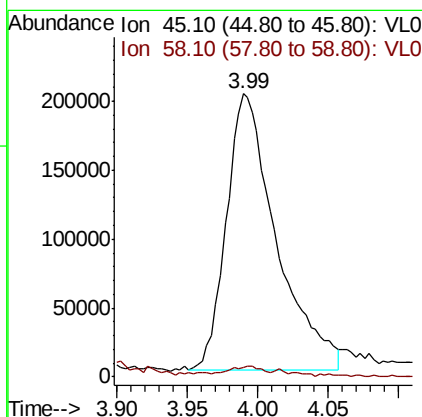
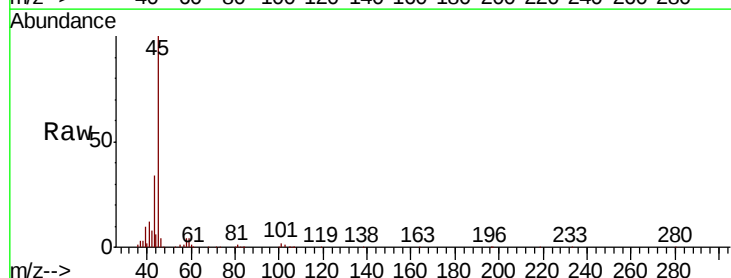
Instrument :
 MSVOA_L
 ClientSampleId :

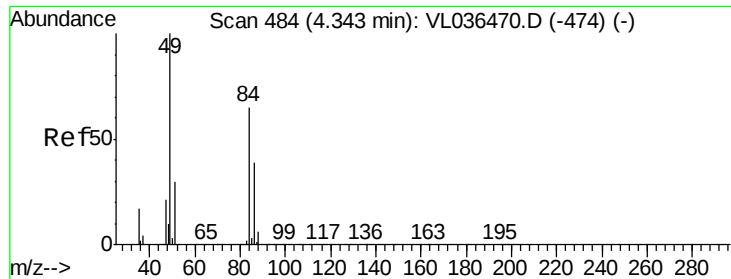
Tot Ion: 39 Resp: 4911
 Ion Ratio Lower Upper
 39 100
 54 28.1 58.8 88.2#



#19
 Isopropyl Alcohol
 Concen: 6.452 ppbv
 RT: 3.99 min Scan# 374
 Delta R.T. 0.02 min
 Lab File: VL036532.D
 Acq: 27 Mar 2021 3:12

Tgt Ion: 45 Resp: 493757
 Ion Ratio Lower Upper
 45 100
 58 4.7 2.9 4.3#

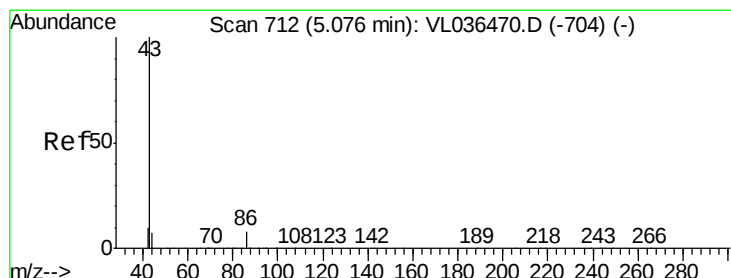
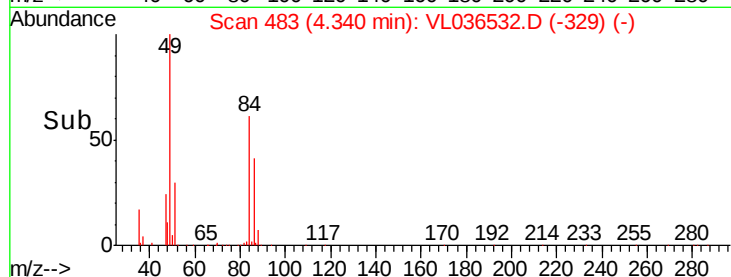
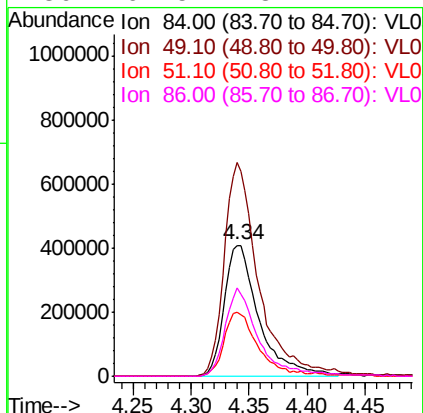
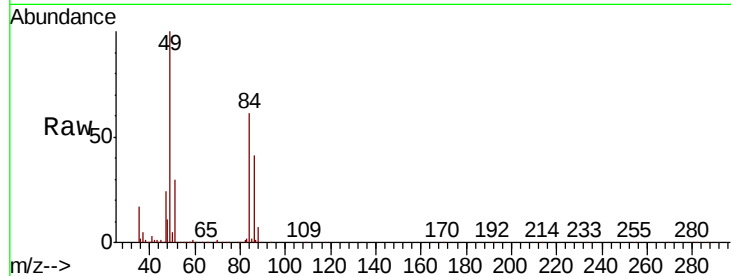




#20
Methvlene Chloride
Concen: 13.041 ppbv
RT: 4.34 min Scan# 483
Delta R.T. -0.00 min
Lab File: VL036532.D
Acq: 27 Mar 2021 3:12

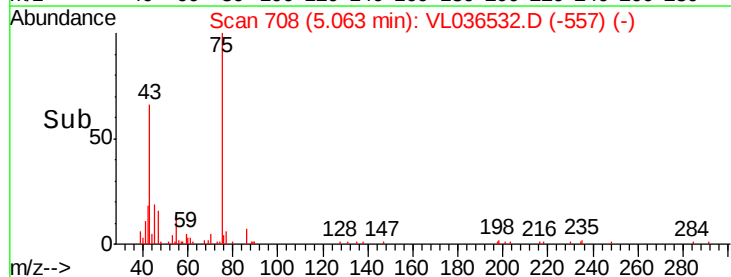
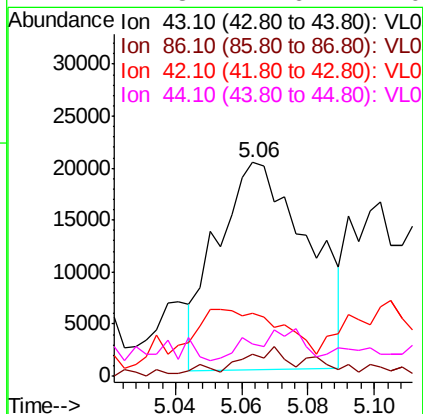
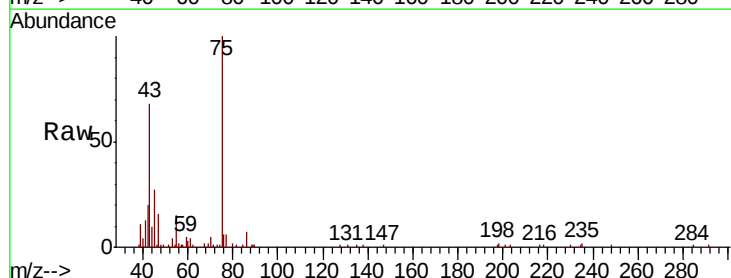
Instrument :
MSVOA_L
ClientSampleId :

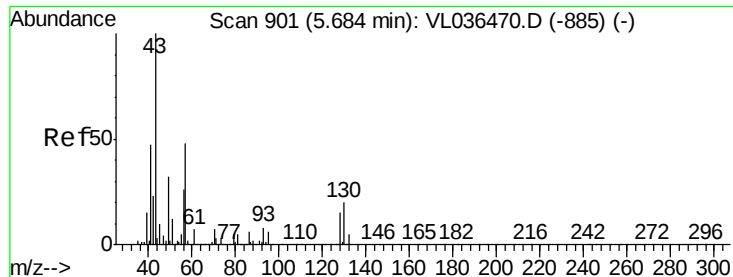
Tot Ion:	84	Resp:	849475
Ion	Ratio	Lower	Upper
84	100		
49	163.3	122.9	184.3
51	48.6	36.9	55.3
86	67.5	48.2	72.4



#23
Vinyl Acetate
Concen: 0.161 ppbv
RT: 5.06 min Scan# 708
Delta R.T. -0.01 min
Lab File: VL036532.D
Acq: 27 Mar 2021 3:12

Tgt Ion:	43	Resp:	38224
Ion	Ratio	Lower	Upper
43	100		
86	10.3	5.4	8.0#
42	21.2	8.5	12.7#
44	2.8	4.6	7.0#

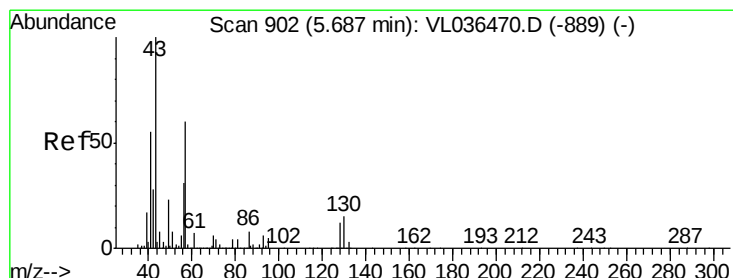
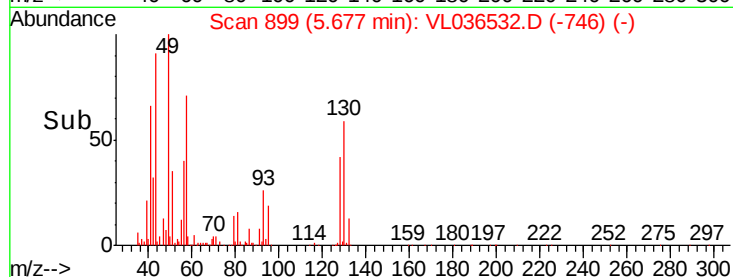
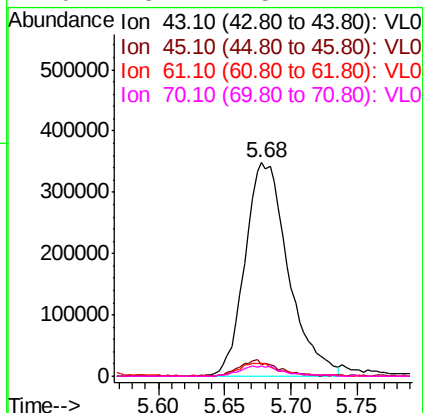
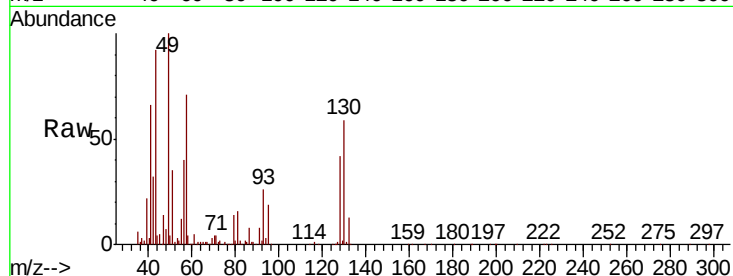




#25
Ethyl Acetate
Concen: 2.389 ppbv
RT: 5.68 min Scan# 899
Delta R.T. -0.01 min
Lab File: VL036532.D
Acq: 27 Mar 2021 3:12

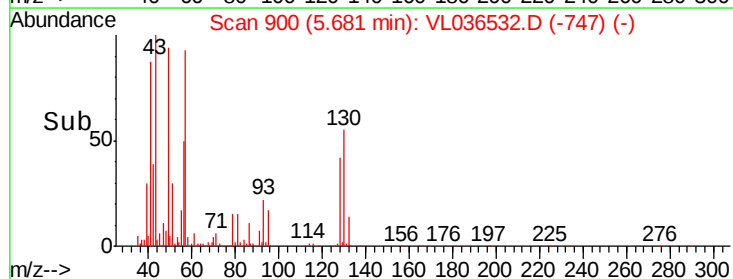
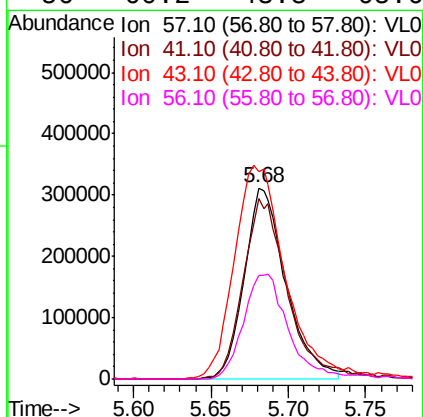
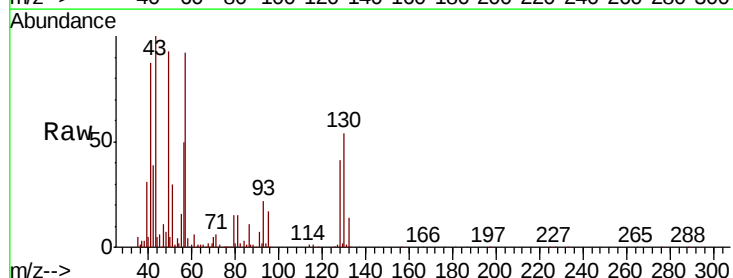
Instrument :
MSVOA_L
ClientSampleId :

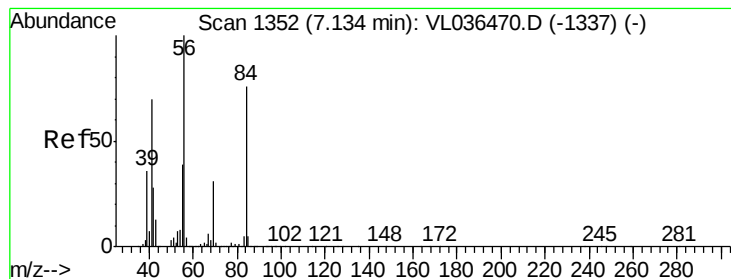
Tot Ion:	43	Resp:	790138
Ion	Ratio	Lower	Upper
43	100		
45	7.2	7.9	11.9#
61	5.9	7.4	11.2#
70	5.2	5.1	7.7



#26
Hexane
Concen: 3.807 ppbv
RT: 5.68 min Scan# 900
Delta R.T. -0.01 min
Lab File: VL036532.D
Acq: 27 Mar 2021 3:12

Tgt Ion:	57	Resp:	584423
Ion	Ratio	Lower	Upper
57	100		
41	101.3	77.2	115.8
43	141.1	173.8	260.6#
56	60.2	43.8	65.6





#30

Cvclohexane

Concen: 0.028 ppbv

RT: 7.13 min Scan# 1350

Delta R.T. -0.01 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

Instrument :

MSVOA_L

ClientSampleId :

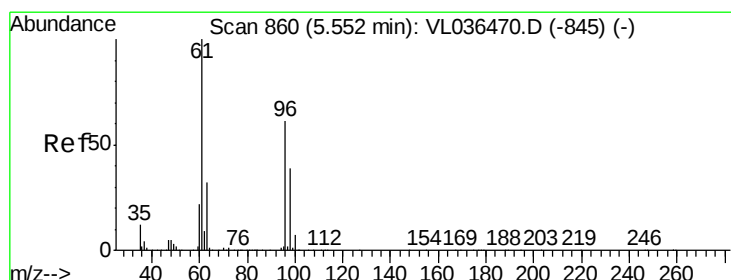
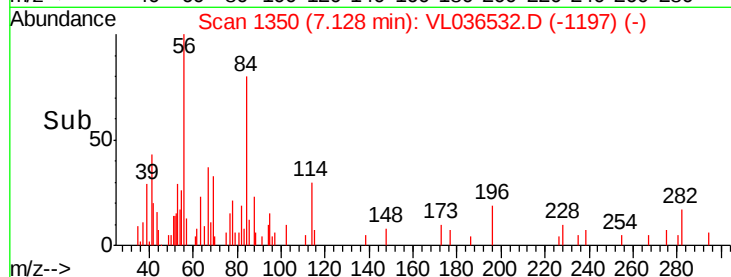
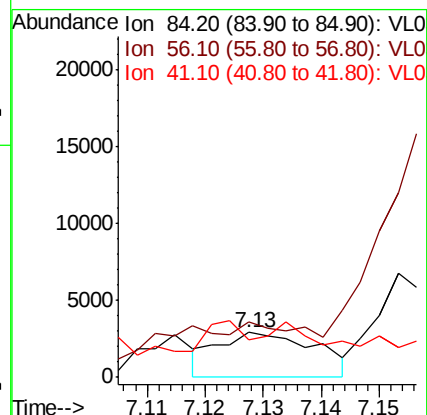
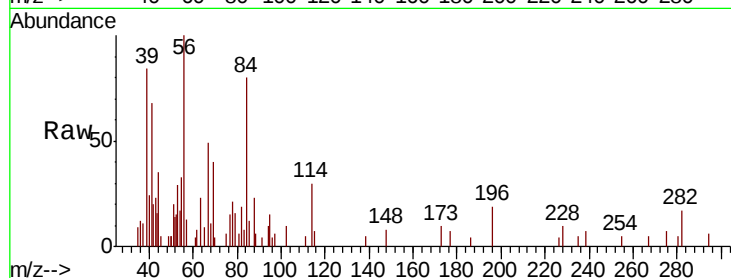
Tot Ion: 84 Resp: 3427

Ion Ratio Lower Upper

84 100

56 0.0 114.6 171.8#

41 334.8 75.3 112.9#



#31

cis-1,2-Dichloroethene

Concen: 0.160 ppbv

RT: 5.55 min Scan# 858

Delta R.T. -0.01 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

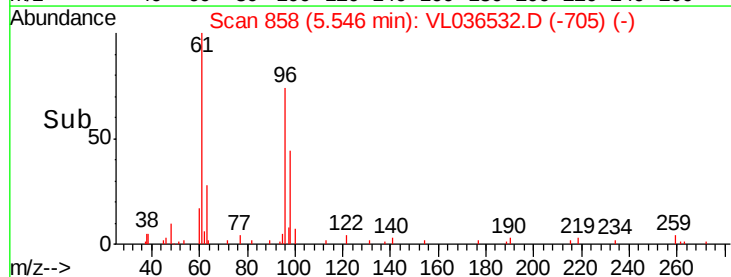
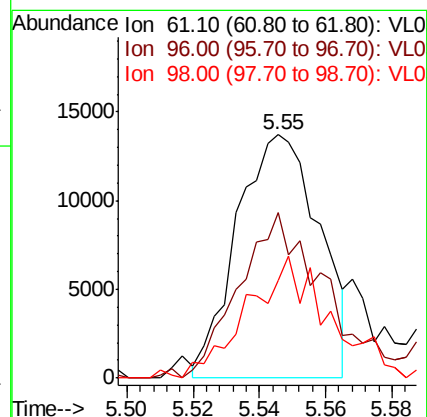
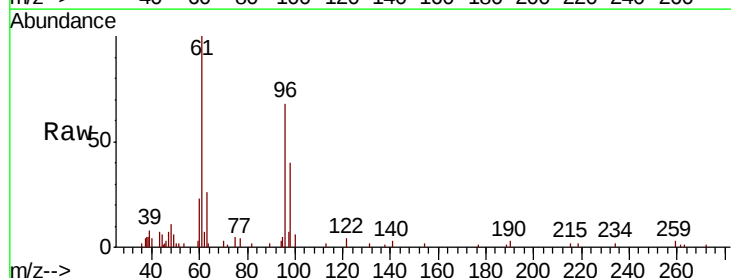
Tgt Ion: 61 Resp: 23685

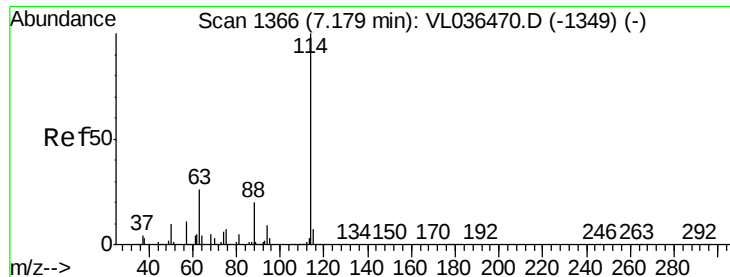
Ion Ratio Lower Upper

61 100

96 68.0 48.7 73.1

98 35.7 31.4 47.0





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.01 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

Instrument :

MSVOA_L

ClientSampleId :

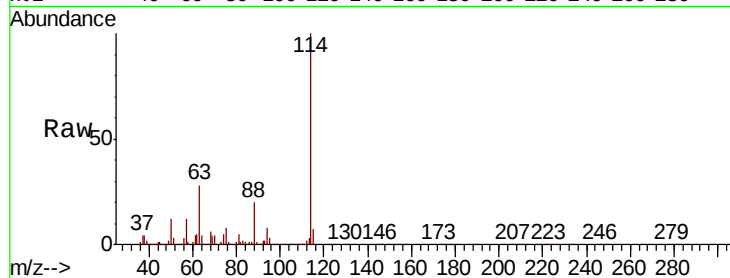
Tot Ion:114 Resp: 3056092

Ion Ratio Lower Upper

114 100

63 28.6 22.4 33.6

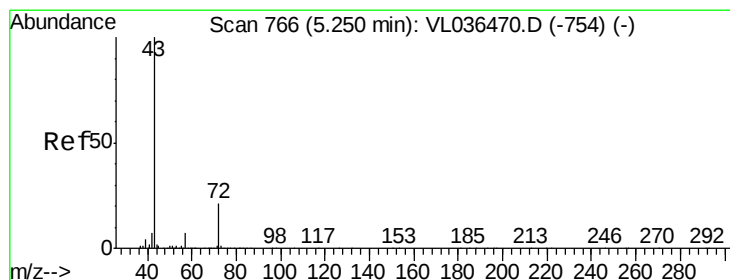
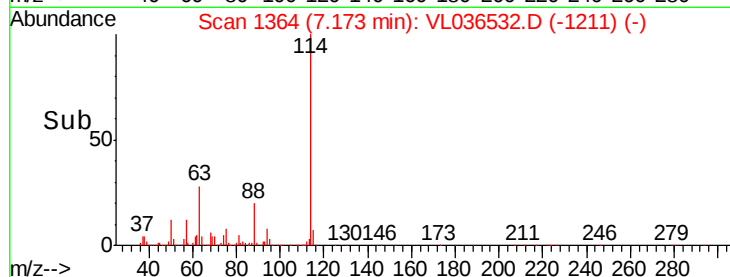
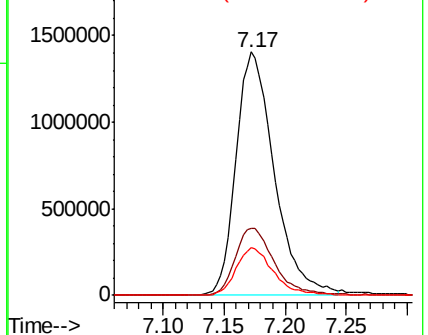
88 19.2 15.4 23.0



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: 0.261 ppbv

RT: 5.25 min Scan# 765

Delta R.T. -0.00 min

Lab File: VL036532.D

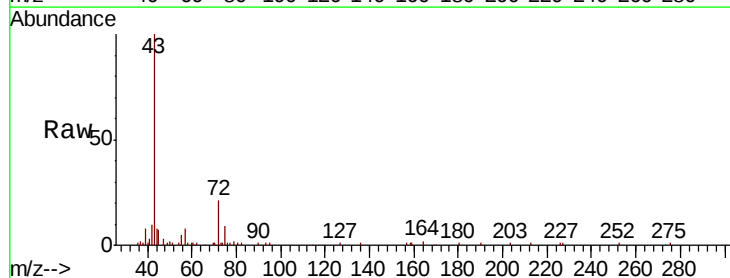
Acq: 27 Mar 2021 3:12

Tgt Ion: 43 Resp: 38963

Ion Ratio Lower Upper

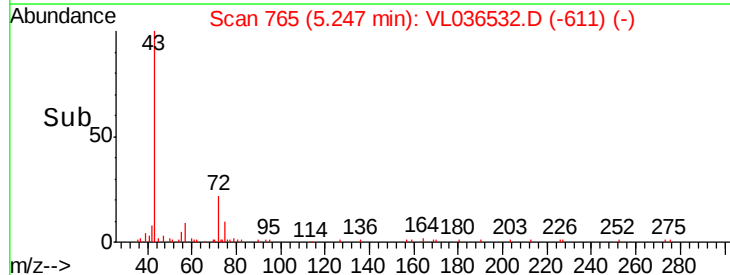
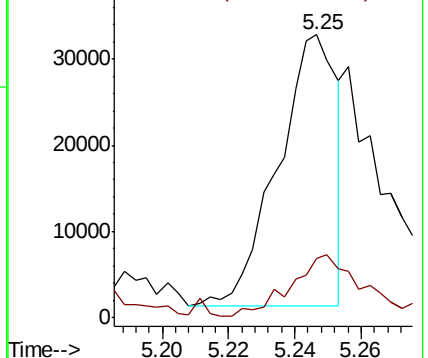
43 100

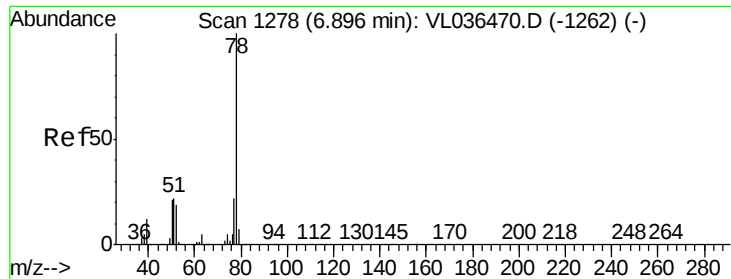
72 36.5 17.0 25.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.063 ppbv

RT: 6.89 min Scan# 1276

Delta R.T. -0.01 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

Instrument :

MSVOA_L

ClientSampleId :

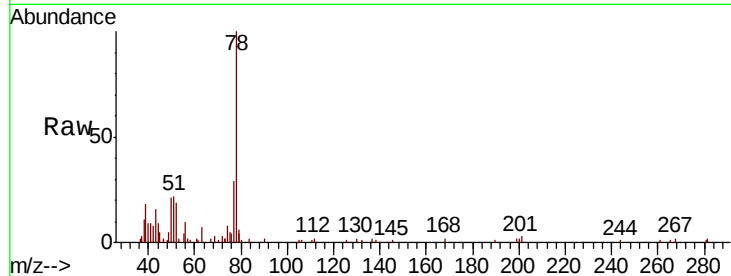
Tot Ion: 78 Resp: 17874

Ion Ratio Lower Upper

78 100

77 22.2 18.0 27.0

50 18.1 16.5 24.7

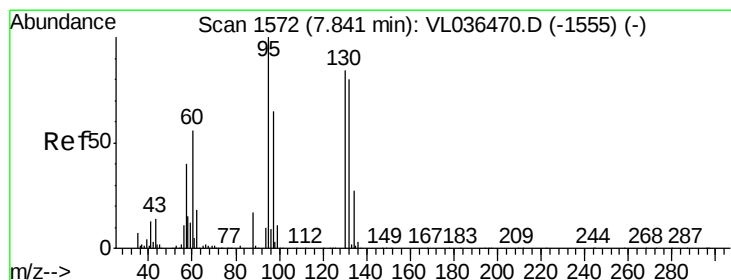
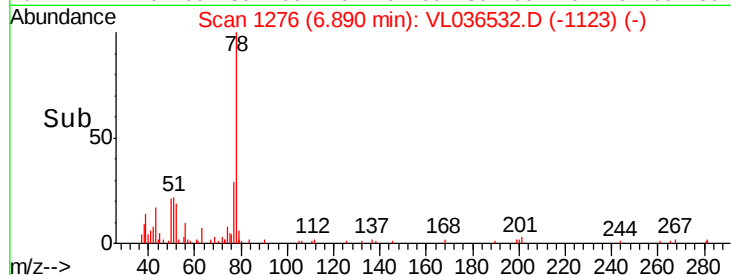
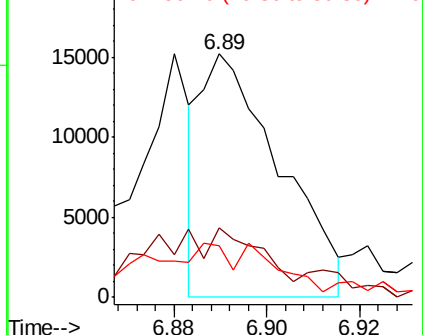


Abundance

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



#38

Trichloroethene

Concen: 1.356 ppbv

RT: 7.83 min Scan# 1569

Delta R.T. -0.01 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

Tgt Ion: 130 Resp: 148712

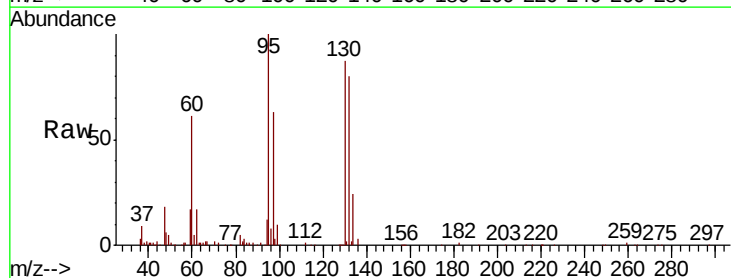
Ion Ratio Lower Upper

130 100

95 114.1 95.7 143.5

132 91.1 76.2 114.4

97 73.1 61.8 92.6



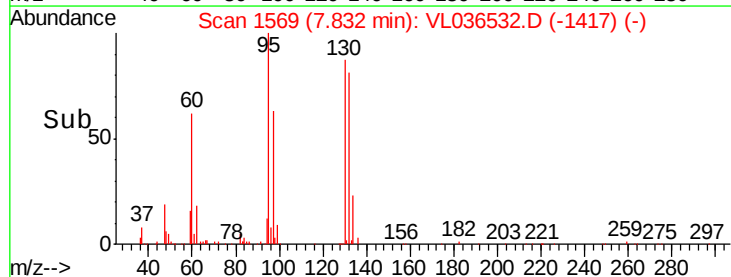
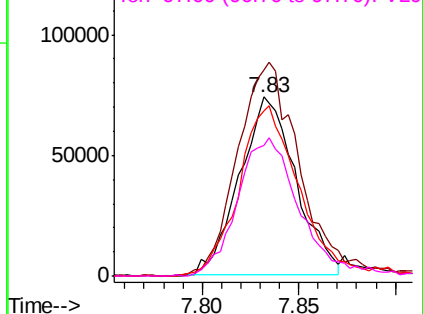
Abundance

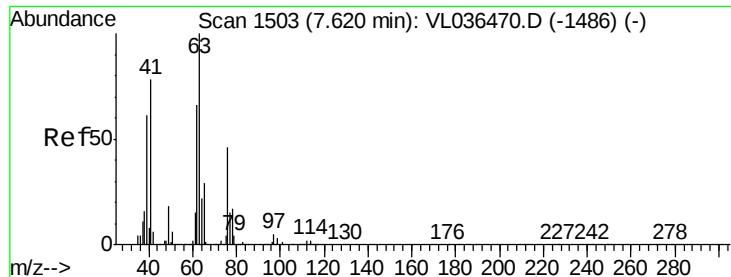
Ion 130.00 (129.70 to 130.70): VL0

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): VL0

Ion 97.00 (96.70 to 97.70): VL0





#39

1,2-Dichloropropane

Concen: 0.095 ppbv

RT: 7.22 min Scan# 1380

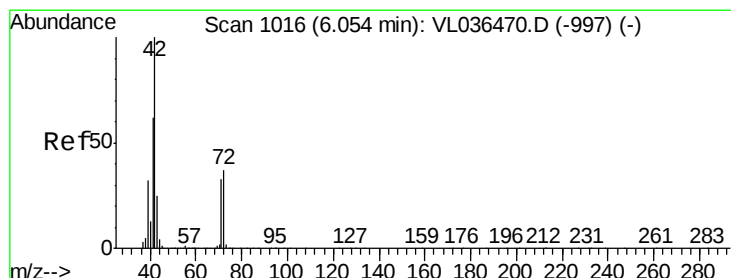
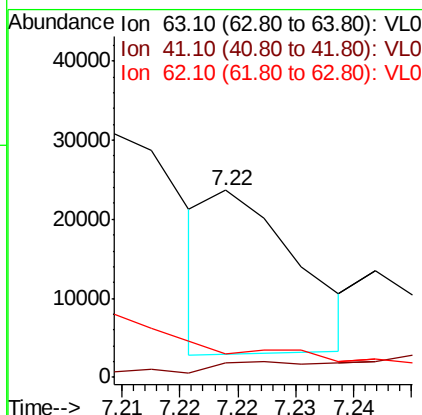
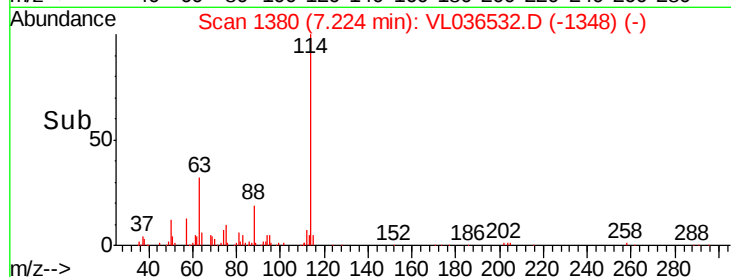
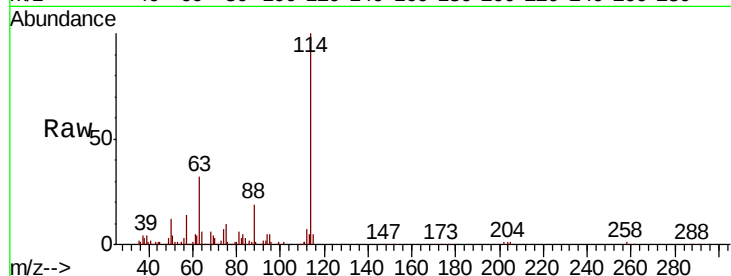
Delta R.T. -0.40 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	63	Resp:	10840
Ion	Ratio	Lower	Upper
63	100		
41	9.8	62.4	93.6#
62	7.3	52.8	79.2#



#41

Tetrahydrofuran

Concen: 0.131 ppbv

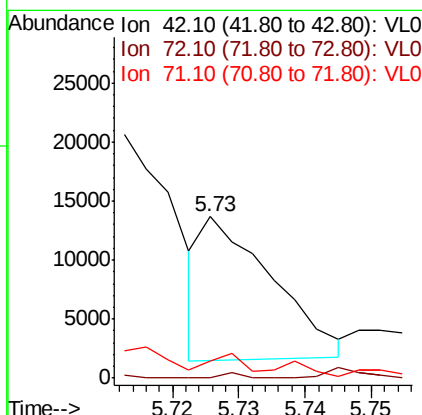
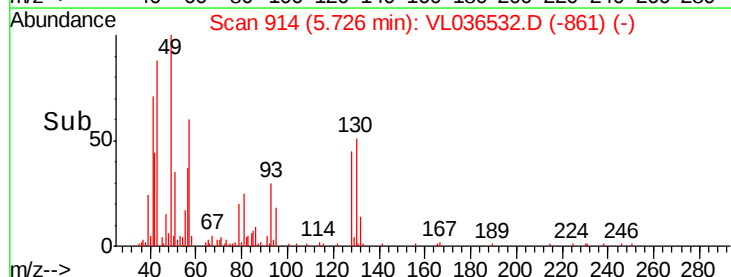
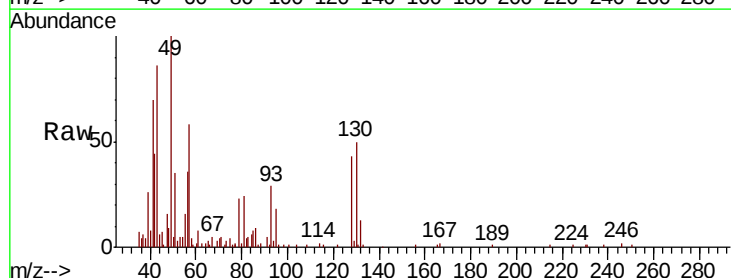
RT: 5.73 min Scan# 914

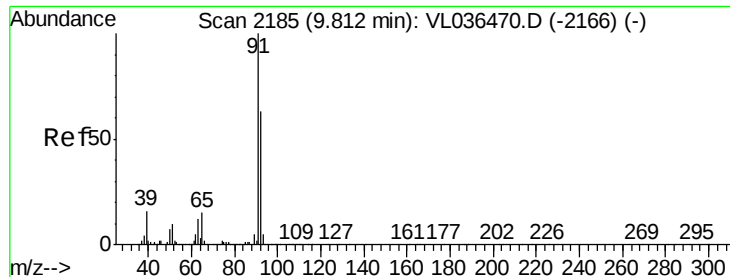
Delta R.T. -0.33 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

Tgt Ion:	42	Resp:	9031
Ion	Ratio	Lower	Upper
42	100		
72	5.4	27.6	41.4#
71	0.0	27.0	40.4#





#53

Toluene

Concen: 0.294 ppbv

RT: 9.81 min Scan# 2183

Delta R.T. -0.01 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

Instrument :

MSVOA_L

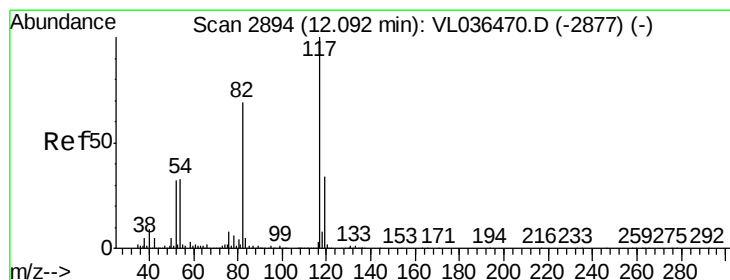
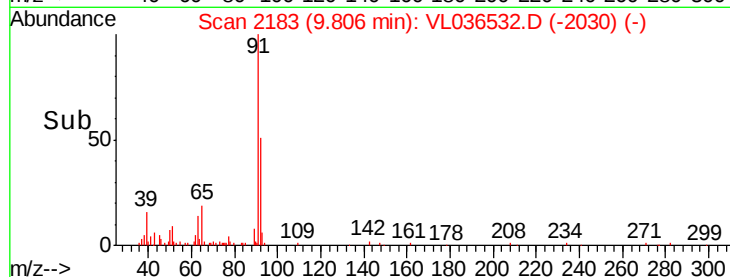
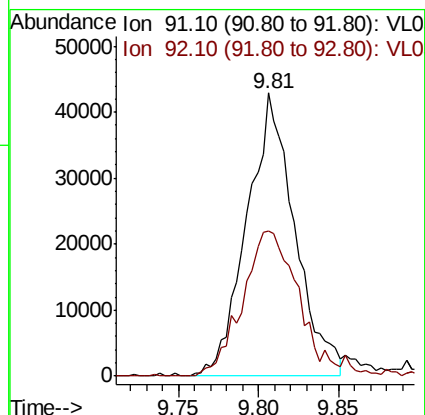
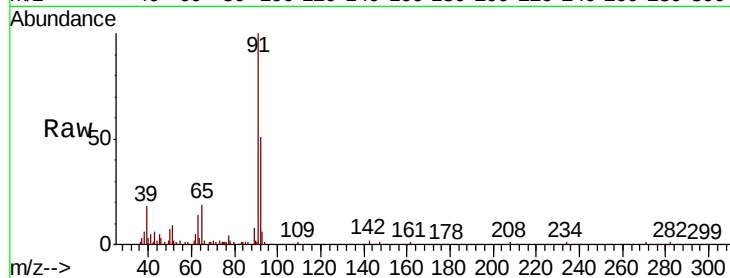
ClientSampleId :

Tot Ion: 91 Resp: 88272

Ion Ratio Lower Upper

91 100

92 60.8 48.8 73.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2893

Delta R.T. -0.00 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

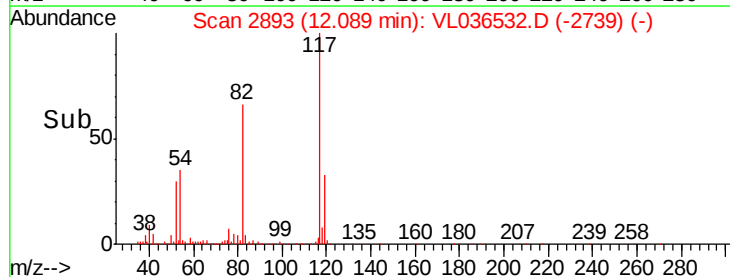
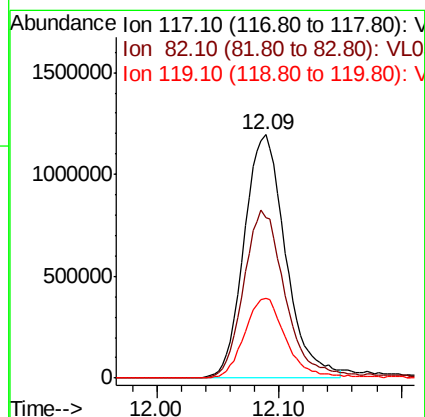
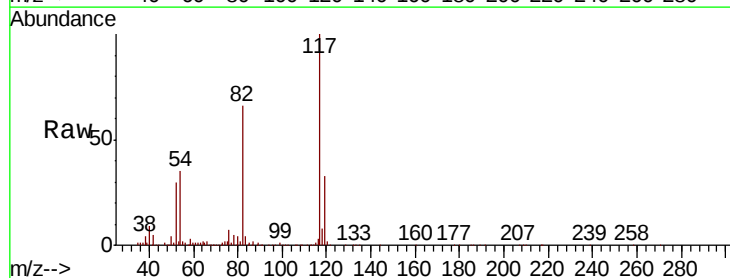
Tgt Ion: 117 Resp: 2804910

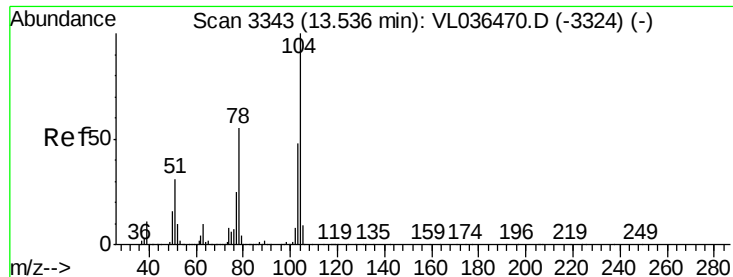
Ion Ratio Lower Upper

117 100

82 71.3 57.4 86.0

119 33.7 47.4 71.0#

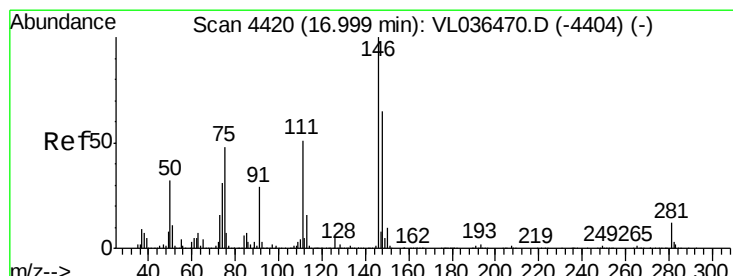
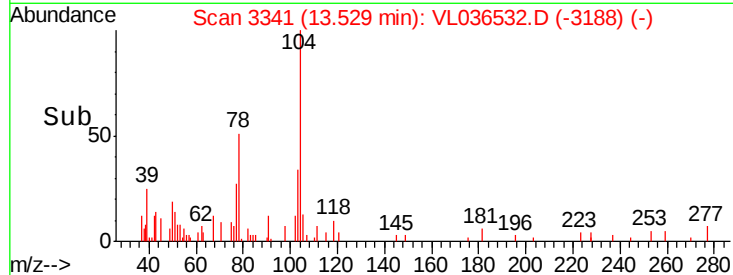
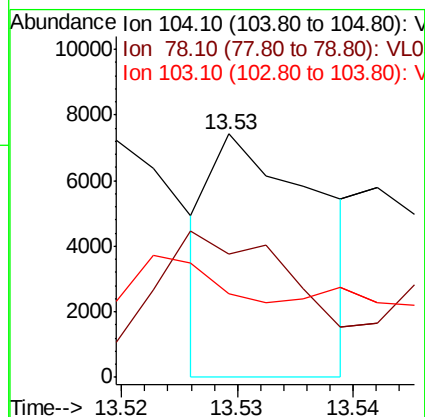
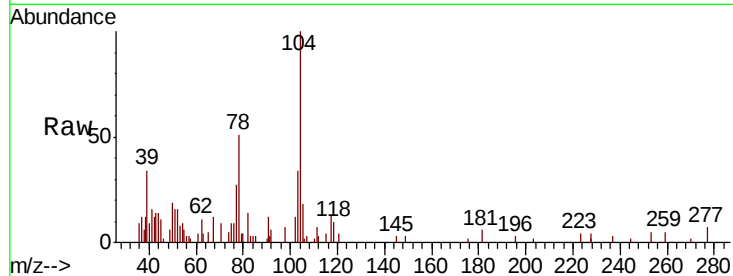




#61
Stvrene
Concen: 0.028 ppbv
RT: 13.53 min Scan# 3341
Delta R.T. -0.01 min
Lab File: VL036532.D
Acq: 27 Mar 2021 3:12

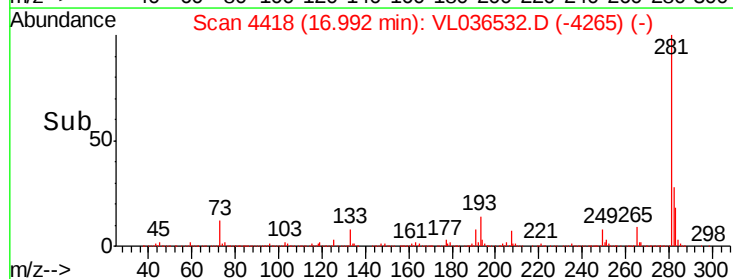
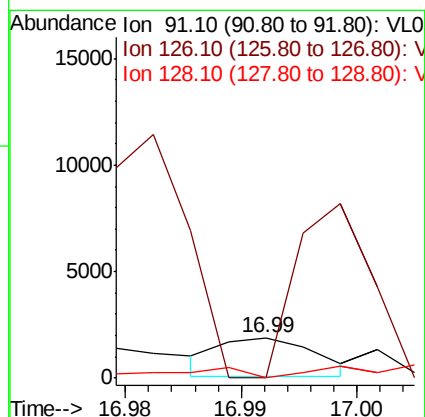
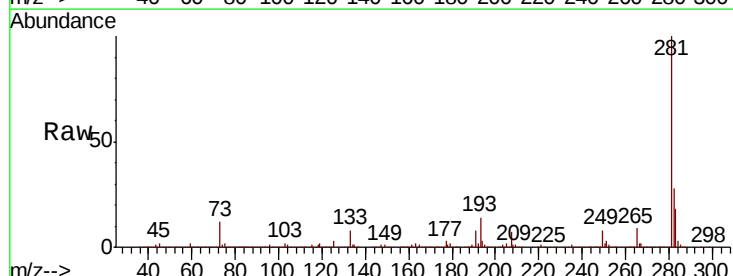
Instrument :
MSVOA_L
ClientSampled :

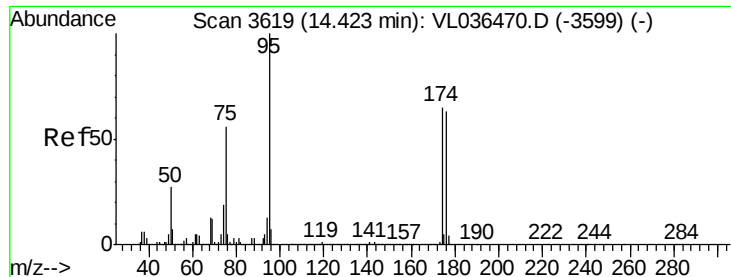
Tot Ion:104 Resp: 4793
Ion Ratio Lower Upper
104 100
78 205.5 43.8 65.8#
103 171.5 38.3 57.5#



#66
Benzyl Chloride
Concen: 0.023 ppbv
RT: 16.99 min Scan# 4418
Delta R.T. -0.01 min
Lab File: VL036532.D
Acq: 27 Mar 2021 3:12

Tgt Ion: 91 Resp: 1040
Ion Ratio Lower Upper
91 100
126 0.0 13.5 20.3#
128 0.0 4.2 6.4#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.682 ppbv

RT: 14.42 min Scan# 3617

Delta R.T. -0.01 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

Instrument :

MSVOA_L

ClientSampled :

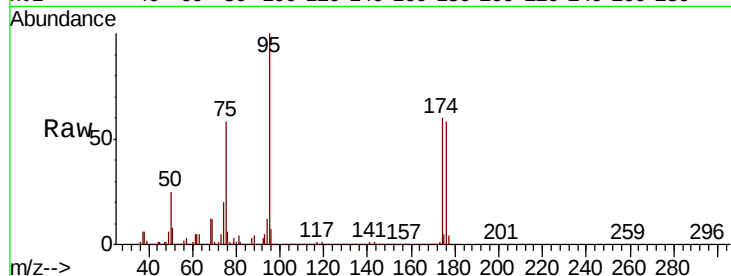
Tot Ion: 95 Resp: 2164504

Ion Ratio Lower Upper

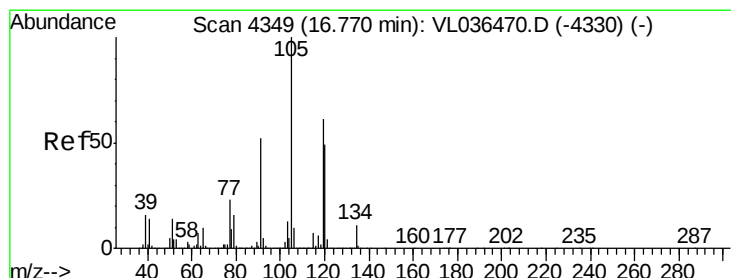
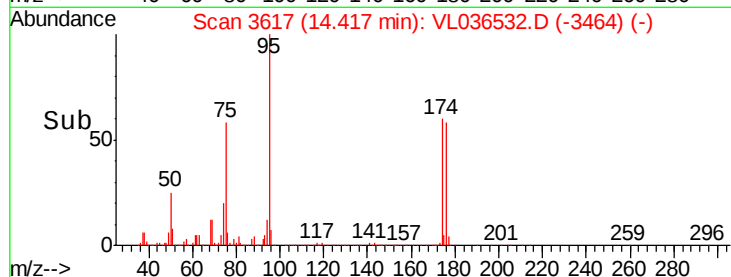
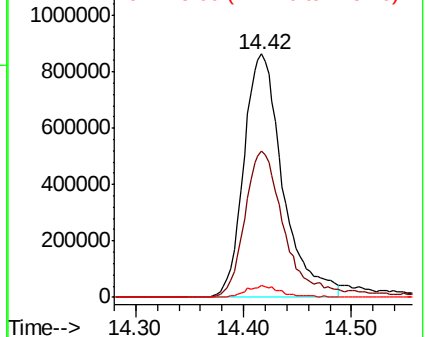
95 100

174 64.5 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: 0.036 ppbv

RT: 16.76 min Scan# 4347

Delta R.T. -0.01 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

Tgt Ion: 105 Resp: 13549

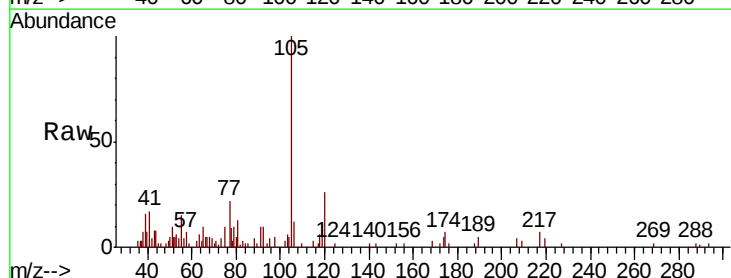
Ion Ratio Lower Upper

105 100

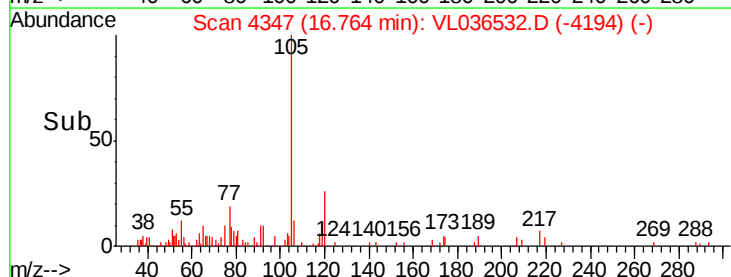
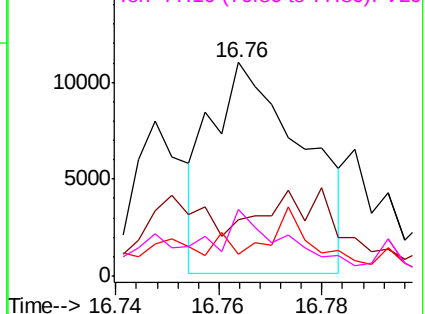
120 17.1 39.2 58.8#

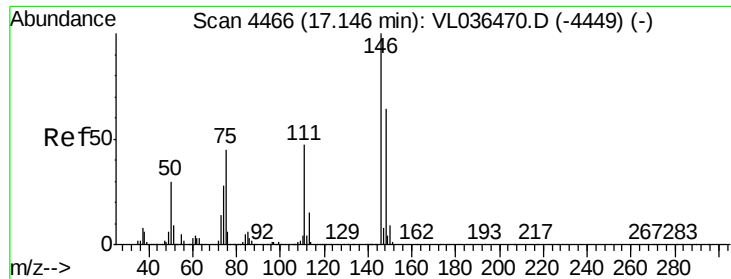
91 0.0 42.6 64.0#

77 43.4 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





#76

1,4-Dichlorobenzene

Concen: 0.063 ppbv

RT: 17.14 min Scan# 4463

Delta R.T. -0.01 min

Lab File: VL036532.D

Acq: 27 Mar 2021 3:12

Instrument :

MSVOA_L

ClientSampleId :

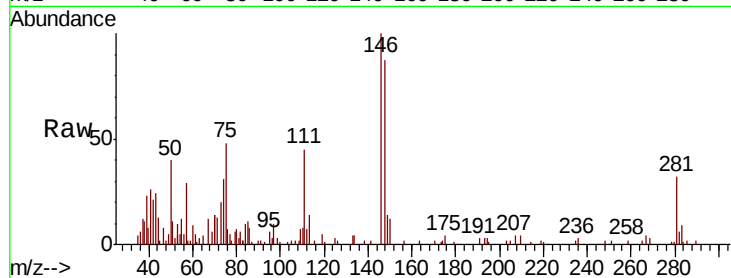
Tot Ion:146 Resp: 13239

Ion Ratio Lower Upper

146 100

111 0.0 24.3 72.8#

148 202.3 33.0 98.9#



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V

