

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032921\
 Data File : VL036549.D
 Acq On : 29 Mar 2021 21:33
 Operator : SY/AP
 Sample : M1760-14
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Mar 30 06:43:17 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	5.65	49	1591932	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	3560108	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.07	117	3148586	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2522101	10.05	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.50%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.03	85	53141	0.205	ppbv 94
3) Chlorodifluoromethane	2.98	51	169630	0.570	ppbv # 82
4) Chloromethane	3.12	50	24693	0.235	ppbv # 75
9) Propene	3.01	41	88777	0.936	ppbv 84
11) Trichlorofluoromethane	3.94	101	48696	0.184	ppbv 97
12) 1,1,2-Trichlorotrifluoroet	4.47	101	4305	0.025	ppbv # 1
13) Ethanol	3.59	45	1019192	90.262	ppbv 98
15) Acetone	3.83	43	1690474	10.789	ppbv 96
16) 1,3-Butadiene	3.31	39	2484	0.023	ppbv # 1
19) Isopropyl Alcohol	3.96	45	452638	5.252	ppbv # 95
20) Methylene Chloride	4.33	84	147816	2.015	ppbv 95
21) Allyl Chloride	4.34	41	3706	0.030	ppbv # 49
23) Vinyl Acetate	5.04	43	29674	0.111	ppbv # 1
25) Ethyl Acetate	5.67	43	600684	1.613	ppbv # 80
26) Hexane	5.67	57	760572	4.400	ppbv # 48
34) 2-Butanone	5.24	43	81050	0.466	ppbv 92
35) Carbon Tetrachloride	7.00	117	8861	0.032	ppbv # 81
36) Benzene	6.90	78	7681	0.023	ppbv 96
39) 1,2-Dichloropropane	7.16	63	995018	7.471	ppbv # 23
41) Tetrahydrofuran	5.67	42	340897	4.254	ppbv # 52
53) Toluene	9.79	91	362371	1.036	ppbv 99
58) Ethyl Benzene	12.69	91	31361	0.068	ppbv 95
59) m/p-Xylene	12.99	91	42031	0.105	ppbv # 32
60) o-Xylene	13.68	91	51118	0.132	ppbv 84
74) 1,2,4-Trimethylbenzene	16.74	105	10001	0.024	ppbv # 70

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 890

Delta R.T. -0.02 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

Instrument :
MSVOA_L
ClientSampled :

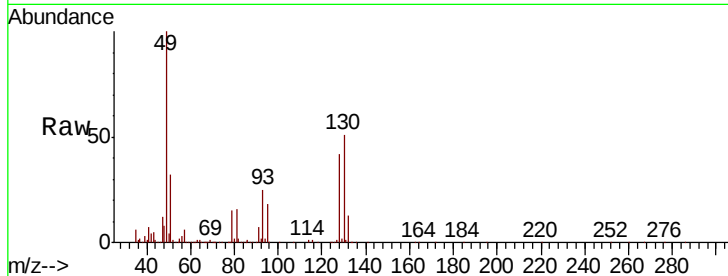
Tot Ion: 49 Resp: 1591932

Ion Ratio Lower Upper

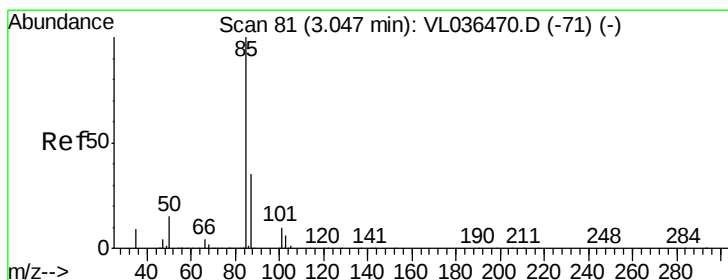
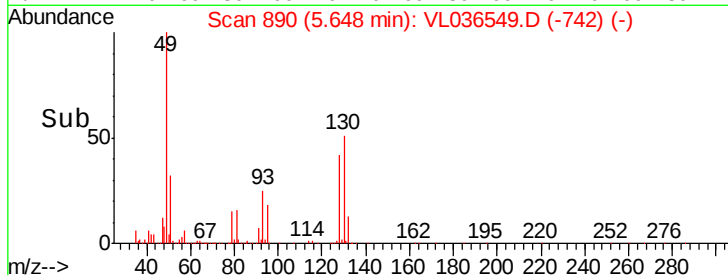
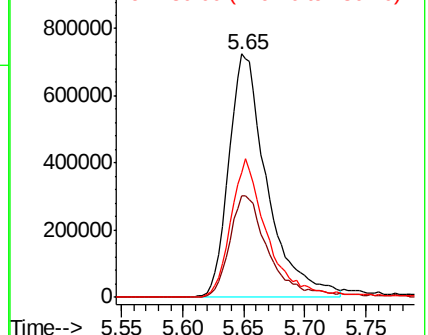
49 100

128 43.5 23.5 70.6

130 56.0 29.1 87.4



Abundance Ion 49.10 (48.80 to 49.80): VL0
Ion 128.00 (127.70 to 128.70): V
Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.205 ppbv

RT: 3.03 min Scan# 77

Delta R.T. -0.01 min

Lab File: VL036549.D

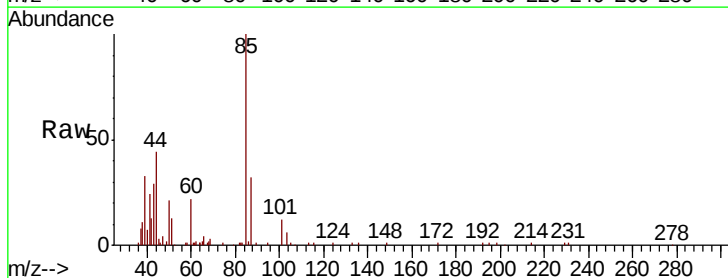
Acq: 29 Mar 2021 21:33

Tgt Ion: 85 Resp: 53141

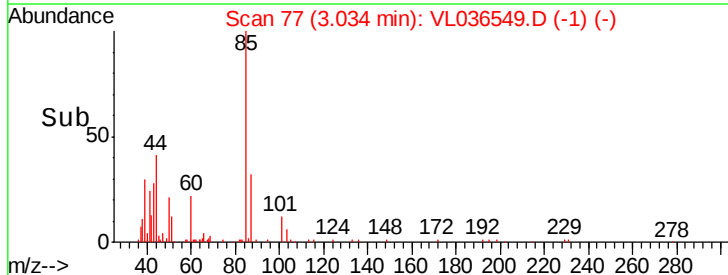
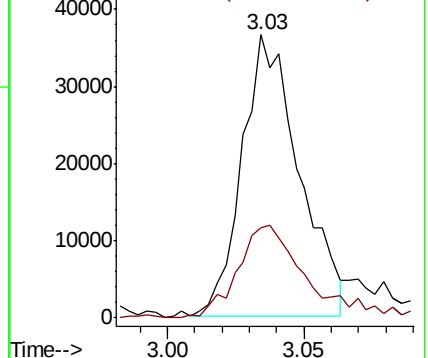
Ion Ratio Lower Upper

85 100

87 31.2 27.8 41.8



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

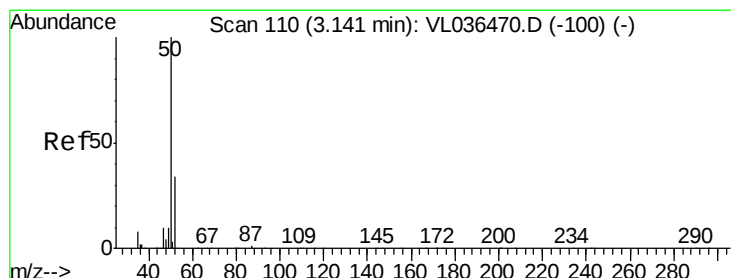
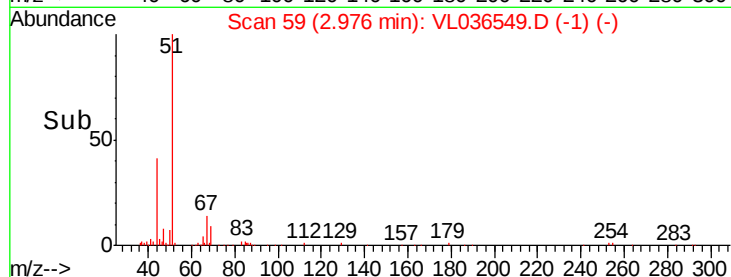
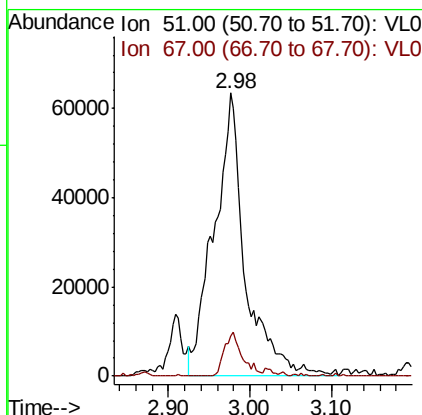
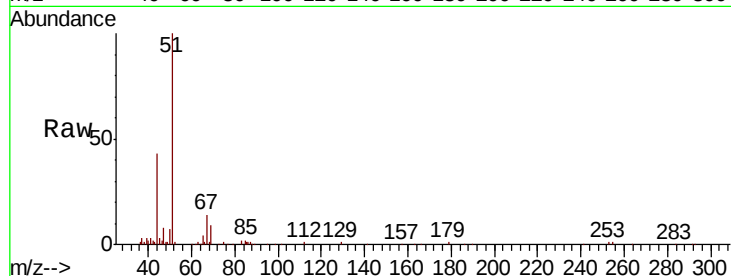




#3
Chlorodifluoromethane
Concen: 0.570 ppbv
RT: 2.98 min Scan# 59
Delta R.T. -0.01 min
Lab File: VL036549.D
Acq: 29 Mar 2021 21:33

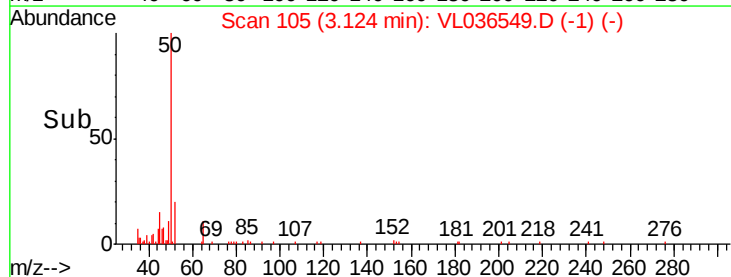
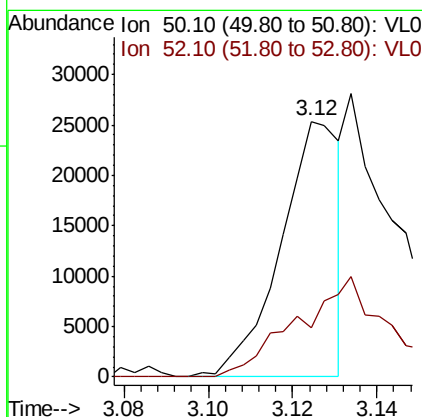
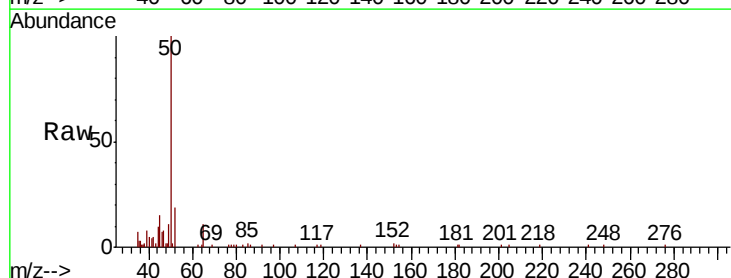
Instrument :
MSVOA_L
ClientSampleId :

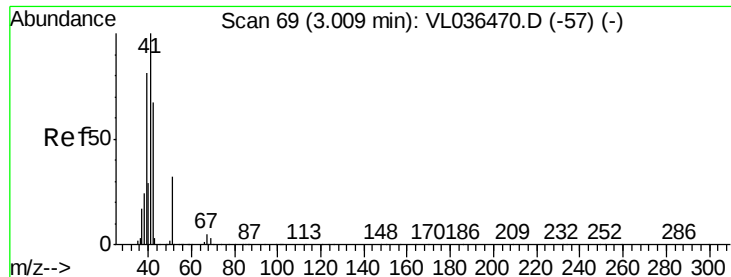
Tot Ion: 51 Resp: 169630
Ion Ratio Lower Upper
51 100
67 10.2 14.7 22.1#



#4
Chloromethane
Concen: 0.235 ppbv
RT: 3.12 min Scan# 105
Delta R.T. -0.02 min
Lab File: VL036549.D
Acq: 29 Mar 2021 21:33

Tgt Ion: 50 Resp: 24693
Ion Ratio Lower Upper
50 100
52 19.3 27.0 40.6#





#9

Propene

Concen: 0.936 ppbv

RT: 3.01 min Scan# 69

Delta R.T. -0.00 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

Instrument :

MSVOA_L

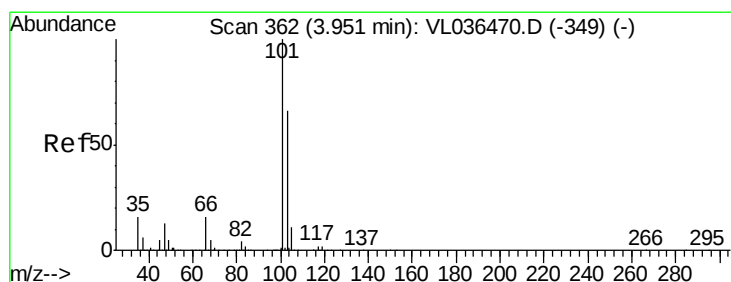
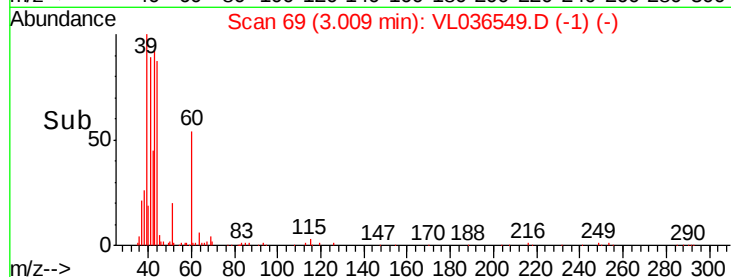
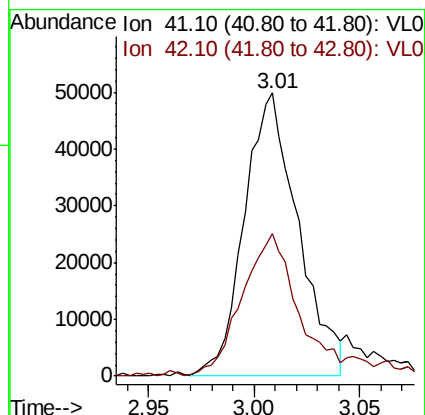
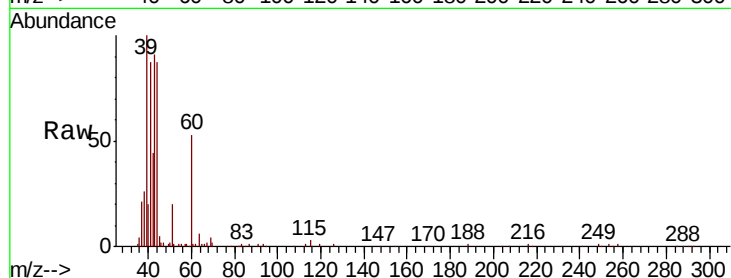
ClientSampleId :

Tot Ion: 41 Resp: 88777

Ion Ratio Lower Upper

41 100

42 57.7 57.0 85.4



#11

Trichlorofluoromethane

Concen: 0.184 ppbv

RT: 3.94 min Scan# 358

Delta R.T. -0.01 min

Lab File: VL036549.D

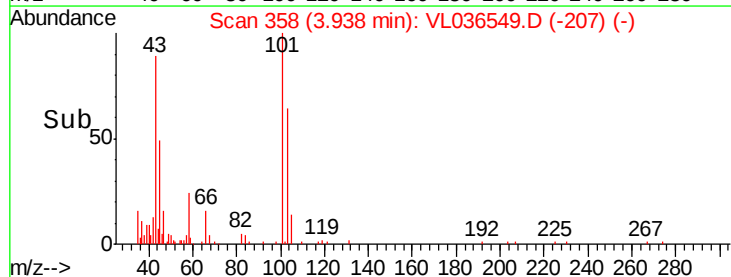
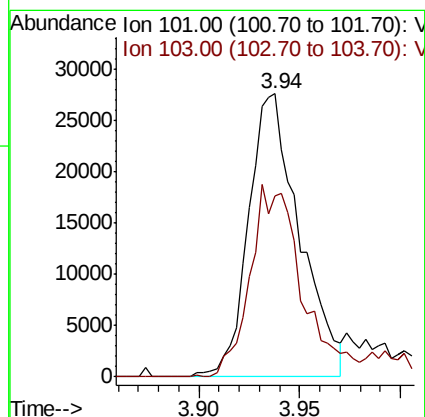
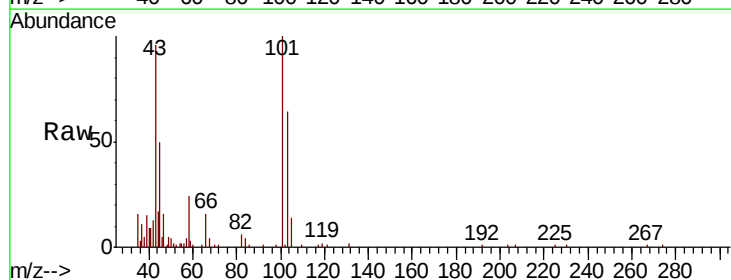
Acq: 29 Mar 2021 21:33

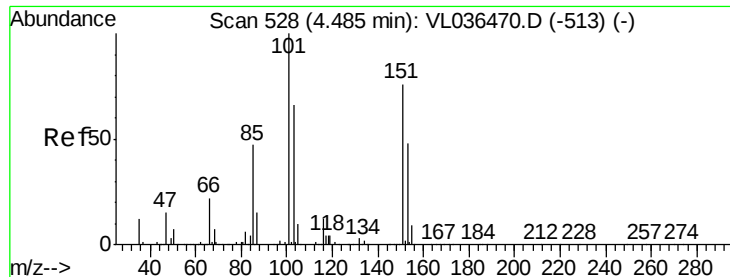
Tgt Ion: 101 Resp: 48696

Ion Ratio Lower Upper

101 100

103 63.0 52.5 78.7





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.025 ppbv

RT: 4.47 min Scan# 523

Delta R.T. -0.02 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

Instrument :

MSVOA_L

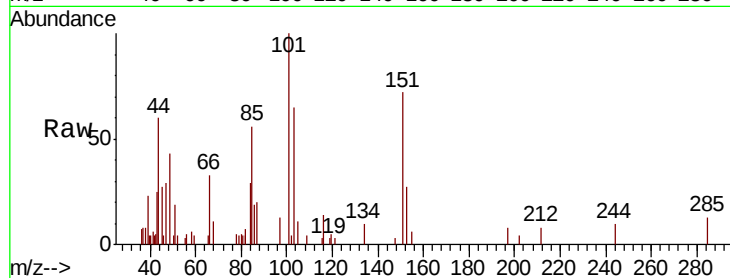
ClientSampleId :

Tot Ion:101 Resp: 4305

Ion Ratio Lower Upper

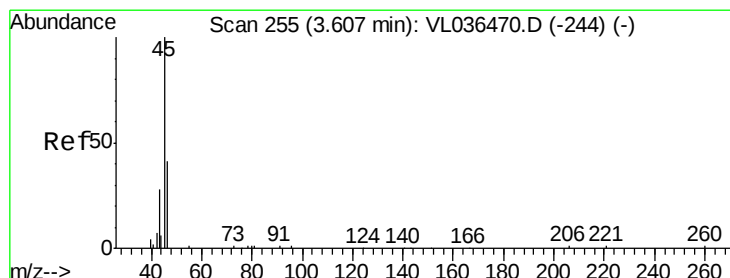
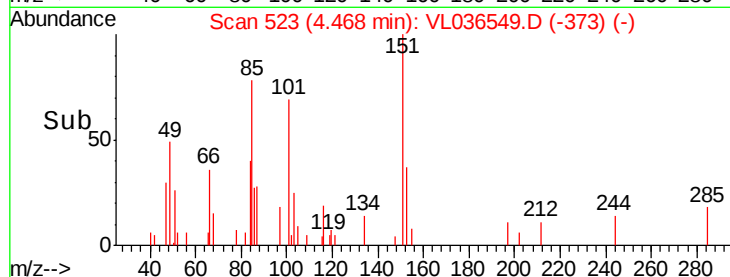
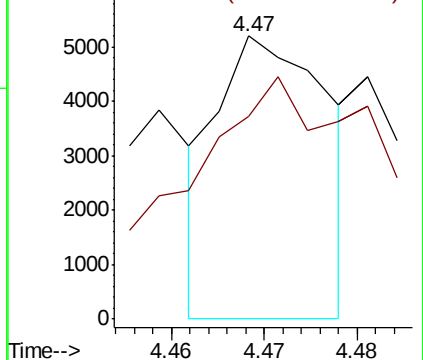
101 100

151 199.6 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: 90.262 ppbv

RT: 3.59 min Scan# 251

Delta R.T. -0.01 min

Lab File: VL036549.D

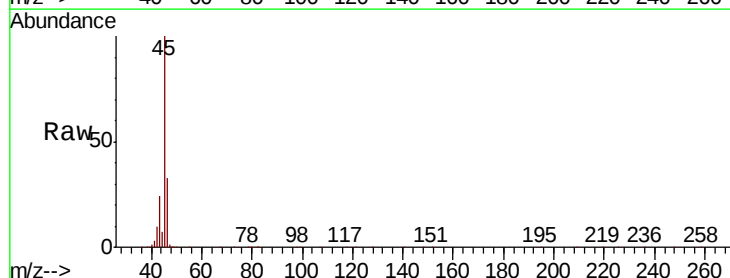
Acq: 29 Mar 2021 21:33

Tgt Ion: 45 Resp: 1019192

Ion Ratio Lower Upper

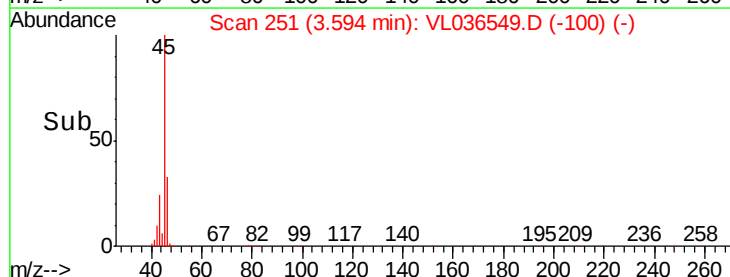
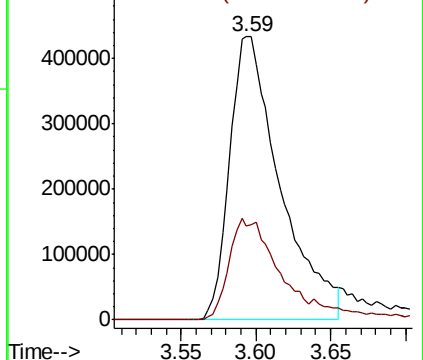
45 100

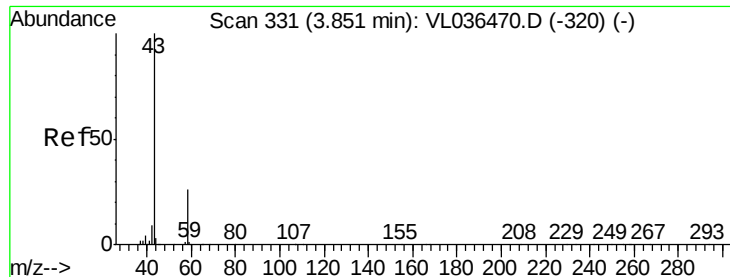
46 39.9 16.6 66.2



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 10.789 ppbv

RT: 3.83 min Scan# 326

Delta R.T. -0.02 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

Instrument :

MSVOA_L

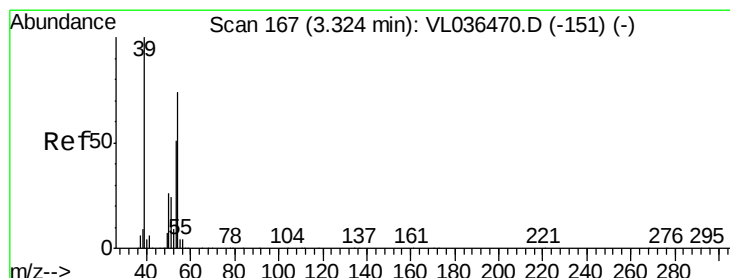
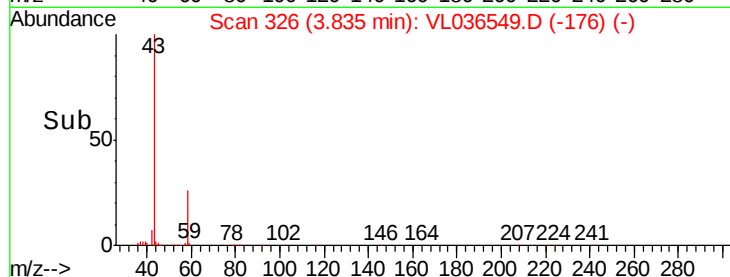
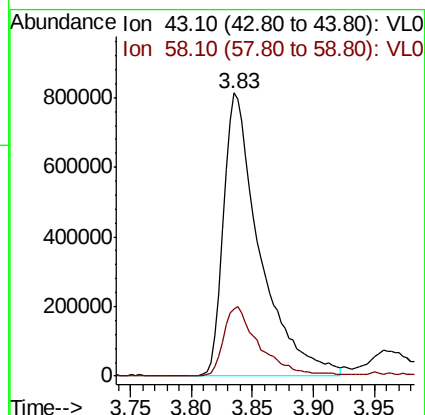
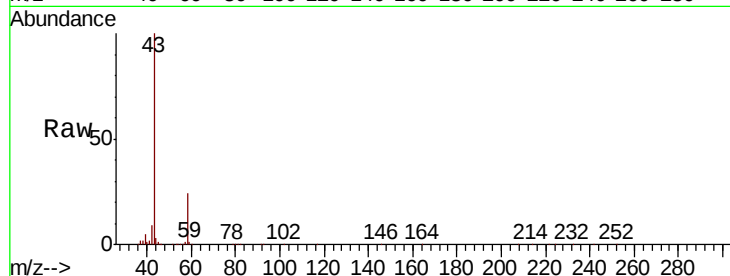
ClientSampleId :

Tot Ion: 43 Resp: 1690474

Ion Ratio Lower Upper

43 100

58 24.6 21.2 31.8



#16

1,3-Butadiene

Concen: 0.023 ppbv

RT: 3.31 min Scan# 162

Delta R.T. -0.02 min

Lab File: VL036549.D

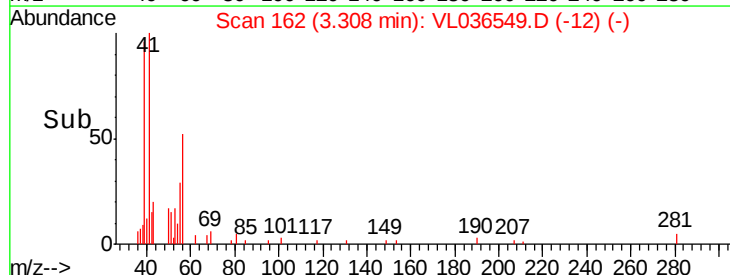
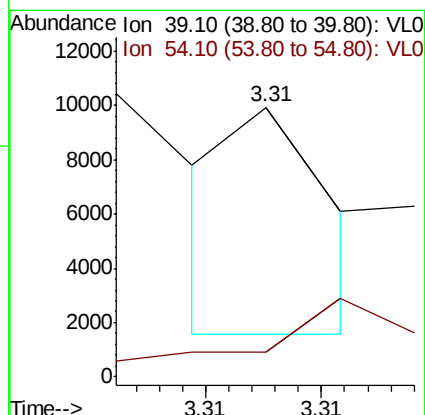
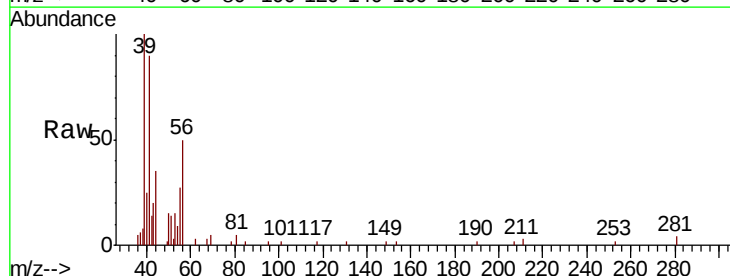
Acq: 29 Mar 2021 21:33

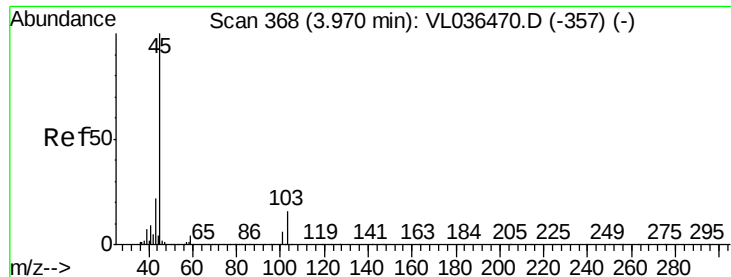
Tgt Ion: 39 Resp: 2484

Ion Ratio Lower Upper

39 100

54 260.8 58.8 88.2#





#19

Isopropyl Alcohol

Concen: 5.252 ppbv

RT: 3.96 min Scan# 365

Delta R.T. -0.01 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

Instrument :

MSVOA_L

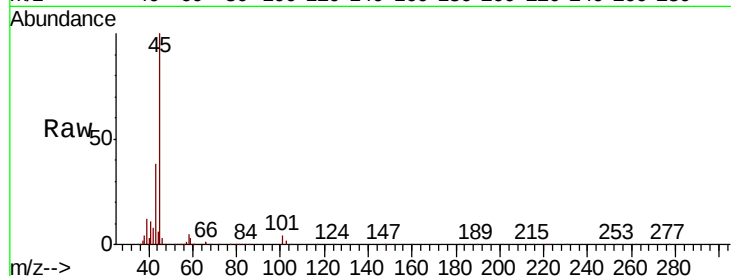
ClientSampleId :

Tot Ion: 45 Resp: 452638

Ion Ratio Lower Upper

45 100

58 5.3 2.9 4.3#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.96

200000

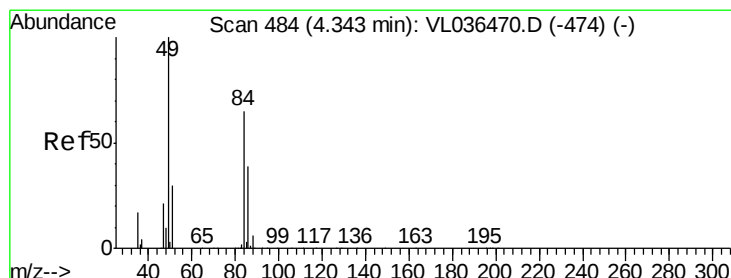
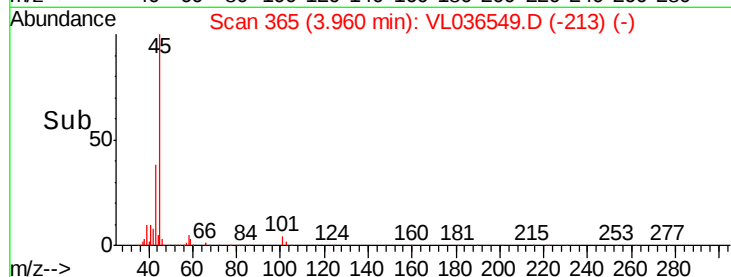
150000

100000

50000

0

Time-->



#20

Methylene Chloride

Concen: 2.015 ppbv

RT: 4.33 min Scan# 479

Delta R.T. -0.02 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

Tgt Ion: 84 Resp: 147816

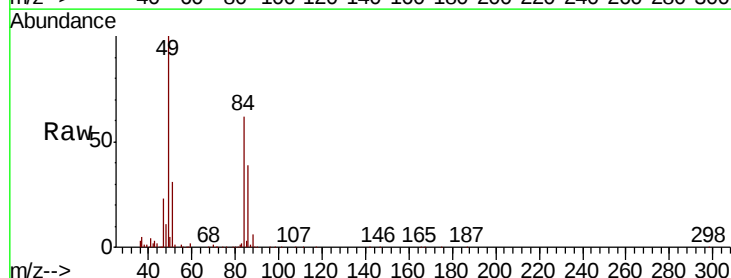
Ion Ratio Lower Upper

84 100

49 159.8 122.9 184.3

51 49.7 36.9 55.3

86 63.1 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

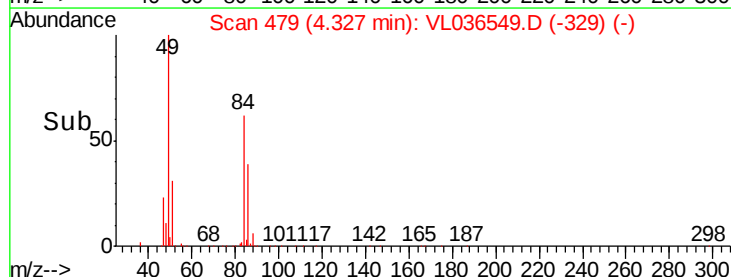
300000

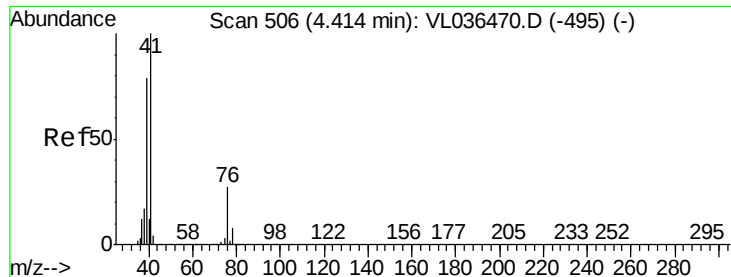
200000

100000

0

Time-->

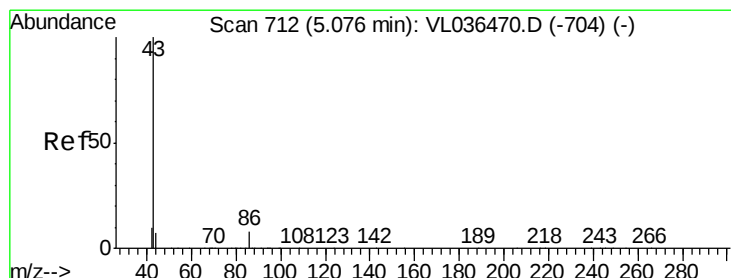
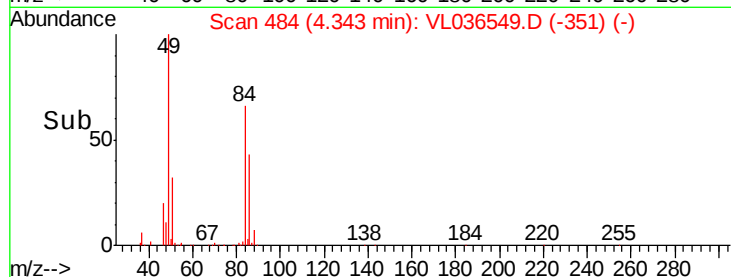
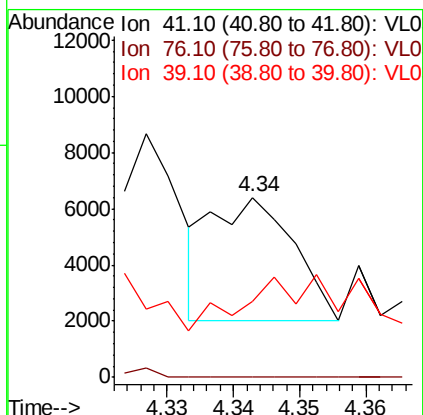
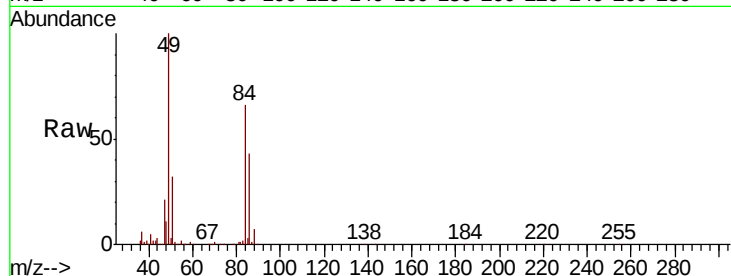




#21
Allvl Chloride
Concen: 0.030 ppbv
RT: 4.34 min Scan# 484
Delta R.T. -0.07 min
Lab File: VL036549.D
Acq: 29 Mar 2021 21:33

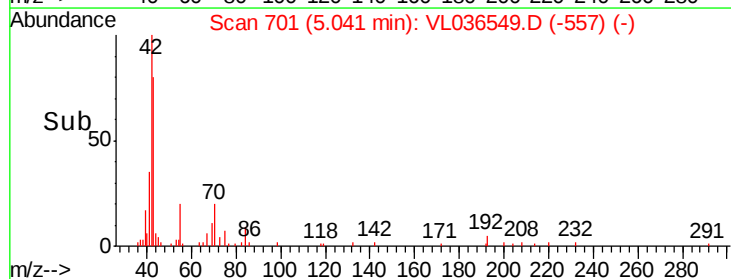
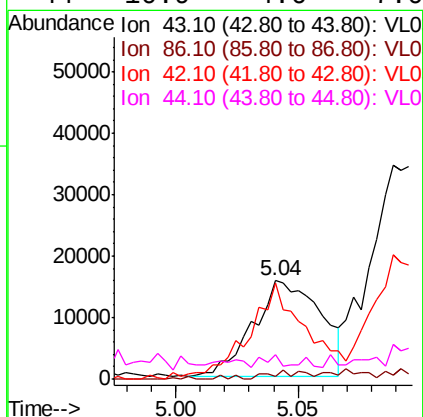
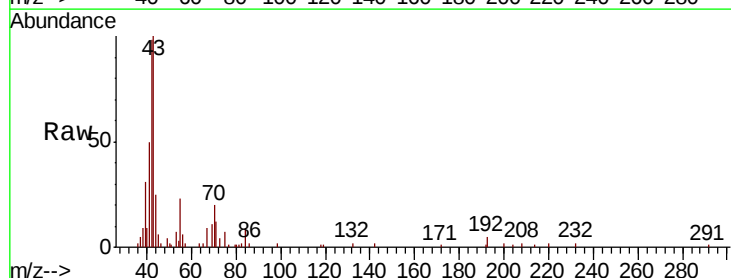
Instrument :
MSVOA_L
ClientSampled :

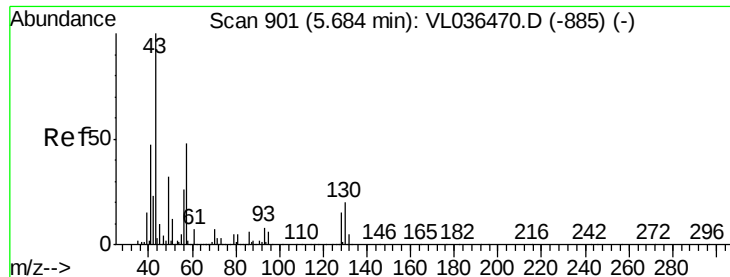
Tot Ion: 41 Resp: 3706
Ion Ratio Lower Upper
41 100
76 0.0 22.9 34.3#
39 129.7 67.3 100.9#



#23
Vinyl Acetate
Concen: 0.111 ppbv
RT: 5.04 min Scan# 701
Delta R.T. -0.04 min
Lab File: VL036549.D
Acq: 29 Mar 2021 21:33

Tgt Ion: 43 Resp: 29674
Ion Ratio Lower Upper
43 100
86 0.0 5.4 8.0#
42 95.5 8.5 12.7#
44 10.9 4.6 7.0#

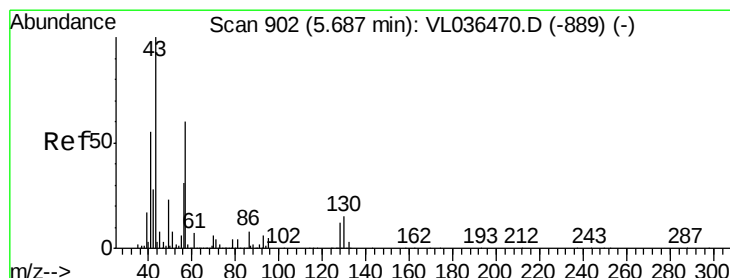
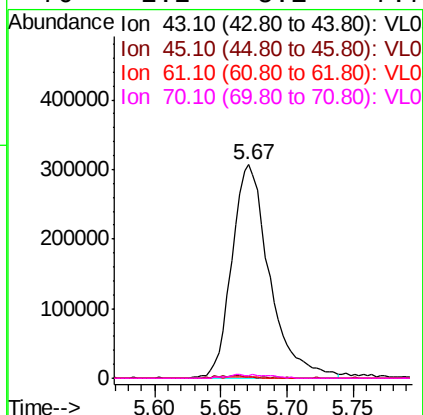
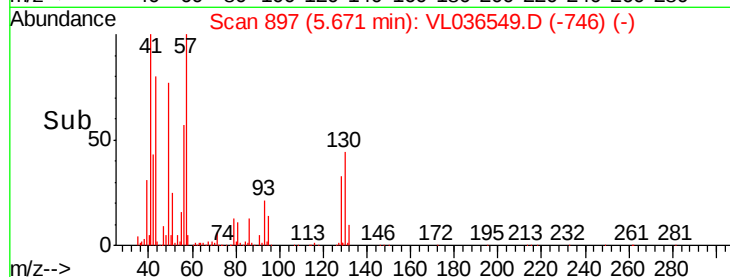
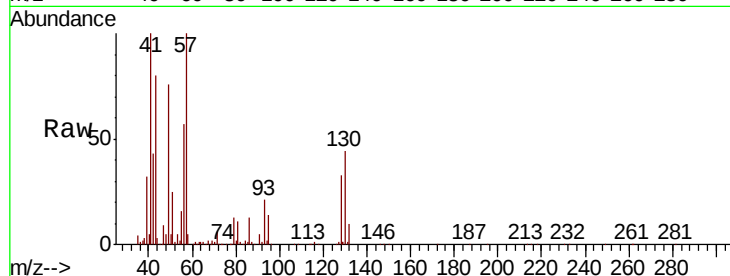




#25
Ethyl Acetate
Concen: 1.613 ppbv
RT: 5.67 min Scan# 897
Delta R.T. -0.01 min
Lab File: VL036549.D
Acq: 29 Mar 2021 21:33

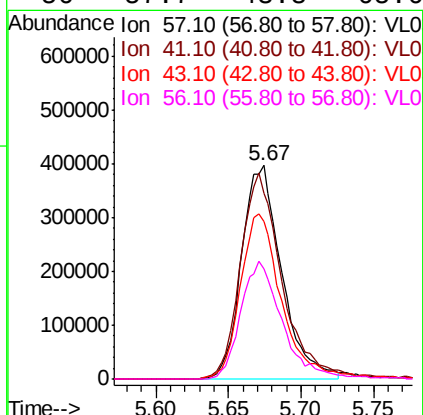
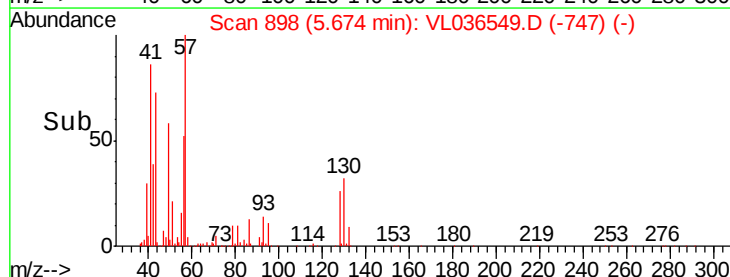
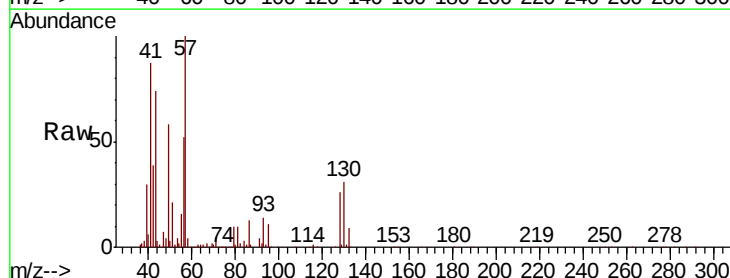
Instrument :
MSVOA_L
ClientSampleId :

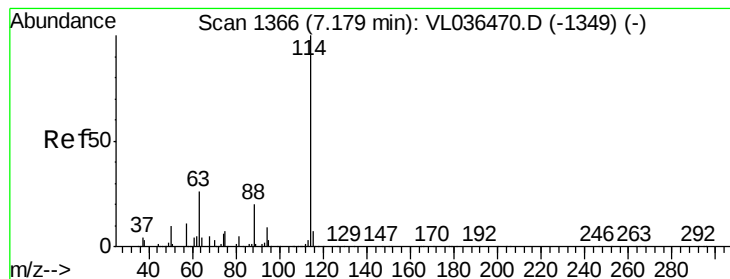
Tot Ion:	43	Resp:	600684
Ion	Ratio	Lower	Upper
43	100		
45	1.6	7.9	11.9#
61	1.0	7.4	11.2#
70	2.2	5.1	7.7#



#26
Hexane
Concen: 4.400 ppbv
RT: 5.67 min Scan# 898
Delta R.T. -0.01 min
Lab File: VL036549.D
Acq: 29 Mar 2021 21:33

Tgt Ion:	57	Resp:	760572
Ion	Ratio	Lower	Upper
57	100		
41	102.1	77.2	115.8
43	81.2	173.8	260.6#
56	57.7	43.8	65.6





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 min Scan# 1359

Delta R.T. -0.02 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

Instrument :

MSVOA_L

ClientSampleId :

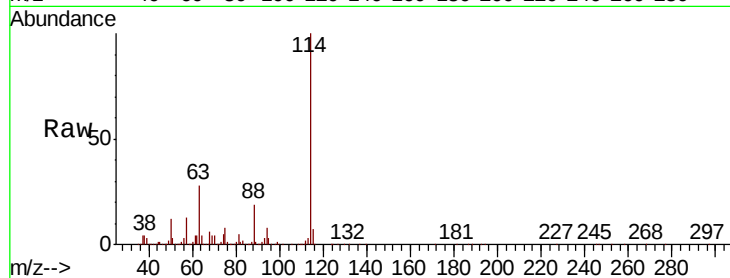
Tot Ion:114 Resp: 3560108

Ion Ratio Lower Upper

114 100

63 28.6 22.4 33.6

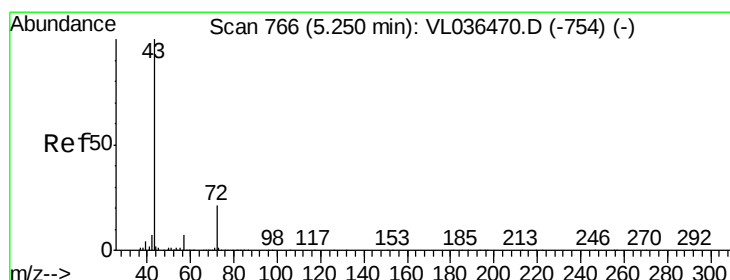
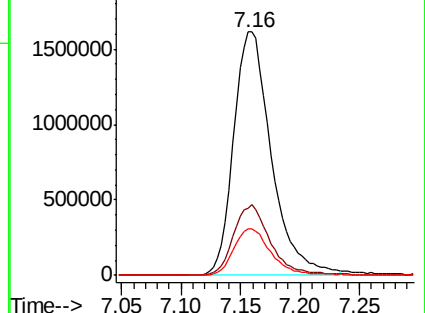
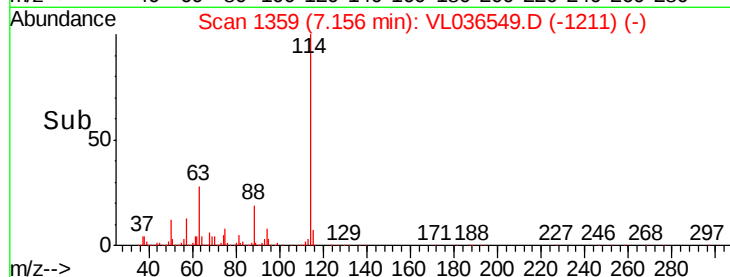
88 19.3 15.4 23.0



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: 0.466 ppbv

RT: 5.24 min Scan# 762

Delta R.T. -0.01 min

Lab File: VL036549.D

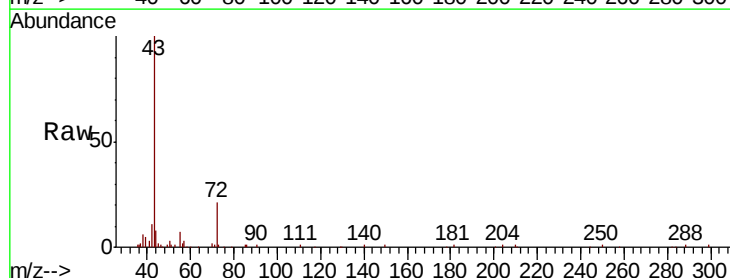
Acq: 29 Mar 2021 21:33

Tgt Ion: 43 Resp: 81050

Ion Ratio Lower Upper

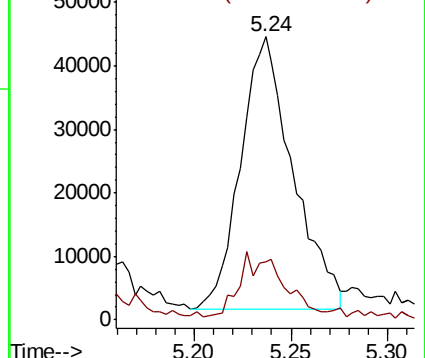
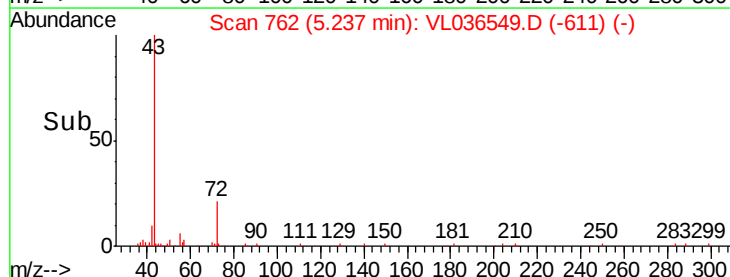
43 100

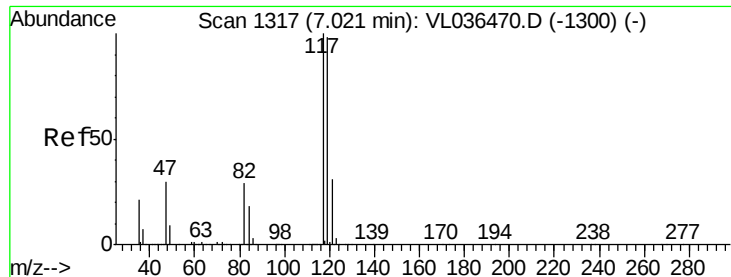
72 25.2 17.0 25.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.032 ppbv

RT: 7.00 min Scan# 1311

Delta R.T. -0.02 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

Instrument :

MSVOA_L

ClientSampleId :

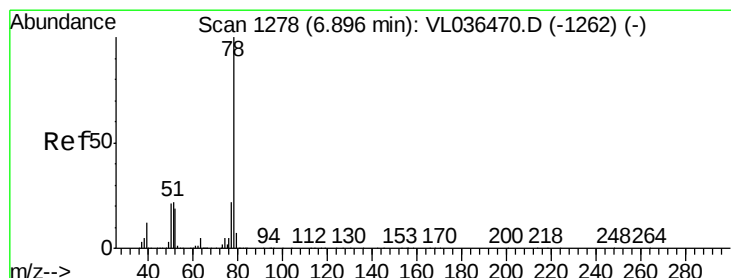
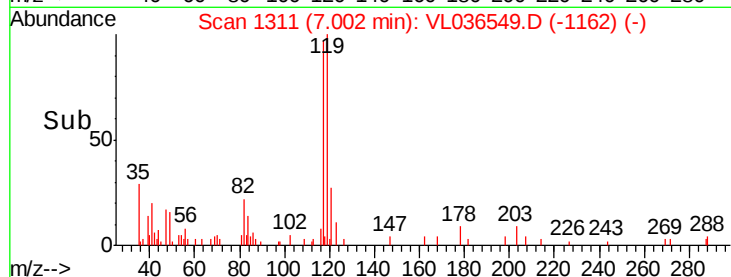
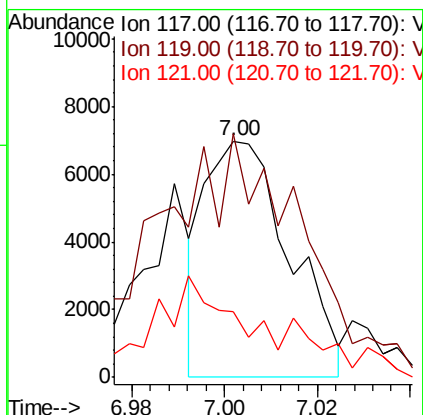
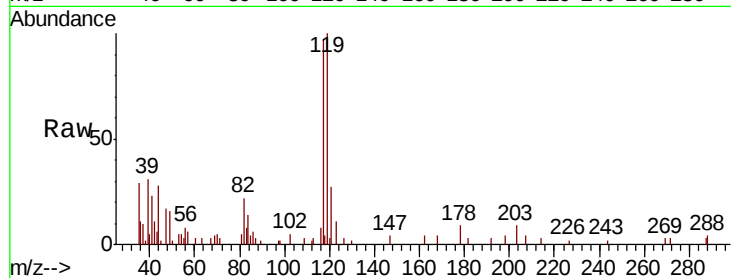
Tot Ion:117 Resp: 8861

Ion Ratio Lower Upper

117 100

119 81.9 78.2 117.2

121 15.8 24.5 36.7#



#36

Benzene

Concen: 0.023 ppbv

RT: 6.90 min Scan# 1278

Delta R.T. -0.00 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

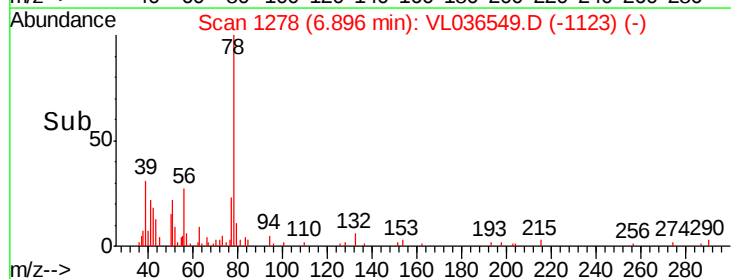
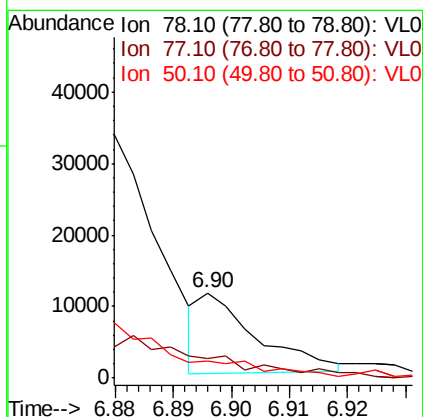
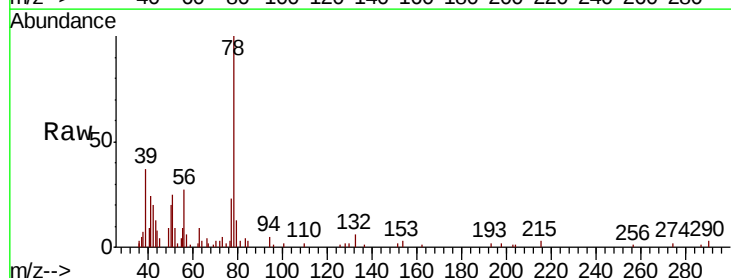
Tgt Ion: 78 Resp: 7681

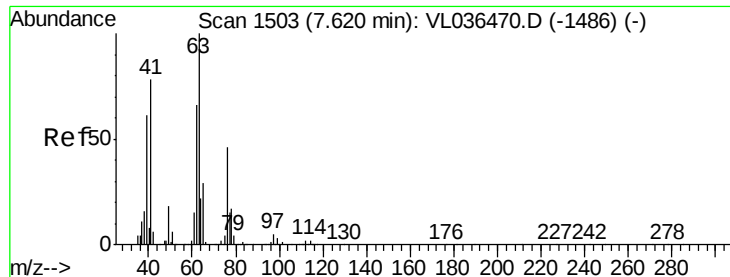
Ion Ratio Lower Upper

78 100

77 20.2 18.0 27.0

50 22.5 16.5 24.7





#39

1,2-Dichloropropane

Concen: 7.471 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.46 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

Instrument :

MSVOA_L

ClientSampleId :

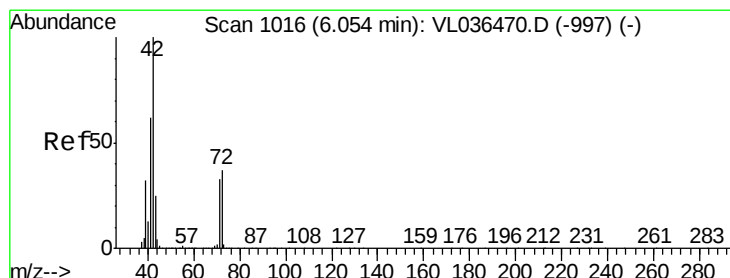
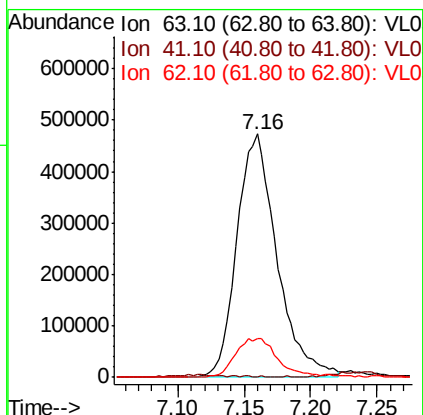
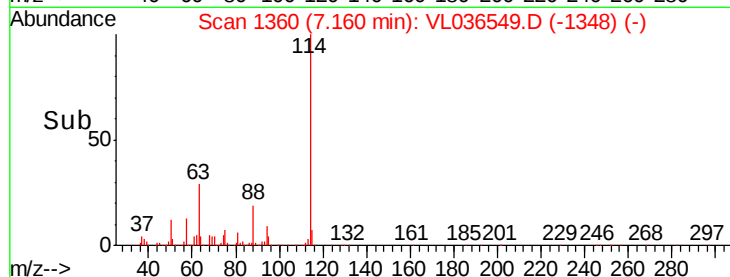
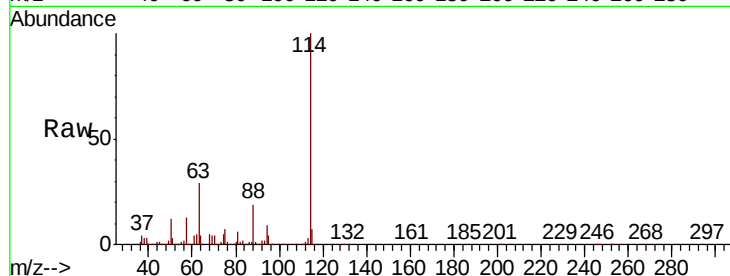
Tot Ion: 63 Resp: 995018

Ion Ratio Lower Upper

63 100

41 0.0 62.4 93.6#

62 16.1 52.8 79.2#



#41

Tetrahydrofuran

Concen: 4.254 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.39 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

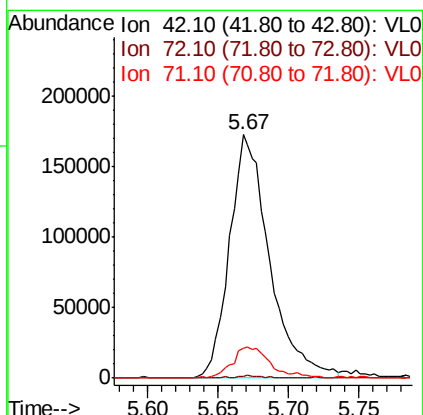
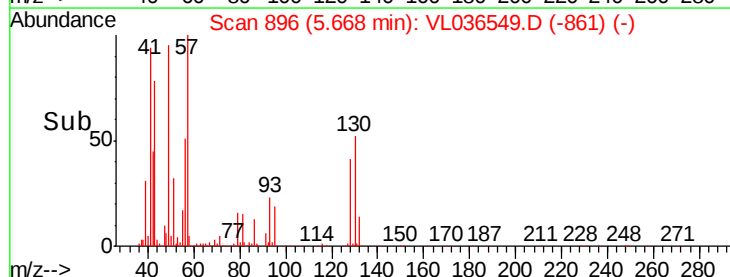
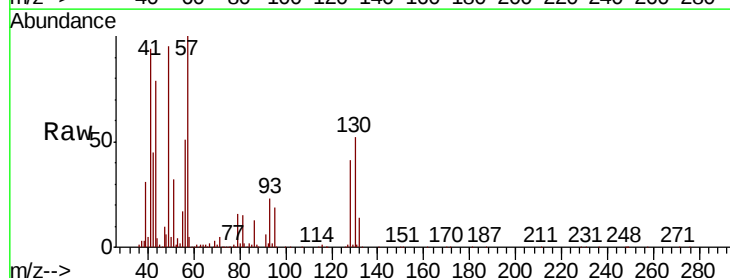
Tgt Ion: 42 Resp: 340897

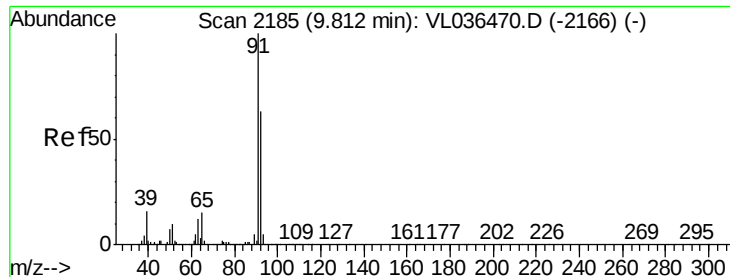
Ion Ratio Lower Upper

42 100

72 0.8 27.6 41.4#

71 12.7 27.0 40.4#





#53

Toluene

Concen: 1.036 ppbv

RT: 9.79 min Scan# 2177

Delta R.T. -0.03 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

Instrument :

MSVOA_L

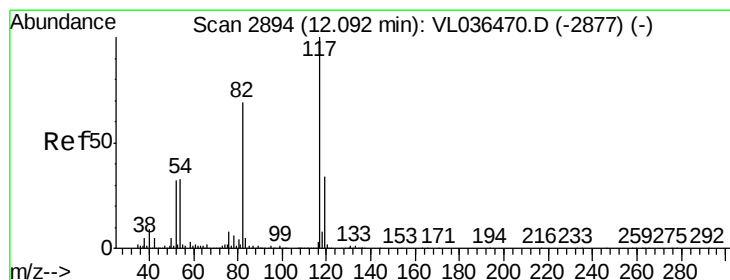
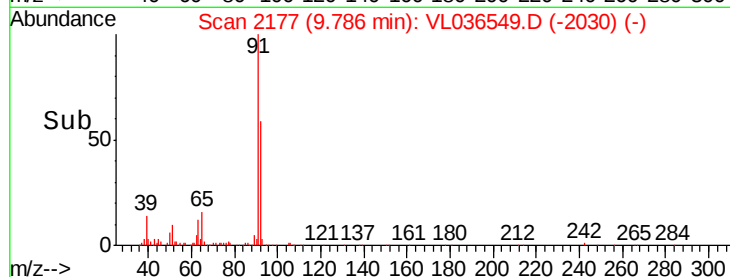
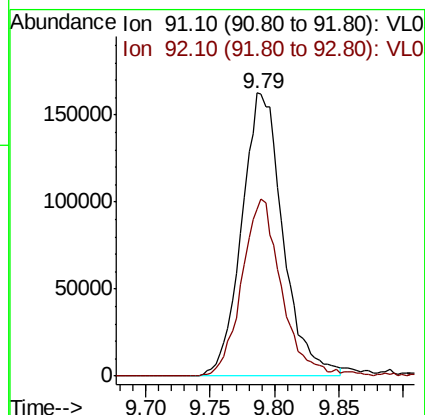
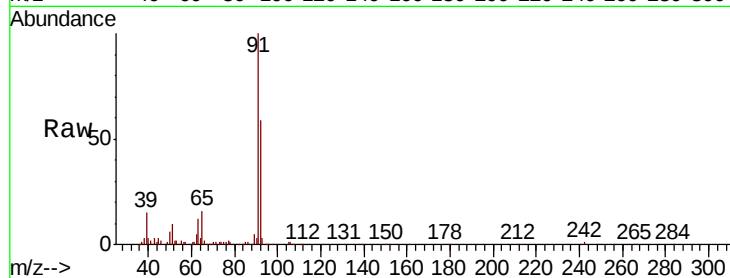
ClientSampleId :

Tot Ion: 91 Resp: 362371

Ion Ratio Lower Upper

91 100

92 60.4 48.8 73.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2887

Delta R.T. -0.02 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

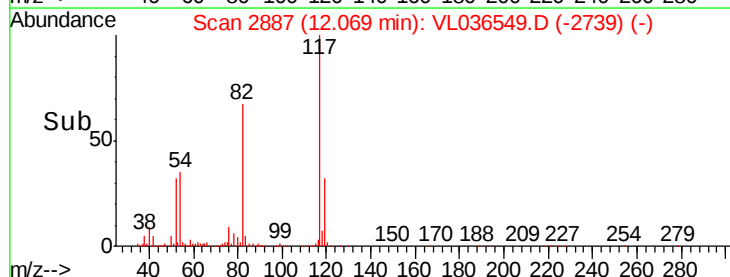
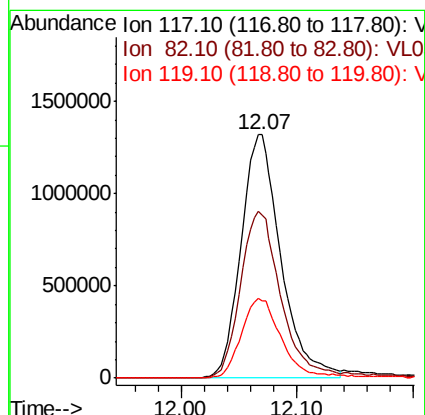
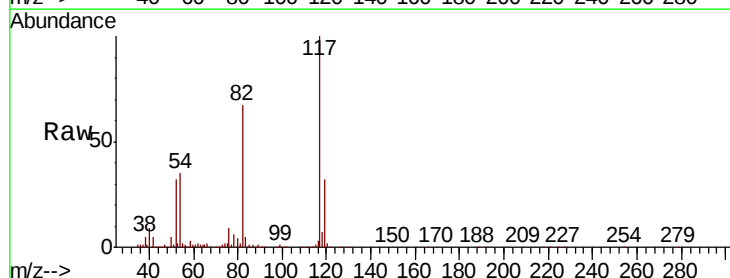
Tgt Ion: 117 Resp: 3148586

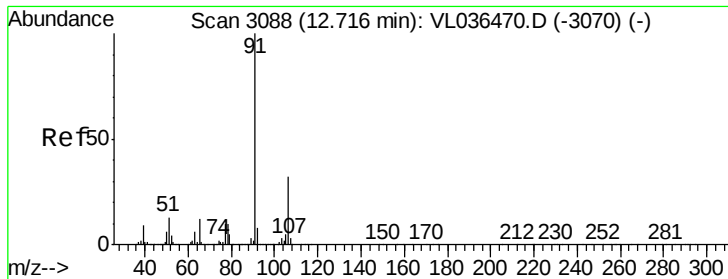
Ion Ratio Lower Upper

117 100

82 72.0 57.4 86.0

119 34.1 47.4 71.0#





#58

Ethyl Benzene

Concen: 0.068 ppbv

RT: 12.69 min Scan# 3081

Delta R.T. -0.02 min

Lab File: VL036549.D

Acq: 29 Mar 2021 21:33

Instrument :

MSVOA_L

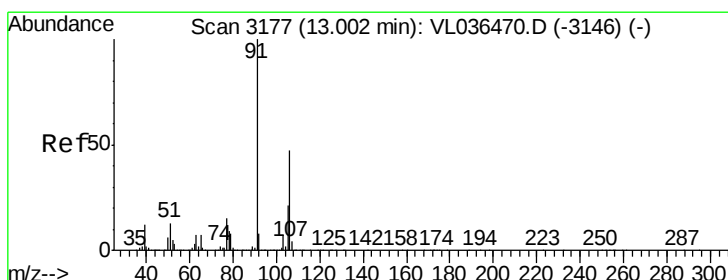
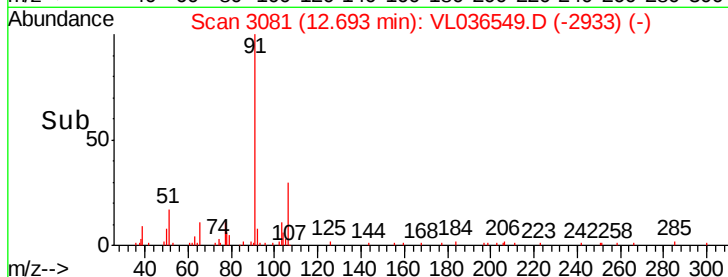
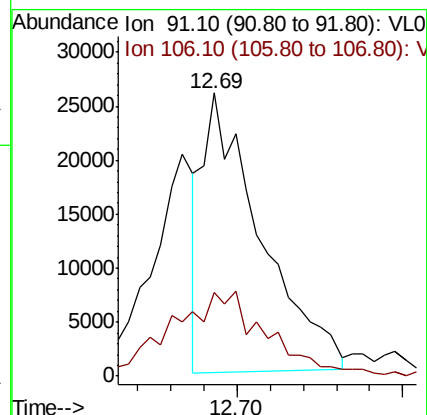
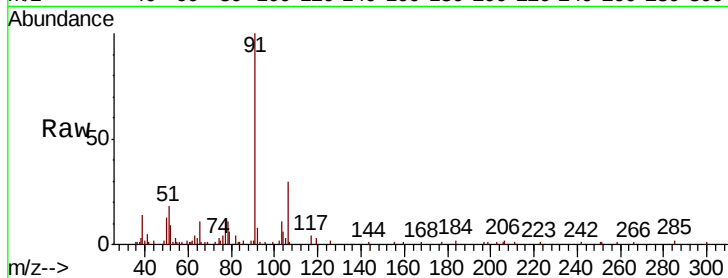
ClientSampleId :

Tot Ion: 91 Resp: 31361

Ion Ratio Lower Upper

91 100

106 28.9 25.3 37.9



#59

m/p-Xylene

Concen: 0.105 ppbv

RT: 12.99 min Scan# 3172

Delta R.T. -0.02 min

Lab File: VL036549.D

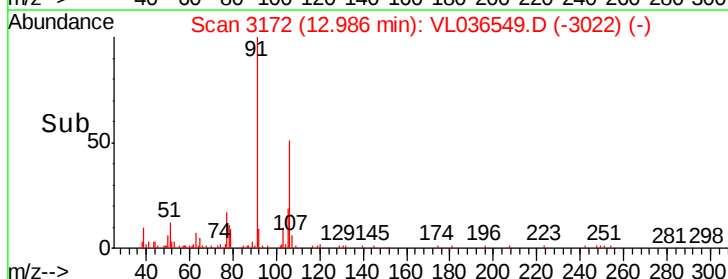
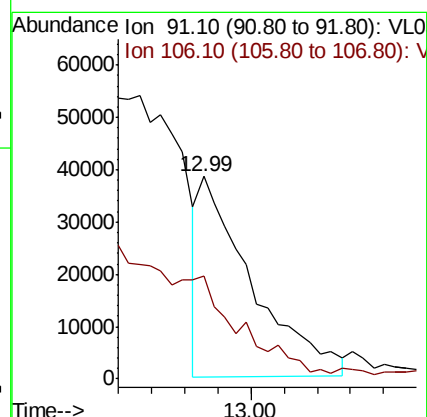
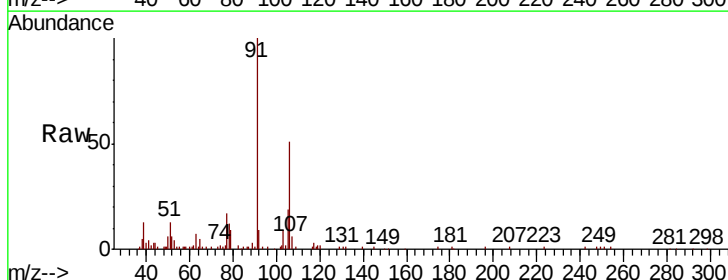
Acq: 29 Mar 2021 21:33

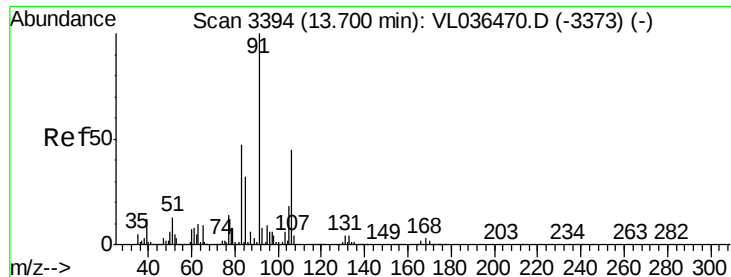
Tgt Ion: 91 Resp: 42031

Ion Ratio Lower Upper

91 100

106 0.0 35.3 52.9#

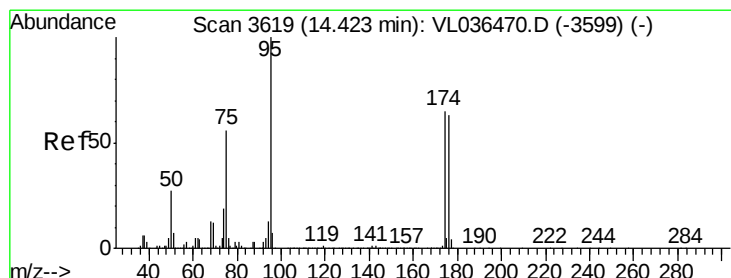
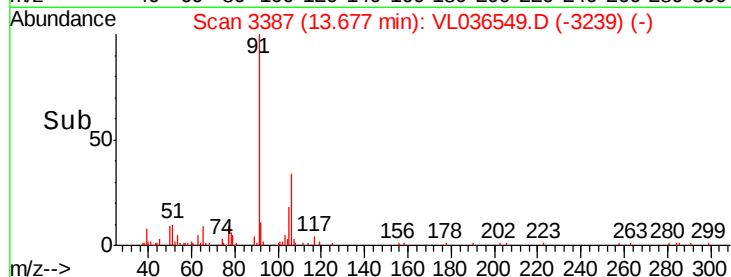
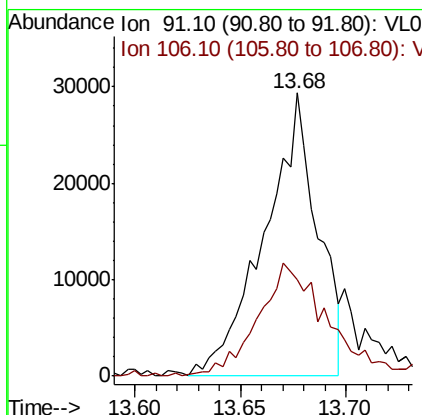
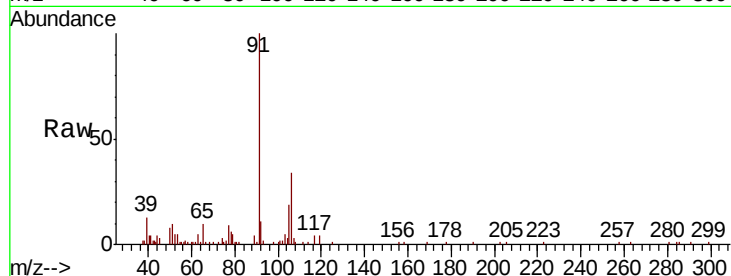




#60
o-Xylene
Concen: 0.132 ppbv
RT: 13.68 min Scan# 3387
Delta R.T. -0.02 min
Lab File: VL036549.D
Acq: 29 Mar 2021 21:33

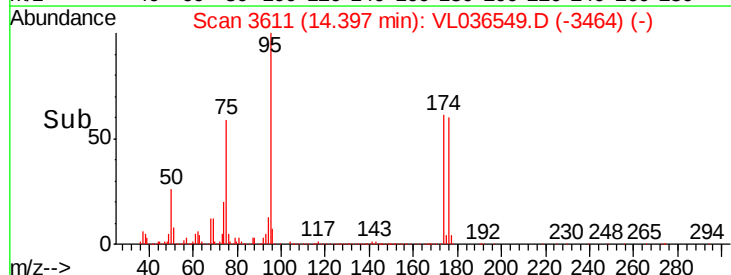
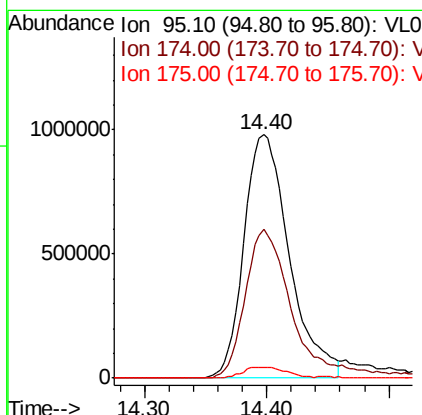
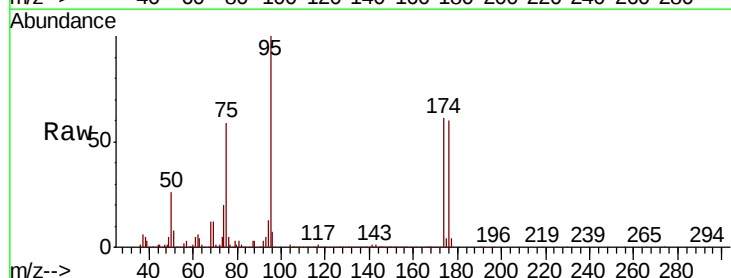
Instrument :
MSVOA_L
ClientSampleId :

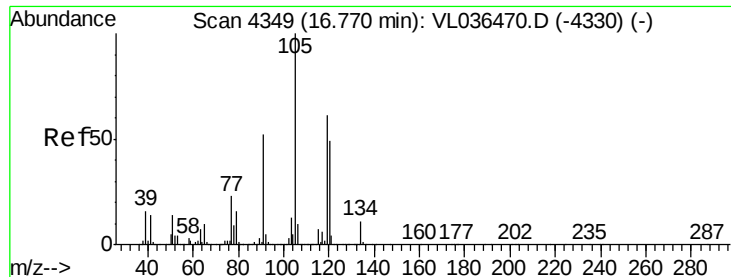
Tot Ion: 91 Resp: 51118
Ion Ratio Lower Upper
91 100
106 54.9 22.3 66.9



#68
1-Bromo-4-Fluorobenzene
Concen: 10.050 ppbv
RT: 14.40 min Scan# 3611
Delta R.T. -0.03 min
Lab File: VL036549.D
Acq: 29 Mar 2021 21:33

Tgt Ion: 95 Resp: 2522101
Ion Ratio Lower Upper
95 100
174 66.2 51.0 76.6
175 4.8 3.9 5.9





#74
 1,2,4-Trimethylbenzene
 Concen: 0.024 ppbv
 RT: 16.74 min Scan# 4341
 Delta R.T. -0.03 min
 Lab File: VL036549.D
 Acq: 29 Mar 2021 21:33

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:	105	Resp:	10001
Ion	Ratio	Lower	Upper
105	100		
120	33.2	39.2	58.8#
91	28.4	42.6	64.0#
77	7.4	18.6	28.0#

