

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032921\
 Data File : VL036548.D
 Acq On : 29 Mar 2021 20:52
 Operator : SY/AP
 Sample : M1760-13
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Mar 30 06:42:56 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	1529965	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	3495682	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.07	117	3143447	10.00	ppbv	-0.02

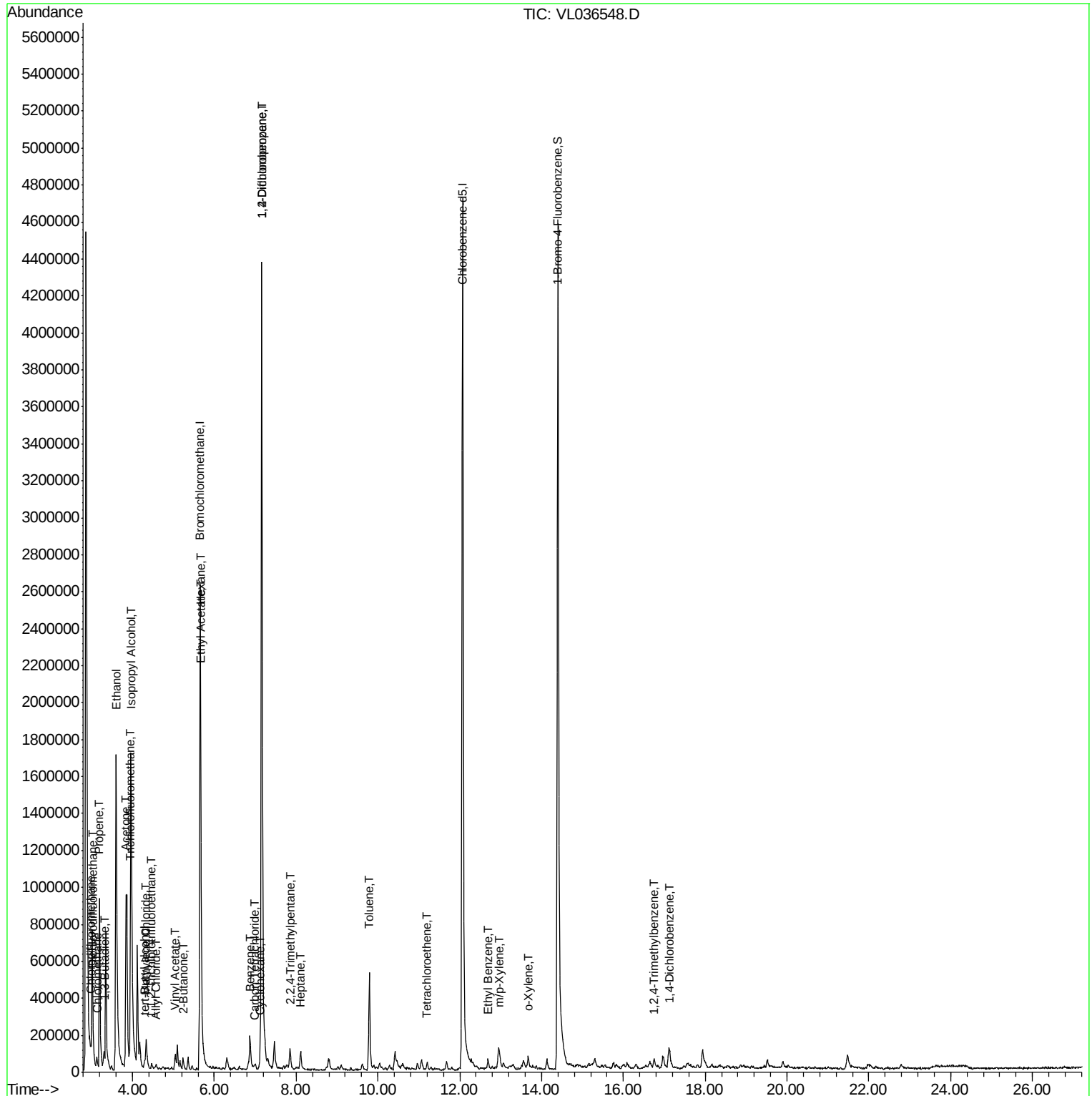
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.40	95	2490169	9.94	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.40%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.04	85	65193	0.261	ppbv 91
3) Chlorodifluoromethane	2.98	51	189253	0.662	ppbv # 80
4) Chloromethane	3.13	50	55493	0.550	ppbv # 79
9) Propene	3.19	41	314174	3.448	ppbv 99
10) Heptane	8.10	43	19696	0.085	ppbv # 57
11) Trichlorofluoromethane	3.94	101	51973	0.204	ppbv 89
12) 1,1,2-Trichlorotrifluoroet	4.47	101	11320	0.070	ppbv 91
13) Ethanol	3.60	45	2346546	216.233	ppbv 94
15) Acetone	3.84	43	1398508	9.287	ppbv 92
16) 1,3-Butadiene	3.32	39	6489	0.062	ppbv # 1
17) tert-Butyl alcohol	4.29	59	6567	0.050	ppbv # 72
19) Isopropyl Alcohol	3.96	45	2463619	29.741	ppbv # 97
20) Methylene Chloride	4.34	84	58337	0.827	ppbv 87
21) Allyl Chloride	4.57	41	3312	0.028	ppbv # 20
23) Vinyl Acetate	5.04	43	42308	0.164	ppbv # 22
25) Ethyl Acetate	5.67	43	116840	0.326	ppbv # 93
26) Hexane	5.67	57	89847	0.541	ppbv # 63
30) Cyclohexane	7.10	84	3889	0.029	ppbv # 1
34) 2-Butanone	5.24	43	73137	0.429	ppbv 96
35) Carbon Tetrachloride	7.00	117	9881	0.037	ppbv # 75
36) Benzene	6.87	78	134101	0.416	ppbv 93
39) 1,2-Dichloropropane	7.16	63	974735	7.453	ppbv # 23
44) 2,2,4-Trimethylpentane	7.85	57	40824	0.072	ppbv # 40
52) Tetrachloroethene	11.20	164	2528	0.021	ppbv # 33
53) Toluene	9.79	91	374561	1.091	ppbv 99
58) Ethyl Benzene	12.69	91	41225	0.090	ppbv 91
59) m/p-Xylene	12.98	91	13258	0.033	ppbv # 32
60) o-Xylene	13.68	91	36967	0.096	ppbv 85
74) 1,2,4-Trimethylbenzene	16.74	105	10490	0.025	ppbv # 55
76) 1,4-Dichlorobenzene	17.12	146	11375	0.048	ppbv # 22

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

```
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Acq On    : 29 Mar 2021   20:52  
Operator  : SY/AP  
Sample    : M1760-13  
Misc      : 400mL/MSVOA L  
ALS Vial  : 1    Sample Multiplier: 1
```

Quant Time: Mar 30 06:42:56 2021
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LThu Mar 25 09:42:40 2021
QLast Update : Thu Mar 25 09:42:40 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 891

Delta R.T. -0.02 min

Lab File: VL036548.D

Acq: 29 Mar 2021 20:52

Instrument :

MSVOA_L

ClientSampleId :

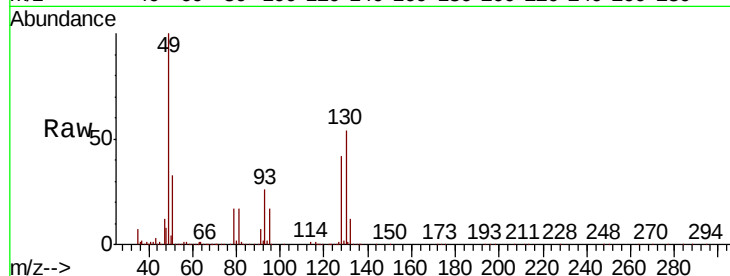
Tot Ion: 49 Resp: 1529965

Ion Ratio Lower Upper

49 100

128 43.6 23.5 70.6

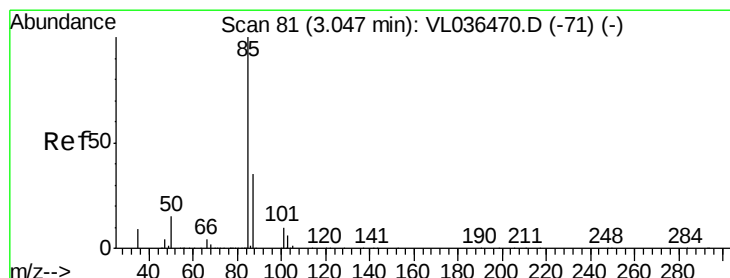
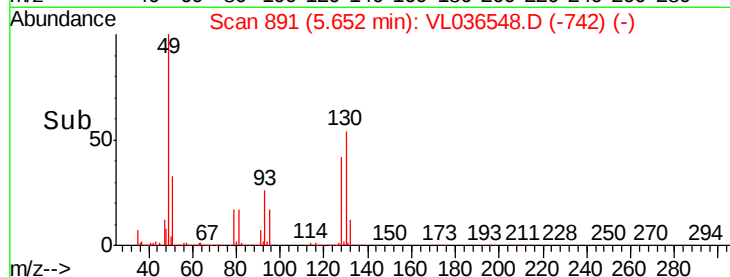
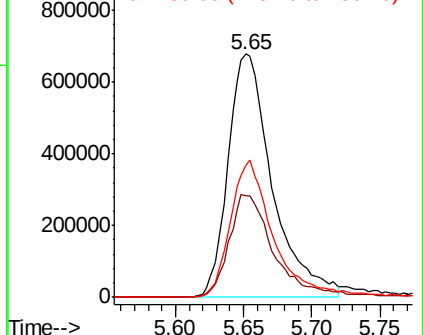
130 55.5 29.1 87.4



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: 0.261 ppbv

RT: 3.04 min Scan# 78

Delta R.T. -0.01 min

Lab File: VL036548.D

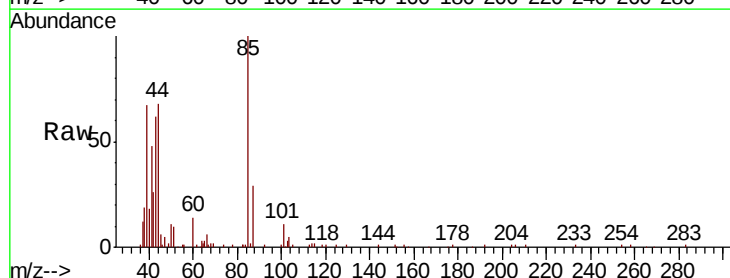
Acq: 29 Mar 2021 20:52

Tgt Ion: 85 Resp: 65193

Ion Ratio Lower Upper

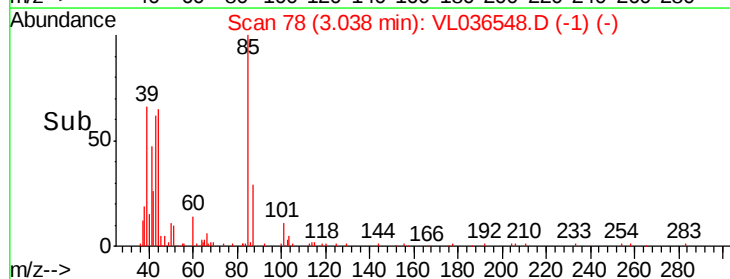
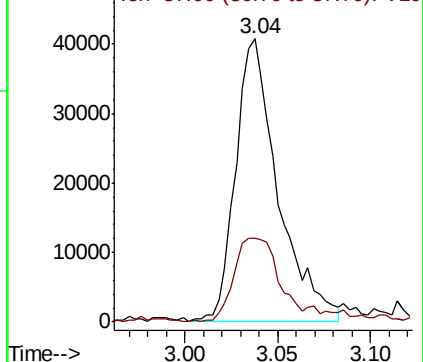
85 100

87 29.4 27.8 41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

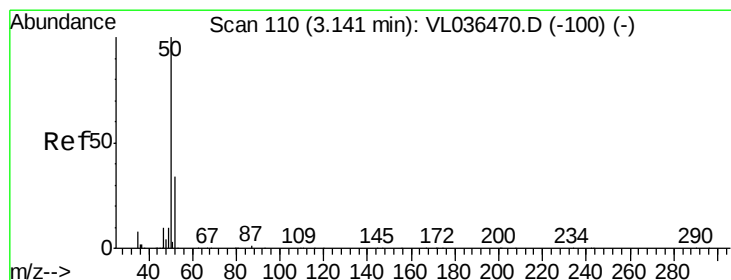
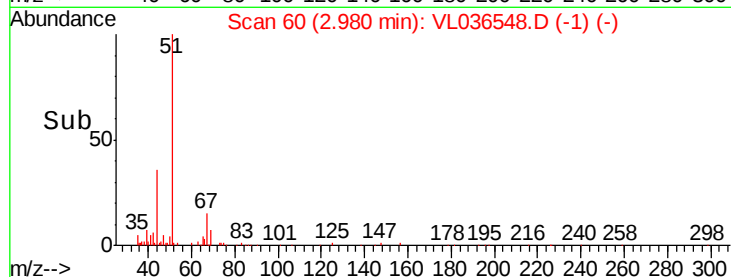
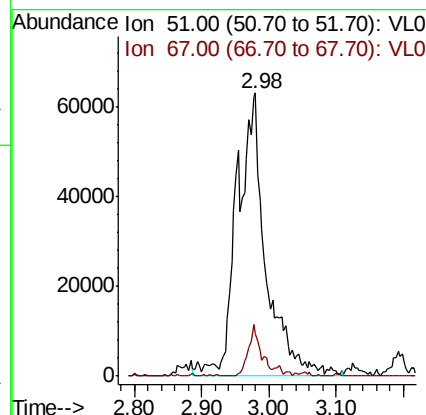
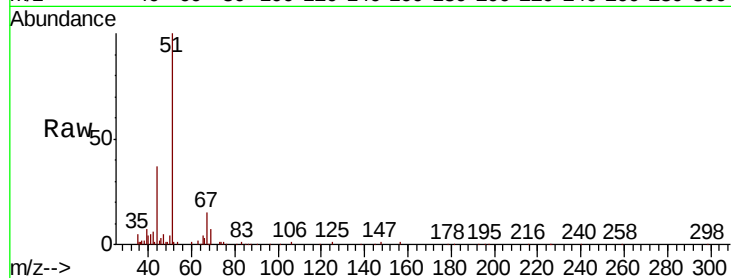




#3
 Chlorodifluoromethane
 Concen: 0.662 ppbv
 RT: 2.98 min Scan# 60
 Delta R.T. -0.01 min
 Lab File: VL036548.D
 Acq: 29 Mar 2021 20:52

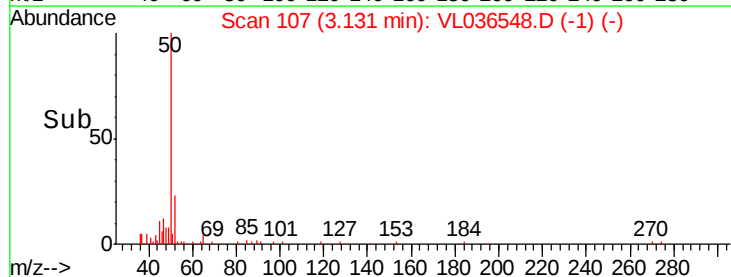
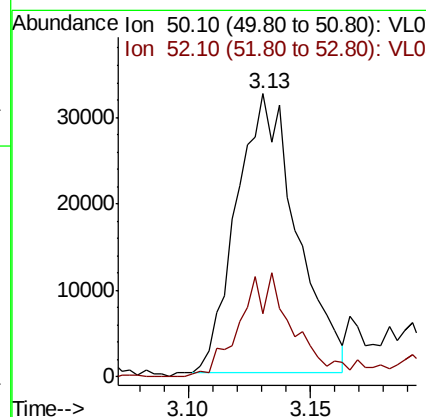
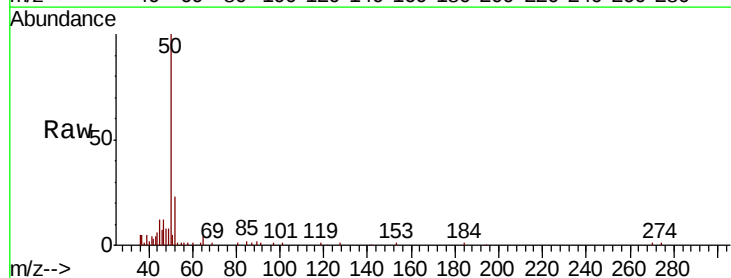
Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion: 51 Resp: 189253
 Ion Ratio Lower Upper
 51 100
 67 9.5 14.7 22.1#



#4
 Chloromethane
 Concen: 0.550 ppbv
 RT: 3.13 min Scan# 107
 Delta R.T. -0.01 min
 Lab File: VL036548.D
 Acq: 29 Mar 2021 20:52

Tgt Ion: 50 Resp: 55493
 Ion Ratio Lower Upper
 50 100
 52 21.7 27.0 40.6#





#9

Propene

Concen: 3.448 ppbv

RT: 3.19 min Scan# 126

Delta R.T. 0.18 min

Lab File: VL036548.D

Acq: 29 Mar 2021 20:52

Instrument :

MSVOA_L

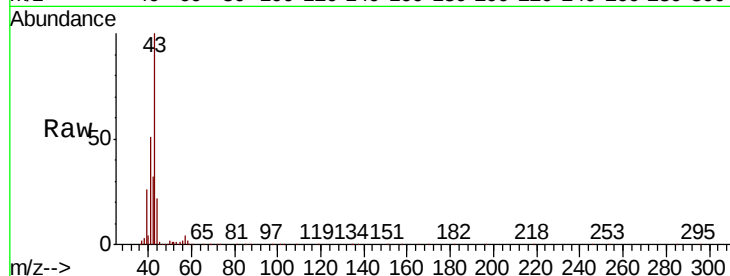
ClientSampleId :

Tot Ion: 41 Resp: 314174

Ion Ratio Lower Upper

41 100

42 70.7 57.0 85.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

3.19

200000

150000

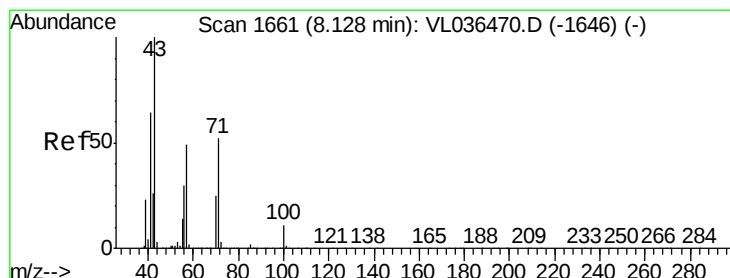
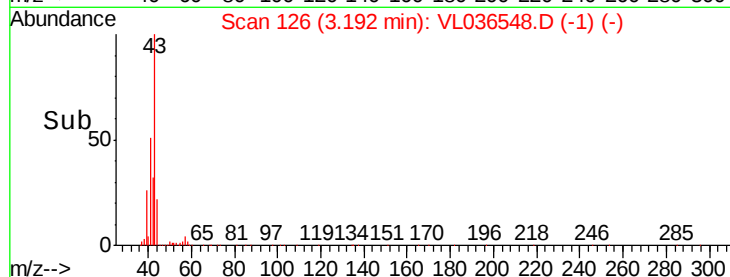
100000

50000

0

3.15 3.20 3.25

Time-->



#10

Heptane

Concen: 0.085 ppbv

RT: 8.10 min Scan# 1654

Delta R.T. -0.02 min

Lab File: VL036548.D

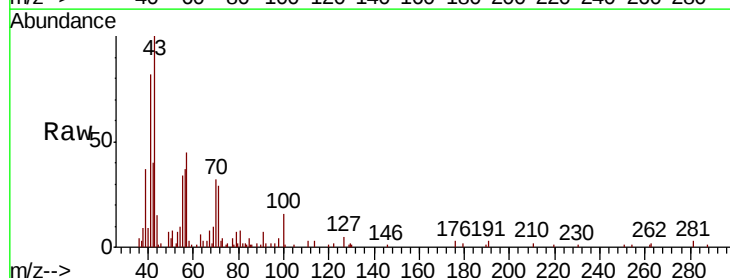
Acq: 29 Mar 2021 20:52

Tgt Ion: 43 Resp: 19696

Ion Ratio Lower Upper

43 100

57 77.8 39.0 58.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

8.10

15000

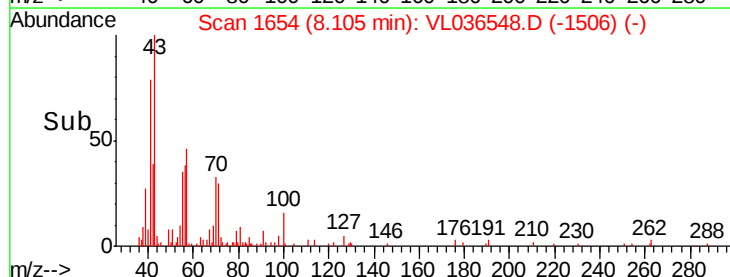
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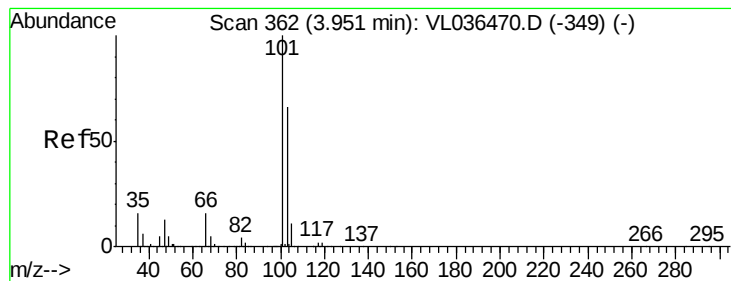
5000

0

8.06 8.08 8.10 8.12

Time-->





#11

Trichlorofluoromethane

Concen: 0.204 ppbv

RT: 3.94 min Scan# 358

Delta R.T. -0.01 min

Lab File: VL036548.D

Acq: 29 Mar 2021 20:52

Instrument :

MSVOA_L

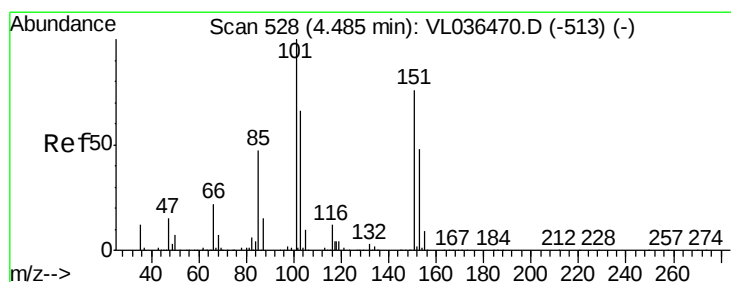
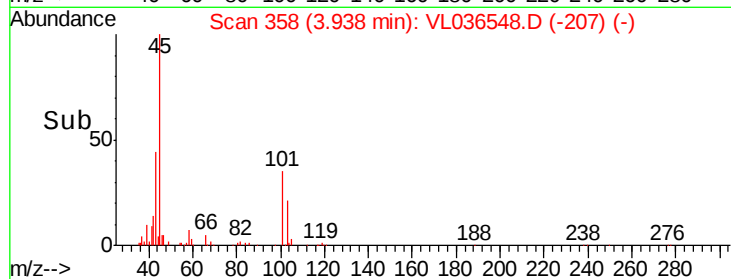
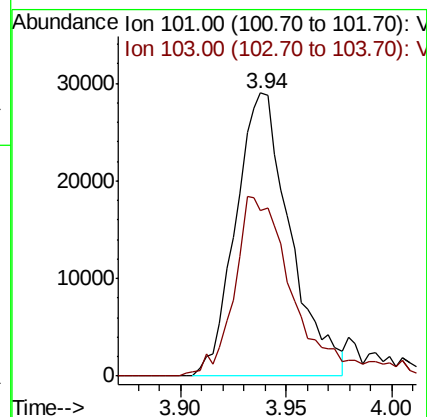
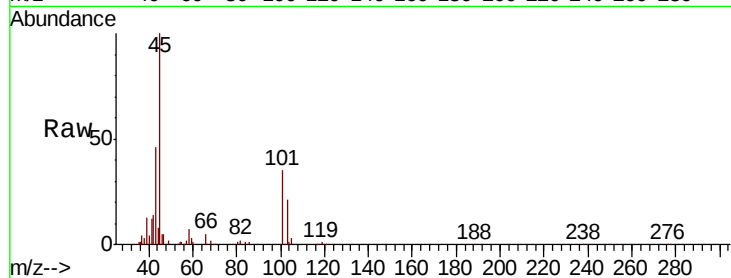
ClientSampleId :

Tot Ion:101 Resp: 51973

Ion Ratio Lower Upper

101 100

103 57.1 52.5 78.7



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.070 ppbv

RT: 4.47 min Scan# 523

Delta R.T. -0.02 min

Lab File: VL036548.D

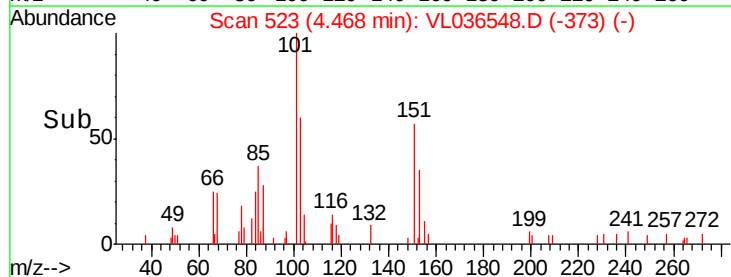
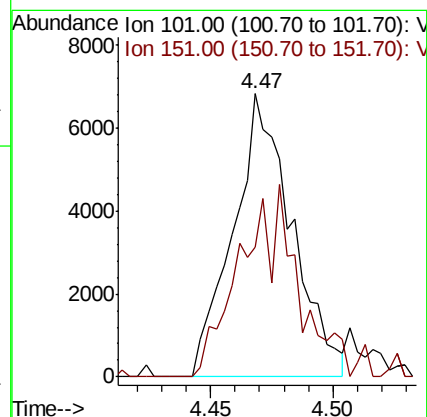
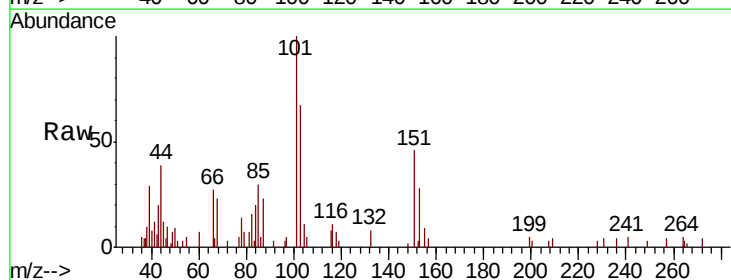
Acq: 29 Mar 2021 20:52

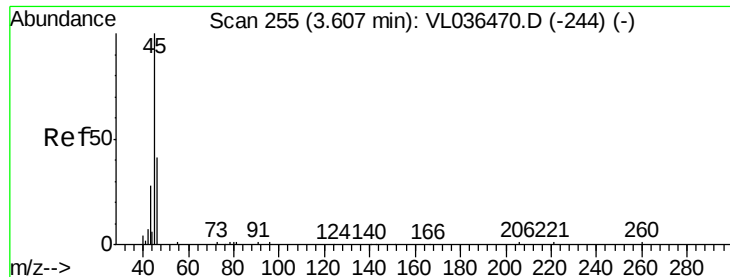
Tgt Ion:101 Resp: 11320

Ion Ratio Lower Upper

101 100

151 68.8 60.9 91.3





#13

Ethanol

Concen: 216.233 ppbv

RT: 3.60 min Scan# 252

Delta R.T. -0.01 min

Lab File: VL036548.D

Acq: 29 Mar 2021 20:52

Instrument :

MSVOA_L

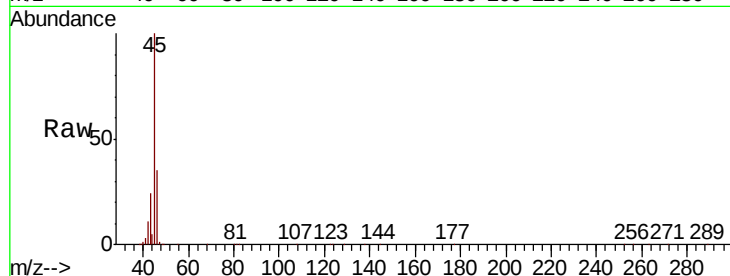
ClientSampleId :

Tot Ion: 45 Resp: 2346546

Ion Ratio Lower Upper

45 100

46 37.8 16.6 66.2



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0

3.60

1000000

800000

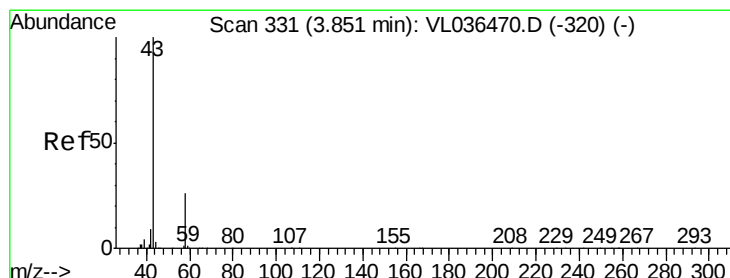
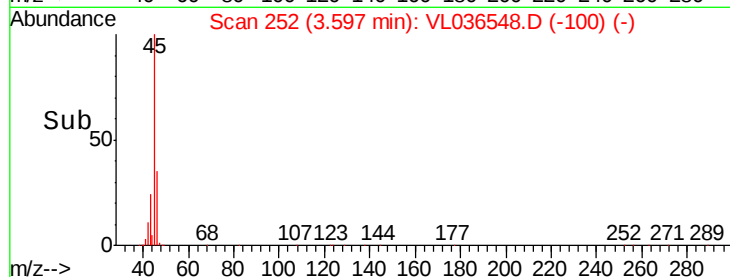
600000

400000

200000

0

Time-->



#15

Acetone

Concen: 9.287 ppbv

RT: 3.84 min Scan# 327

Delta R.T. -0.01 min

Lab File: VL036548.D

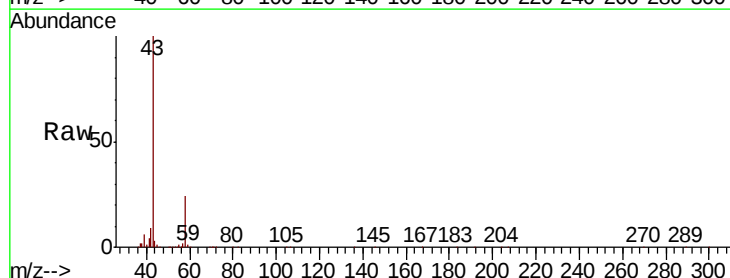
Acq: 29 Mar 2021 20:52

Tgt Ion: 43 Resp: 1398508

Ion Ratio Lower Upper

43 100

58 22.6 21.2 31.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.84

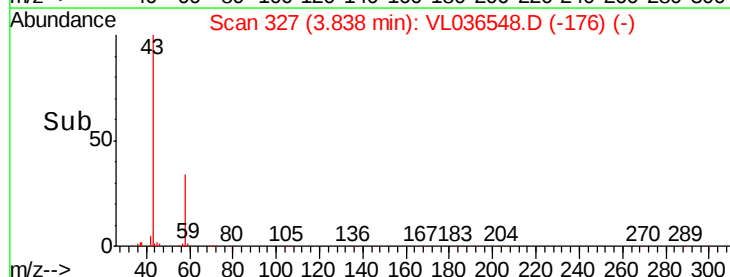
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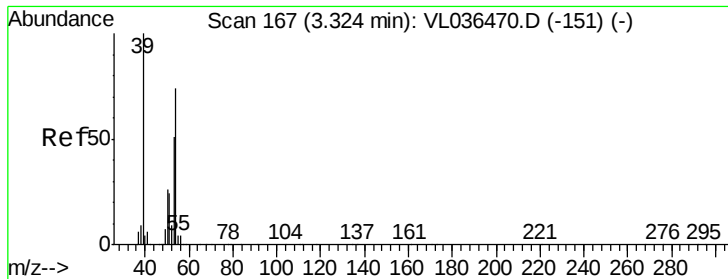
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Time-->

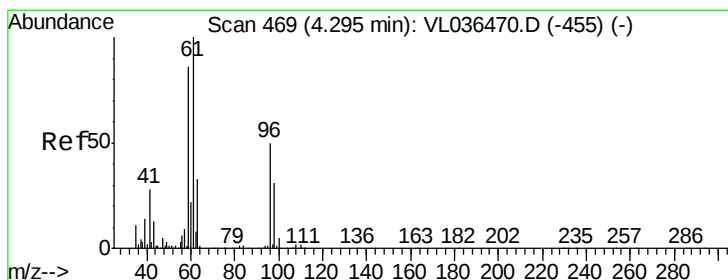
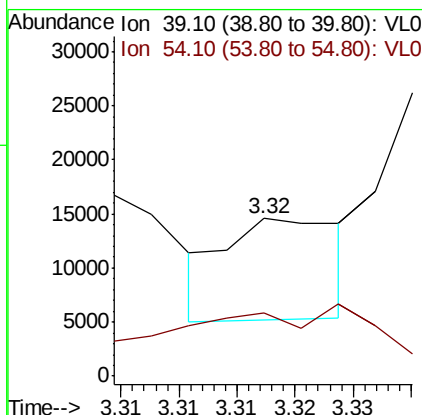
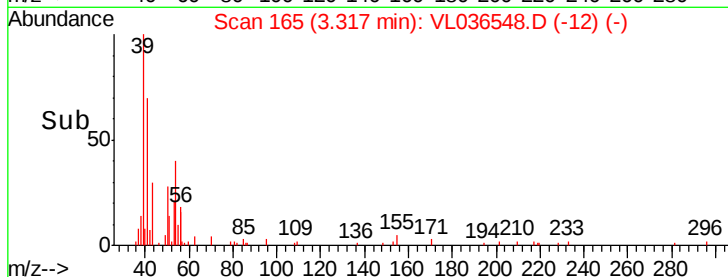
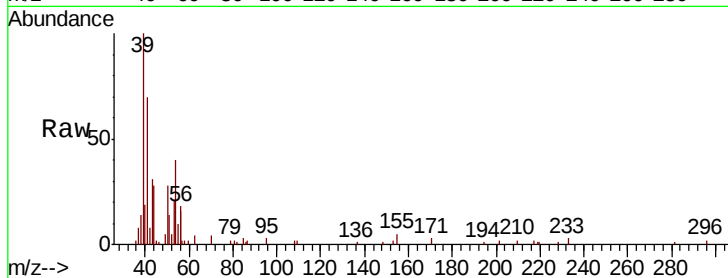




#16
1,3-Butadiene
Concen: 0.062 ppbv
RT: 3.32 min Scan# 165
Delta R.T. -0.01 min
Lab File: VL036548.D
Acq: 29 Mar 2021 20:52

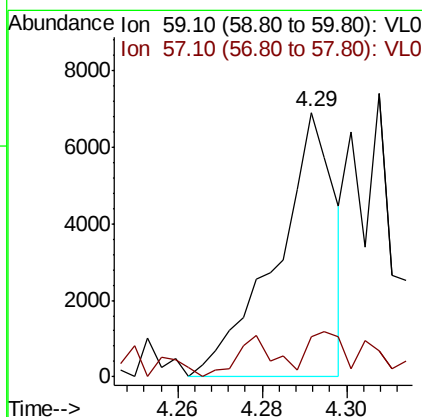
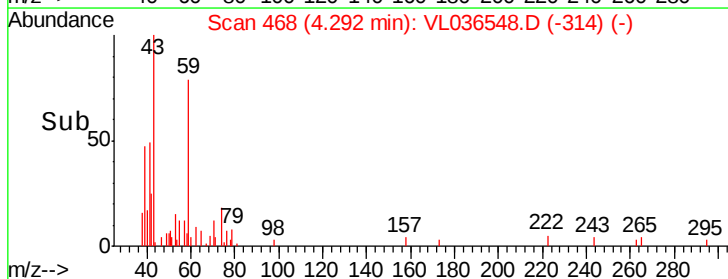
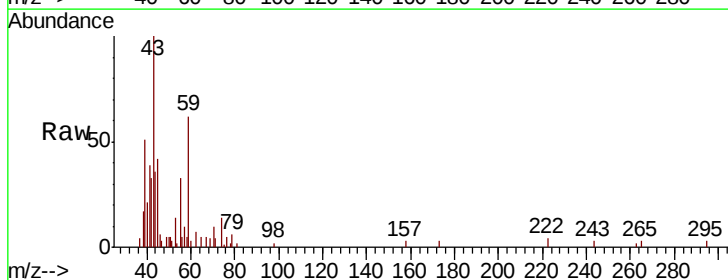
Instrument :
MSVOA_L
ClientSampleId :

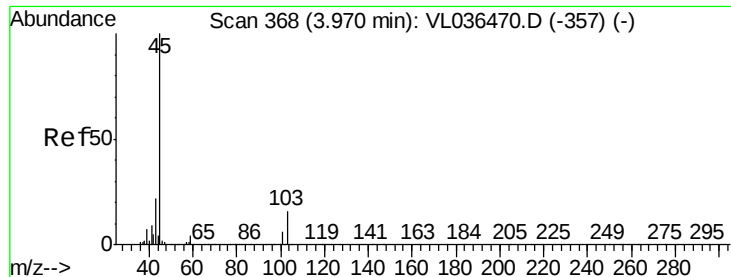
Tot Ion: 39 Resp: 6489
Ion Ratio Lower Upper
39 100
54 237.8 58.8 88.2#



#17
tert-Butyl alcohol
Concen: 0.050 ppbv
RT: 4.29 min Scan# 468
Delta R.T. -0.00 min
Lab File: VL036548.D
Acq: 29 Mar 2021 20:52

Tgt Ion: 59 Resp: 6567
Ion Ratio Lower Upper
59 100
57 0.0 8.6 12.8#

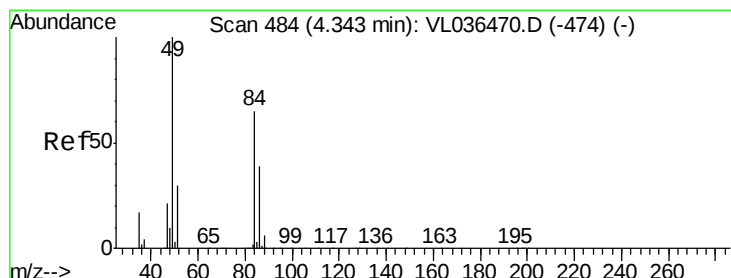
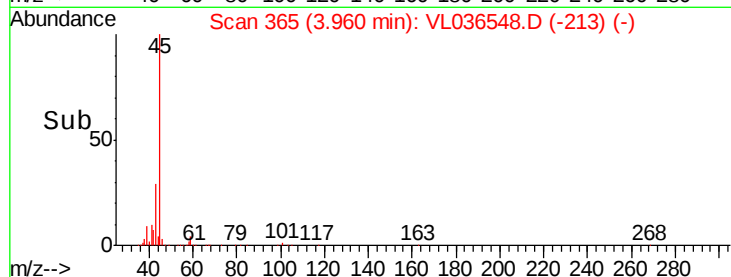
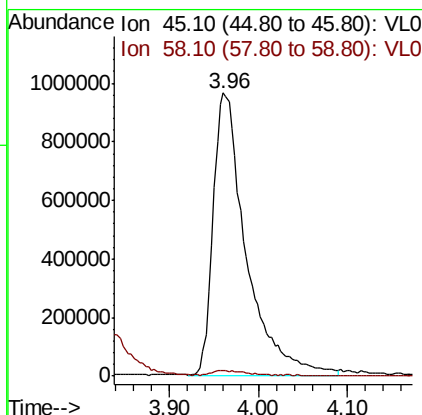
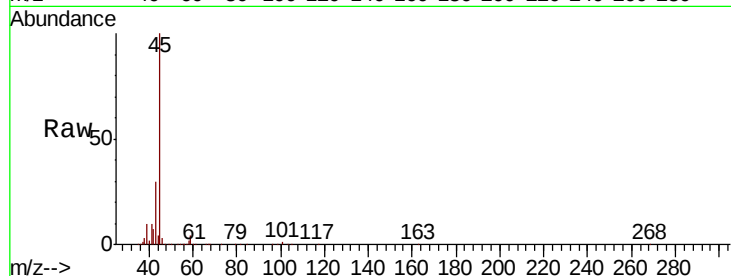




#19
Isopropyl Alcohol
Concen: 29.741 ppbv
RT: 3.96 min Scan# 365
Delta R.T. -0.01 min
Lab File: VL036548.D
Acq: 29 Mar 2021 20:52

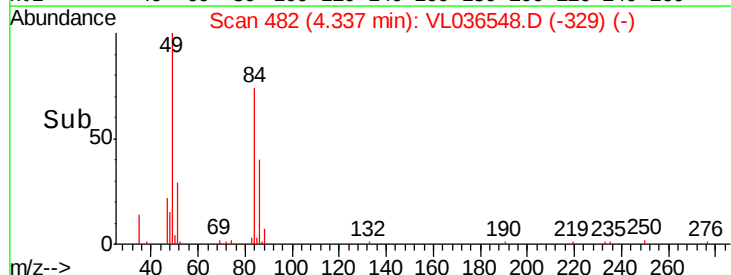
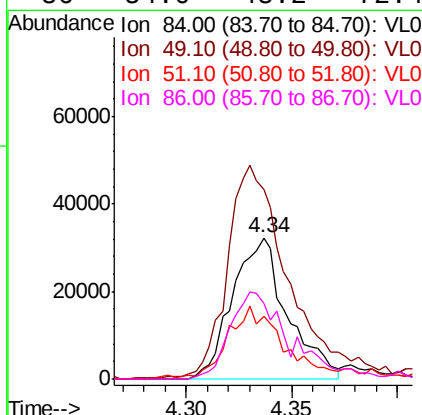
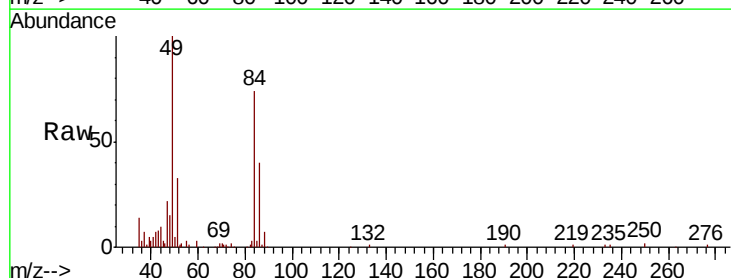
Instrument :
MSVOA_L
ClientSampled :

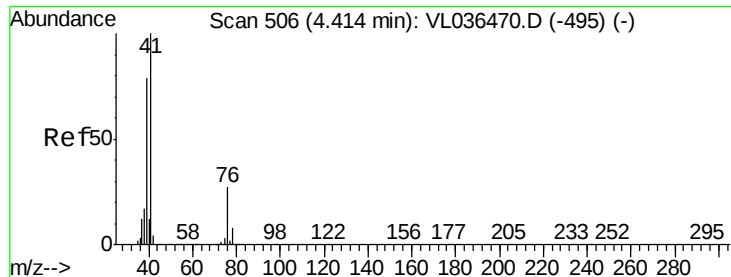
Tot Ion: 45 Resp: 2463619
Ion Ratio Lower Upper
45 100
58 2.5 2.9 4.3#



#20
Methylene Chloride
Concen: 0.827 ppbv
RT: 4.34 min Scan# 482
Delta R.T. -0.01 min
Lab File: VL036548.D
Acq: 29 Mar 2021 20:52

Tgt Ion: 84 Resp: 58337
Ion Ratio Lower Upper
84 100
49 130.9 122.9 184.3
51 41.9 36.9 55.3
86 54.0 48.2 72.4





#21

Allvl Chloride

Concen: 0.028 ppbv

RT: 4.57 min Scan# 556

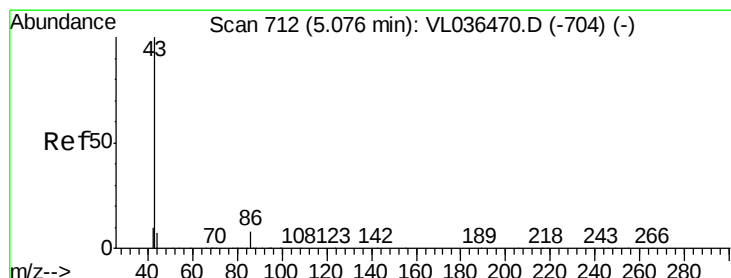
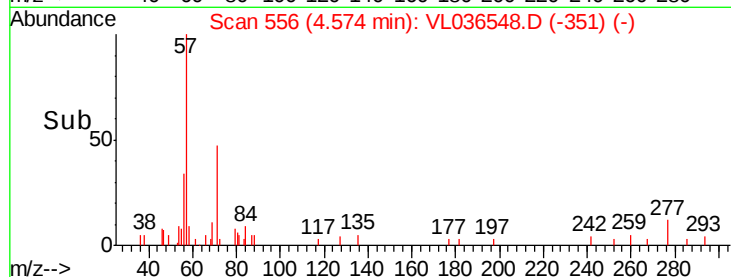
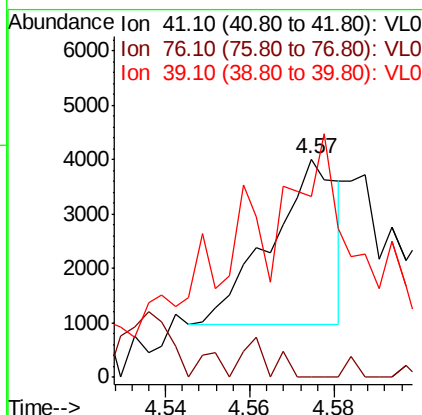
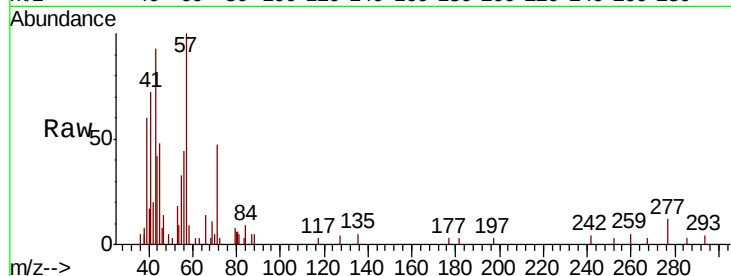
Delta R.T. 0.16 min

Lab File: VL036548.D

Acq: 29 Mar 2021 20:52

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	41	Resp:	3312
Ion	Ratio	Lower	Upper
41	100		
76	6.3	22.9	34.3#
39	0.0	67.3	100.9#



#23

Vinyl Acetate

Concen: 0.164 ppbv

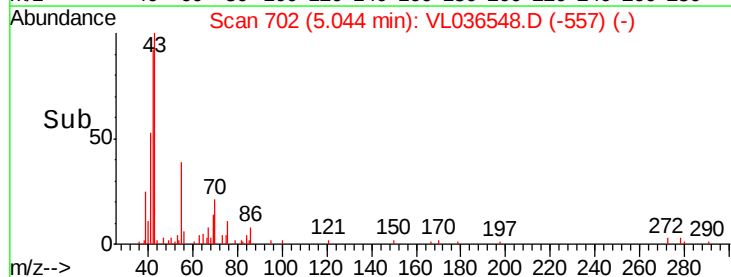
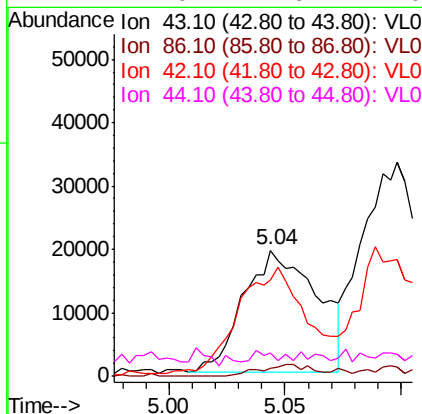
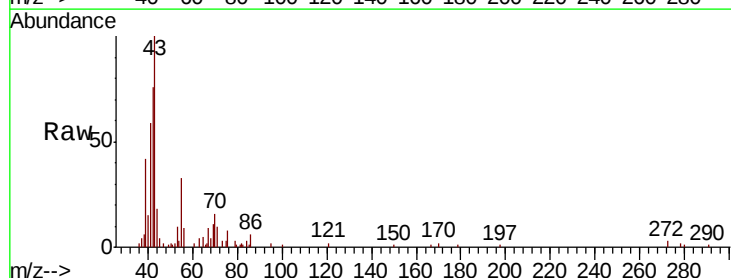
RT: 5.04 min Scan# 702

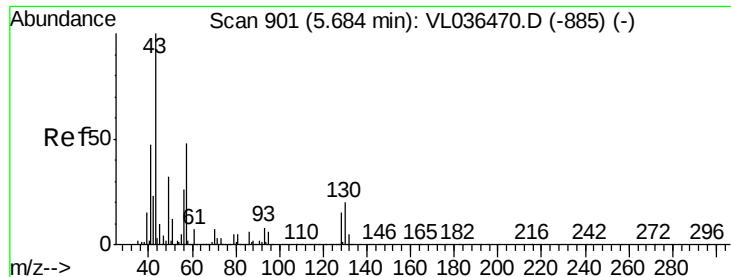
Delta R.T. -0.03 min

Lab File: VL036548.D

Acq: 29 Mar 2021 20:52

Tgt Ion:	43	Resp:	42308
Ion	Ratio	Lower	Upper
43	100		
86	6.2	5.4	8.0
42	73.3	8.5	12.7#
44	7.0	4.6	7.0





#25

Ethyl Acetate

Concen: 0.326 ppbv

RT: 5.67 min Scan# 898

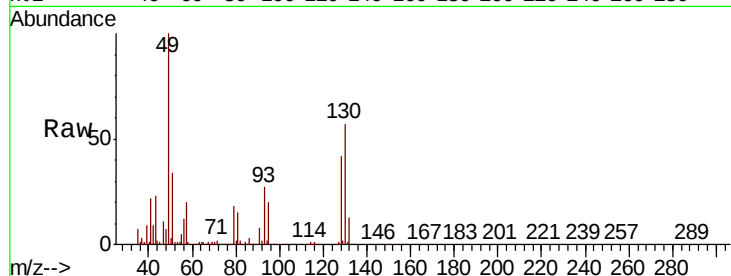
Delta R.T. -0.01 min

Lab File: VL036548.D

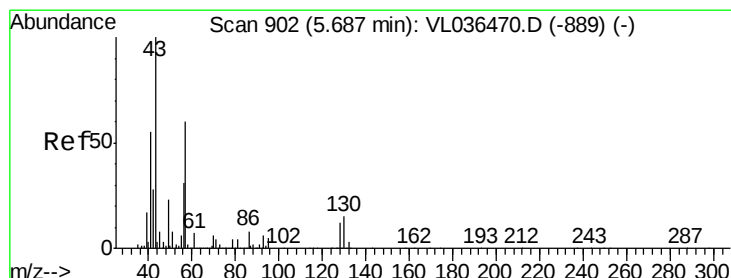
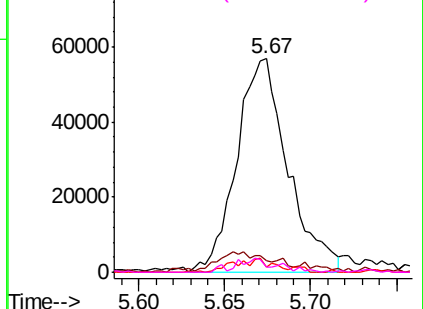
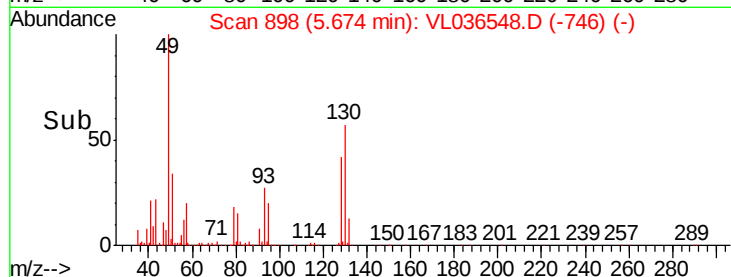
Acq: 29 Mar 2021 20:52

Instrument :
MSVOA_L
ClientSampled :

Tot Ion:	43	Resp:	116840
Ion	Ratio	Lower	Upper
43	100		
45	12.9	7.9	11.9#
61	5.8	7.4	11.2#
70	5.3	5.1	7.7



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: 0.541 ppbv

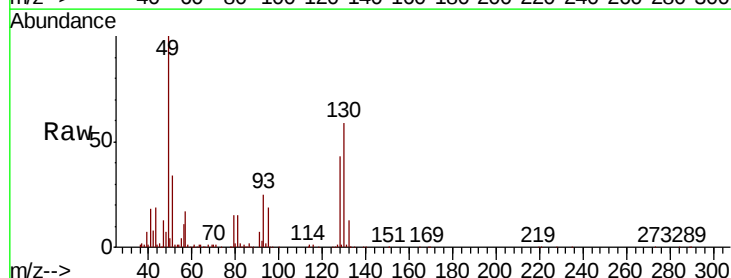
RT: 5.67 min Scan# 897

Delta R.T. -0.02 min

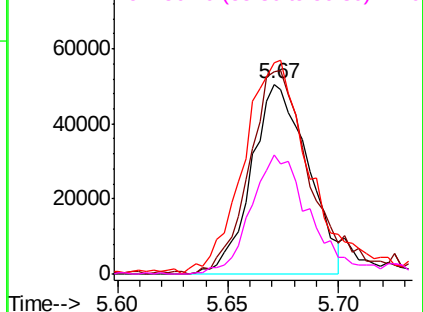
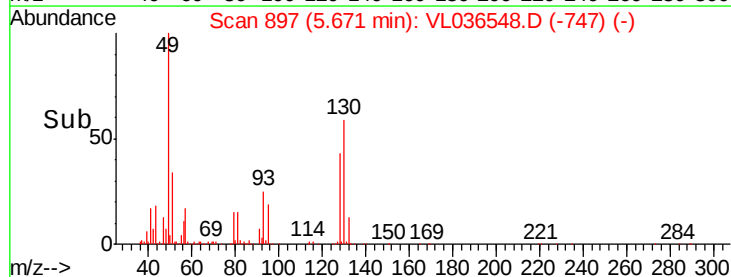
Lab File: VL036548.D

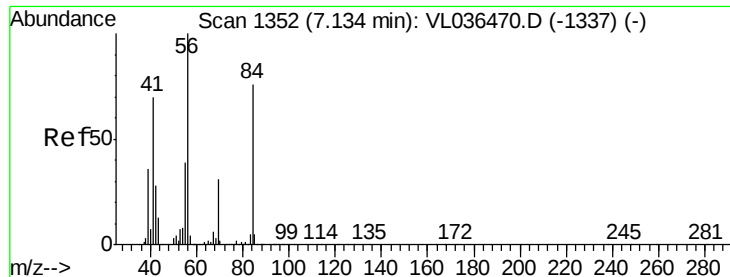
Acq: 29 Mar 2021 20:52

Tgt Ion:	57	Resp:	89847
Ion	Ratio	Lower	Upper
57	100		
41	118.1	77.2	115.8#
43	140.7	173.8	260.6#
56	69.8	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

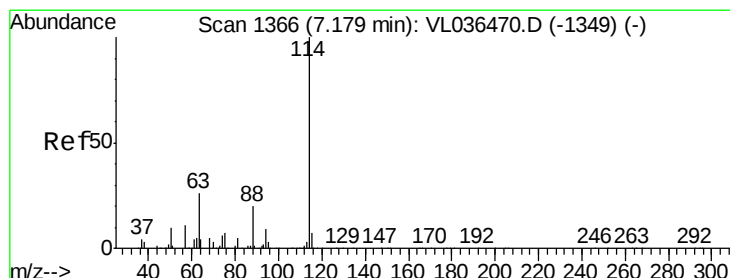
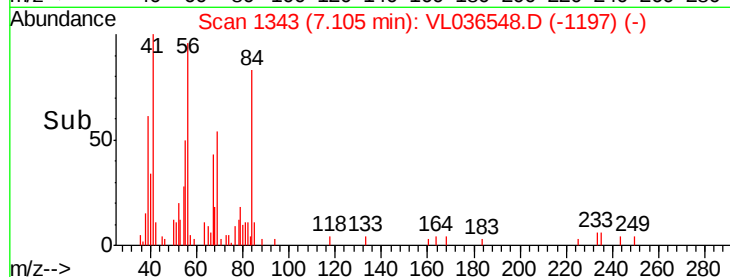
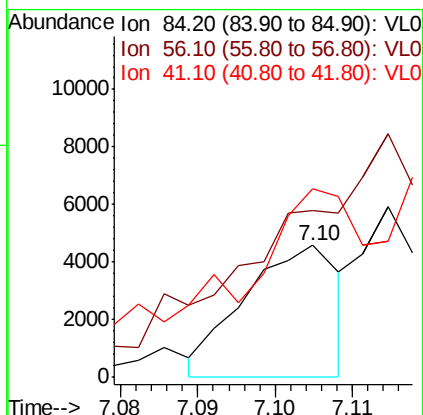
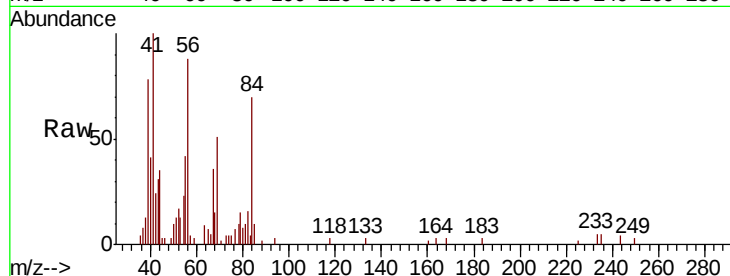




#30
Cvclohexane
Concen: 0.029 ppbv
RT: 7.10 min Scan# 1343
Delta R.T. -0.03 min
Lab File: VL036548.D
Acq: 29 Mar 2021 20:52

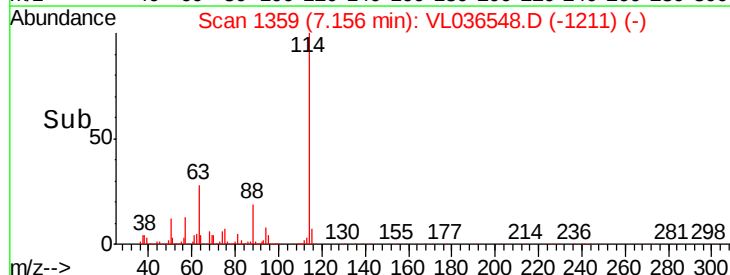
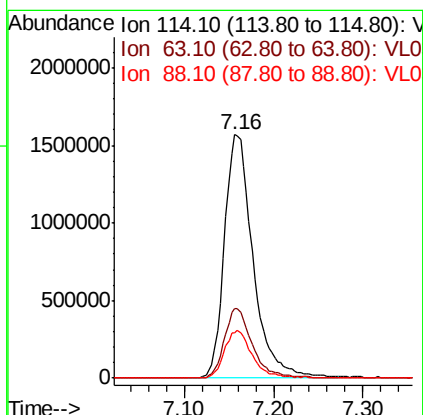
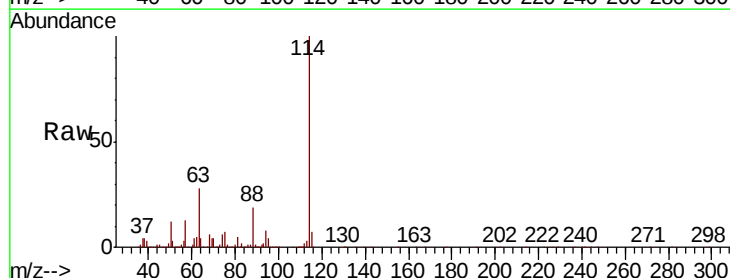
Instrument :
MSVOA_L
ClientSampleId :

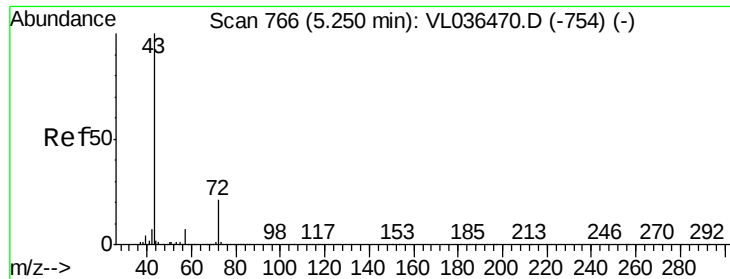
Tot Ion: 84 Resp: 3889
Ion Ratio Lower Upper
84 100
56 0.0 114.6 171.8#
41 0.0 75.3 112.9#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.16 min Scan# 1359
Delta R.T. -0.02 min
Lab File: VL036548.D
Acq: 29 Mar 2021 20:52

Tgt Ion: 114 Resp: 3495682
Ion Ratio Lower Upper
114 100
63 28.2 22.4 33.6
88 19.2 15.4 23.0

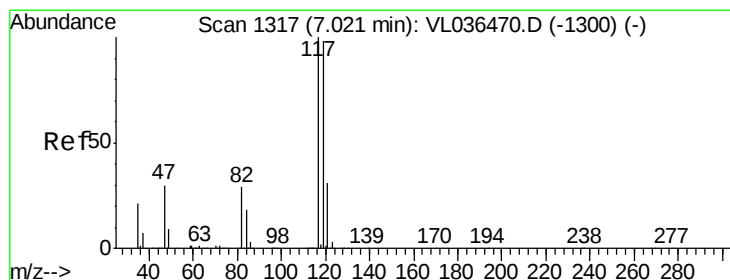
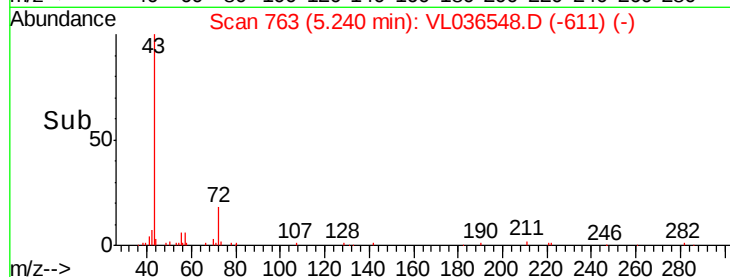
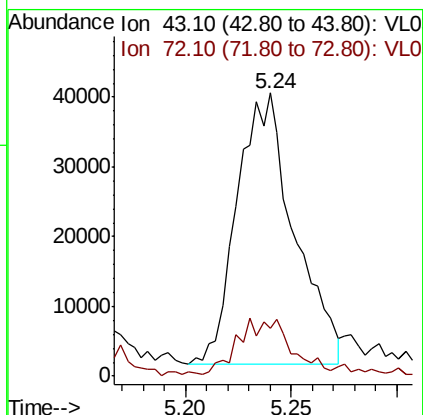
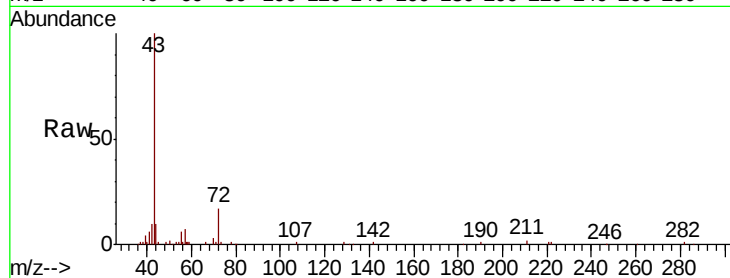




#34
2-Butanone
Concen: 0.429 ppbv
RT: 5.24 min Scan# 763
Delta R.T. -0.01 min
Lab File: VL036548.D
Acq: 29 Mar 2021 20:52

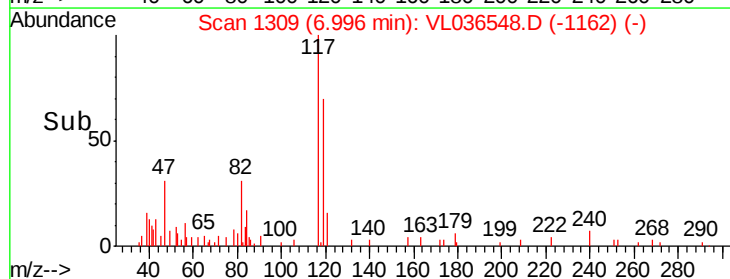
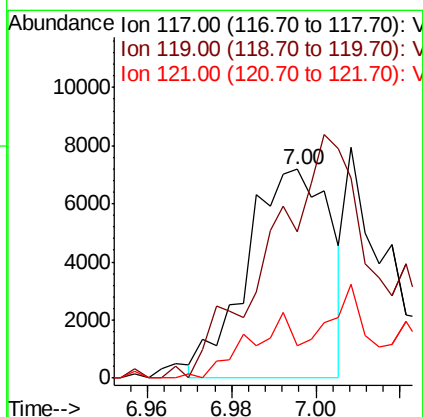
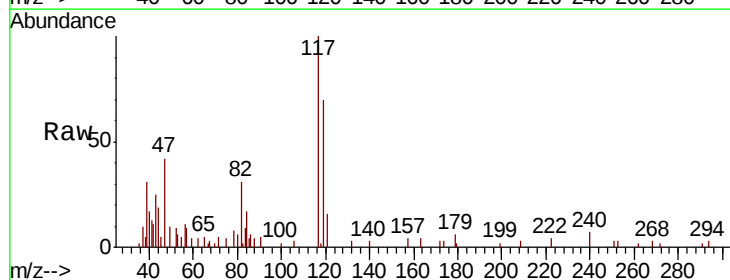
Instrument :
MSVOA_L
ClientSampleId :

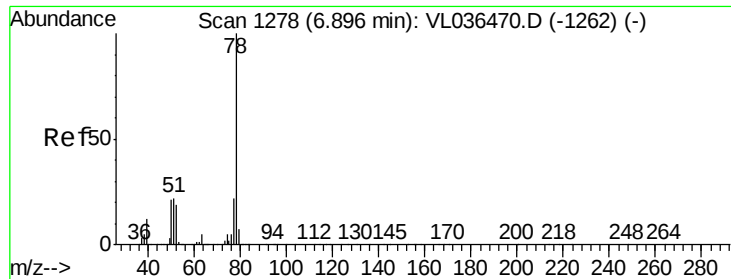
Tot Ion: 43 Resp: 73137
Ion Ratio Lower Upper
43 100
72 23.2 17.0 25.6



#35
Carbon Tetrachloride
Concen: 0.037 ppbv
RT: 7.00 min Scan# 1309
Delta R.T. -0.03 min
Lab File: VL036548.D
Acq: 29 Mar 2021 20:52

Tgt Ion: 117 Resp: 9881
Ion Ratio Lower Upper
117 100
119 74.8 78.2 117.2#
121 14.5 24.5 36.7#





#36

Benzene

Concen: 0.416 ppbv

RT: 6.87 min Scan# 1271

Delta R.T. -0.02 min

Lab File: VL036548.D

Acq: 29 Mar 2021 20:52

Instrument :

MSVOA_L

ClientSampleId :

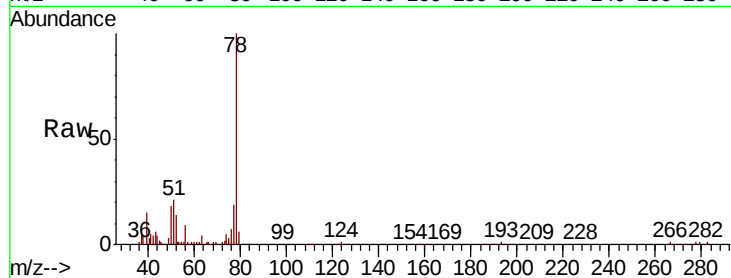
Tot Ion: 78 Resp: 134101

Ion Ratio Lower Upper

78 100

77 19.0 18.0 27.0

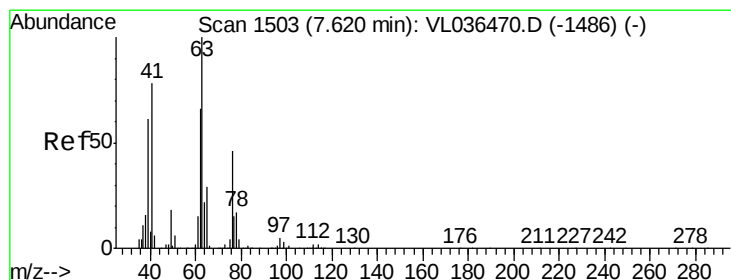
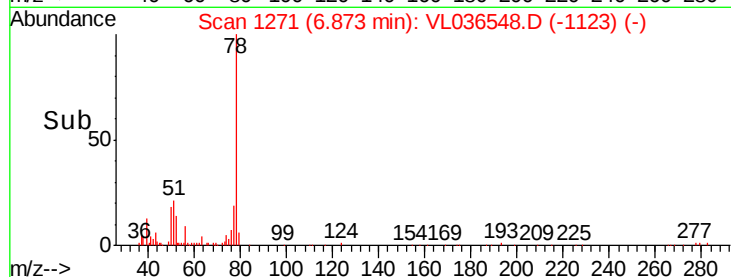
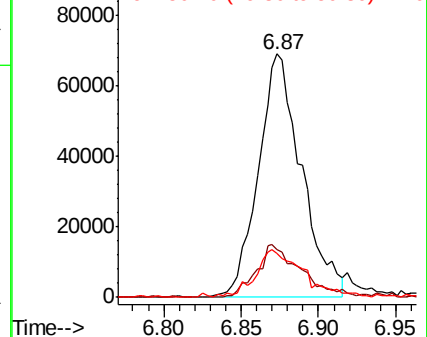
50 17.8 16.5 24.7



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: 7.453 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.46 min

Lab File: VL036548.D

Acq: 29 Mar 2021 20:52

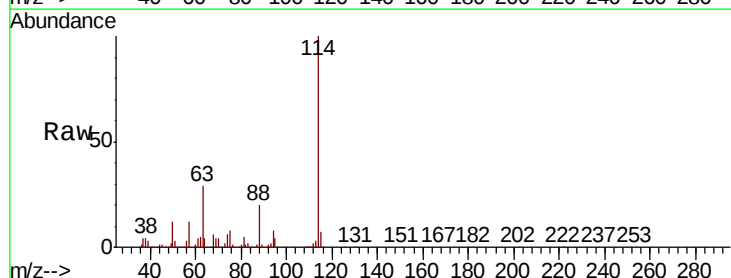
Tgt Ion: 63 Resp: 974735

Ion Ratio Lower Upper

63 100

41 0.0 62.4 93.6#

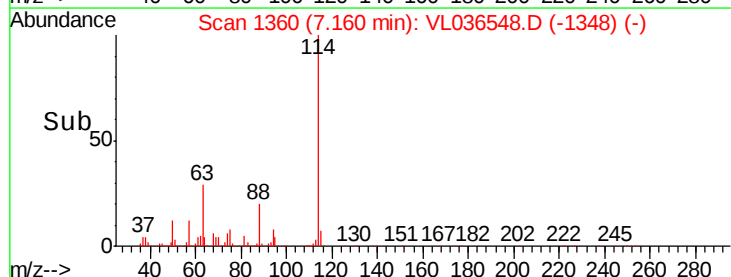
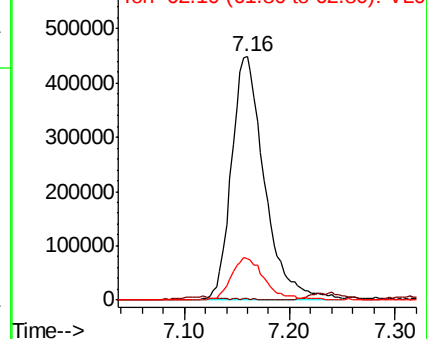
62 17.1 52.8 79.2#

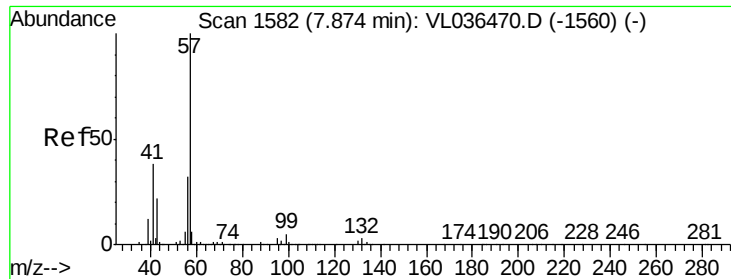


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

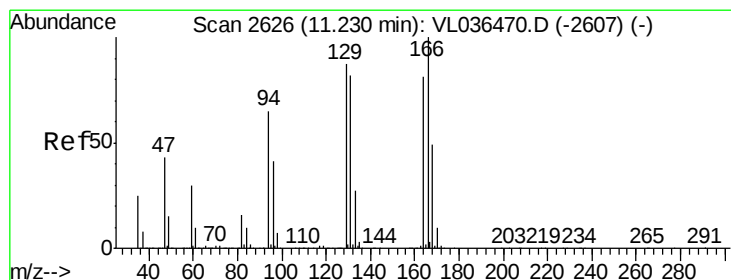
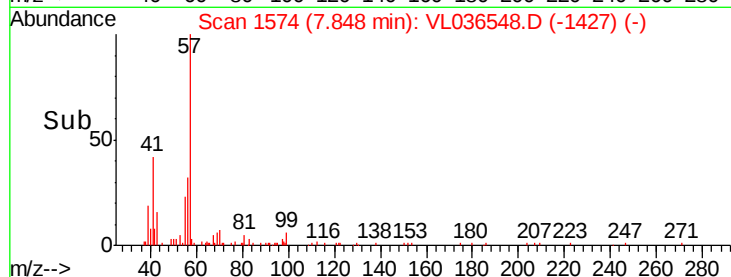
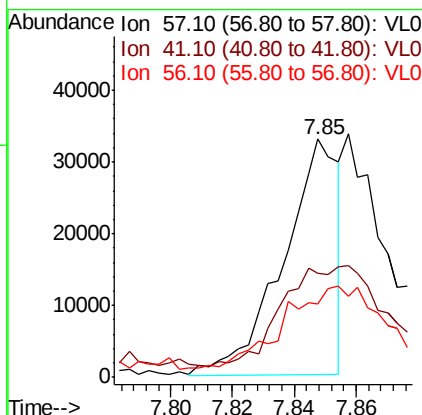
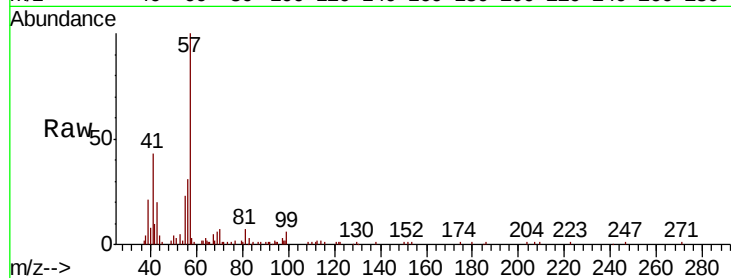




#44
 2,2,4-Trimethylpentane
 Concen: 0.072 ppbv
 RT: 7.85 min Scan# 1574
 Delta R.T. -0.03 min
 Lab File: VL036548.D
 Acq: 29 Mar 2021 20:52

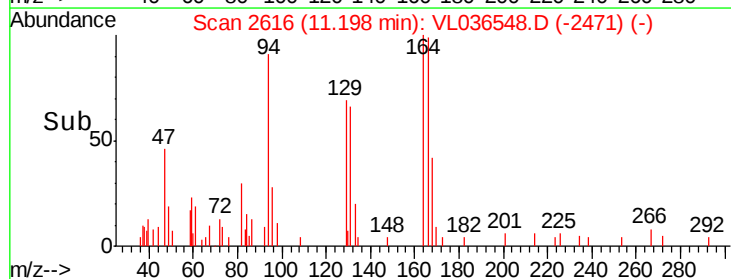
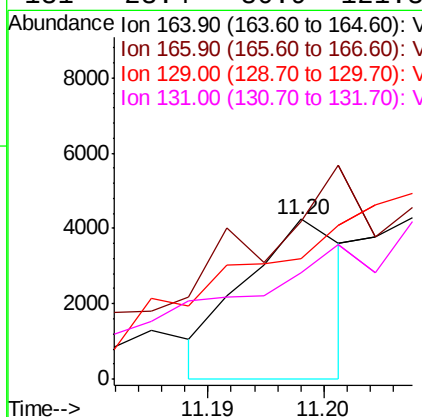
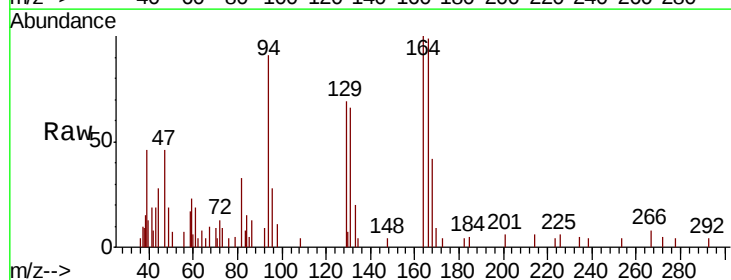
Instrument :
 MSVOA_L
 ClientSampleId :

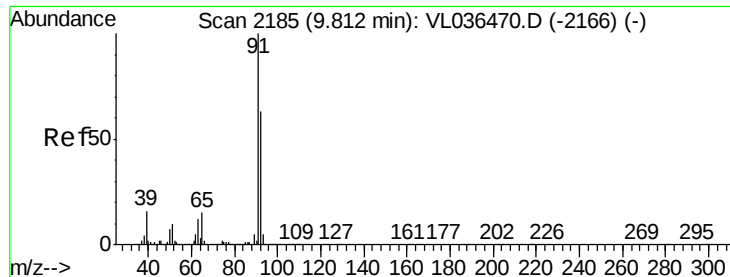
Tot Ion	57.10	Resp	40824
Ion	Ratio	Lower	Upper
57	100		
41	0.0	28.8	43.2#
56	0.0	26.1	39.1#



#52
 Tetrachloroethene
 Concen: 0.021 ppbv
 RT: 11.20 min Scan# 2616
 Delta R.T. -0.03 min
 Lab File: VL036548.D
 Acq: 29 Mar 2021 20:52

Tgt Ion	164	Resp	2528
Ion	Ratio	Lower	Upper
164	100		
166	55.3	98.3	147.5#
129	39.4	85.8	128.8#
131	23.4	80.9	121.3#





#53

Toluene

Concen: 1.091 ppbv

RT: 9.79 min Scan# 2178

Delta R.T. -0.02 min

Lab File: VL036548.D

Acq: 29 Mar 2021 20:52

Instrument :

MSVOA_L

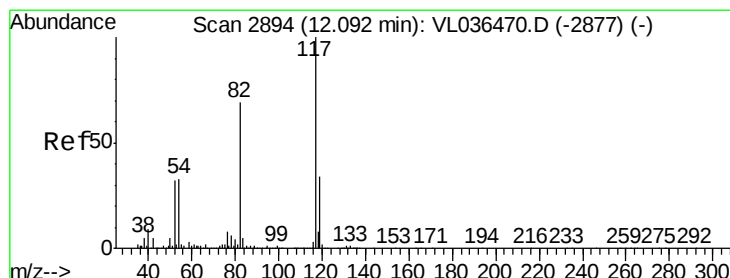
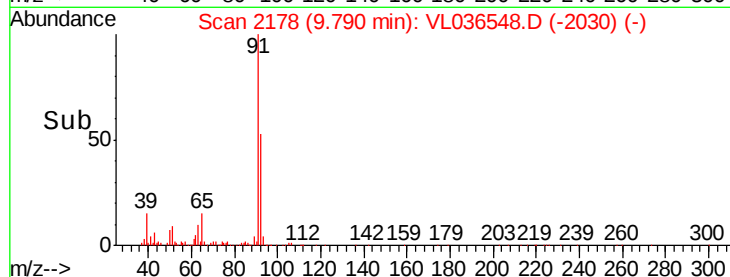
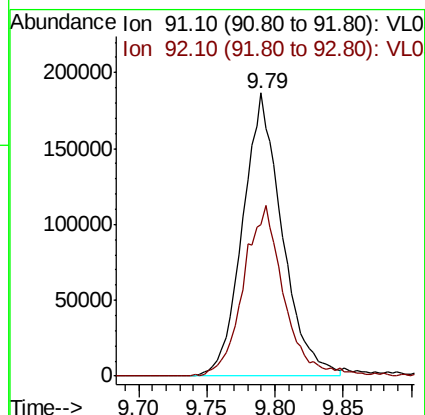
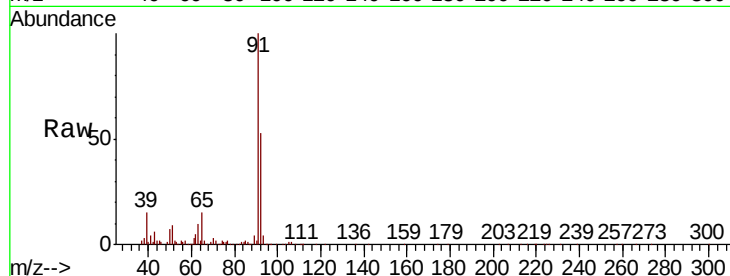
ClientSampleId :

Tot Ion: 91 Resp: 374561

Ion Ratio Lower Upper

91 100

92 62.0 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: VL036548.D

Acq: 29 Mar 2021 20:52

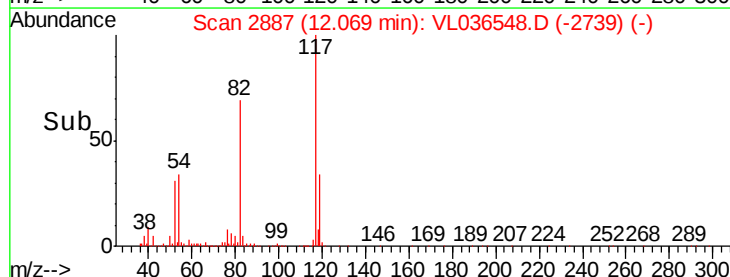
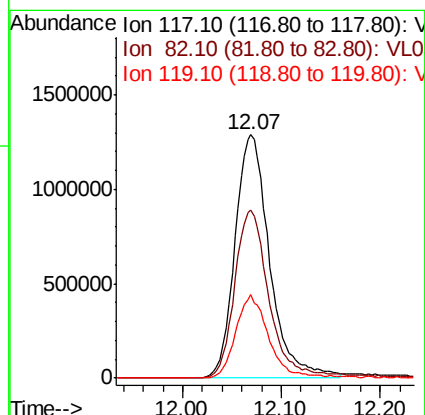
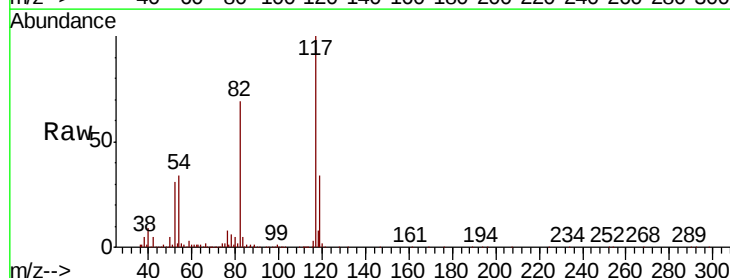
Tgt Ion: 117 Resp: 3143447

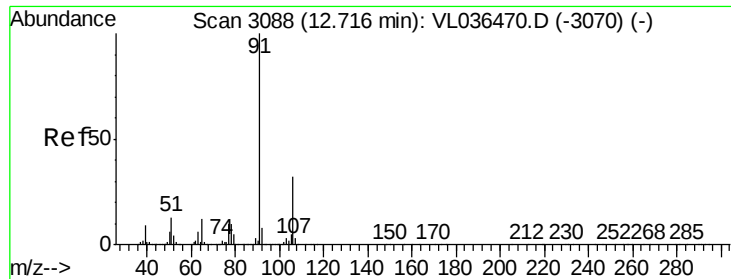
Ion Ratio Lower Upper

117 100

82 70.2 57.4 86.0

119 32.7 47.4 71.0#





#58

Ethyl Benzene

Concen: 0.090 ppbv

RT: 12.69 min Scan# 3080

Delta R.T. -0.03 min

Lab File: VL036548.D

Acq: 29 Mar 2021 20:52

Instrument :

MSVOA_L

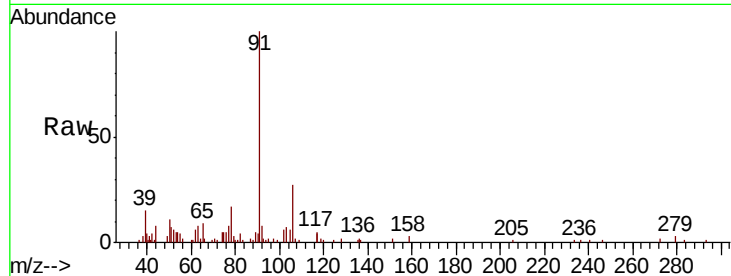
ClientSampled :

Tot Ion: 91 Resp: 41225

Ion Ratio Lower Upper

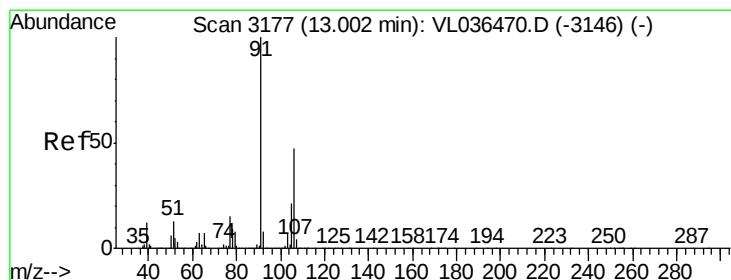
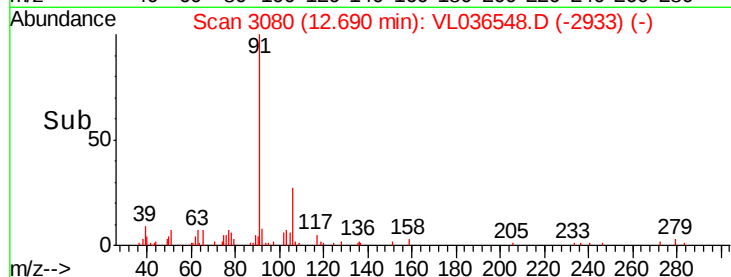
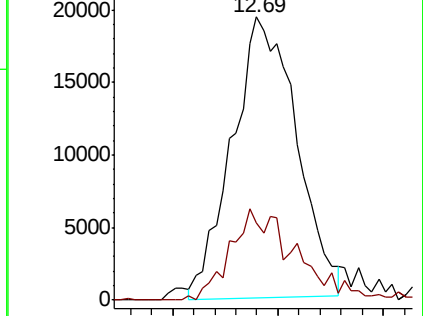
91 100

106 26.7 25.3 37.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.033 ppbv

RT: 12.98 min Scan# 3169

Delta R.T. -0.03 min

Lab File: VL036548.D

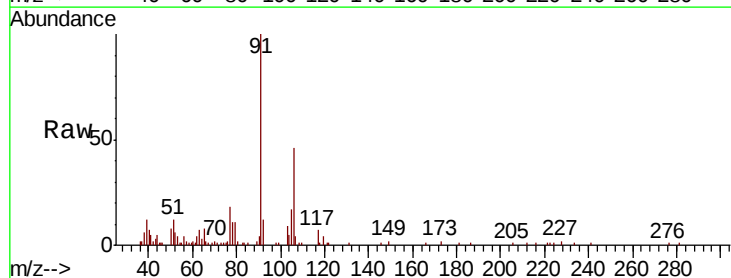
Acq: 29 Mar 2021 20:52

Tgt Ion: 91 Resp: 13258

Ion Ratio Lower Upper

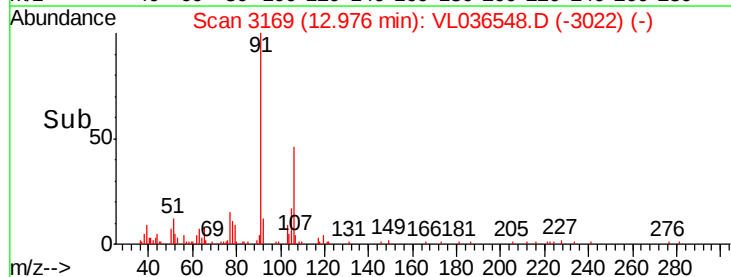
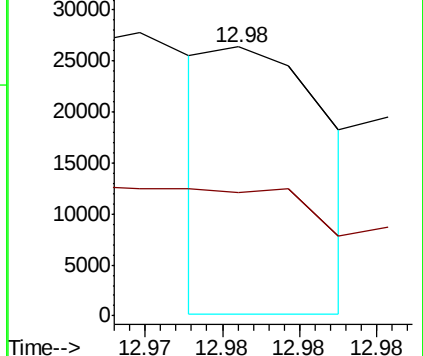
91 100

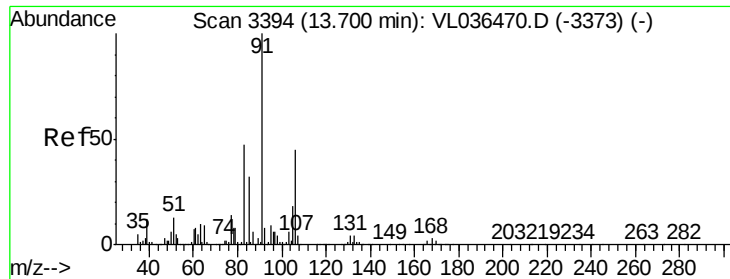
106 0.0 35.3 52.9#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

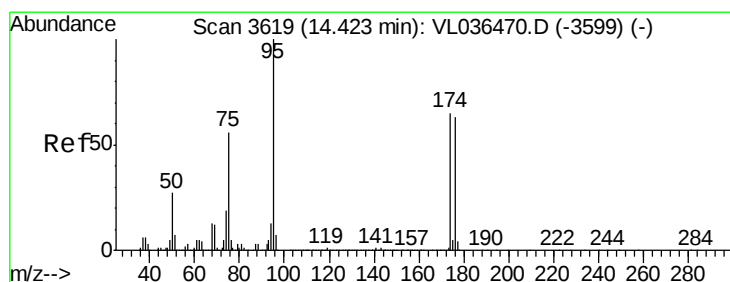
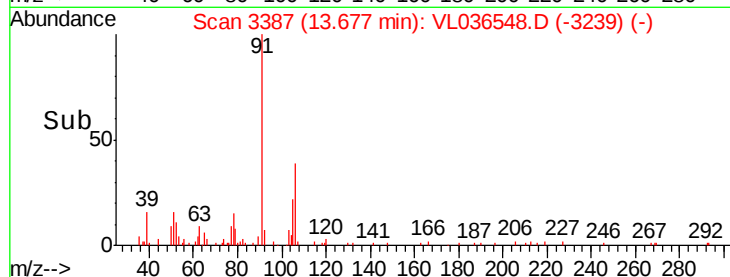
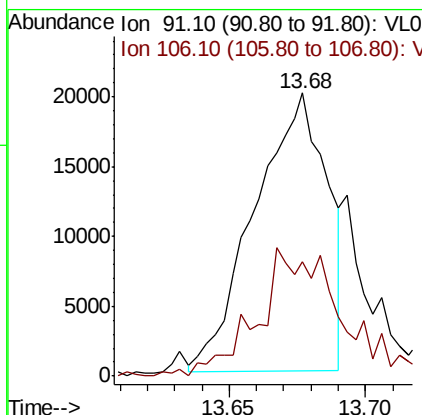
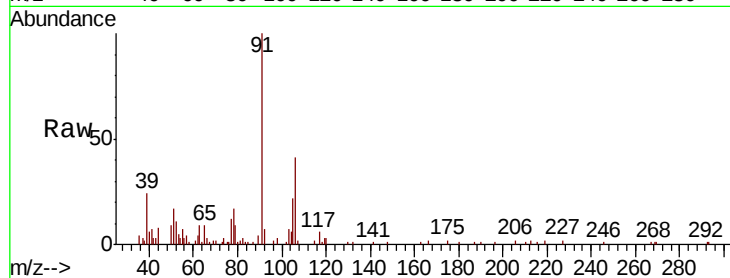




#60
o-Xylene
Concen: 0.096 ppbv
RT: 13.68 min Scan# 3387
Delta R.T. -0.02 min
Lab File: VL036548.D
Acq: 29 Mar 2021 20:52

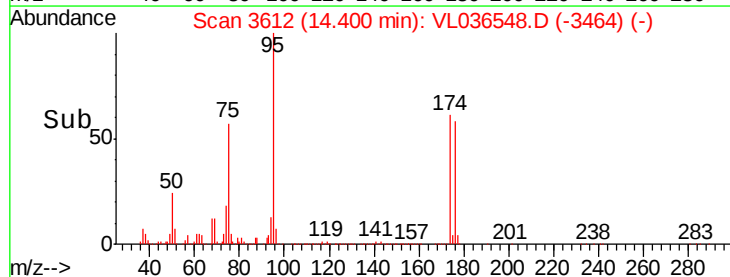
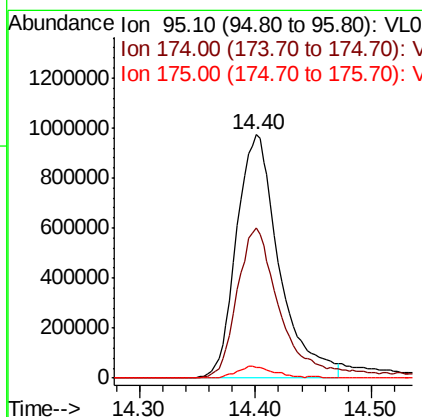
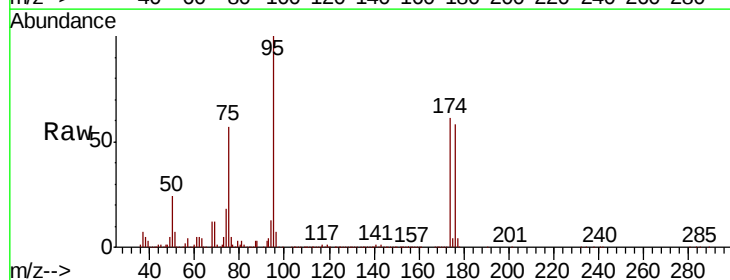
Instrument :
MSVOA_L
ClientSampleId :

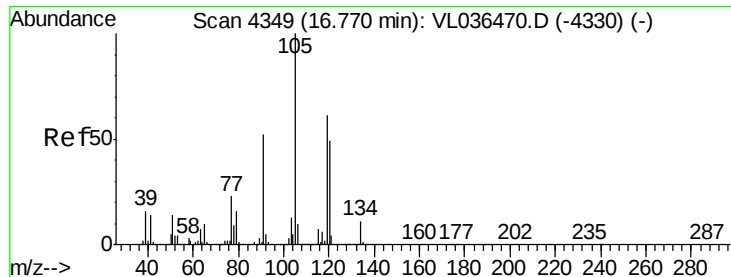
Tot Ion: 91 Resp: 36967
Ion Ratio Lower Upper
91 100
106 54.1 22.3 66.9



#68
1-Bromo-4-Fluorobenzene
Concen: 9.939 ppbv
RT: 14.40 min Scan# 3612
Delta R.T. -0.02 min
Lab File: VL036548.D
Acq: 29 Mar 2021 20:52

Tgt Ion: 95 Resp: 2490169
Ion Ratio Lower Upper
95 100
174 66.0 51.0 76.6
175 4.9 3.9 5.9





#74

1,2,4-Trimethylbenzene

Concen: 0.025 ppbv

RT: 16.74 min Scan# 4339

Delta R.T. -0.03 min

Lab File: VL036548.D

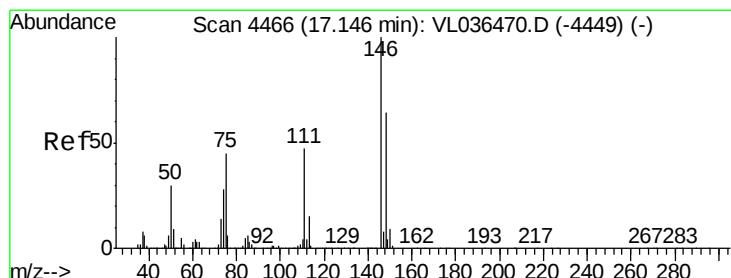
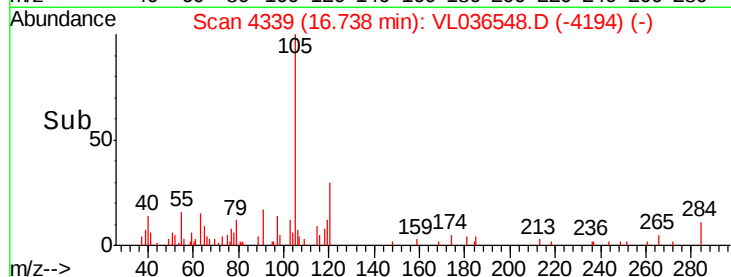
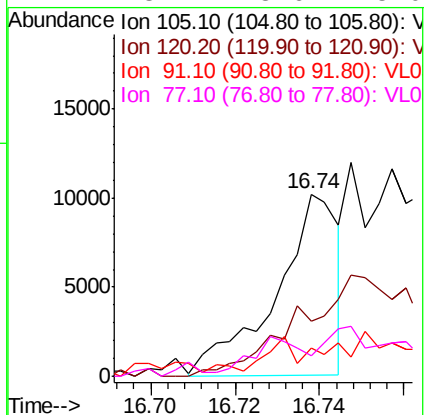
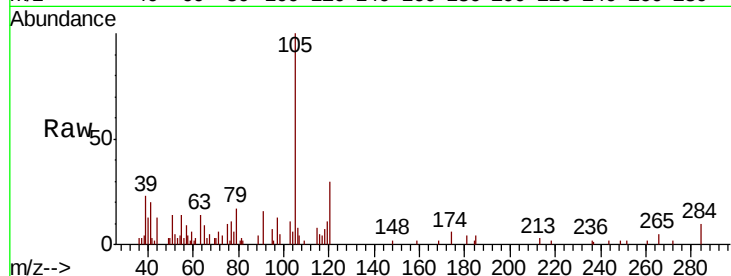
Acq: 29 Mar 2021 20:52

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:	105	Resp:	10490
Ion	Ratio	Lower	Upper
105	100		
120	30.8	39.2	58.8#
91	8.7	42.6	64.0#
77	3.4	18.6	28.0#



#76

1,4-Dichlorobenzene

Concen: 0.048 ppbv

RT: 17.12 min Scan# 4458

Delta R.T. -0.03 min

Lab File: VL036548.D

Acq: 29 Mar 2021 20:52

Tgt Ion:	146	Resp:	11375
Ion	Ratio	Lower	Upper
146	100		
111	0.0	24.3	72.8#
148	0.0	33.0	98.9#

