

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL012821\  
 Data File : VL036275.D  
 Acq On : 28 Jan 2021 17:22  
 Operator : SY/AP  
 Sample : M1245-01 10X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Jan 29 02:26:16 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL011321AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Jan 14 16:13:38 2021  
 QLast Update : Thu Jan 14 16:13:38 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1618027  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.17  | 114  | 3485891  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.08 | 117  | 3158417  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.41  | 95    | 2650391  | 10.14    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.40% |

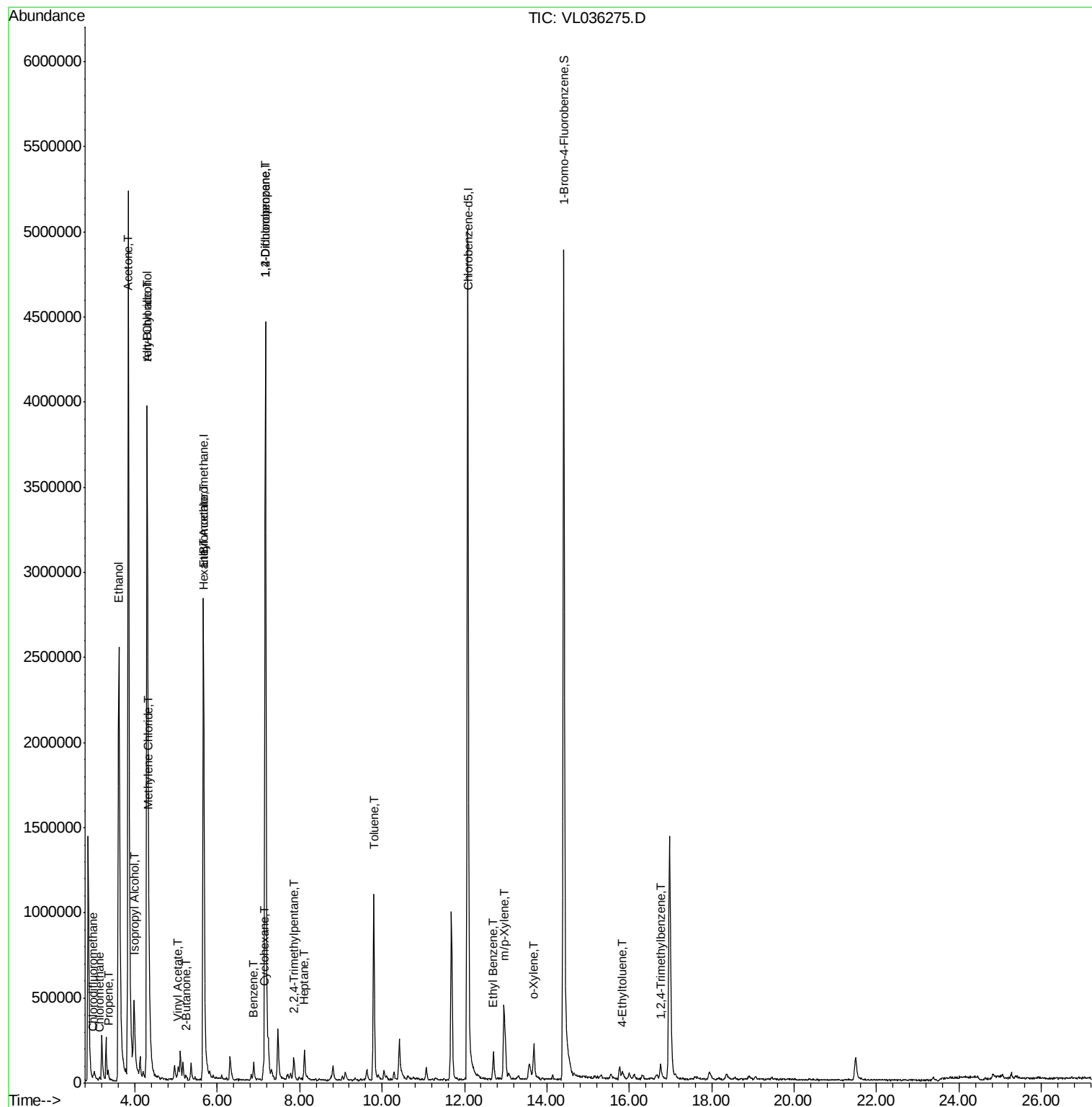
| Target Compounds           |       |     |         |               | Ovalue |
|----------------------------|-------|-----|---------|---------------|--------|
| 3) Chlorodifluoromethane   | 2.98  | 51  | 23752   | 0.120 ppbv    | 96     |
| 4) Chloromethane           | 3.14  | 50  | 12450   | 0.127 ppbv    | 95     |
| 9) Propene                 | 3.35  | 41  | 8848    | 0.094 ppbv    | 87     |
| 10) Heptane                | 8.11  | 43  | 71640   | 0.305 ppbv    | 95     |
| 13) Ethanol                | 3.61  | 45  | 4319494 | 290.701 ppbv  | 85     |
| 15) Acetone                | 3.84  | 43  | 7492957 | 37.812 ppbv   | 98     |
| 17) tert-Butyl alcohol     | 4.29  | 59  | 5014409 | 30.665 ppbv   | 100    |
| 19) Isopropyl Alcohol      | 3.97  | 45  | 602917  | 5.047 ppbv #  | 1      |
| 20) Methylene Chloride     | 4.34  | 84  | 33705   | 0.533 ppbv #  | 73     |
| 21) Allyl Chloride         | 4.30  | 41  | 1832928 | 16.993 ppbv # | 62     |
| 23) Vinyl Acetate          | 5.06  | 43  | 42089   | 0.175 ppbv #  | 83     |
| 25) Ethyl Acetate          | 5.67  | 43  | 191317  | 0.481 ppbv #  | 96     |
| 26) Hexane                 | 5.68  | 57  | 138446  | 0.836 ppbv #  | 63     |
| 30) Cyclohexane            | 7.13  | 84  | 7526    | 0.059 ppbv #  | 1      |
| 34) 2-Butanone             | 5.24  | 43  | 13373   | 0.052 ppbv #  | 56     |
| 36) Benzene                | 6.88  | 78  | 83906   | 0.263 ppbv #  | 92     |
| 39) 1,2-Dichloropropane    | 7.17  | 63  | 1051182 | 8.106 ppbv #  | 21     |
| 44) 2,2,4-Trimethylpentane | 7.86  | 57  | 37097   | 0.063 ppbv #  | 1      |
| 53) Toluene                | 9.80  | 91  | 848919  | 2.376 ppbv    | 98     |
| 58) Ethyl Benzene          | 12.70 | 91  | 143106  | 0.305 ppbv    | 97     |
| 59) m/p-Xylene             | 12.97 | 91  | 267688  | 0.665 ppbv #  | 33     |
| 60) o-Xylene               | 13.68 | 91  | 98225   | 0.253 ppbv    | 68     |
| 72) 4-Ethyltoluene         | 15.83 | 105 | 13332   | 0.030 ppbv #  | 24     |
| 74) 1,2,4-Trimethylbenzene | 16.75 | 105 | 25966   | 0.061 ppbv #  | 63     |

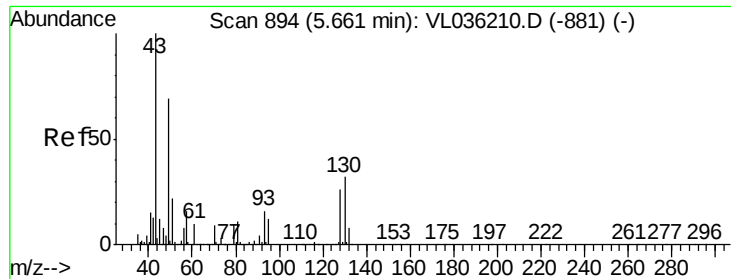
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL012821\  
Data File : VL036275.D  
Acq On : 28 Jan 2021 17:22  
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Sample : M1245-01 10X  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :

Quant Time: Jan 29 02:26:16 2021  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL011321AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Jan 14 16:13:38 2021  
QLast Update : Thu Jan 14 16:13:38 2021  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.00 min

Lab File: VL036275.D

Acq: 28 Jan 2021 17:22

Instrument :

MSVOA\_L

ClientSampleId :

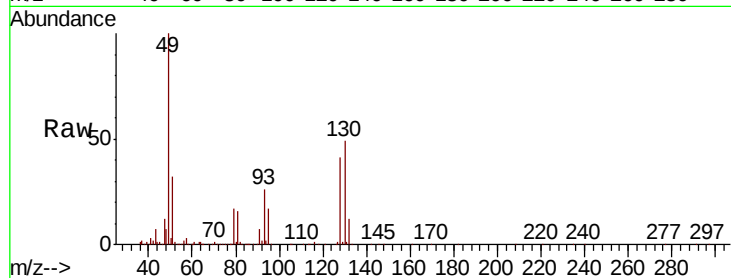
Tot Ion: 49 Resp: 1618027

Ion Ratio Lower Upper

49 100

128 40.7 20.1 60.2

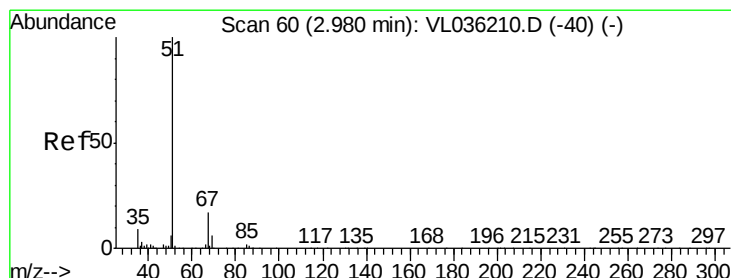
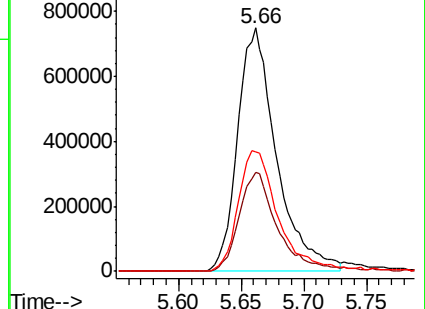
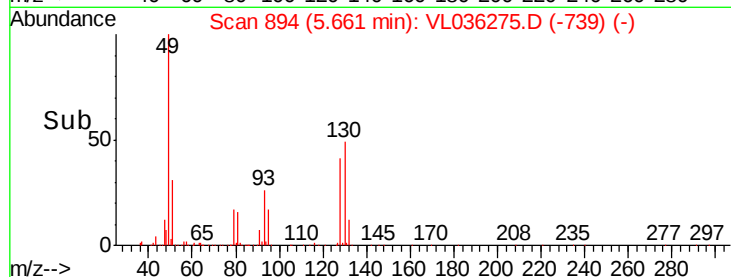
130 52.4 25.3 75.9



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#3

Chlorodifluoromethane

Concen: 0.120 ppbv

RT: 2.98 min Scan# 59

Delta R.T. -0.00 min

Lab File: VL036275.D

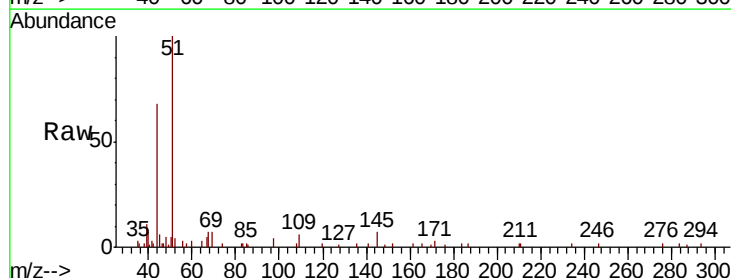
Acq: 28 Jan 2021 17:22

Tgt Ion: 51 Resp: 23752

Ion Ratio Lower Upper

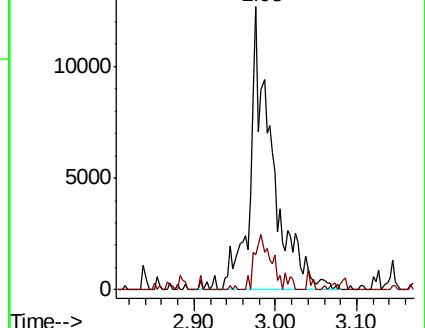
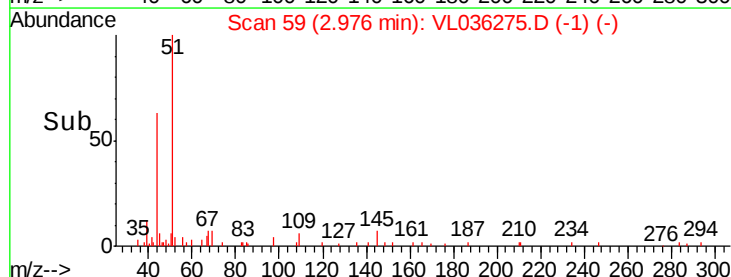
51 100

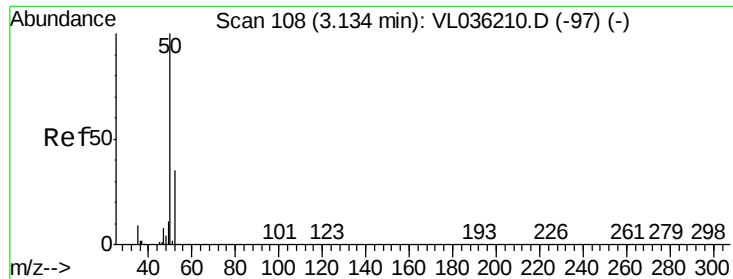
67 15.9 14.0 21.0



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.127 ppbv

RT: 3.14 min Scan# 109

Delta R.T. 0.00 min

Lab File: VL036275.D

Acq: 28 Jan 2021 17:22

Instrument :

MSVOA\_L

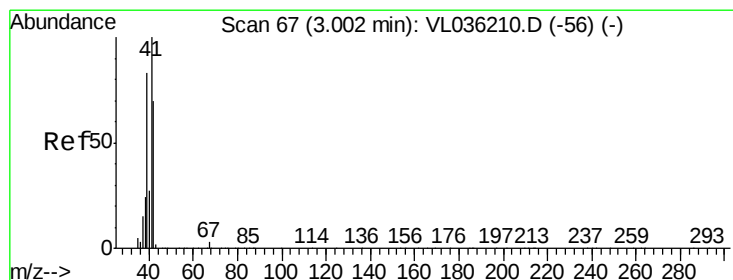
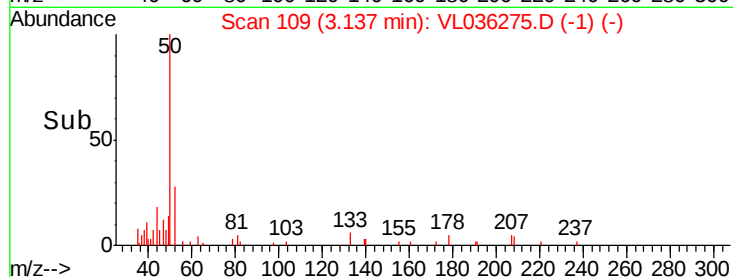
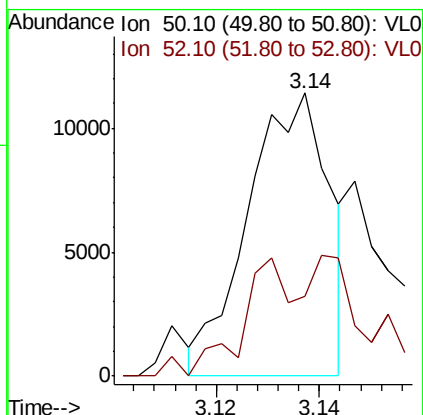
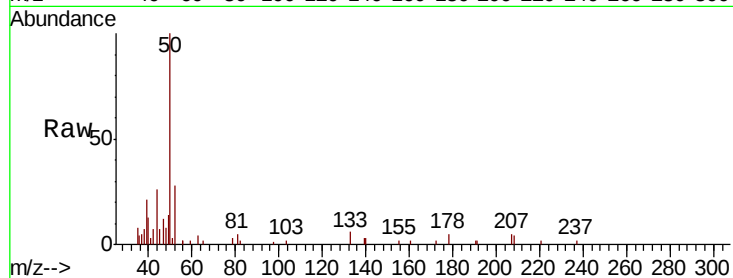
ClientSampleId :

Tot Ion: 50 Resp: 12450

Ion Ratio Lower Upper

50 100

52 31.7 27.8 41.8



#9

Propene

Concen: 0.094 ppbv

RT: 3.35 min Scan# 175

Delta R.T. 0.35 min

Lab File: VL036275.D

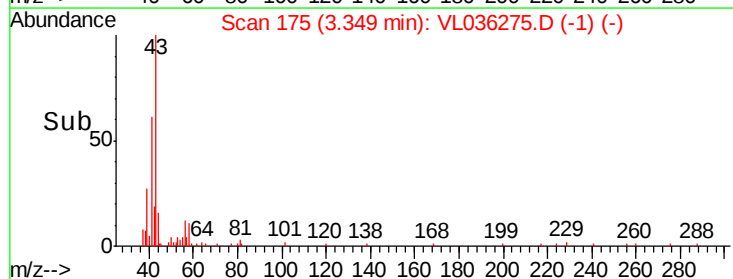
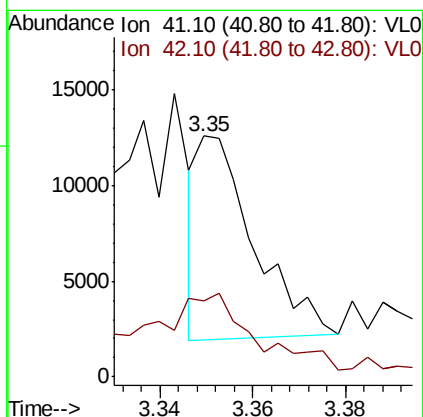
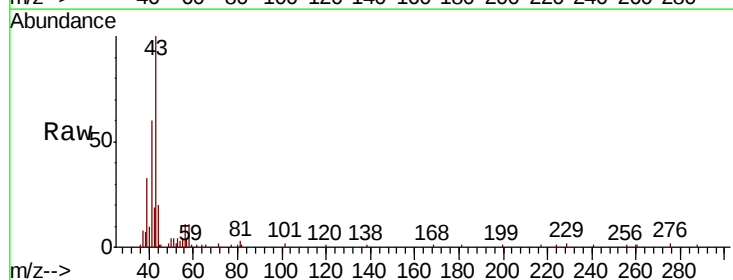
Acq: 28 Jan 2021 17:22

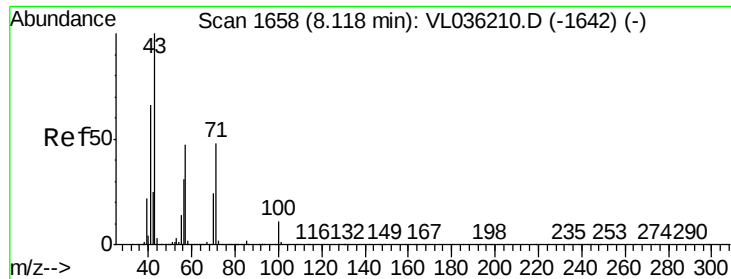
Tgt Ion: 41 Resp: 8848

Ion Ratio Lower Upper

41 100

42 82.5 57.1 85.7

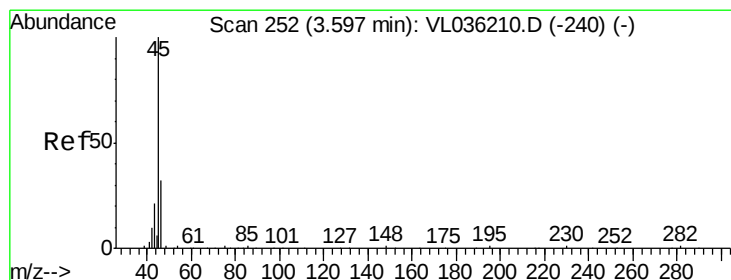
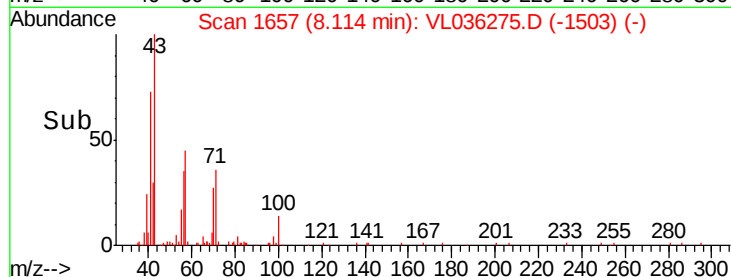
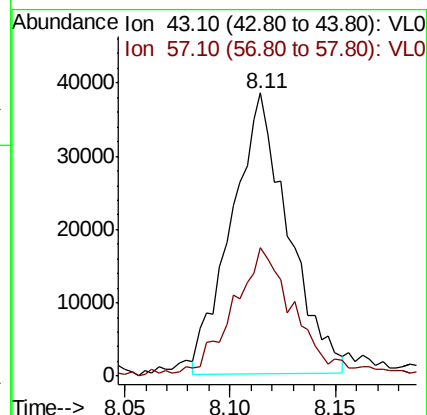
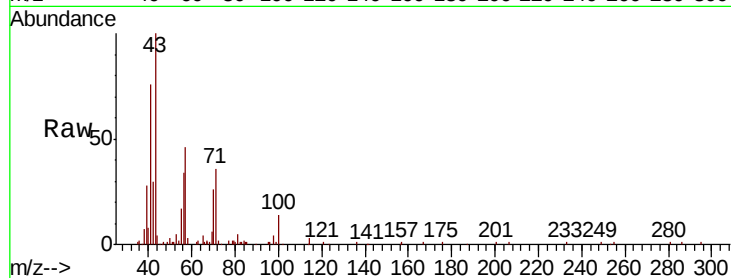




#10  
Heptane  
Concen: 0.305 ppbv  
RT: 8.11 min Scan# 1657  
Delta R.T. -0.00 min  
Lab File: VL036275.D  
Acq: 28 Jan 2021 17:22

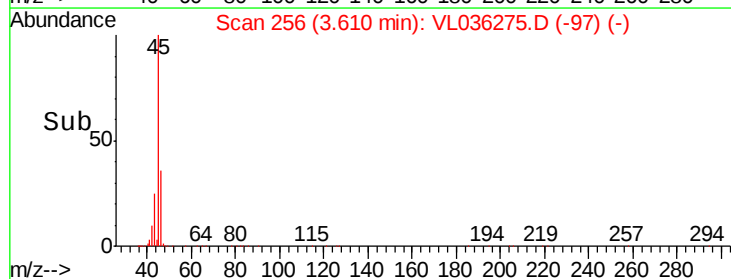
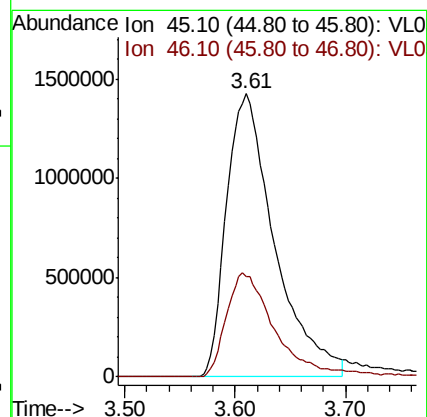
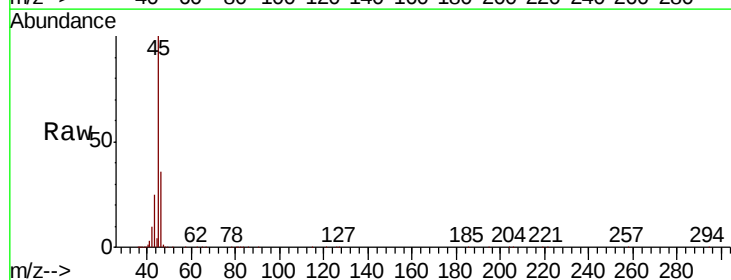
Instrument :  
MSVOA\_L  
ClientSampleId :

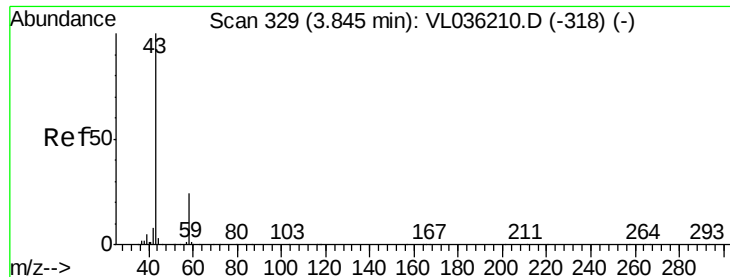
Tot Ion: 43 Resp: 71640  
Ion Ratio Lower Upper  
43 100  
57 51.3 38.1 57.1



#13  
Ethanol  
Concen: 290.701 ppbv  
RT: 3.61 min Scan# 256  
Delta R.T. 0.01 min  
Lab File: VL036275.D  
Acq: 28 Jan 2021 17:22

Tgt Ion: 45 Resp: 4319494  
Ion Ratio Lower Upper  
45 100  
46 38.0 19.2 77.0





#15

Acetone

Concen: 37.812 ppbv

RT: 3.84 min Scan# 327

Delta R.T. -0.01 min

Lab File: VL036275.D

Acq: 28 Jan 2021 17:22

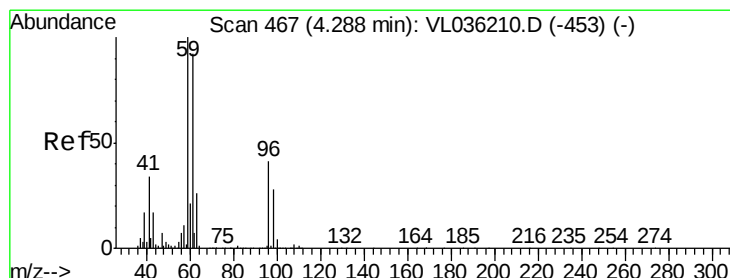
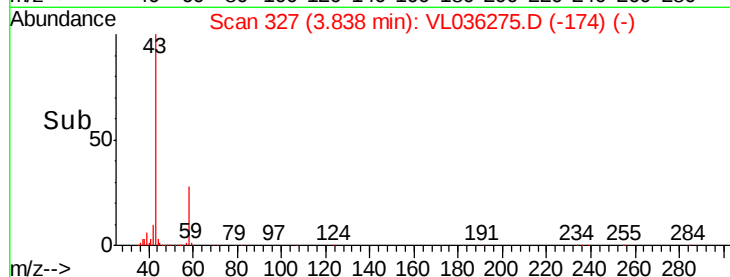
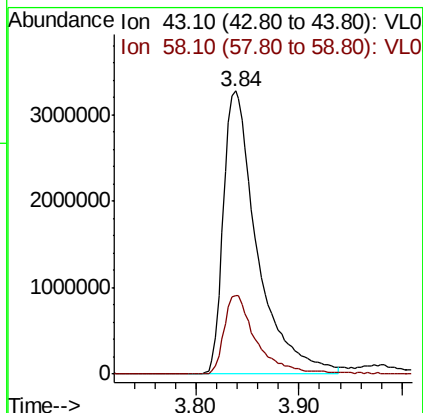
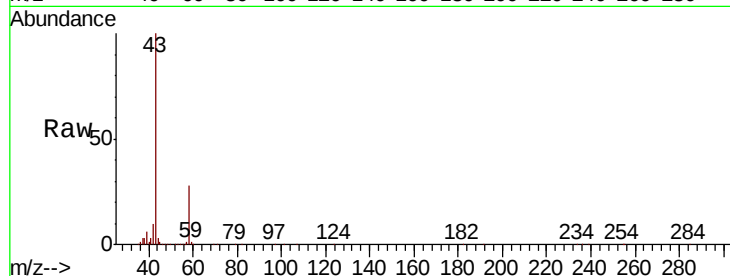
Instrument :  
MSVOA\_L  
ClientSampleId :

Tot Ion: 43 Resp: 7492957

Ion Ratio Lower Upper

43 100

58 27.3 20.9 31.3



#17

tert-Butyl alcohol

Concen: 30.665 ppbv

RT: 4.29 min Scan# 469

Delta R.T. 0.01 min

Lab File: VL036275.D

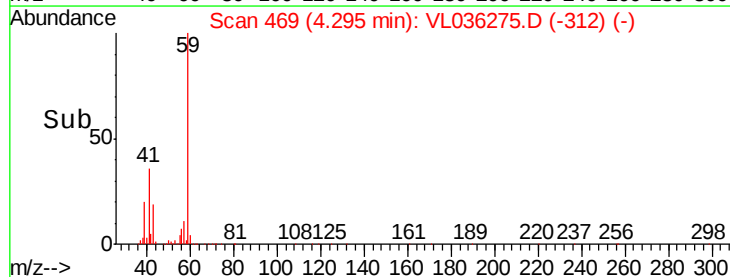
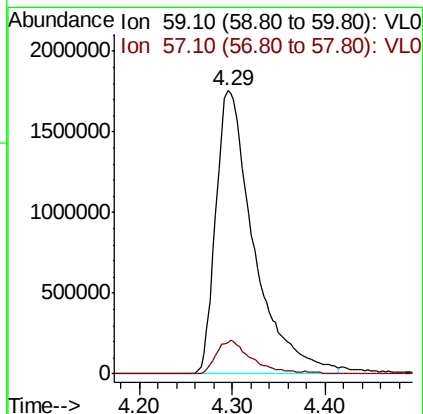
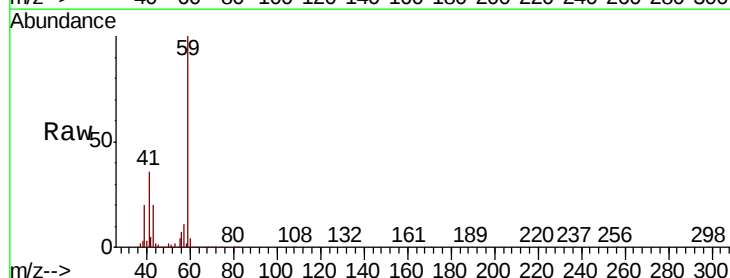
Acq: 28 Jan 2021 17:22

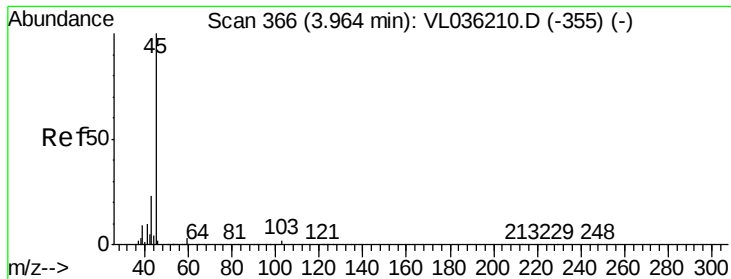
Tgt Ion: 59 Resp: 5014409

Ion Ratio Lower Upper

59 100

57 11.5 9.2 13.8





#19

Isopropyl Alcohol

Concen: 5.047 ppbv

RT: 3.97 min Scan# 369

Delta R.T. 0.01 min

Lab File: VL036275.D

Acq: 28 Jan 2021 17:22

Instrument :

MSVOA\_L

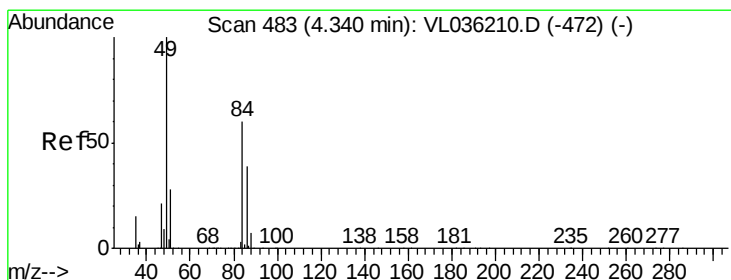
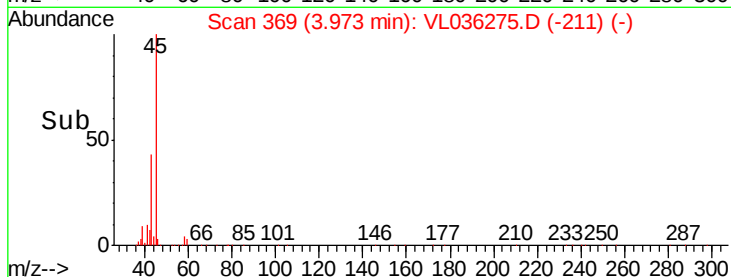
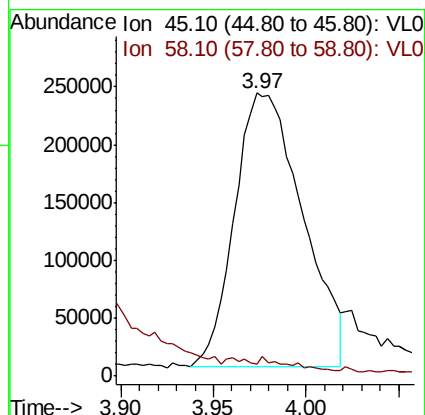
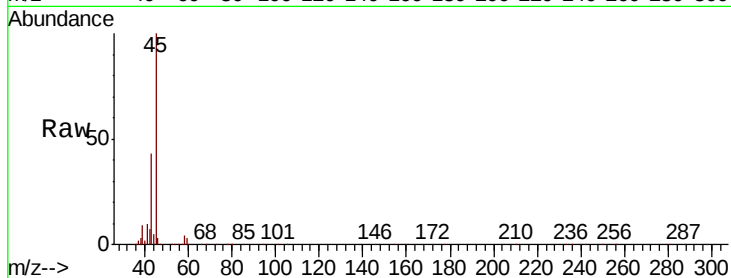
ClientSampled :

Tot Ion: 45 Resp: 602917

Ion Ratio Lower Upper

45 100

58 340.4 1.9 2.9#



#20

Methylene Chloride

Concen: 0.533 ppbv

RT: 4.34 min Scan# 483

Delta R.T. -0.00 min

Lab File: VL036275.D

Acq: 28 Jan 2021 17:22

Tgt Ion: 84 Resp: 33705

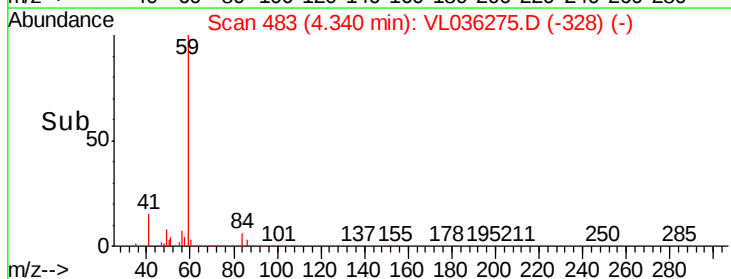
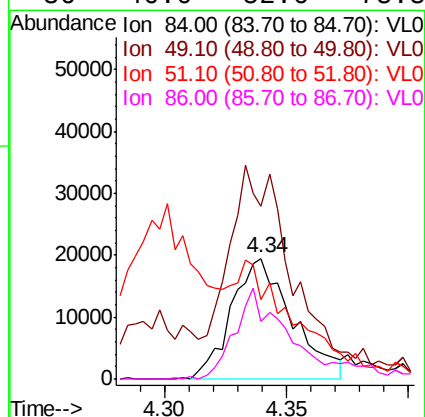
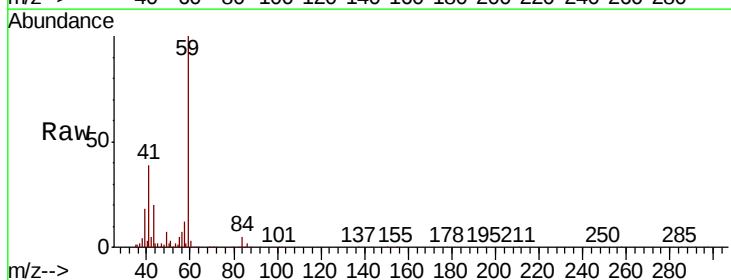
Ion Ratio Lower Upper

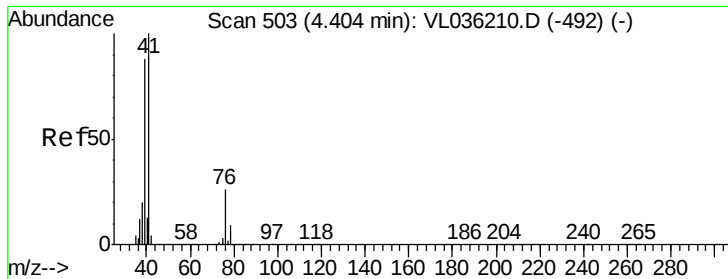
84 100

49 120.8 134.1 201.1#

51 44.9 37.4 56.0

86 46.0 52.6 78.8#

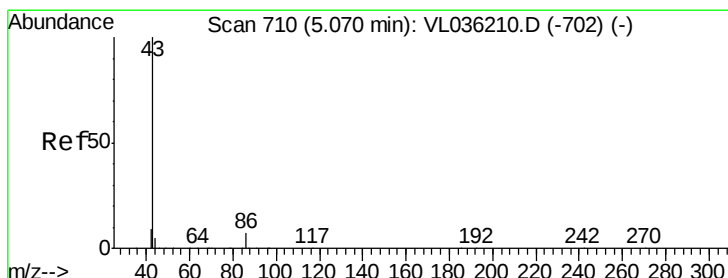
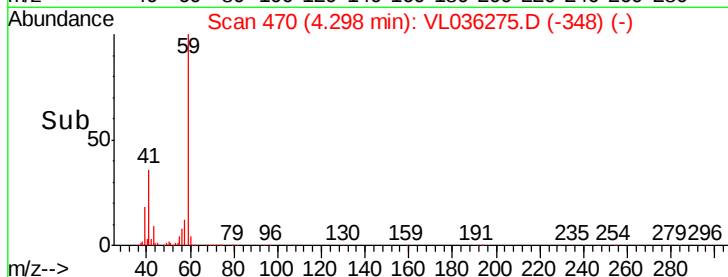
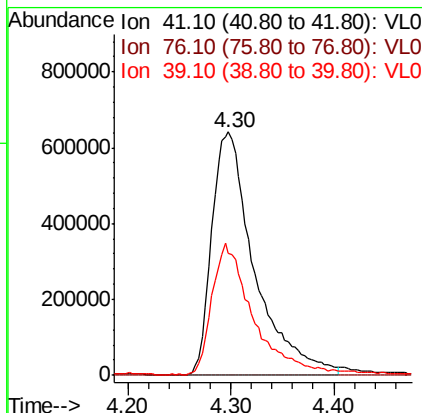
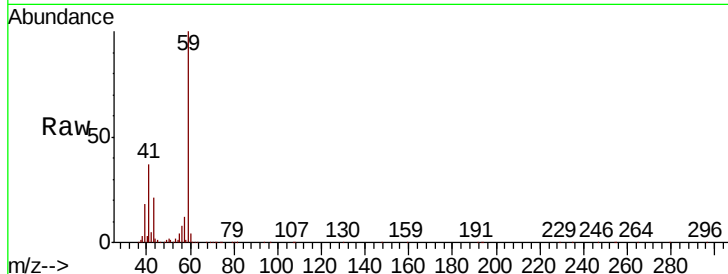




#21  
Allvl Chloride  
Concen: 16.993 ppbv  
RT: 4.30 min Scan# 470  
Delta R.T. -0.11 min  
Lab File: VL036275.D  
Acq: 28 Jan 2021 17:22

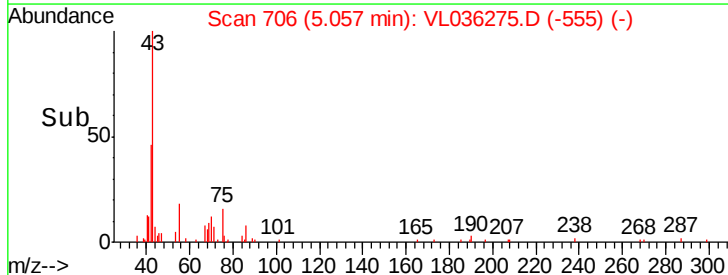
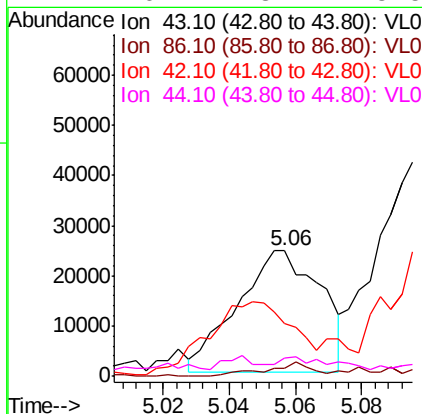
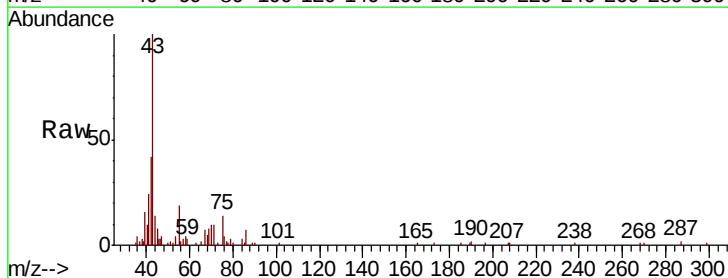
Instrument :  
MSVOA\_L  
ClientSampleId :

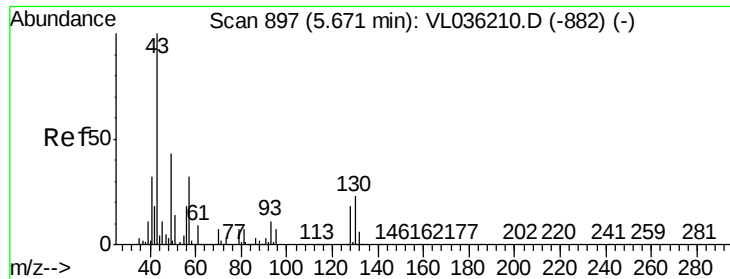
Tot Ion: 41 Resp: 1832928  
Ion Ratio Lower Upper  
41 100  
76 0.0 20.5 30.7#  
39 53.9 67.8 101.8#



#23  
Vinyl Acetate  
Concen: 0.175 ppbv  
RT: 5.06 min Scan# 706  
Delta R.T. -0.01 min  
Lab File: VL036275.D  
Acq: 28 Jan 2021 17:22

Tgt Ion: 43 Resp: 42089  
Ion Ratio Lower Upper  
43 100  
86 7.6 4.9 7.3#  
42 20.9 7.8 11.6#  
44 6.1 3.7 5.5#





#25

Ethyl Acetate

Concen: 0.481 ppbv

RT: 5.67 min Scan# 898

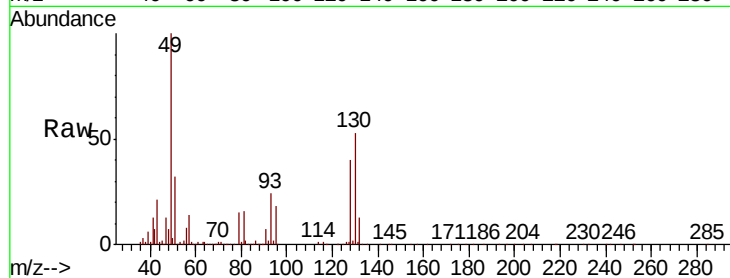
Delta R.T. 0.00 min

Lab File: VL036275.D

Acq: 28 Jan 2021 17:22

Instrument :  
MSVOA\_L  
ClientSampled :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 43    | Resp: | 191317 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 45       | 8.8   | 8.3   | 12.5   |
| 61       | 7.2   | 7.4   | 11.2#  |
| 70       | 6.5   | 5.5   | 8.3    |



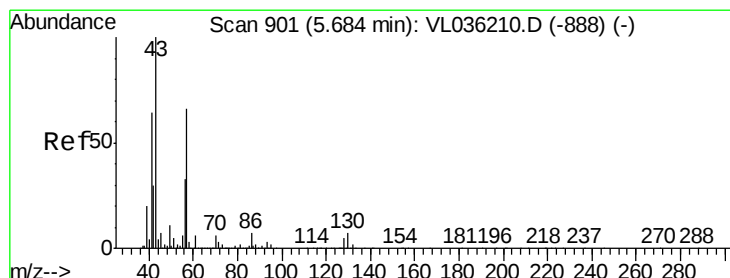
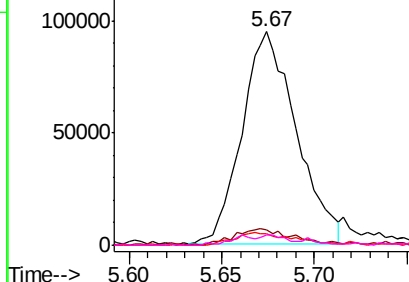
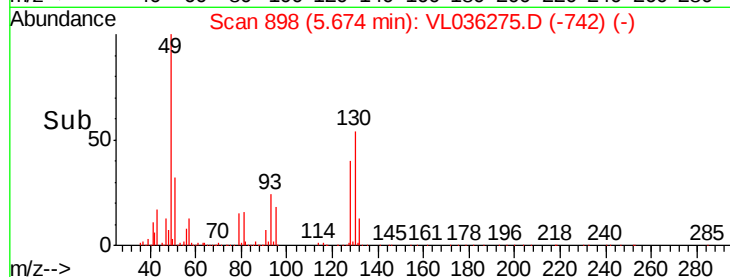
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 0.836 ppbv

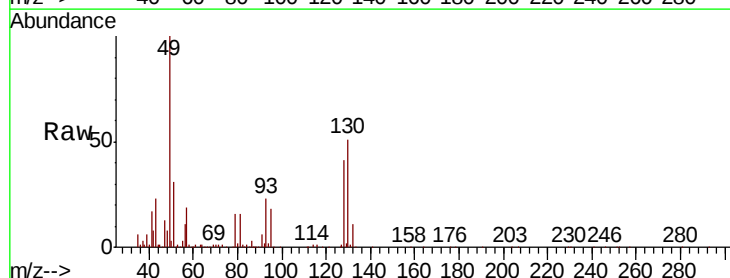
RT: 5.68 min Scan# 899

Delta R.T. -0.01 min

Lab File: VL036275.D

Acq: 28 Jan 2021 17:22

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 57    | Resp: | 138446 |
| Ion      | Ratio | Lower | Upper  |
| 57       | 100   |       |        |
| 41       | 107.4 | 83.0  | 124.6  |
| 43       | 155.0 | 202.4 | 303.6# |
| 56       | 61.5  | 43.4  | 65.0   |



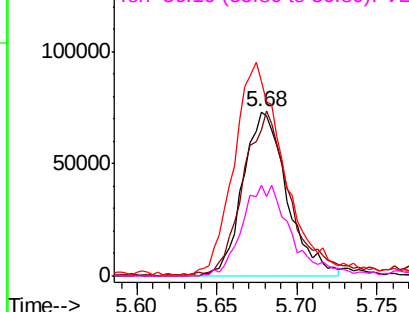
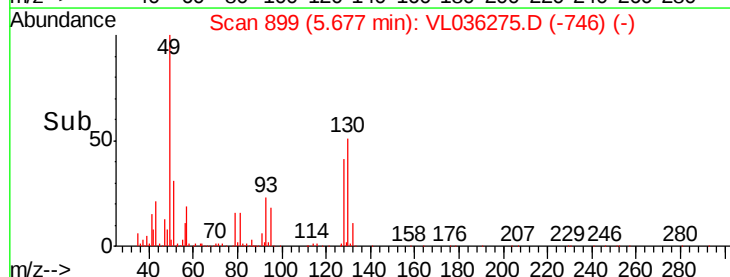
Abundance

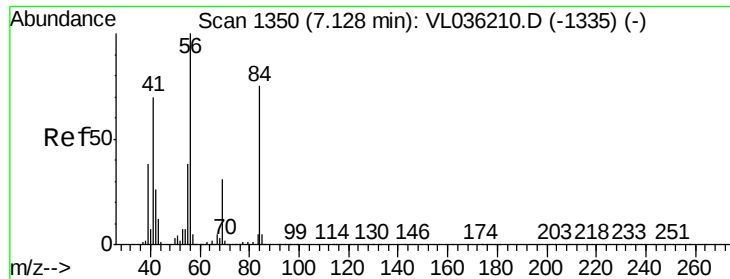
Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

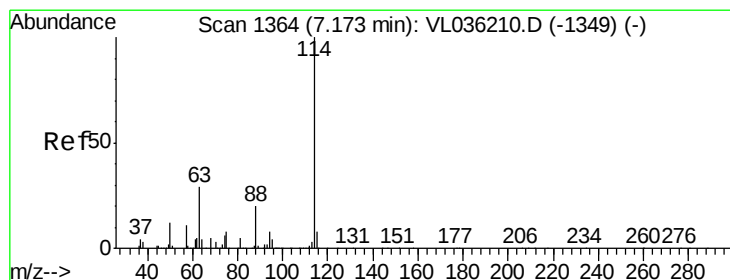
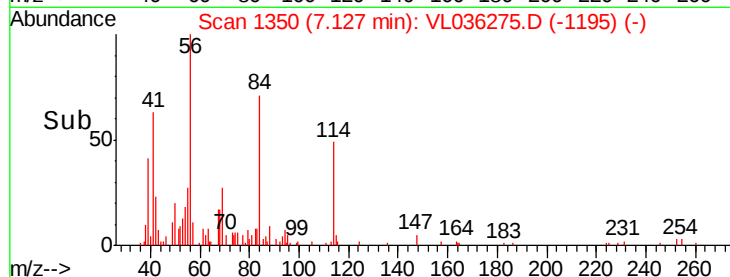
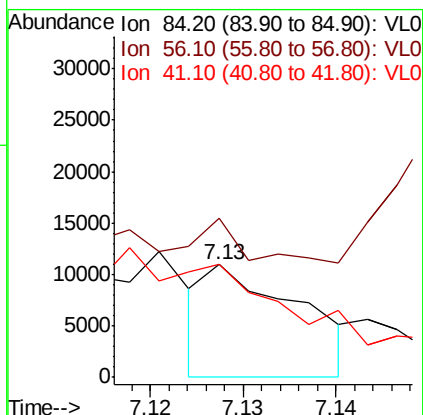
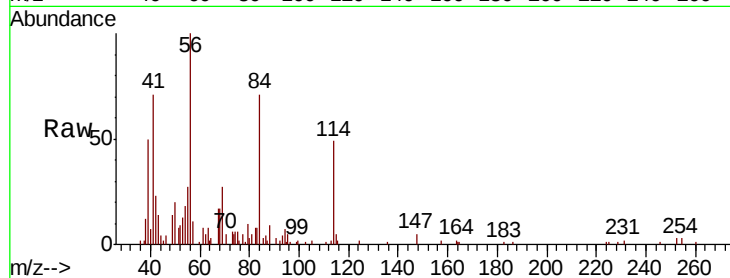




#30  
Cyclohexane  
Concen: 0.059 ppbv  
RT: 7.13 min Scan# 1350  
Delta R.T. -0.00 min  
Lab File: VL036275.D  
Acq: 28 Jan 2021 17:22

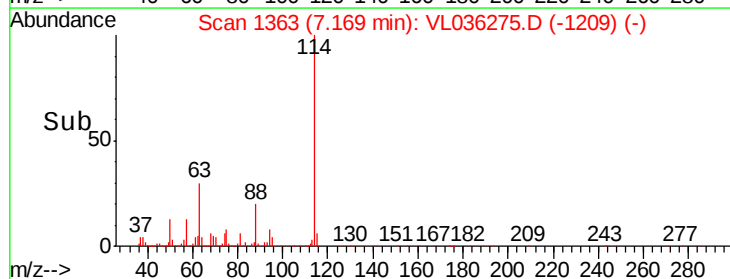
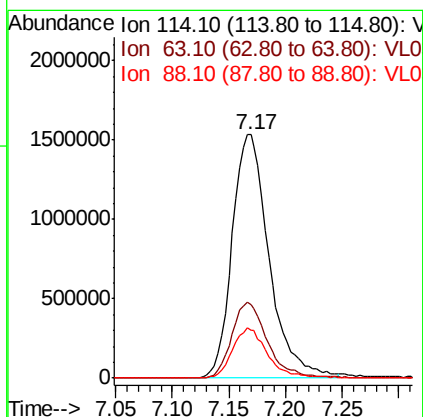
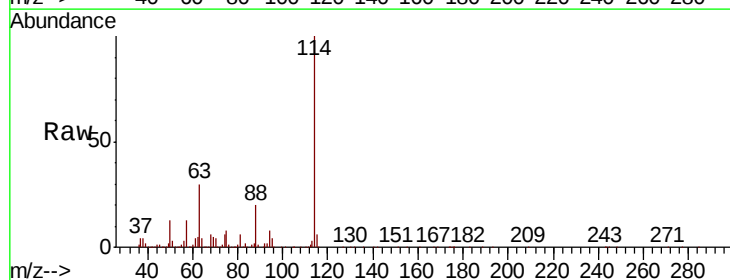
Instrument :  
MSVOA\_L  
ClientSampled :

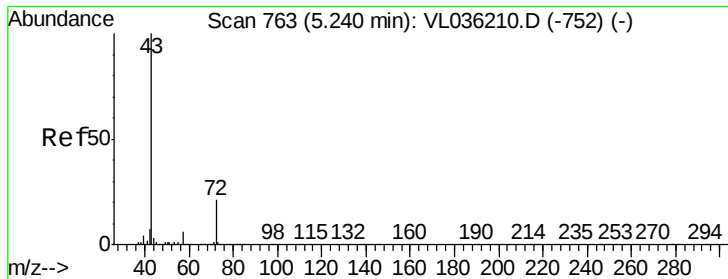
Tot Ion: 84 Resp: 7526  
Ion Ratio Lower Upper  
84 100  
56 0.0 119.4 179.0#  
41 0.0 79.4 119.0#



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.17 min Scan# 1363  
Delta R.T. -0.00 min  
Lab File: VL036275.D  
Acq: 28 Jan 2021 17:22

Tgt Ion: 114 Resp: 3485891  
Ion Ratio Lower Upper  
114 100  
63 30.4 24.7 37.1  
88 19.7 16.6 24.8

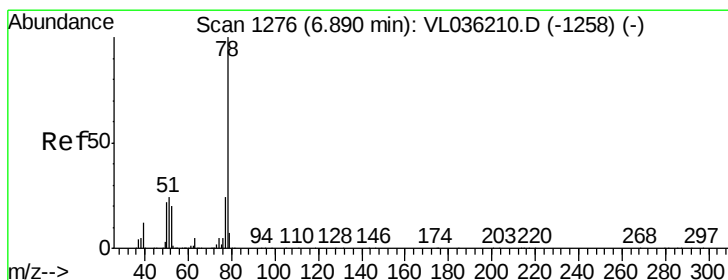
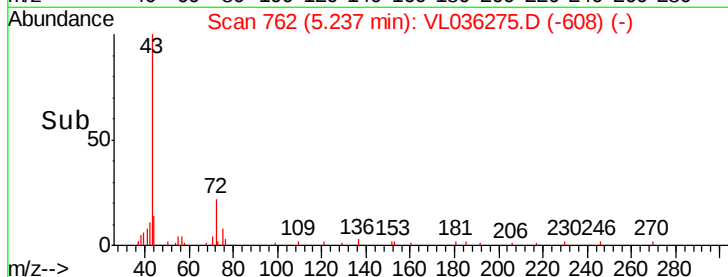
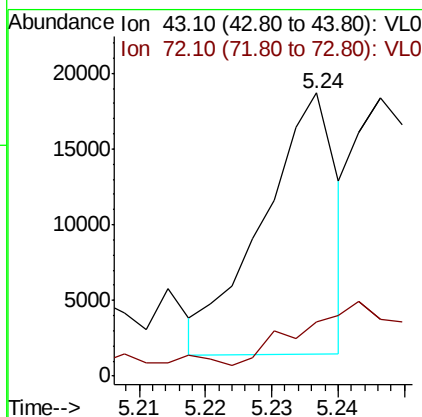
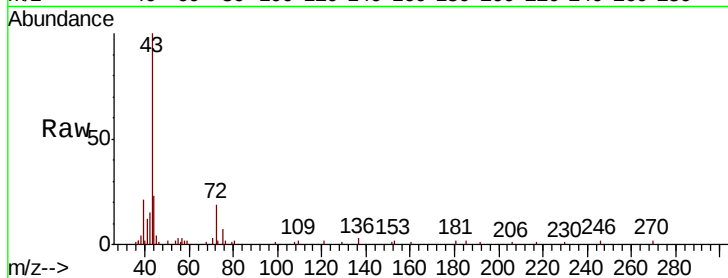




#34  
2-Butanone  
Concen: 0.052 ppbv  
RT: 5.24 min Scan# 762  
Delta R.T. -0.00 min  
Lab File: VL036275.D  
Acq: 28 Jan 2021 17:22

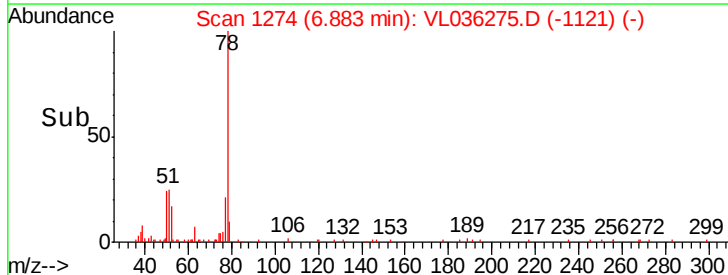
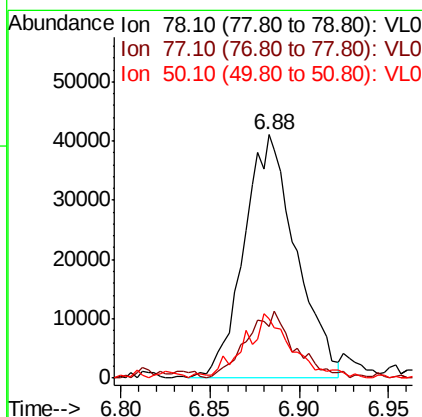
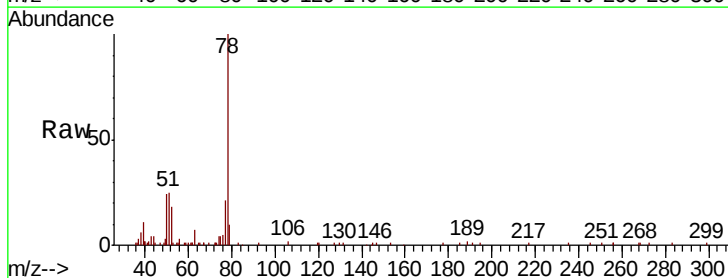
Instrument :  
MSVOA\_L  
ClientSampleId :

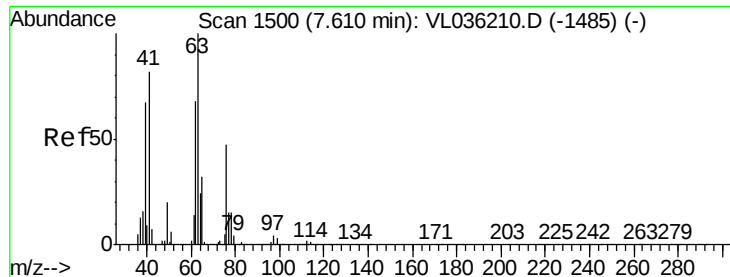
Tot Ion: 43 Resp: 13373  
Ion Ratio Lower Upper  
43 100  
72 0.0 16.1 24.1#



#36  
Benzene  
Concen: 0.263 ppbv  
RT: 6.88 min Scan# 1274  
Delta R.T. -0.01 min  
Lab File: VL036275.D  
Acq: 28 Jan 2021 17:22

Tgt Ion: 78 Resp: 83906  
Ion Ratio Lower Upper  
78 100  
77 19.0 19.4 29.0#  
50 24.4 17.4 26.2



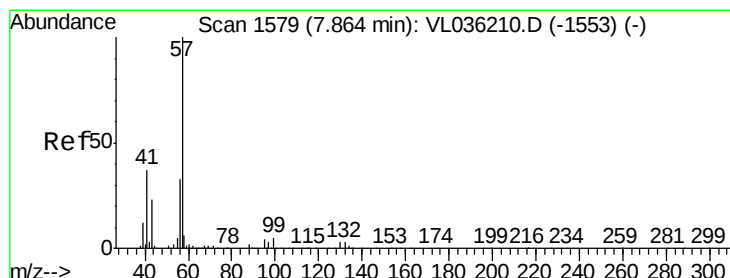
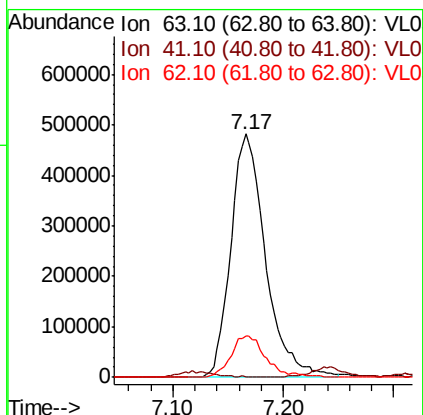
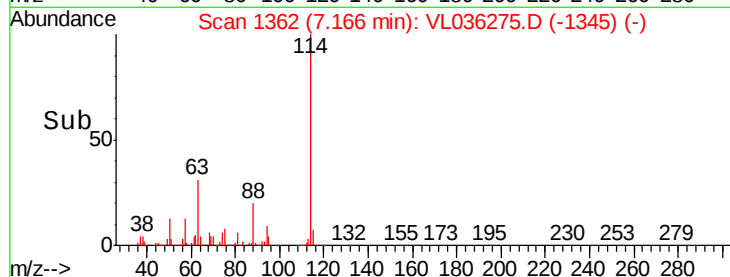
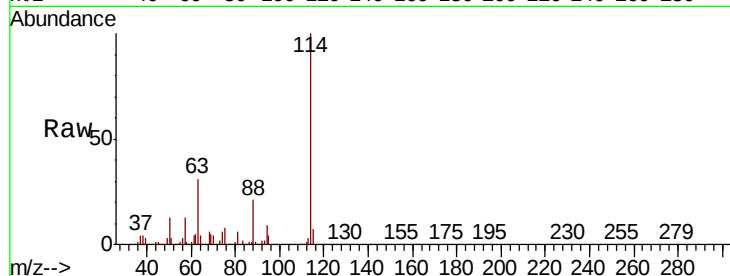


#39  
 1,2-Dichloropropane  
 Concen: 8.106 ppbv  
 RT: 7.17 min Scan# 1362  
 Delta R.T. -0.44 min  
 Lab File: VL036275.D  
 Acq: 28 Jan 2021 17:22

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion: 63 Resp: 1051182  

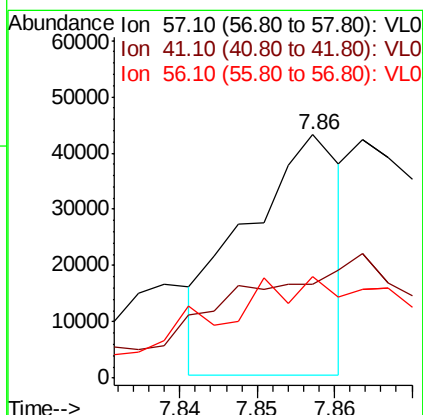
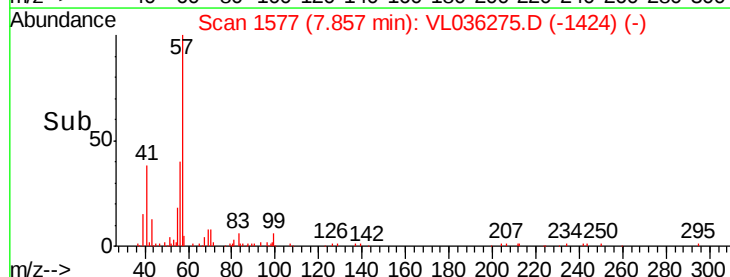
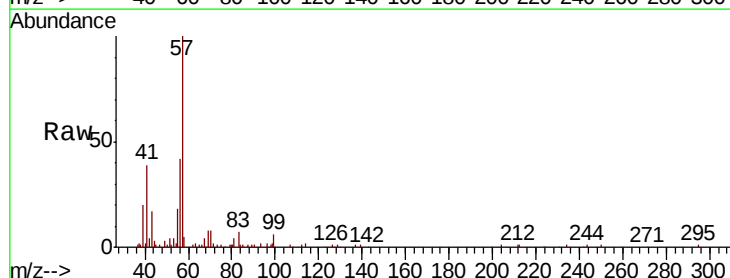
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 63  | 100   |       |       |
| 41  | 0.0   | 66.1  | 99.1# |
| 62  | 17.0  | 54.8  | 82.2# |

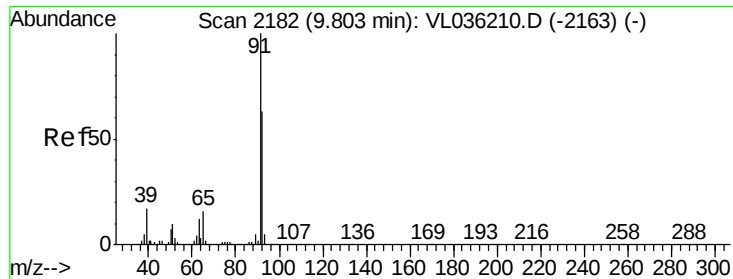


#44  
 2,2,4-Trimethylpentane  
 Concen: 0.063 ppbv  
 RT: 7.86 min Scan# 1577  
 Delta R.T. -0.01 min  
 Lab File: VL036275.D  
 Acq: 28 Jan 2021 17:22

Tgt Ion: 57 Resp: 37097  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 57  | 100   |       |       |
| 41  | 0.0   | 28.5  | 42.7# |
| 56  | 114.5 | 25.5  | 38.3# |





#53

Toluene

Concen: 2.376 ppbv

RT: 9.80 min Scan# 2181

Delta R.T. -0.00 min

Lab File: VL036275.D

Acq: 28 Jan 2021 17:22

Instrument :

MSVOA\_L

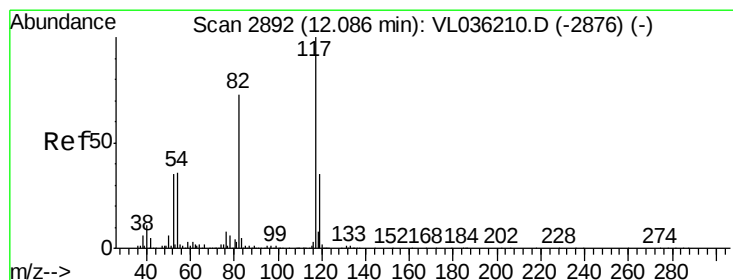
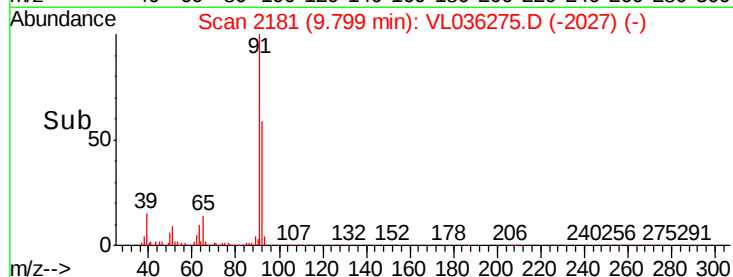
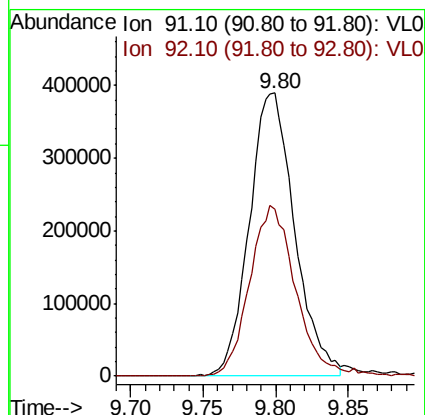
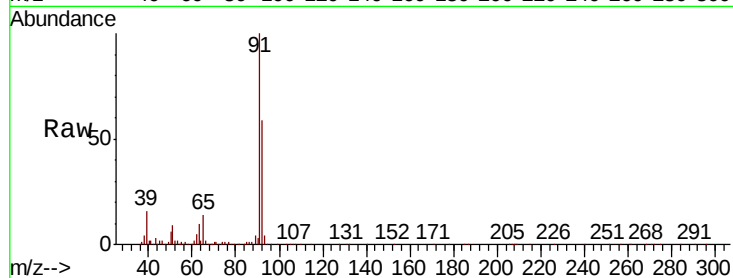
ClientSampleId :

Tot Ion: 91 Resp: 848919

Ion Ratio Lower Upper

91 100

92 61.9 48.5 72.7



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2889

Delta R.T. -0.01 min

Lab File: VL036275.D

Acq: 28 Jan 2021 17:22

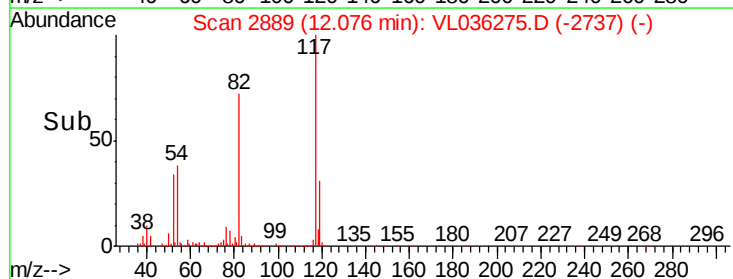
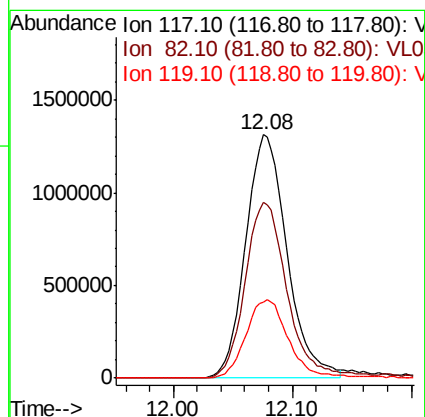
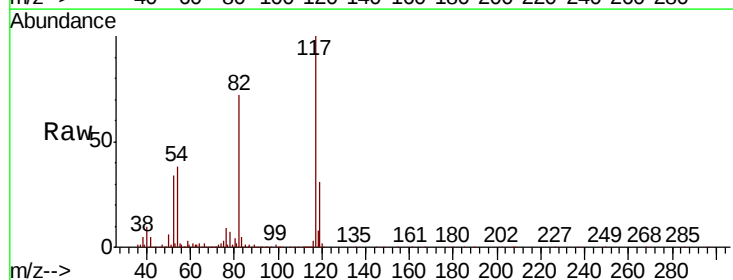
Tgt Ion: 117 Resp: 3158417

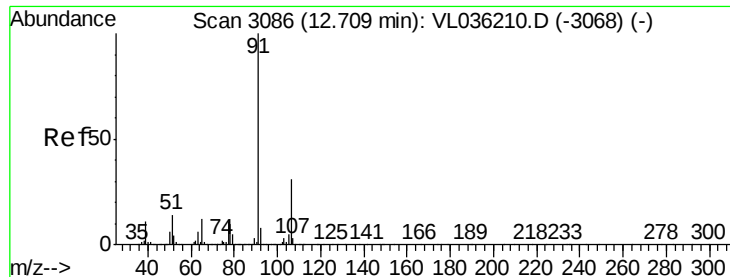
Ion Ratio Lower Upper

117 100

82 75.1 59.7 89.5

119 33.8 28.6 43.0





#58

Ethyl Benzene

Concen: 0.305 ppbv

RT: 12.70 min Scan# 3084

Delta R.T. -0.01 min

Lab File: VL036275.D

Acq: 28 Jan 2021 17:22

Instrument :

MSVOA\_L

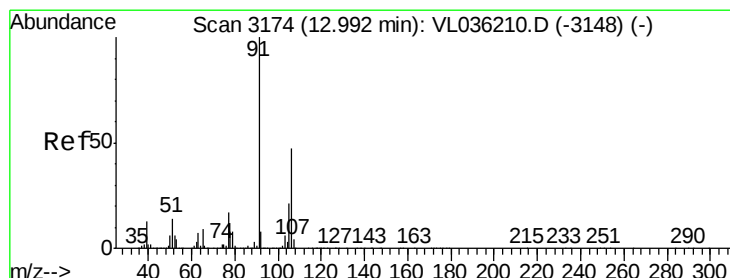
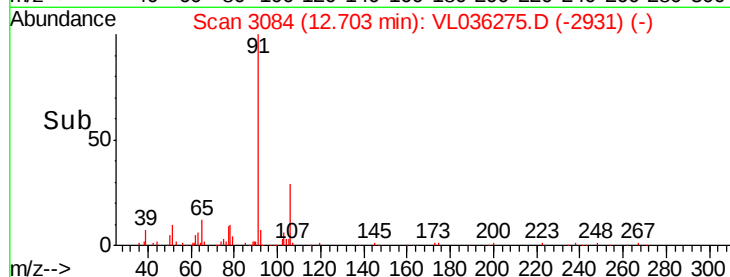
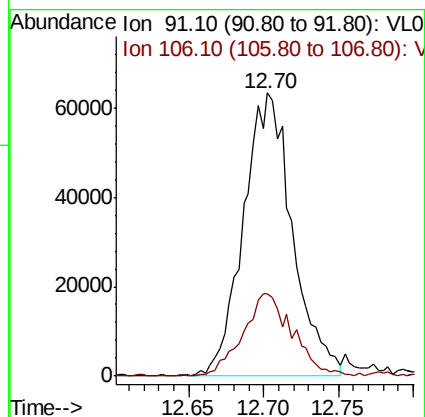
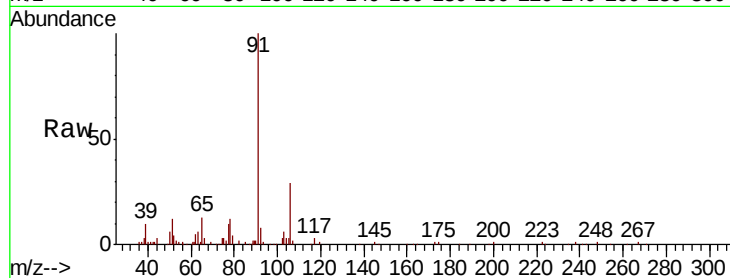
ClientSampleId :

Tot Ion: 91 Resp: 143106

Ion Ratio Lower Upper

91 100

106 29.1 24.8 37.2



#59

m/p-Xylene

Concen: 0.665 ppbv

RT: 12.97 min Scan# 3166

Delta R.T. -0.03 min

Lab File: VL036275.D

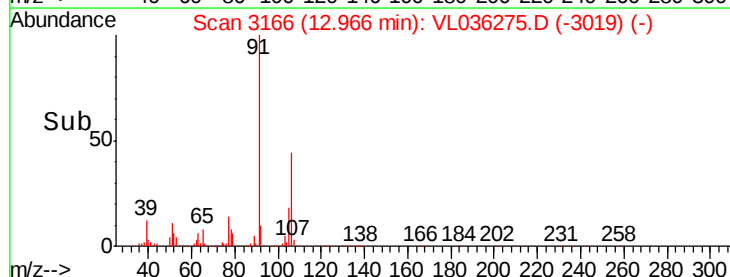
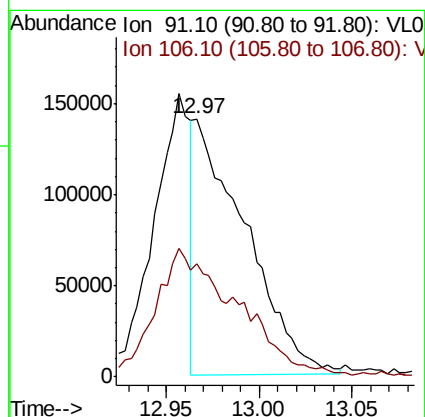
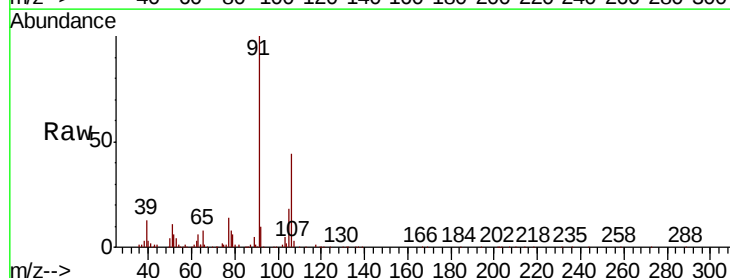
Acq: 28 Jan 2021 17:22

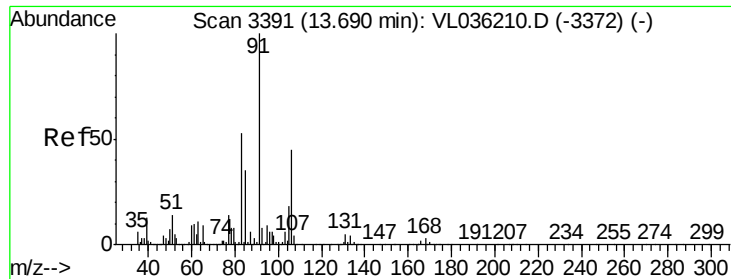
Tgt Ion: 91 Resp: 267688

Ion Ratio Lower Upper

91 100

106 0.0 34.6 51.8#

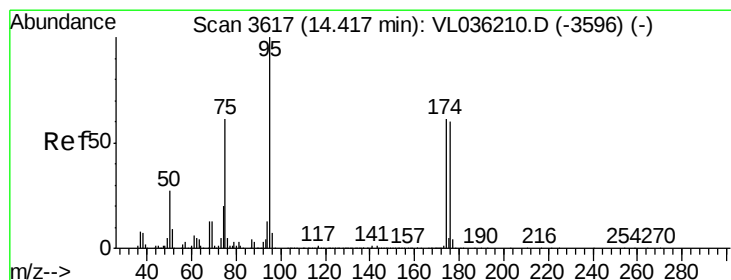
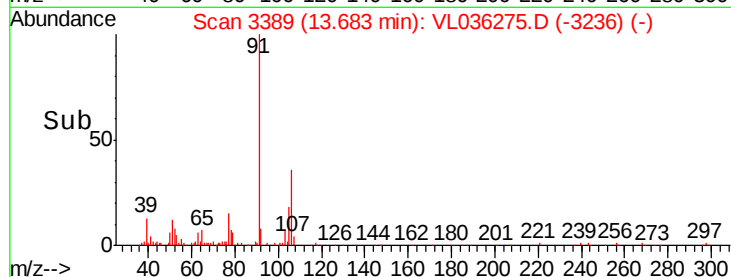
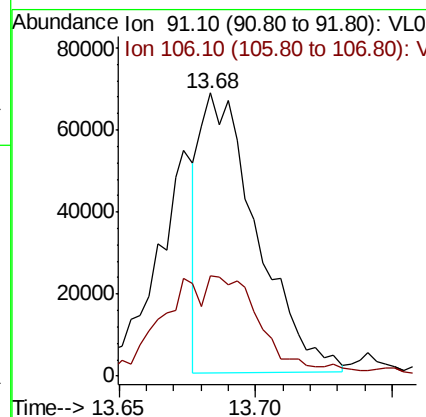
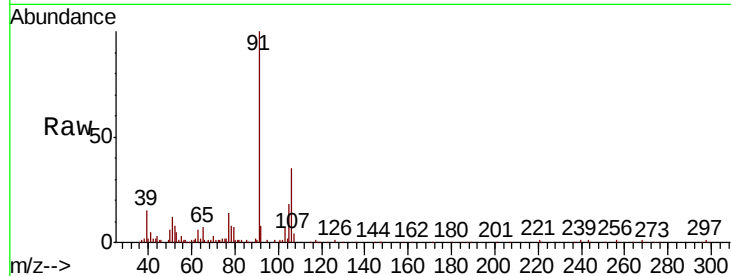




#60  
o-Xylene  
Concen: 0.253 ppbv  
RT: 13.68 min Scan# 3389  
Delta R.T. -0.01 min  
Lab File: VL036275.D  
Acq: 28 Jan 2021 17:22

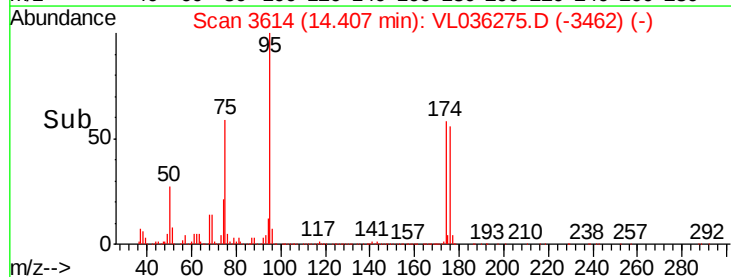
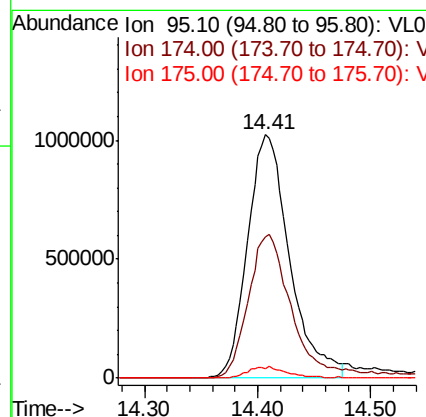
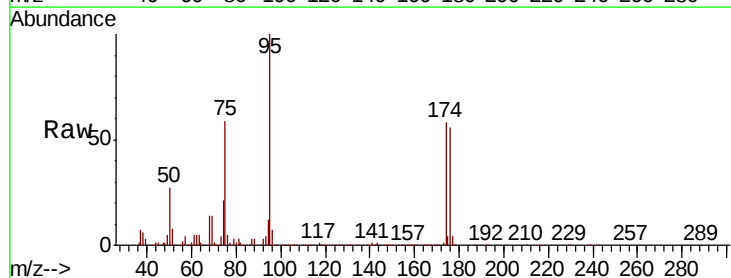
Instrument :  
MSVOA\_L  
ClientSampled :

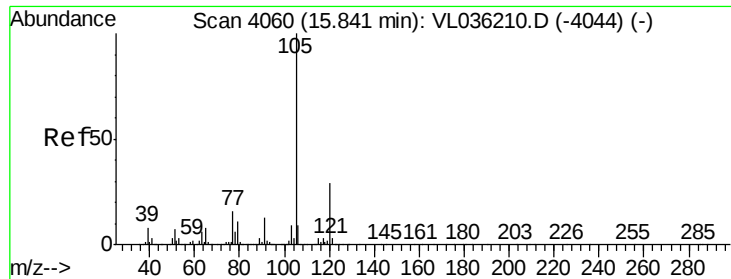
Tot Ion: 91 Resp: 98225  
Ion Ratio Lower Upper  
91 100  
106 64.9 21.9 65.8



#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.138 ppbv  
RT: 14.41 min Scan# 3614  
Delta R.T. -0.01 min  
Lab File: VL036275.D  
Acq: 28 Jan 2021 17:22

Tgt Ion: 95 Resp: 2650391  
Ion Ratio Lower Upper  
95 100  
174 64.4 49.4 74.0  
175 4.8 3.8 5.8





#72

4-Ethyltoluene

Concen: 0.030 ppbv

RT: 15.83 min Scan# 4056

Delta R.T. -0.01 min

Lab File: VL036275.D

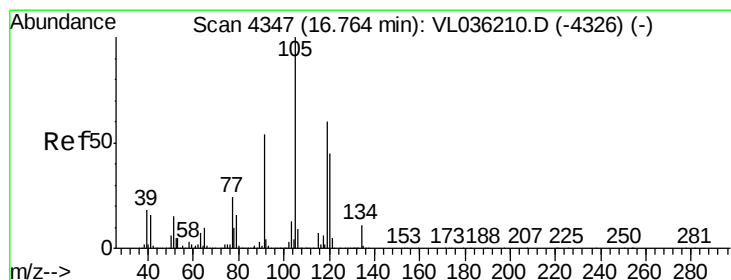
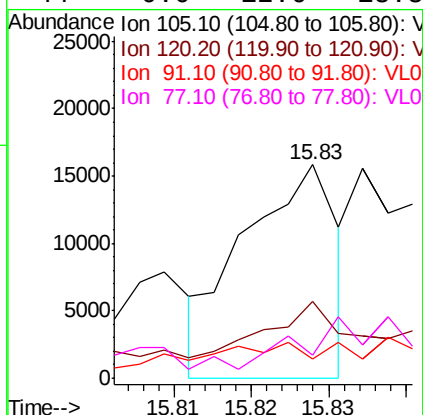
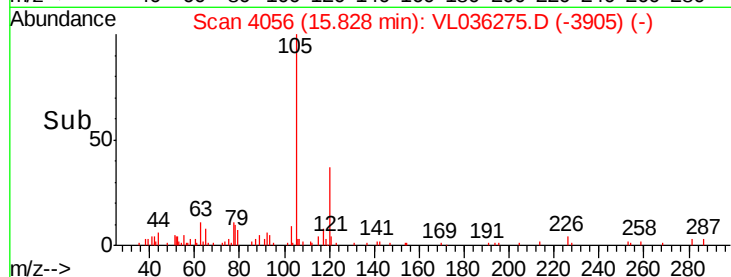
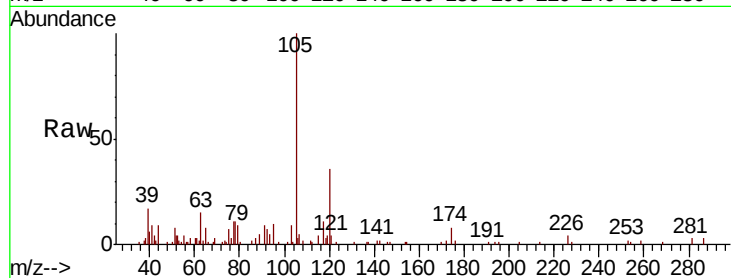
Acq: 28 Jan 2021 17:22

Instrument :

MSVOA\_L

ClientSampled :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 105   | Resp: | 13332 |
| Ion      | Ratio | Lower | Upper |
| 105      | 100   |       |       |
| 120      | 92.7  | 23.7  | 35.5# |
| 91       | 0.0   | 11.9  | 17.9# |
| 77       | 0.0   | 12.6  | 18.8# |



#74

1,2,4-Trimethylbenzene

Concen: 0.061 ppbv

RT: 16.75 min Scan# 4343

Delta R.T. -0.01 min

Lab File: VL036275.D

Acq: 28 Jan 2021 17:22

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 105   | Resp: | 25966 |
| Ion      | Ratio | Lower | Upper |
| 105      | 100   |       |       |
| 120      | 41.9  | 36.2  | 54.2  |
| 91       | 5.9   | 43.3  | 64.9# |
| 77       | 8.8   | 19.1  | 28.7# |

