

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110320\  
 Data File : VL035820.D  
 Acq On : 4 Nov 2020 1:51  
 Operator : SY/AP  
 Sample : L4610-01 10X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Nov 04 05:17:58 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Nov 04 02:40:06 2020  
 QLast Update : Wed Nov 04 02:40:06 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.64  | 49   | 1161535  | 10.00 | ppbv  | -0.03    |
| 33) 1,4-Difluorobenzene | 7.15  | 114  | 5126896  | 10.00 | ppbv  | -0.03    |
| 55) Chlorobenzene-d5    | 12.06 | 117  | 4731376  | 10.00 | ppbv  | -0.04    |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 14.39  | 95    | 3385111  | 10.07    | ppbv | -0.04   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.70% |

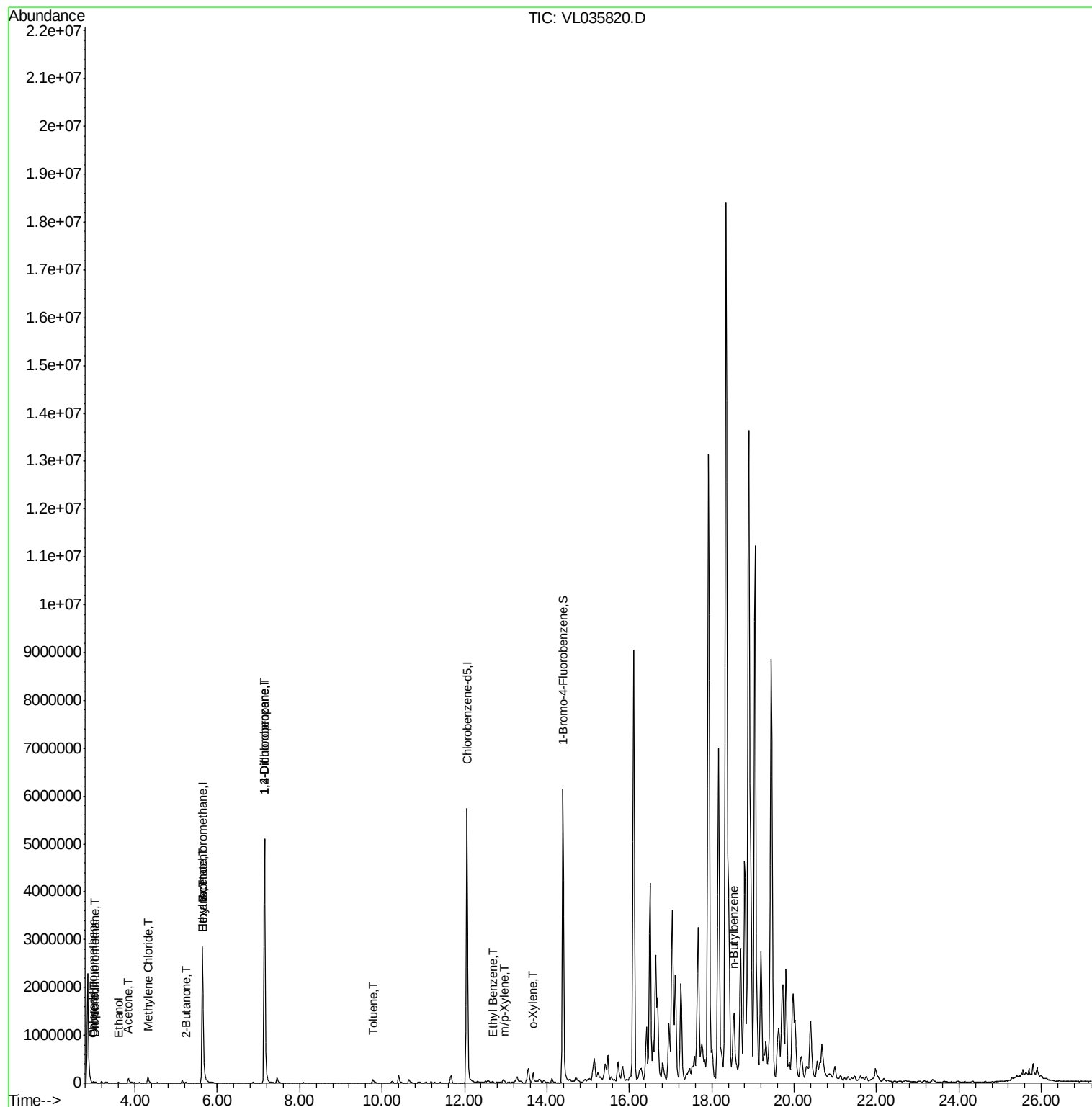
| Target Compounds           | R.T.  | QIon | Response | Conc  | Units  | Ovalue |
|----------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane | 3.03  | 85   | 18311    | 0.084 | ppbv   | 98     |
| 3) Chlorodifluoromethane   | 2.97  | 51   | 6085     | 0.044 | ppbv   | 92     |
| 9) Propene                 | 2.99  | 41   | 4445     | 0.087 | ppbv # | 15     |
| 13) Ethanol                | 3.59  | 45   | 3192     | 0.289 | ppbv # | 35     |
| 15) Acetone                | 3.84  | 43   | 130576   | 1.052 | ppbv # | 84     |
| 20) Methylene Chloride     | 4.32  | 84   | 75455    | 0.863 | ppbv   | 94     |
| 25) Ethyl Acetate          | 5.66  | 43   | 24788    | 0.101 | ppbv # | 73     |
| 26) Hexane                 | 5.66  | 57   | 47358    | 0.351 | ppbv # | 47     |
| 34) 2-Butanone             | 5.24  | 43   | 11812    | 0.071 | ppbv   | 89     |
| 39) 1,2-Dichloropropane    | 7.14  | 63   | 945822   | 7.371 | ppbv # | 30     |
| 53) Toluene                | 9.78  | 91   | 66009    | 0.144 | ppbv   | 96     |
| 58) Ethyl Benzene          | 12.69 | 91   | 17784    | 0.031 | ppbv   | 93     |
| 59) m/p-Xylene             | 12.96 | 91   | 22612    | 0.046 | ppbv # | 28     |
| 60) o-Xylene               | 13.66 | 91   | 37280    | 0.079 | ppbv   | 97     |
| 70) n-Butylbenzene         | 18.53 | 91   | 37783    | 0.052 | ppbv # | 92     |

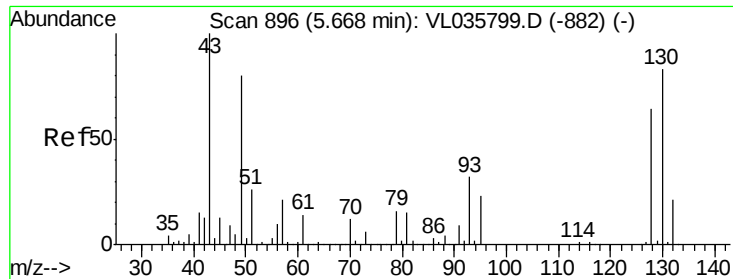
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Nov 04 05:17:58 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Nov 04 02:40:06 2020  
QLast Update : Wed Nov 04 02:40:06 2020  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 887

Delta R.T. -0.03 min

Lab File: VL035820.D

Acq: 4 Nov 2020 1:51

Instrument :

MSVOA\_L

ClientSampleId :

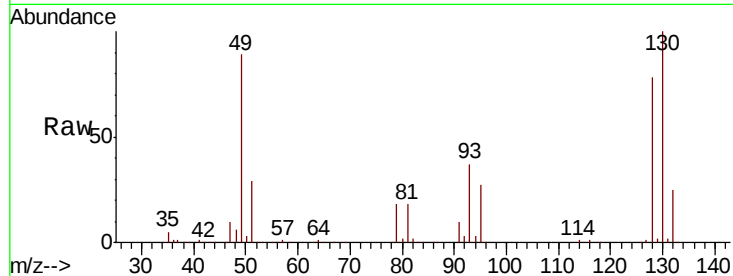
Tot Ion: 49 Resp: 1161535

Ion Ratio Lower Upper

49 100

128 94.0 41.5 124.6

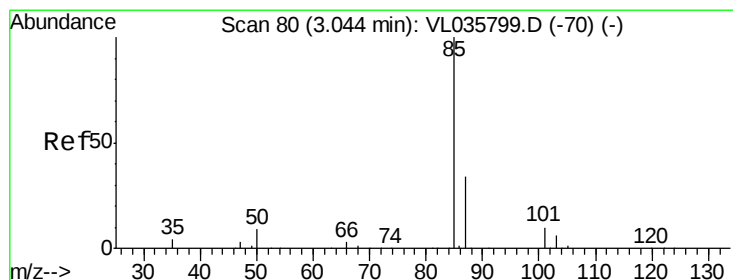
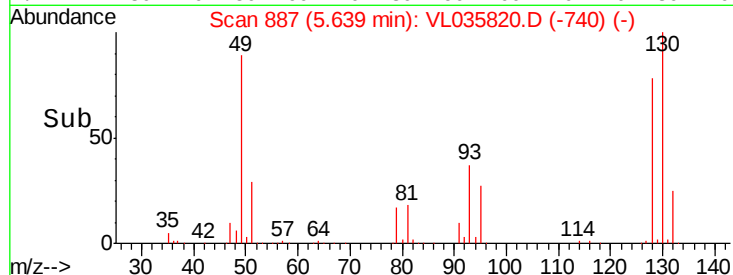
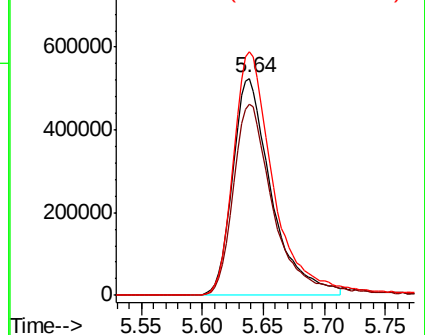
130 118.5 53.7 161.1



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: 0.084 ppbv

RT: 3.03 min Scan# 75

Delta R.T. -0.02 min

Lab File: VL035820.D

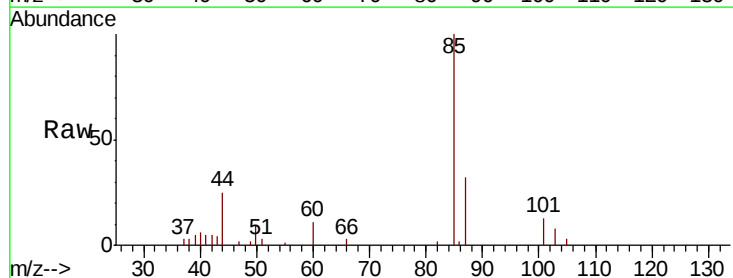
Acq: 4 Nov 2020 1:51

Tgt Ion: 85 Resp: 18311

Ion Ratio Lower Upper

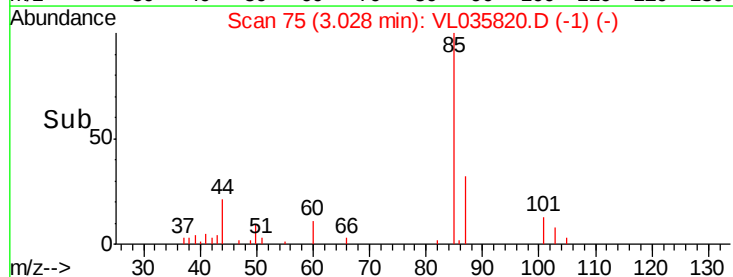
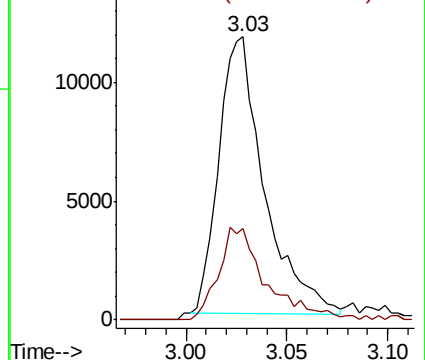
85 100

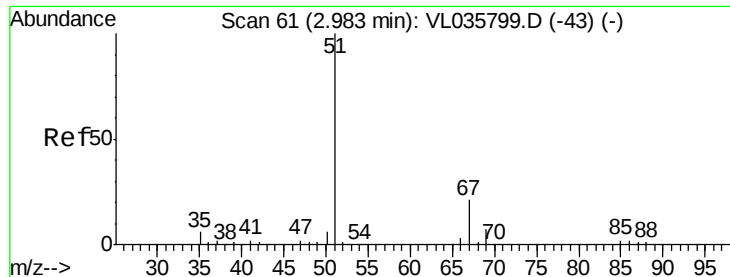
87 32.9 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.044 ppbv

RT: 2.97 min Scan# 58

Delta R.T. -0.01 min

Lab File: VL035820.D

Acq: 4 Nov 2020 1:51

Instrument :

MSVOA\_L

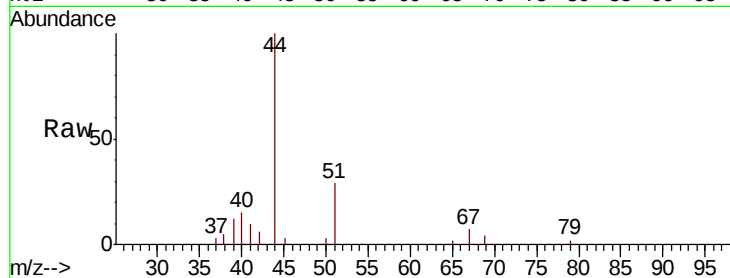
ClientSampleId :

Tot Ion: 51 Resp: 6085

Ion Ratio Lower Upper

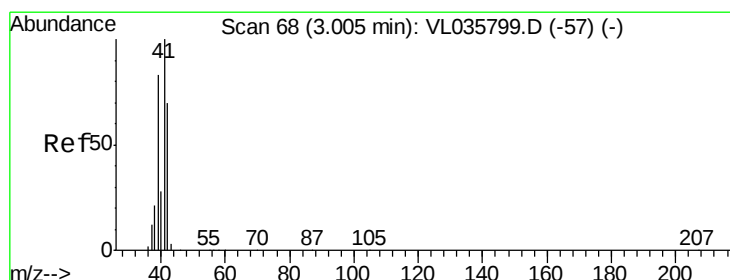
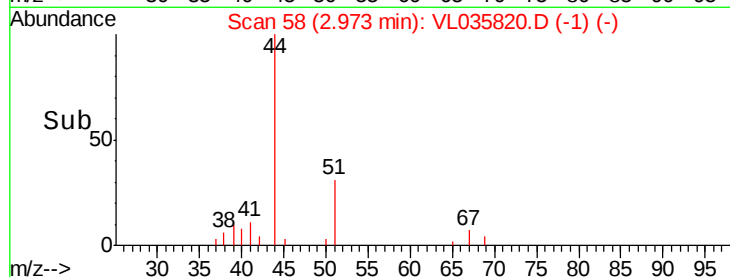
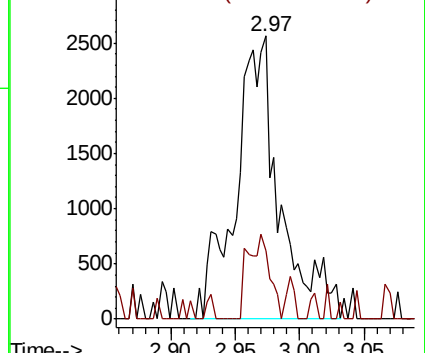
51 100

67 17.6 17.0 25.4



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#9

Propene

Concen: 0.087 ppbv

RT: 2.99 min Scan# 64

Delta R.T. -0.01 min

Lab File: VL035820.D

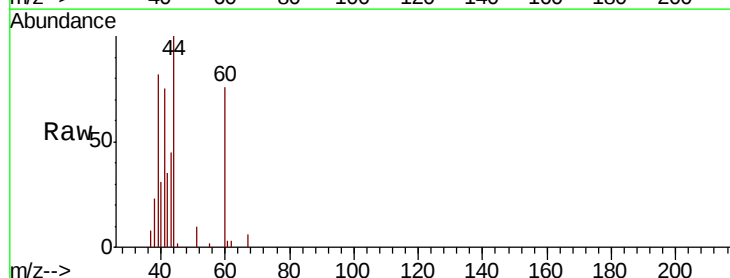
Acq: 4 Nov 2020 1:51

Tgt Ion: 41 Resp: 4445

Ion Ratio Lower Upper

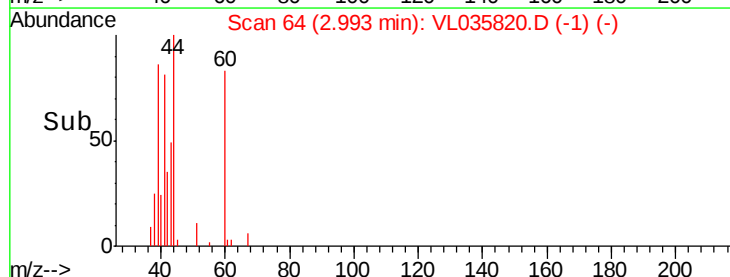
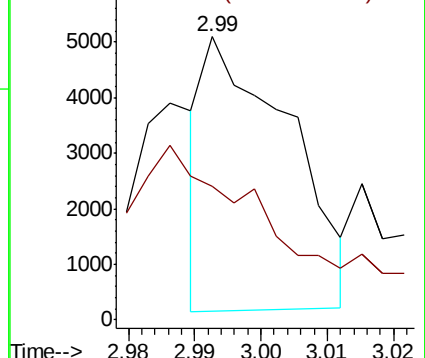
41 100

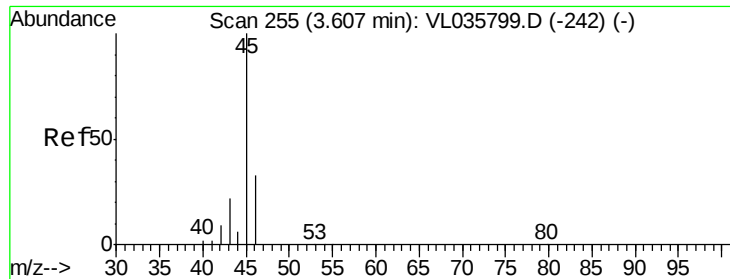
42 0.0 56.2 84.4#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#13

Ethanol

Concen: 0.289 ppbv

RT: 3.59 min Scan# 250

Delta R.T. -0.02 min

Lab File: VL035820.D

Acq: 4 Nov 2020 1:51

Instrument :

MSVOA\_L

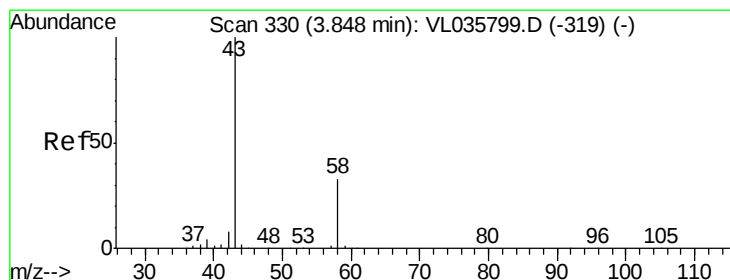
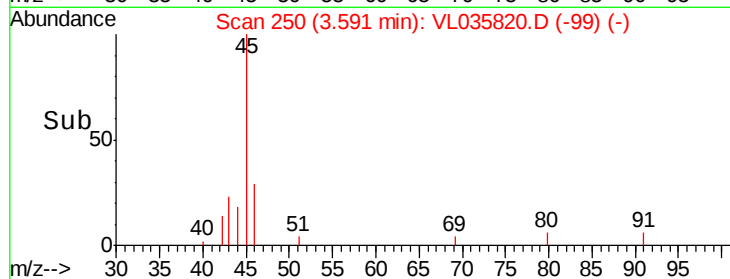
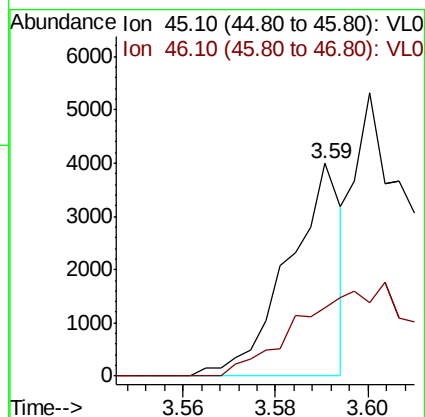
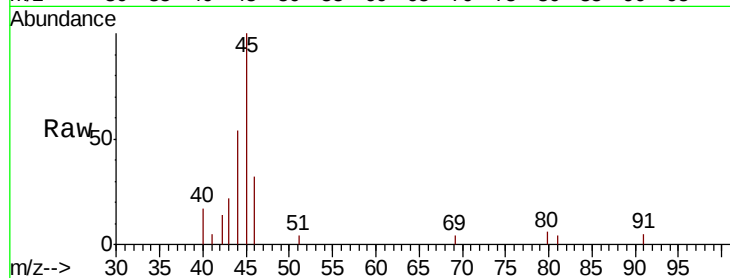
ClientSampled :

Tot Ion: 45 Resp: 3192

Ion Ratio Lower Upper

45 100

46 0.0 16.1 64.5#



#15

Acetone

Concen: 1.052 ppbv

RT: 3.84 min Scan# 326

Delta R.T. -0.01 min

Lab File: VL035820.D

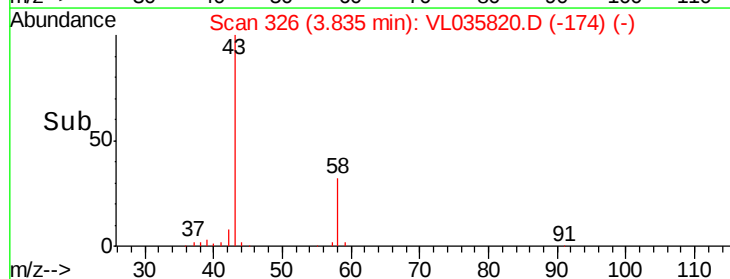
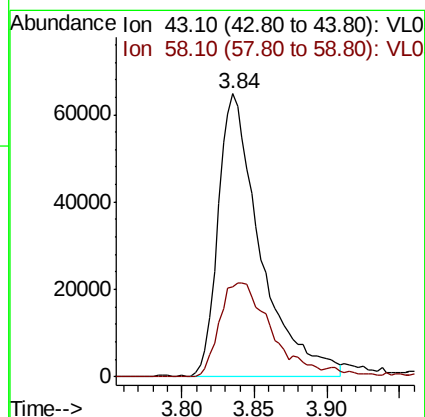
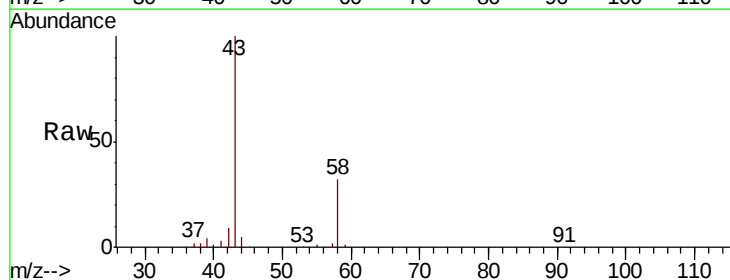
Acq: 4 Nov 2020 1:51

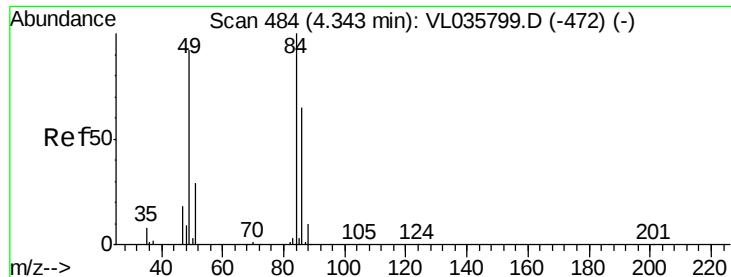
Tgt Ion: 43 Resp: 130576

Ion Ratio Lower Upper

43 100

58 43.5 27.5 41.3#

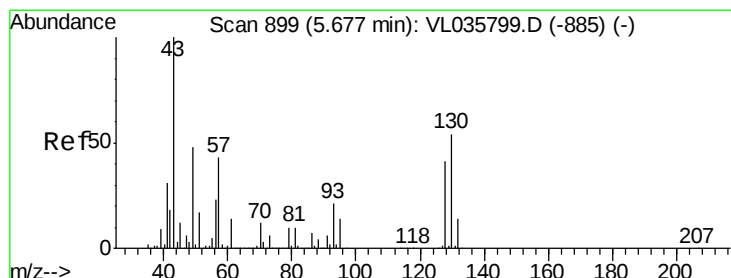
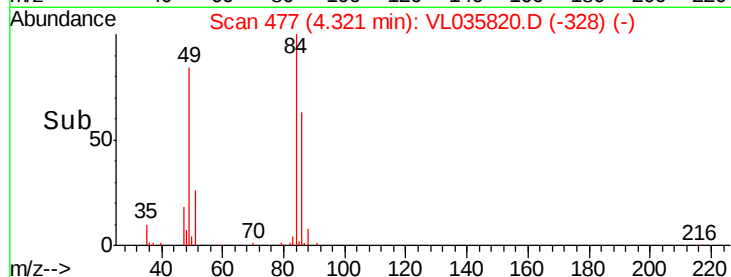
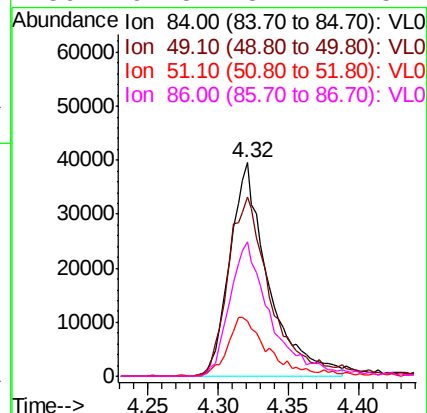
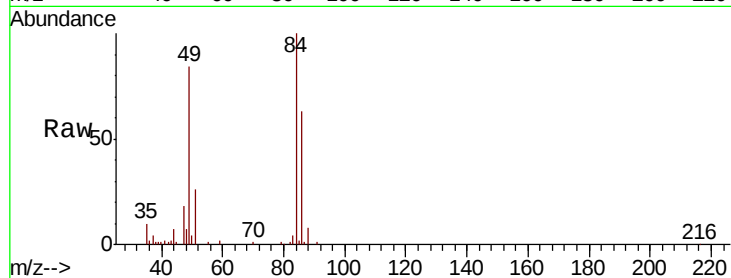




#20  
Methylene Chloride  
Concen: 0.863 ppbv  
RT: 4.32 min Scan# 477  
Delta R.T. -0.02 min  
Lab File: VL035820.D  
Acq: 4 Nov 2020 1:51

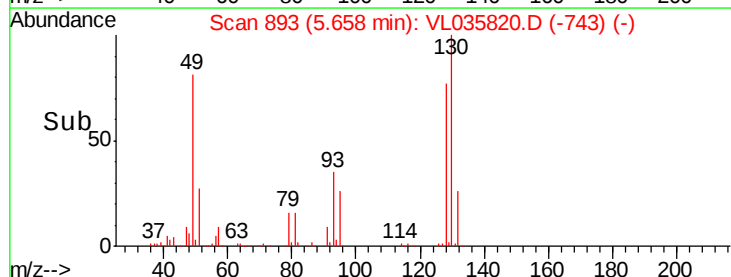
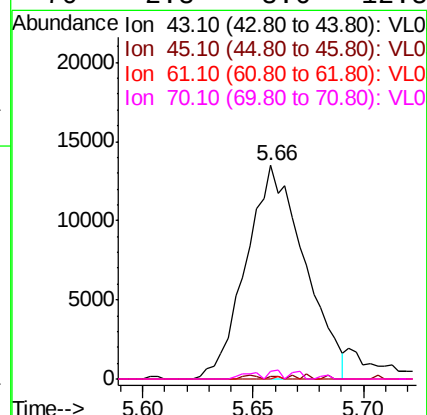
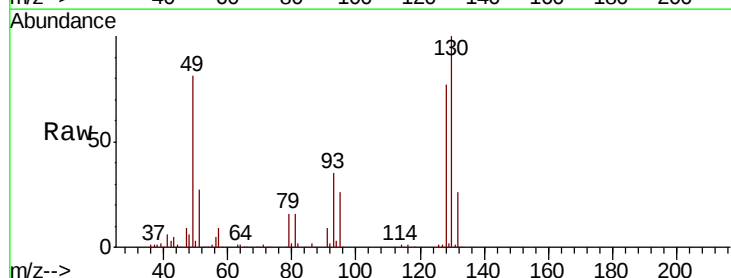
Instrument :  
MSVOA\_L  
ClientSampleId :

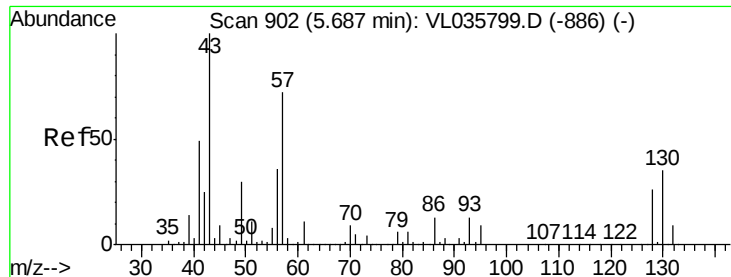
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 75455 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 84.0  | 73.8  | 110.8 |
| 51       | 26.1  | 23.0  | 34.4  |
| 86       | 62.8  | 52.1  | 78.1  |



#25  
Ethyl Acetate  
Concen: 0.101 ppbv  
RT: 5.66 min Scan# 893  
Delta R.T. -0.02 min  
Lab File: VL035820.D  
Acq: 4 Nov 2020 1:51

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 24788 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 45       | 1.2   | 8.5   | 12.7# |
| 61       | 0.1   | 10.7  | 16.1# |
| 70       | 2.8   | 8.6   | 12.8# |

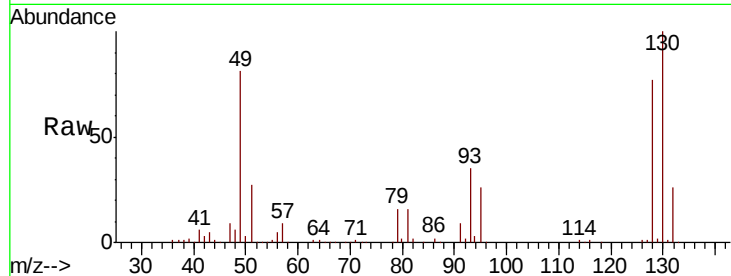




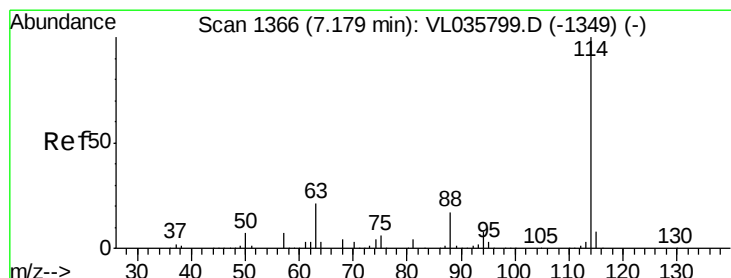
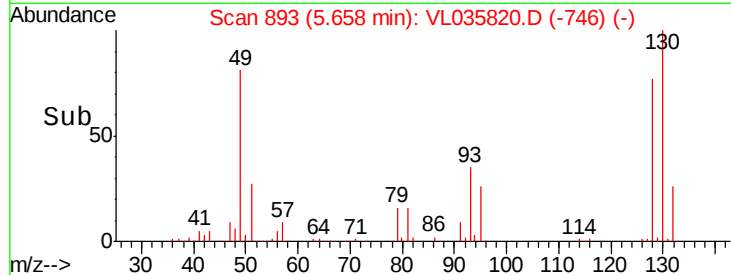
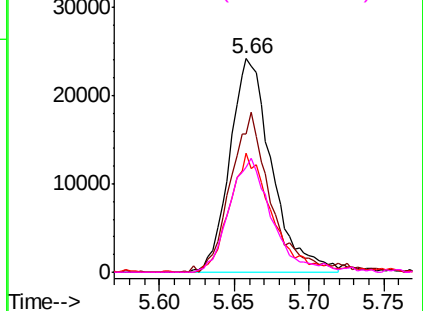
#26  
Hexane  
Concen: 0.351 ppbv  
RT: 5.66 min Scan# 893  
Delta R.T. -0.03 min  
Lab File: VL035820.D  
Acq: 4 Nov 2020 1:51

Instrument :  
MSVOA\_L  
ClientSampleId :

Tot Ion: 57 Resp: 47358  
Ion Ratio Lower Upper  
57 100  
41 73.4 58.9 88.3  
43 58.4 150.2 225.2#  
56 54.7 42.4 63.6

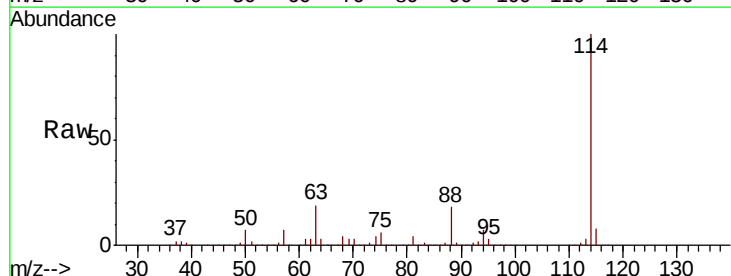


Abundance Ion 57.10 (56.80 to 57.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0  
Ion 43.10 (42.80 to 43.80): VL0  
Ion 56.10 (55.80 to 56.80): VL0

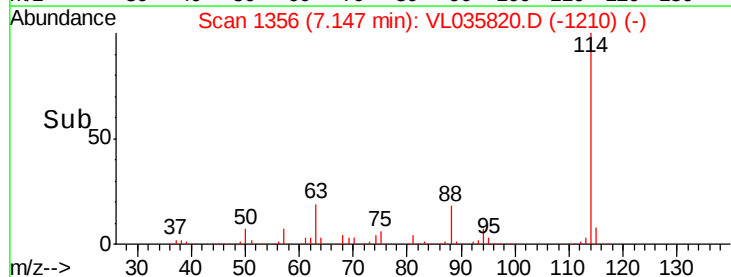
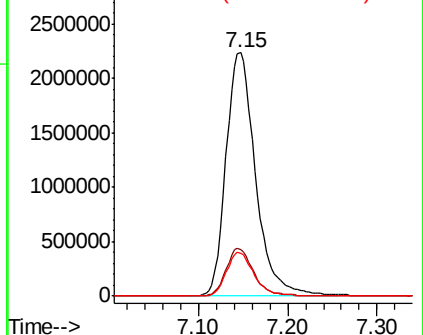


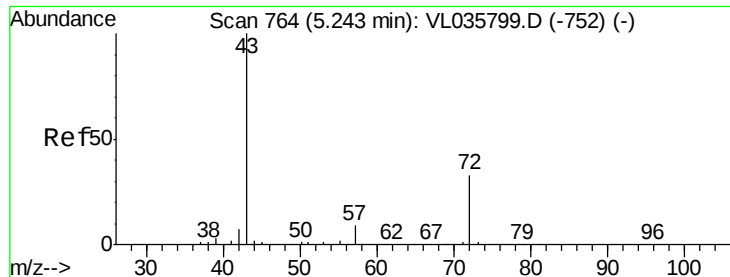
#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.15 min Scan# 1356  
Delta R.T. -0.03 min  
Lab File: VL035820.D  
Acq: 4 Nov 2020 1:51

Tgt Ion:114 Resp: 5126896  
Ion Ratio Lower Upper  
114 100  
63 18.7 16.1 24.1  
88 16.9 13.7 20.5



Abundance Ion 114.10 (113.80 to 114.80): V  
Ion 63.10 (62.80 to 63.80): VL0  
Ion 88.10 (87.80 to 88.80): VL0

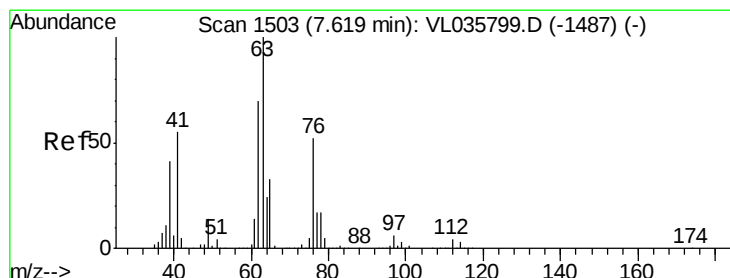
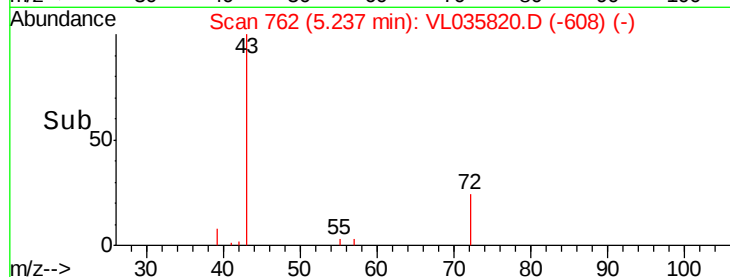
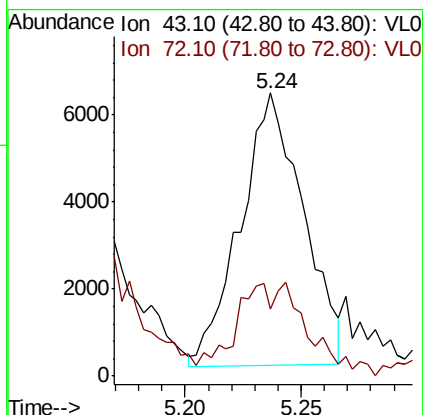
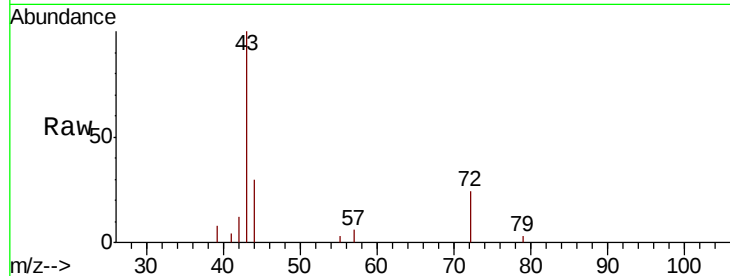




#34  
2-Butanone  
Concen: 0.071 ppbv  
RT: 5.24 min Scan# 762  
Delta R.T. -0.01 min  
Lab File: VL035820.D  
Acq: 4 Nov 2020 1:51

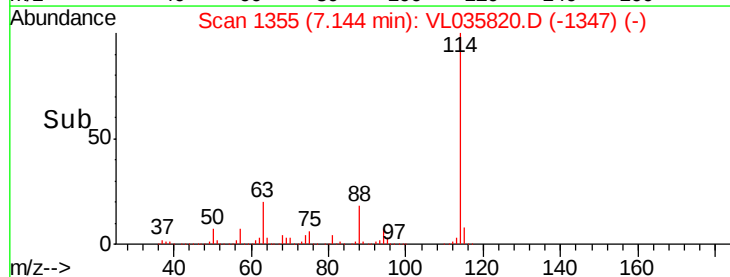
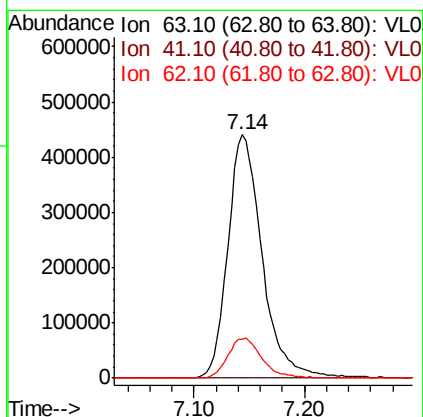
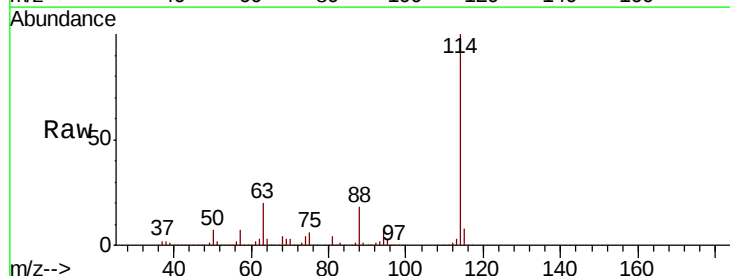
Instrument :  
MSVOA\_L  
ClientSampleId :

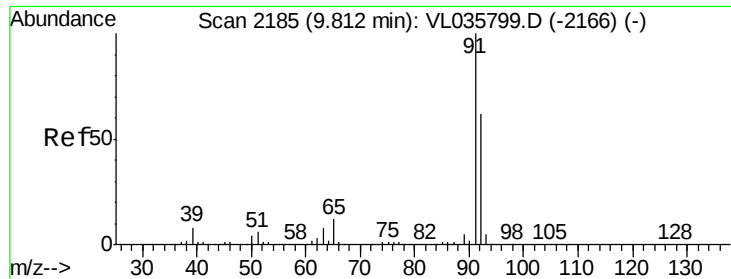
Tot Ion: 43 Resp: 11812  
Ion Ratio Lower Upper  
43 100  
72 39.2 26.5 39.7



#39  
1,2-Dichloropropane  
Concen: 7.371 ppbv  
RT: 7.14 min Scan# 1355  
Delta R.T. -0.48 min  
Lab File: VL035820.D  
Acq: 4 Nov 2020 1:51

Tgt Ion: 63 Resp: 945822  
Ion Ratio Lower Upper  
63 100  
41 0.0 43.8 65.6#  
62 16.1 56.2 84.2#





#53

Toluene

Concen: 0.144 ppbv

RT: 9.78 min Scan# 2175

Delta R.T. -0.03 min

Lab File: VL035820.D

Acq: 4 Nov 2020 1:51

Instrument :

MSVOA\_L

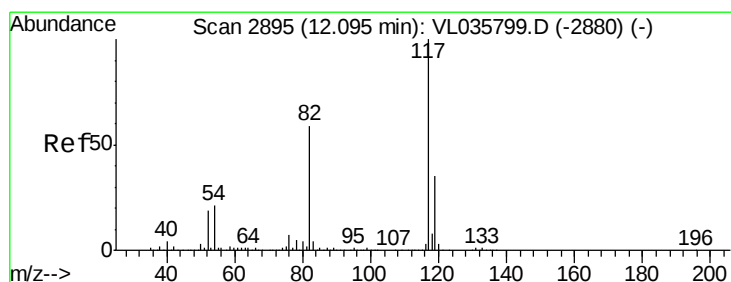
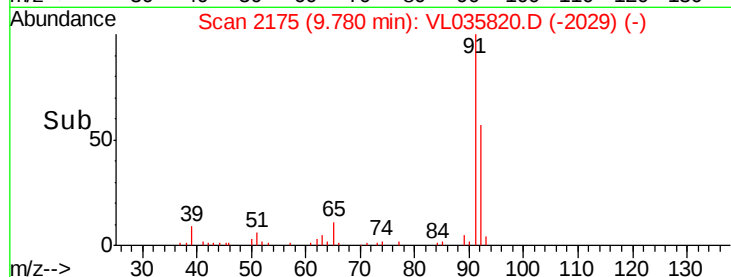
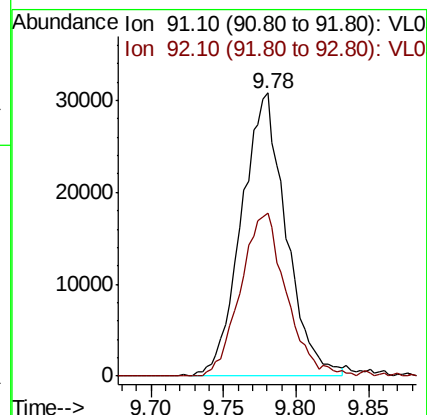
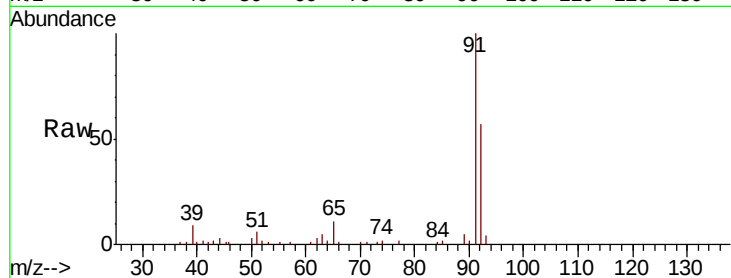
ClientSampleId :

Tot Ion: 91 Resp: 66009

Ion Ratio Lower Upper

91 100

92 58.8 49.8 74.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2883

Delta R.T. -0.04 min

Lab File: VL035820.D

Acq: 4 Nov 2020 1:51

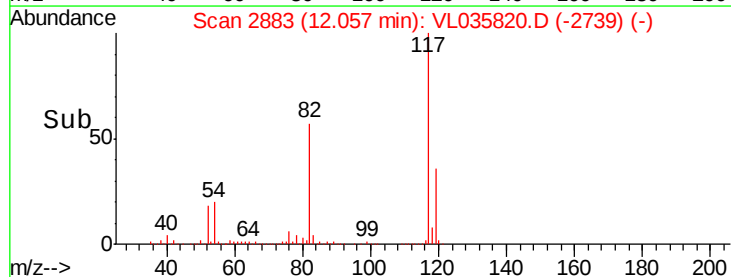
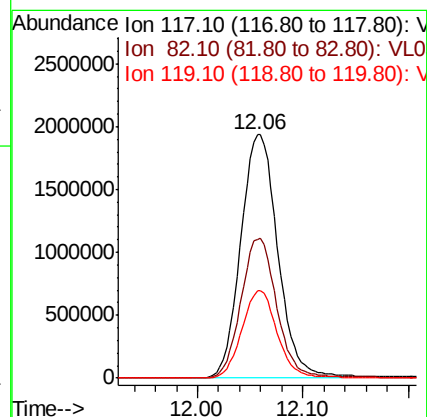
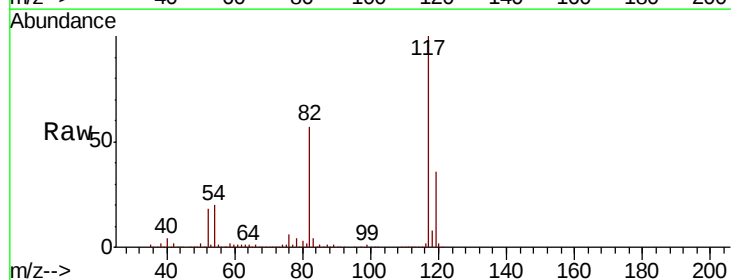
Tgt Ion: 117 Resp: 4731376

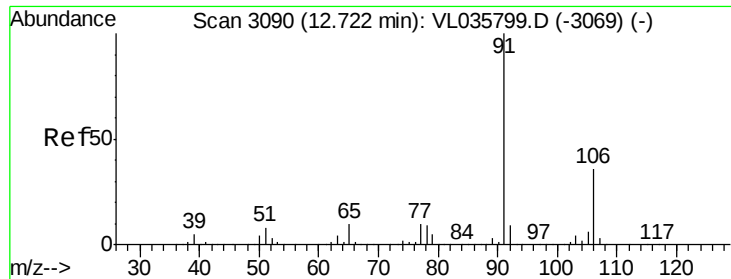
Ion Ratio Lower Upper

117 100

82 56.3 50.6 76.0

119 34.9 52.6 78.8#





#58

Ethyl Benzene

Concen: 0.031 ppbv

RT: 12.69 min Scan# 3079

Delta R.T. -0.04 min

Lab File: VL035820.D

Acq: 4 Nov 2020 1:51

Instrument :

MSVOA\_L

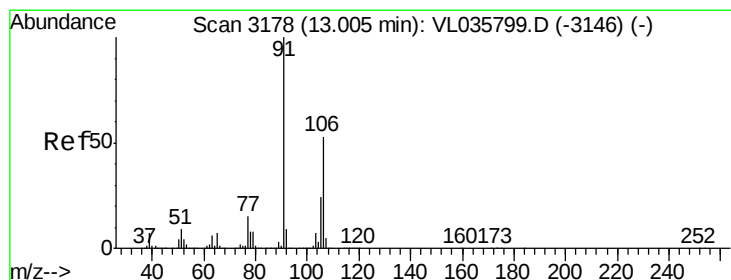
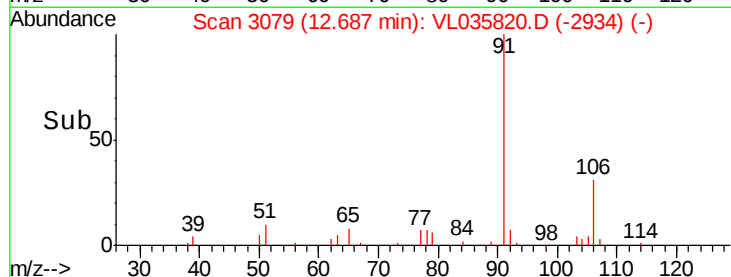
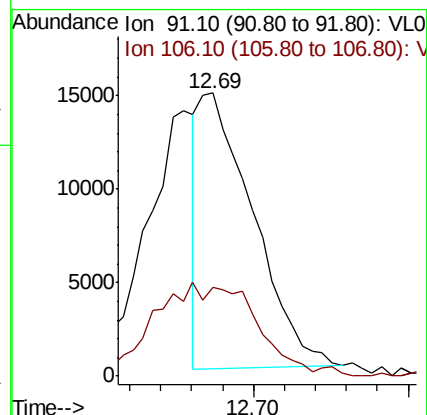
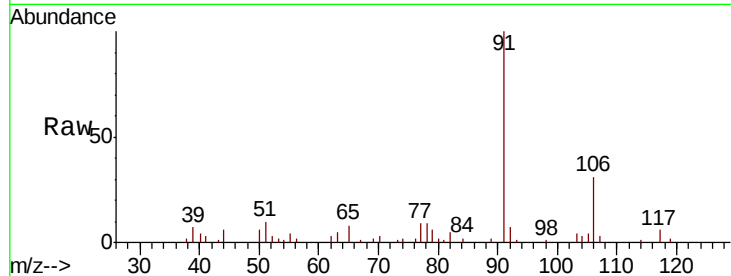
ClientSampleId :

Tot Ion: 91 Resp: 17784

Ion Ratio Lower Upper

91 100

106 31.7 28.6 43.0



#59

m/p-Xylene

Concen: 0.046 ppbv

RT: 12.96 min Scan# 3165

Delta R.T. -0.04 min

Lab File: VL035820.D

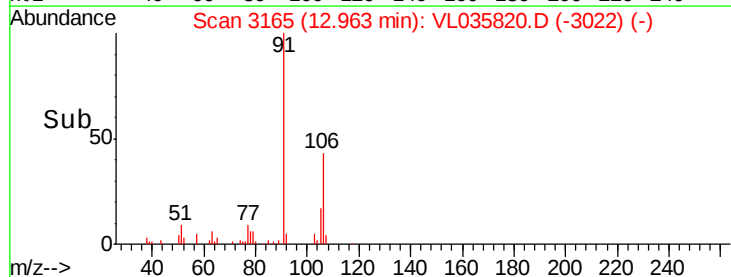
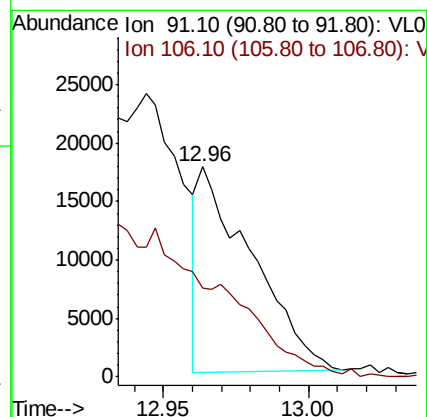
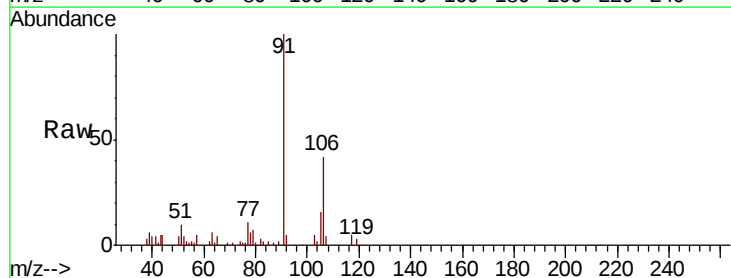
Acq: 4 Nov 2020 1:51

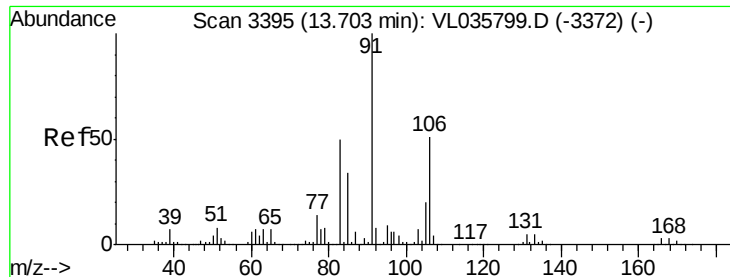
Tgt Ion: 91 Resp: 22612

Ion Ratio Lower Upper

91 100

106 0.0 39.5 59.3#

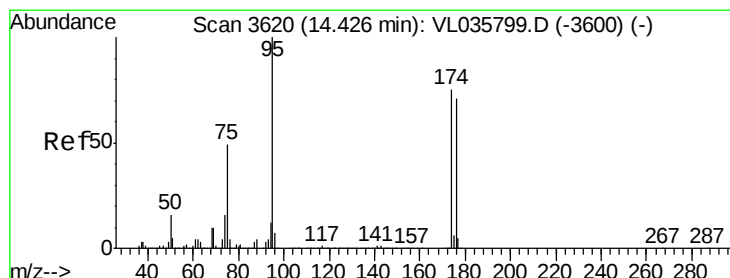
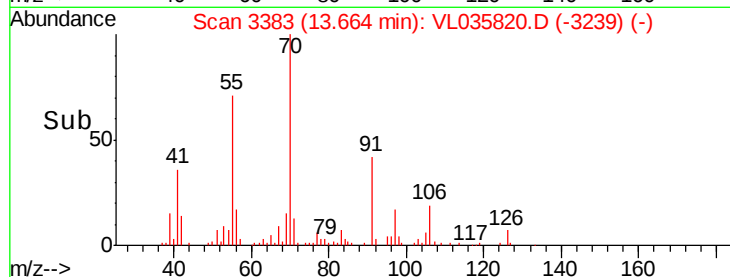
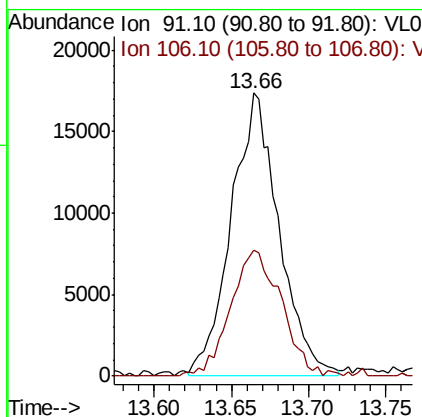
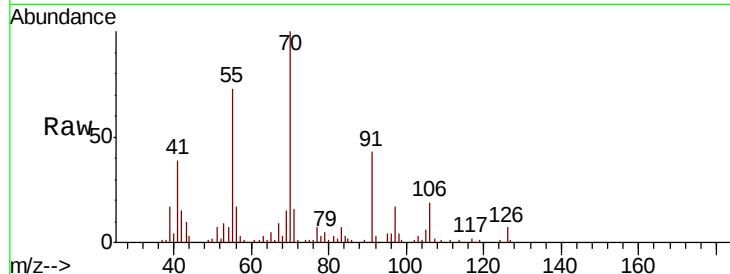




#60  
o-Xylene  
Concen: 0.079 ppbv  
RT: 13.66 min Scan# 3383  
Delta R.T. -0.04 min  
Lab File: VL035820.D  
Acq: 4 Nov 2020 1:51

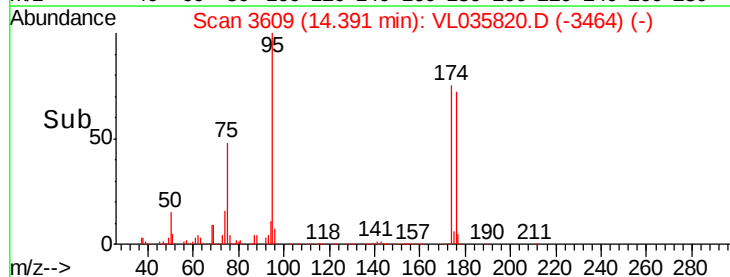
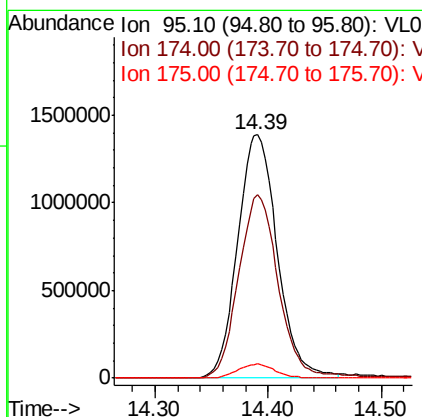
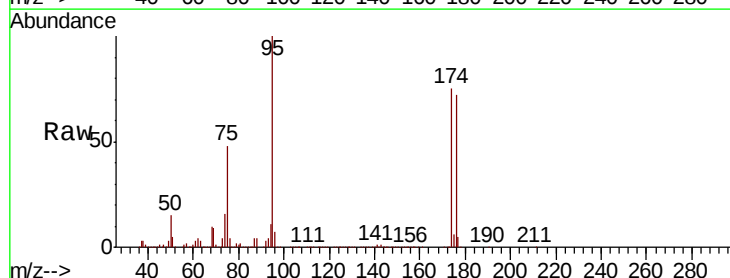
Instrument :  
MSVOA\_L  
ClientSampled :

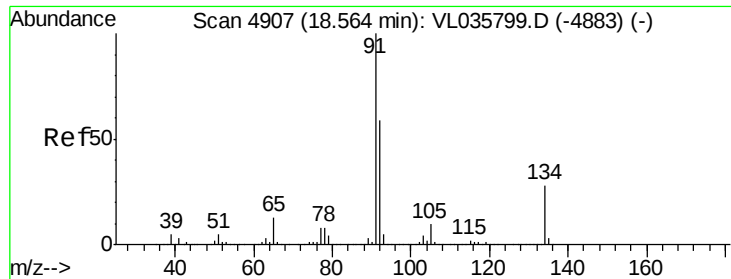
Tot Ion: 91 Resp: 37280  
Ion Ratio Lower Upper  
91 100  
106 47.7 24.8 74.4



#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.070 ppbv  
RT: 14.39 min Scan# 3609  
Delta R.T. -0.04 min  
Lab File: VL035820.D  
Acq: 4 Nov 2020 1:51

Tgt Ion: 95 Resp: 3385111  
Ion Ratio Lower Upper  
95 100  
174 77.5 59.8 89.6  
175 5.5 4.3 6.5





#70

n-Butylbenzene

Concen: 0.052 ppbv

RT: 18.53 min Scan# 4897

Delta R.T. -0.03 min

Lab File: VL035820.D

Acq: 4 Nov 2020 1:51

Instrument :

MSVOA\_L

ClientSampleId :

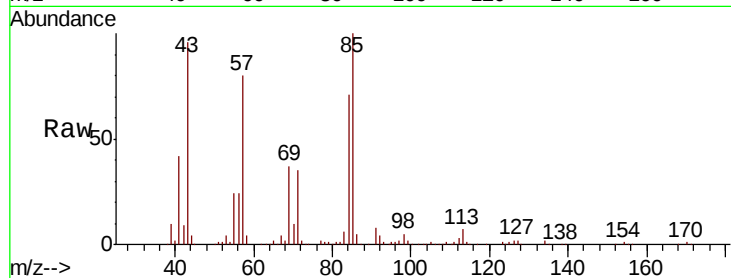
Tot Ion: 91 Resp: 37783

Ion Ratio Lower Upper

91 100

92 61.4 45.7 68.5

134 32.8 21.0 31.4#



Abundance Ion 91.10 (90.80 to 91.80): VL0  
 25000 Ion 92.10 (91.80 to 92.80): VL0  
 20000 Ion 134.20 (133.90 to 134.90): V

