

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL062221\  
 Data File : VL037241.D  
 Acq On : 23 Jun 2021 11:19  
 Operator : SY/AP  
 Sample : M2797-02DL 100X  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Jun 24 03:49:08 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL061621AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Jun 16 14:06:32 2021  
 QLast Update : Wed Jun 16 14:06:32 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.65  | 49   | 1557903  | 10.00 | ppbv  | -0.02    |
| 33) 1,4-Difluorobenzene | 7.16  | 114  | 4446577  | 10.00 | ppbv  | -0.03    |
| 55) Chlorobenzene-d5    | 12.07 | 117  | 3903141  | 10.00 | ppbv  | -0.03    |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.40  | 95    | 2846016  | 9.62     | ppbv | -0.03  |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 96.20% |

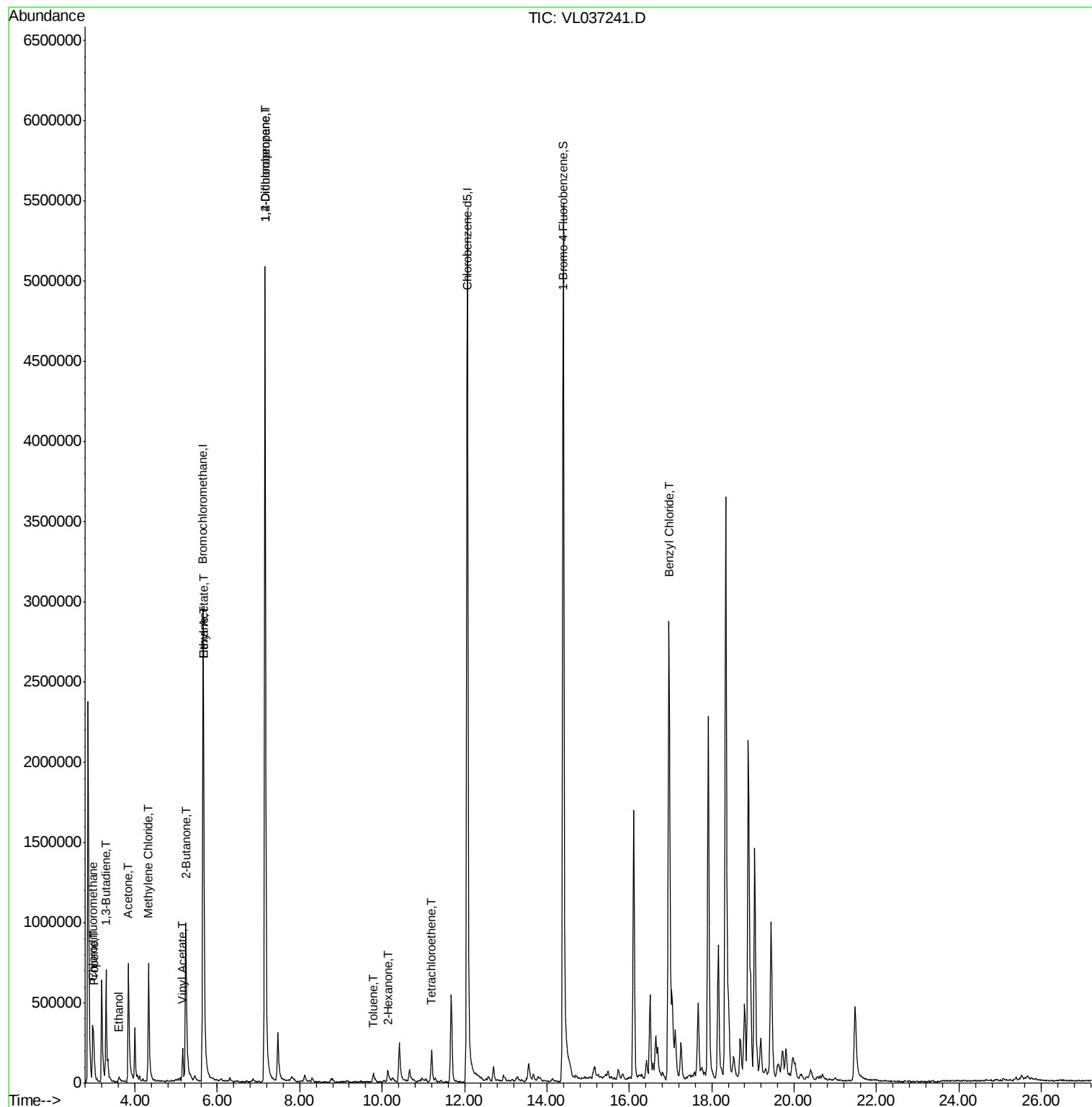
| Target Compounds         | R.T.  | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------|-------|------|----------|-------|--------|--------|
| 3) Chlorodifluoromethane | 2.98  | 51   | 413628   | 1.365 | ppbv   | 99     |
| 9) Propene               | 3.00  | 41   | 120912   | 1.248 | ppbv   | 95     |
| 13) Ethanol              | 3.61  | 45   | 15192    | 1.014 | ppbv   | 69     |
| 15) Acetone              | 3.84  | 43   | 1029039  | 5.857 | ppbv   | 94     |
| 16) 1,3-Butadiene        | 3.30  | 39   | 210297   | 2.025 | ppbv # | 19     |
| 20) Methylene Chloride   | 4.33  | 84   | 309248   | 2.940 | ppbv   | 98     |
| 23) Vinyl Acetate        | 5.16  | 43   | 63842    | 0.253 | ppbv # | 10     |
| 25) Ethyl Acetate        | 5.67  | 43   | 175800   | 0.462 | ppbv # | 77     |
| 26) Hexane               | 5.67  | 57   | 265916   | 1.383 | ppbv # | 45     |
| 34) 2-Butanone           | 5.23  | 43   | 1562584  | 9.036 | ppbv   | 99     |
| 39) 1,2-Dichloropropane  | 7.16  | 63   | 1082032  | 8.098 | ppbv # | 23     |
| 51) 2-Hexanone           | 10.14 | 43   | 36750    | 0.318 | ppbv # | 15     |
| 52) Tetrachloroethene    | 11.20 | 164  | 31489    | 0.188 | ppbv   | 88     |
| 53) Toluene              | 9.78  | 91   | 22228    | 0.052 | ppbv # | 8      |
| 66) Benzyl Chloride      | 16.96 | 91   | 1134     | 0.049 | ppbv # | 1      |

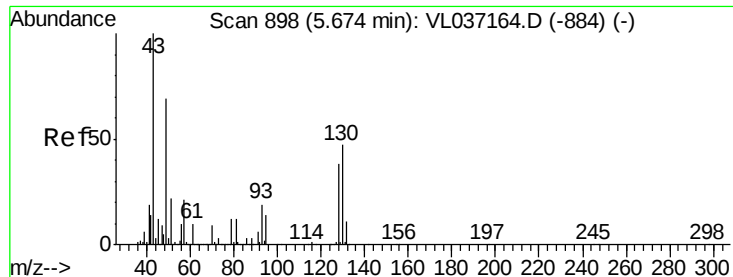
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Jun 24 03:49:08 2021  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL061621AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Jun 16 14:06:32 2021  
QLast Update : Wed Jun 16 14:06:32 2021  
Response via : Initial Calibration

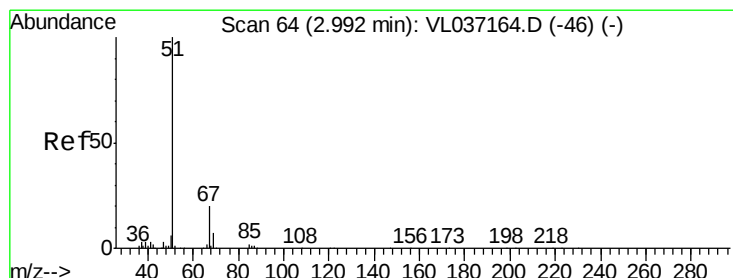
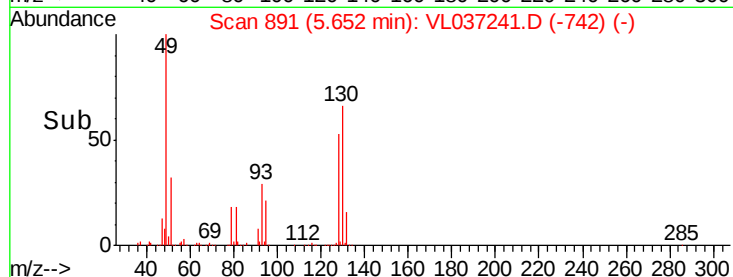
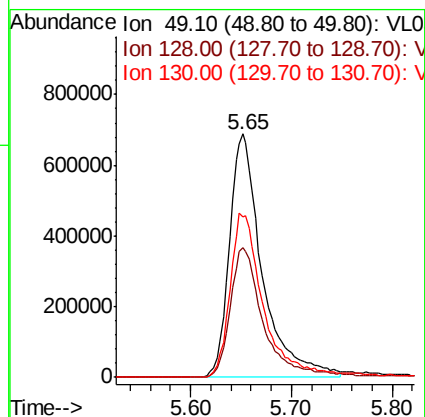
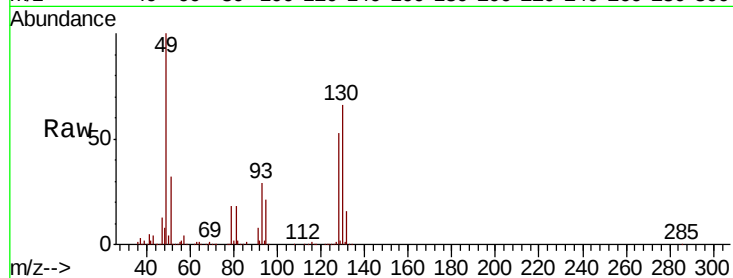




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.65 min Scan# 891  
Delta R.T. -0.02 min  
Lab File: VL037241.D  
Acq: 23 Jun 2021 11:19

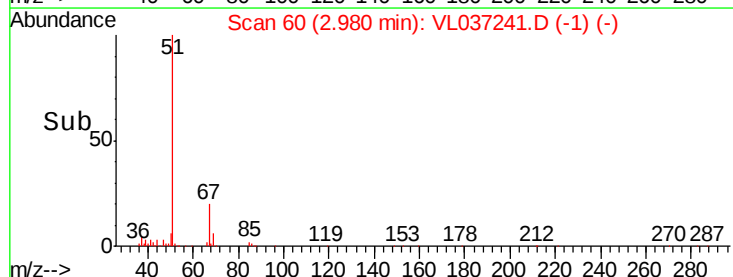
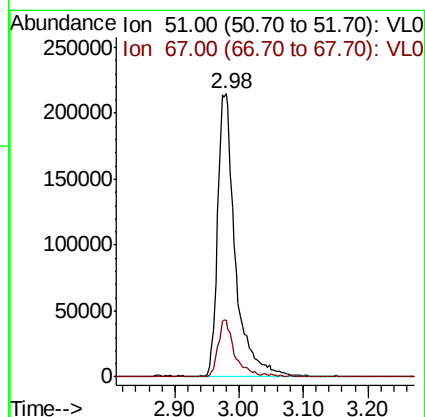
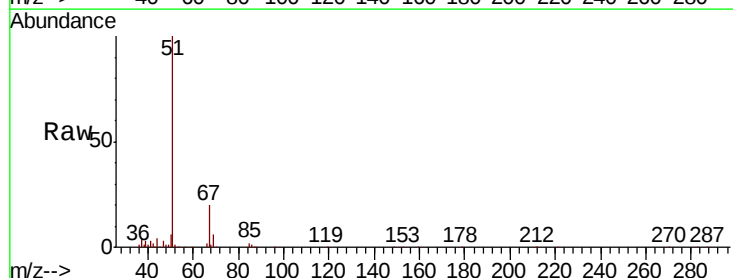
Instrument :  
MSVOA\_L  
ClientSampleId :

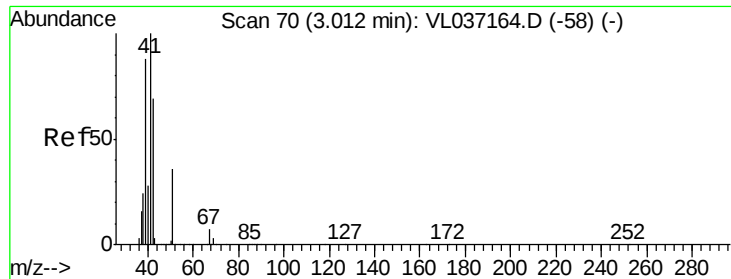
Tot Ion: 49 Resp: 1557903  
Ion Ratio Lower Upper  
49 100  
128 55.6 29.3 88.0  
130 70.9 35.9 107.8



#3  
Chlorodifluoromethane  
Concen: 1.365 ppbv  
RT: 2.98 min Scan# 60  
Delta R.T. -0.01 min  
Lab File: VL037241.D  
Acq: 23 Jun 2021 11:19

Tgt Ion: 51 Resp: 413628  
Ion Ratio Lower Upper  
51 100  
67 19.2 15.8 23.6





#9

Propene

Concen: 1.248 ppbv

RT: 3.00 min Scan# 65

Delta R.T. -0.02 min

Lab File: VL037241.D

Acq: 23 Jun 2021 11:19

Instrument :

MSVOA\_L

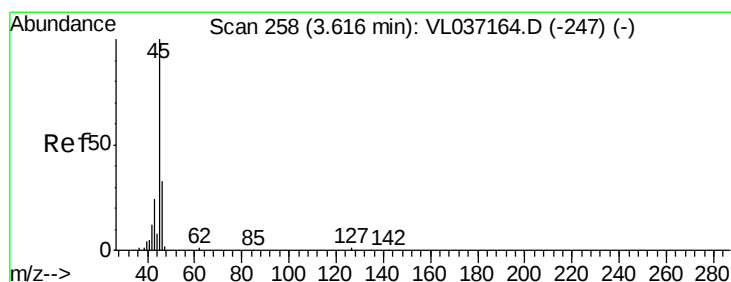
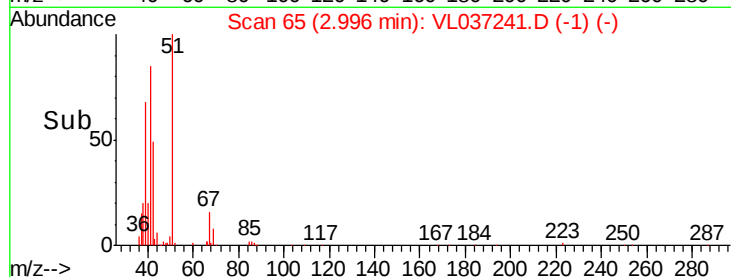
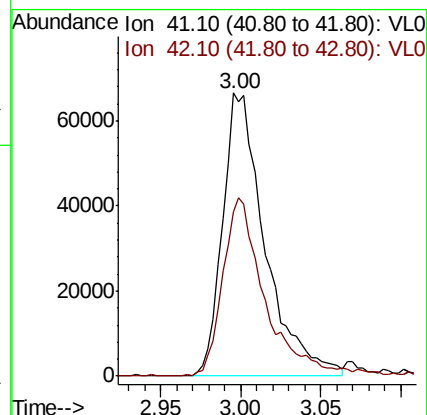
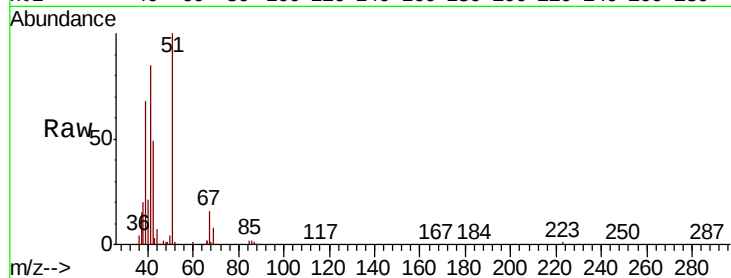
ClientSampleId :

Tot Ion: 41 Resp: 120912

Ion Ratio Lower Upper

41 100

42 63.7 54.5 81.7



#13

Ethanol

Concen: 1.014 ppbv

RT: 3.61 min Scan# 255

Delta R.T. -0.01 min

Lab File: VL037241.D

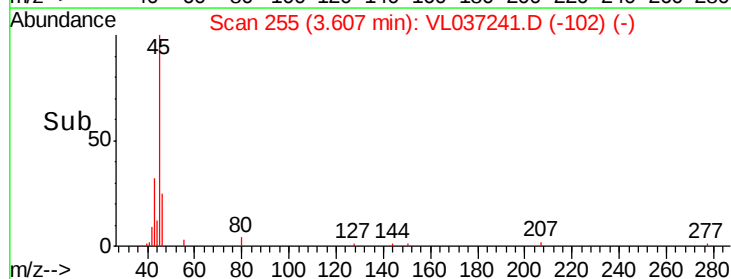
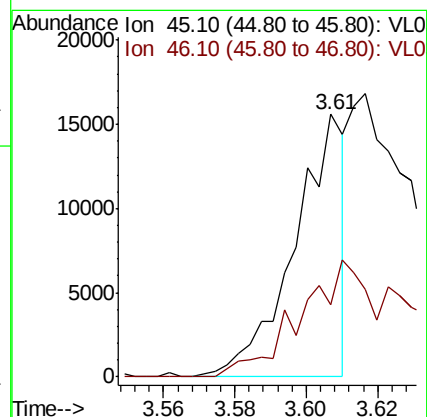
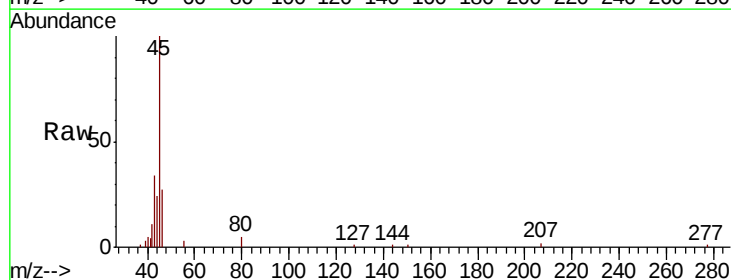
Acq: 23 Jun 2021 11:19

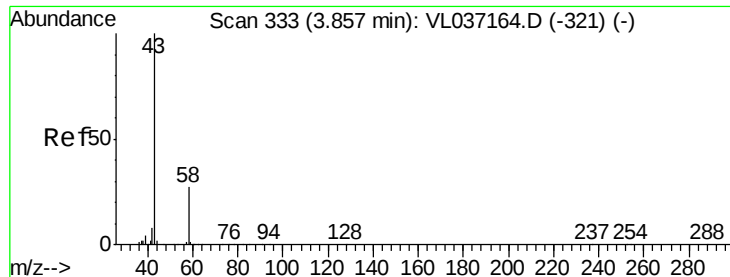
Tgt Ion: 45 Resp: 15192

Ion Ratio Lower Upper

45 100

46 114.4 34.2 137.0





#15

Acetone

Concen: 5.857 ppbv

RT: 3.84 min Scan# 327

Delta R.T. -0.02 min

Lab File: VL037241.D

Acq: 23 Jun 2021 11:19

Instrument :

MSVOA\_L

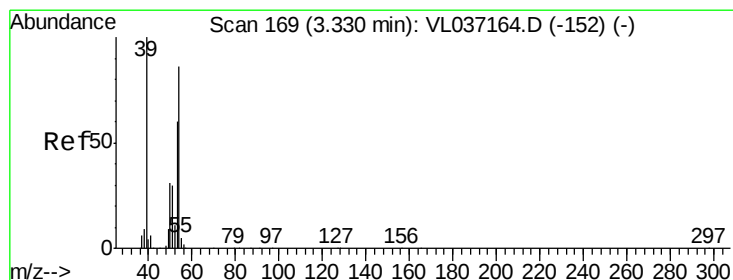
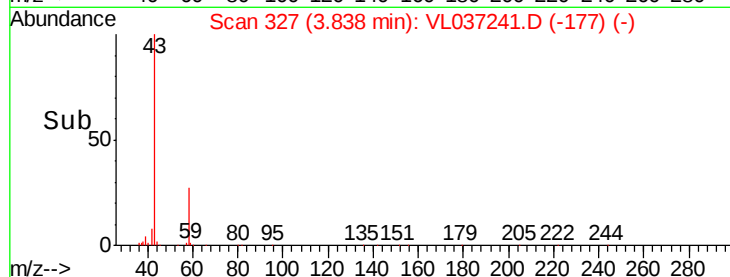
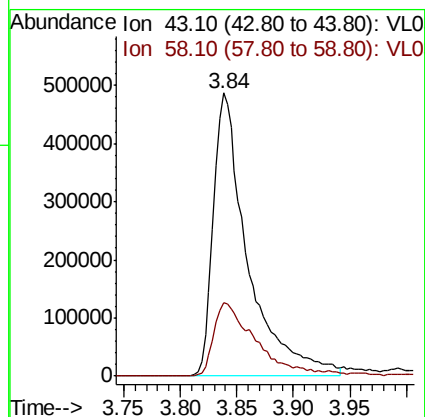
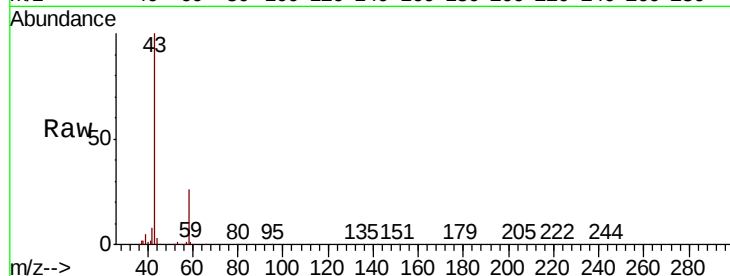
ClientSampled :

Tot Ion: 43 Resp: 1029039

Ion Ratio Lower Upper

43 100

58 32.7 23.7 35.5



#16

1,3-Butadiene

Concen: 2.025 ppbv

RT: 3.30 min Scan# 159

Delta R.T. -0.03 min

Lab File: VL037241.D

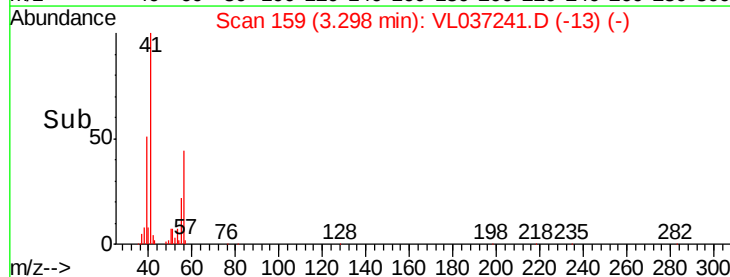
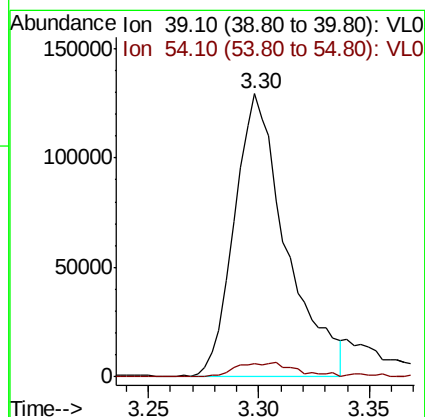
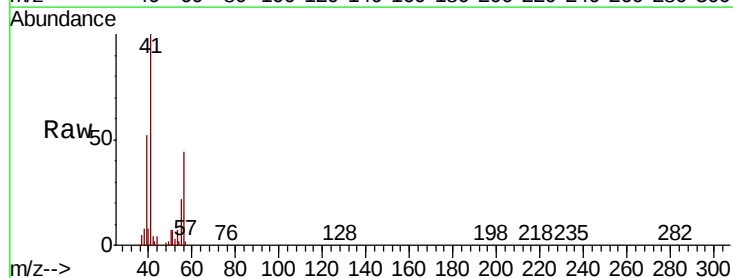
Acq: 23 Jun 2021 11:19

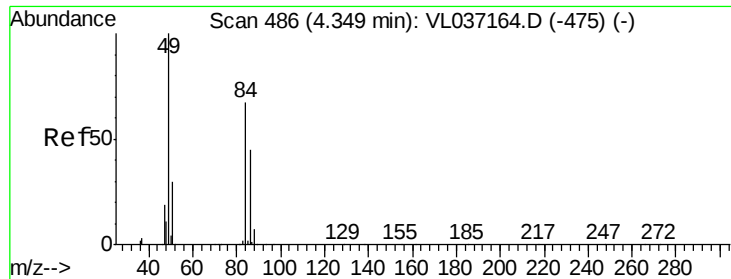
Tgt Ion: 39 Resp: 210297

Ion Ratio Lower Upper

39 100

54 6.4 61.2 91.8#

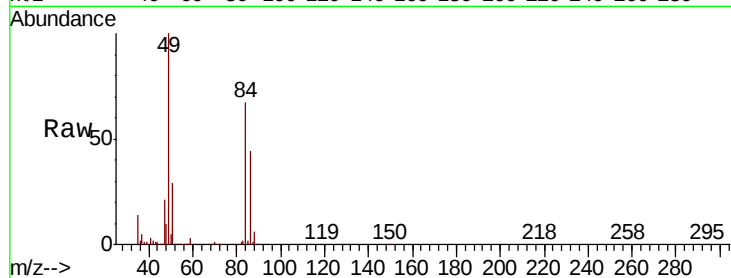




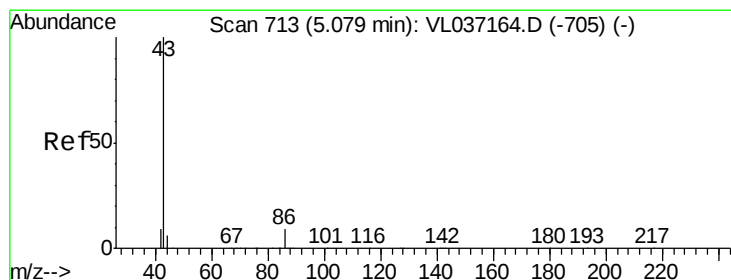
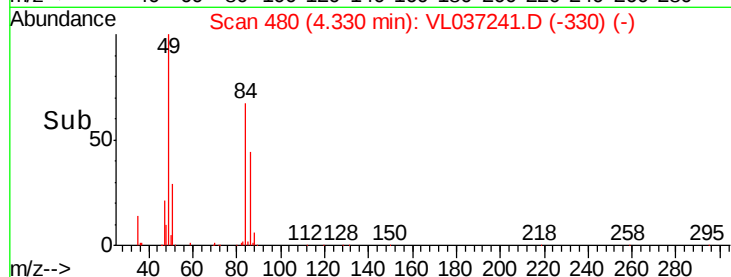
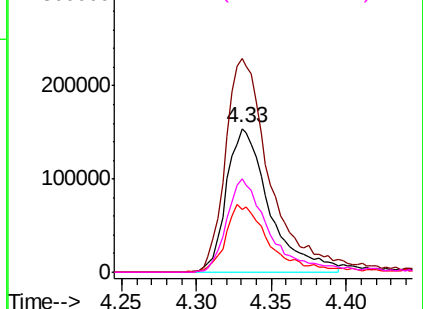
#20  
Methvlene Chloride  
Concen: 2.940 ppbv  
RT: 4.33 min Scan# 480  
Delta R.T. -0.02 min  
Lab File: VL037241.D  
Acq: 23 Jun 2021 11:19

Instrument :  
MSVOA\_L  
ClientSampleId :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 84    | Resp: | 309248 |
| Ion      | Ratio | Lower | Upper  |
| 84       | 100   |       |        |
| 49       | 148.5 | 119.7 | 179.5  |
| 51       | 42.9  | 36.1  | 54.1   |
| 86       | 65.3  | 53.7  | 80.5   |

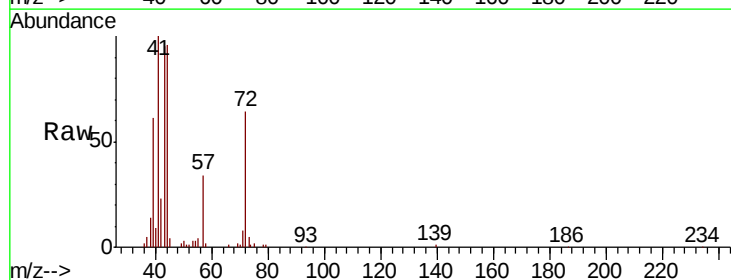


Abundance Ion 84.00 (83.70 to 84.70): VL0  
Ion 49.10 (48.80 to 49.80): VL0  
Ion 51.10 (50.80 to 51.80): VL0  
Ion 86.00 (85.70 to 86.70): VL0

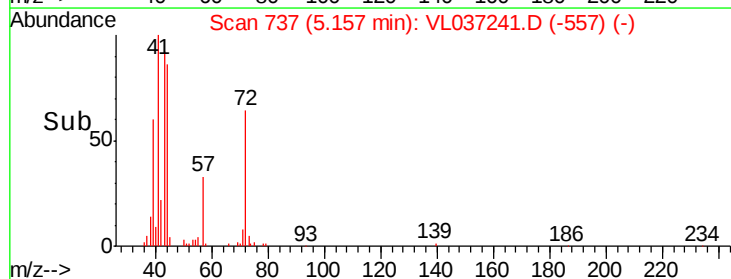
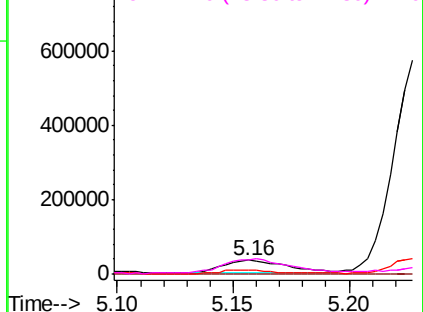


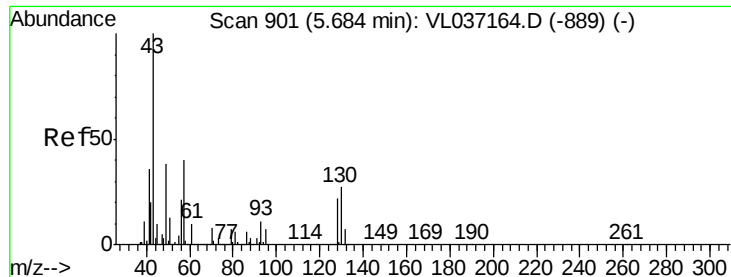
#23  
Vinyl Acetate  
Concen: 0.253 ppbv  
RT: 5.16 min Scan# 737  
Delta R.T. 0.08 min  
Lab File: VL037241.D  
Acq: 23 Jun 2021 11:19

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 63842 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 86       | 0.0   | 5.8   | 8.8#  |
| 42       | 24.0  | 8.2   | 12.2# |
| 44       | 100.3 | 4.2   | 6.4#  |



Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 86.10 (85.80 to 86.80): VL0  
Ion 42.10 (41.80 to 42.80): VL0  
Ion 44.10 (43.80 to 44.80): VL0

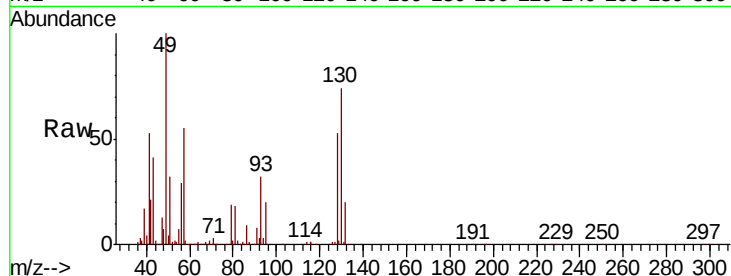




#25  
Ethyl Acetate  
Concen: 0.462 ppbv  
RT: 5.67 min Scan# 898  
Delta R.T. -0.01 min  
Lab File: VL037241.D  
Acq: 23 Jun 2021 11:19

Instrument :  
MSVOA\_L  
ClientSampled :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 43    | Resp: | 175800 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 45       | 0.6   | 8.0   | 12.0#  |
| 61       | 0.0   | 8.1   | 12.1#  |
| 70       | 1.9   | 5.5   | 8.3#   |



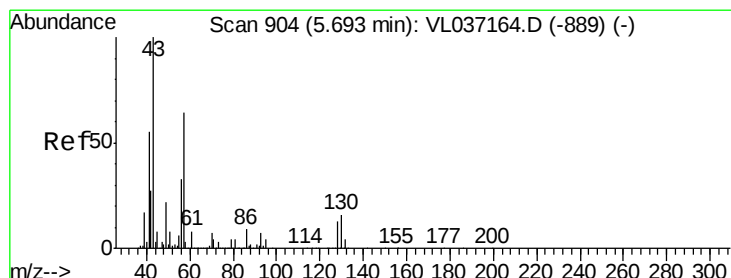
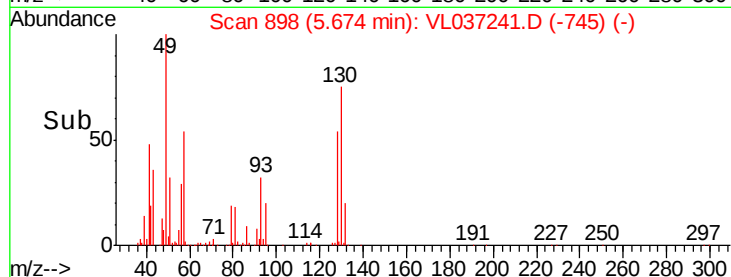
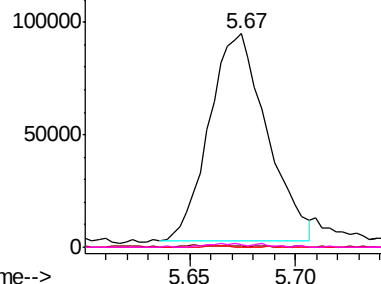
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

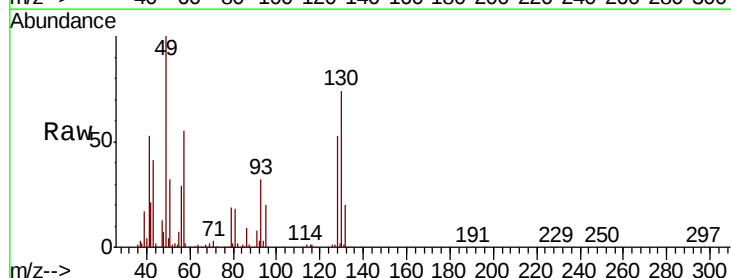
Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26  
Hexane  
Concen: 1.383 ppbv  
RT: 5.67 min Scan# 898  
Delta R.T. -0.02 min  
Lab File: VL037241.D  
Acq: 23 Jun 2021 11:19

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 57    | Resp: | 265916 |
| Ion      | Ratio | Lower | Upper  |
| 57       | 100   |       |        |
| 41       | 100.2 | 73.5  | 110.3  |
| 43       | 75.0  | 170.7 | 256.1# |
| 56       | 55.5  | 42.4  | 63.6   |



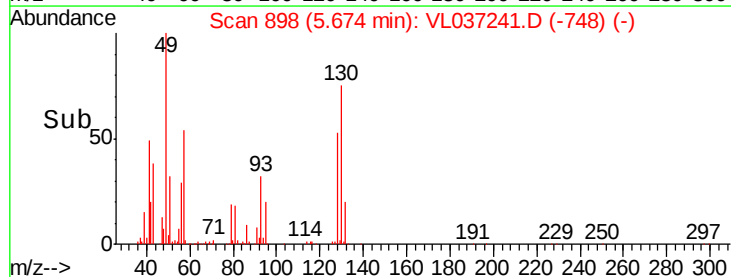
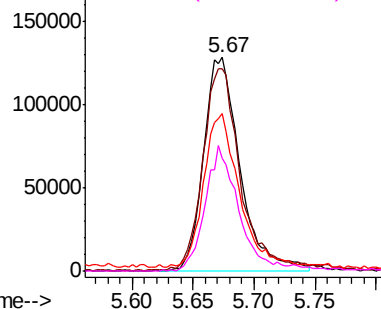
Abundance

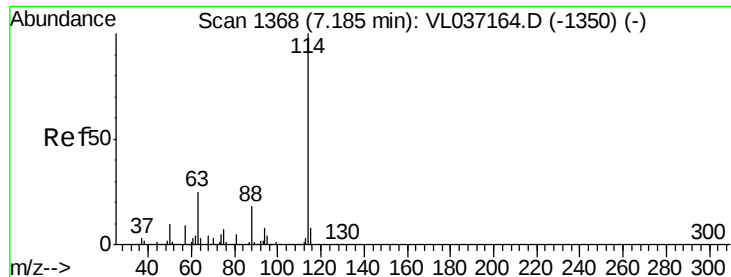
Ion 57.10 (56.80 to 57.80): VL0

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

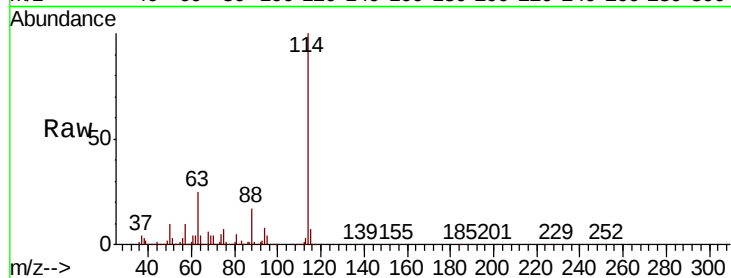




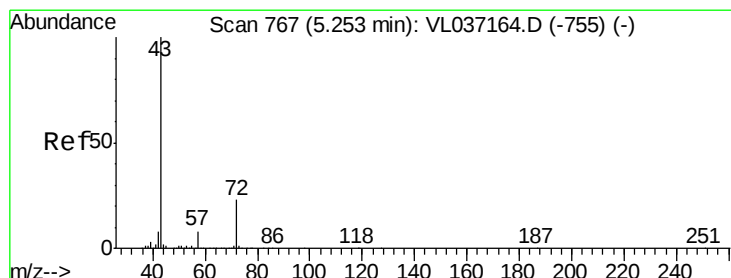
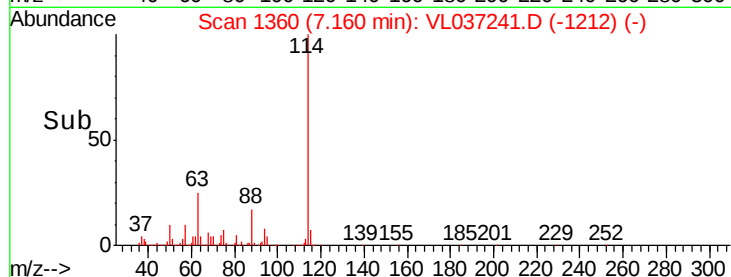
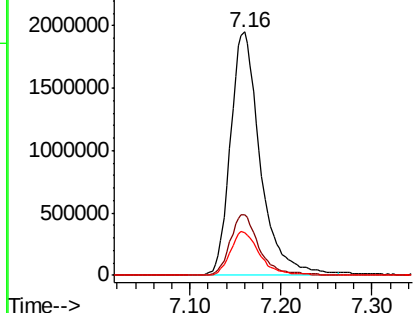
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.16 min Scan# 1360  
 Delta R.T. -0.03 min  
 Lab File: VL037241.D  
 Acq: 23 Jun 2021 11:19

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion:114 Resp: 4446577  
 Ion Ratio Lower Upper  
 114 100  
 63 24.6 19.6 29.4  
 88 18.1 14.2 21.2

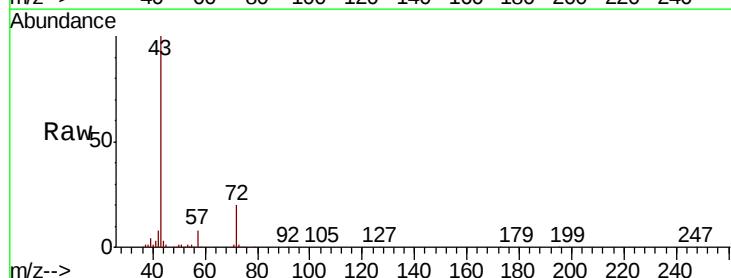


Abundance Ion 114.10 (113.80 to 114.80): VL0  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

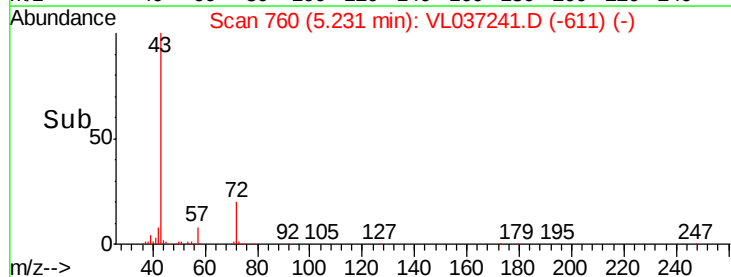
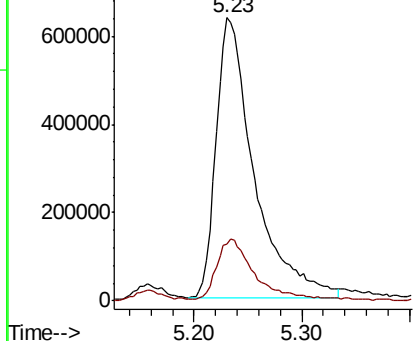


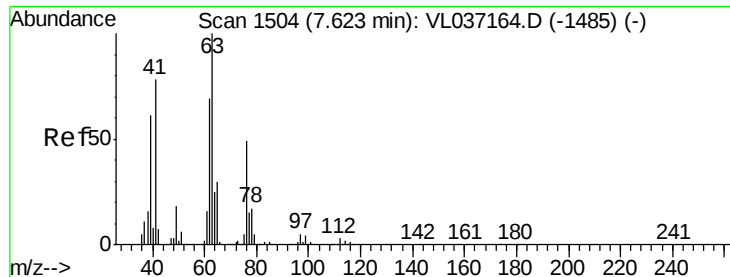
#34  
 2-Butanone  
 Concen: 9.036 ppbv  
 RT: 5.23 min Scan# 760  
 Delta R.T. -0.02 min  
 Lab File: VL037241.D  
 Acq: 23 Jun 2021 11:19

Tgt Ion: 43 Resp: 1562584  
 Ion Ratio Lower Upper  
 43 100  
 72 23.3 18.9 28.3



Abundance Ion 43.10 (42.80 to 43.80): VL0  
 Ion 72.10 (71.80 to 72.80): VL0





#39

1,2-Dichloropropane

Concen: 8.098 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.46 min

Lab File: VL037241.D

Acq: 23 Jun 2021 11:19

Instrument :

MSVOA\_L

ClientSampleId :

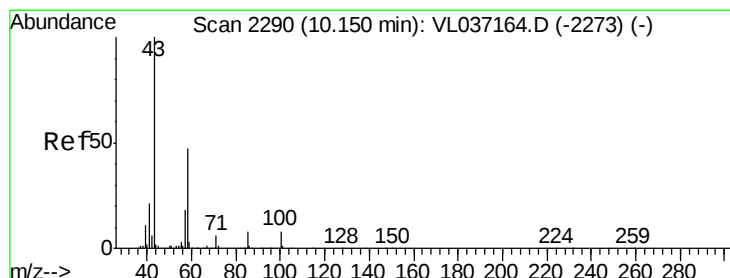
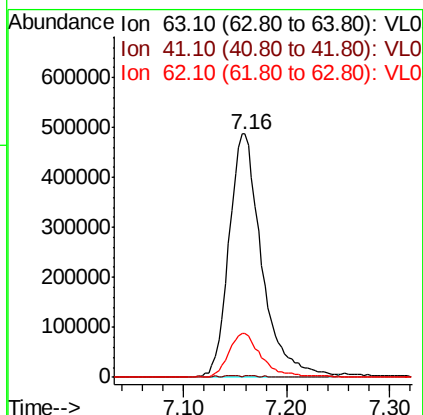
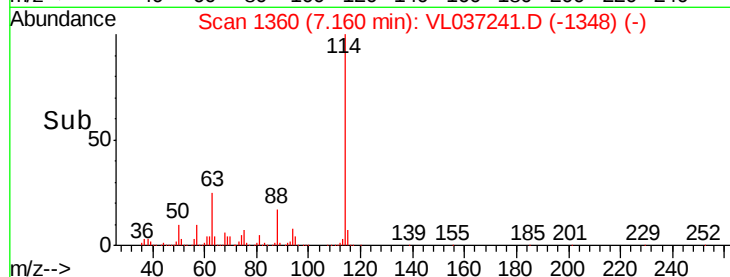
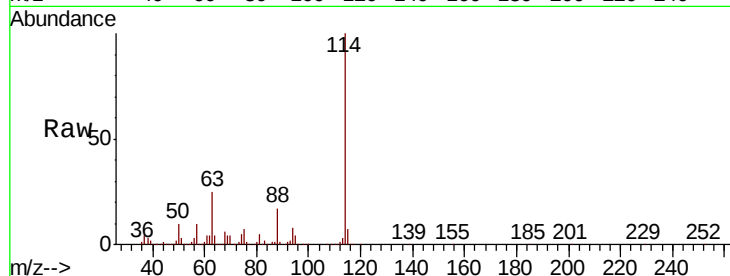
Tot Ion: 63 Resp: 1082032

Ion Ratio Lower Upper

63 100

41 0.4 62.0 93.0#

62 17.8 54.9 82.3#



#51

2-Hexanone

Concen: 0.318 ppbv

RT: 10.14 min Scan# 2286

Delta R.T. -0.01 min

Lab File: VL037241.D

Acq: 23 Jun 2021 11:19

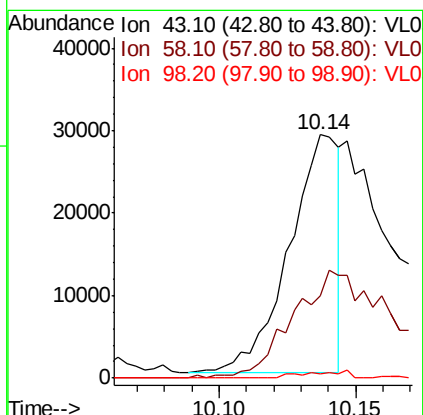
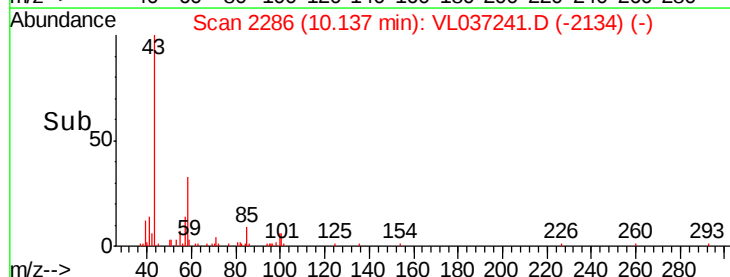
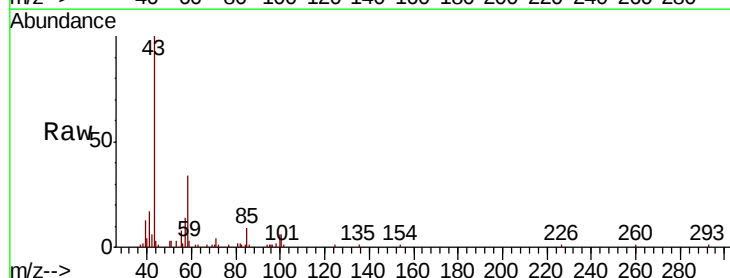
Tgt Ion: 43 Resp: 36750

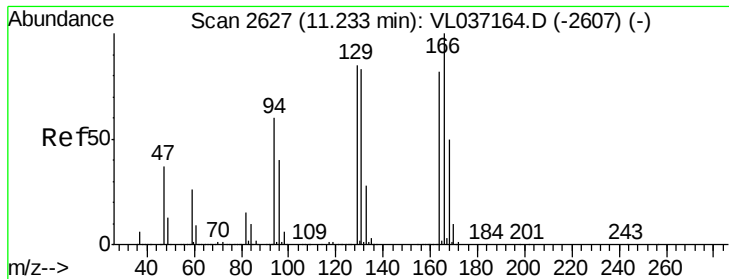
Ion Ratio Lower Upper

43 100

58 106.0 38.4 57.6#

98 2.8 0.3 0.5#





#52

Tetrachloroethene

Concen: 0.188 ppbv

RT: 11.20 min Scan# 2616

Delta R.T. -0.04 min

Lab File: VL037241.D

Acq: 23 Jun 2021 11:19

Instrument :

MSVOA\_L

ClientSampleId :

Tot Ion:164 Resp: 31489

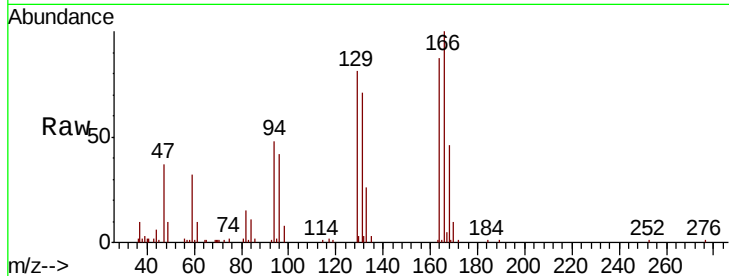
Ion Ratio Lower Upper

164 100

166 114.2 97.6 146.4

129 92.7 82.9 124.3

131 81.5 80.6 120.8

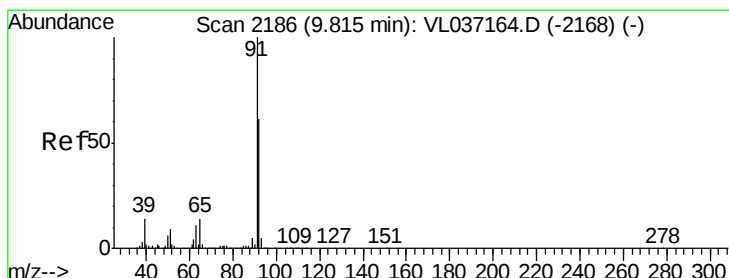
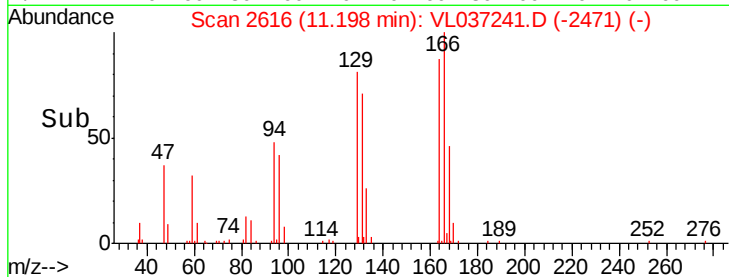
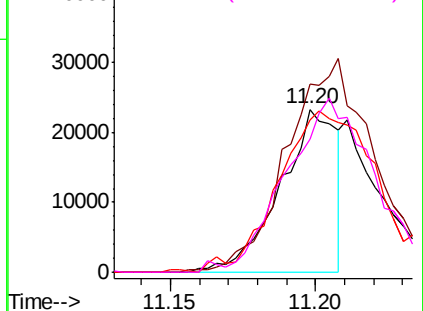


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.052 ppbv

RT: 9.78 min Scan# 2176

Delta R.T. -0.03 min

Lab File: VL037241.D

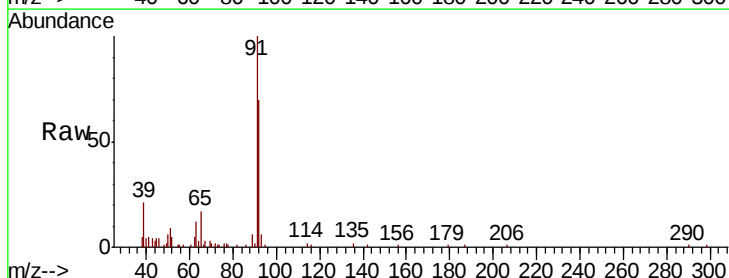
Acq: 23 Jun 2021 11:19

Tgt Ion: 91 Resp: 22228

Ion Ratio Lower Upper

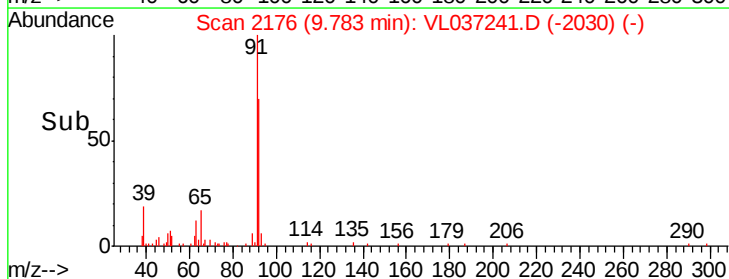
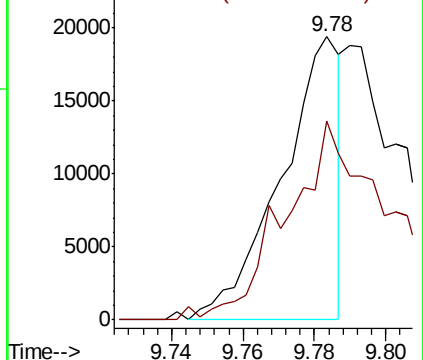
91 100

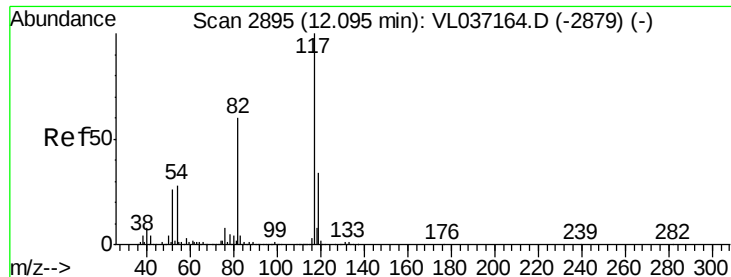
92 130.1 48.3 72.5#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

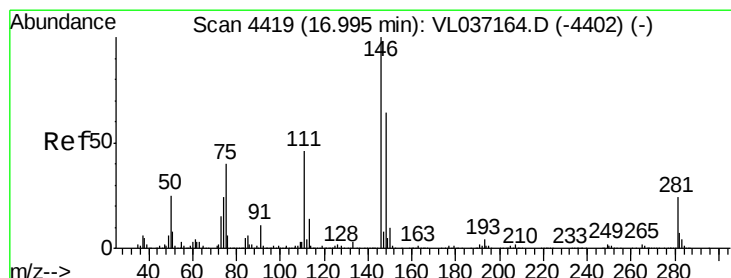
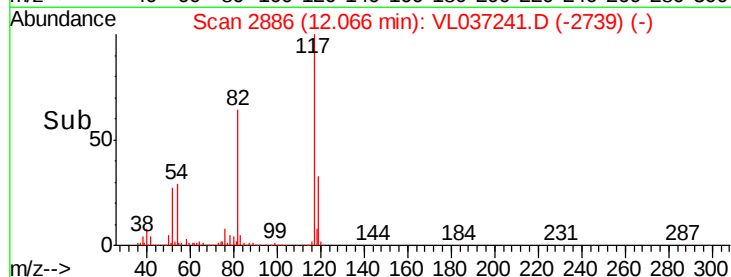
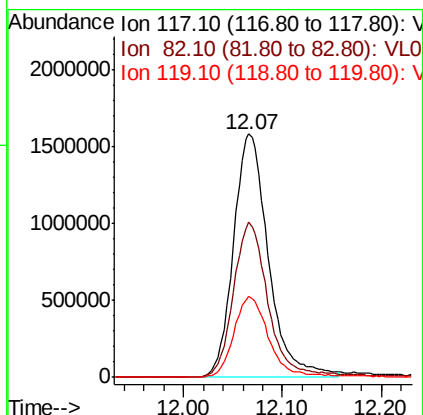
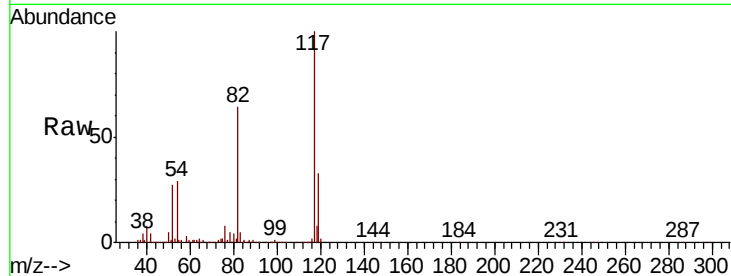




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.07 min Scan# 2886  
Delta R.T. -0.03 min  
Lab File: VL037241.D  
Acq: 23 Jun 2021 11:19

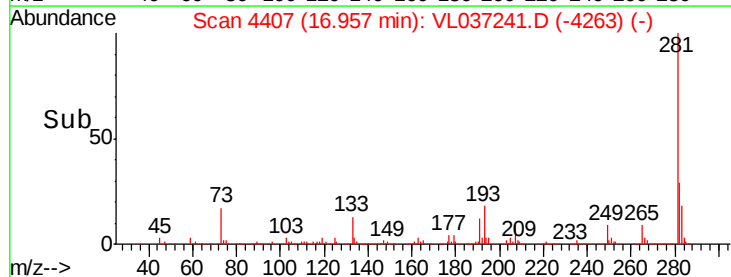
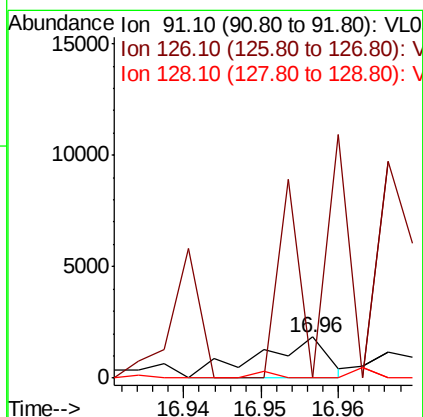
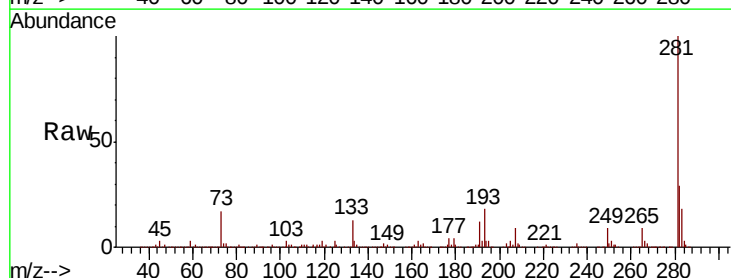
Instrument :  
MSVOA\_L  
ClientSampleId :

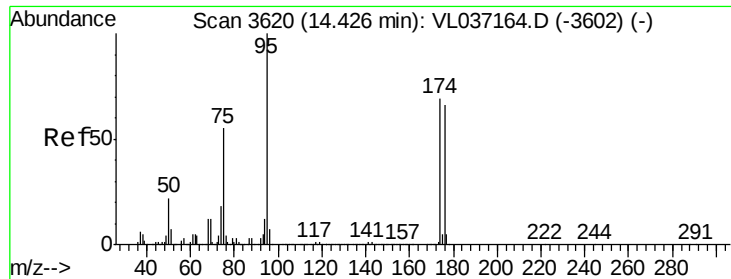
Tot Ion:117 Resp: 3903141  
Ion Ratio Lower Upper  
117 100  
82 65.4 51.7 77.5  
119 33.8 47.6 71.4#



#66  
Benzyl Chloride  
Concen: 0.049 ppbv  
RT: 16.96 min Scan# 4407  
Delta R.T. -0.04 min  
Lab File: VL037241.D  
Acq: 23 Jun 2021 11:19

Tgt Ion: 91 Resp: 1134  
Ion Ratio Lower Upper  
91 100  
126 1494.5 15.5 23.3#  
128 0.0 5.7 8.5#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.623 ppbv

RT: 14.40 min Scan# 3612

Delta R.T. -0.03 min

Lab File: VL037241.D

Acq: 23 Jun 2021 11:19

Instrument :

MSVOA\_L

ClientSampleId :

Tot Ion: 95 Resp: 2846016

Ion Ratio Lower Upper

95 100

174 74.9 57.0 85.4

175 5.4 4.4 6.6

