

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL092122\  
 Data File : VL039660.D  
 Acq On : 22 Sep 2022 7:31  
 Operator : SY/AP  
 Sample : N4669-10DL 10X  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Sep 22 08:29:03 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL091922AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Mon Sep 19 14:26:28 2022  
 Response via : Initial Calibration

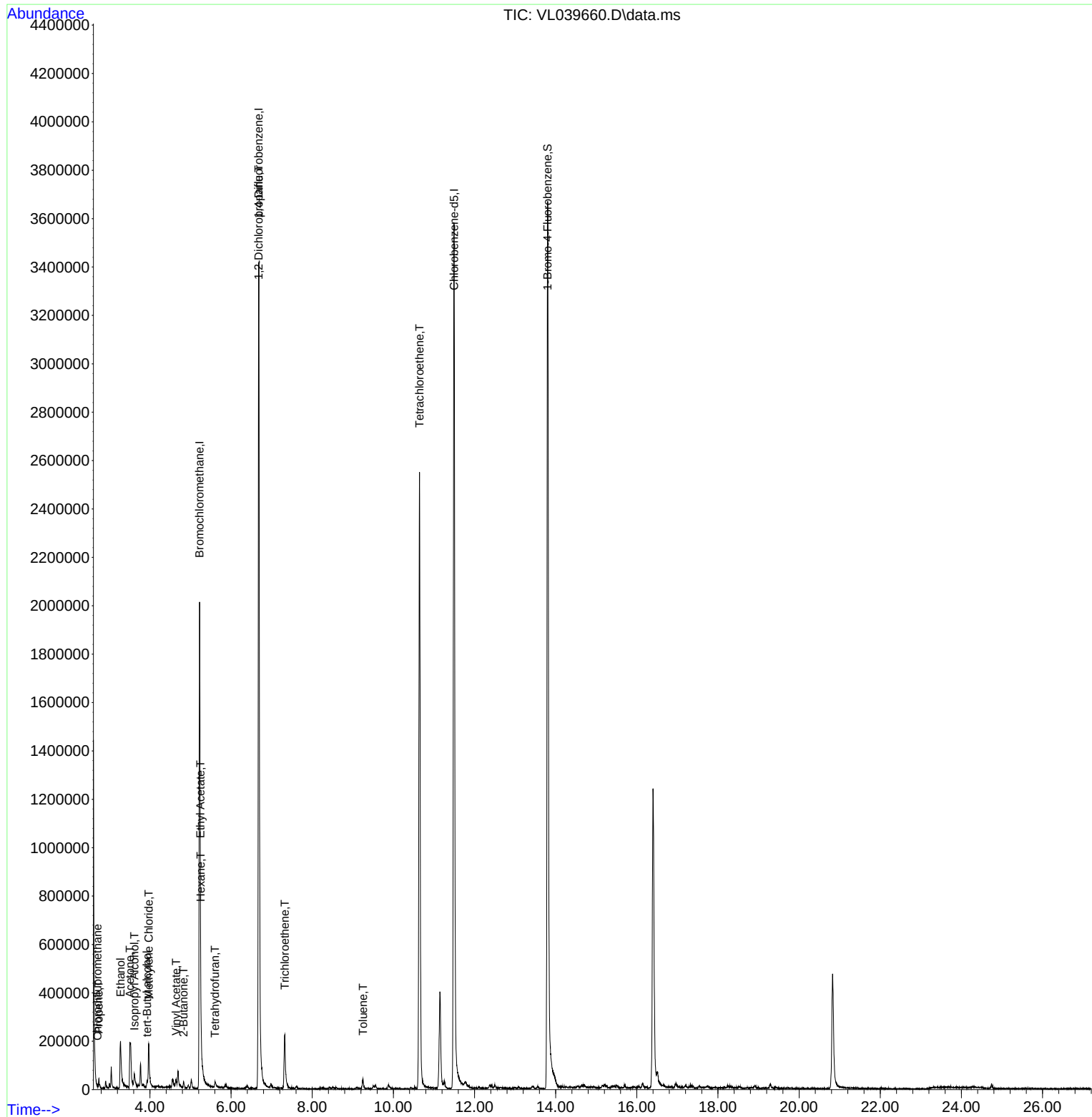
| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Bromochloromethane       | 5.224  | 49    | 1033685  | 10.000   | ppbv   | 0.02     |
| 33) 1,4-Difluorobenzene     | 6.681  | 114   | 2672498  | 10.000   | ppbv   | 0.02     |
| 55) Chlorobenzene-d5        | 11.494 | 117   | 2443371  | 10.000   | ppbv   | 0.02     |
| System Monitoring Compounds |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene | 13.802 | 95    | 1805008  | 9.896    | ppbv   | 0.03     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =      | 99.000%  |
| Target Compounds            |        |       |          |          |        |          |
|                             |        |       |          |          | Qvalue |          |
| 3) Chlorodifluoromethane    | 2.706  | 51    | 8824     | 0.072    | ppbv # | 86       |
| 9) Propene                  | 2.739  | 41    | 9049     | 0.162    | ppbv   | 92       |
| 13) Ethanol                 | 3.276  | 45    | 241399   | 56.550   | ppbv   | 75       |
| 15) Acetone                 | 3.507  | 43    | 230887   | 2.007    | ppbv   | 97       |
| 17) tert-Butyl alcohol      | 3.931  | 59    | 17097    | 0.166    | ppbv # | 83       |
| 19) Isopropyl Alcohol       | 3.620  | 45    | 34633    | 0.591    | ppbv # | 58       |
| 20) Methylene Chloride      | 3.970  | 84    | 60966    | 1.146    | ppbv   | 97       |
| 23) Vinyl Acetate           | 4.648  | 43    | 11592    | 0.223    | ppbv # | 1        |
| 25) Ethyl Acetate           | 5.243  | 43    | 39499    | 0.157    | ppbv # | 82       |
| 26) Hexane                  | 5.250  | 57    | 36052    | 0.339    | ppbv # | 53       |
| 34) 2-Butanone              | 4.829  | 43    | 16060    | 0.122    | ppbv # | 47       |
| 38) Trichloroethene         | 7.324  | 130   | 71742    | 0.650    | ppbv   | 96       |
| 39) 1,2-Dichloropropane     | 6.677  | 63    | 660723   | 8.374    | ppbv # | 24       |
| 41) Tetrahydrofuran         | 5.607  | 42    | 5085     | 0.063    | ppbv # | 30       |
| 52) Tetrachloroethene       | 10.645 | 164   | 656863   | 8.427    | ppbv   | 96       |
| 53) Toluene                 | 9.250  | 91    | 23694    | 0.104    | ppbv   | 95       |
| -----                       |        |       |          |          |        |          |

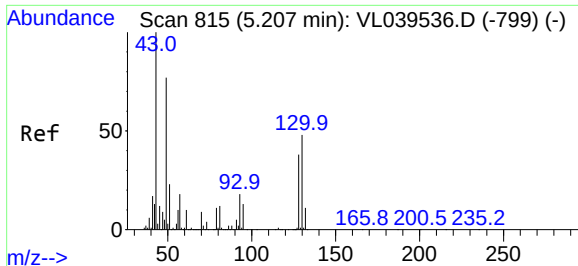
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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MSVOA\_L  
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Quant Time: Sep 22 08:29:03 2022  
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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Mon Sep 19 14:26:28 2022  
Response via : Initial Calibration

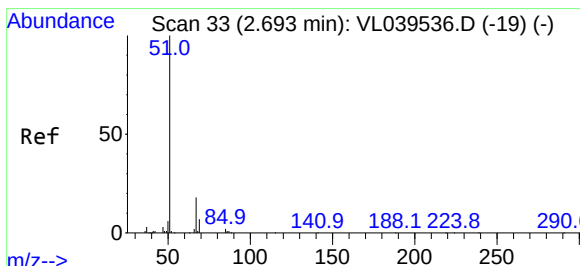
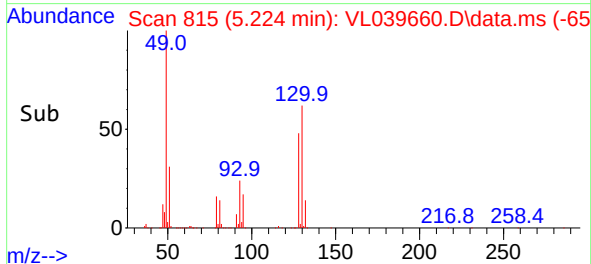
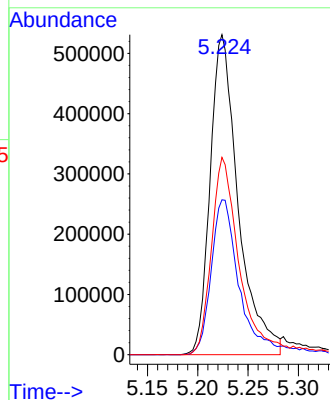
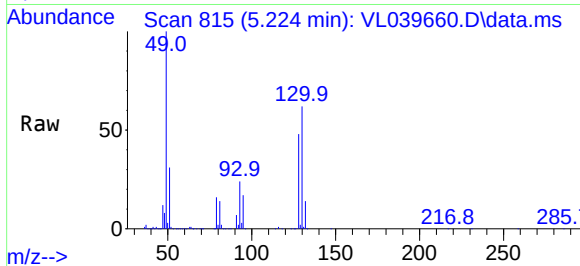




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.224 min Scan# 81  
Delta R.T. 0.017 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

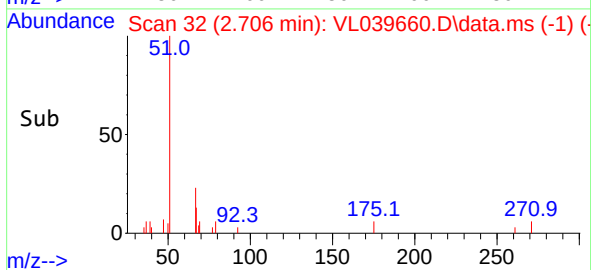
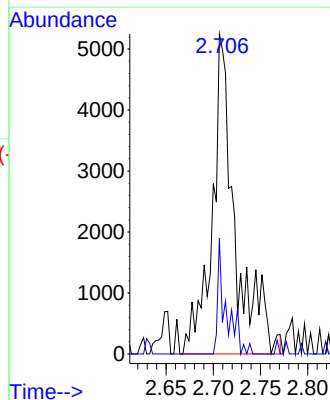
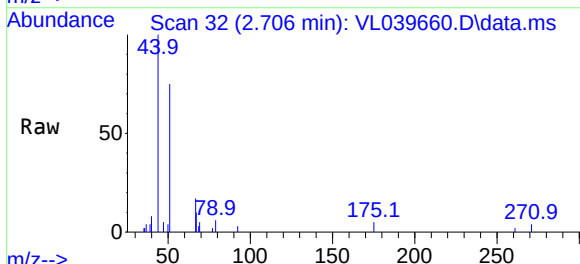
Instrument :  
MSVOA\_L  
ClientSampleId :

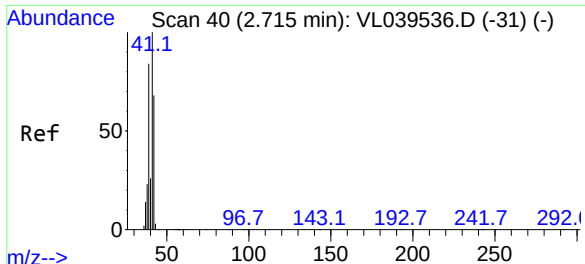
Tgt Ion: 49 Resp: 1033685  
Ion Ratio Lower Upper  
49 100  
128 51.7 26.7 80.0  
130 64.7 34.3 102.8



#3  
Chlorodifluoromethane  
Concen: 0.072 ppbv  
RT: 2.706 min Scan# 32  
Delta R.T. 0.014 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

Tgt Ion: 51 Resp: 8824  
Ion Ratio Lower Upper  
51 100  
67 13.1 15.7 23.5#





#9

Propene

Concen: 0.162 ppbv

RT: 2.739 min Scan# 41

Delta R.T. 0.023 min

Lab File: VL039660.D

Acq: 22 Sep 2022 7:31

Instrument :

MSVOA\_L

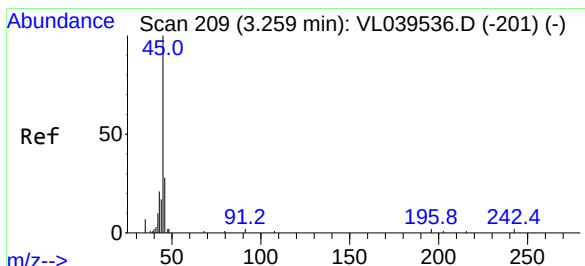
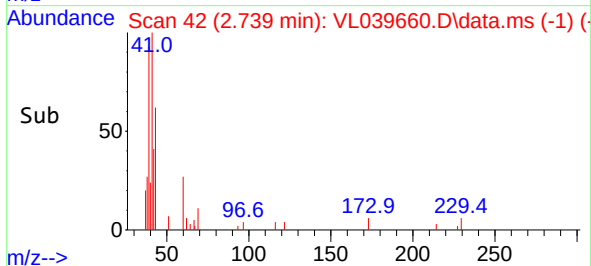
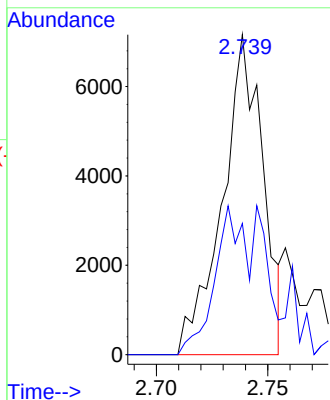
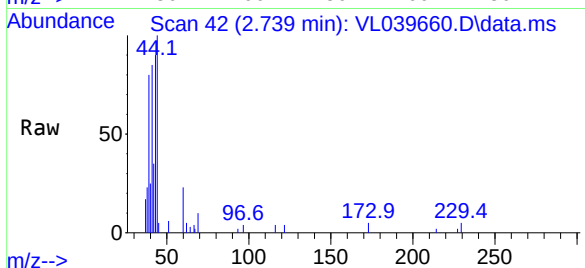
ClientSampleId :

Tgt Ion: 41 Resp: 9049

Ion Ratio Lower Upper

41 100

42 62.1 55.2 82.8



#13

Ethanol

Concen: 56.550 ppbv

RT: 3.276 min Scan# 209

Delta R.T. 0.017 min

Lab File: VL039660.D

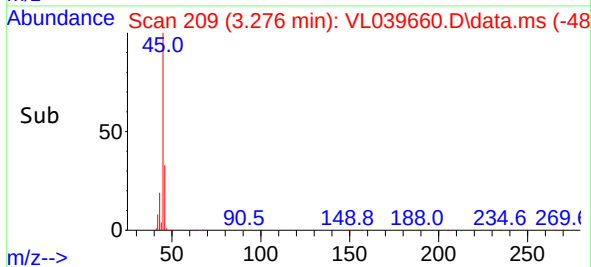
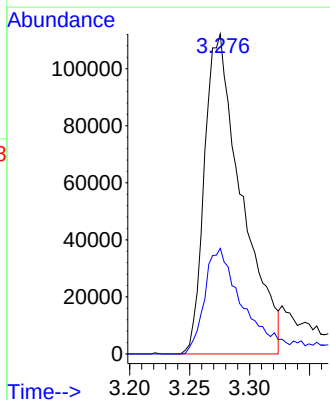
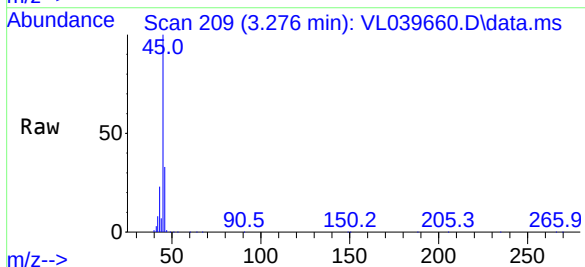
Acq: 22 Sep 2022 7:31

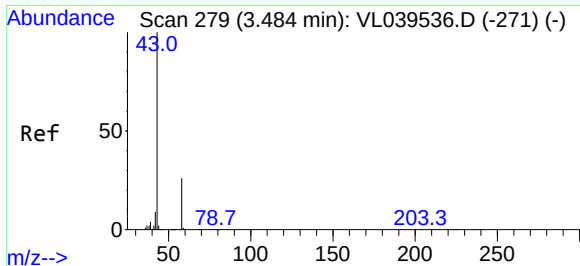
Tgt Ion: 45 Resp: 241399

Ion Ratio Lower Upper

45 100

46 38.5 22.8 91.2





#15

Acetone

Concen: 2.007 ppbv

RT: 3.507 min Scan# 21

Delta R.T. 0.023 min

Lab File: VL039660.D

Acq: 22 Sep 2022 7:31

Instrument :

MSVOA\_L

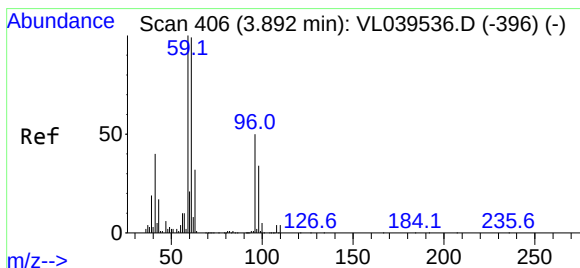
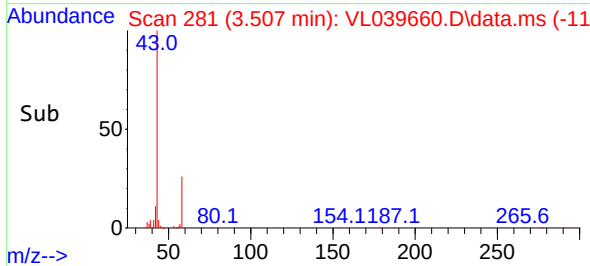
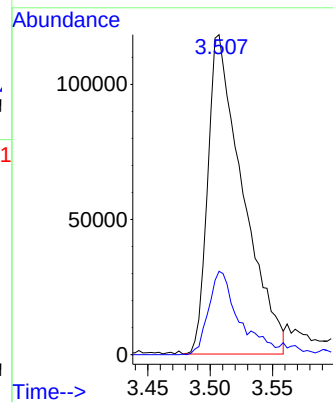
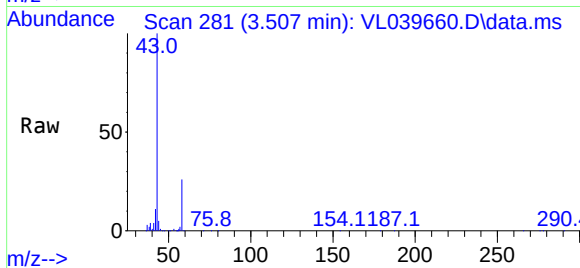
ClientSampleId :

Tgt Ion: 43 Resp: 230887

Ion Ratio Lower Upper

43 100

58 24.5 21.0 31.6



#17

tert-Butyl alcohol

Concen: 0.166 ppbv

RT: 3.931 min Scan# 413

Delta R.T. 0.039 min

Lab File: VL039660.D

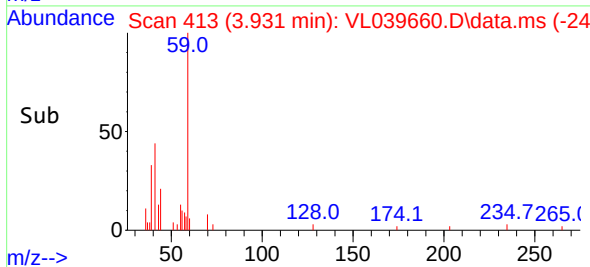
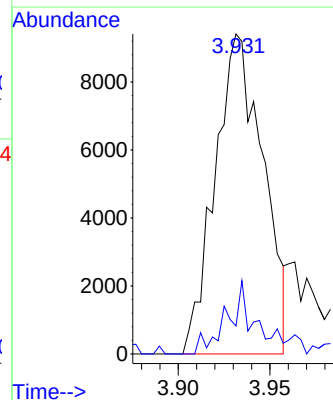
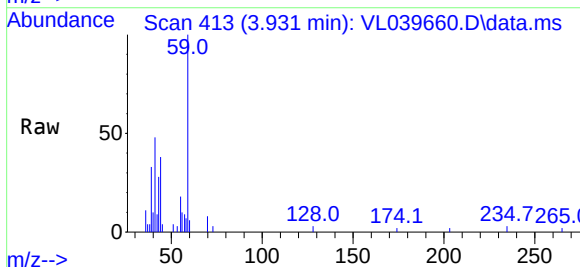
Acq: 22 Sep 2022 7:31

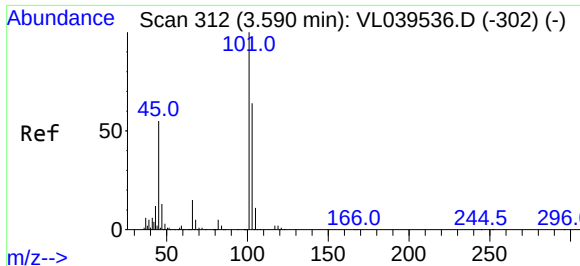
Tgt Ion: 59 Resp: 17097

Ion Ratio Lower Upper

59 100

57 17.5 8.7 13.1#





#19

Isopropyl Alcohol

Concen: 0.591 ppbv

RT: 3.620 min Scan# 312

Delta R.T. 0.030 min

Lab File: VL039660.D

Acq: 22 Sep 2022 7:31

Instrument :

MSVOA\_L

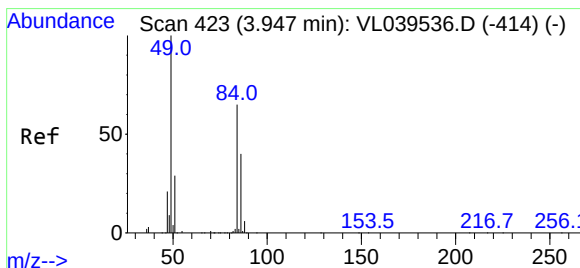
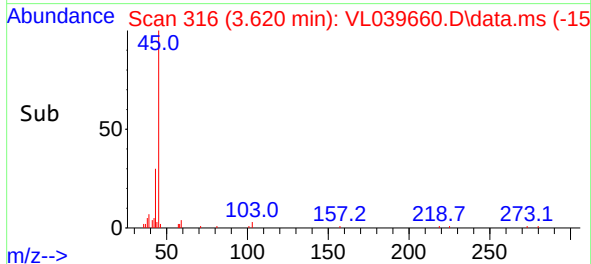
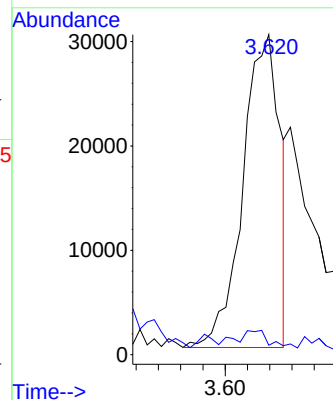
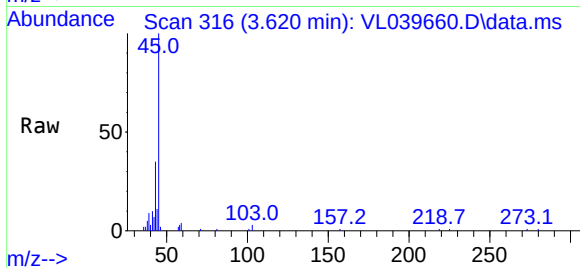
ClientSampleId :

Tgt Ion: 45 Resp: 34633

Ion Ratio Lower Upper

45 100

58 17.8 3.2 4.8#



#20

Methylene Chloride

Concen: 1.146 ppbv

RT: 3.970 min Scan# 425

Delta R.T. 0.023 min

Lab File: VL039660.D

Acq: 22 Sep 2022 7:31

Tgt Ion: 84 Resp: 60966

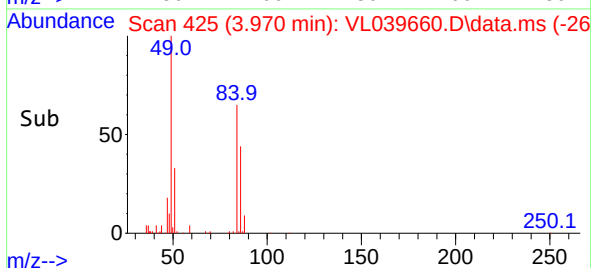
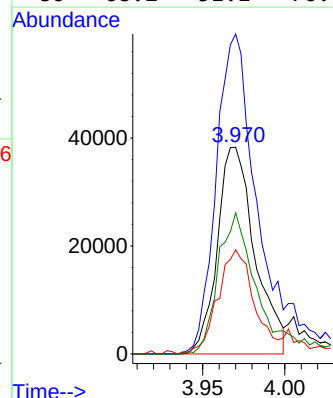
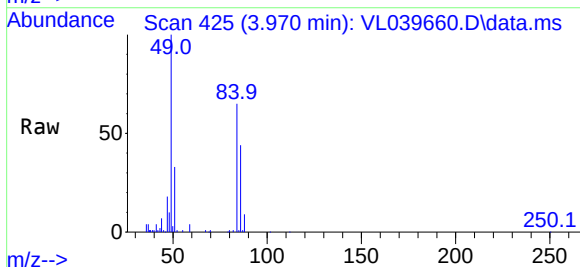
Ion Ratio Lower Upper

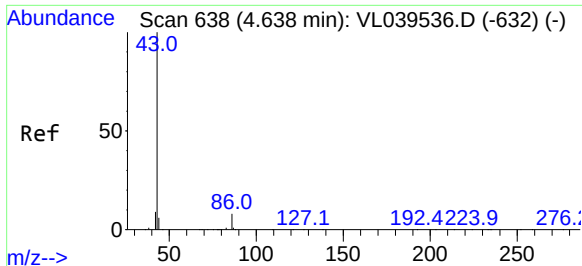
84 100

49 154.1 123.1 184.7

51 49.2 34.4 51.6

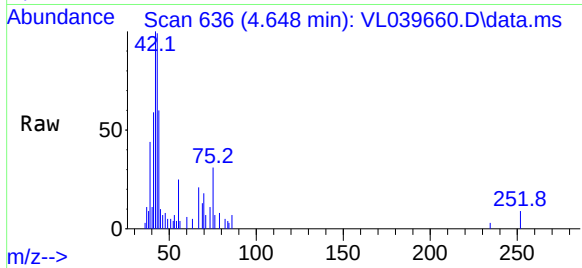
86 68.2 51.1 76.7





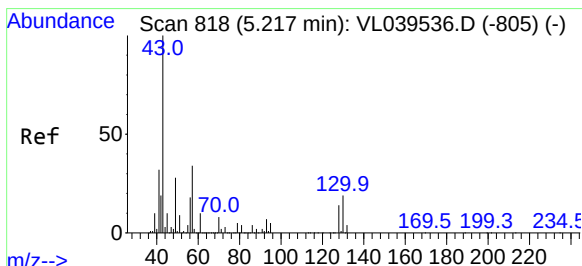
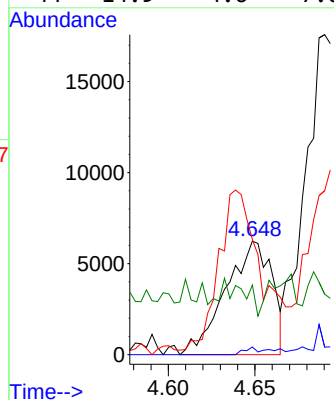
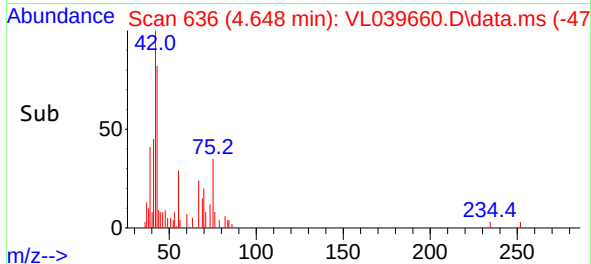
#23  
Vinyl Acetate  
Concen: 0.223 ppbv  
RT: 4.648 min Scan# 61  
Delta R.T. 0.010 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

Instrument :  
MSVOA\_L  
ClientSampleId :



Tgt Ion: 43 Resp: 11592

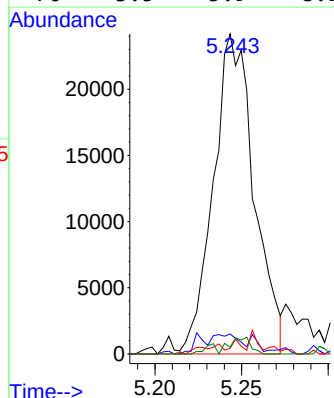
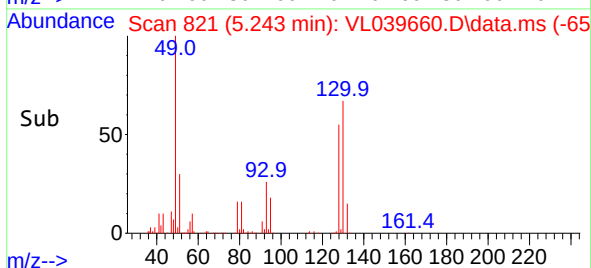
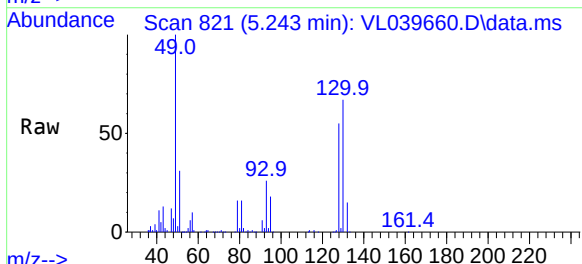
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 86  | 6.7   | 5.0   | 7.6   |
| 42  | 97.5  | 7.7   | 11.5# |
| 44  | 14.9  | 4.6   | 7.0#  |

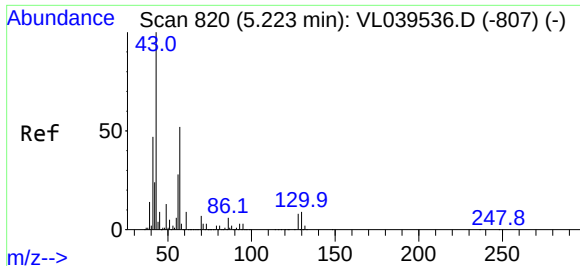


#25  
Ethyl Acetate  
Concen: 0.157 ppbv  
RT: 5.243 min Scan# 821  
Delta R.T. 0.026 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

Tgt Ion: 43 Resp: 39499

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 45  | 0.0   | 8.2   | 12.4# |
| 61  | 5.2   | 8.3   | 12.5# |
| 70  | 3.5   | 5.9   | 8.9#  |

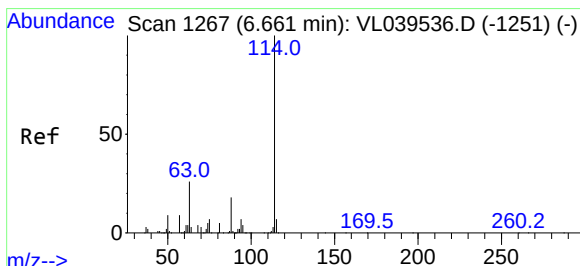
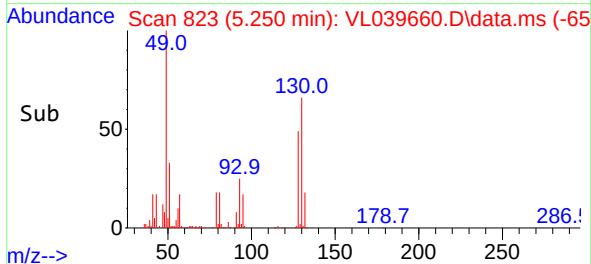
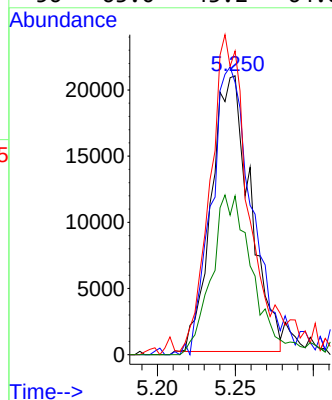
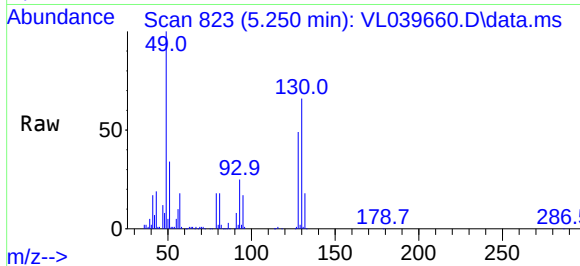




#26  
Hexane  
Concen: 0.339 ppbv  
RT: 5.250 min Scan# 81  
Delta R.T. 0.026 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

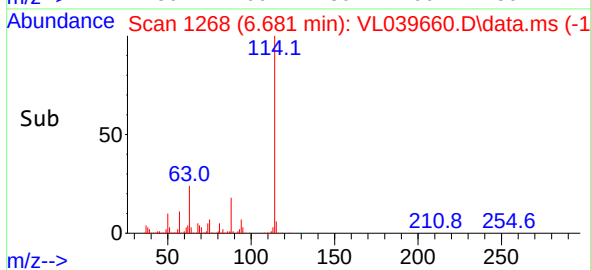
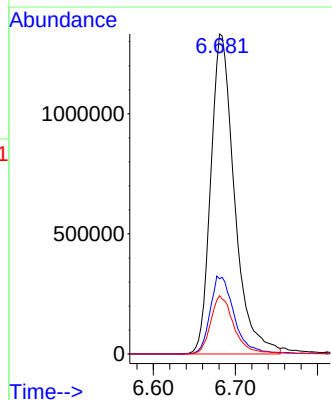
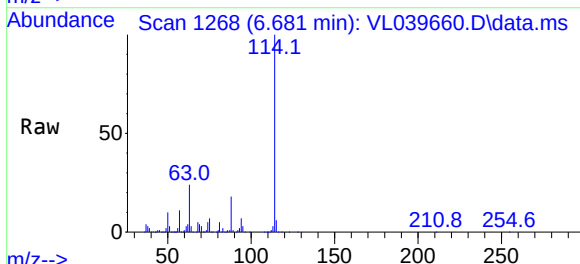
Instrument :  
MSVOA\_L  
ClientSampleId :

|             |              |
|-------------|--------------|
| Tgt Ion: 57 | Resp: 36052  |
| Ion Ratio   | Lower Upper  |
| 57 100      |              |
| 41 114.3    | 76.9 115.3   |
| 43 125.5    | 191.0 286.6# |
| 56 63.0     | 43.2 64.8    |

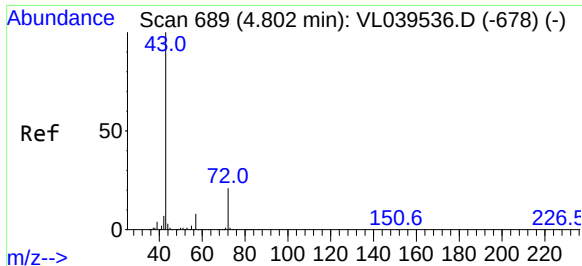


#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 6.681 min Scan# 1268  
Delta R.T. 0.020 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

|              |               |
|--------------|---------------|
| Tgt Ion: 114 | Resp: 2672498 |
| Ion Ratio    | Lower Upper   |
| 114 100      |               |
| 63 25.1      | 20.2 30.4     |
| 88 18.1      | 14.5 21.7     |



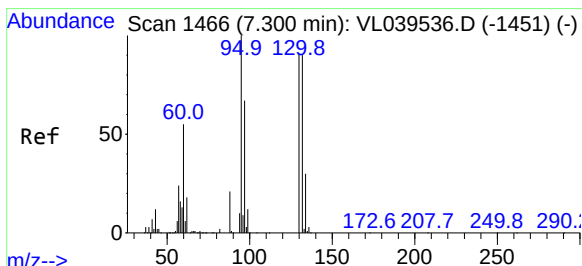
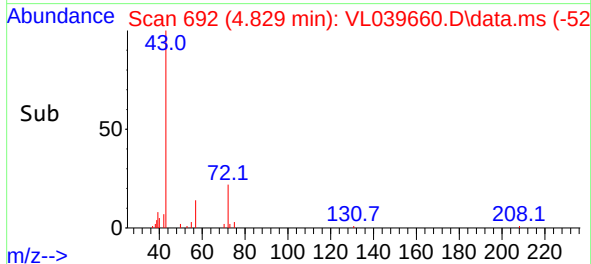
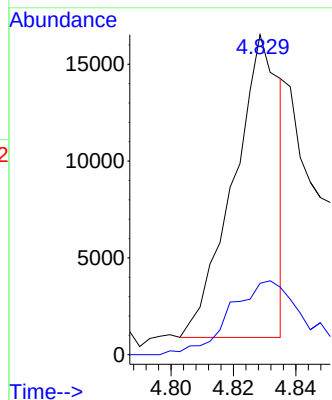
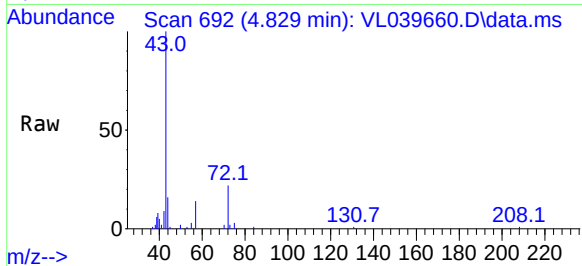




#34  
2-Butanone  
Concen: 0.122 ppbv  
RT: 4.829 min Scan# 61  
Delta R.T. 0.026 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

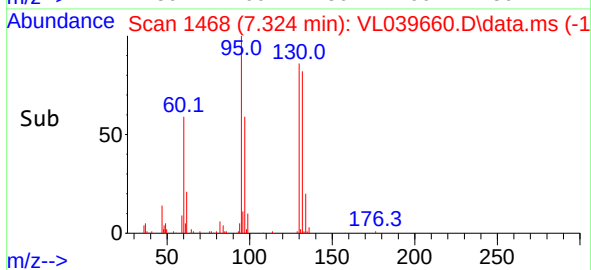
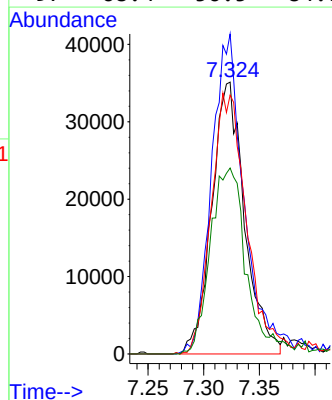
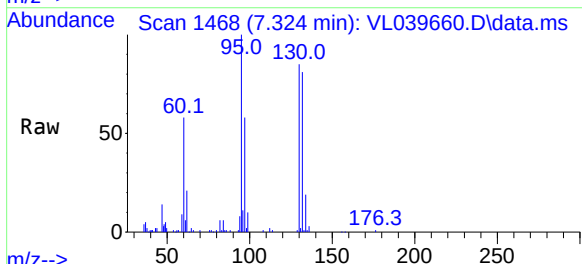
Instrument :  
MSVOA\_L  
ClientSampleId :

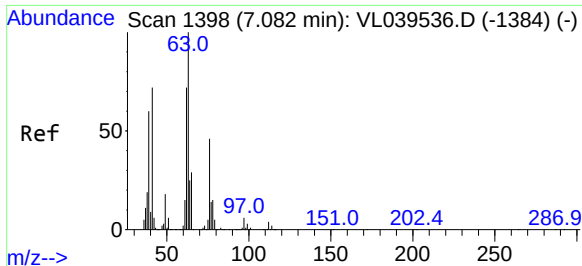
Tgt Ion: 43 Resp: 16060  
Ion Ratio Lower Upper  
43 100  
72 47.7 17.9 26.9#



#38  
Trichloroethene  
Concen: 0.650 ppbv  
RT: 7.324 min Scan# 1468  
Delta R.T. 0.023 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

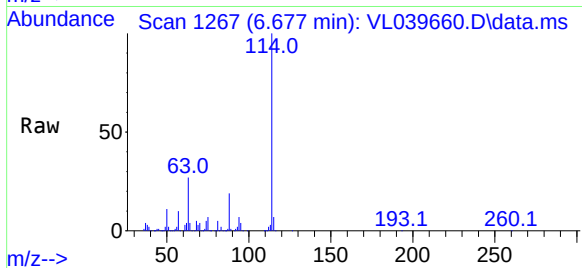
Tgt Ion: 130 Resp: 71742  
Ion Ratio Lower Upper  
130 100  
95 117.2 87.3 130.9  
132 95.3 76.7 115.1  
97 68.4 56.5 84.7





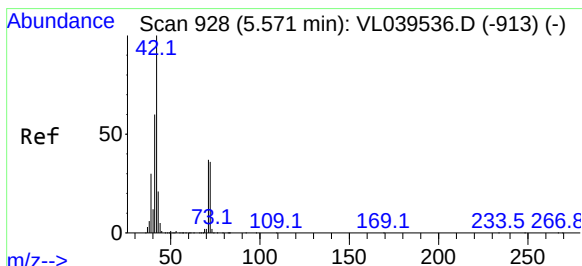
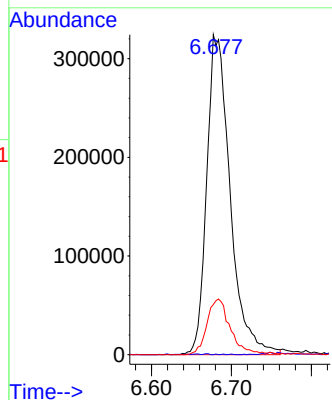
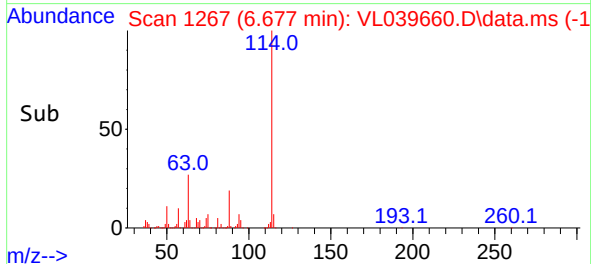
#39  
1,2-Dichloropropane  
Concen: 8.374 ppbv  
RT: 6.677 min Scan# 11  
Delta R.T. -0.404 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

Instrument :  
MSVOA\_L  
ClientSampleId :



Tgt Ion: 63 Resp: 660723

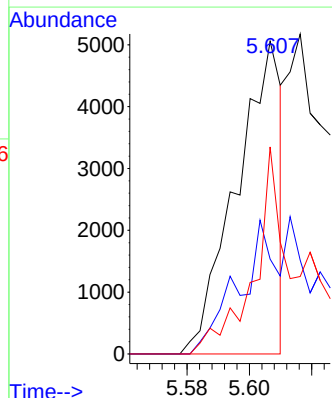
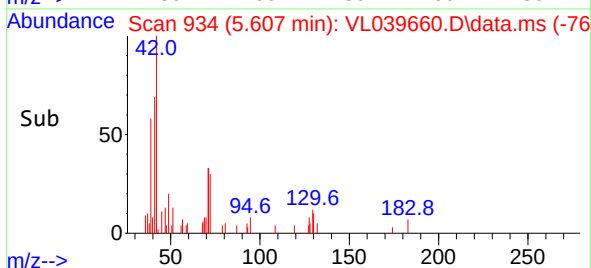
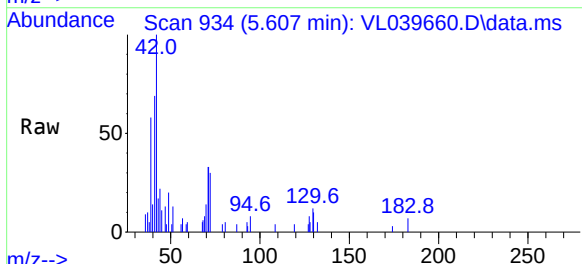
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 63  | 100   |       |       |
| 41  | 0.0   | 59.6  | 89.4# |
| 62  | 15.6  | 51.4  | 77.0# |

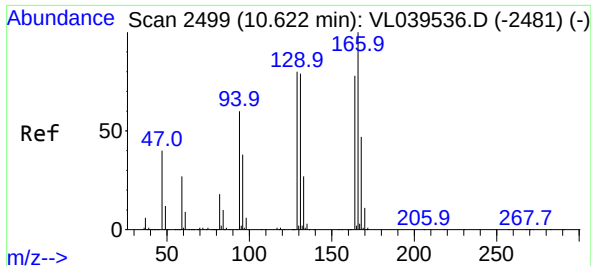


#41  
Tetrahydrofuran  
Concen: 0.063 ppbv  
RT: 5.607 min Scan# 934  
Delta R.T. 0.036 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

Tgt Ion: 42 Resp: 5085

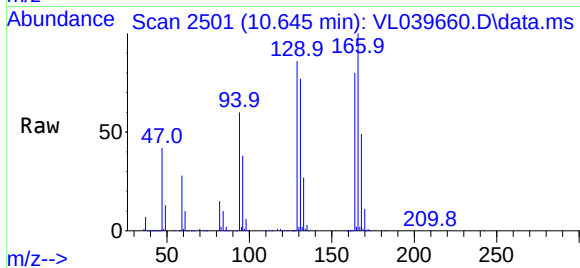
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 42  | 100   |       |       |
| 72  | 0.0   | 31.8  | 47.8# |
| 71  | 85.9  | 31.8  | 47.8# |



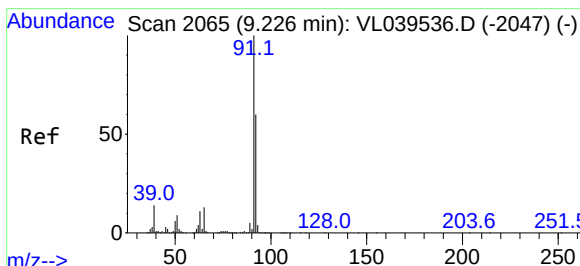
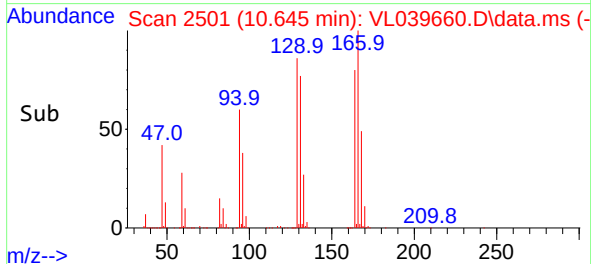
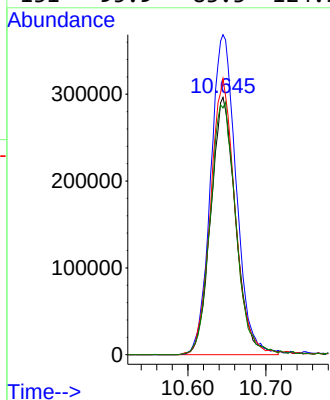


#52  
Tetrachloroethene  
Concen: 8.427 ppbv  
RT: 10.645 min Scan# 21  
Delta R.T. 0.023 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

Instrument :  
MSVOA\_L  
ClientSampleId :

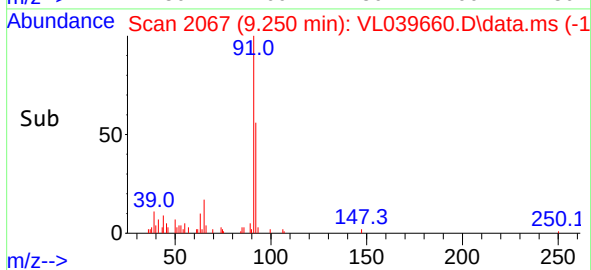
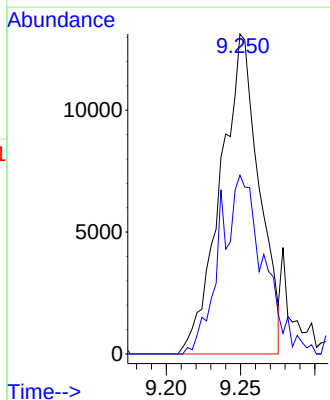
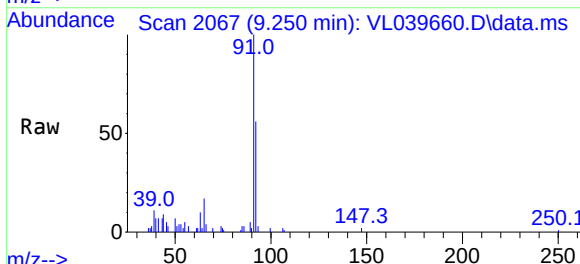


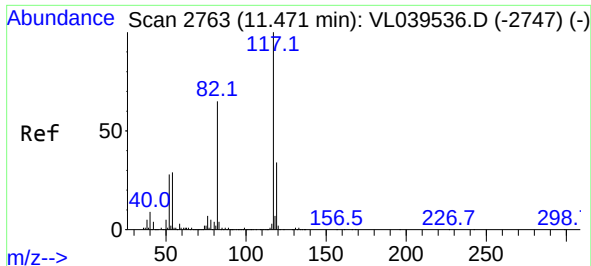
Tgt Ion:164 Resp: 656863  
Ion Ratio Lower Upper  
164 100  
166 124.3 102.2 153.2  
129 107.3 85.8 128.8  
131 95.9 83.3 124.9



#53  
Toluene  
Concen: 0.104 ppbv  
RT: 9.250 min Scan# 2067  
Delta R.T. 0.023 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

Tgt Ion: 91 Resp: 23694  
Ion Ratio Lower Upper  
91 100  
92 64.0 48.2 72.2



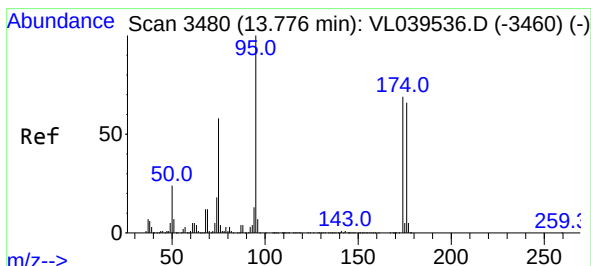
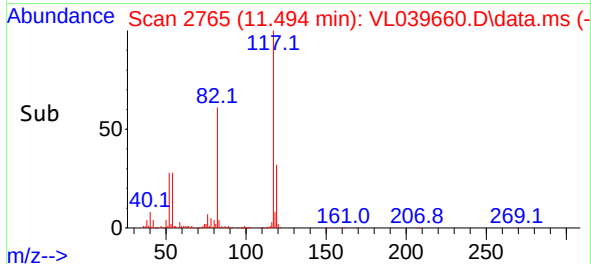
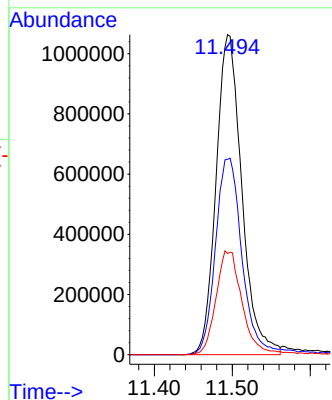
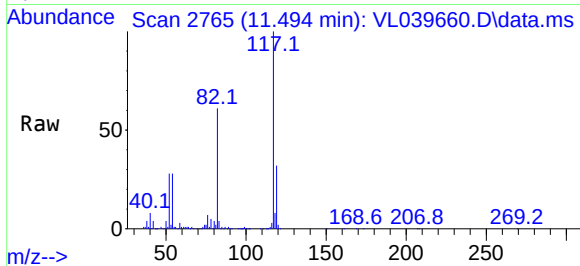


#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 11.494 min Scan# 21  
Delta R.T. 0.023 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

Instrument :  
MSVOA\_L  
ClientSampleId :

Tgt Ion: 117 Resp: 2443371  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 117 | 100   |       |       |
| 82  | 65.0  | 50.8  | 76.2  |
| 119 | 33.4  | 24.1  | 36.1  |



#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.896 ppbv  
RT: 13.802 min Scan# 3483  
Delta R.T. 0.026 min  
Lab File: VL039660.D  
Acq: 22 Sep 2022 7:31

Tgt Ion: 95 Resp: 1805008  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 95  | 100   |       |       |
| 174 | 70.9  | 55.9  | 83.9  |
| 175 | 5.4   | 4.2   | 6.4   |

