

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL042125\  
 Data File : VL042406.D  
 Acq On : 21 Apr 2025 15:49  
 Operator : SY/MD  
 Sample : Q1843-02DL 5X  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA1DL

Quant Time: Apr 22 02:55:36 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL041725AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Fri Apr 18 02:14:00 2025  
 Response via : Initial Calibration

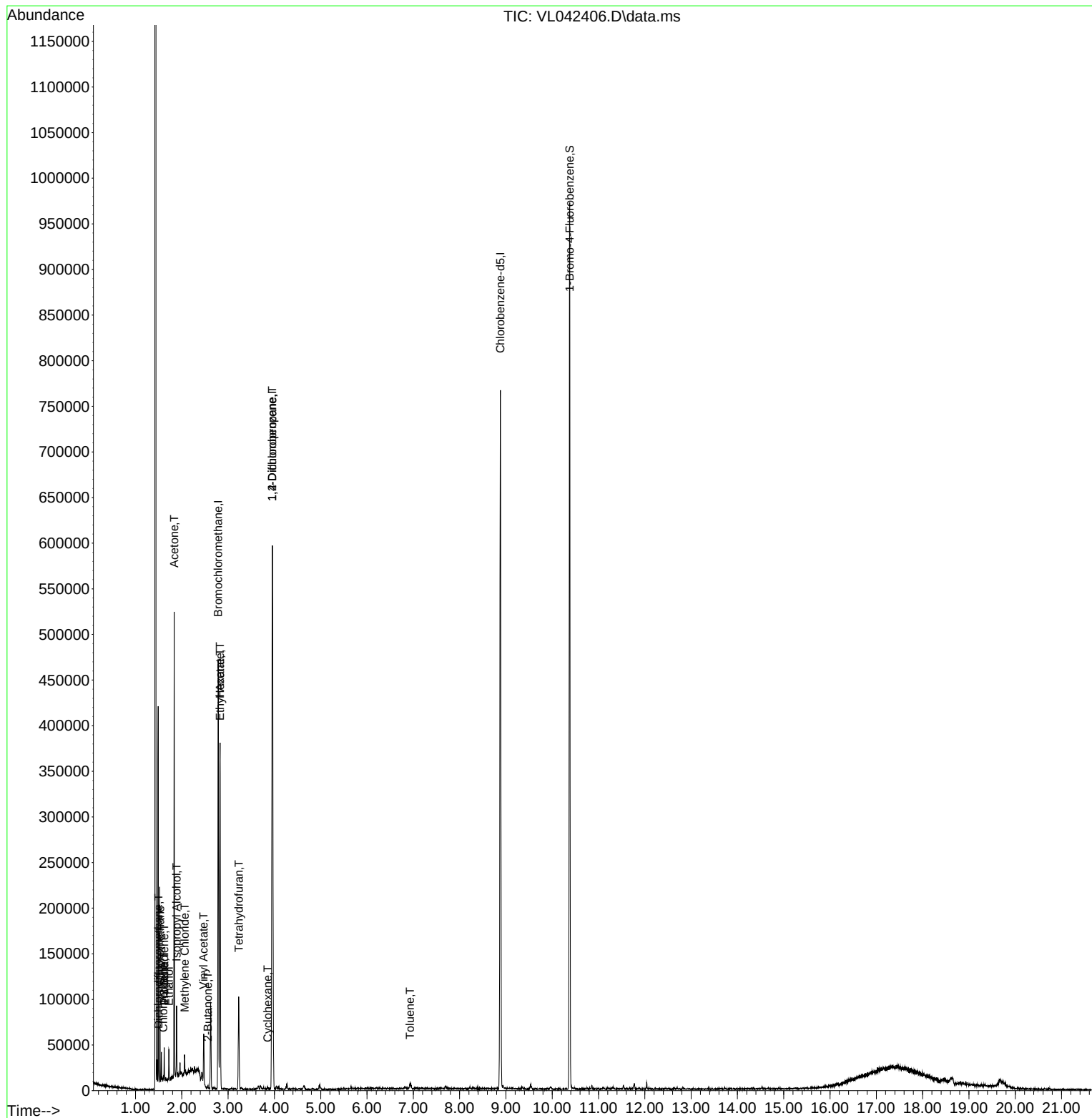
| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Bromochloromethane       | 2.787  | 49    | 119466   | 10.000   | ppbv   | 0.00     |
| 33) 1,4-Difluorobenzene     | 3.955  | 114   | 339990   | 10.000   | ppbv   | 0.00     |
| 55) Chlorobenzene-d5        | 8.878  | 117   | 287351   | 10.000   | ppbv   | 0.00     |
| System Monitoring Compounds |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene | 10.377 | 95    | 249070   | 10.548   | ppbv   | 0.00     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =      | 105.500% |
| Target Compounds            |        |       |          |          |        |          |
|                             |        |       |          |          | Qvalue |          |
| 2) Dichlorodifluoromethane  | 1.499  | 85    | 2213     | 0.105    | ppbv   | 92       |
| 4) Chloromethane            | 1.531  | 50    | 1103     | 0.132    | ppbv # | 79       |
| 7) Chloroethane             | 1.599  | 64    | 108      | 0.033    | ppbv # | 75       |
| 9) Propene                  | 1.618  | 41    | 3334     | 0.364    | ppbv   | 99       |
| 13) Ethanol                 | 1.722  | 45    | 12319    | 8.467    | ppbv # | 24       |
| 15) Acetone                 | 1.835  | 43    | 215496   | 11.019   | ppbv   | 96       |
| 16) 1,3-Butadiene           | 1.618  | 39    | 1785     | 0.191    | ppbv # | 41       |
| 19) Isopropyl Alcohol       | 1.887  | 45    | 30893    | 2.844    | ppbv # | 1        |
| 20) Methylene Chloride      | 2.062  | 84    | 2720     | 0.355    | ppbv   | 93       |
| 23) Vinyl Acetate           | 2.473  | 43    | 17238    | 2.178    | ppbv # | 57       |
| 25) Ethyl Acetate           | 2.822  | 43    | 62741    | 1.301    | ppbv # | 77       |
| 26) Hexane                  | 2.826  | 57    | 91195    | 4.673    | ppbv # | 32       |
| 30) Cyclohexane             | 3.855  | 84    | 576      | 0.037    | ppbv # | 67       |
| 34) 2-Butanone              | 2.560  | 43    | 2026     | 0.075    | ppbv   | 96       |
| 39) 1,2-Dichloropropane     | 3.955  | 63    | 93376    | 6.833    | ppbv # | 21       |
| 41) Tetrahydrofuran         | 3.230  | 42    | 8000     | 0.510    | ppbv # | 37       |
| 53) Toluene                 | 6.927  | 91    | 2436     | 0.055    | ppbv # | 20       |
| -----                       |        |       |          |          |        |          |

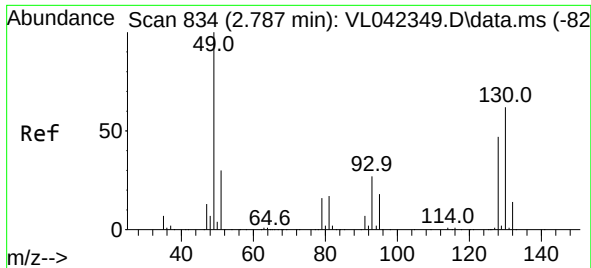
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL042125\  
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Quant Time: Apr 22 02:55:36 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL041725AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Fri Apr 18 02:14:00 2025  
Response via : Initial Calibration

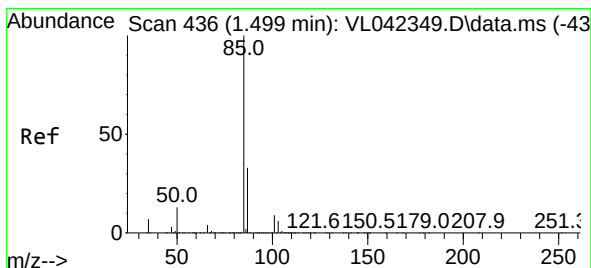
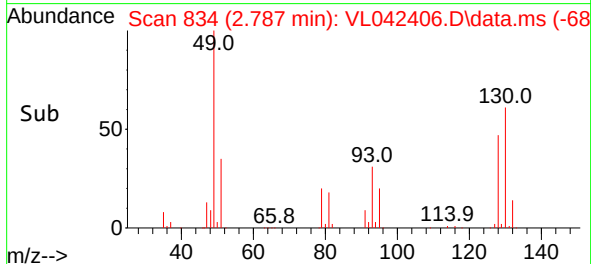
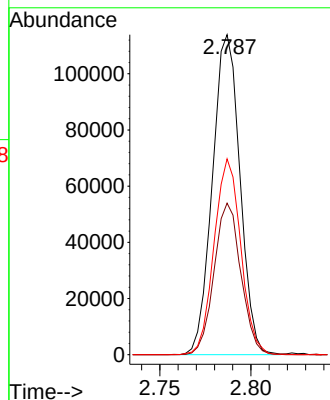
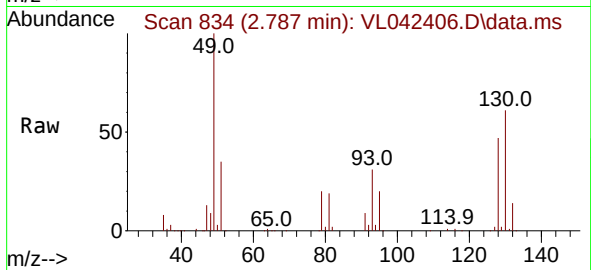




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 2.787 min Scan# 834  
Delta R.T. -0.000 min  
Lab File: VL042406.D  
Acq: 21 Apr 2025 15:49

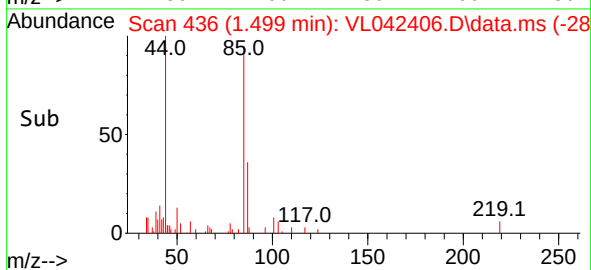
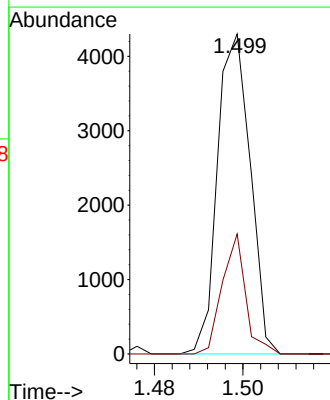
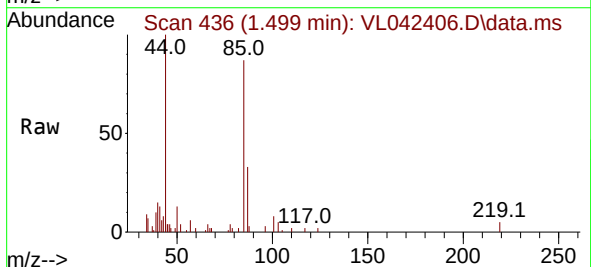
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1DL

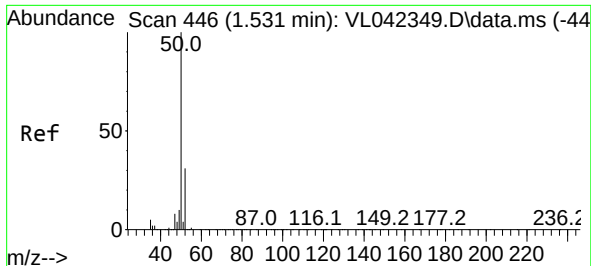
Tgt Ion: 49 Resp: 119466  
Ion Ratio Lower Upper  
49 100  
128 46.1 22.8 68.4  
130 59.4 29.3 88.0



#2  
Dichlorodifluoromethane  
Concen: 0.105 ppbv  
RT: 1.499 min Scan# 436  
Delta R.T. -0.000 min  
Lab File: VL042406.D  
Acq: 21 Apr 2025 15:49

Tgt Ion: 85 Resp: 2213  
Ion Ratio Lower Upper  
85 100  
87 37.5 26.6 39.8

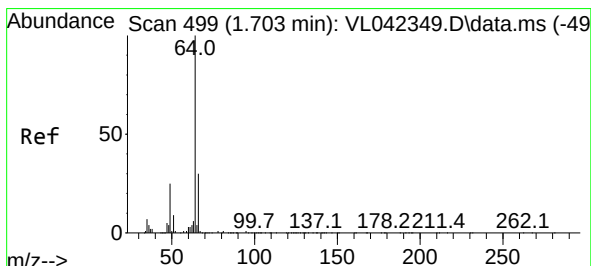
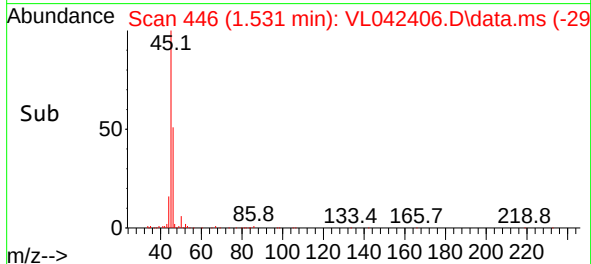
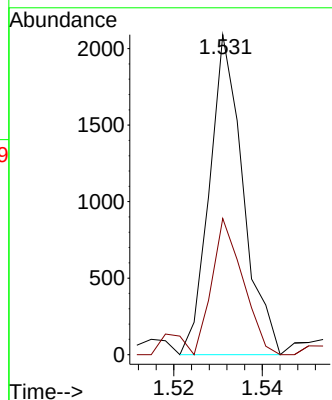
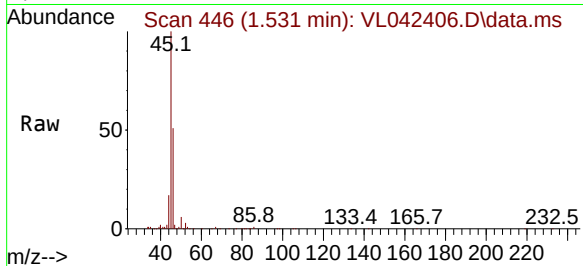




#4  
Chloromethane  
Concen: 0.132 ppbv  
RT: 1.531 min Scan# 446  
Delta R.T. -0.000 min  
Lab File: VL042406.D  
Acq: 21 Apr 2025 15:49

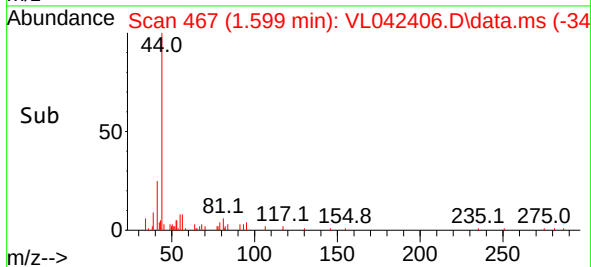
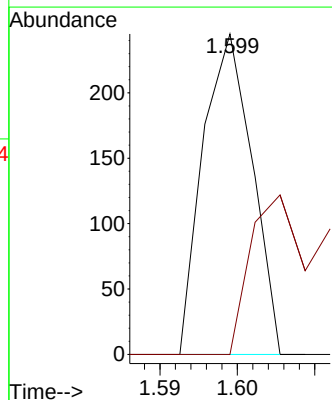
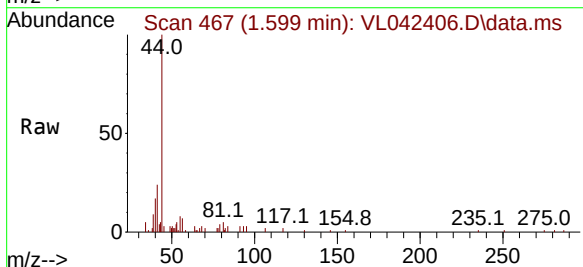
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1DL

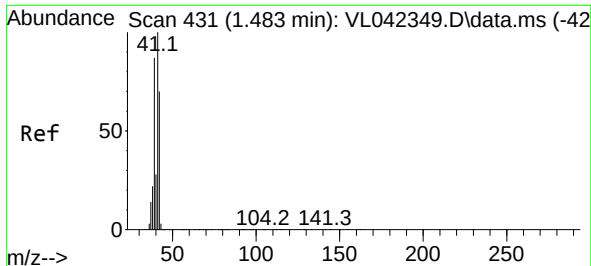
Tgt Ion: 50 Resp: 1103  
Ion Ratio Lower Upper  
50 100  
52 42.6 24.7 37.1#



#7  
Chloroethane  
Concen: 0.033 ppbv  
RT: 1.599 min Scan# 467  
Delta R.T. -0.104 min  
Lab File: VL042406.D  
Acq: 21 Apr 2025 15:49

Tgt Ion: 64 Resp: 108  
Ion Ratio Lower Upper  
64 100  
66 44.5 24.6 37.0#





#9

Propene

Concen: 0.364 ppbv

RT: 1.618 min Scan# 41

Delta R.T. 0.136 min

Lab File: VL042406.D

Acq: 21 Apr 2025 15:49

Instrument :

MSVOA\_L

ClientSampleId :

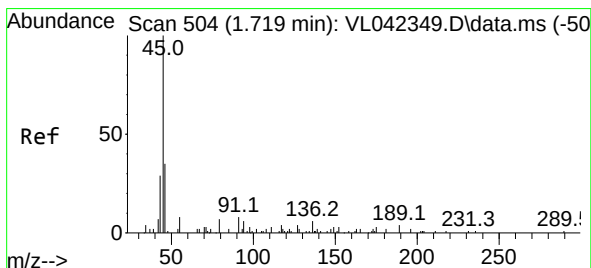
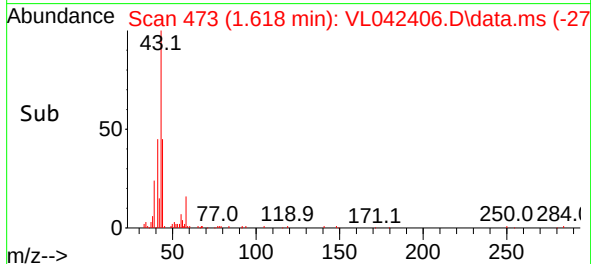
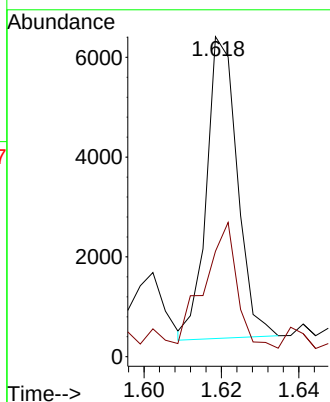
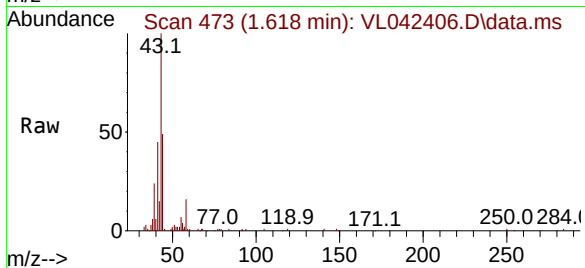
IA1DL

Tgt Ion: 41 Resp: 3334

Ion Ratio Lower Upper

41 100

42 69.7 56.2 84.4



#13

Ethanol

Concen: 8.467 ppbv

RT: 1.722 min Scan# 505

Delta R.T. 0.003 min

Lab File: VL042406.D

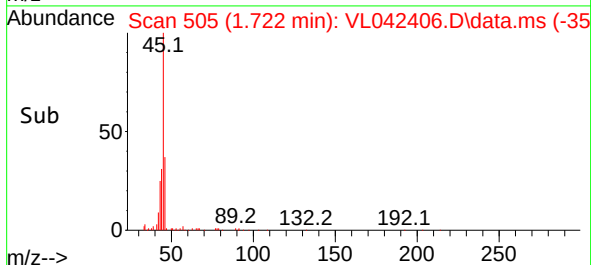
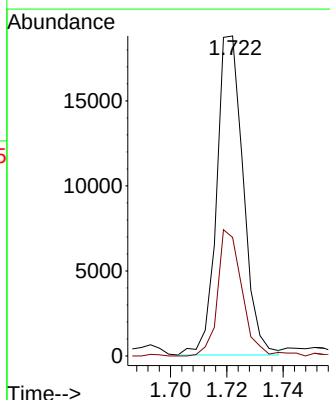
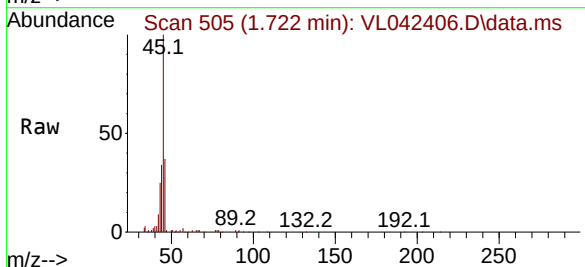
Acq: 21 Apr 2025 15:49

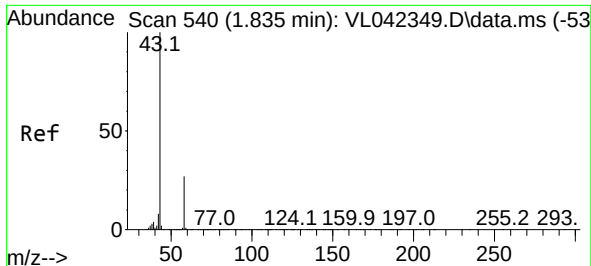
Tgt Ion: 45 Resp: 12319

Ion Ratio Lower Upper

45 100

46 0.0 21.9 87.7#

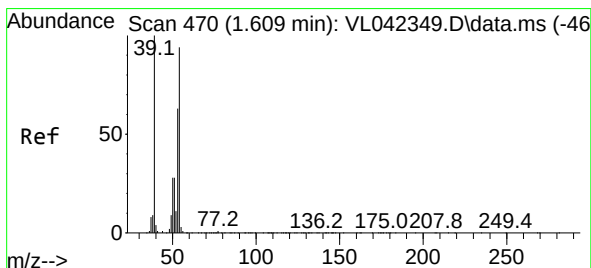
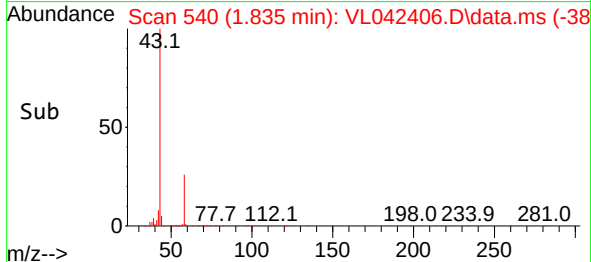
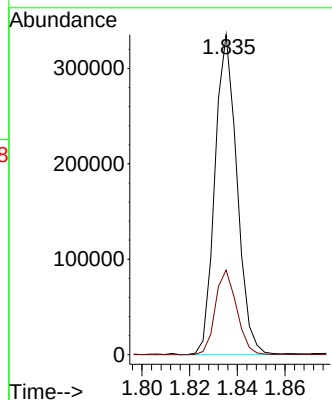
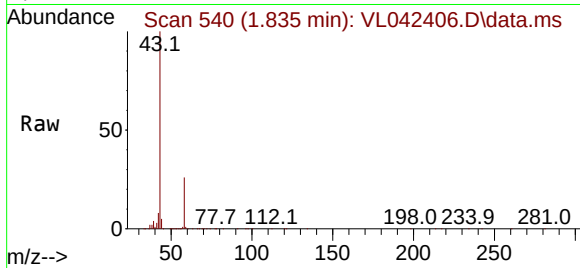




#15  
Acetone  
Concen: 11.019 ppbv  
RT: 1.835 min Scan# 540  
Delta R.T. -0.000 min  
Lab File: VL042406.D  
Acq: 21 Apr 2025 15:49

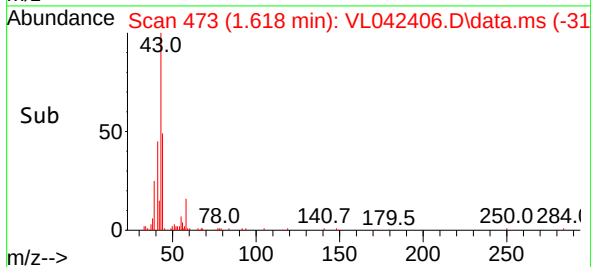
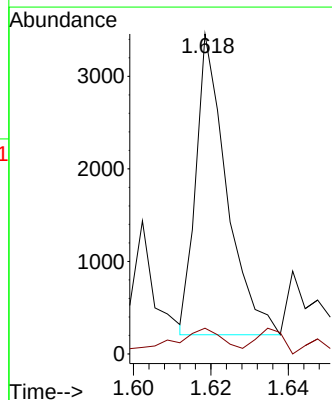
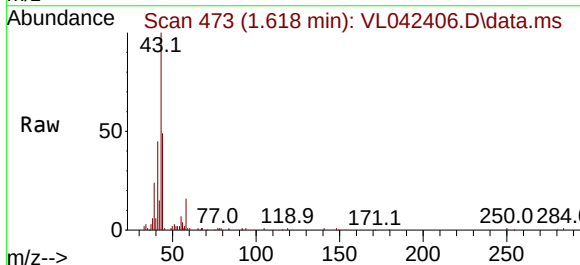
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1DL

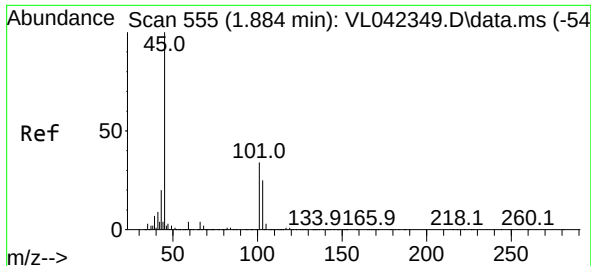
Tgt Ion: 43 Resp: 215496  
Ion Ratio Lower Upper  
43 100  
58 25.7 22.4 33.6



#16  
1,3-Butadiene  
Concen: 0.191 ppbv  
RT: 1.618 min Scan# 473  
Delta R.T. 0.010 min  
Lab File: VL042406.D  
Acq: 21 Apr 2025 15:49

Tgt Ion: 39 Resp: 1785  
Ion Ratio Lower Upper  
39 100  
54 29.1 64.9 97.3#

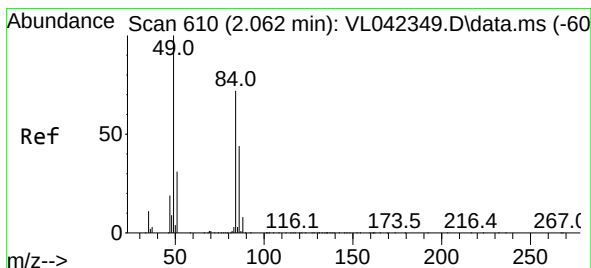
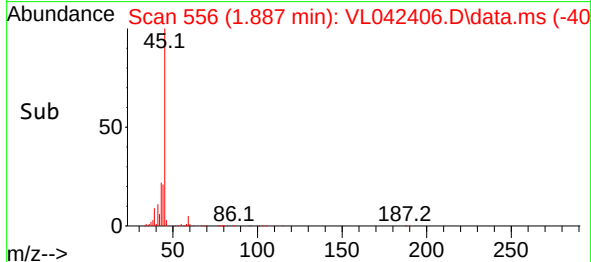
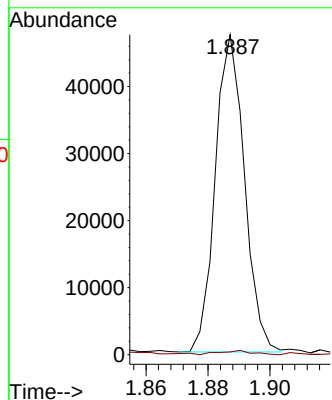
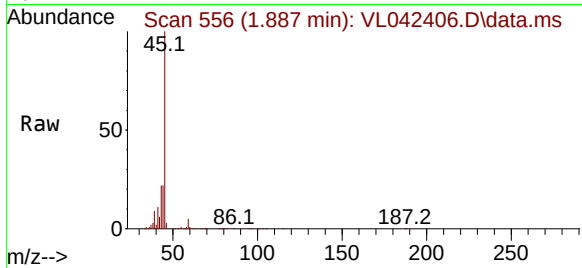




#19  
Isopropyl Alcohol  
Concen: 2.844 ppbv  
RT: 1.887 min Scan# 511  
Delta R.T. 0.003 min  
Lab File: VL042406.D  
Acq: 21 Apr 2025 15:49

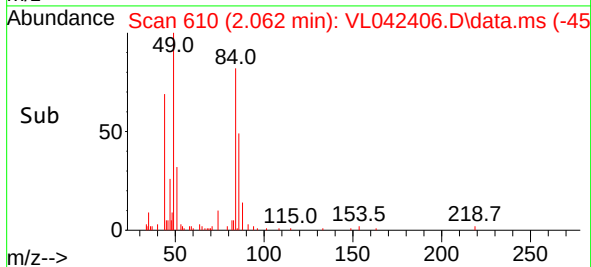
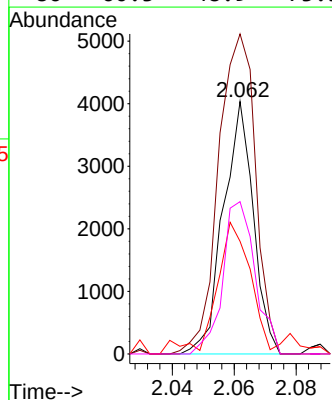
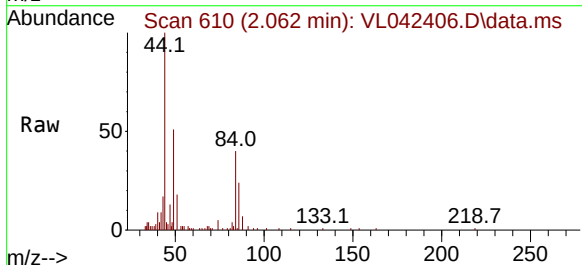
Instrument :  
MSVOA\_1  
ClientSampleId :  
IA1DL

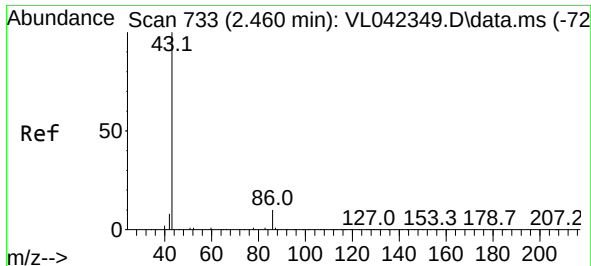
Tgt Ion: 45 Resp: 30893  
Ion Ratio Lower Upper  
45 100  
58 179.0 34.5 51.7#



#20  
Methylene Chloride  
Concen: 0.355 ppbv  
RT: 2.062 min Scan# 610  
Delta R.T. -0.000 min  
Lab File: VL042406.D  
Acq: 21 Apr 2025 15:49

Tgt Ion: 84 Resp: 2720  
Ion Ratio Lower Upper  
84 100  
49 126.7 111.6 167.4  
51 41.6 35.1 52.7  
86 60.3 48.9 73.3

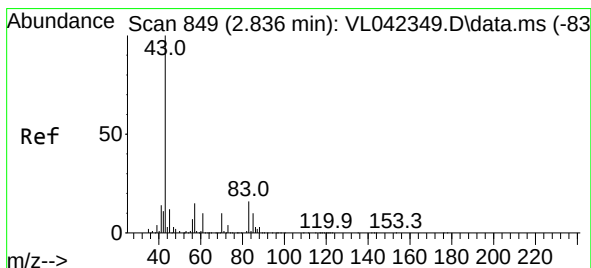
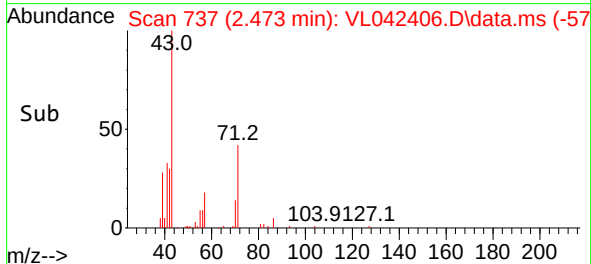
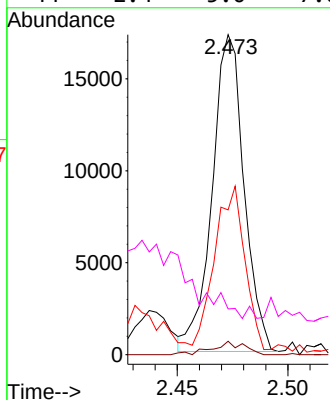
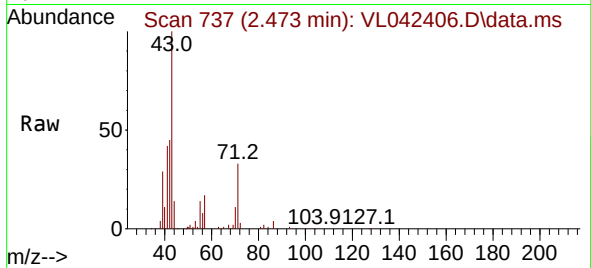




#23  
 Vinyl Acetate  
 Concen: 2.178 ppbv  
 RT: 2.473 min Scan# 71  
 Delta R.T. 0.013 min  
 Lab File: VL042406.D  
 Acq: 21 Apr 2025 15:49

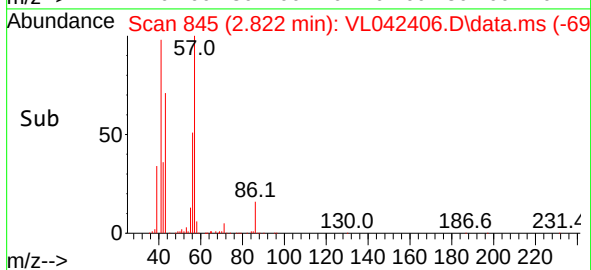
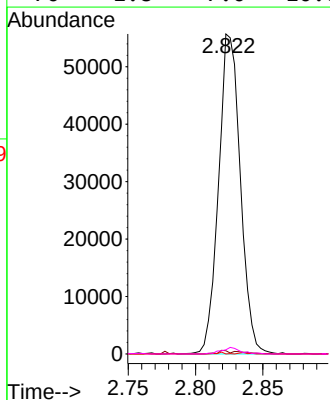
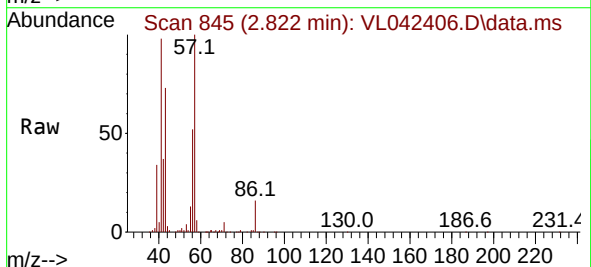
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA1DL

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 17238 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 86       | 4.2   | 6.5   | 9.7#  |
| 42       | 42.6  | 7.8   | 11.8# |
| 44       | 2.4   | 5.0   | 7.6#  |

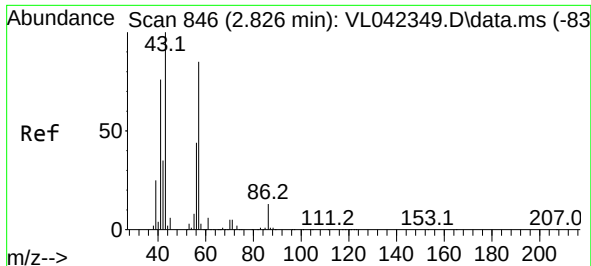


#25  
 Ethyl Acetate  
 Concen: 1.301 ppbv  
 RT: 2.822 min Scan# 845  
 Delta R.T. -0.013 min  
 Lab File: VL042406.D  
 Acq: 21 Apr 2025 15:49

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 62741 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 45       | 1.1   | 8.3   | 12.5# |
| 61       | 0.3   | 7.3   | 10.9# |
| 70       | 1.8   | 7.0   | 10.6# |

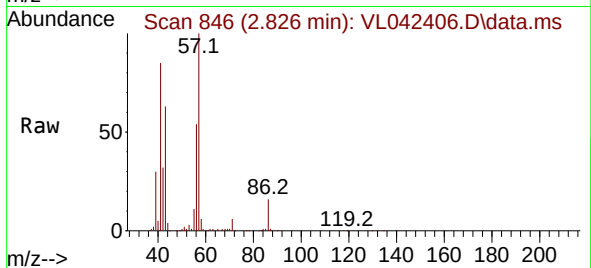




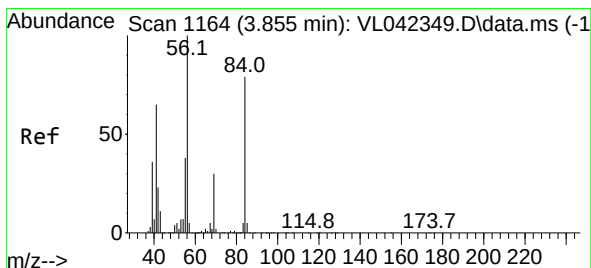
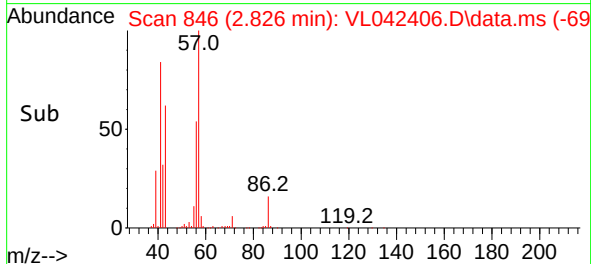
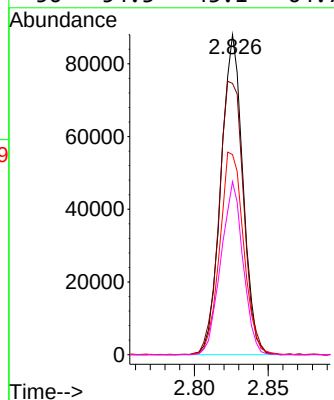


#26  
Hexane  
Concen: 4.673 ppbv  
RT: 2.826 min Scan# 846  
Delta R.T. -0.000 min  
Lab File: VL042406.D  
Acq: 21 Apr 2025 15:49

Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1DL

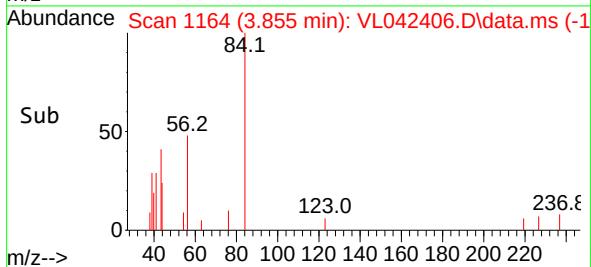
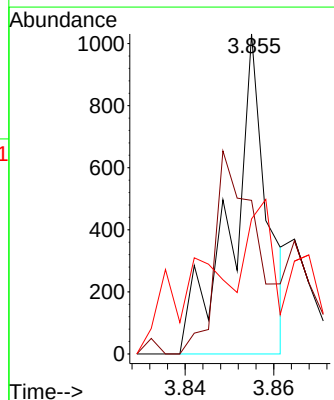
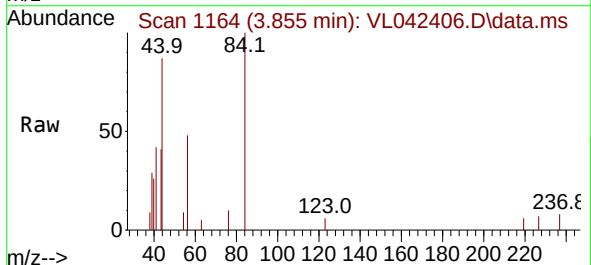


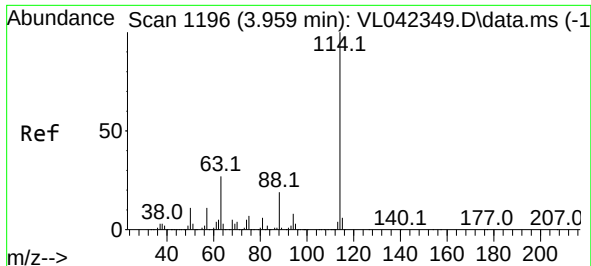
|             |              |
|-------------|--------------|
| Tgt Ion: 57 | Resp: 91195  |
| Ion Ratio   | Lower Upper  |
| 57 100      |              |
| 41 95.6     | 77.9 116.9   |
| 43 68.9     | 208.4 312.6# |
| 56 54.3     | 43.1 64.7    |



#30  
Cyclohexane  
Concen: 0.037 ppbv  
RT: 3.855 min Scan# 1164  
Delta R.T. -0.000 min  
Lab File: VL042406.D  
Acq: 21 Apr 2025 15:49

|             |           |        |  |
|-------------|-----------|--------|--|
| Tgt Ion: 84 | Resp: 576 |        |  |
| Ion Ratio   | Lower     | Upper  |  |
| 84 100      |           |        |  |
| 56 109.7    | 101.0     | 151.4  |  |
| 41 138.4    | 67.4      | 101.0# |  |





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.955 min Scan# 1196

Delta R.T. -0.003 min

Lab File: VL042406.D

Acq: 21 Apr 2025 15:49

Instrument :

MSVOA\_L

ClientSampleId :

IA1DL

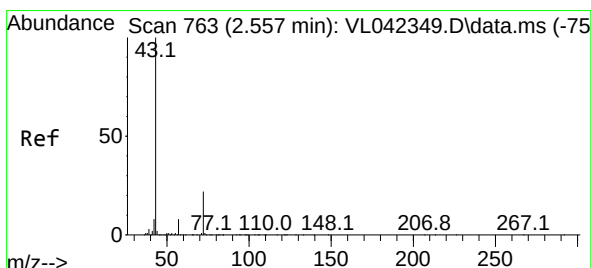
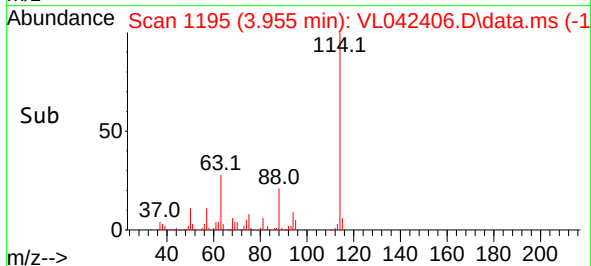
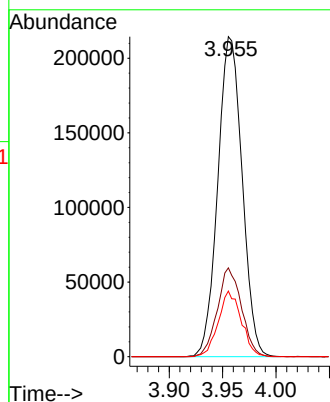
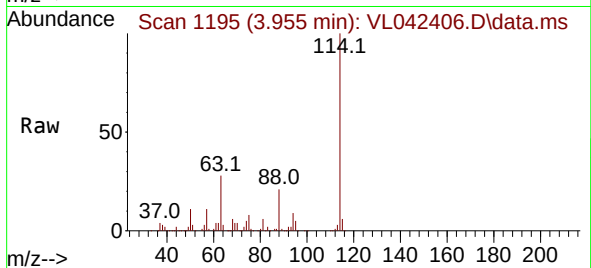
Tgt Ion:114 Resp: 339990

Ion Ratio Lower Upper

114 100

63 27.5 21.8 32.6

88 19.4 15.5 23.3



#34

2-Butanone

Concen: 0.075 ppbv

RT: 2.560 min Scan# 764

Delta R.T. 0.003 min

Lab File: VL042406.D

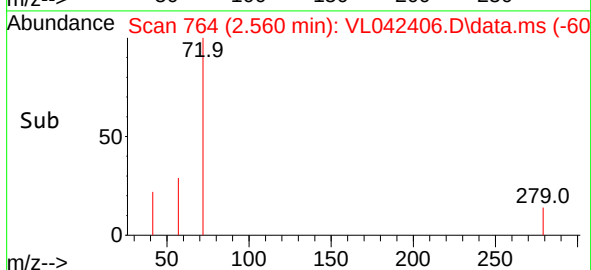
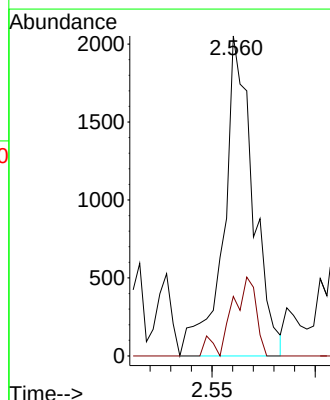
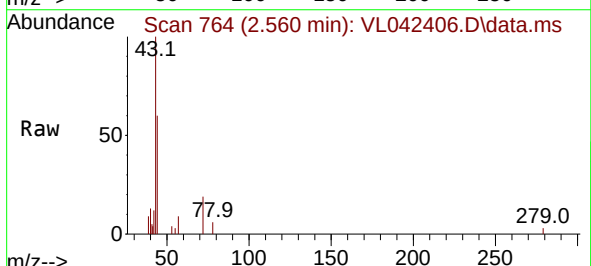
Acq: 21 Apr 2025 15:49

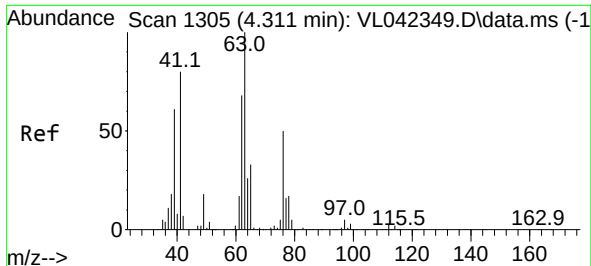
Tgt Ion: 43 Resp: 2026

Ion Ratio Lower Upper

43 100

72 20.8 18.2 27.2





#39

1,2-Dichloropropane

Concen: 6.833 ppbv

RT: 3.955 min Scan# 1195

Delta R.T. -0.356 min

Lab File: VL042406.D

Acq: 21 Apr 2025 15:49

Instrument :

MSVOA\_L

ClientSampleId :

IA1DL

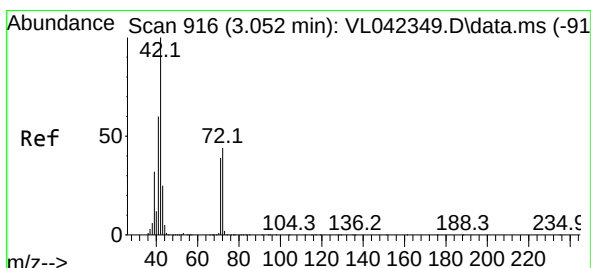
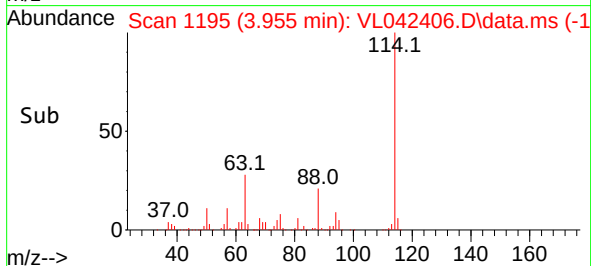
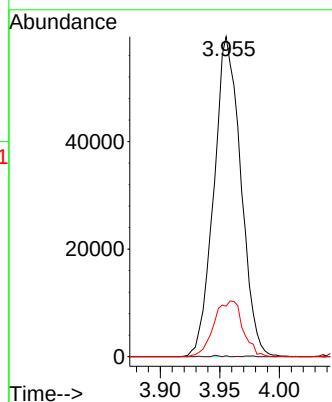
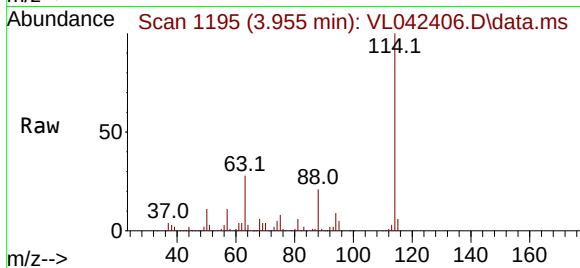
Tgt Ion: 63 Resp: 93376

Ion Ratio Lower Upper

63 100

41 0.3 64.2 96.2#

62 15.8 54.3 81.5#



#41

Tetrahydrofuran

Concen: 0.510 ppbv

RT: 3.230 min Scan# 971

Delta R.T. 0.178 min

Lab File: VL042406.D

Acq: 21 Apr 2025 15:49

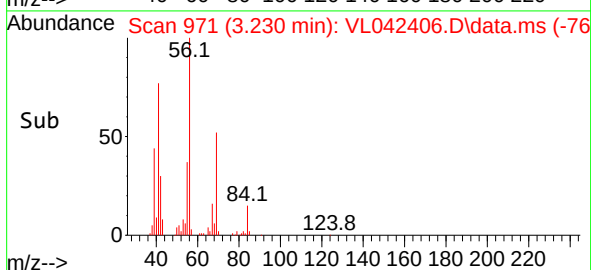
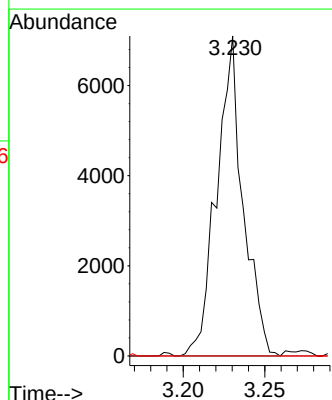
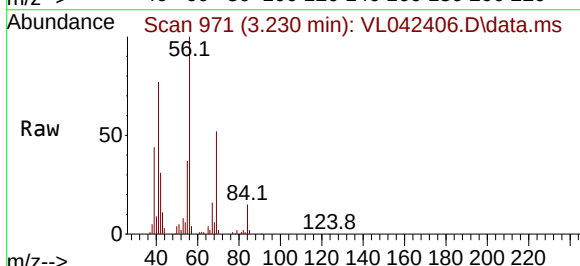
Tgt Ion: 42 Resp: 8000

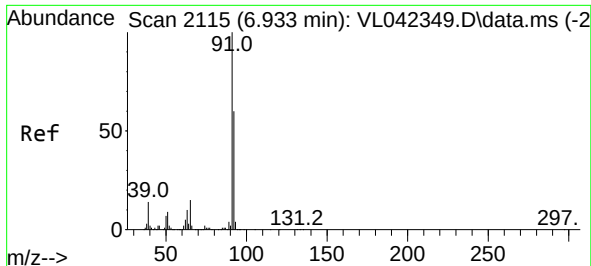
Ion Ratio Lower Upper

42 100

72 1.4 32.3 48.5#

71 0.0 31.4 47.2#

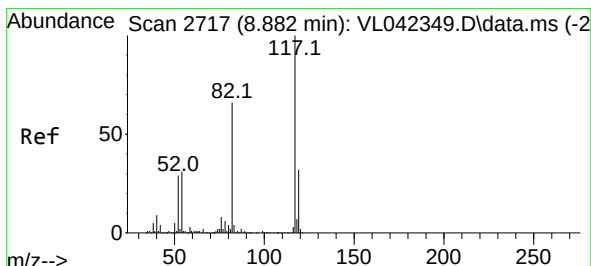
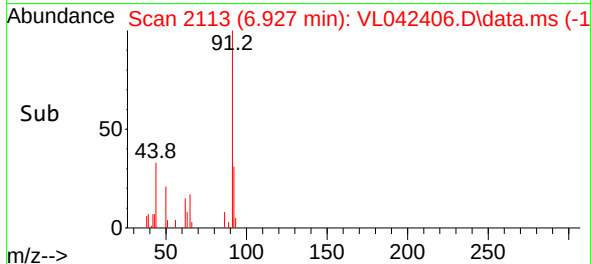
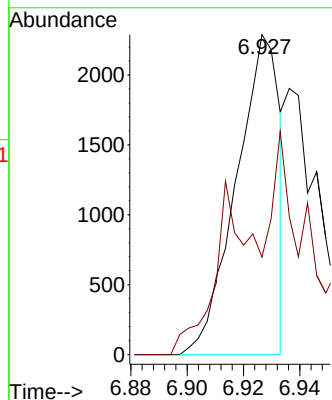
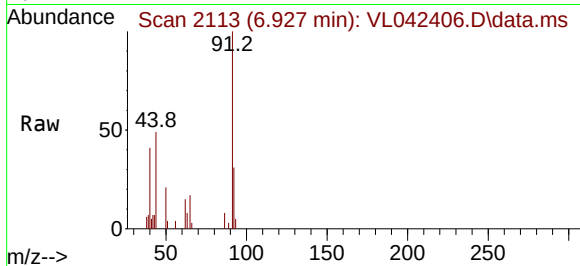




#53  
Toluene  
Concen: 0.055 ppbv  
RT: 6.927 min Scan# 2115  
Delta R.T. -0.007 min  
Lab File: VL042406.D  
Acq: 21 Apr 2025 15:49

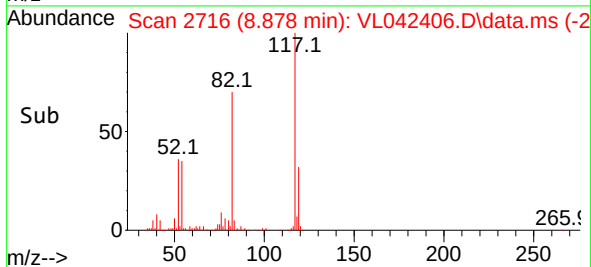
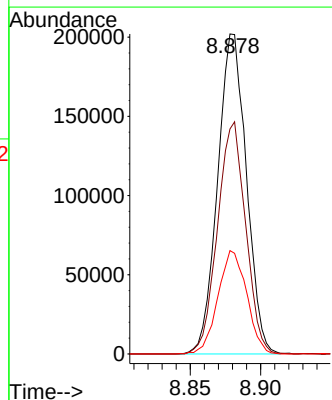
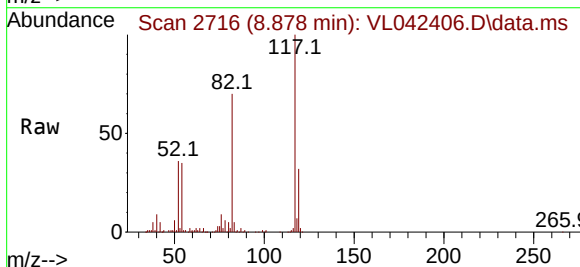
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1DL

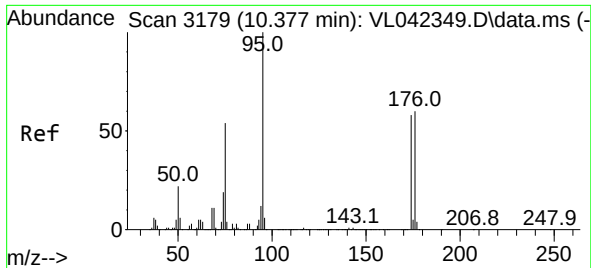
Tgt Ion: 91 Resp: 2436  
Ion Ratio Lower Upper  
91 100  
92 0.0 48.2 72.4#



#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 8.878 min Scan# 2716  
Delta R.T. -0.003 min  
Lab File: VL042406.D  
Acq: 21 Apr 2025 15:49

Tgt Ion: 117 Resp: 287351  
Ion Ratio Lower Upper  
117 100  
82 71.0 57.8 86.6  
119 32.3 25.2 37.8





#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.548 ppbv  
 RT: 10.377 min Scan# 31  
 Delta R.T. -0.000 min  
 Lab File: VL042406.D  
 Acq: 21 Apr 2025 15:49

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA1DL

Tgt Ion: 95 Resp: 249070  
 Ion Ratio Lower Upper  
 95 100  
 174 52.7 48.5 72.7  
 175 4.1 3.7 5.5

