

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL111022\  
 Data File : VL039871.D  
 Acq On : 10 Nov 2022 19:55  
 Operator : SY/AP  
 Sample : N5584-03  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Nov 11 05:02:31 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL110222AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Thu Nov 03 09:27:12 2022  
 Response via : Initial Calibration

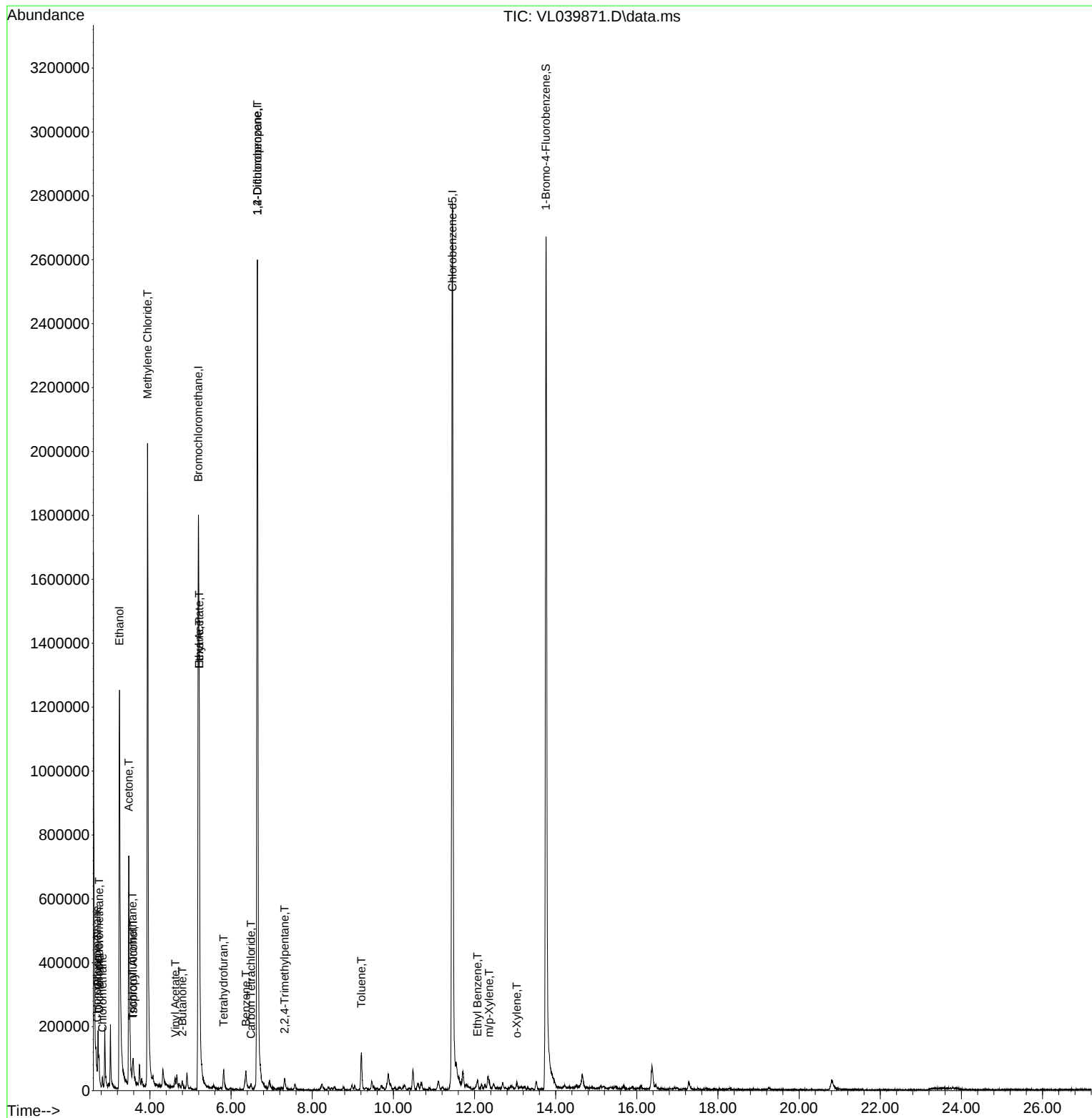
| Compound                    | R.T.   | QIon  | Response | Conc     | Units      | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|------------|----------|
| -----                       |        |       |          |          |            |          |
| Internal Standards          |        |       |          |          |            |          |
| 1) Bromochloromethane       | 5.192  | 49    | 888449   | 10.000   | ppbv       | 0.00     |
| 33) 1,4-Difluorobenzene     | 6.648  | 114   | 1906323  | 10.000   | ppbv       | # 0.00   |
| 55) Chlorobenzene-d5        | 11.452 | 117   | 1731686  | 10.000   | ppbv       | 0.00     |
| System Monitoring Compounds |        |       |          |          |            |          |
| 68) 1-Bromo-4-Fluorobenzene | 13.761 | 95    | 1385477  | 10.689   | ppbv       | 0.00     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | = 106.900% |          |
| Target Compounds            |        |       |          |          |            |          |
|                             |        |       |          |          | Qvalue     |          |
| 2) Dichlorodifluoromethane  | 2.748  | 85    | 50600    | 0.337    | ppbv       | 94       |
| 3) Chlorodifluoromethane    | 2.694  | 51    | 73215    | 0.691    | ppbv       | # 83     |
| 4) Chloromethane            | 2.829  | 50    | 22629    | 0.343    | ppbv       | 94       |
| 9) Propene                  | 2.719  | 41    | 38404    | 0.696    | ppbv       | # 74     |
| 11) Trichlorofluoromethane  | 3.571  | 101   | 14444    | 0.118    | ppbv       | 91       |
| 13) Ethanol                 | 3.250  | 45    | 1437589  | 368.589  | ppbv       | 93       |
| 15) Acetone                 | 3.478  | 43    | 782051   | 7.232    | ppbv       | 99       |
| 19) Isopropyl Alcohol       | 3.587  | 45    | 15837    | 0.296    | ppbv       | 98       |
| 20) Methylene Chloride      | 3.941  | 84    | 762616   | 19.712   | ppbv       | 91       |
| 23) Vinyl Acetate           | 4.629  | 43    | 2167     | 0.050    | ppbv       | # 73     |
| 25) Ethyl Acetate           | 5.218  | 43    | 283677   | 1.273    | ppbv       | # 82     |
| 26) Hexane                  | 5.218  | 57    | 337318   | 3.396    | ppbv       | # 44     |
| 34) 2-Butanone              | 4.796  | 43    | 21424    | 0.272    | ppbv       | 94       |
| 35) Carbon Tetrachloride    | 6.491  | 117   | 4661     | 0.042    | ppbv       | # 94     |
| 36) Benzene                 | 6.365  | 78    | 34201    | 0.213    | ppbv       | # 85     |
| 39) 1,2-Dichloropropane     | 6.648  | 63    | 559783   | 8.935    | ppbv       | # 27     |
| 41) Tetrahydrofuran         | 5.816  | 42    | 3878     | 0.059    | ppbv       | # 39     |
| 44) 2,2,4-Trimethylpentane  | 7.317  | 57    | 12829    | 0.047    | ppbv       | # 1      |
| 53) Toluene                 | 9.211  | 91    | 48107    | 0.261    | ppbv       | # 45     |
| 58) Ethyl Benzene           | 12.069 | 91    | 7408     | 0.032    | ppbv       | 97       |
| 59) m/p-Xylene              | 12.359 | 91    | 10298    | 0.053    | ppbv       | # 1      |
| 60) o-Xylene                | 13.040 | 91    | 8423     | 0.045    | ppbv       | # 62     |
| -----                       |        |       |          |          |            |          |

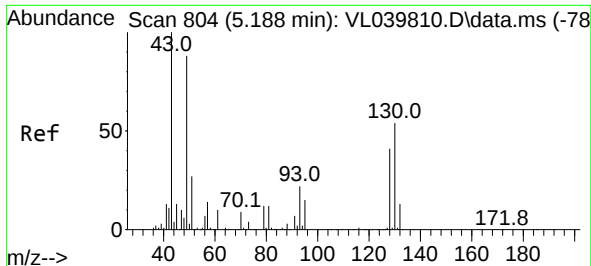
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu Nov 03 09:27:12 2022  
Response via : Initial Calibration

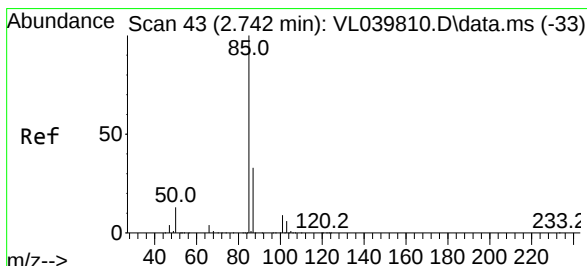
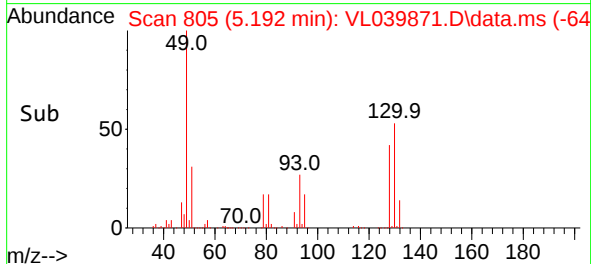
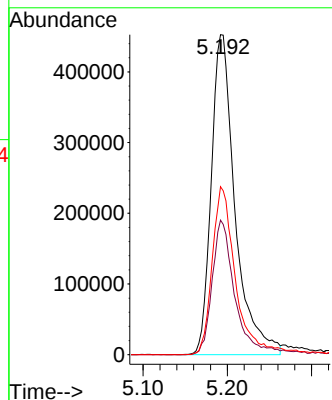
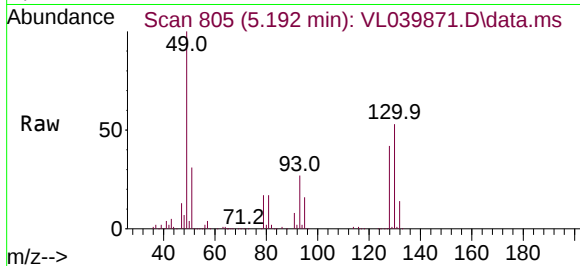




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.192 min Scan# 80  
Delta R.T. 0.004 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

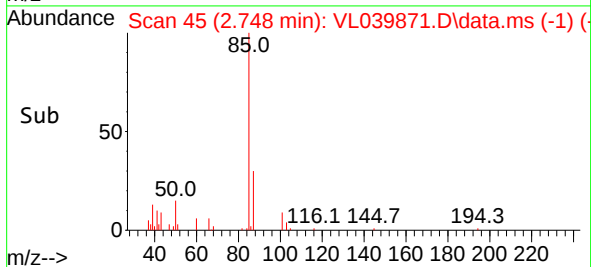
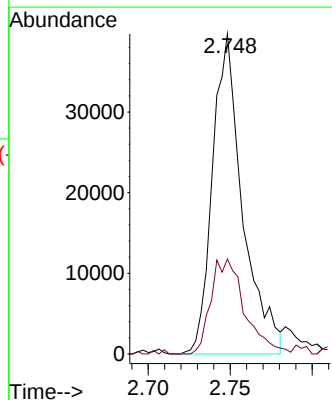
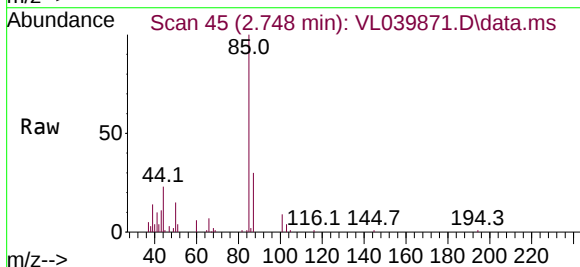
Instrument :  
MSVOA\_L  
ClientSampleId :

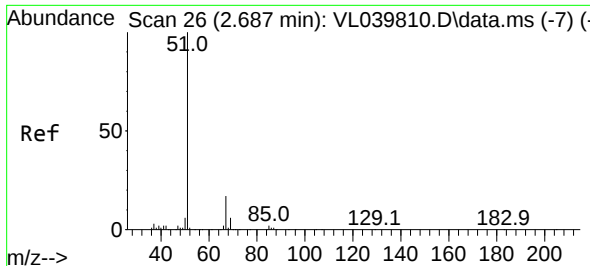
Tgt Ion: 49 Resp: 888449  
Ion Ratio Lower Upper  
49 100  
128 40.8 24.6 73.6  
130 53.2 31.1 93.2



#2  
Dichlorodifluoromethane  
Concen: 0.337 ppbv  
RT: 2.748 min Scan# 45  
Delta R.T. 0.007 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

Tgt Ion: 85 Resp: 50600  
Ion Ratio Lower Upper  
85 100  
87 29.7 26.4 39.6

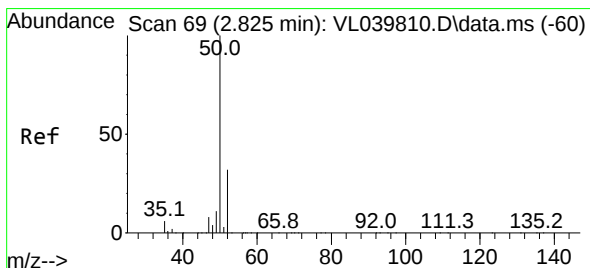
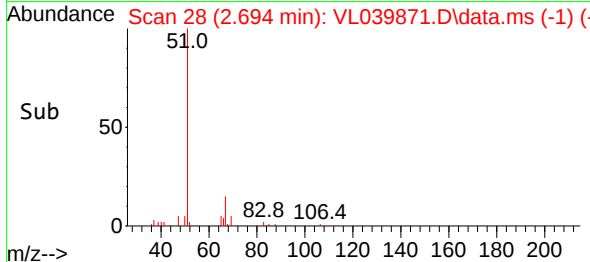
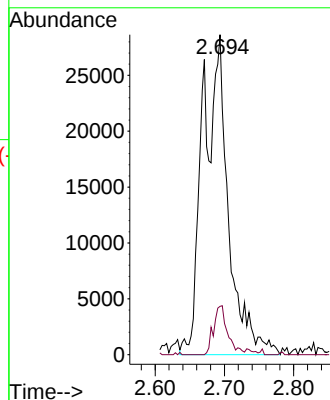
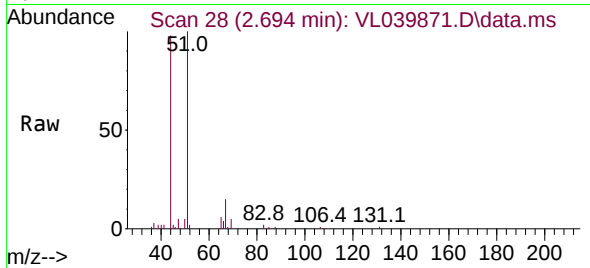




#3  
Chlorodifluoromethane  
Concen: 0.691 ppbv  
RT: 2.694 min Scan# 21  
Delta R.T. 0.007 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

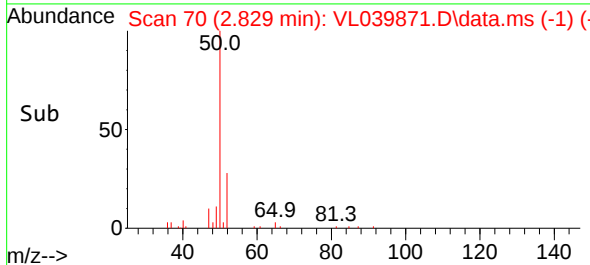
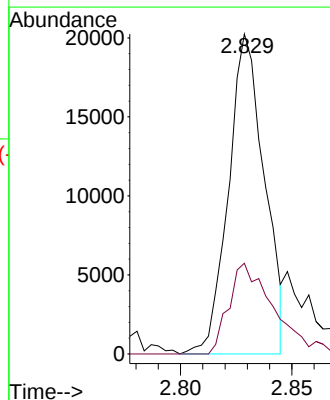
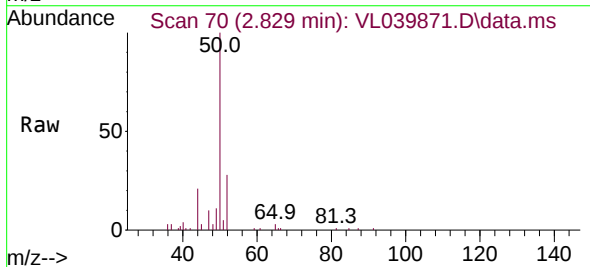
Instrument :  
MSVOA\_L  
ClientSampleId :

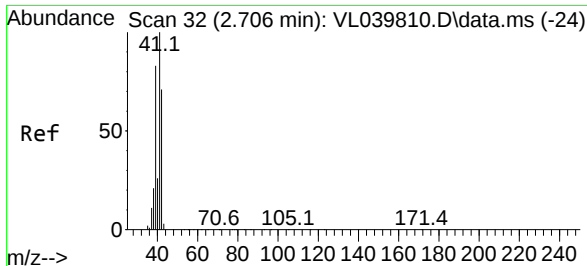
Tgt Ion: 51 Resp: 73215  
Ion Ratio Lower Upper  
51 100  
67 9.1 13.2 19.8#



#4  
Chloromethane  
Concen: 0.343 ppbv  
RT: 2.829 min Scan# 70  
Delta R.T. 0.003 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

Tgt Ion: 50 Resp: 22629  
Ion Ratio Lower Upper  
50 100  
52 28.4 25.5 38.3

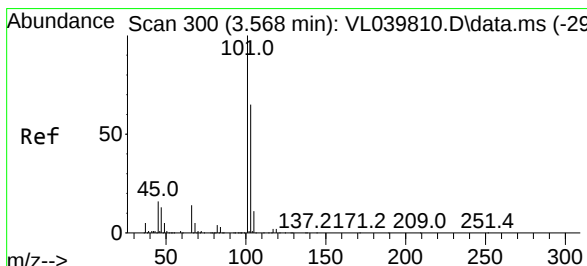
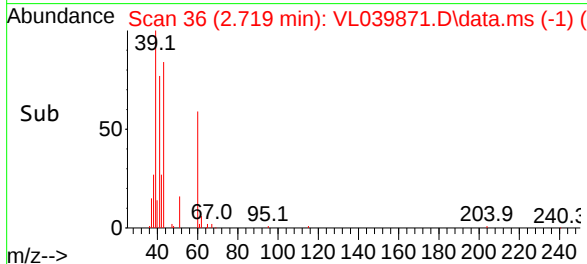
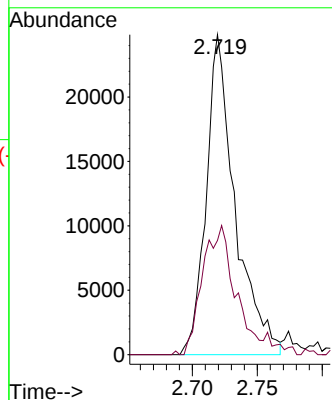
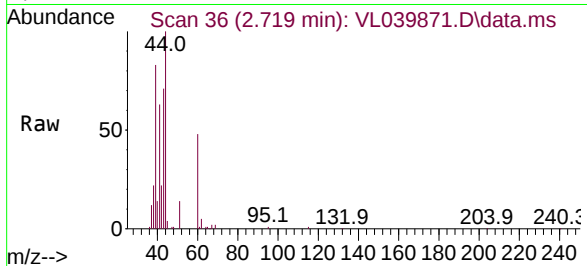




#9  
Propene  
Concen: 0.696 ppbv  
RT: 2.719 min Scan# 301  
Delta R.T. 0.013 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

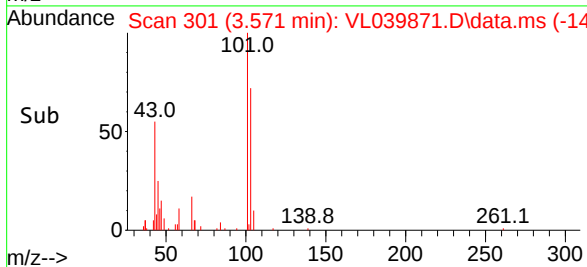
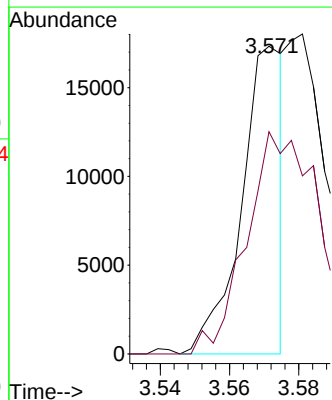
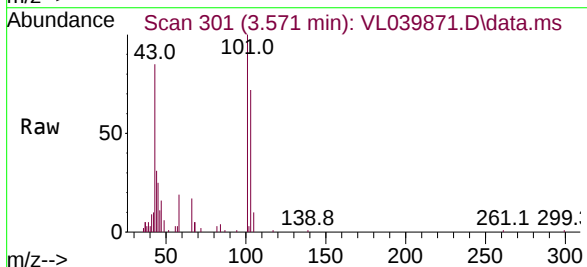
Instrument :  
MSVOA\_L  
ClientSampleId :

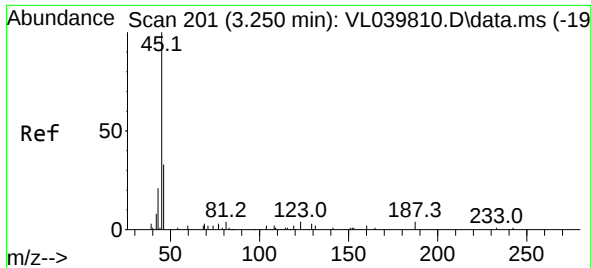
Tgt Ion: 41 Resp: 38404  
Ion Ratio Lower Upper  
41 100  
42 49.2 56.3 84.5#



#11  
Trichlorofluoromethane  
Concen: 0.118 ppbv  
RT: 3.571 min Scan# 301  
Delta R.T. 0.003 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

Tgt Ion: 101 Resp: 14444  
Ion Ratio Lower Upper  
101 100  
103 72.2 52.2 78.2

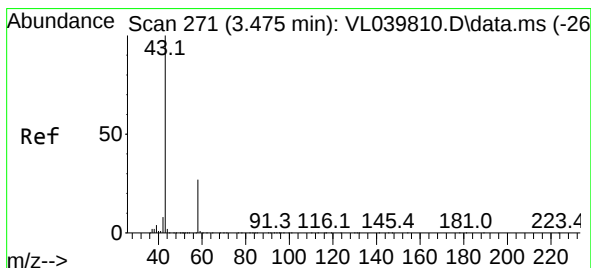
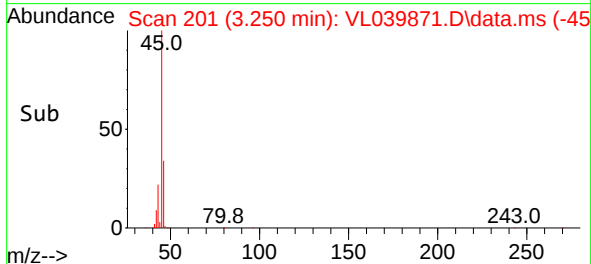
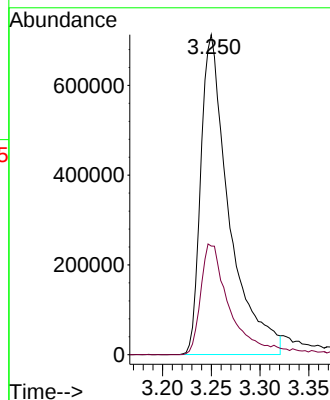
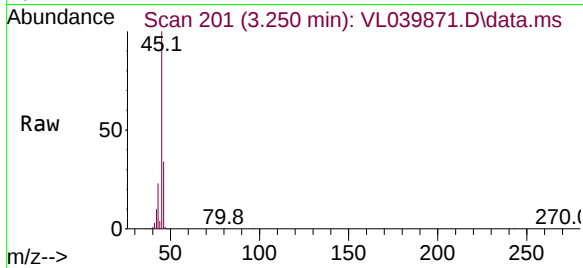




#13  
 Ethanol  
 Concen: 368.589 ppbv  
 RT: 3.250 min Scan# 201  
 Delta R.T. 0.000 min  
 Lab File: VL039871.D  
 Acq: 10 Nov 2022 19:55

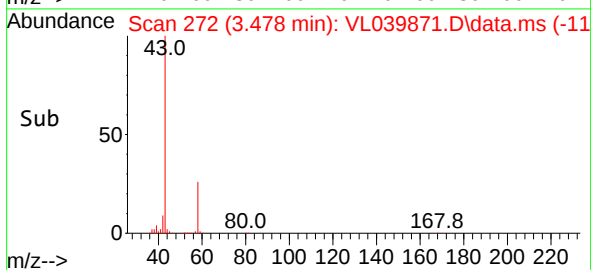
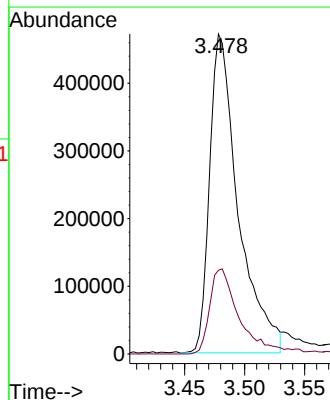
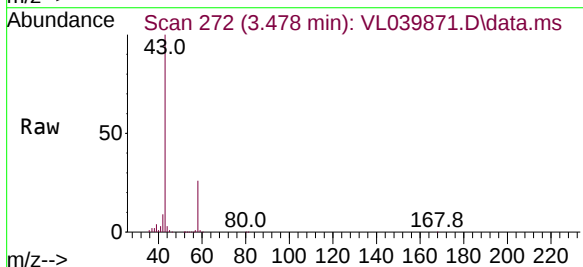
Instrument :  
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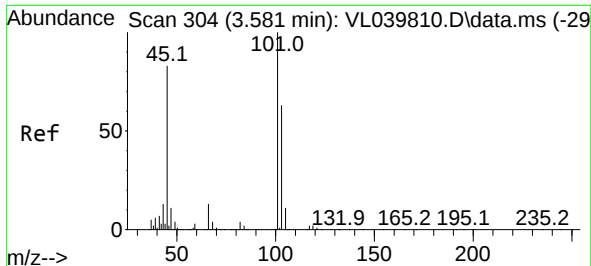
Tgt Ion: 45 Resp: 1437589  
 Ion Ratio Lower Upper  
 45 100  
 46 36.7 16.5 65.9



#15  
 Acetone  
 Concen: 7.232 ppbv  
 RT: 3.478 min Scan# 272  
 Delta R.T. 0.003 min  
 Lab File: VL039871.D  
 Acq: 10 Nov 2022 19:55

Tgt Ion: 43 Resp: 782051  
 Ion Ratio Lower Upper  
 43 100  
 58 28.2 23.2 34.8

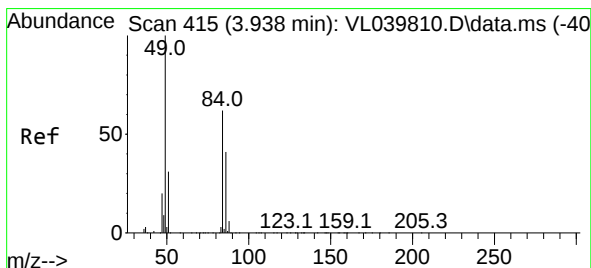
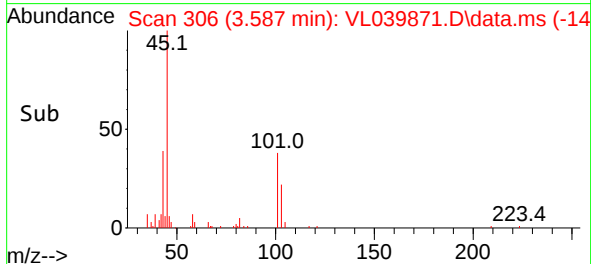
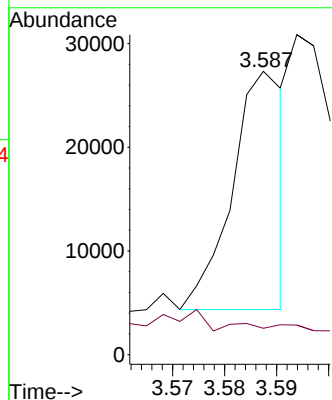
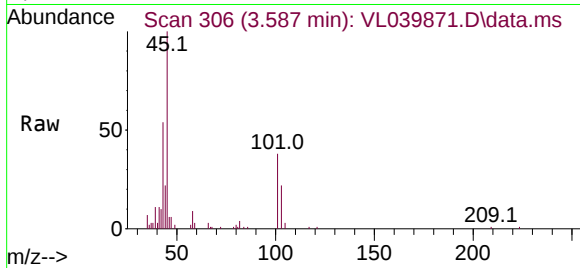




#19  
Isopropyl Alcohol  
Concen: 0.296 ppbv  
RT: 3.587 min Scan# 304  
Delta R.T. 0.007 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

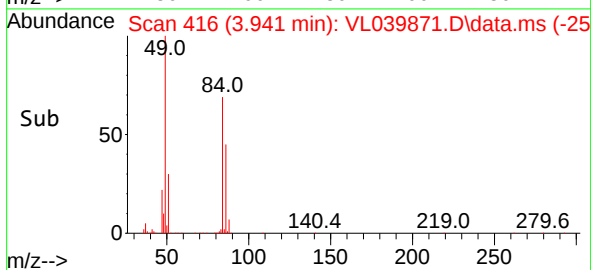
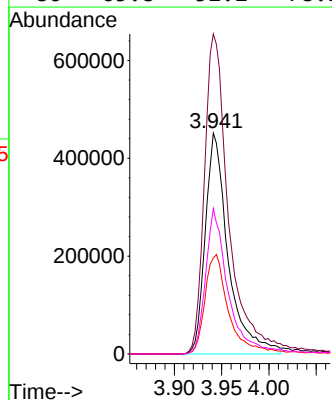
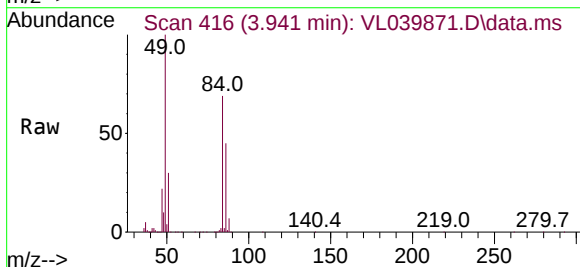
Instrument :  
MSVOA\_L  
ClientSampleId :

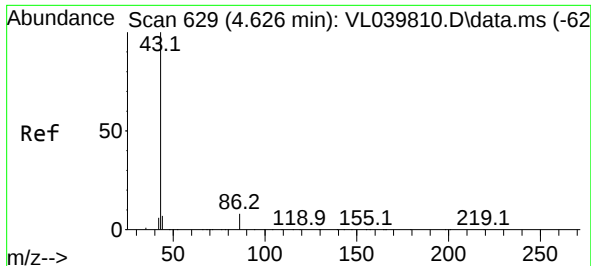
Tgt Ion: 45 Resp: 15837  
Ion Ratio Lower Upper  
45 100  
58 46.6 38.3 57.5



#20  
Methylene Chloride  
Concen: 19.712 ppbv  
RT: 3.941 min Scan# 416  
Delta R.T. 0.003 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

Tgt Ion: 84 Resp: 762616  
Ion Ratio Lower Upper  
84 100  
49 144.9 128.6 192.8  
51 43.4 40.2 60.4  
86 65.8 52.2 78.2

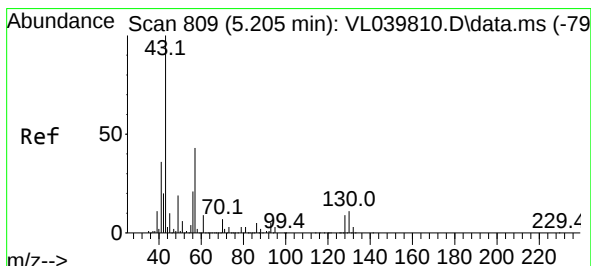
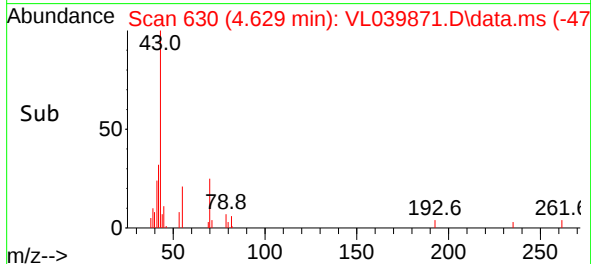
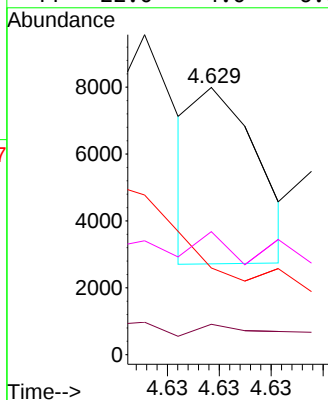
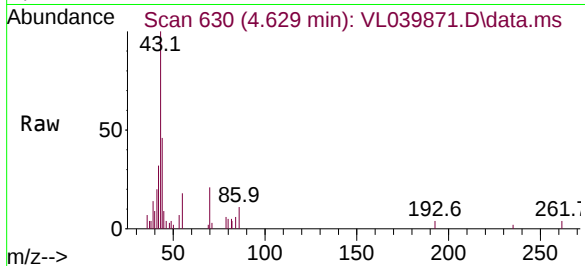




#23  
 Vinyl Acetate  
 Concen: 0.050 ppbv  
 RT: 4.629 min Scan# 61  
 Delta R.T. 0.003 min  
 Lab File: VL039871.D  
 Acq: 10 Nov 2022 19:55

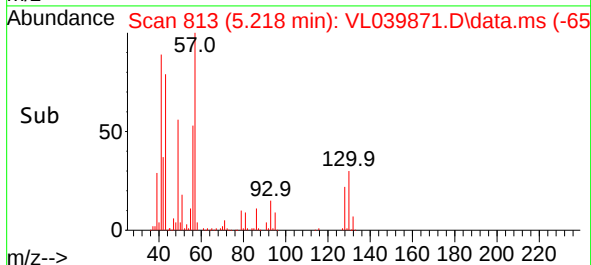
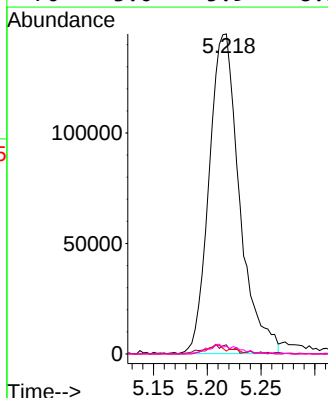
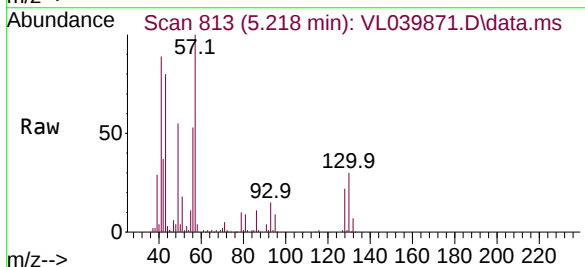
Instrument :  
 MSVOA\_1  
 ClientSampleId :

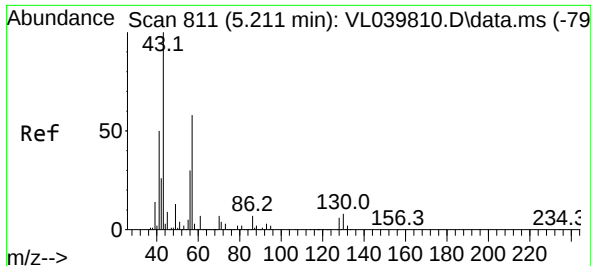
|             |             |
|-------------|-------------|
| Tgt Ion: 43 | Resp: 2167  |
| Ion Ratio   | Lower Upper |
| 43 100      |             |
| 86 10.6     | 5.0 7.4#    |
| 42 0.6      | 6.8 10.2#   |
| 44 22.0     | 4.0 6.0#    |



#25  
 Ethyl Acetate  
 Concen: 1.273 ppbv  
 RT: 5.218 min Scan# 813  
 Delta R.T. 0.013 min  
 Lab File: VL039871.D  
 Acq: 10 Nov 2022 19:55

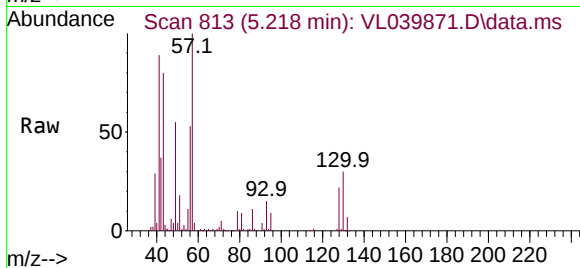
|     |         |       |        |
|-----|---------|-------|--------|
| Tgt | Ion: 43 | Resp: | 283677 |
| Ion | Ratio   | Lower | Upper  |
| 43  | 100     |       |        |
| 45  | 3.2     | 8.2   | 12.2#  |
| 61  | 2.4     | 8.1   | 12.1#  |
| 70  | 3.0     | 5.9   | 8.9#   |



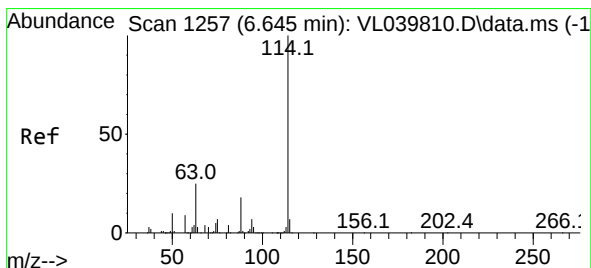
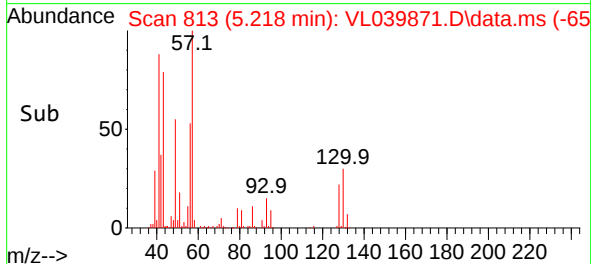
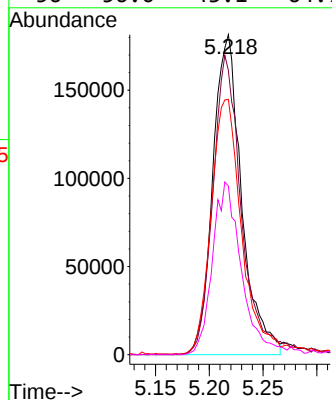


#26  
Hexane  
Concen: 3.396 ppbv  
RT: 5.218 min Scan# 811  
Delta R.T. 0.007 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

Instrument :  
MSVOA\_L  
ClientSampleId :

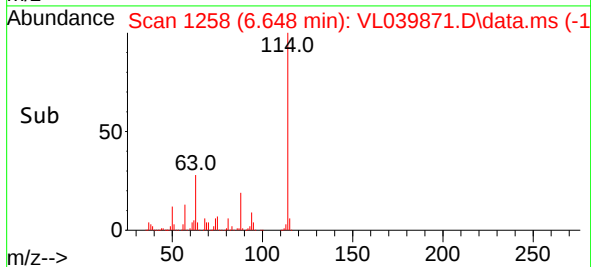
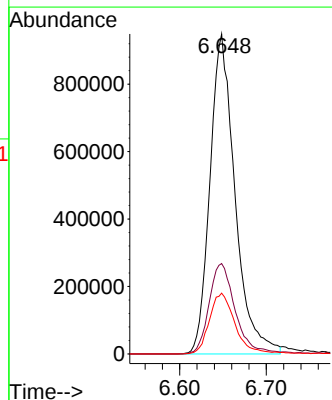
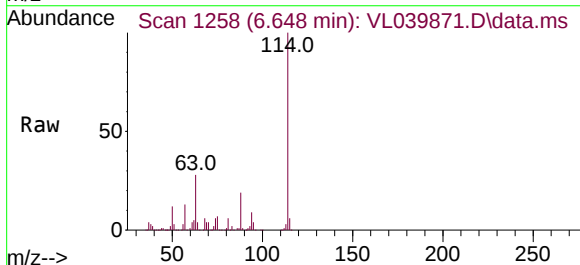


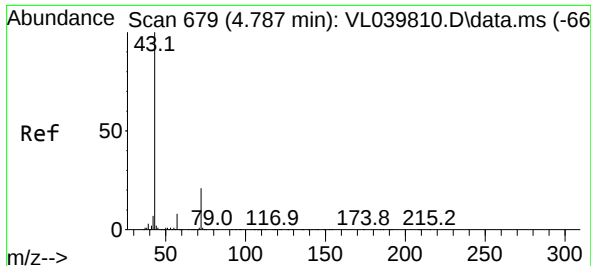
Tgt Ion: 57 Resp: 337318  
Ion Ratio Lower Upper  
57 100  
41 94.7 73.7 110.5  
43 88.0 189.8 284.8#  
56 56.0 43.1 64.7



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 6.648 min Scan# 1258  
Delta R.T. 0.003 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

Tgt Ion: 114 Resp: 1906323  
Ion Ratio Lower Upper  
114 100  
63 30.1 19.8 29.6#  
88 20.0 14.4 21.6

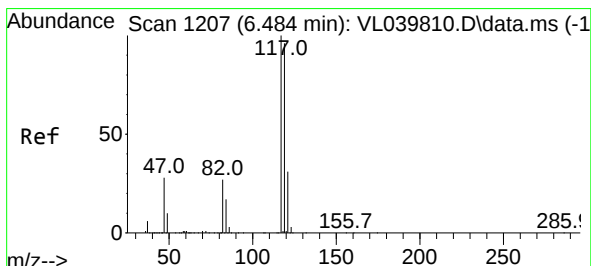
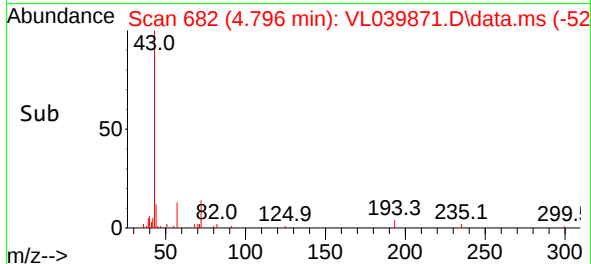
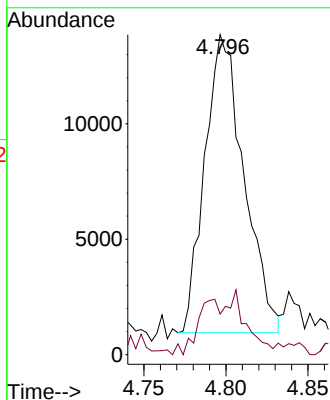
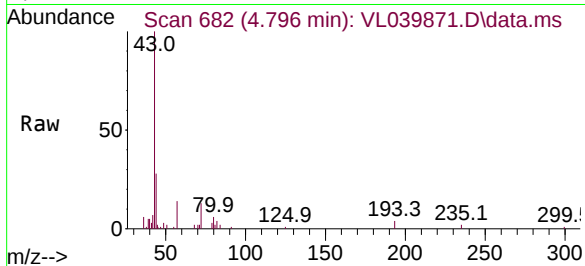




#34  
2-Butanone  
Concen: 0.272 ppbv  
RT: 4.796 min Scan# 61  
Delta R.T. 0.010 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

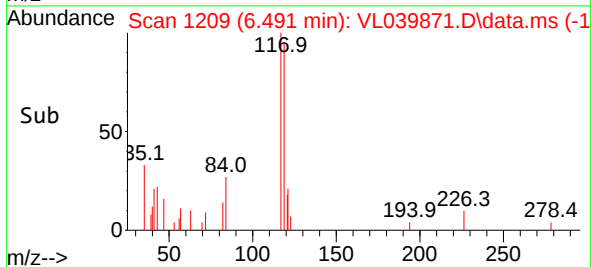
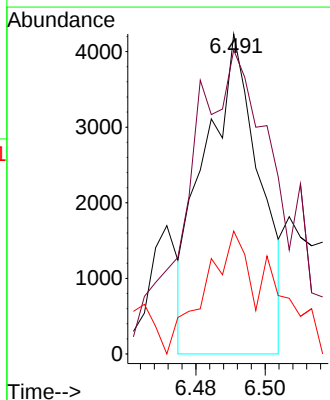
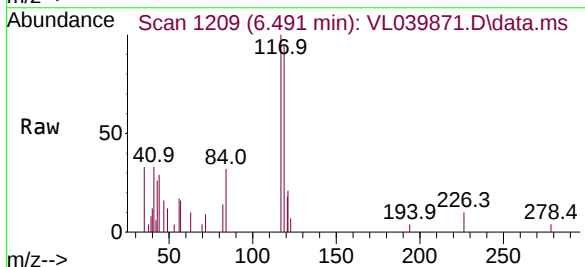
Instrument :  
MSVOA\_L  
ClientSampleId :

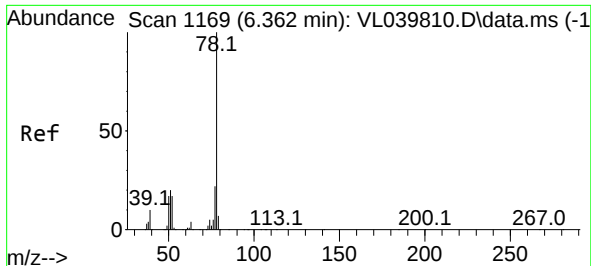
Tgt Ion: 43 Resp: 21424  
Ion Ratio Lower Upper  
43 100  
72 24.8 17.5 26.3



#35  
Carbon Tetrachloride  
Concen: 0.042 ppbv  
RT: 6.491 min Scan# 1209  
Delta R.T. 0.007 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

Tgt Ion: 117 Resp: 4661  
Ion Ratio Lower Upper  
117 100  
119 91.6 76.5 114.7  
121 38.2 25.2 37.8#





#36

Benzene

Concen: 0.213 ppbv

RT: 6.365 min Scan# 1169

Delta R.T. 0.003 min

Lab File: VL039871.D

Acq: 10 Nov 2022 19:55

Instrument :

MSVOA\_L

ClientSampleId :

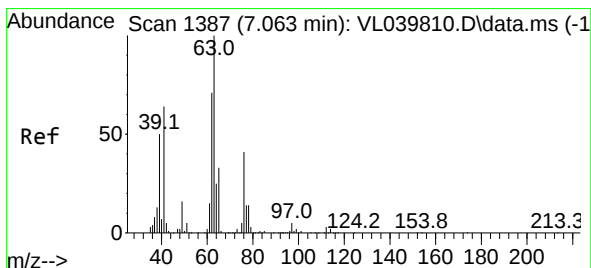
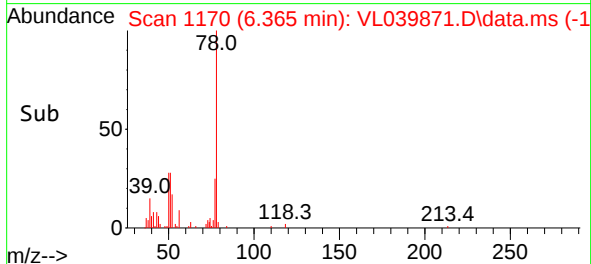
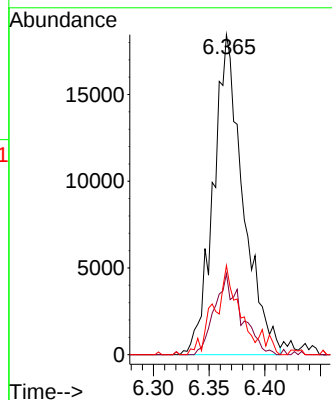
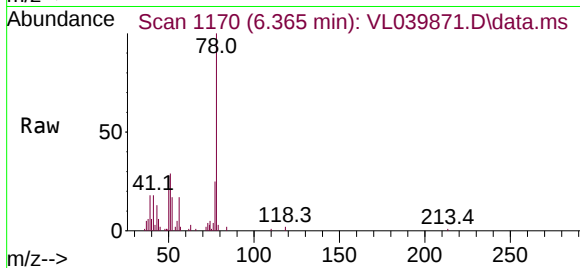
Tgt Ion: 78 Resp: 34201

Ion Ratio Lower Upper

78 100

77 25.3 17.4 26.2

50 27.8 13.9 20.9#



#39

1,2-Dichloropropane

Concen: 8.935 ppbv

RT: 6.648 min Scan# 1258

Delta R.T. -0.414 min

Lab File: VL039871.D

Acq: 10 Nov 2022 19:55

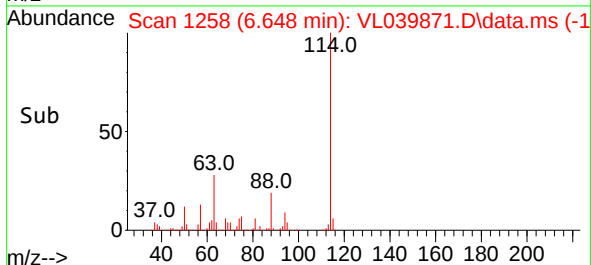
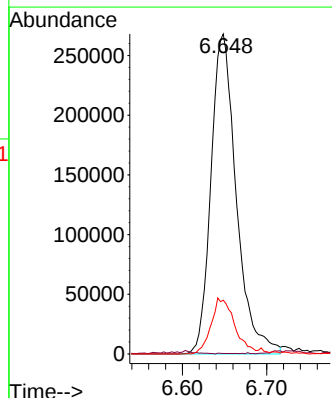
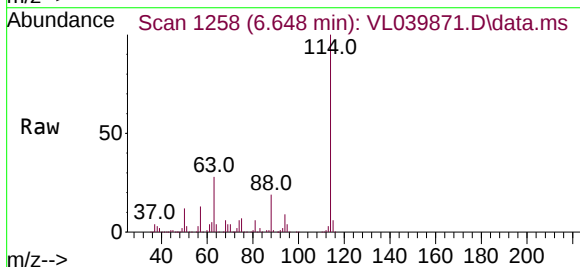
Tgt Ion: 63 Resp: 559783

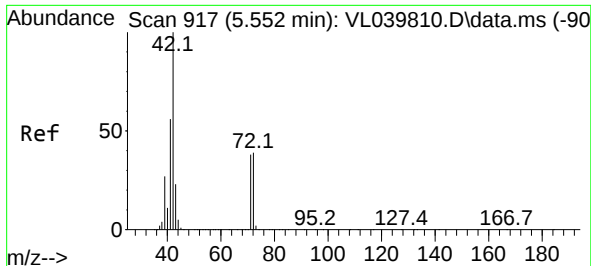
Ion Ratio Lower Upper

63 100

41 0.0 51.0 76.4#

62 16.8 56.6 85.0#





#41

Tetrahydrofuran

Concen: 0.059 ppbv

RT: 5.816 min Scan# 917

Delta R.T. 0.264 min

Lab File: VL039871.D

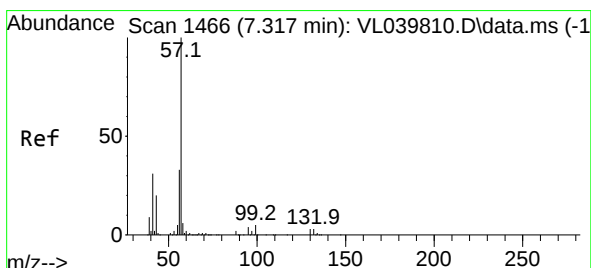
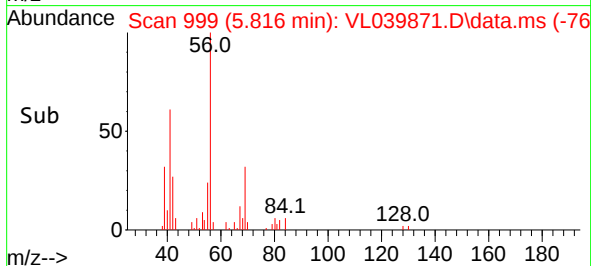
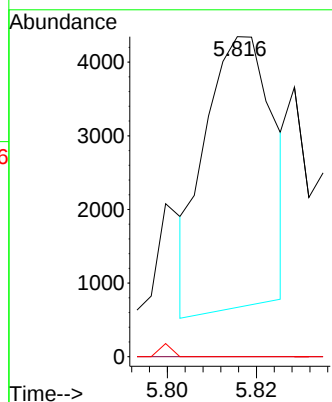
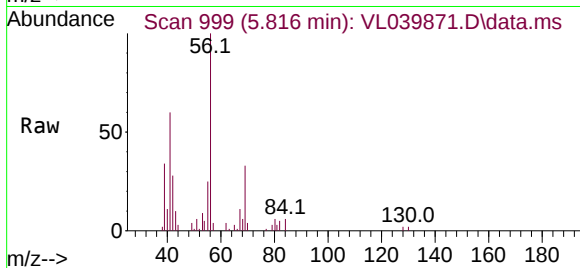
Acq: 10 Nov 2022 19:55

Instrument :

MSVOA\_L

ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 3878  |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 3.3   | 31.4  | 47.2# |
| 71       | 0.0   | 31.5  | 47.3# |



#44

2,2,4-Trimethylpentane

Concen: 0.047 ppbv

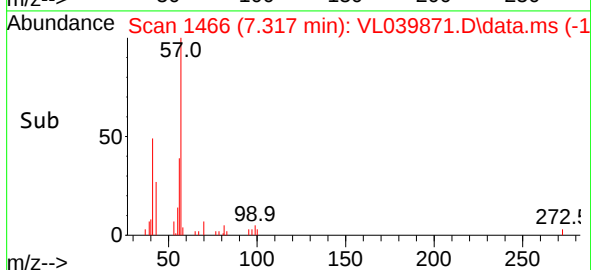
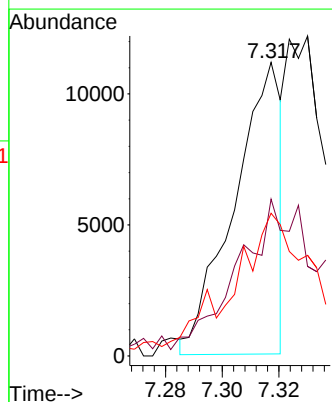
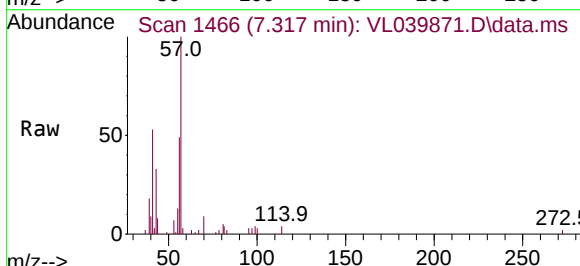
RT: 7.317 min Scan# 1466

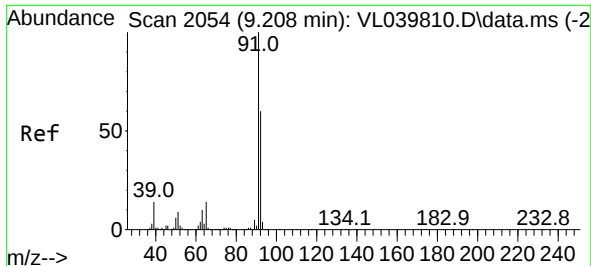
Delta R.T. 0.000 min

Lab File: VL039871.D

Acq: 10 Nov 2022 19:55

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 57    | Resp: | 12829 |
| Ion      | Ratio | Lower | Upper |
| 57       | 100   |       |       |
| 41       | 104.7 | 24.6  | 36.8# |
| 56       | 104.7 | 25.4  | 38.0# |

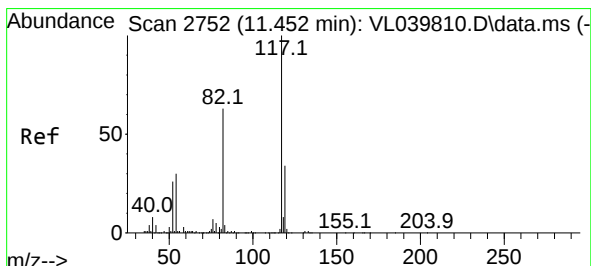
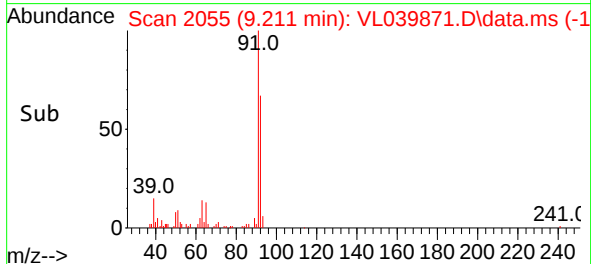
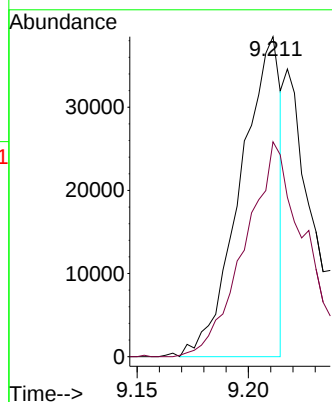
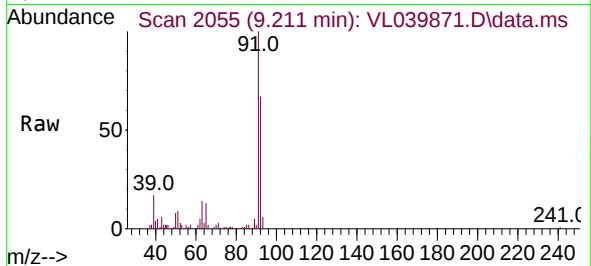




#53  
Toluene  
Concen: 0.261 ppbv  
RT: 9.211 min Scan# 2055  
Delta R.T. 0.003 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

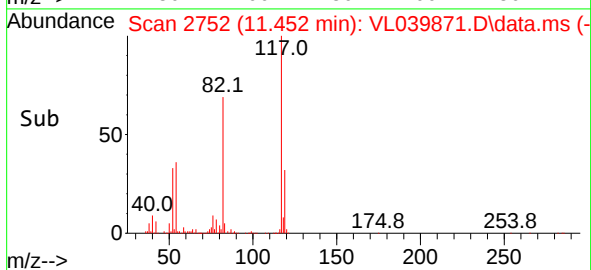
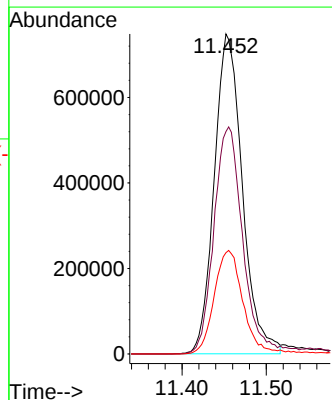
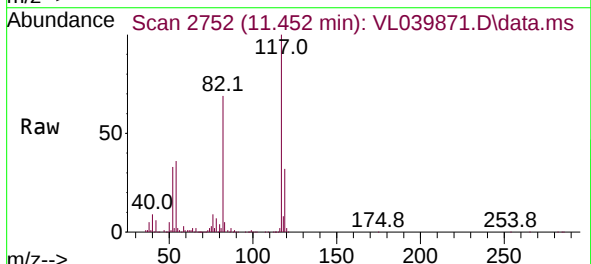
Instrument :  
MSVOA\_L  
ClientSampleId :

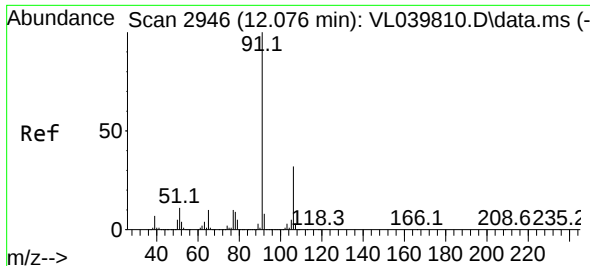
Tgt Ion: 91 Resp: 48107  
Ion Ratio Lower Upper  
91 100  
92 104.5 49.6 74.4#



#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 11.452 min Scan# 2752  
Delta R.T. 0.000 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

Tgt Ion: 117 Resp: 1731686  
Ion Ratio Lower Upper  
117 100  
82 75.1 51.0 76.6  
119 34.1 24.7 37.1





#58

Ethyl Benzene

Concen: 0.032 ppbv

RT: 12.069 min Scan# 2944

Delta R.T. -0.006 min

Lab File: VL039871.D

Acq: 10 Nov 2022 19:55

Instrument :

MSVOA\_L

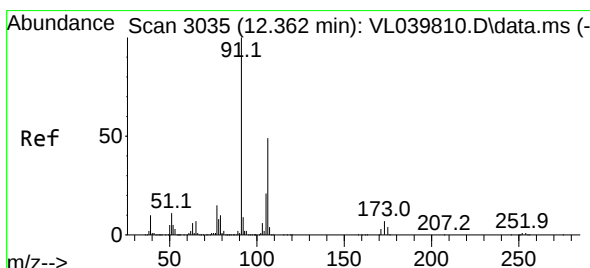
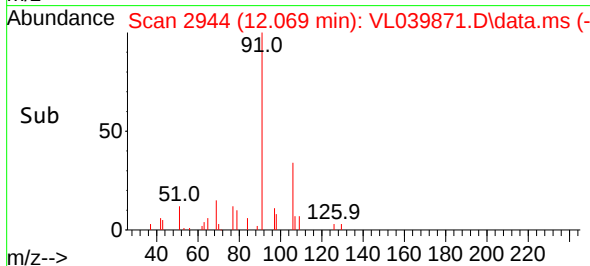
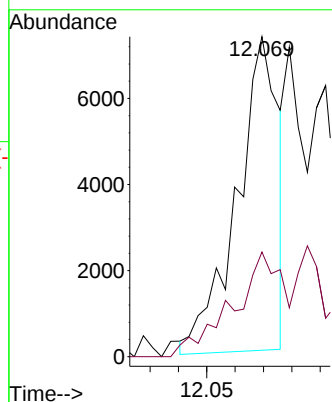
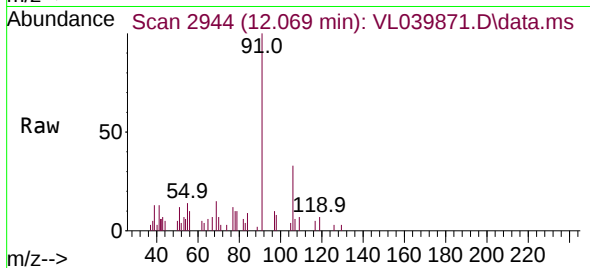
ClientSampleId :

Tgt Ion: 91 Resp: 7408

Ion Ratio Lower Upper

91 100

106 30.6 25.9 38.9



#59

m/p-Xylene

Concen: 0.053 ppbv

RT: 12.359 min Scan# 3034

Delta R.T. -0.003 min

Lab File: VL039871.D

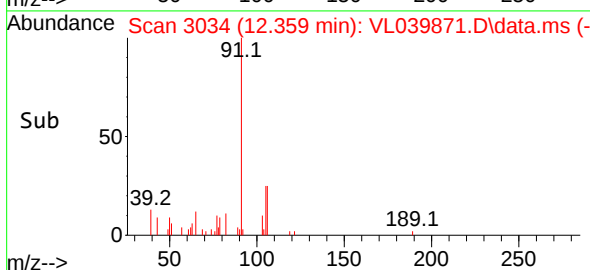
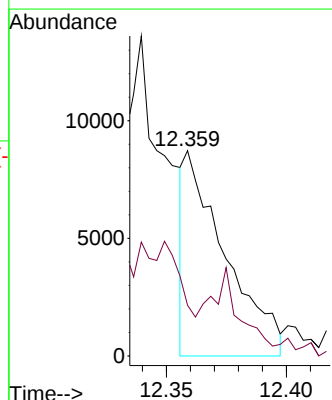
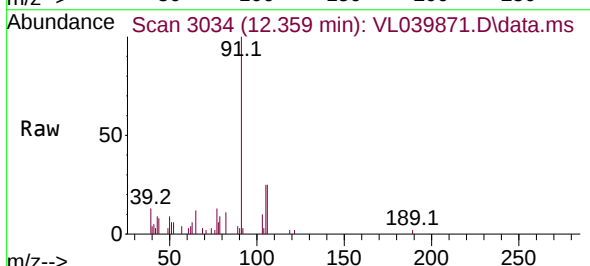
Acq: 10 Nov 2022 19:55

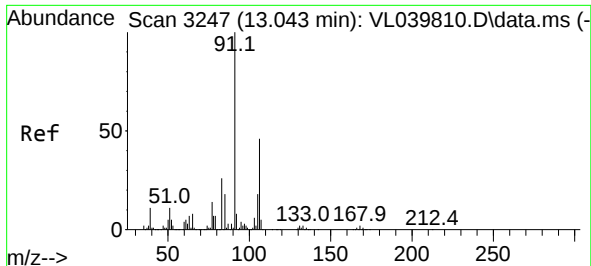
Tgt Ion: 91 Resp: 10298

Ion Ratio Lower Upper

91 100

106 165.2 37.6 56.4#

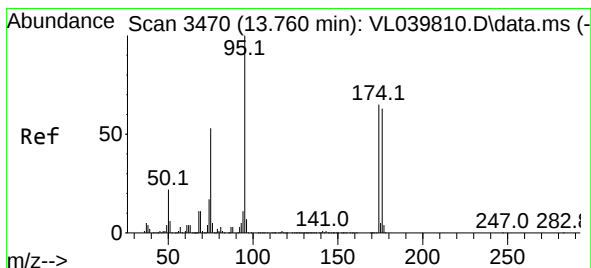
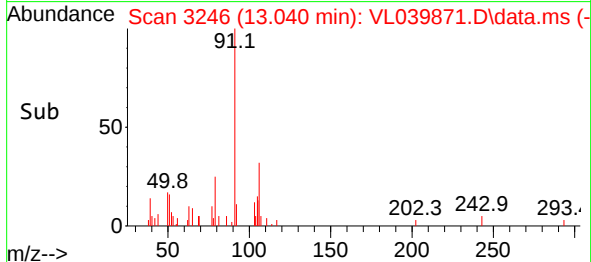
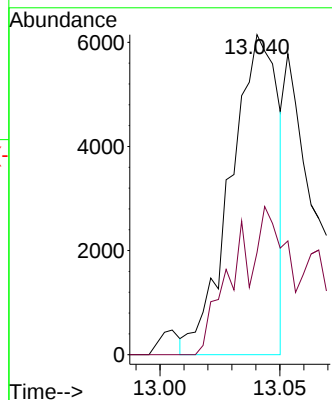
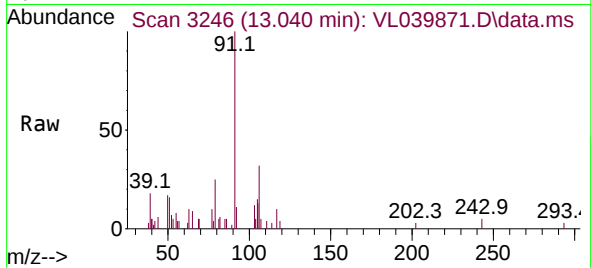




#60  
o-Xylene  
Concen: 0.045 ppbv  
RT: 13.040 min Scan# 31  
Delta R.T. -0.003 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

Instrument :  
MSVOA\_L  
ClientSampleId :

Tgt Ion: 91 Resp: 8423  
Ion Ratio Lower Upper  
91 100  
106 72.8 23.6 70.8#



#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.689 ppbv  
RT: 13.761 min Scan# 3470  
Delta R.T. 0.000 min  
Lab File: VL039871.D  
Acq: 10 Nov 2022 19:55

Tgt Ion: 95 Resp: 1385477  
Ion Ratio Lower Upper  
95 100  
174 60.7 53.4 80.0  
175 4.1 4.1 6.1

