

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL110823\  
 Data File : VL040827.D  
 Acq On : 9 Nov 2023 8:42  
 Operator : SY/MD  
 Sample : 05276-02DL 5X  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SH-IA-2DL

Quant Time: Nov 10 04:49:37 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL101123AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Thu Nov 09 00:25:02 2023  
 Response via : Initial Calibration

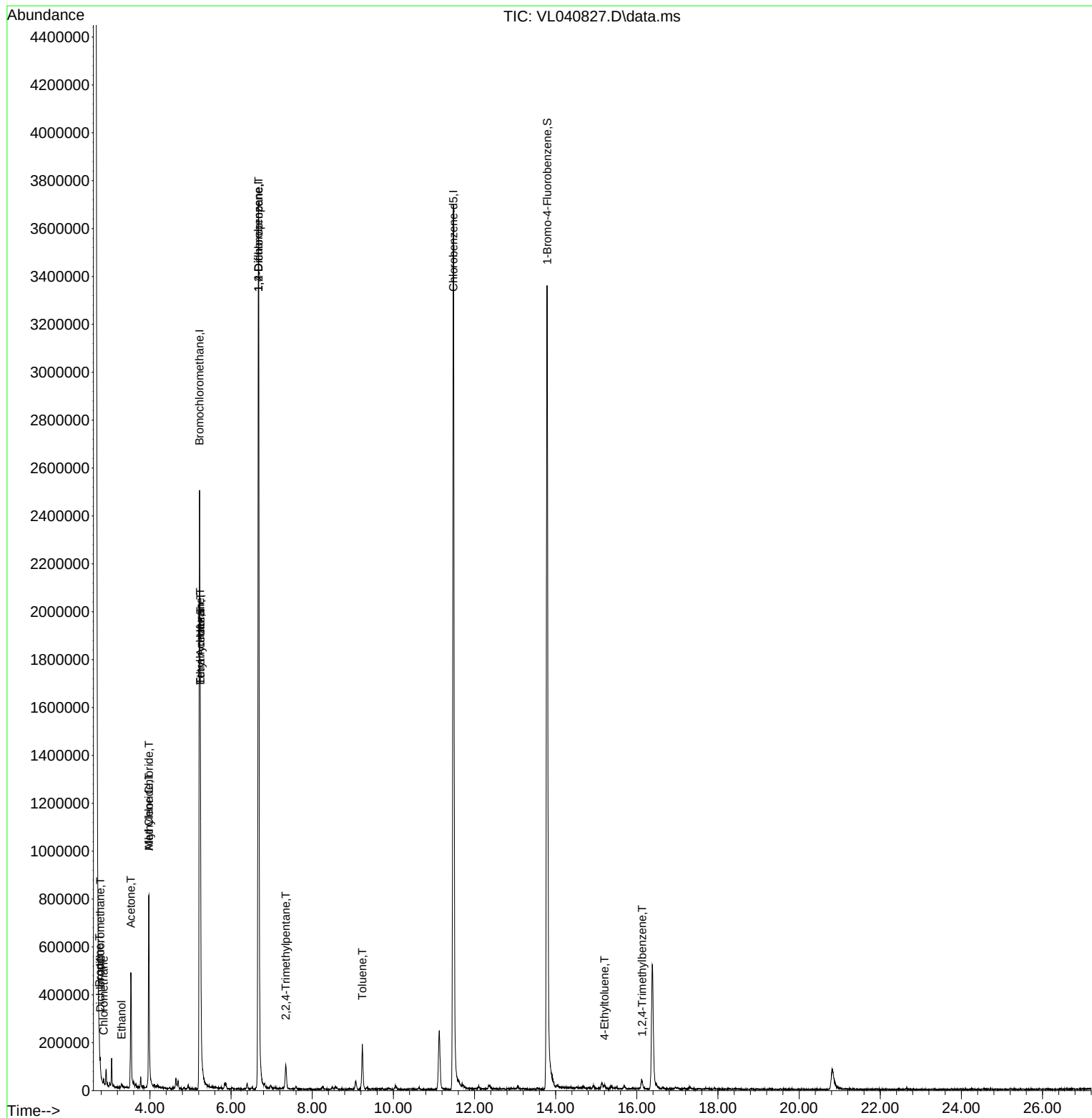
| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Bromochloromethane       | 5.224  | 49    | 1155578  | 10.000   | ppbv   | 0.02     |
| 33) 1,4-Difluorobenzene     | 6.674  | 114   | 2798496  | 10.000   | ppbv   | 0.00     |
| 55) Chlorobenzene-d5        | 11.481 | 117   | 2421499  | 10.000   | ppbv   | 0.02     |
| System Monitoring Compounds |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene | 13.793 | 95    | 1753146  | 9.839    | ppbv   | 0.02     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =      | 98.400%  |
| Target Compounds            |        |       |          |          |        |          |
|                             |        |       |          |          | Qvalue |          |
| 2) Dichlorodifluoromethane  | 2.774  | 85    | 22524    | 0.111    | ppbv   | 100      |
| 4) Chloromethane            | 2.861  | 50    | 10578    | 0.158    | ppbv   | 91       |
| 9) Propene                  | 2.751  | 41    | 16435    | 0.261    | ppbv   | 98       |
| 13) Ethanol                 | 3.298  | 45    | 10387    | 0.729    | ppbv # | 29       |
| 15) Acetone                 | 3.529  | 43    | 246604   | 2.064    | ppbv # | 76       |
| 20) Methylene Chloride      | 3.973  | 84    | 258583   | 5.196    | ppbv   | 97       |
| 21) Allyl Chloride          | 3.973  | 41    | 11405    | 0.145    | ppbv # | 36       |
| 25) Ethyl Acetate           | 5.243  | 43    | 249951   | 0.955    | ppbv # | 76       |
| 26) Hexane                  | 5.240  | 57    | 359081   | 3.002    | ppbv # | 41       |
| 39) 1,2-Dichloropropane     | 6.677  | 63    | 713451   | 8.484    | ppbv # | 27       |
| 41) Tetrahydrofuran         | 5.243  | 42    | 136566   | 1.557    | ppbv # | 50       |
| 44) 2,2,4-Trimethylpentane  | 7.346  | 57    | 47644    | 0.131    | ppbv # | 39       |
| 53) Toluene                 | 9.233  | 91    | 103968   | 0.406    | ppbv   | 98       |
| 72) 4-Ethyltoluene          | 15.204 | 105   | 8517     | 0.030    | ppbv # | 82       |
| 74) 1,2,4-Trimethylbenzene  | 16.133 | 105   | 10264    | 0.038    | ppbv # | 66       |
| -----                       |        |       |          |          |        |          |

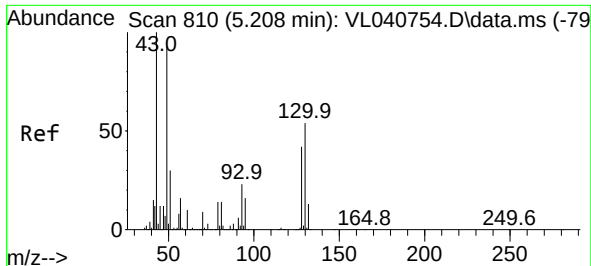
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
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Response via : Initial Calibration

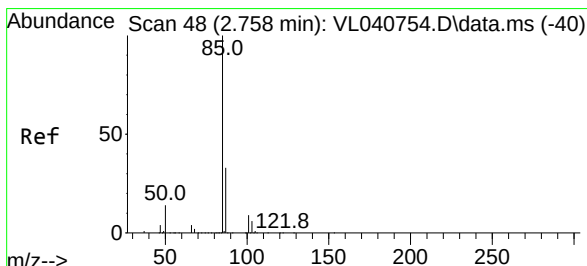
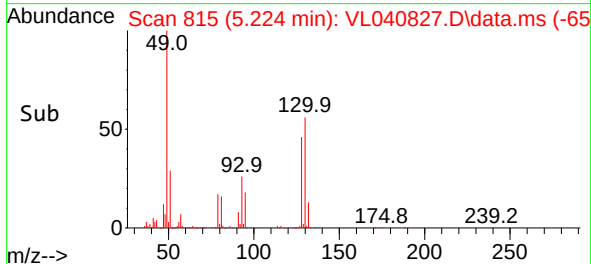
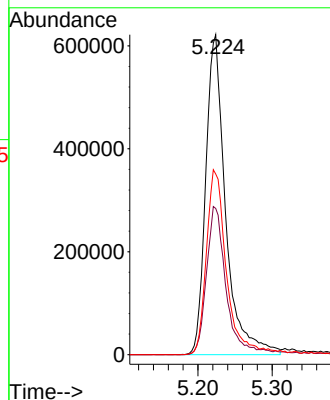
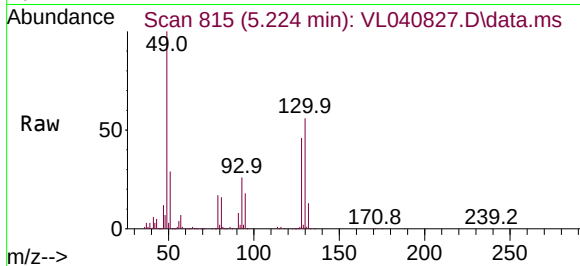




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.224 min Scan# 81  
Delta R.T. 0.016 min  
Lab File: VL040827.D  
Acq: 9 Nov 2023 8:42

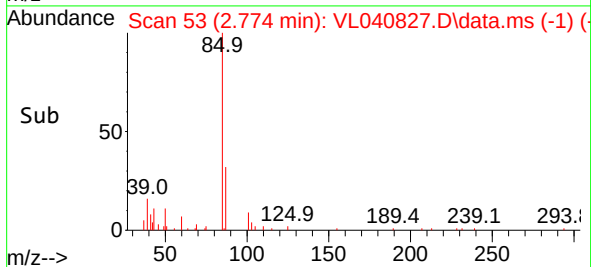
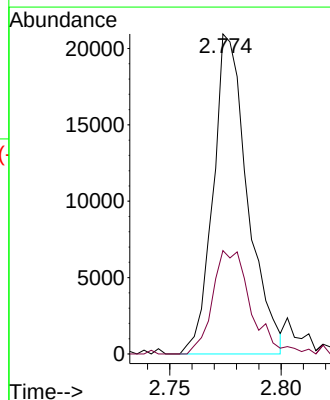
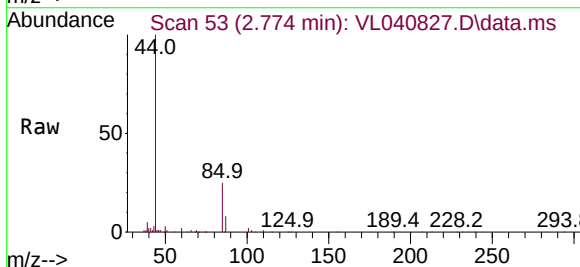
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-2DL

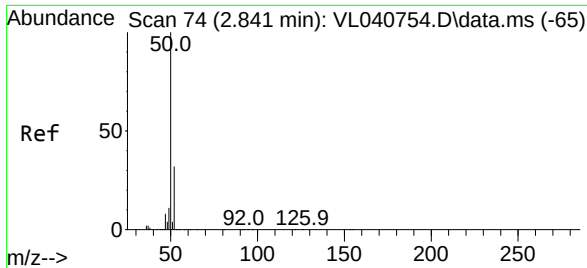
Tgt Ion: 49 Resp: 1155578  
Ion Ratio Lower Upper  
49 100  
128 46.6 23.9 71.7  
130 60.3 30.7 92.1



#2  
Dichlorodifluoromethane  
Concen: 0.111 ppbv  
RT: 2.774 min Scan# 53  
Delta R.T. 0.003 min  
Lab File: VL040827.D  
Acq: 9 Nov 2023 8:42

Tgt Ion: 85 Resp: 22524  
Ion Ratio Lower Upper  
85 100  
87 32.3 26.0 39.0

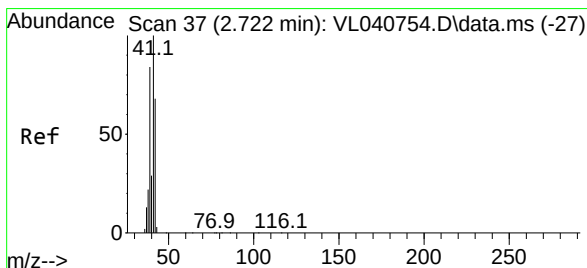
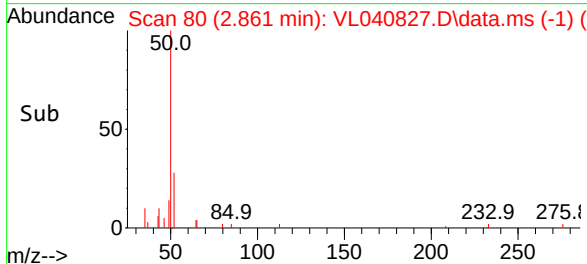
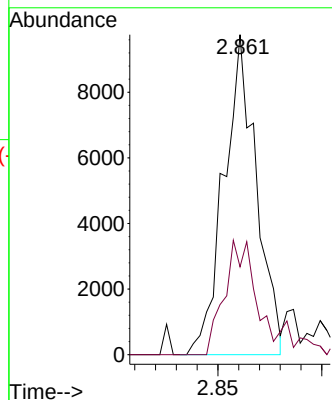
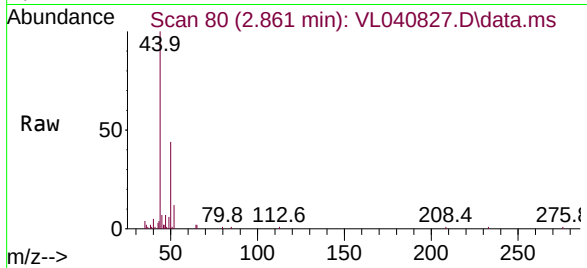




#4  
Chloromethane  
Concen: 0.158 ppbv  
RT: 2.861 min Scan# 80  
Delta R.T. 0.007 min  
Lab File: VL040827.D  
Acq: 9 Nov 2023 8:42

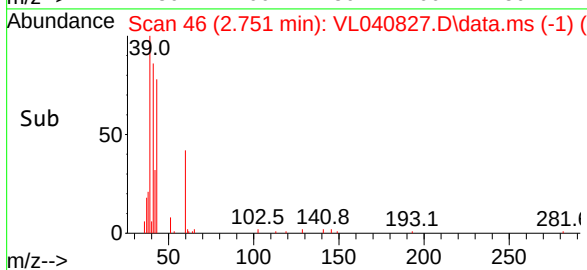
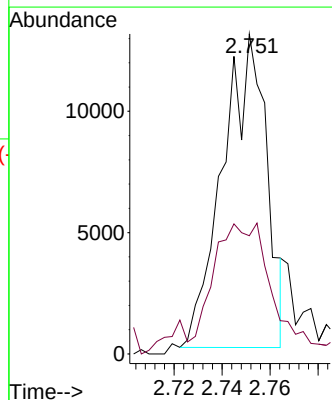
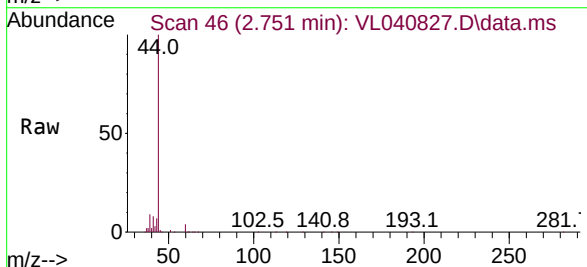
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-2DL

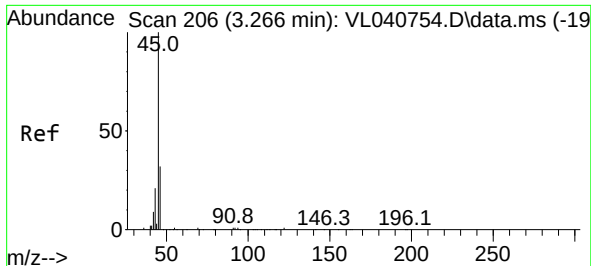
Tgt Ion: 50 Resp: 10578  
Ion Ratio Lower Upper  
50 100  
52 26.6 25.3 37.9



#9  
Propene  
Concen: 0.261 ppbv  
RT: 2.751 min Scan# 46  
Delta R.T. 0.016 min  
Lab File: VL040827.D  
Acq: 9 Nov 2023 8:42

Tgt Ion: 41 Resp: 16435  
Ion Ratio Lower Upper  
41 100  
42 69.7 57.1 85.7





#13

Ethanol

Concen: 0.729 ppbv

RT: 3.298 min Scan# 216

Delta R.T. 0.019 min

Lab File: VL040827.D

Acq: 9 Nov 2023 8:42

Instrument :

MSVOA\_L

ClientSampleId :

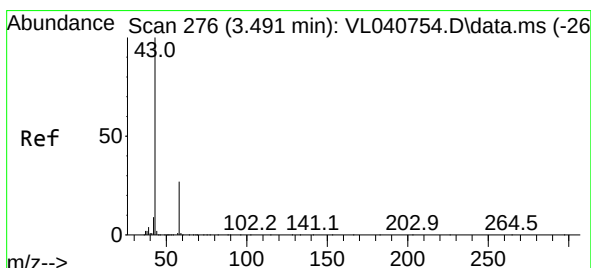
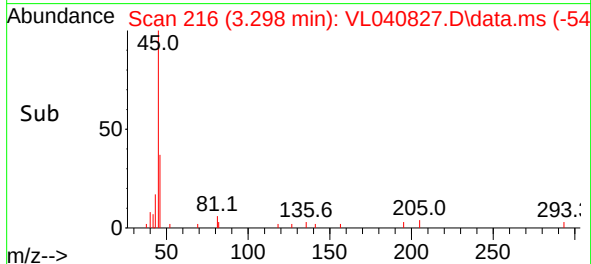
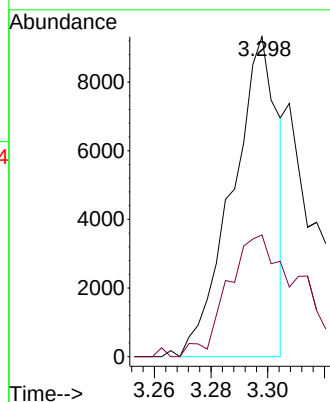
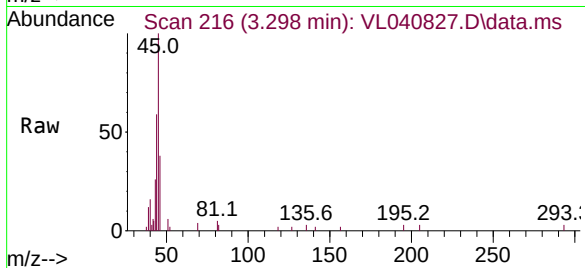
SH-IA-2DL

Tgt Ion: 45 Resp: 10387

Ion Ratio Lower Upper

45 100

46 78.5 14.6 58.2#



#15

Acetone

Concen: 2.064 ppbv

RT: 3.529 min Scan# 288

Delta R.T. 0.029 min

Lab File: VL040827.D

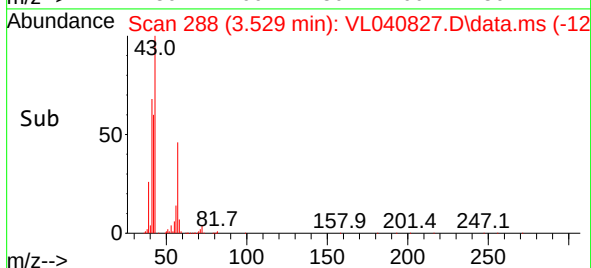
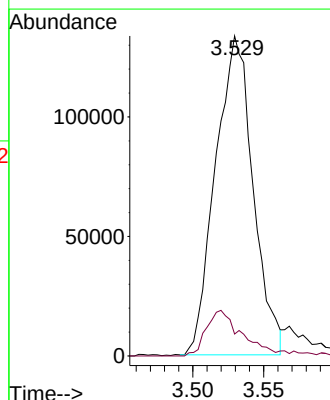
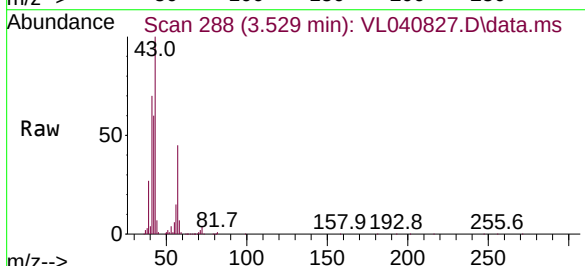
Acq: 9 Nov 2023 8:42

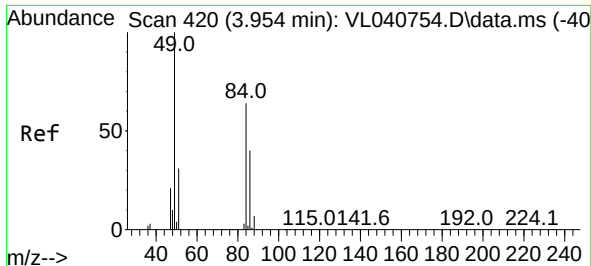
Tgt Ion: 43 Resp: 246604

Ion Ratio Lower Upper

43 100

58 14.5 21.6 32.4#





#20

Methylene Chloride

Concen: 5.196 ppbv

RT: 3.973 min Scan# 426

Delta R.T. 0.013 min

Lab File: VL040827.D

Acq: 9 Nov 2023 8:42

Instrument :

MSVOA\_L

ClientSampleId :

SH-IA-2DL

Tgt Ion: 84 Resp: 258583

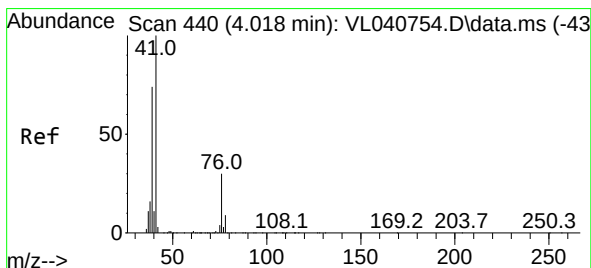
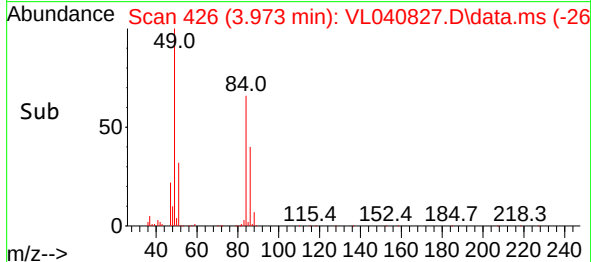
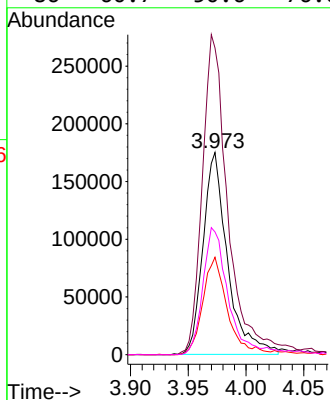
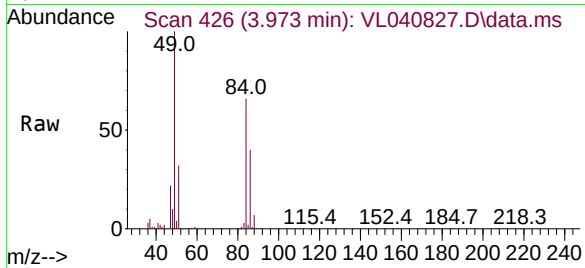
Ion Ratio Lower Upper

84 100

49 151.6 125.6 188.4

51 48.3 38.9 58.3

86 60.7 50.6 76.0



#21

Allyl Chloride

Concen: 0.145 ppbv

RT: 3.973 min Scan# 426

Delta R.T. -0.048 min

Lab File: VL040827.D

Acq: 9 Nov 2023 8:42

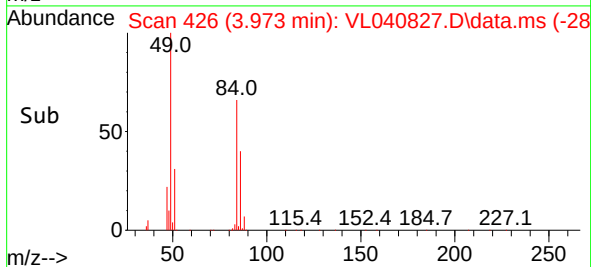
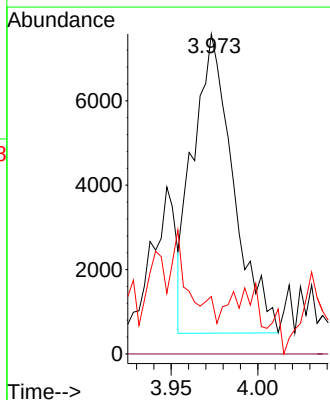
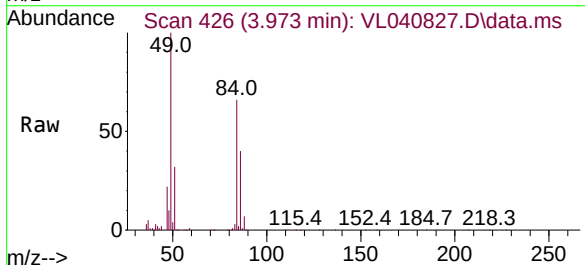
Tgt Ion: 41 Resp: 11405

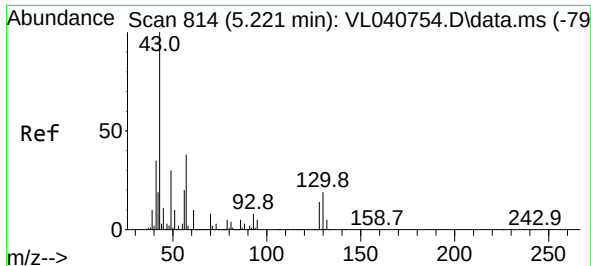
Ion Ratio Lower Upper

41 100

76 0.0 24.1 36.1#

39 20.8 63.8 95.6#





#25

Ethyl Acetate

Concen: 0.955 ppbv

RT: 5.243 min Scan# 81

Delta R.T. 0.023 min

Lab File: VL040827.D

Acq: 9 Nov 2023 8:42

Instrument :

MSVOA\_L

ClientSampleId :

SH-IA-2DL

Tgt Ion: 43 Resp: 249951

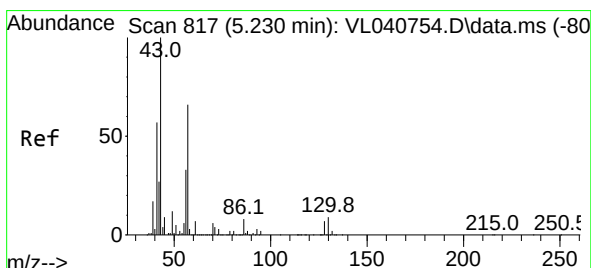
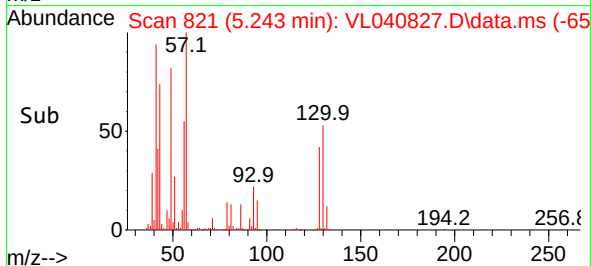
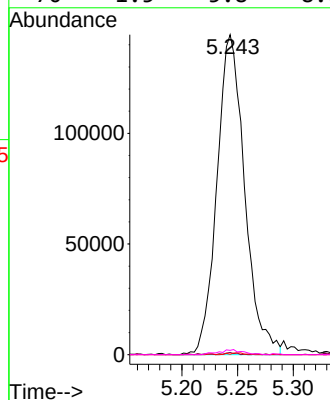
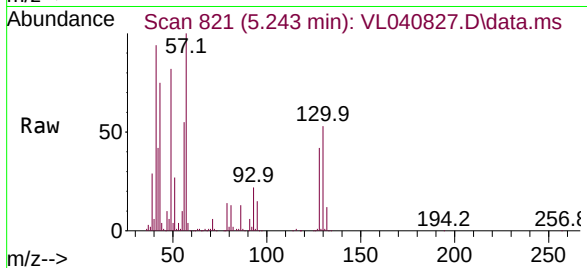
Ion Ratio Lower Upper

43 100

45 0.5 8.2 12.4#

61 0.4 8.2 12.2#

70 1.5 5.8 8.6#



#26

Hexane

Concen: 3.002 ppbv

RT: 5.240 min Scan# 820

Delta R.T. 0.013 min

Lab File: VL040827.D

Acq: 9 Nov 2023 8:42

Tgt Ion: 57 Resp: 359081

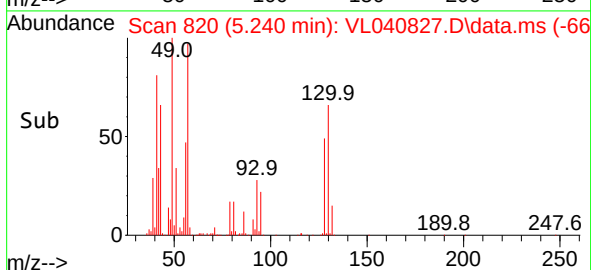
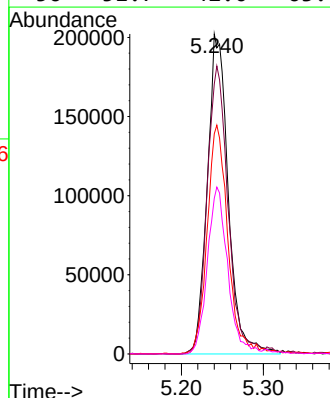
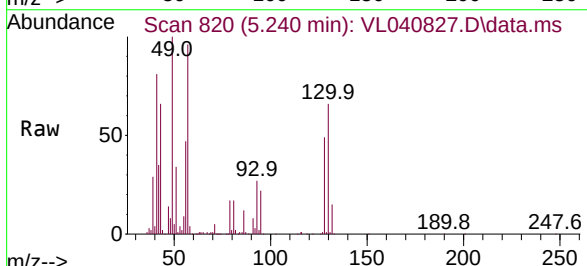
Ion Ratio Lower Upper

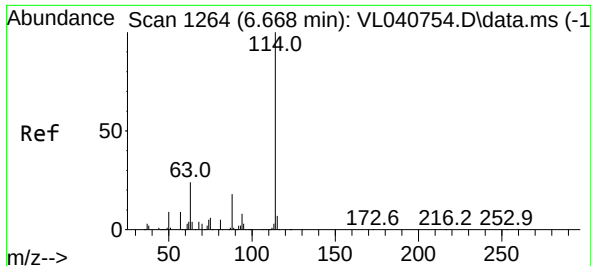
57 100

41 91.7 71.4 107.2

43 72.0 182.3 273.5#

56 51.7 42.0 63.0

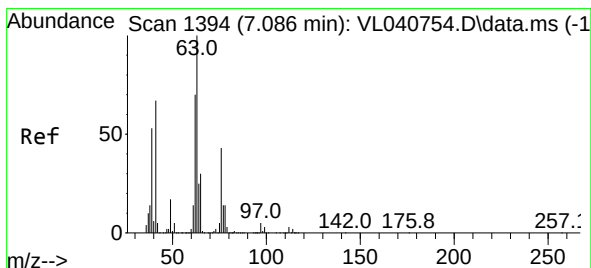
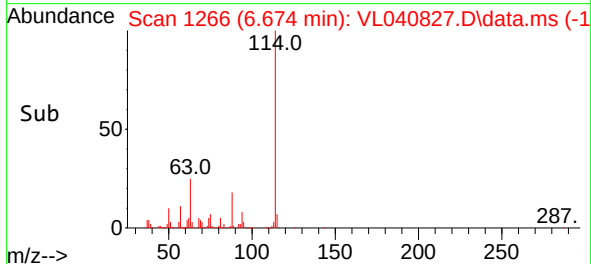
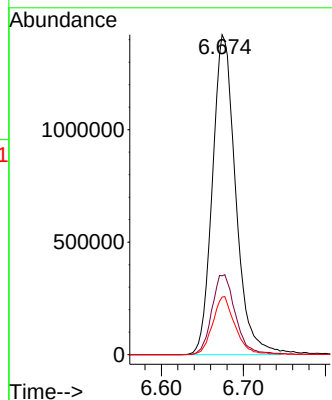
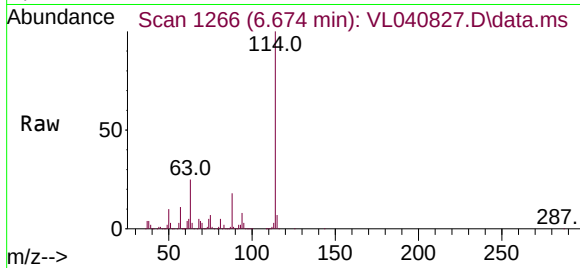




#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 6.674 min Scan# 11  
Delta R.T. 0.010 min  
Lab File: VL040827.D  
Acq: 9 Nov 2023 8:42

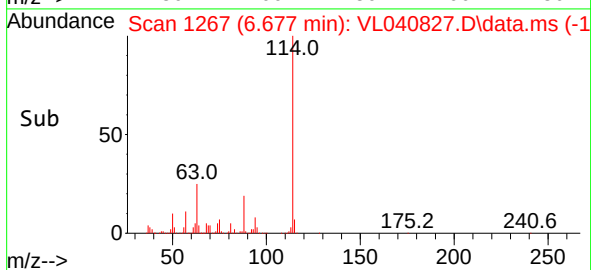
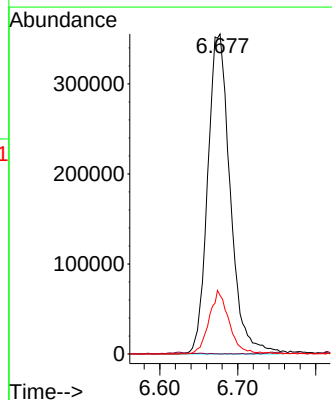
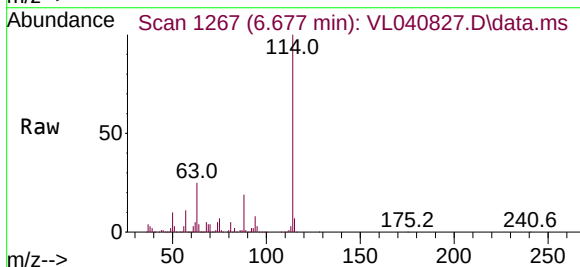
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-2DL

Tgt Ion:114 Resp: 2798496  
Ion Ratio Lower Upper  
114 100  
63 25.7 19.8 29.6  
88 17.8 14.2 21.2

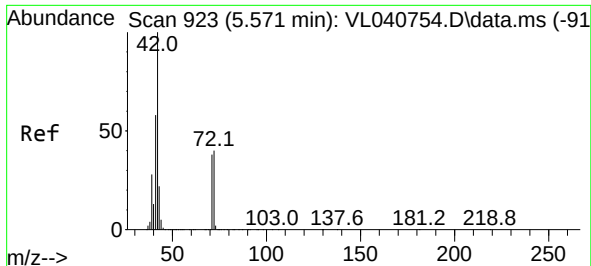


#39  
1,2-Dichloropropane  
Concen: 8.484 ppbv  
RT: 6.677 min Scan# 1267  
Delta R.T. -0.405 min  
Lab File: VL040827.D  
Acq: 9 Nov 2023 8:42

Tgt Ion: 63 Resp: 713451  
Ion Ratio Lower Upper  
63 100  
41 0.0 53.7 80.5#  
62 18.2 55.7 83.5#



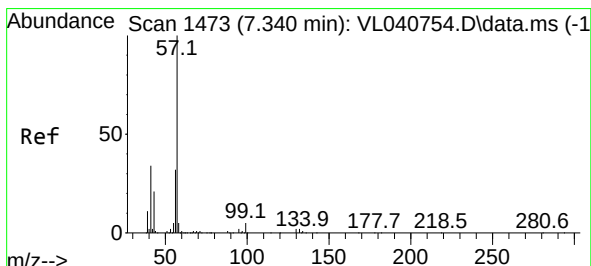
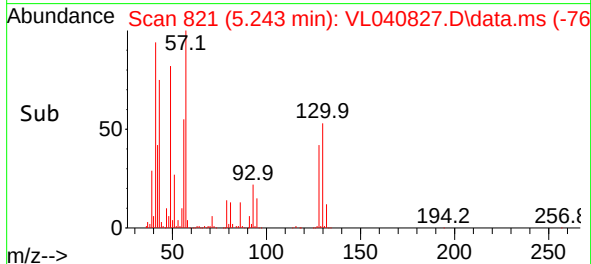
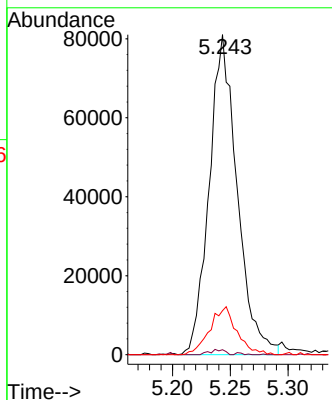
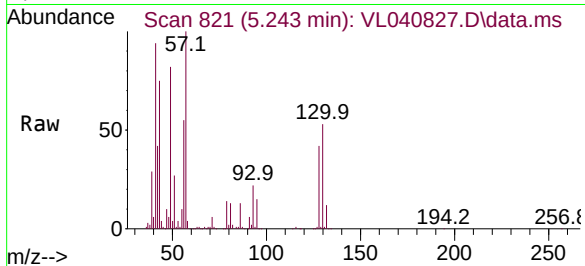




#41  
Tetrahydrofuran  
Concen: 1.557 ppbv  
RT: 5.243 min Scan# 81  
Delta R.T. -0.328 min  
Lab File: VL040827.D  
Acq: 9 Nov 2023 8:42

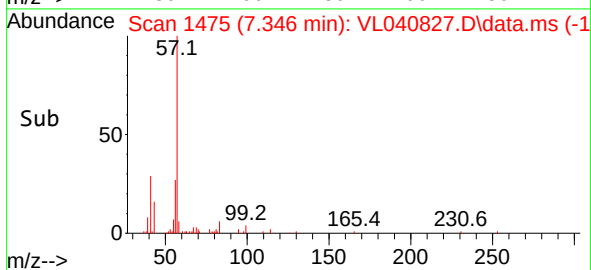
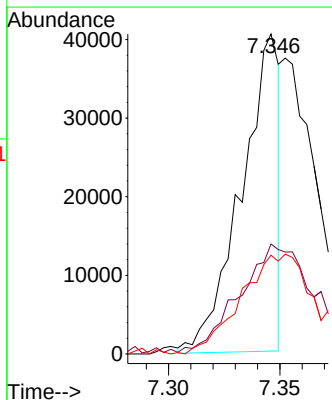
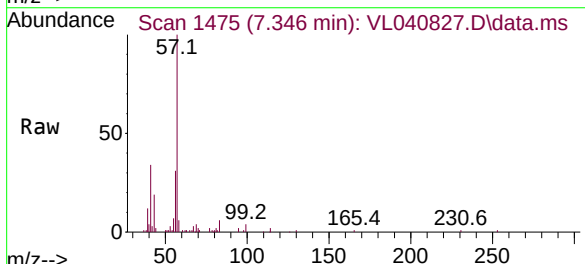
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-2DL

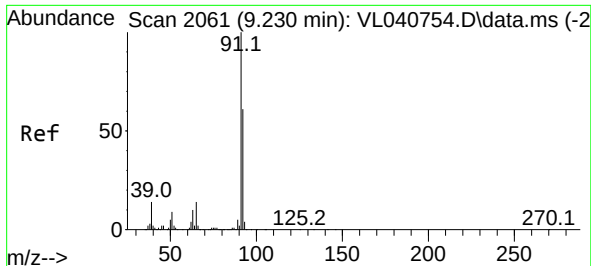
Tgt Ion: 42 Resp: 136566  
Ion Ratio Lower Upper  
42 100  
72 1.0 31.1 46.7#  
71 14.5 29.7 44.5#



#44  
2,2,4-Trimethylpentane  
Concen: 0.131 ppbv  
RT: 7.346 min Scan# 1475  
Delta R.T. 0.013 min  
Lab File: VL040827.D  
Acq: 9 Nov 2023 8:42

Tgt Ion: 57 Resp: 47644  
Ion Ratio Lower Upper  
57 100  
41 71.4 27.4 41.0#  
56 0.0 25.0 37.6#

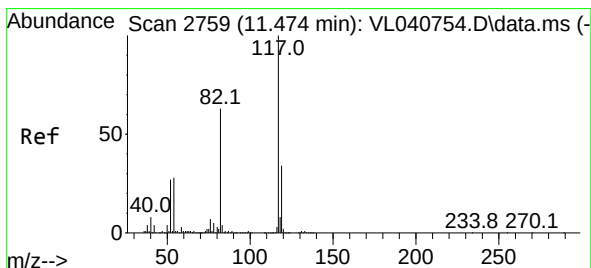
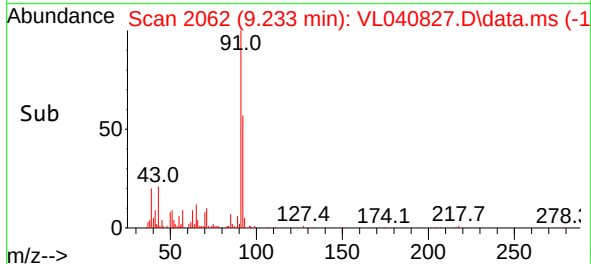
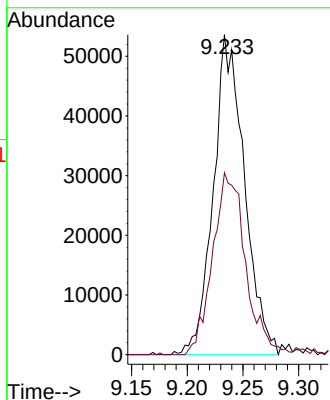
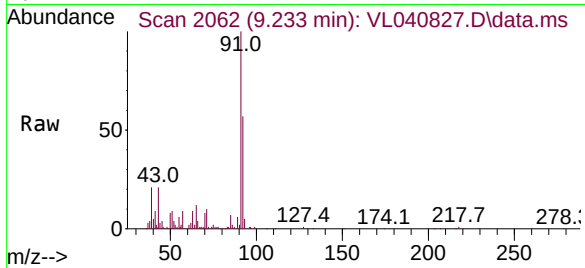




#53  
Toluene  
Concen: 0.406 ppbv  
RT: 9.233 min Scan# 2061  
Delta R.T. 0.013 min  
Lab File: VL040827.D  
Acq: 9 Nov 2023 8:42

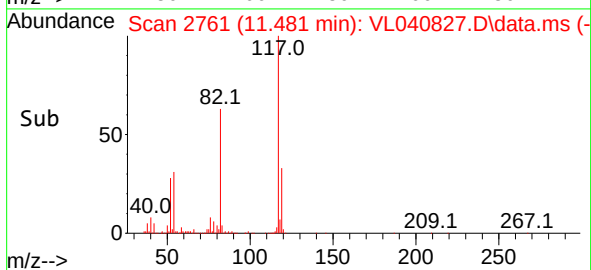
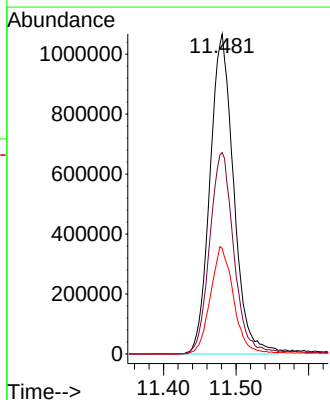
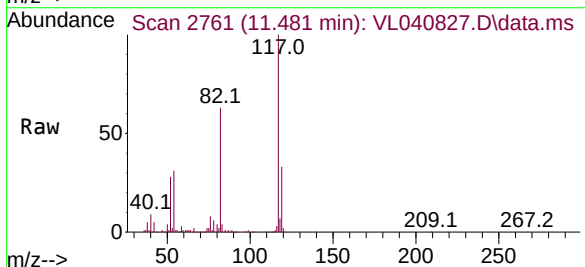
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-2DL

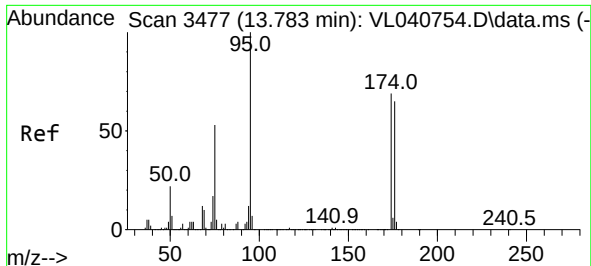
Tgt Ion: 91 Resp: 103968  
Ion Ratio Lower Upper  
91 100  
92 61.3 50.2 75.2



#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 11.481 min Scan# 2761  
Delta R.T. 0.019 min  
Lab File: VL040827.D  
Acq: 9 Nov 2023 8:42

Tgt Ion: 117 Resp: 2421499  
Ion Ratio Lower Upper  
117 100  
82 65.2 46.6 70.0  
119 33.6 26.0 39.0

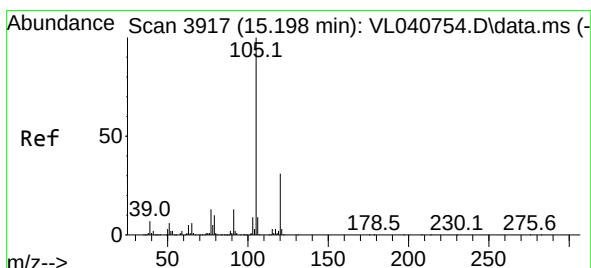
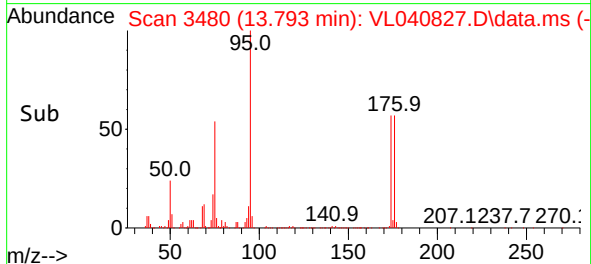
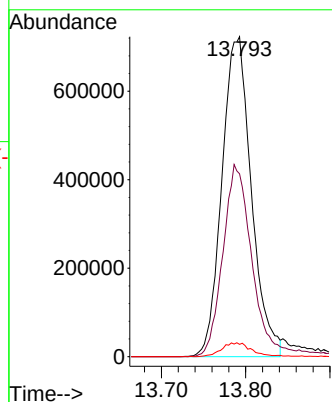
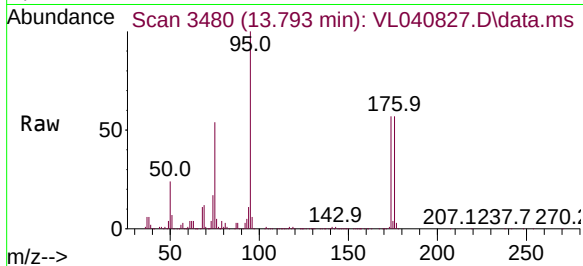




#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.839 ppbv  
RT: 13.793 min Scan# 3477  
Delta R.T. 0.023 min  
Lab File: VL040827.D  
Acq: 9 Nov 2023 8:42

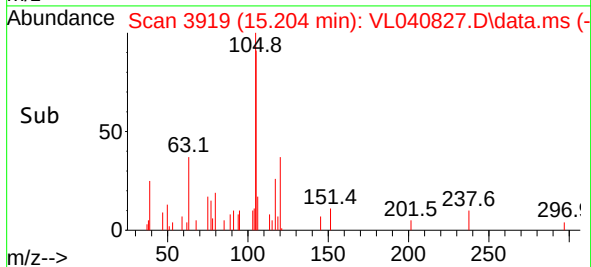
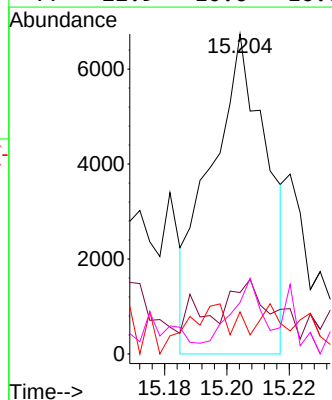
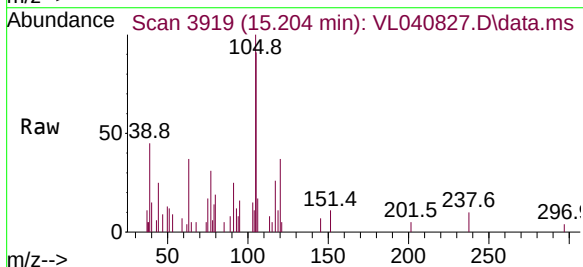
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-2DL

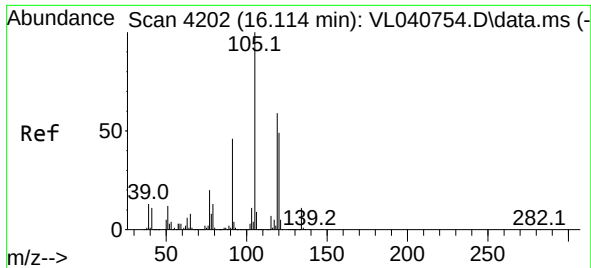
Tgt Ion: 95 Resp: 1753146  
Ion Ratio Lower Upper  
95 100  
174 61.4 54.7 82.1  
175 4.5 4.2 6.4



#72  
4-Ethyltoluene  
Concen: 0.030 ppbv  
RT: 15.204 min Scan# 3919  
Delta R.T. 0.019 min  
Lab File: VL040827.D  
Acq: 9 Nov 2023 8:42

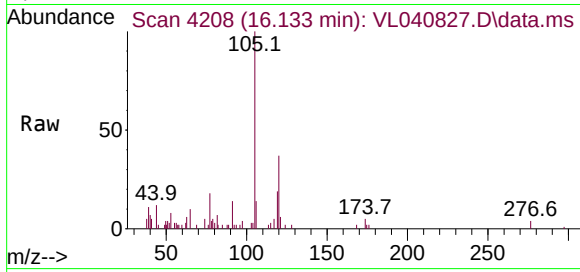
Tgt Ion: 105 Resp: 8517  
Ion Ratio Lower Upper  
105 100  
120 37.3 25.0 37.4  
91 0.0 9.8 14.8#  
77 22.9 10.6 16.0#





#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.038 ppbv  
 RT: 16.133 min Scan# 41  
 Delta R.T. 0.032 min  
 Lab File: VL040827.D  
 Acq: 9 Nov 2023 8:42

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SH-IA-2DL



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 105   | Resp: | 10264 |
| Ion      | Ratio | Lower | Upper |
| 105      | 100   |       |       |
| 120      | 32.7  | 39.4  | 59.2# |
| 91       | 11.4  | 38.6  | 58.0# |
| 77       | 16.6  | 16.6  | 25.0# |

