

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL040825\  
 Data File : VL042267.D  
 Acq On : 08 Apr 2025 16:58  
 Operator : SY/MD  
 Sample : Q1728-01DL 10X  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SSSG-B14-2-04012025DL

Quant Time: Apr 09 01:57:53 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL032725AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Fri Mar 28 02:00:52 2025  
 Response via : Initial Calibration

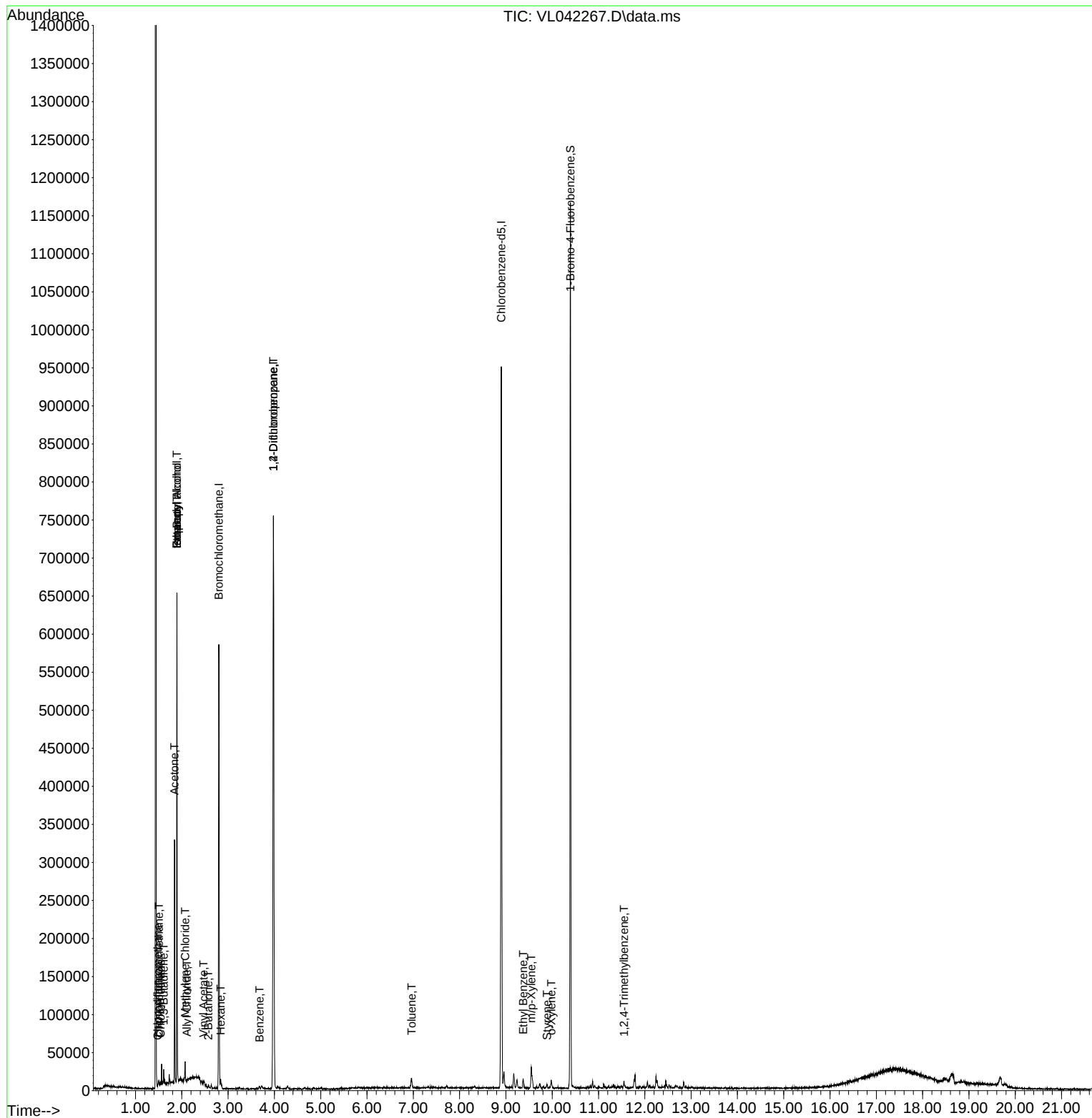
| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Bromochloromethane       | 2.800  | 49    | 162199   | 10.000   | ppbv   | 0.02     |
| 33) 1,4-Difluorobenzene     | 3.978  | 114   | 442538   | 10.000   | ppbv   | 0.03     |
| 55) Chlorobenzene-d5        | 8.901  | 117   | 374779   | 10.000   | ppbv   | 0.03     |
| System Monitoring Compounds |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene | 10.393 | 95    | 293027   | 9.521    | ppbv   | 0.02     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =      | 95.200%  |
| Target Compounds            |        |       |          |          |        |          |
|                             |        |       |          |          | Qvalue |          |
| 2) Dichlorodifluoromethane  | 1.505  | 85    | 927      | 0.039    | ppbv # | 56       |
| 3) Chlorodifluoromethane    | 1.483  | 51    | 894      | 0.037    | ppbv # | 71       |
| 4) Chloromethane            | 1.541  | 50    | 773      | 0.079    | ppbv # | 76       |
| 9) Propene                  | 1.894  | 41    | 24148    | 2.153    | ppbv   | 87       |
| 13) Ethanol                 | 1.894  | 45    | 260805   | 246.028  | ppbv # | 31       |
| 15) Acetone                 | 1.842  | 43    | 143227   | 6.314    | ppbv   | 95       |
| 16) 1,3-Butadiene           | 1.609  | 39    | 1737     | 0.157    | ppbv # | 29       |
| 17) tert-Butyl alcohol      | 1.894  | 59    | 9905     | 0.351    | ppbv   | 98       |
| 19) Isopropyl Alcohol       | 1.894  | 45    | 260805   | 20.377   | ppbv # | 32       |
| 20) Methylene Chloride      | 2.072  | 84    | 3668     | 0.434    | ppbv # | 94       |
| 21) Allyl Chloride          | 2.107  | 41    | 519      | 0.032    | ppbv # | 27       |
| 23) Vinyl Acetate           | 2.470  | 43    | 1449     | 0.148    | ppbv # | 87       |
| 26) Hexane                  | 2.839  | 57    | 2560     | 0.113    | ppbv # | 36       |
| 34) 2-Butanone              | 2.573  | 43    | 3451     | 0.108    | ppbv   | 99       |
| 36) Benzene                 | 3.680  | 78    | 1725     | 0.039    | ppbv   | 92       |
| 39) 1,2-Dichloropropane     | 3.978  | 63    | 112078   | 7.015    | ppbv # | 23       |
| 53) Toluene                 | 6.965  | 91    | 3183     | 0.061    | ppbv # | 20       |
| 58) Ethyl Benzene           | 9.374  | 91    | 6254     | 0.094    | ppbv   | 93       |
| 59) m/p-Xylene              | 9.548  | 91    | 16114    | 0.303    | ppbv   | 89       |
| 60) o-Xylene                | 9.979  | 91    | 4532     | 0.085    | ppbv   | 97       |
| 61) Styrene                 | 9.888  | 104   | 1259     | 0.048    | ppbv   | 89       |
| 74) 1,2,4-Trimethylbenzene  | 11.552 | 105   | 2593     | 0.039    | ppbv # | 67       |
| -----                       |        |       |          |          |        |          |

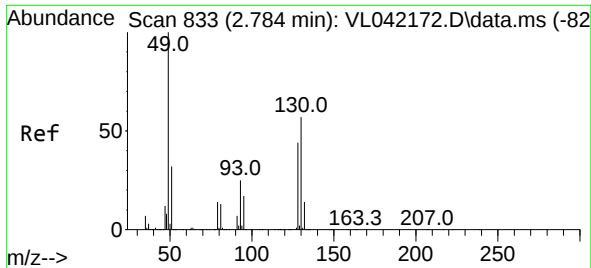
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Fri Mar 28 02:00:52 2025  
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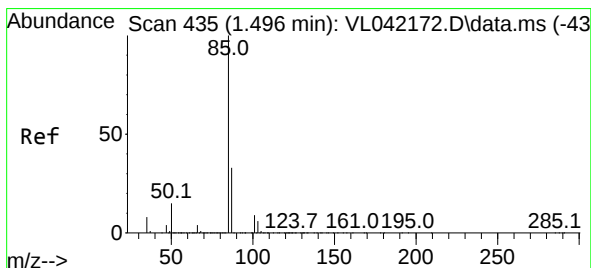
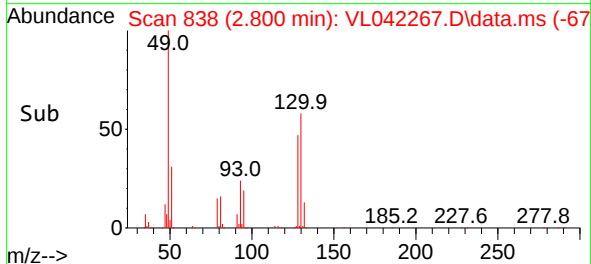
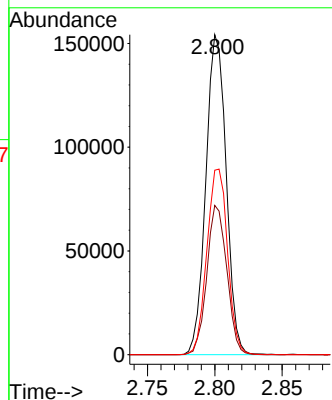
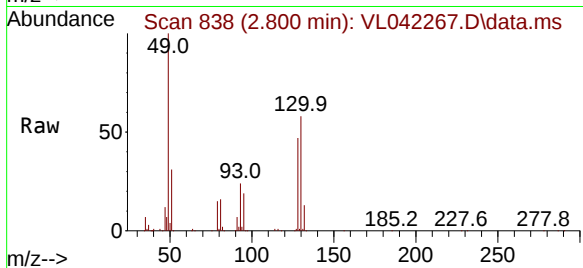




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 2.800 min Scan# 81  
Delta R.T. 0.016 min  
Lab File: VL042267.D  
Acq: 08 Apr 2025 16:58

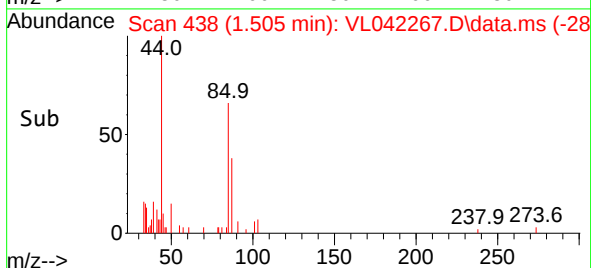
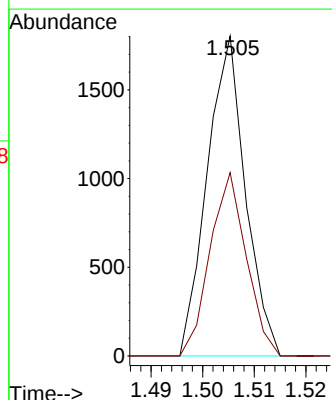
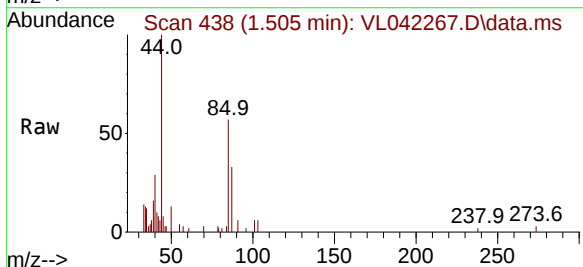
Instrument :  
MSVOA\_L  
ClientSampleId :  
SSSG-B14-2-04012025DL

Tgt Ion: 49 Resp: 162199  
Ion Ratio Lower Upper  
49 100  
128 45.9 22.9 68.5  
130 59.1 28.8 86.4



#2  
Dichlorodifluoromethane  
Concen: 0.039 ppbv  
RT: 1.505 min Scan# 438  
Delta R.T. 0.010 min  
Lab File: VL042267.D  
Acq: 08 Apr 2025 16:58

Tgt Ion: 85 Resp: 927  
Ion Ratio Lower Upper  
85 100  
87 57.3 26.1 39.1#

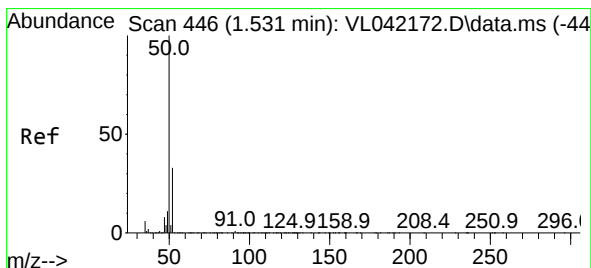
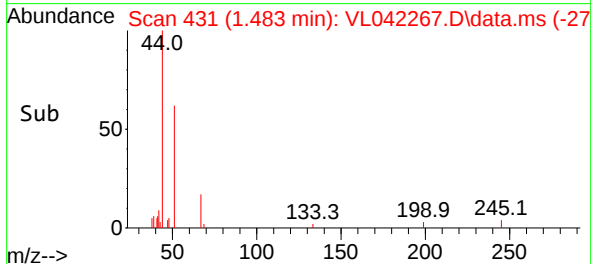
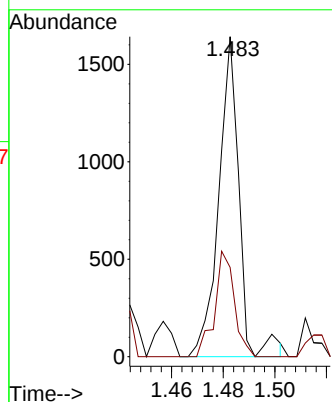
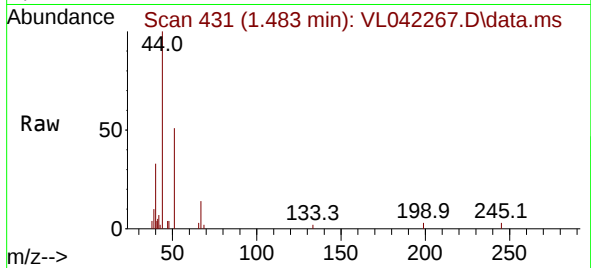




#3  
Chlorodifluoromethane  
Concen: 0.037 ppbv  
RT: 1.483 min Scan# 41  
Delta R.T. 0.010 min  
Lab File: VL042267.D  
Acq: 08 Apr 2025 16:58

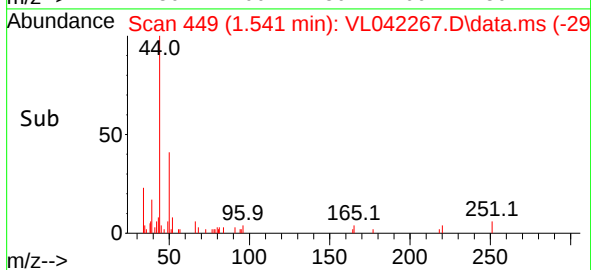
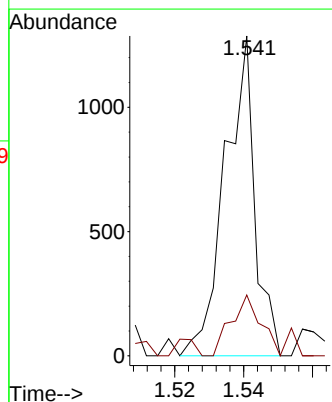
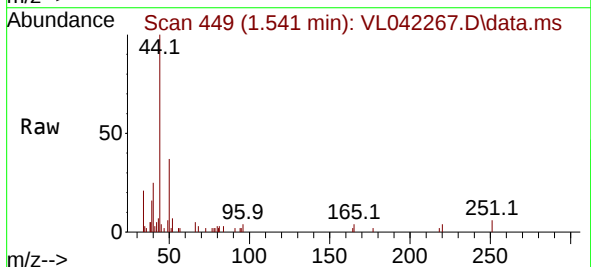
Instrument :  
MSVOA\_L  
ClientSampleId :  
SSSG-B14-2-04012025DL

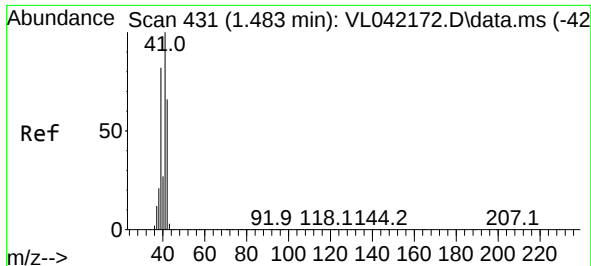
Tgt Ion: 51 Resp: 894  
Ion Ratio Lower Upper  
51 100  
67 31.7 15.0 22.6#



#4  
Chloromethane  
Concen: 0.079 ppbv  
RT: 1.541 min Scan# 449  
Delta R.T. 0.010 min  
Lab File: VL042267.D  
Acq: 08 Apr 2025 16:58

Tgt Ion: 50 Resp: 773  
Ion Ratio Lower Upper  
50 100  
52 19.0 26.1 39.1#

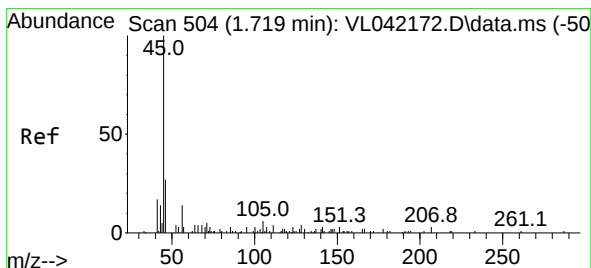
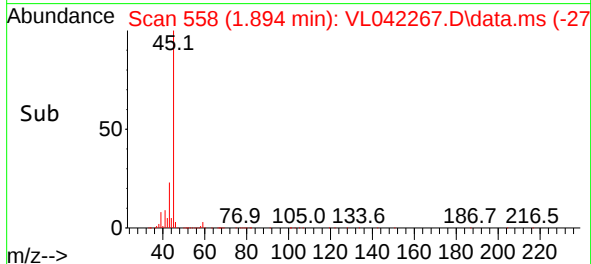
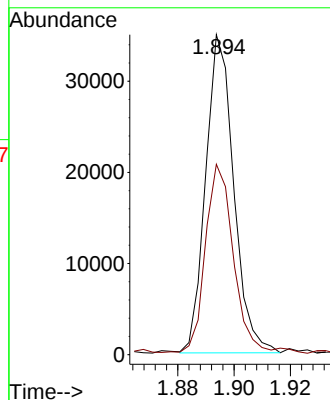
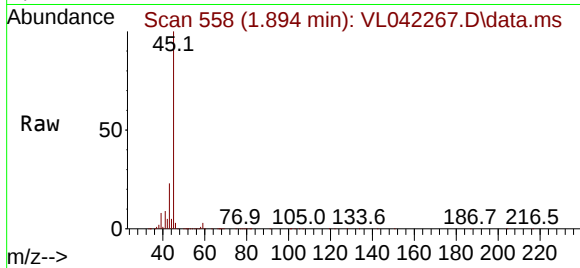




#9  
 Propene  
 Concen: 2.153 ppbv  
 RT: 1.894 min Scan# 51  
 Delta R.T. 0.411 min  
 Lab File: VL042267.D  
 Acq: 08 Apr 2025 16:58

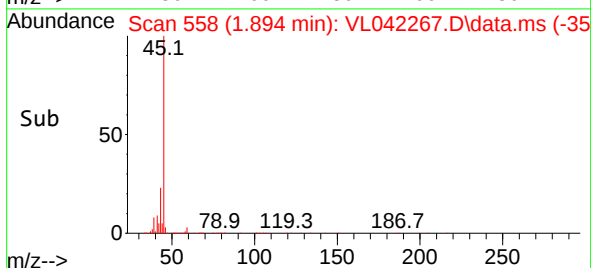
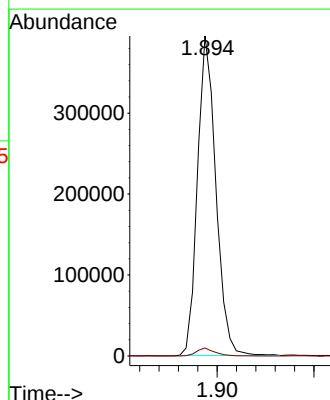
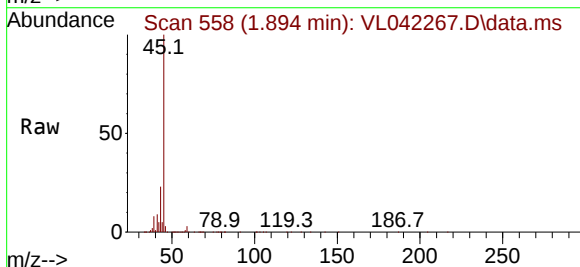
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SSSG-B14-2-04012025DL

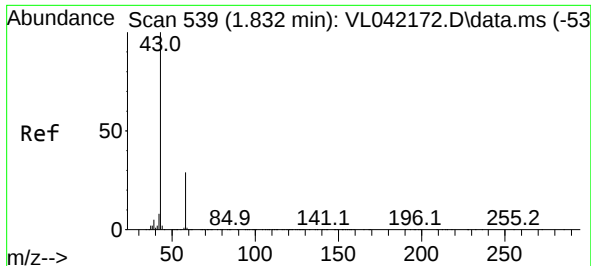
Tgt Ion: 41 Resp: 24148  
 Ion Ratio Lower Upper  
 41 100  
 42 58.7 55.4 83.2



#13  
 Ethanol  
 Concen: 246.028 ppbv  
 RT: 1.894 min Scan# 558  
 Delta R.T. 0.175 min  
 Lab File: VL042267.D  
 Acq: 08 Apr 2025 16:58

Tgt Ion: 45 Resp: 260805  
 Ion Ratio Lower Upper  
 45 100  
 46 2.5 20.2 80.8#





#15

Acetone

Concen: 6.314 ppbv

RT: 1.842 min Scan# 54

Delta R.T. 0.010 min

Lab File: VL042267.D

Acq: 08 Apr 2025 16:58

Instrument :

MSVOA\_L

ClientSampleId :

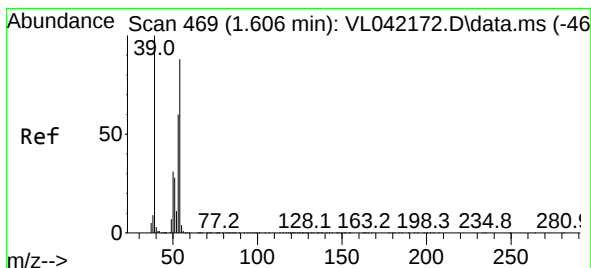
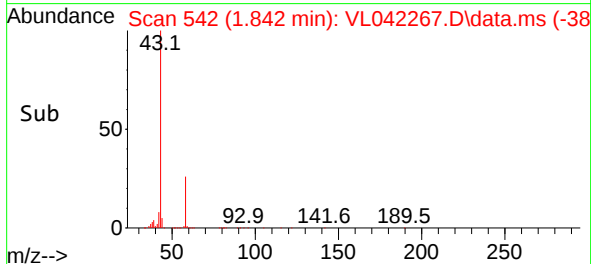
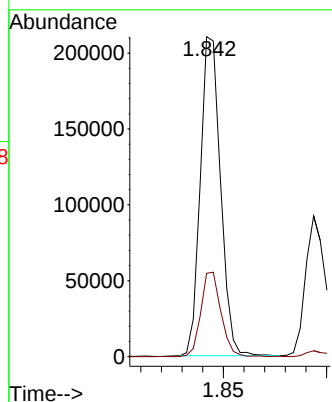
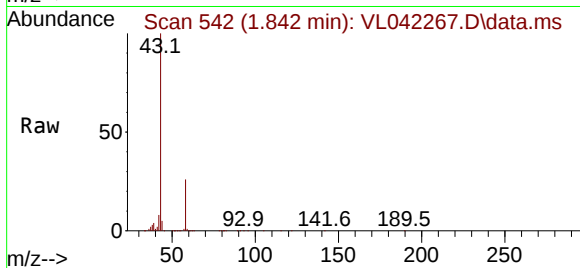
SSSG-B14-2-04012025DL

Tgt Ion: 43 Resp: 143227

Ion Ratio Lower Upper

43 100

58 26.5 23.2 34.8



#16

1,3-Butadiene

Concen: 0.157 ppbv

RT: 1.609 min Scan# 470

Delta R.T. 0.003 min

Lab File: VL042267.D

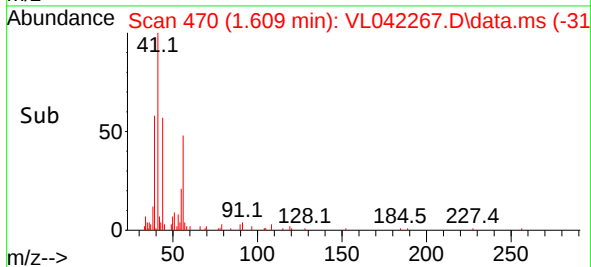
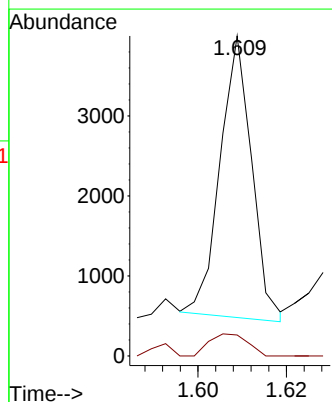
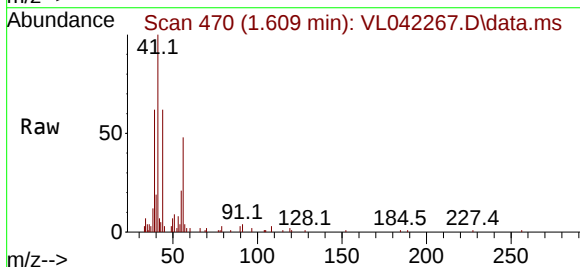
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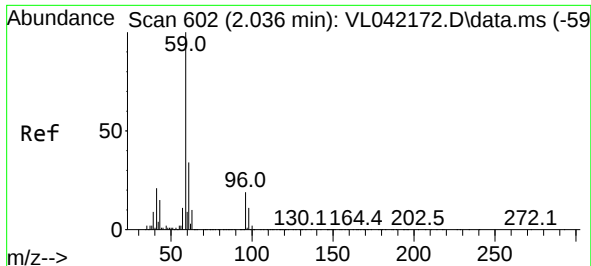
Tgt Ion: 39 Resp: 1737

Ion Ratio Lower Upper

39 100

54 15.4 60.7 91.1#





#17

tert-Butyl alcohol

Concen: 0.351 ppbv

RT: 1.894 min Scan# 51

Delta R.T. -0.143 min

Lab File: VL042267.D

Acq: 08 Apr 2025 16:58

Instrument :

MSVOA\_L

ClientSampleId :

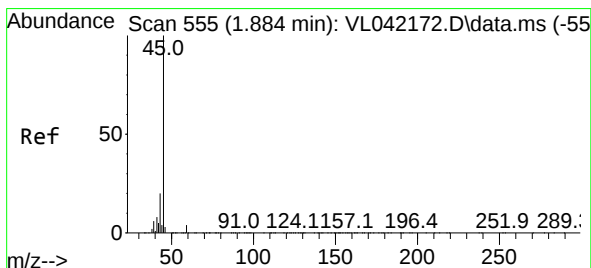
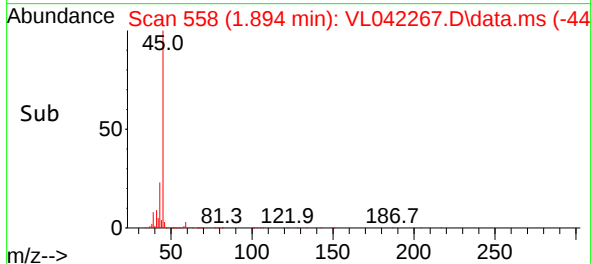
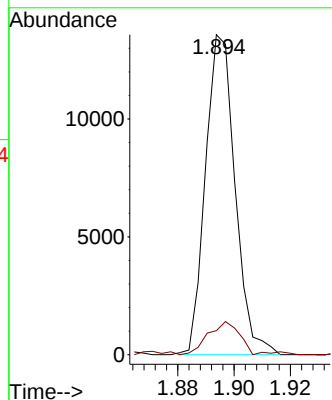
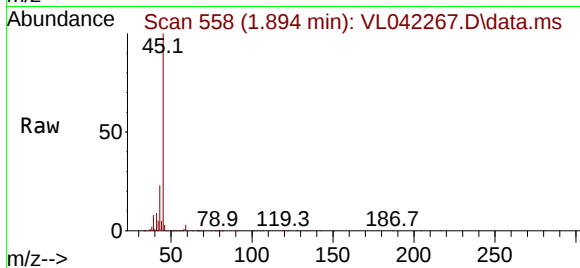
SSSG-B14-2-04012025DL

Tgt Ion: 59 Resp: 9905

Ion Ratio Lower Upper

59 100

57 11.7 8.9 13.3



#19

Isopropyl Alcohol

Concen: 20.377 ppbv

RT: 1.894 min Scan# 558

Delta R.T. 0.010 min

Lab File: VL042267.D

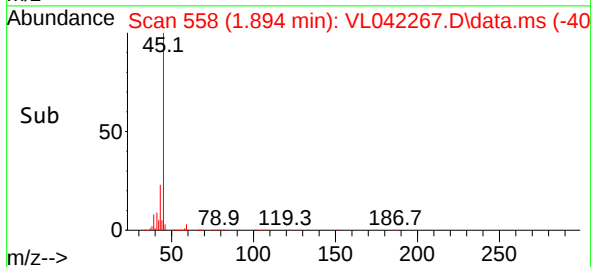
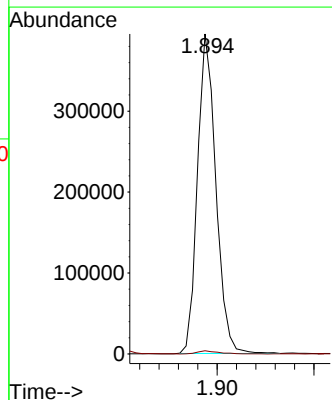
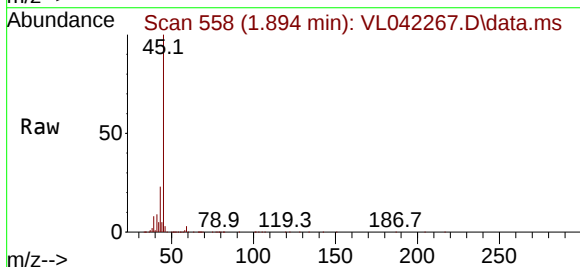
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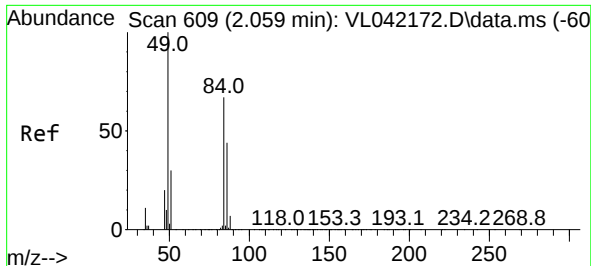
Tgt Ion: 45 Resp: 260805

Ion Ratio Lower Upper

45 100

58 1.2 36.9 55.3#

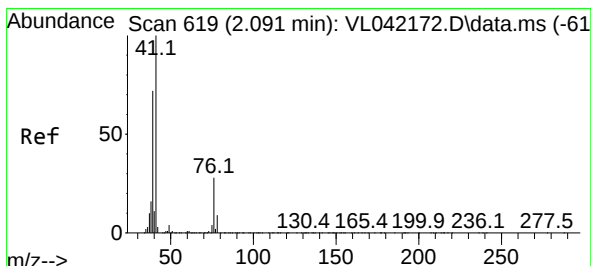
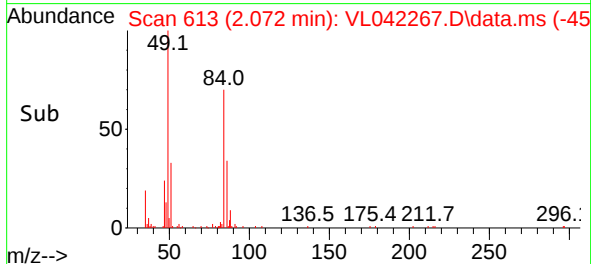
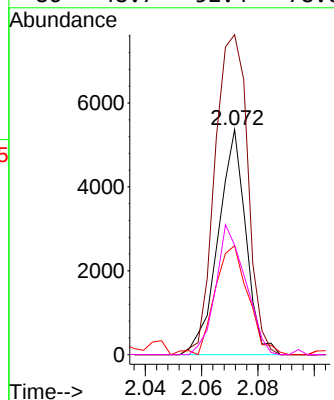
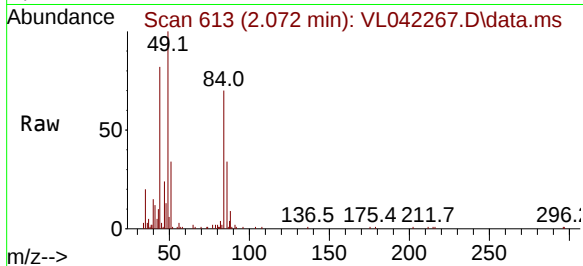




#20  
Methylene Chloride  
Concen: 0.434 ppbv  
RT: 2.072 min Scan# 61  
Delta R.T. 0.013 min  
Lab File: VL042267.D  
Acq: 08 Apr 2025 16:58

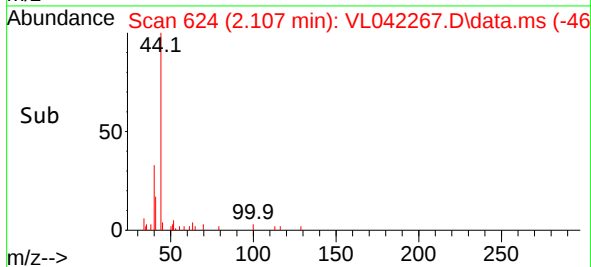
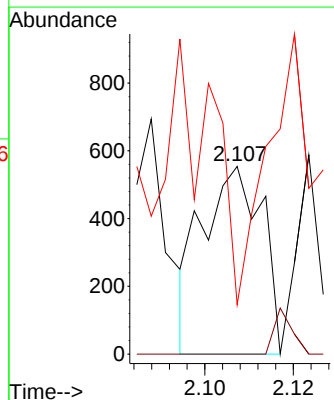
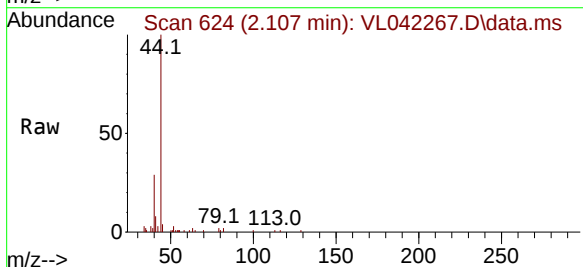
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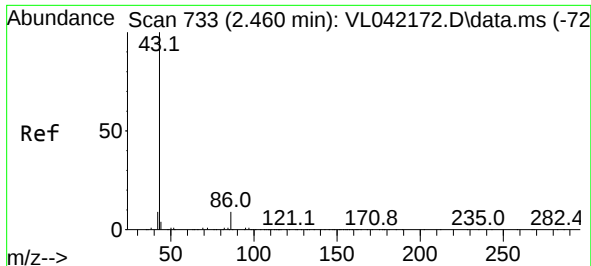
Tgt Ion: 84 Resp: 3668  
Ion Ratio Lower Upper  
84 100  
49 150.8 120.2 180.4  
51 47.2 37.4 56.0  
86 48.7 52.4 78.6#



#21  
Allyl Chloride  
Concen: 0.032 ppbv  
RT: 2.107 min Scan# 624  
Delta R.T. 0.016 min  
Lab File: VL042267.D  
Acq: 08 Apr 2025 16:58

Tgt Ion: 41 Resp: 519  
Ion Ratio Lower Upper  
41 100  
76 12.1 24.1 36.1#  
39 0.0 61.1 91.7#

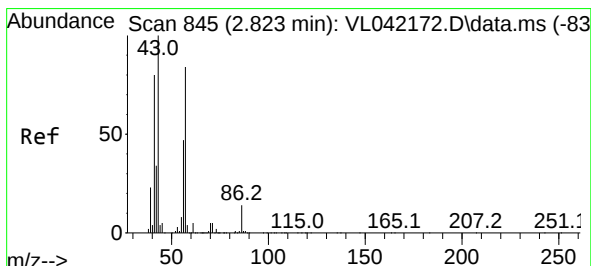
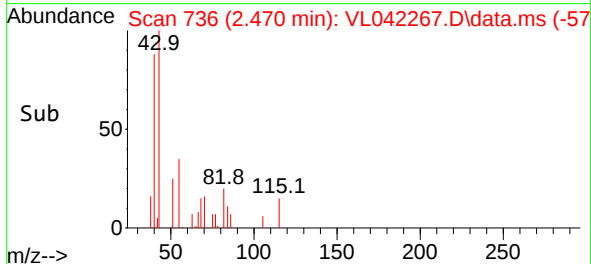
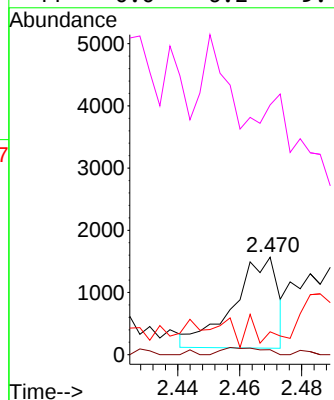
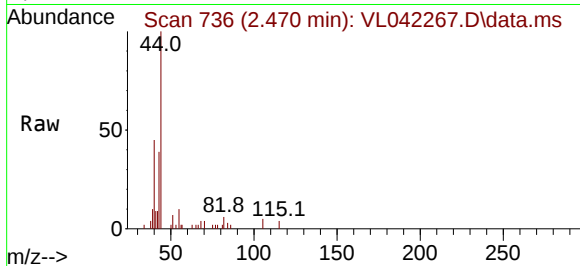




#23  
 Vinyl Acetate  
 Concen: 0.148 ppbv  
 RT: 2.470 min Scan# 71  
 Delta R.T. 0.010 min  
 Lab File: VL042267.D  
 Acq: 08 Apr 2025 16:58

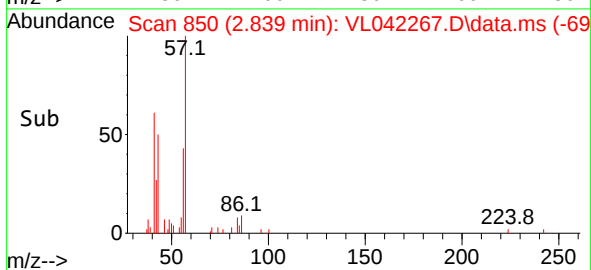
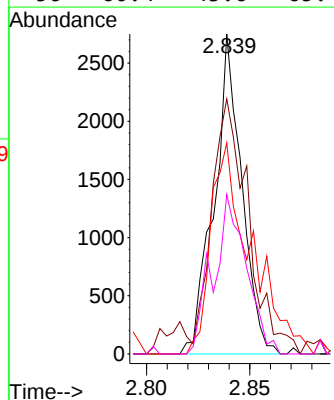
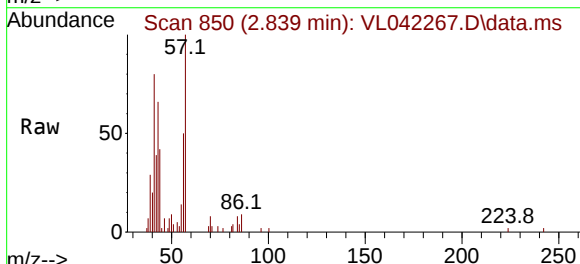
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 MSVOA\_L  
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 SSSG-B14-2-04012025DL

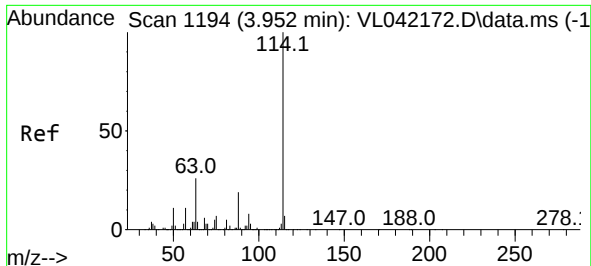
|             |             |
|-------------|-------------|
| Tgt Ion: 43 | Resp: 1449  |
| Ion Ratio   | Lower Upper |
| 43 100      |             |
| 86 6.5      | 5.5 8.3     |
| 42 5.4      | 8.6 13.0#   |
| 44 0.0      | 6.2 9.4#    |



#26  
 Hexane  
 Concen: 0.113 ppbv  
 RT: 2.839 min Scan# 850  
 Delta R.T. 0.016 min  
 Lab File: VL042267.D  
 Acq: 08 Apr 2025 16:58

|             |              |
|-------------|--------------|
| Tgt Ion: 57 | Resp: 2560   |
| Ion Ratio   | Lower Upper  |
| 57 100      |              |
| 41 116.8    | 76.6 114.8#  |
| 43 97.3     | 207.8 311.8# |
| 56 60.4     | 43.6 65.4    |





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.978 min Scan# 1194

Delta R.T. 0.026 min

Lab File: VL042267.D

Acq: 08 Apr 2025 16:58

Instrument :

MSVOA\_L

ClientSampleId :

SSSG-B14-2-04012025DL

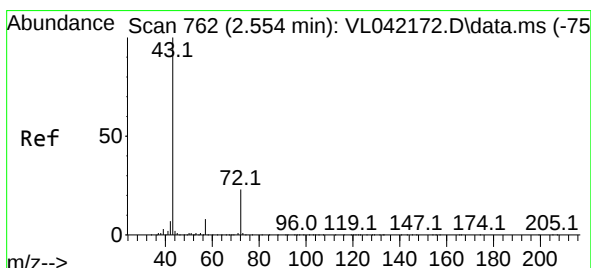
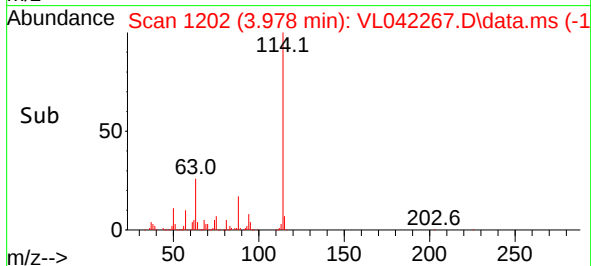
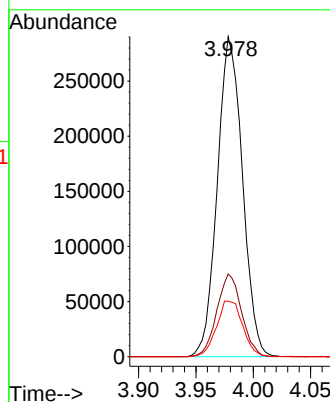
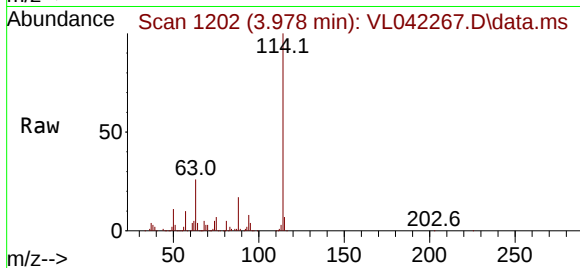
Tgt Ion:114 Resp: 442538

Ion Ratio Lower Upper

114 100

63 25.4 20.7 31.1

88 18.1 15.0 22.4



#34

2-Butanone

Concen: 0.108 ppbv

RT: 2.573 min Scan# 768

Delta R.T. 0.019 min

Lab File: VL042267.D

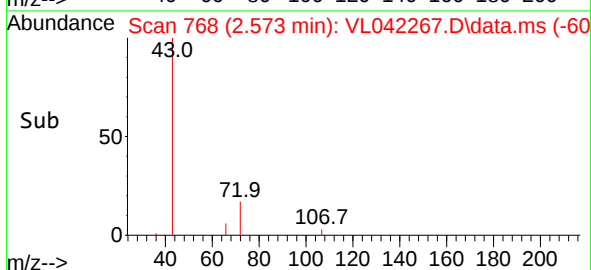
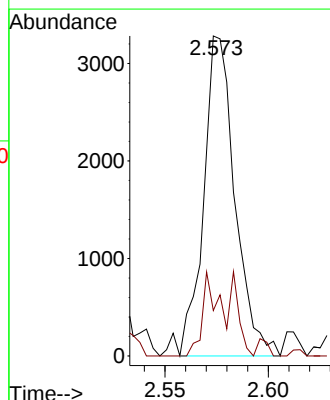
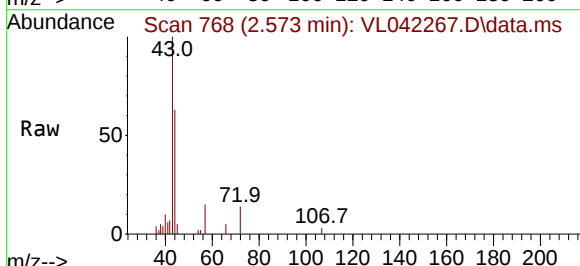
Acq: 08 Apr 2025 16:58

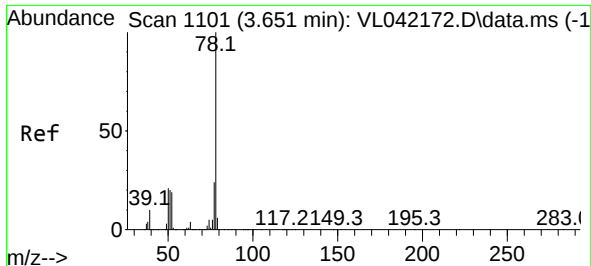
Tgt Ion: 43 Resp: 3451

Ion Ratio Lower Upper

43 100

72 23.2 18.2 27.2

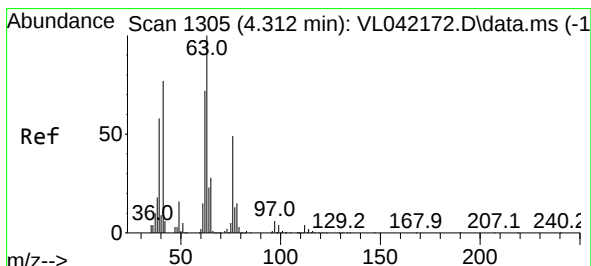
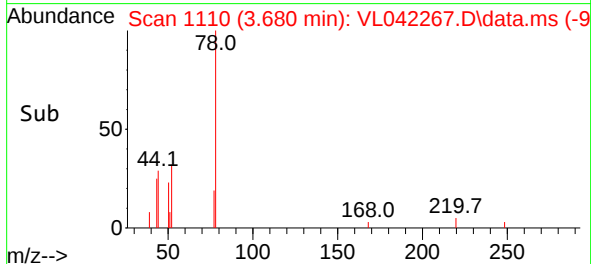
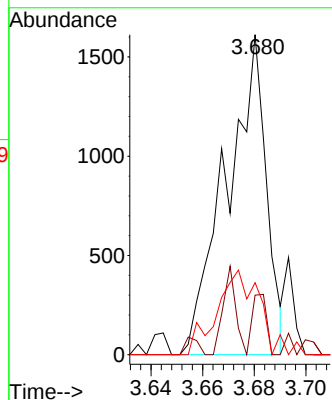
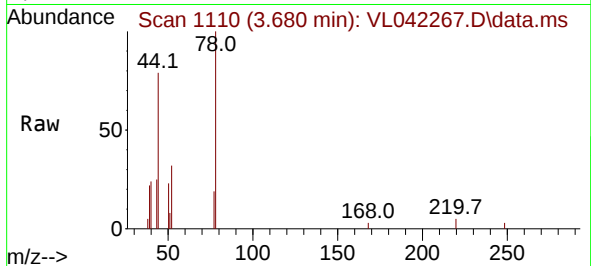




#36  
Benzene  
Concen: 0.039 ppbv  
RT: 3.680 min Scan# 1101  
Delta R.T. 0.029 min  
Lab File: VL042267.D  
Acq: 08 Apr 2025 16:58

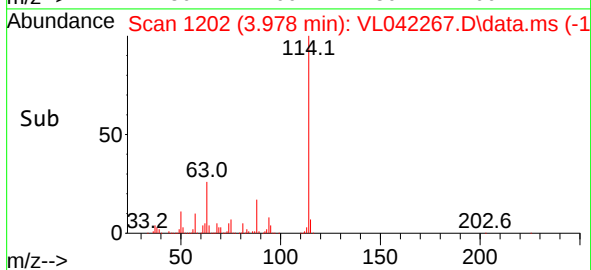
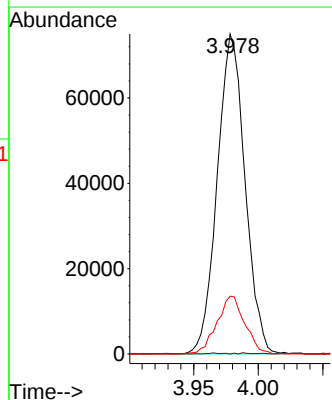
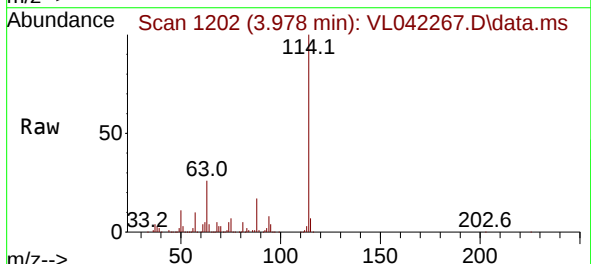
Instrument :  
MSVOA\_1  
ClientSampleId :  
SSSG-B14-2-04012025DL

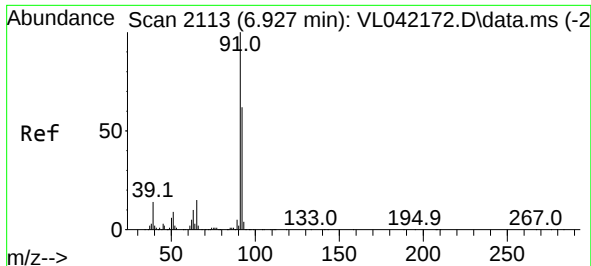
Tgt Ion: 78 Resp: 1725  
Ion Ratio Lower Upper  
78 100  
77 20.0 19.1 28.7  
50 24.2 16.6 24.8



#39  
1,2-Dichloropropane  
Concen: 7.015 ppbv  
RT: 3.978 min Scan# 1202  
Delta R.T. -0.334 min  
Lab File: VL042267.D  
Acq: 08 Apr 2025 16:58

Tgt Ion: 63 Resp: 112078  
Ion Ratio Lower Upper  
63 100  
41 0.0 61.7 92.5#  
62 18.1 57.6 86.4#

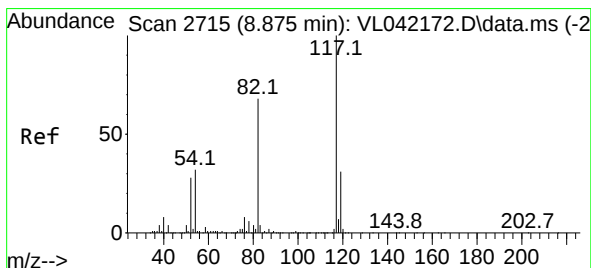
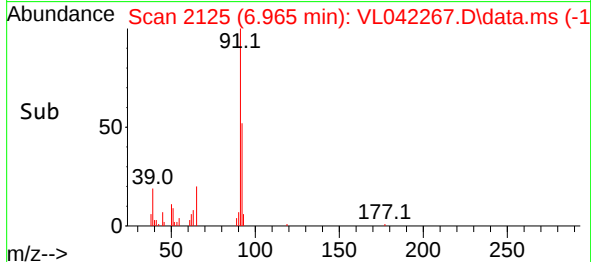
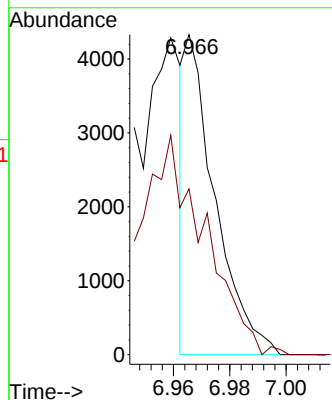
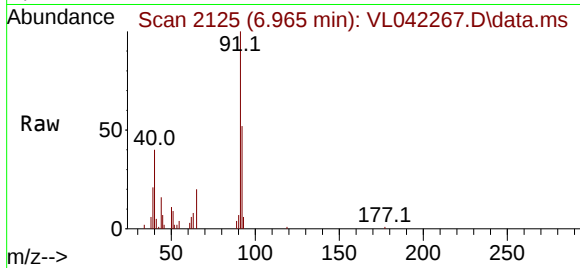




#53  
Toluene  
Concen: 0.061 ppbv  
RT: 6.965 min Scan# 2113  
Delta R.T. 0.039 min  
Lab File: VL042267.D  
Acq: 08 Apr 2025 16:58

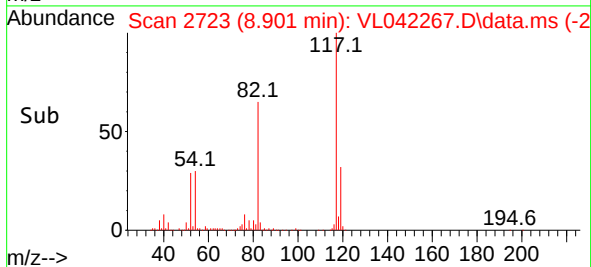
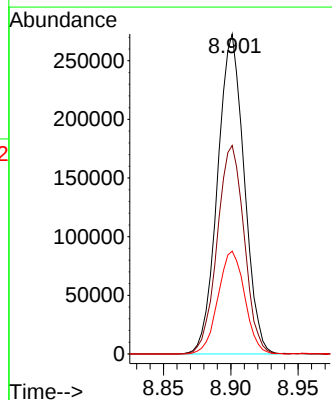
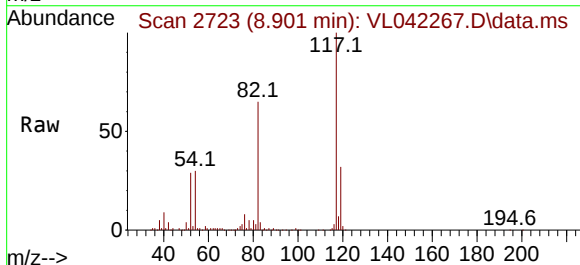
Instrument :  
MSVOA\_L  
ClientSampleId :  
SSSG-B14-2-04012025DL

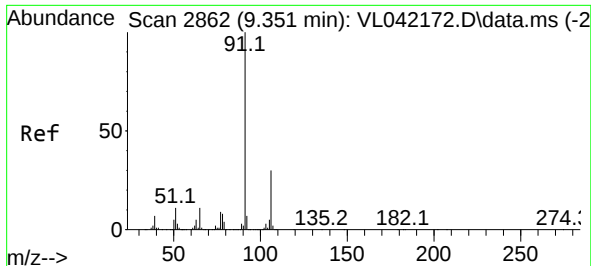
Tgt Ion: 91 Resp: 3183  
Ion Ratio Lower Upper  
91 100  
92 0.0 48.4 72.6#



#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 8.901 min Scan# 2723  
Delta R.T. 0.026 min  
Lab File: VL042267.D  
Acq: 08 Apr 2025 16:58

Tgt Ion: 117 Resp: 374779  
Ion Ratio Lower Upper  
117 100  
82 66.2 55.8 83.6  
119 32.3 25.5 38.3





#58

Ethyl Benzene

Concen: 0.094 ppbv

RT: 9.374 min Scan# 2869

Delta R.T. 0.022 min

Lab File: VL042267.D

Acq: 08 Apr 2025 16:58

Instrument :

MSVOA\_L

ClientSampleId :

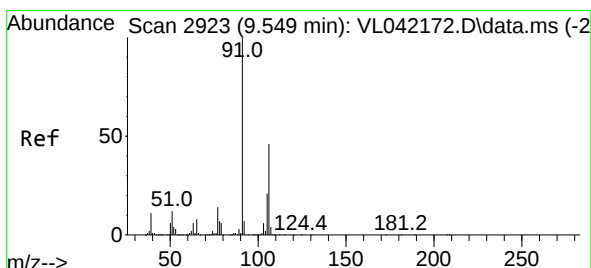
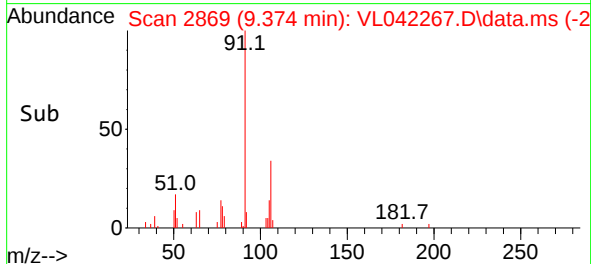
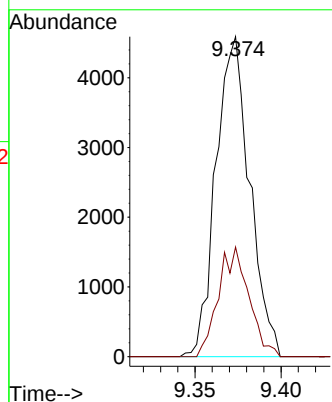
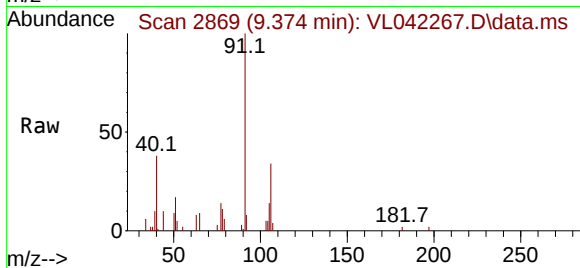
SSSG-B14-2-04012025DL

Tgt Ion: 91 Resp: 6254

Ion Ratio Lower Upper

91 100

106 34.2 24.2 36.2



#59

m/p-Xylene

Concen: 0.303 ppbv

RT: 9.548 min Scan# 2923

Delta R.T. -0.000 min

Lab File: VL042267.D

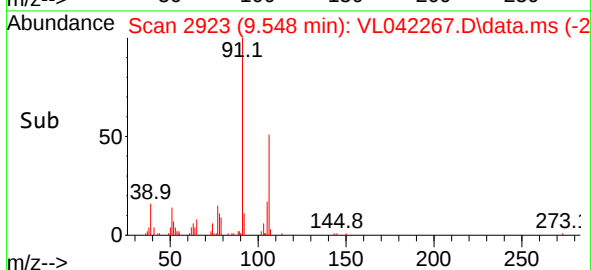
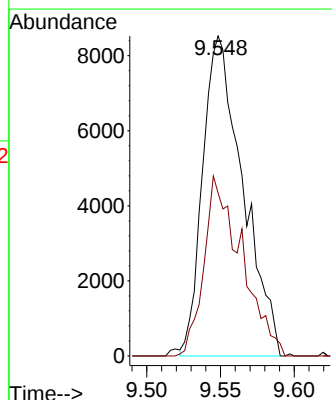
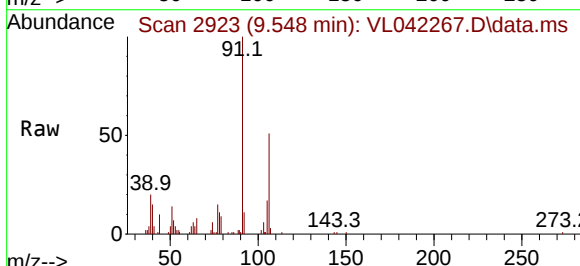
Acq: 08 Apr 2025 16:58

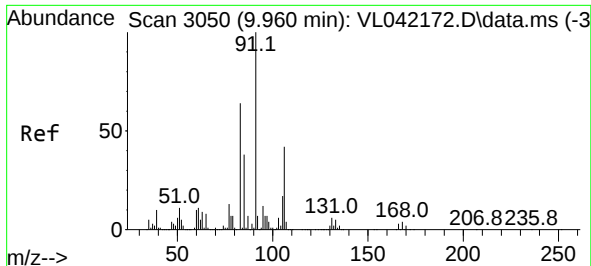
Tgt Ion: 91 Resp: 16114

Ion Ratio Lower Upper

91 100

106 52.6 36.4 54.6

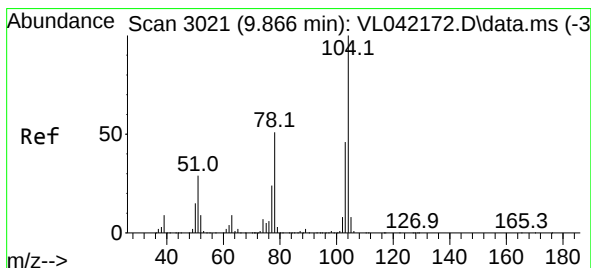
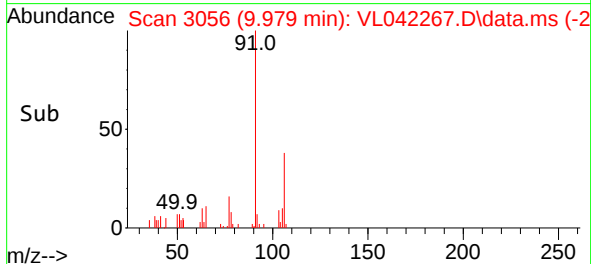
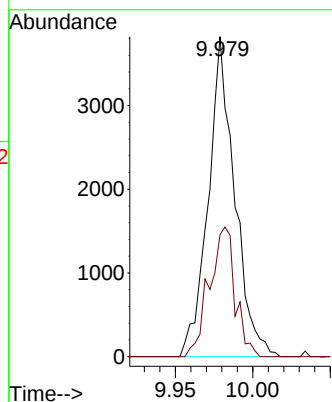
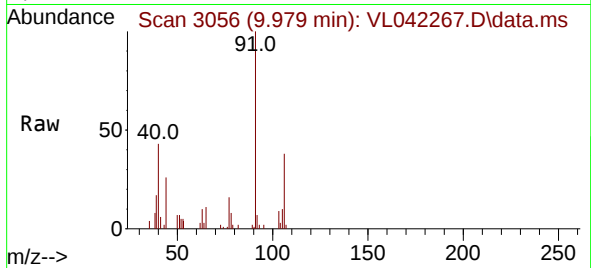




#60  
o-Xylene  
Concen: 0.085 ppbv  
RT: 9.979 min Scan# 3056  
Delta R.T. 0.019 min  
Lab File: VL042267.D  
Acq: 08 Apr 2025 16:58

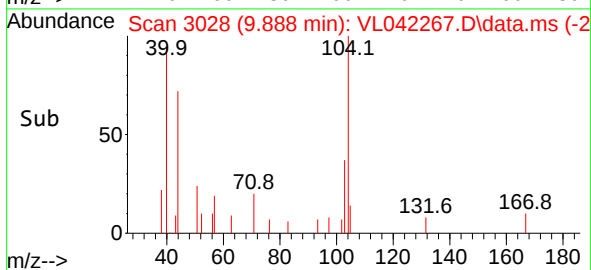
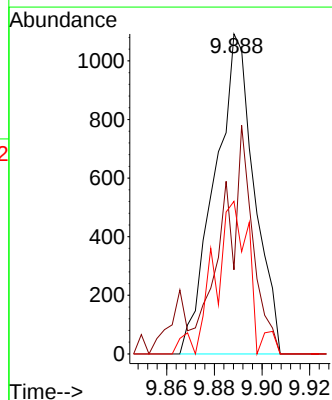
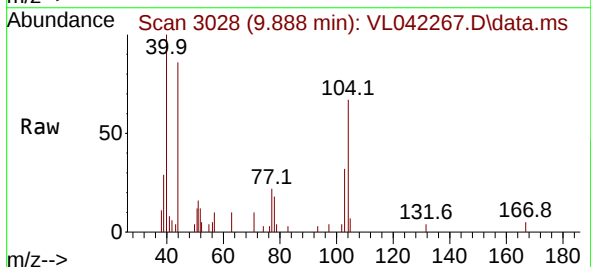
Instrument :  
MSVOA\_L  
ClientSampleId :  
SSSG-B14-2-04012025DL

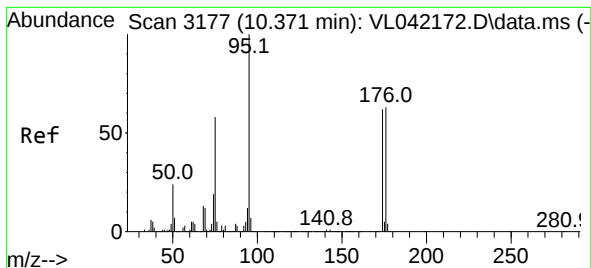
Tgt Ion: 91 Resp: 4532  
Ion Ratio Lower Upper  
91 100  
106 39.6 20.8 62.5



#61  
Styrene  
Concen: 0.048 ppbv  
RT: 9.888 min Scan# 3028  
Delta R.T. 0.022 min  
Lab File: VL042267.D  
Acq: 08 Apr 2025 16:58

Tgt Ion: 104 Resp: 1259  
Ion Ratio Lower Upper  
104 100  
78 62.4 41.8 62.6  
103 42.2 37.0 55.4





#68

1-Bromo-4-Fluorobenzene

Concen: 9.521 ppbv

RT: 10.393 min Scan# 3177

Delta R.T. 0.022 min

Lab File: VL042267.D

Acq: 08 Apr 2025 16:58

Instrument :

MSVOA\_L

ClientSampleId :

SSSG-B14-2-04012025DL

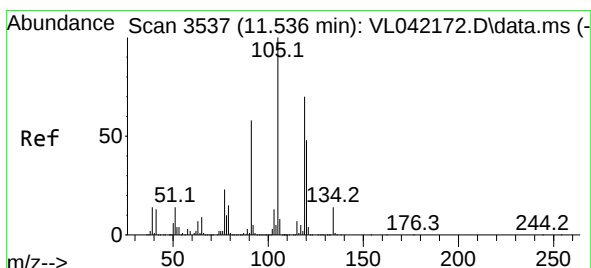
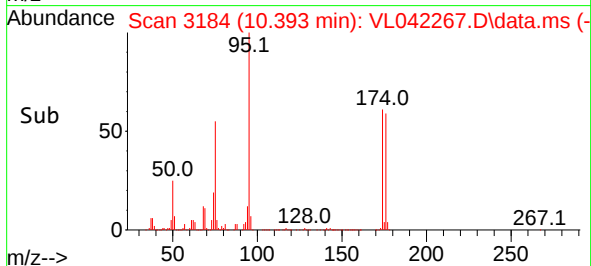
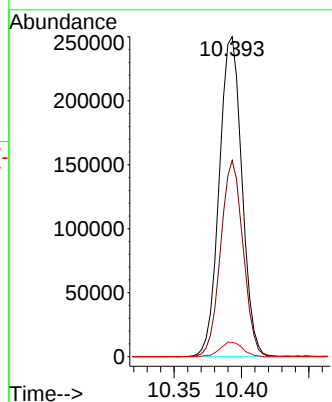
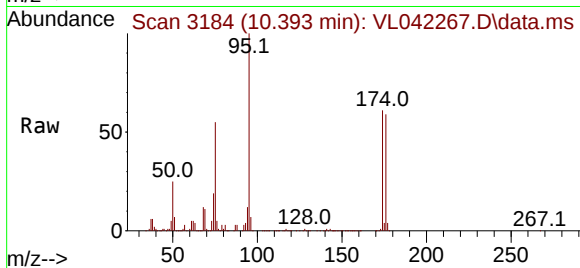
Tgt Ion: 95 Resp: 293027

Ion Ratio Lower Upper

95 100

174 60.8 50.6 76.0

175 4.6 3.8 5.6



#74

1,2,4-Trimethylbenzene

Concen: 0.039 ppbv

RT: 11.552 min Scan# 3542

Delta R.T. 0.016 min

Lab File: VL042267.D

Acq: 08 Apr 2025 16:58

Tgt Ion: 105 Resp: 2593

Ion Ratio Lower Upper

105 100

120 43.7 38.6 58.0

91 9.4 46.2 69.2#

77 19.6 18.6 27.8

