

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL112024\  
 Data File : VL041702.D  
 Acq On : 20 Nov 2024 16:34  
 Operator : SY/MD  
 Sample : P4633-01 2X  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Nov 21 05:11:25 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL110724AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Fri Nov 08 01:01:00 2024  
 Response via : Initial Calibration

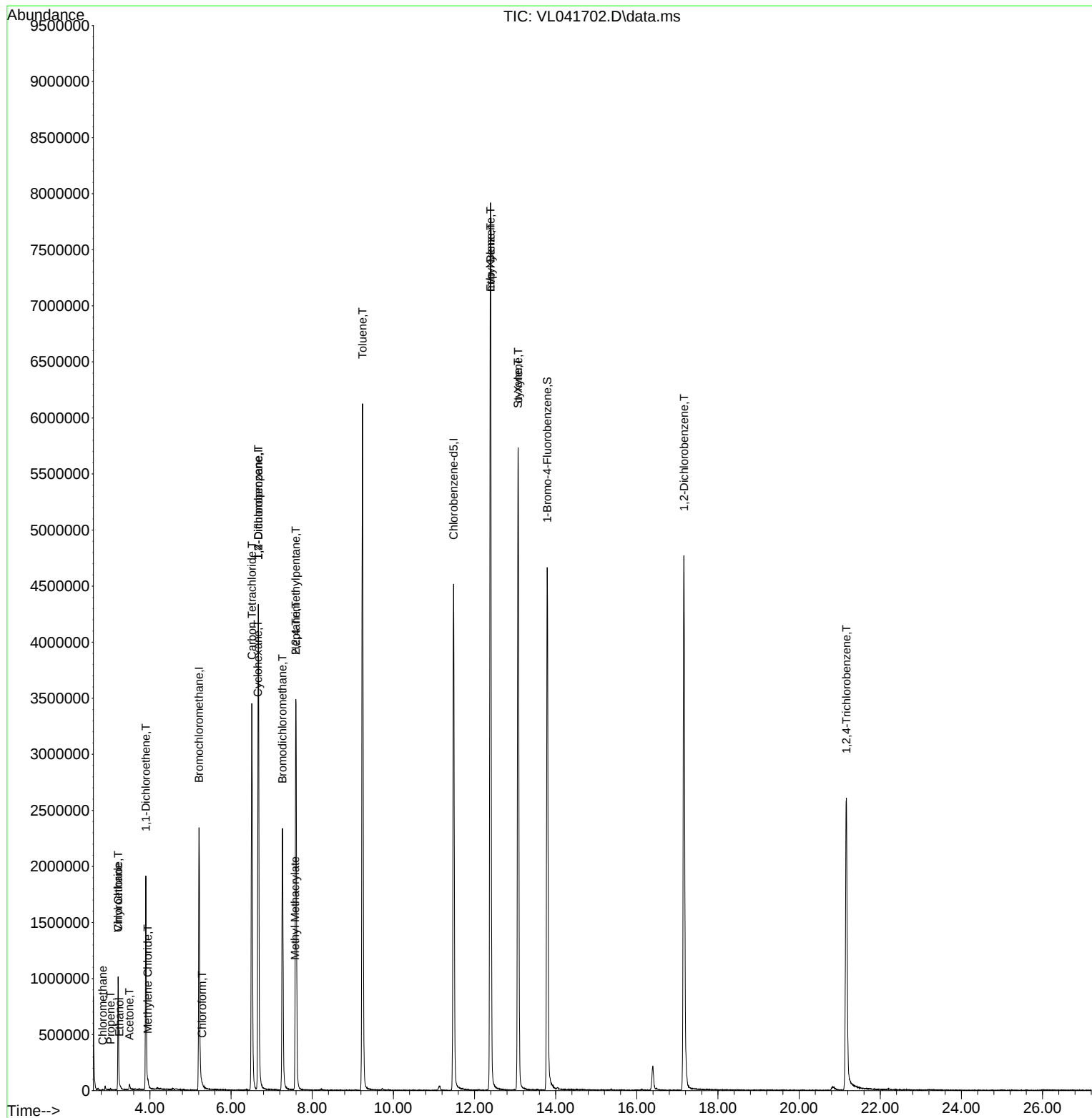
| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Bromochloromethane       | 5.211  | 49    | 1168943  | 10.000   | ppbv   | 0.02     |
| 33) 1,4-Difluorobenzene     | 6.671  | 114   | 3239599  | 10.000   | ppbv   | 0.02     |
| 55) Chlorobenzene-d5        | 11.484 | 117   | 2918692  | 10.000   | ppbv   | 0.02     |
| System Monitoring Compounds |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene | 13.793 | 95    | 2266212  | 10.538   | ppbv   | 0.02     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =      | 105.400% |
| Target Compounds            |        |       |          |          |        |          |
|                             |        |       |          |          | Qvalue |          |
| 4) Chloromethane            | 2.835  | 50    | 4001     | 0.050    | ppbv # | 71       |
| 5) Vinyl Chloride           | 3.218  | 62    | 24954    | 0.344    | ppbv # | 1        |
| 7) Chloroethane             | 3.218  | 64    | 644279   | 24.326   | ppbv   | 100      |
| 9) Propene                  | 3.031  | 41    | 2126     | 0.032    | ppbv   | 93       |
| 10) Heptane                 | 7.597  | 43    | 1652532  | 11.112   | ppbv   | 100      |
| 13) Ethanol                 | 3.247  | 45    | 168      | 0.041    | ppbv # | 40       |
| 15) Acetone                 | 3.497  | 43    | 44589    | 0.310    | ppbv # | 82       |
| 18) 1,1-Dichloroethene      | 3.899  | 96    | 536046   | 9.137    | ppbv   | 97       |
| 20) Methylene Chloride      | 3.947  | 84    | 10565    | 0.200    | ppbv # | 88       |
| 29) Chloroform              | 5.288  | 83    | 7798     | 0.041    | ppbv   | 92       |
| 30) Cyclohexane             | 6.661  | 84    | 7272     | 0.075    | ppbv # | 1        |
| 35) Carbon Tetrachloride    | 6.513  | 117   | 2140108  | 12.521   | ppbv   | 98       |
| 39) 1,2-Dichloropropane     | 6.671  | 63    | 799814   | 8.432    | ppbv # | 24       |
| 42) Bromodichloromethane    | 7.269  | 83    | 1627510  | 8.649    | ppbv   | 99       |
| 43) Methyl Methacrylate     | 7.574  | 69    | 8256     | 0.098    | ppbv # | 1        |
| 44) 2,2,4-Trimethylpentane  | 7.597  | 57    | 820939   | 2.019    | ppbv # | 1        |
| 53) Toluene                 | 9.240  | 91    | 4992967  | 19.780   | ppbv   | 99       |
| 58) Ethyl Benzene           | 12.394 | 91    | 5976912  | 18.679   | ppbv # | 64       |
| 59) m/p-Xylene              | 12.394 | 91    | 5976912  | 20.859   | ppbv   | 94       |
| 60) o-Xylene                | 13.076 | 91    | 4596380  | 16.822   | ppbv   | 99       |
| 61) Styrene                 | 13.073 | 104   | 104434   | 0.926    | ppbv # | 1        |
| 77) 1,2-Dichlorobenzene     | 17.162 | 146   | 2754177  | 13.864   | ppbv   | 100      |
| 81) 1,2,4-Trichlorobenzene  | 21.165 | 180   | 1218241  | 9.693    | ppbv   | 96       |
| -----                       |        |       |          |          |        |          |

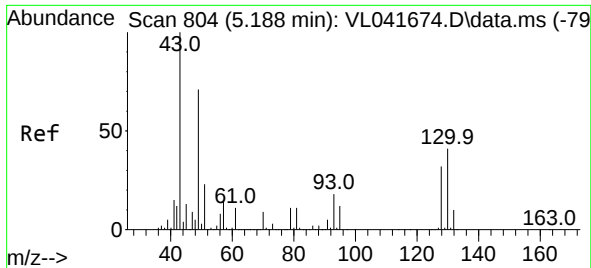
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL112024\  
Data File : VL041702.D  
Acq On : 20 Nov 2024 16:34  
Operator : SY/MD  
Sample : P4633-01 2X  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :

Quant Time: Nov 21 05:11:25 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL110724AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Fri Nov 08 01:01:00 2024  
Response via : Initial Calibration

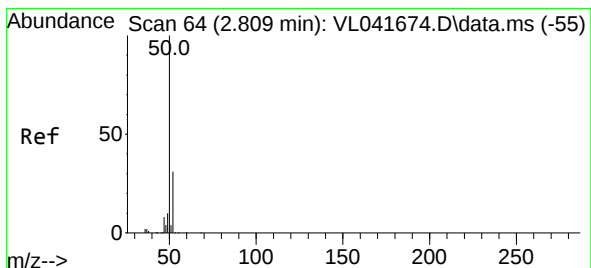
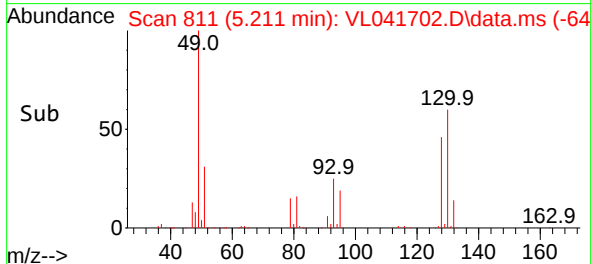
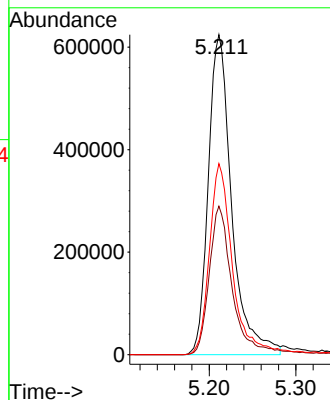
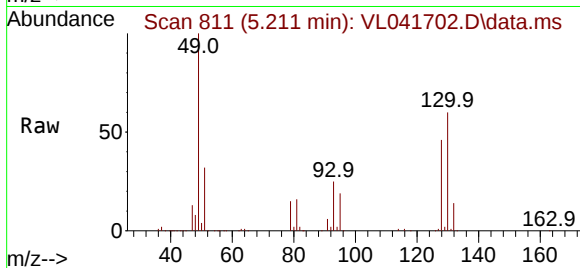




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.211 min Scan# 81  
Delta R.T. 0.023 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

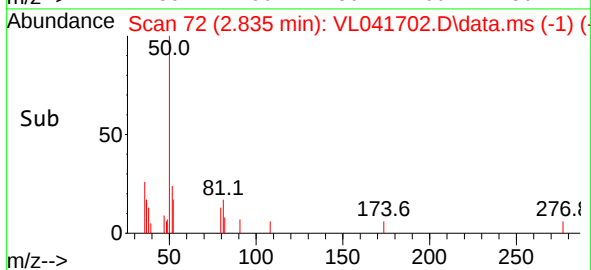
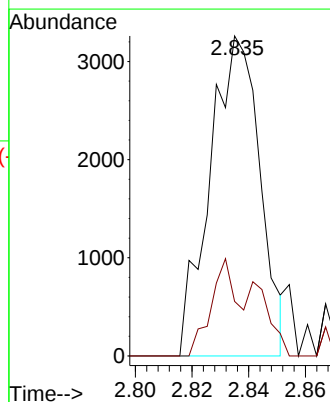
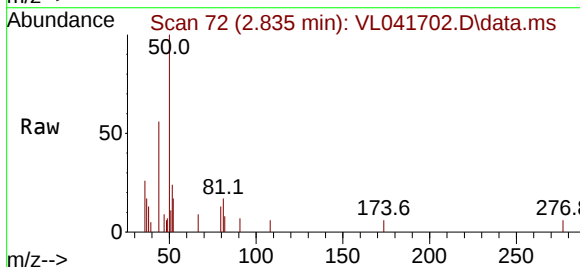
Instrument :  
MSVOA\_L  
ClientSampleId :

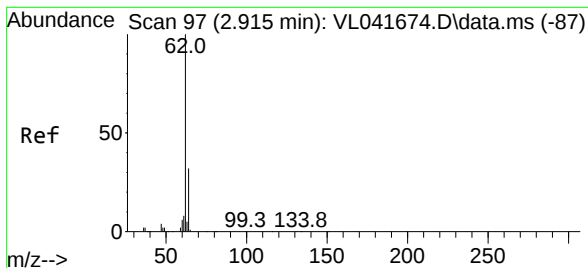
Tgt Ion: 49 Resp: 1168943  
Ion Ratio Lower Upper  
49 100  
128 47.6 23.8 71.2  
130 61.3 30.1 90.5



#4  
Chloromethane  
Concen: 0.050 ppbv  
RT: 2.835 min Scan# 72  
Delta R.T. 0.026 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

Tgt Ion: 50 Resp: 4001  
Ion Ratio Lower Upper  
50 100  
52 15.4 24.9 37.3#

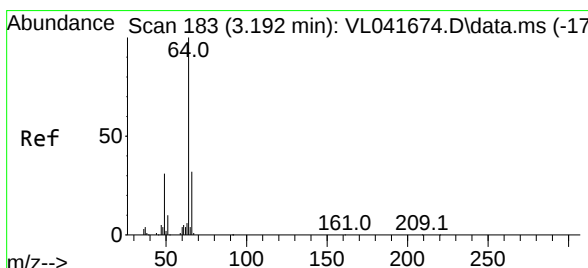
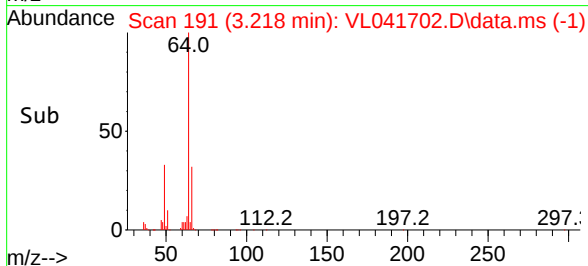
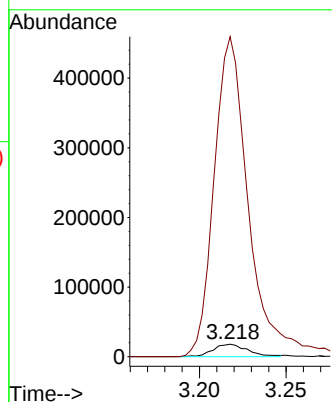
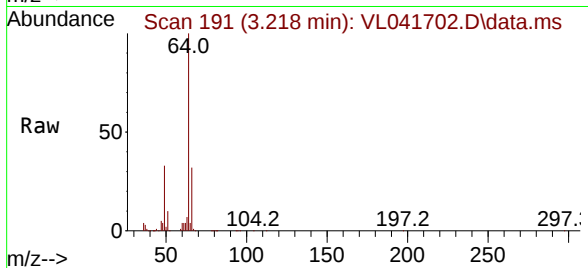




#5  
 Vinyl Chloride  
 Concen: 0.344 ppbv  
 RT: 3.218 min Scan# 191  
 Delta R.T. 0.302 min  
 Lab File: VL041702.D  
 Acq: 20 Nov 2024 16:34

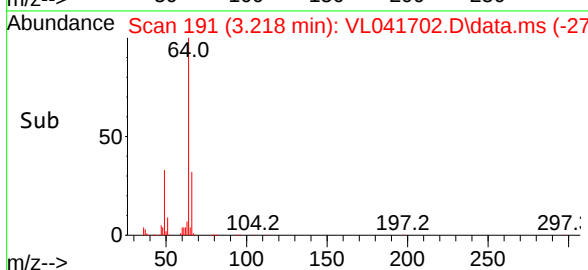
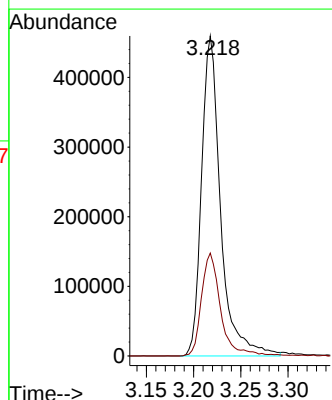
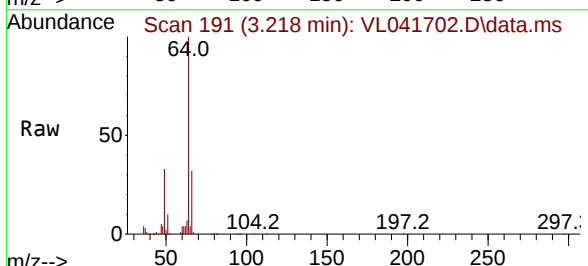
Instrument :  
 MSVOA\_L  
 ClientSampleId :

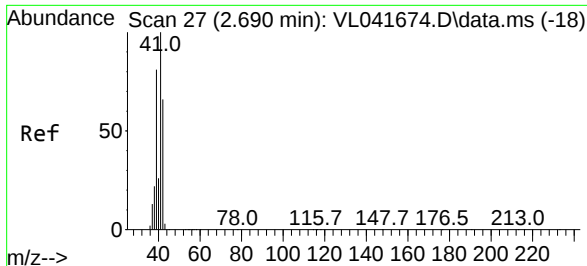
Tgt Ion: 62 Resp: 24954  
 Ion Ratio Lower Upper  
 62 100  
 64 2546.8 25.4 38.2#



#7  
 Chloroethane  
 Concen: 24.326 ppbv  
 RT: 3.218 min Scan# 191  
 Delta R.T. 0.026 min  
 Lab File: VL041702.D  
 Acq: 20 Nov 2024 16:34

Tgt Ion: 64 Resp: 644279  
 Ion Ratio Lower Upper  
 64 100  
 66 32.2 25.9 38.9

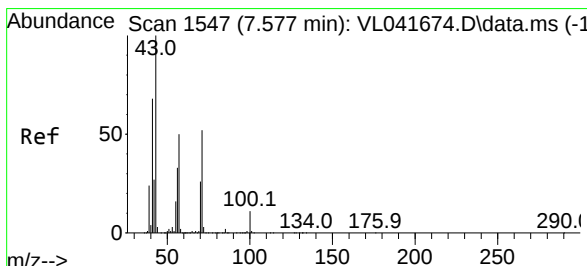
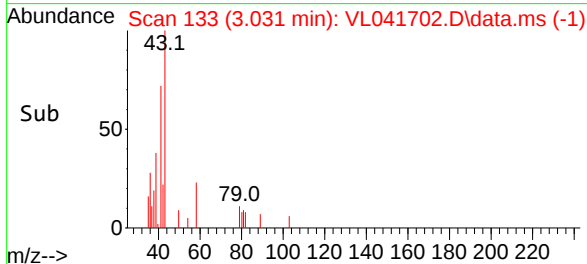
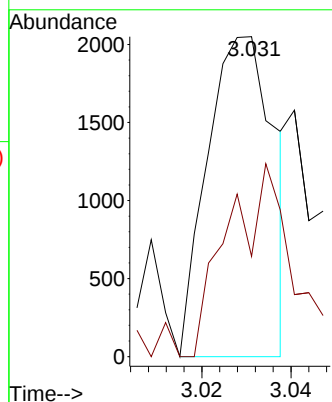
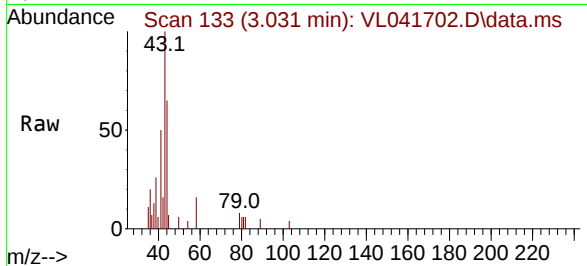




#9  
Propene  
Concen: 0.032 ppbv  
RT: 3.031 min Scan# 11  
Delta R.T. 0.341 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

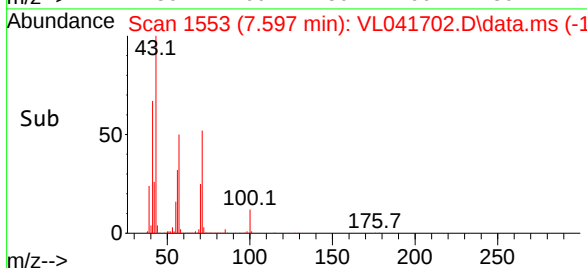
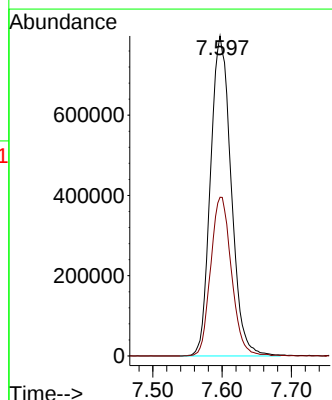
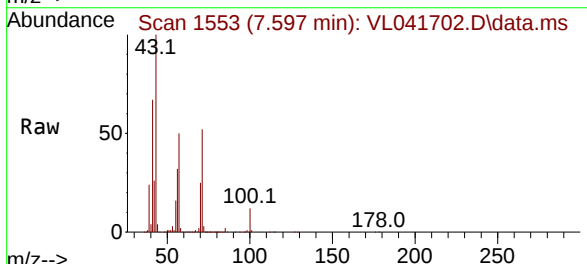
Instrument :  
MSVOA\_L  
ClientSampleId :

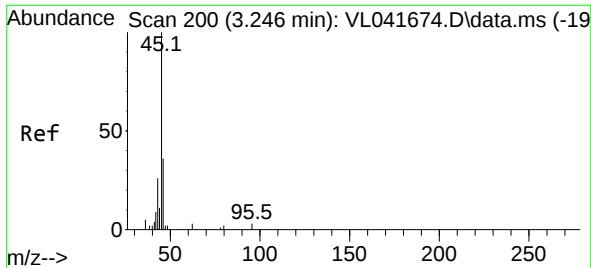
Tgt Ion: 41 Resp: 2126  
Ion Ratio Lower Upper  
41 100  
42 74.2 55.0 82.4



#10  
Heptane  
Concen: 11.112 ppbv  
RT: 7.597 min Scan# 1553  
Delta R.T. 0.019 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

Tgt Ion: 43 Resp: 1652532  
Ion Ratio Lower Upper  
43 100  
57 50.0 40.0 60.0

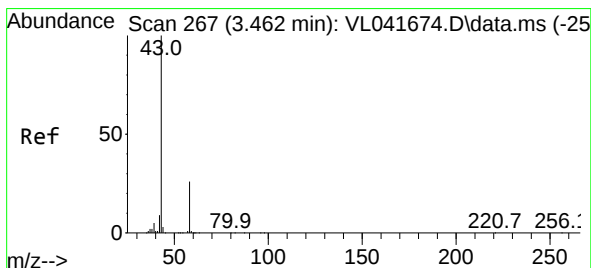
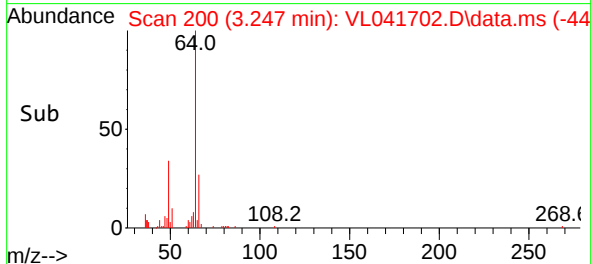
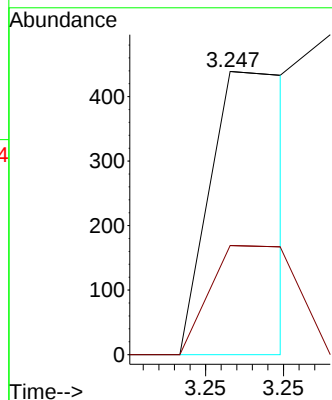
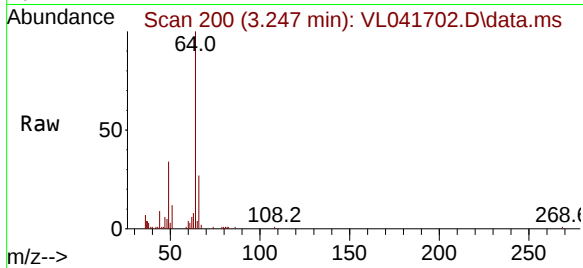




#13  
Ethanol  
Concen: 0.041 ppbv  
RT: 3.247 min Scan# 20  
Delta R.T. 0.000 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

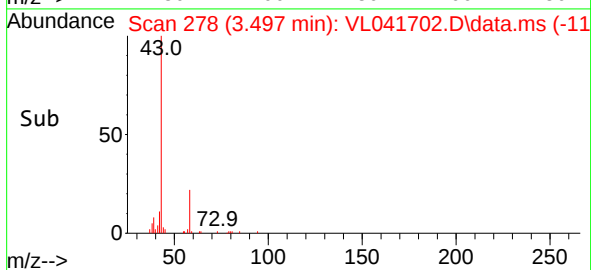
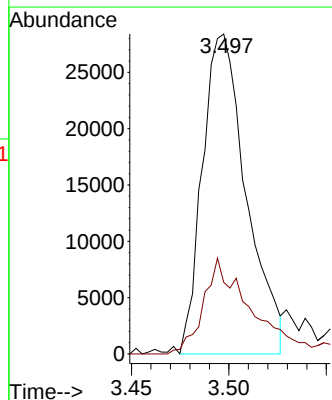
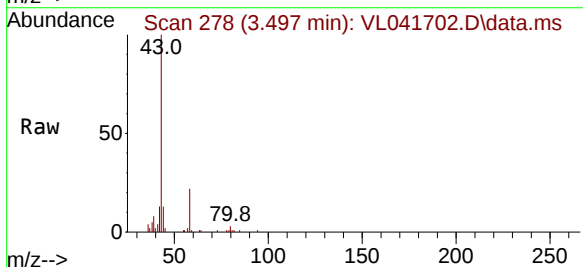
Instrument :  
MSVOA\_L  
ClientSampleId :

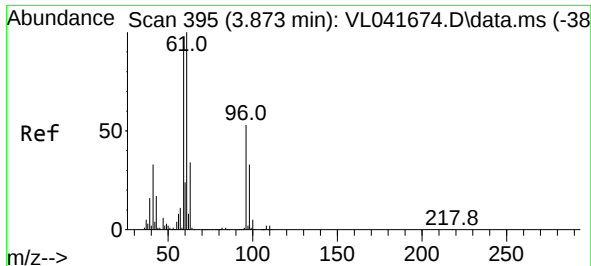
Tgt Ion: 45 Resp: 168  
Ion Ratio Lower Upper  
45 100  
46 0.0 13.8 55.2#



#15  
Acetone  
Concen: 0.310 ppbv  
RT: 3.497 min Scan# 278  
Delta R.T. 0.036 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

Tgt Ion: 43 Resp: 44589  
Ion Ratio Lower Upper  
43 100  
58 35.9 21.4 32.0#





#18

1,1-Dichloroethene

Concen: 9.137 ppbv

RT: 3.899 min Scan# 403

Delta R.T. 0.026 min

Lab File: VL041702.D

Acq: 20 Nov 2024 16:34

Instrument :

MSVOA\_L

ClientSampleId :

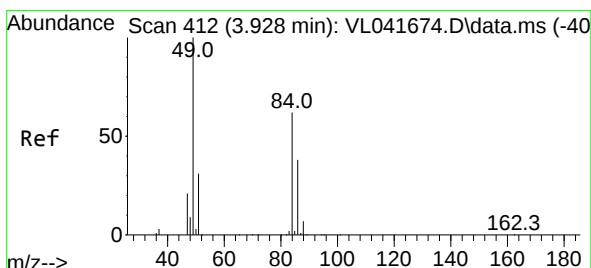
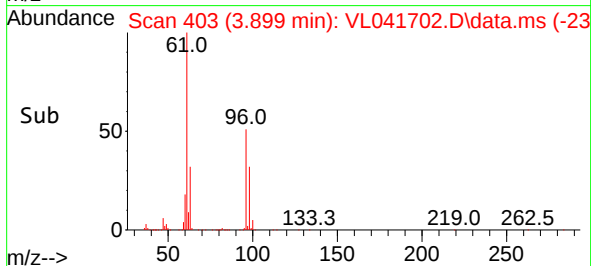
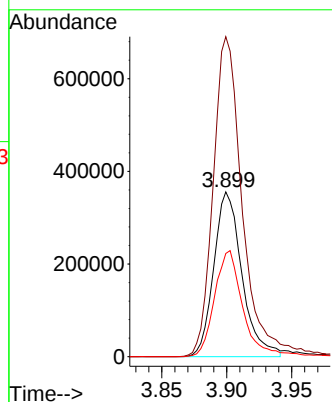
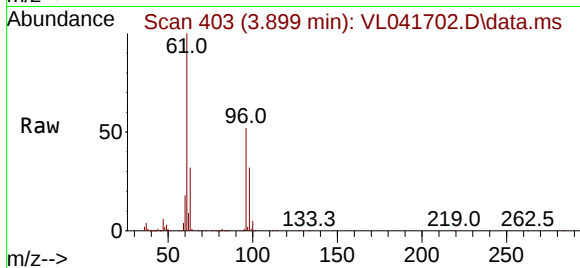
Tgt Ion: 96 Resp: 536046

Ion Ratio Lower Upper

96 100

61 194.1 150.7 226.1

98 62.7 49.4 74.2



#20

Methylene Chloride

Concen: 0.200 ppbv

RT: 3.947 min Scan# 418

Delta R.T. 0.019 min

Lab File: VL041702.D

Acq: 20 Nov 2024 16:34

Tgt Ion: 84 Resp: 10565

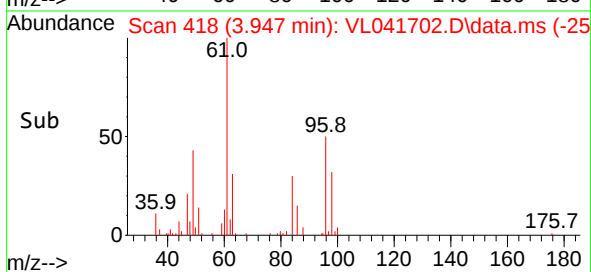
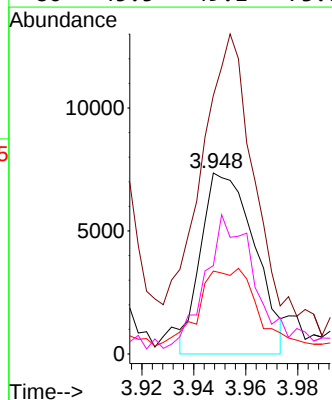
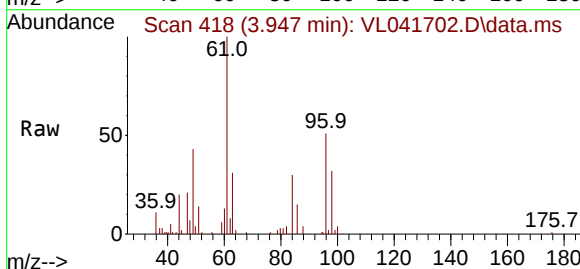
Ion Ratio Lower Upper

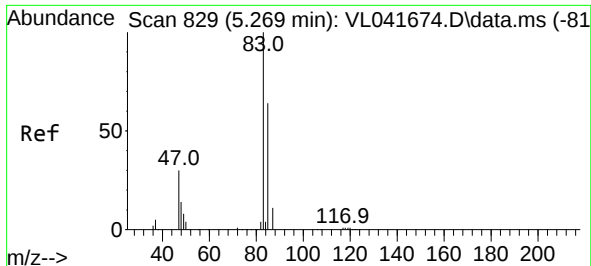
84 100

49 150.9 129.7 194.5

51 39.5 39.8 59.6#

86 45.5 49.1 73.7#





#29

Chloroform

Concen: 0.041 ppbv

RT: 5.288 min Scan# 81

Delta R.T. 0.019 min

Lab File: VL041702.D

Acq: 20 Nov 2024 16:34

Instrument :

MSVOA\_L

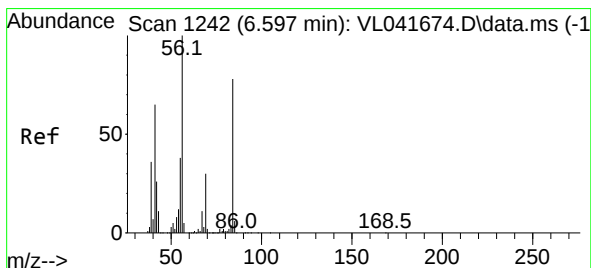
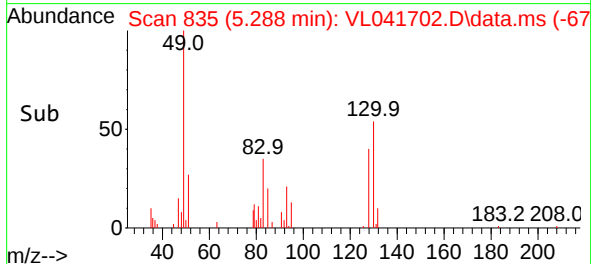
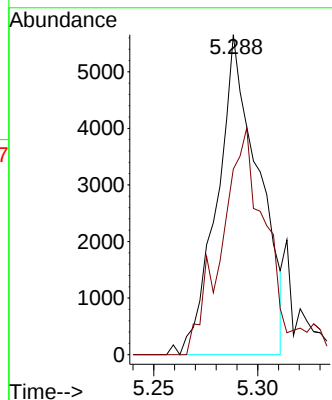
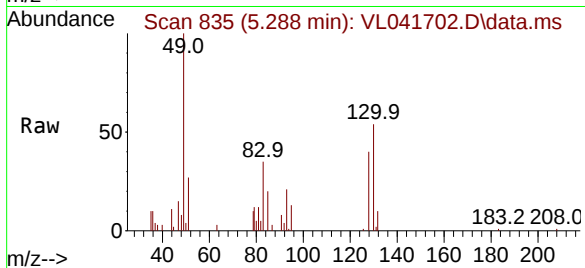
ClientSampleId :

Tgt Ion: 83 Resp: 7798

Ion Ratio Lower Upper

83 100

85 58.0 51.1 76.7



#30

Cyclohexane

Concen: 0.075 ppbv

RT: 6.661 min Scan# 1262

Delta R.T. 0.064 min

Lab File: VL041702.D

Acq: 20 Nov 2024 16:34

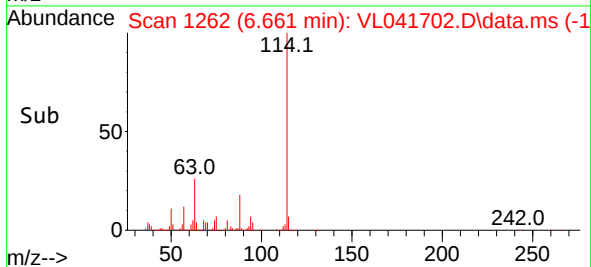
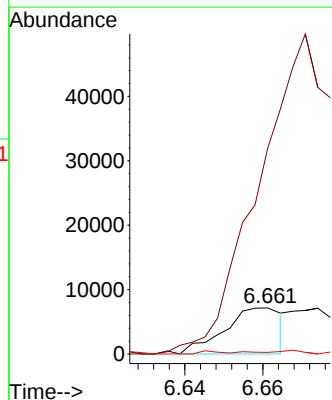
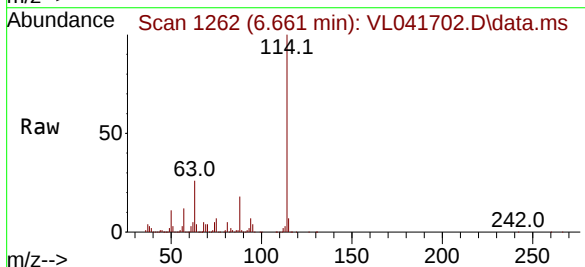
Tgt Ion: 84 Resp: 7272

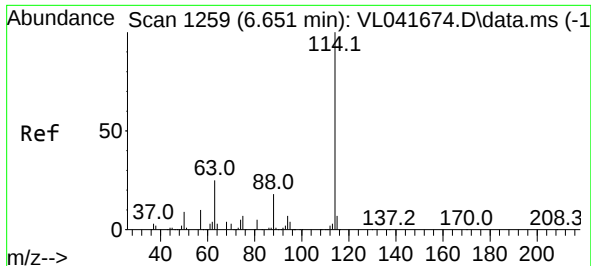
Ion Ratio Lower Upper

84 100

56 1216.7 110.8 166.2#

41 11.3 70.0 105.0#

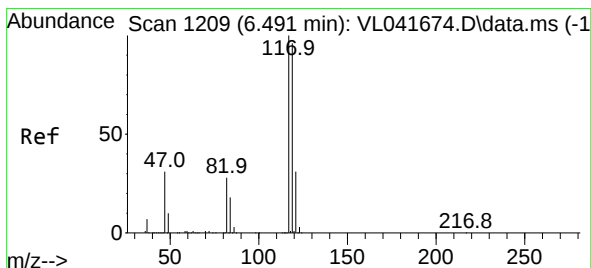
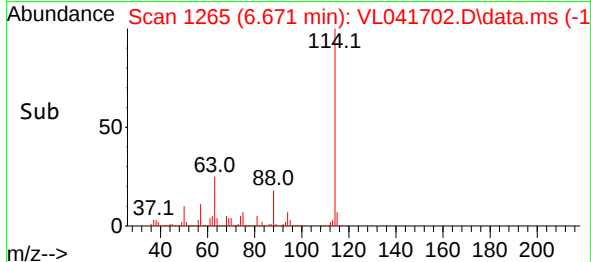
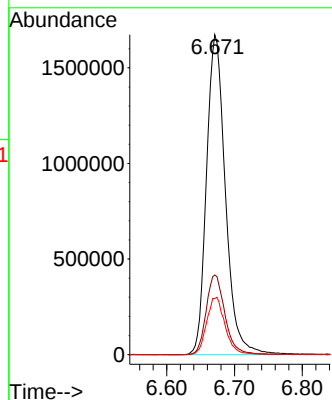
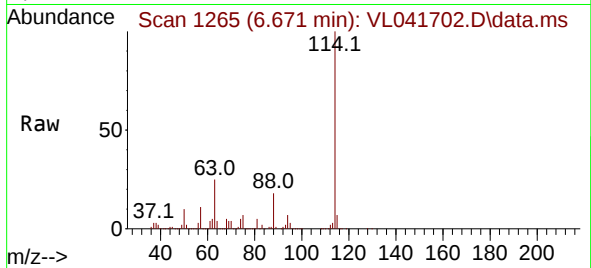




#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 6.671 min Scan# 11  
 Delta R.T. 0.019 min  
 Lab File: VL041702.D  
 Acq: 20 Nov 2024 16:34

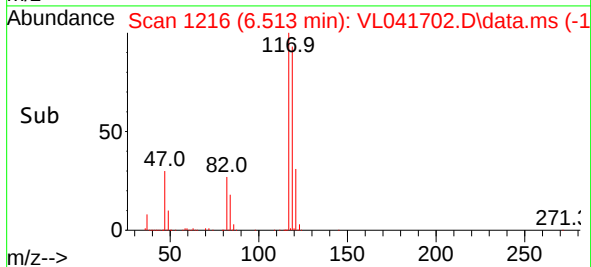
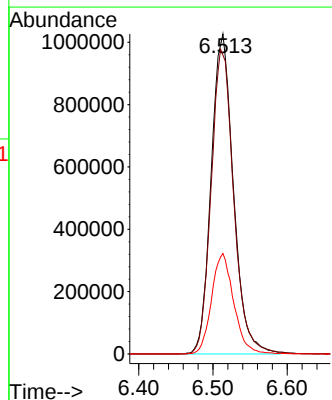
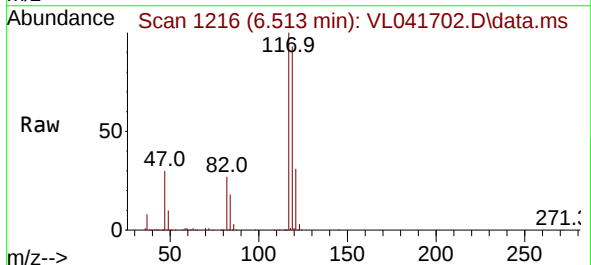
Instrument :  
 MSVOA\_L  
 ClientSampleId :

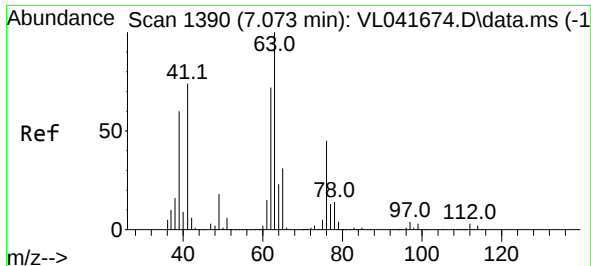
Tgt Ion:114 Resp: 3239599  
 Ion Ratio Lower Upper  
 114 100  
 63 25.0 20.3 30.5  
 88 17.6 14.2 21.4



#35  
 Carbon Tetrachloride  
 Concen: 12.521 ppbv  
 RT: 6.513 min Scan# 1216  
 Delta R.T. 0.023 min  
 Lab File: VL041702.D  
 Acq: 20 Nov 2024 16:34

Tgt Ion:117 Resp: 2140108  
 Ion Ratio Lower Upper  
 117 100  
 119 93.4 77.2 115.8  
 121 31.4 25.0 37.4





#39

1,2-Dichloropropane

Concen: 8.432 ppbv

RT: 6.671 min Scan# 1451

Delta R.T. -0.402 min

Lab File: VL041702.D

Acq: 20 Nov 2024 16:34

Instrument :

MSVOA\_L

ClientSampleId :

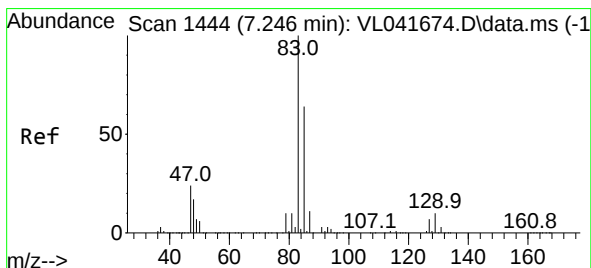
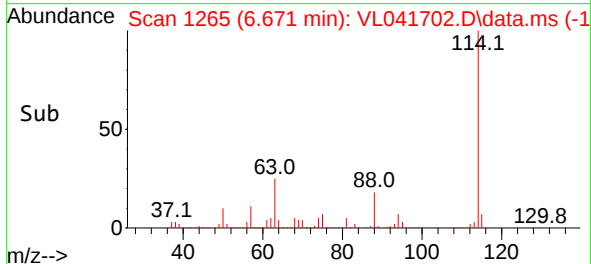
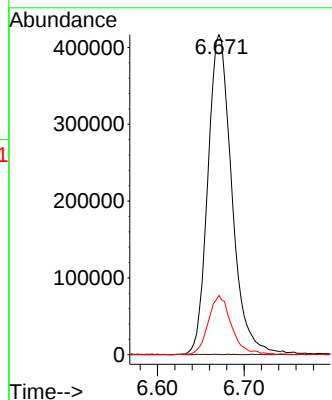
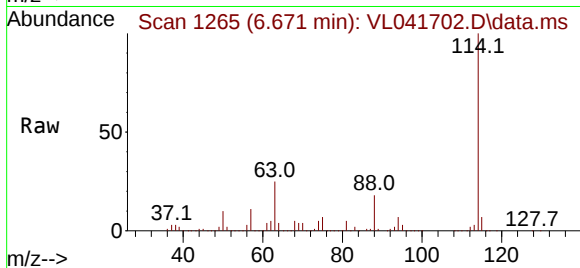
Tgt Ion: 63 Resp: 799814

Ion Ratio Lower Upper

63 100

41 0.0 59.1 88.7#

62 18.5 57.7 86.5#



#42

Bromodichloromethane

Concen: 8.649 ppbv

RT: 7.269 min Scan# 1451

Delta R.T. 0.023 min

Lab File: VL041702.D

Acq: 20 Nov 2024 16:34

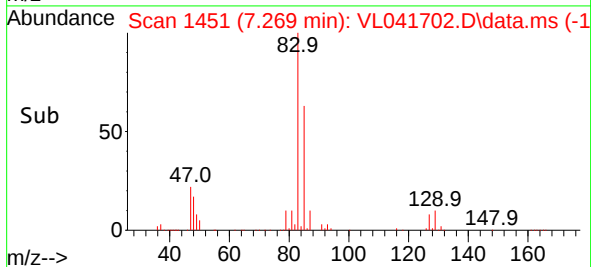
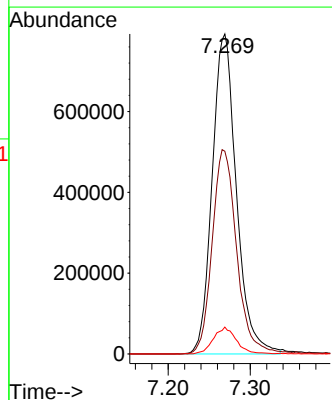
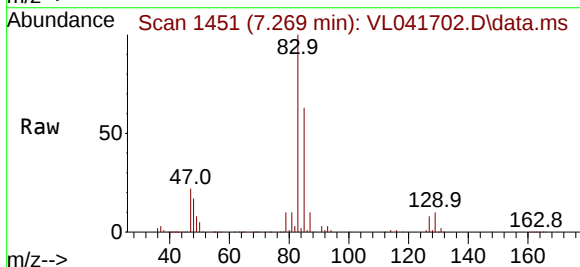
Tgt Ion: 83 Resp: 1627510

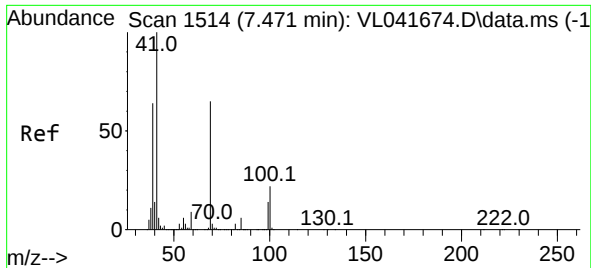
Ion Ratio Lower Upper

83 100

85 63.4 51.2 76.8

127 8.4 6.0 9.0

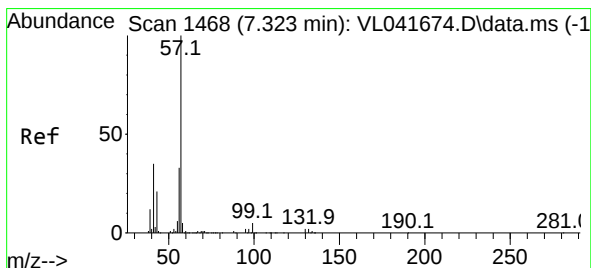
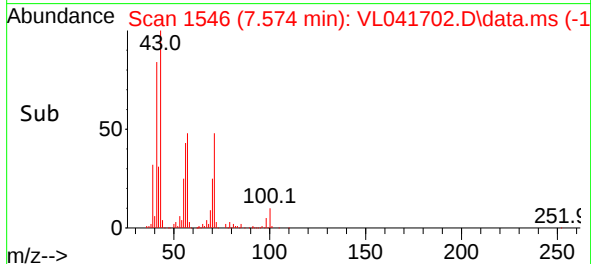
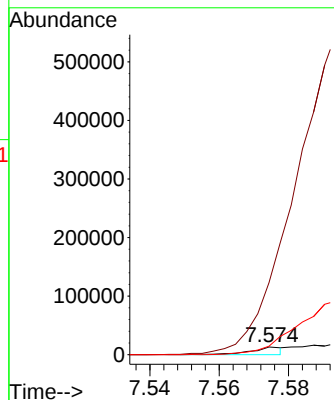
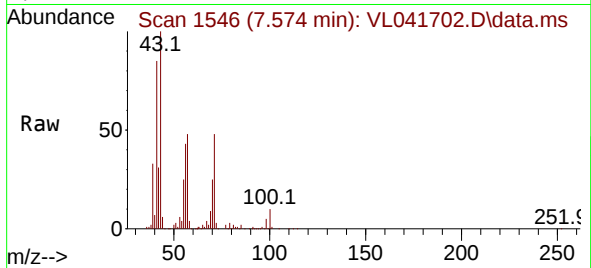




#43  
Methyl Methacrylate  
Concen: 0.098 ppbv  
RT: 7.574 min Scan# 1546  
Delta R.T. 0.103 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

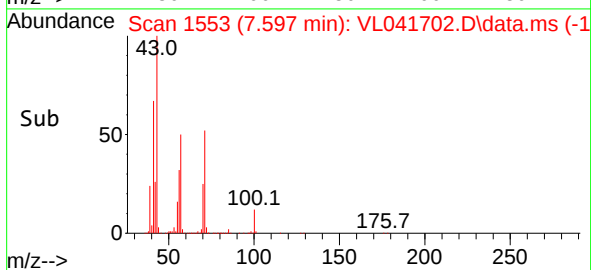
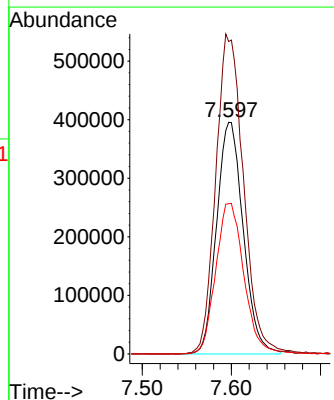
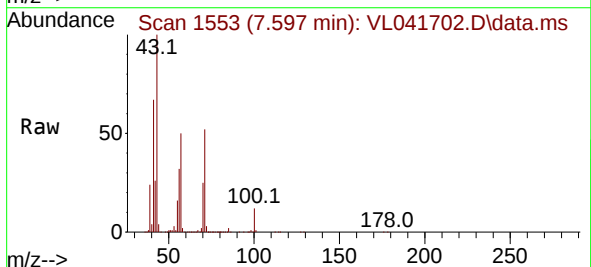
Instrument :  
MSVOA\_L  
ClientSampleId :

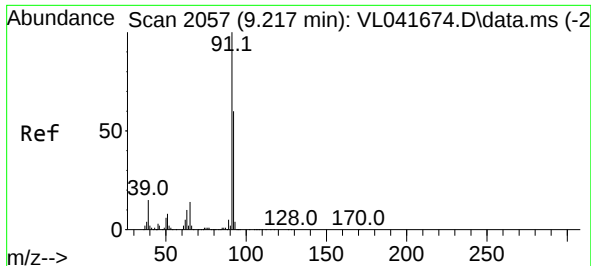
Tgt Ion: 69 Resp: 8256  
Ion Ratio Lower Upper  
69 100  
41 0.0 119.8 179.6#  
100 0.0 27.3 40.9#



#44  
2,2,4-Trimethylpentane  
Concen: 2.019 ppbv  
RT: 7.597 min Scan# 1553  
Delta R.T. 0.273 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

Tgt Ion: 57 Resp: 820939  
Ion Ratio Lower Upper  
57 100  
41 144.6 27.0 40.6#  
56 69.1 25.8 38.6#

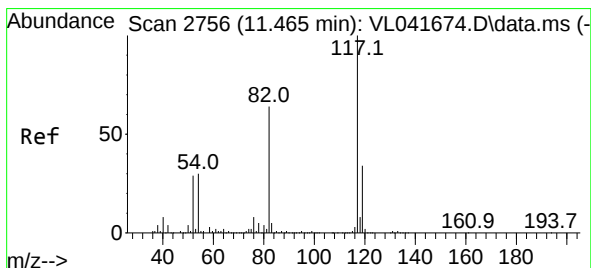
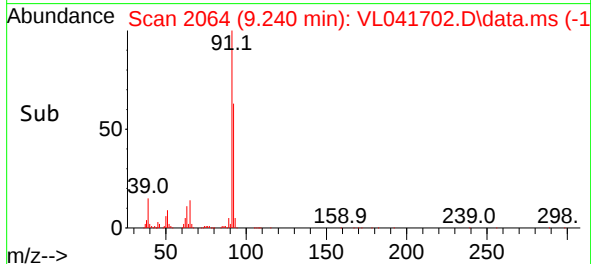
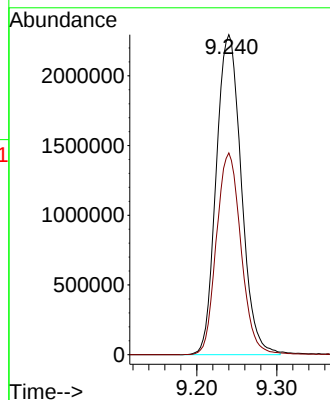
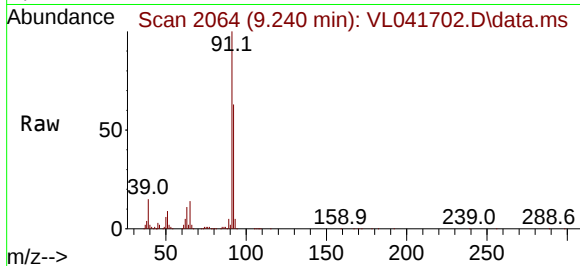




#53  
Toluene  
Concen: 19.780 ppbv  
RT: 9.240 min Scan# 2057  
Delta R.T. 0.023 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

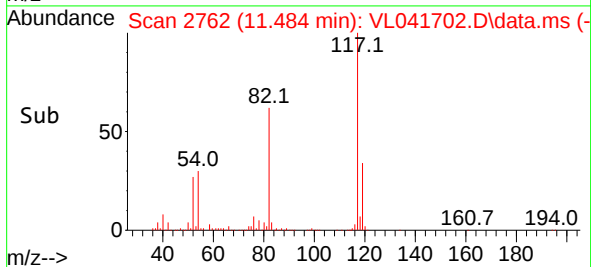
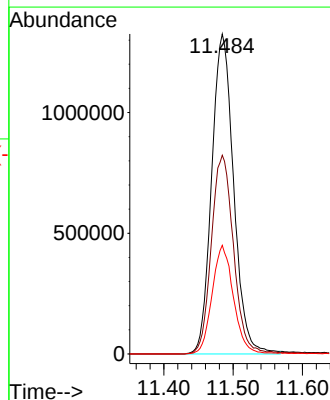
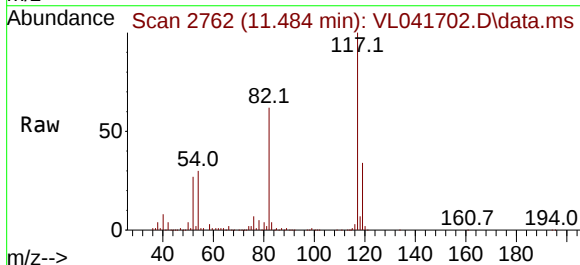
Instrument :  
MSVOA\_L  
ClientSampleId :

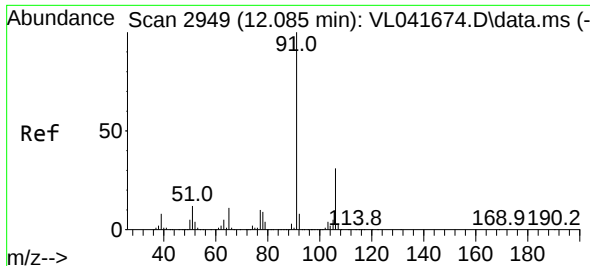
Tgt Ion: 91 Resp: 4992967  
Ion Ratio Lower Upper  
91 100  
92 62.1 49.0 73.4



#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 11.484 min Scan# 2762  
Delta R.T. 0.019 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

Tgt Ion: 117 Resp: 2918692  
Ion Ratio Lower Upper  
117 100  
82 63.1 49.8 74.8  
119 33.3 24.2 36.4

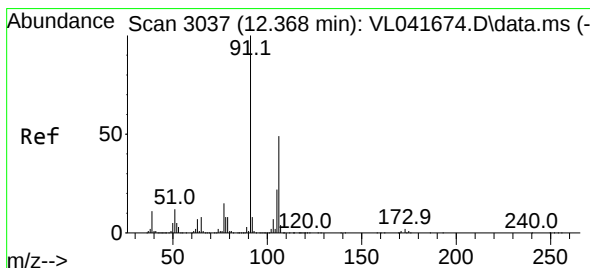
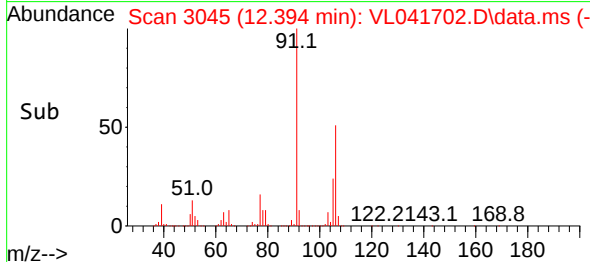
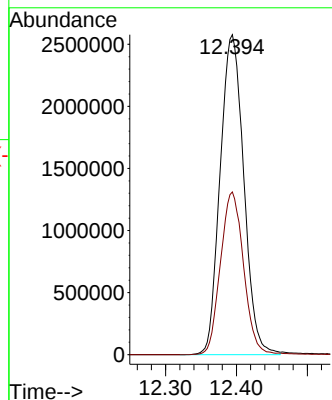
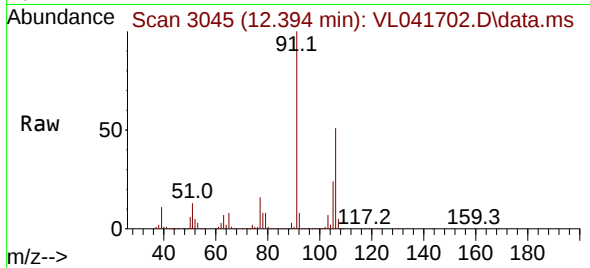




#58  
Ethyl Benzene  
Concen: 18.679 ppbv  
RT: 12.394 min Scan# 3045  
Delta R.T. 0.309 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

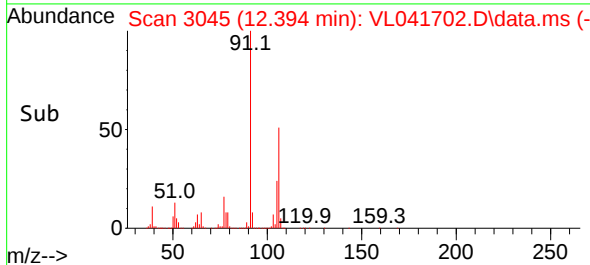
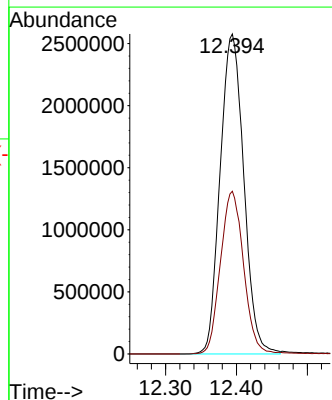
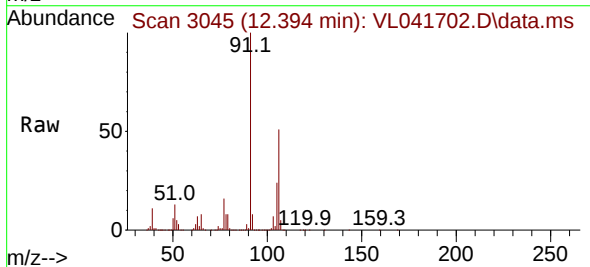
Instrument :  
MSVOA\_L  
ClientSampleId :

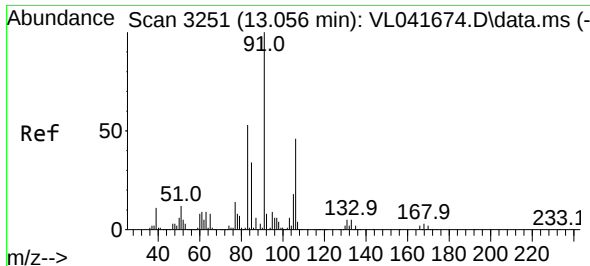
Tgt Ion: 91 Resp: 5976912  
Ion Ratio Lower Upper  
91 100  
106 50.9 24.9 37.3#



#59  
m/p-Xylene  
Concen: 20.859 ppbv  
RT: 12.394 min Scan# 3045  
Delta R.T. 0.026 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

Tgt Ion: 91 Resp: 5976912  
Ion Ratio Lower Upper  
91 100  
106 50.0 36.9 55.3

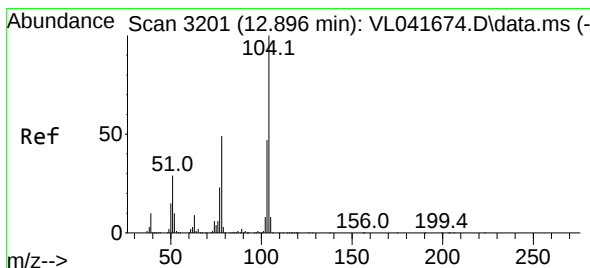
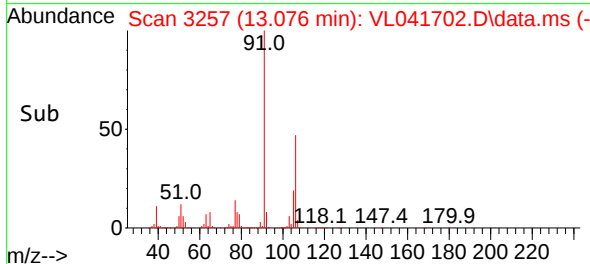
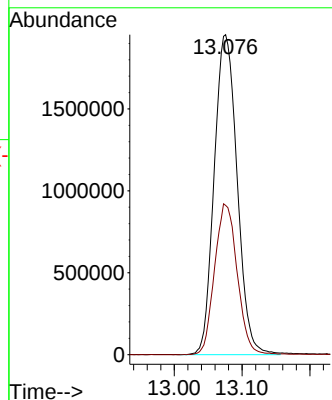
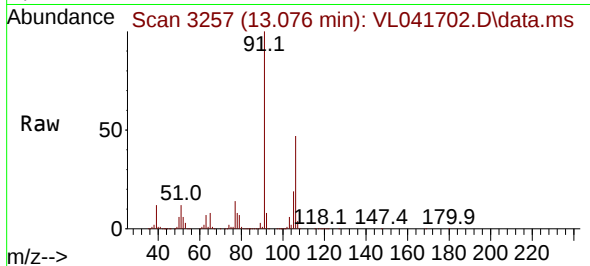




#60  
o-Xylene  
Concen: 16.822 ppbv  
RT: 13.076 min Scan# 31  
Delta R.T. 0.019 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

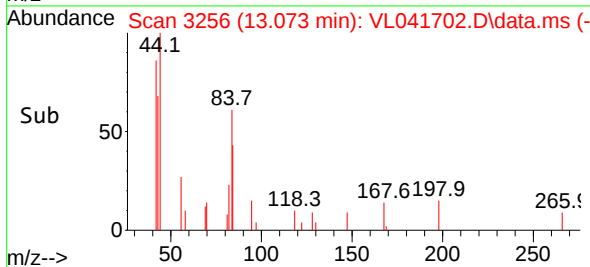
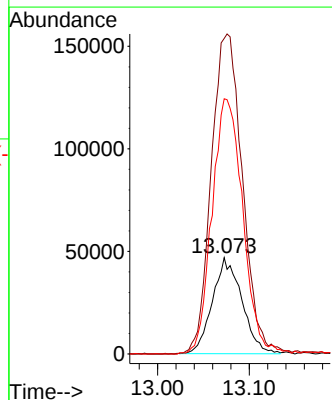
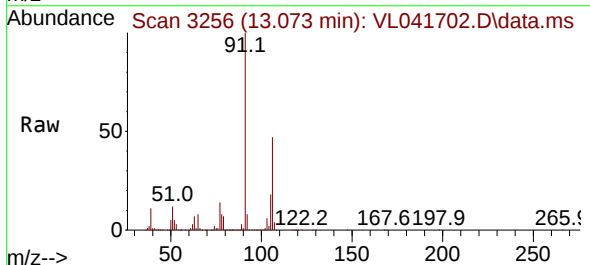
Instrument :  
MSVOA\_L  
ClientSampleId :

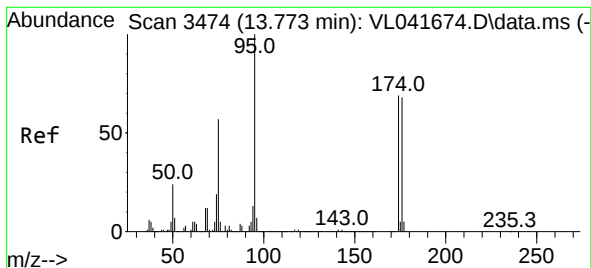
Tgt Ion: 91 Resp: 4596380  
Ion Ratio Lower Upper  
91 100  
106 46.8 23.2 69.6



#61  
Styrene  
Concen: 0.926 ppbv  
RT: 13.073 min Scan# 3256  
Delta R.T. 0.177 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

Tgt Ion:104 Resp: 104434  
Ion Ratio Lower Upper  
104 100  
78 355.8 39.8 59.8#  
103 279.9 37.4 56.0#

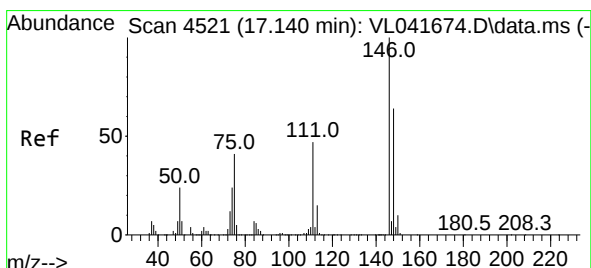
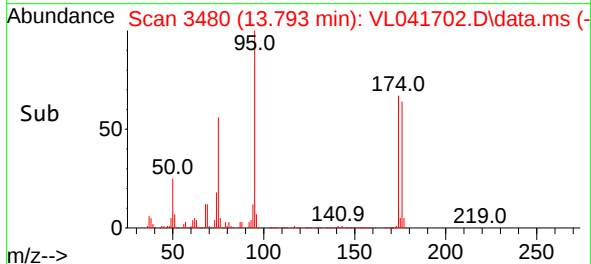
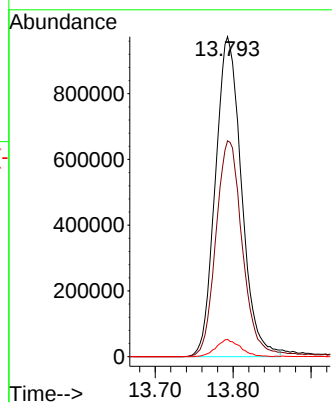
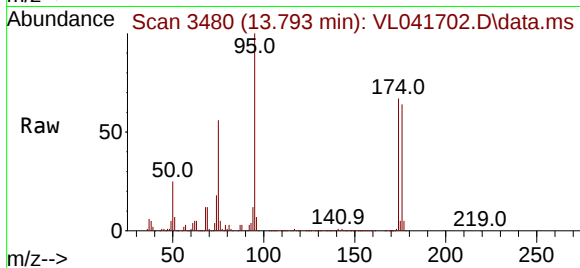




#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.538 ppbv  
RT: 13.793 min Scan# 3474  
Delta R.T. 0.019 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

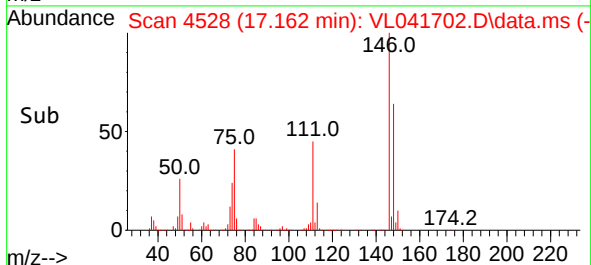
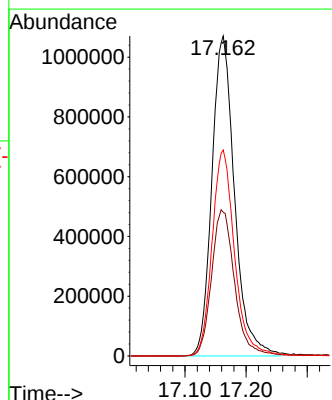
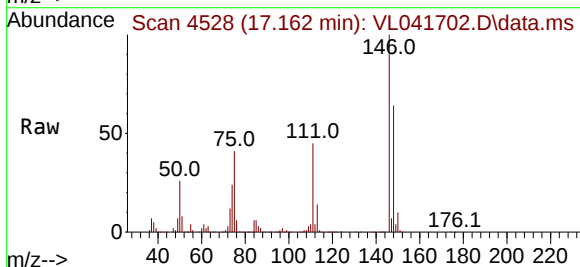
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ClientSampleId :

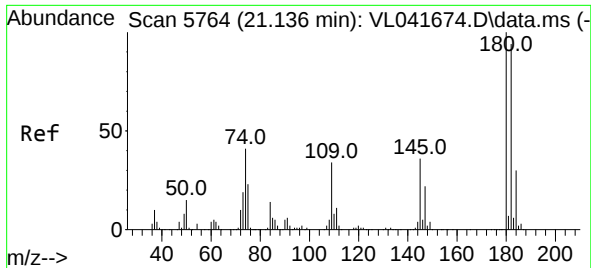
Tgt Ion: 95 Resp: 2266212  
Ion Ratio Lower Upper  
95 100  
174 69.9 55.6 83.4  
175 5.2 4.2 6.2



#77  
1,2-Dichlorobenzene  
Concen: 13.864 ppbv  
RT: 17.162 min Scan# 4528  
Delta R.T. 0.023 min  
Lab File: VL041702.D  
Acq: 20 Nov 2024 16:34

Tgt Ion: 146 Resp: 2754177  
Ion Ratio Lower Upper  
146 100  
111 46.6 23.4 70.3  
148 64.0 32.1 96.5





#81

1,2,4-Trichlorobenzene

Concen: 9.693 ppbv

RT: 21.165 min Scan# 51

Delta R.T. 0.029 min

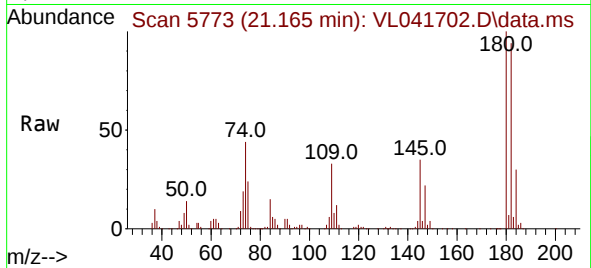
Lab File: VL041702.D

Acq: 20 Nov 2024 16:34

Instrument :

MSVOA\_L

ClientSampleId :



Tgt Ion:180 Resp: 1218241

Ion Ratio Lower Upper

180 100

182 102.1 78.2 117.2

184 32.8 25.0 37.4

