

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL052925\  
 Data File : VL042593.D  
 Acq On : 29 May 2025 19:32  
 Operator : SY/MD  
 Sample : Q2124-02DL 20X  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV2DL

Quant Time: May 30 02:13:13 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL052925AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Fri May 30 02:01:56 2025  
 Response via : Initial Calibration

| Compound                | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|-------|----------|
| -----                   |       |      |          |        |       |          |
| Internal Standards      |       |      |          |        |       |          |
| 1) Bromochloromethane   | 2.797 | 49   | 107351   | 10.000 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 3.972 | 114  | 309485   | 10.000 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 8.895 | 117  | 273119   | 10.000 | ppbv  | 0.00     |

|                             |        |       |          |          |      |          |
|-----------------------------|--------|-------|----------|----------|------|----------|
| System Monitoring Compounds |        |       |          |          |      |          |
| 68) 1-Bromo-4-Fluorobenzene | 10.387 | 95    | 204804   | 10.003   | ppbv | 0.00     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.000% |

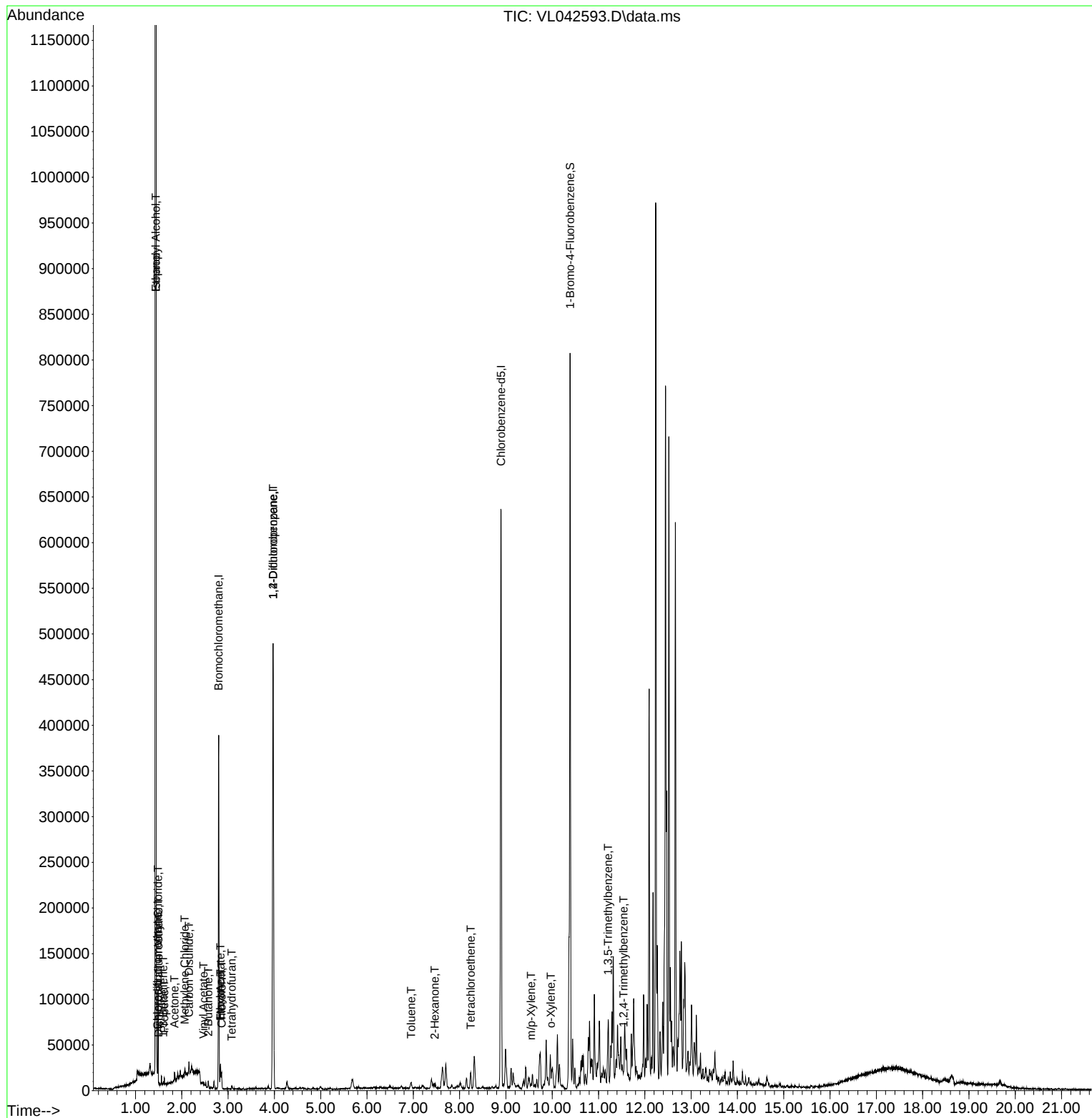
| Target Compounds             | R.T.   | QIon | Response | Conc   | Units  | Qvalue |
|------------------------------|--------|------|----------|--------|--------|--------|
| 3) Chlorodifluoromethane     | 1.476  | 51   | 1059     | 0.058  | ppbv   | 99     |
| 5) Vinyl Chloride            | 1.486  | 62   | 1870     | 0.351  | ppbv # | 44     |
| 8) Dichlorotetrafluoroethane | 1.499  | 85   | 354      | 0.032  | ppbv # | 29     |
| 9) Propene                   | 1.622  | 41   | 925      | 0.126  | ppbv   | 95     |
| 13) Ethanol                  | 1.441  | 45   | 71764    | 82.290 | ppbv # | 39     |
| 15) Acetone                  | 1.842  | 43   | 4823     | 0.373  | ppbv   | 95     |
| 16) 1,3-Butadiene            | 1.603  | 39   | 439      | 0.072  | ppbv # | 32     |
| 19) Isopropyl Alcohol        | 1.441  | 45   | 71764    | 9.284  | ppbv # | 39     |
| 20) Methylene Chloride       | 2.065  | 84   | 1149     | 0.269  | ppbv # | 87     |
| 23) Vinyl Acetate            | 2.473  | 43   | 532      | 0.030  | ppbv # | 1      |
| 25) Ethyl Acetate            | 2.833  | 43   | 4881     | 0.138  | ppbv # | 77     |
| 26) Hexane                   | 2.836  | 57   | 7026     | 0.437  | ppbv # | 42     |
| 27) Carbon Disulfide         | 2.156  | 76   | 7589     | 0.615  | ppbv # | 1      |
| 29) Chloroform               | 2.862  | 83   | 6940     | 0.332  | ppbv # | 82     |
| 34) 2-Butanone               | 2.570  | 43   | 4804     | 0.218  | ppbv   | 100    |
| 39) 1,2-Dichloropropane      | 3.972  | 63   | 73827    | 6.551  | ppbv # | 22     |
| 41) Tetrahydrofuran          | 3.079  | 42   | 1094     | 0.085  | ppbv # | 77     |
| 51) 2-Hexanone               | 7.461  | 43   | 1583     | 0.065  | ppbv # | 28     |
| 52) Tetrachloroethene        | 8.241  | 164  | 1752     | 0.154  | ppbv # | 75     |
| 53) Toluene                  | 6.953  | 91   | 3039     | 0.086  | ppbv # | 58     |
| 59) m/p-Xylene               | 9.545  | 91   | 2112     | 0.058  | ppbv # | 69     |
| 60) o-Xylene                 | 9.973  | 91   | 1288     | 0.035  | ppbv   | 83     |
| 73) 1,3,5-Trimethylbenzene   | 11.209 | 105  | 1235     | 0.033  | ppbv # | 60     |
| 74) 1,2,4-Trimethylbenzene   | 11.542 | 105  | 3181     | 0.076  | ppbv # | 73     |

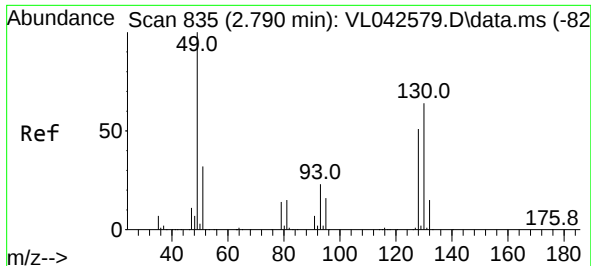
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL052925\  
Data File : VL042593.D  
Acq On : 29 May 2025 19:32  
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Sample : Q2124-02DL 20X  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
SV2DL

Quant Time: May 30 02:13:13 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL052925AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Fri May 30 02:01:56 2025  
Response via : Initial Calibration

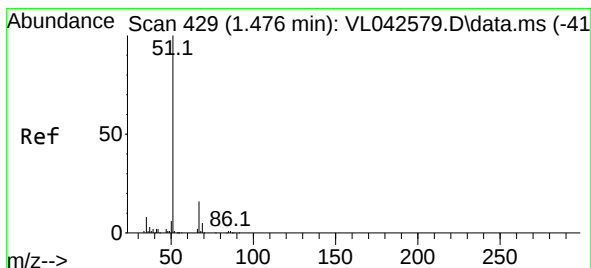
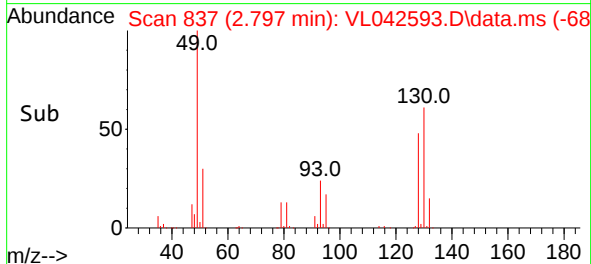
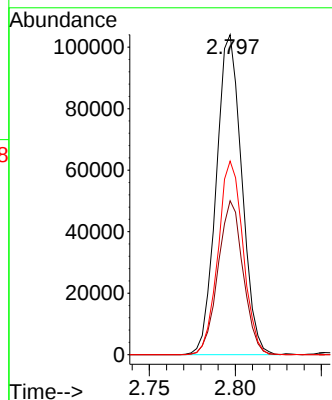
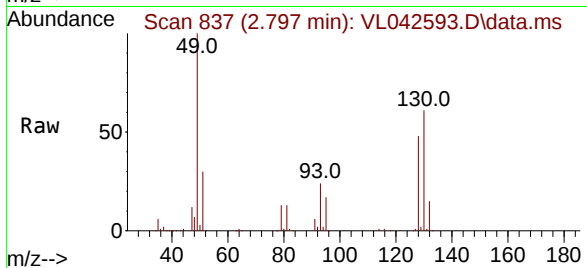




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 2.797 min Scan# 835  
Delta R.T. 0.007 min  
Lab File: VL042593.D  
Acq: 29 May 2025 19:32

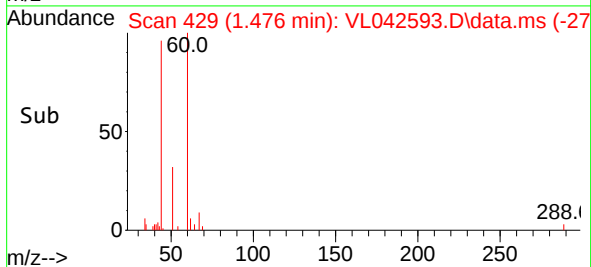
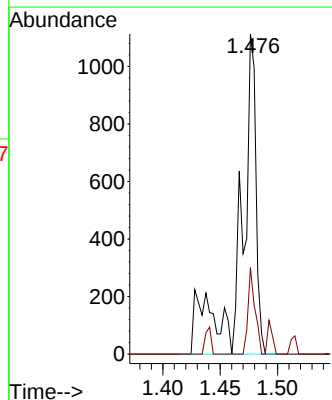
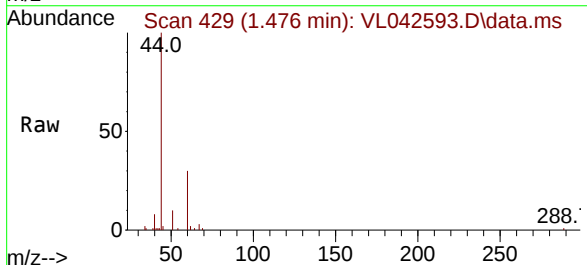
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV2DL

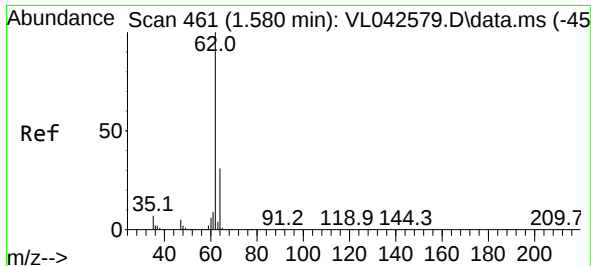
Tgt Ion: 49 Resp: 107351  
Ion Ratio Lower Upper  
49 100  
128 47.3 24.2 72.6  
130 59.2 30.4 91.2



#3  
Chlorodifluoromethane  
Concen: 0.058 ppbv  
RT: 1.476 min Scan# 429  
Delta R.T. 0.000 min  
Lab File: VL042593.D  
Acq: 29 May 2025 19:32

Tgt Ion: 51 Resp: 1059  
Ion Ratio Lower Upper  
51 100  
67 17.4 13.4 20.2

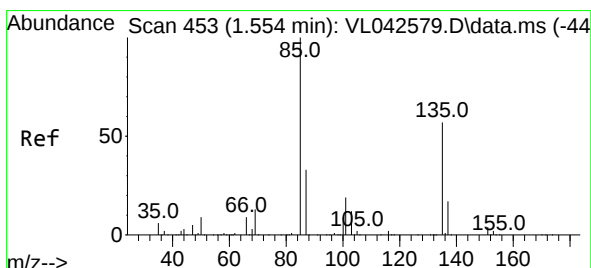
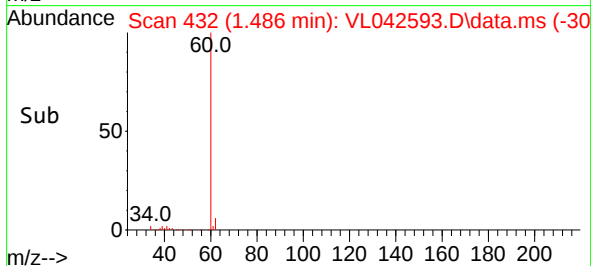
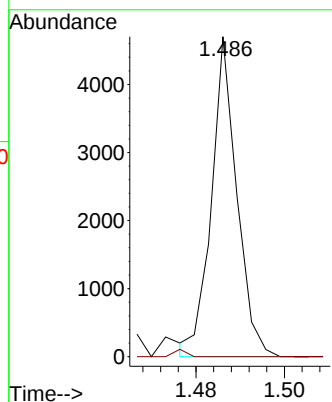
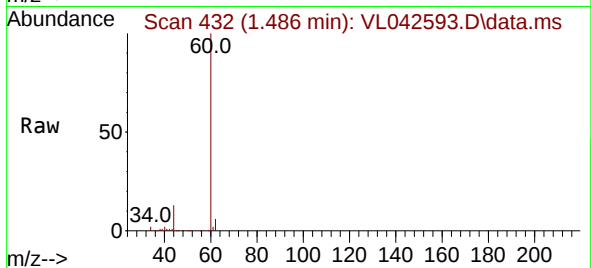




#5  
 Vinyl Chloride  
 Concen: 0.351 ppbv  
 RT: 1.486 min Scan# 41  
 Delta R.T. -0.094 min  
 Lab File: VL042593.D  
 Acq: 29 May 2025 19:32

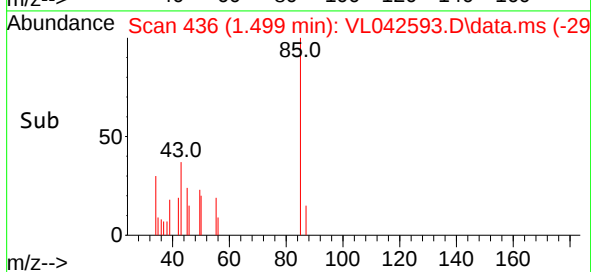
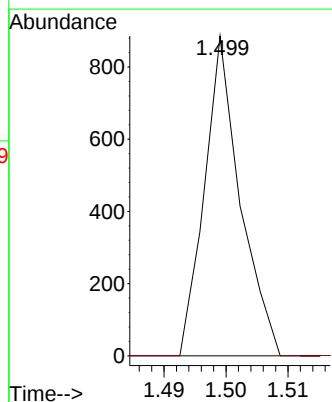
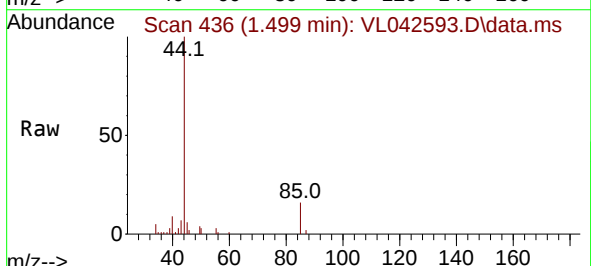
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV2DL

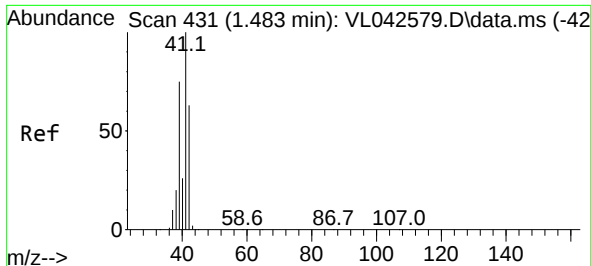
Tgt Ion: 62 Resp: 1870  
 Ion Ratio Lower Upper  
 62 100  
 64 0.0 24.9 37.3#



#8  
 Dichlorotetrafluoroethane  
 Concen: 0.032 ppbv  
 RT: 1.499 min Scan# 436  
 Delta R.T. -0.055 min  
 Lab File: VL042593.D  
 Acq: 29 May 2025 19:32

Tgt Ion: 85 Resp: 354  
 Ion Ratio Lower Upper  
 85 100  
 135 8.2 50.2 75.4#





#9

Propene

Concen: 0.126 ppbv

RT: 1.622 min Scan# 41

Delta R.T. 0.139 min

Lab File: VL042593.D

Acq: 29 May 2025 19:32

Instrument :

MSVOA\_L

ClientSampleId :

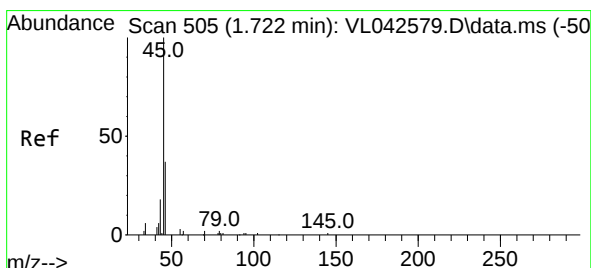
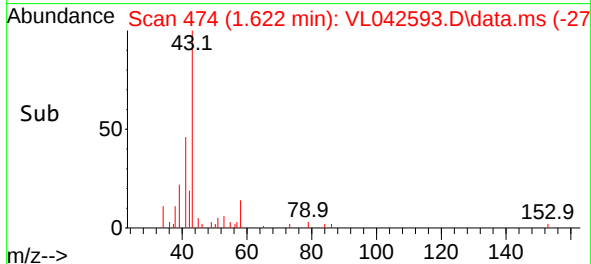
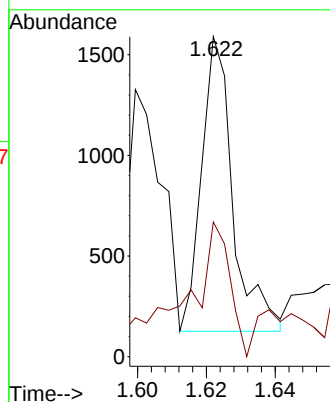
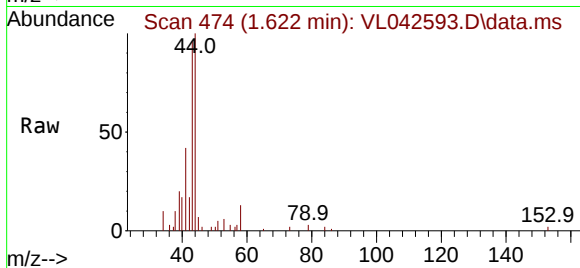
SV2DL

Tgt Ion: 41 Resp: 925

Ion Ratio Lower Upper

41 100

42 62.5 53.3 79.9



#13

Ethanol

Concen: 82.290 ppbv

RT: 1.441 min Scan# 418

Delta R.T. -0.281 min

Lab File: VL042593.D

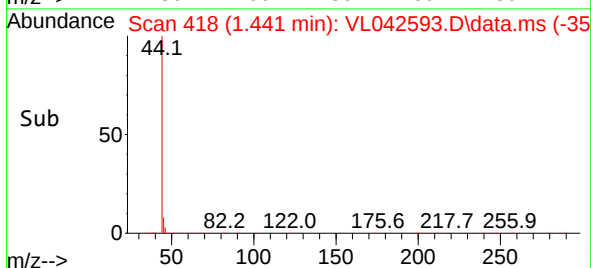
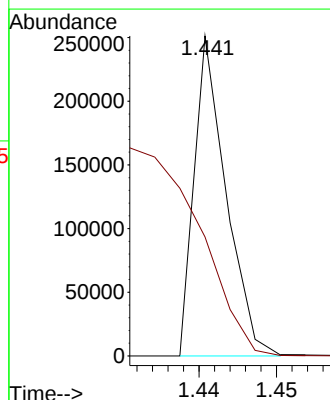
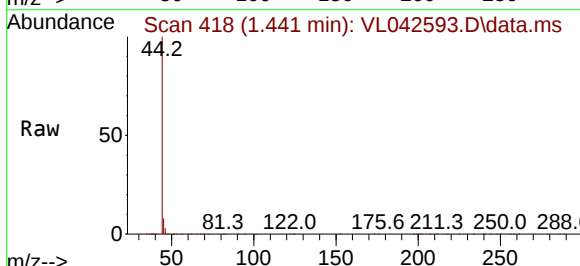
Acq: 29 May 2025 19:32

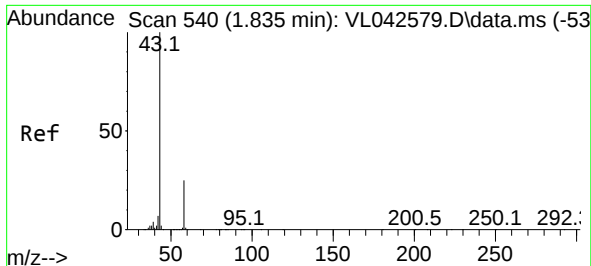
Tgt Ion: 45 Resp: 71764

Ion Ratio Lower Upper

45 100

46 0.0 14.5 58.1#





#15

Acetone

Concen: 0.373 ppbv

RT: 1.842 min Scan# 54

Delta R.T. 0.007 min

Lab File: VL042593.D

Acq: 29 May 2025 19:32

Instrument :

MSVOA\_L

ClientSampleId :

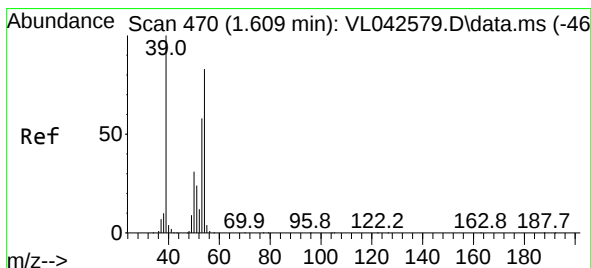
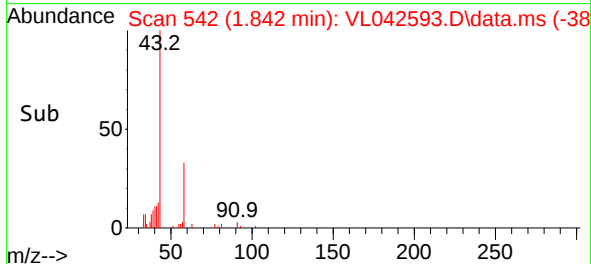
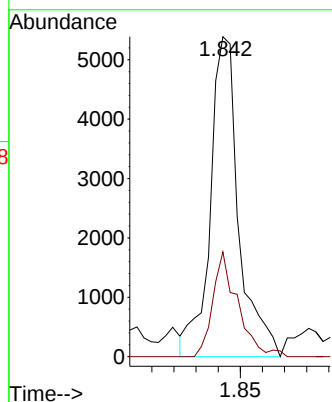
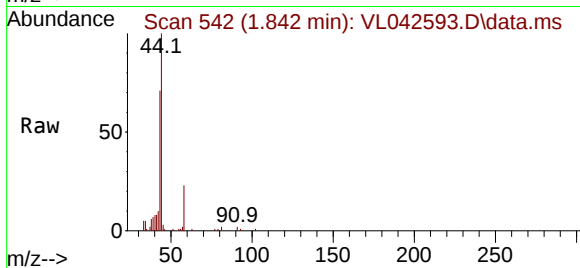
SV2DL

Tgt Ion: 43 Resp: 4823

Ion Ratio Lower Upper

43 100

58 28.6 21.0 31.4



#16

1,3-Butadiene

Concen: 0.072 ppbv

RT: 1.603 min Scan# 468

Delta R.T. -0.006 min

Lab File: VL042593.D

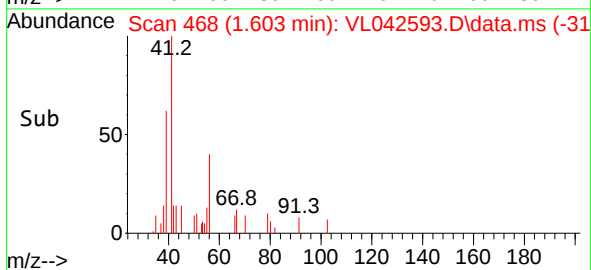
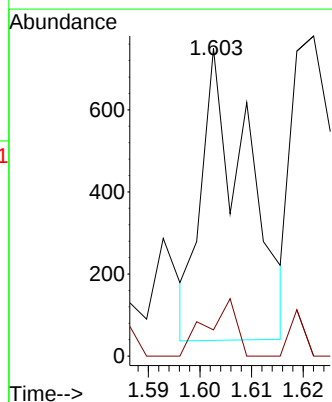
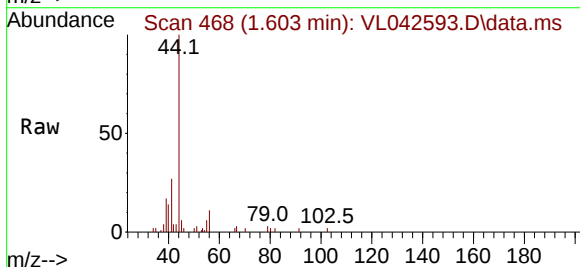
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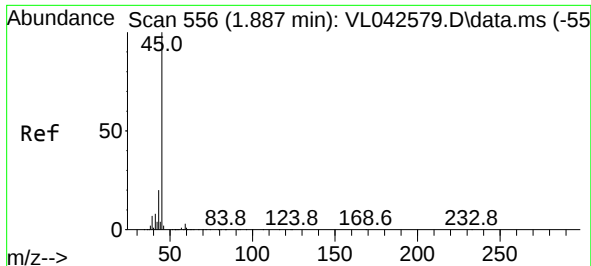
Tgt Ion: 39 Resp: 439

Ion Ratio Lower Upper

39 100

54 15.9 57.9 86.9#

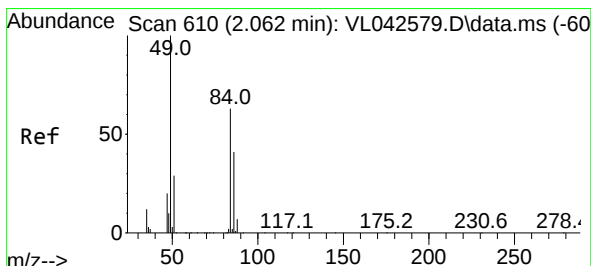
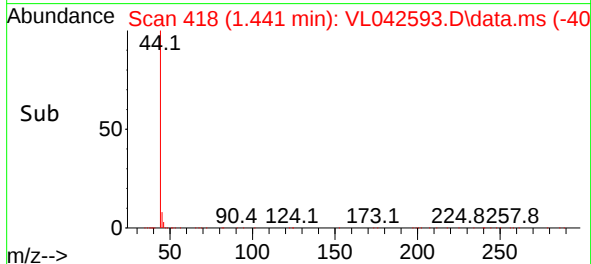
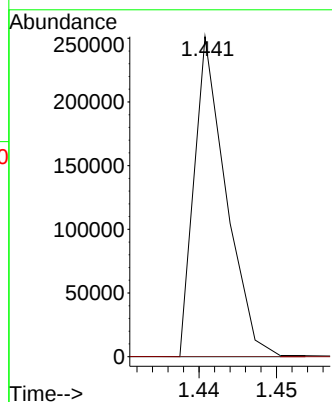
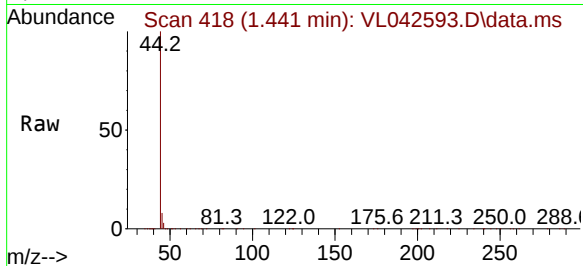




#19  
Isopropyl Alcohol  
Concen: 9.284 ppbv  
RT: 1.441 min Scan# 418  
Delta R.T. -0.446 min  
Lab File: VL042593.D  
Acq: 29 May 2025 19:32

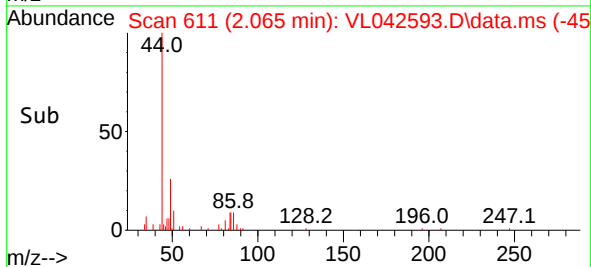
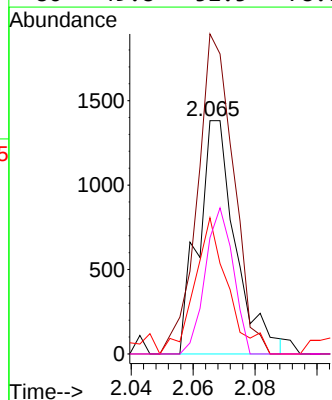
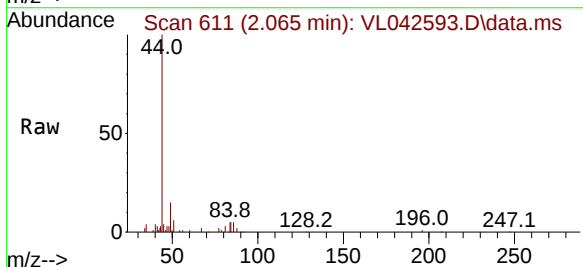
Instrument :  
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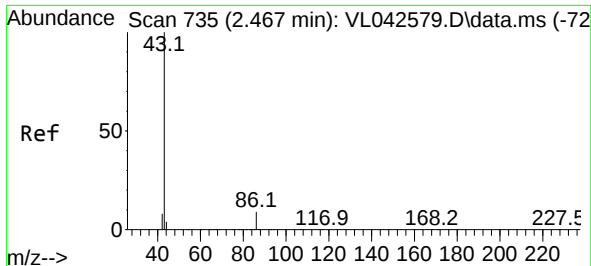
Tgt Ion: 45 Resp: 71764  
Ion Ratio Lower Upper  
45 100  
58 0.4 29.4 44.2#



#20  
Methylene Chloride  
Concen: 0.269 ppbv  
RT: 2.065 min Scan# 611  
Delta R.T. 0.003 min  
Lab File: VL042593.D  
Acq: 29 May 2025 19:32

Tgt Ion: 84 Resp: 1149  
Ion Ratio Lower Upper  
84 100  
49 148.3 128.8 193.2  
51 58.4 38.6 57.8#  
86 49.8 52.5 78.7#

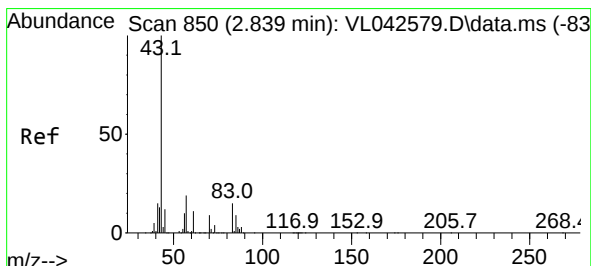
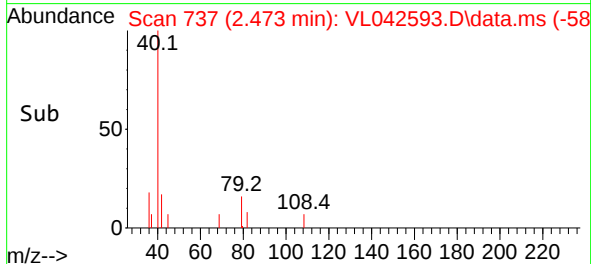
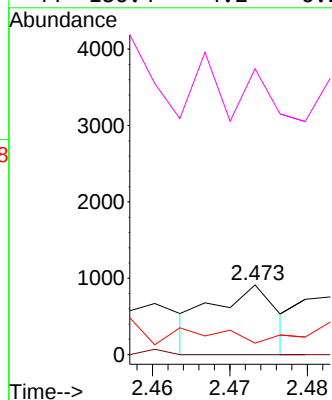
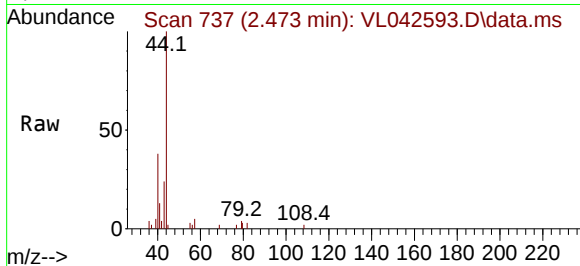




#23  
 Vinyl Acetate  
 Concen: 0.030 ppbv  
 RT: 2.473 min Scan# 71  
 Delta R.T. 0.007 min  
 Lab File: VL042593.D  
 Acq: 29 May 2025 19:32

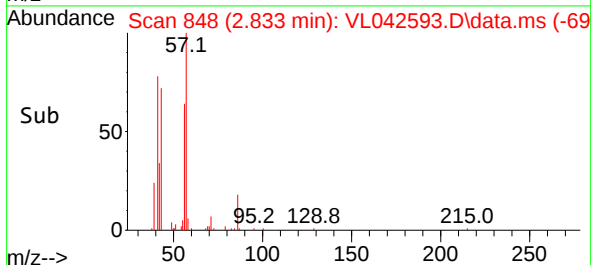
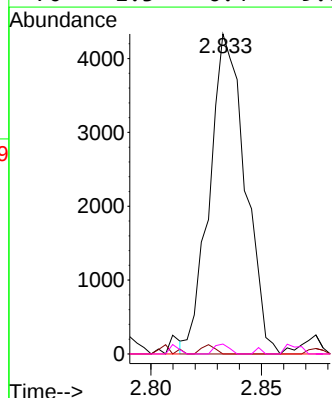
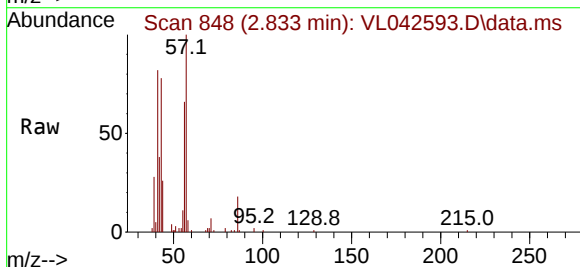
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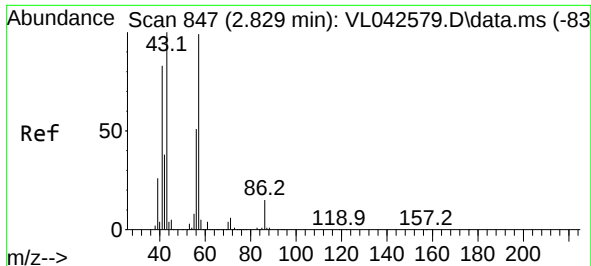
|             |             |
|-------------|-------------|
| Tgt Ion: 43 | Resp: 532   |
| Ion Ratio   | Lower Upper |
| 43 100      |             |
| 86 0.0      | 6.6 9.8#    |
| 42 0.0      | 7.0 10.4#   |
| 44 186.4    | 4.2 6.2#    |



#25  
 Ethyl Acetate  
 Concen: 0.138 ppbv  
 RT: 2.833 min Scan# 848  
 Delta R.T. -0.006 min  
 Lab File: VL042593.D  
 Acq: 29 May 2025 19:32

|     |         |       |       |
|-----|---------|-------|-------|
| Tgt | Ion: 43 | Resp: | 4881  |
| Ion | Ratio   | Lower | Upper |
| 43  | 100     |       |       |
| 45  | 1.3     | 8.2   | 12.2# |
| 61  | 0.0     | 7.1   | 10.7# |
| 70  | 1.3     | 6.4   | 9.6#  |

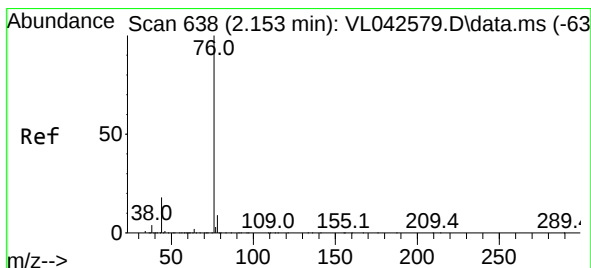
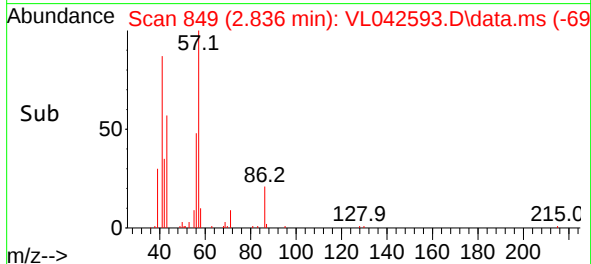
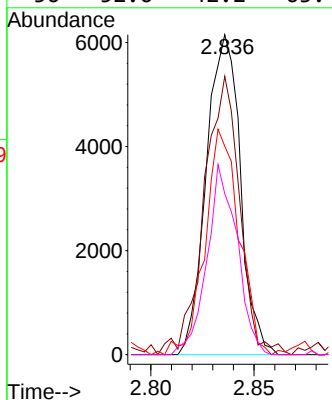
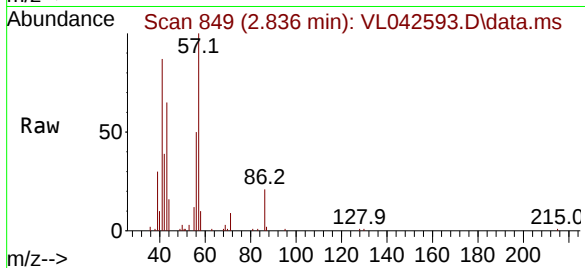




#26  
Hexane  
Concen: 0.437 ppbv  
RT: 2.836 min Scan# 847  
Delta R.T. 0.007 min  
Lab File: VL042593.D  
Acq: 29 May 2025 19:32

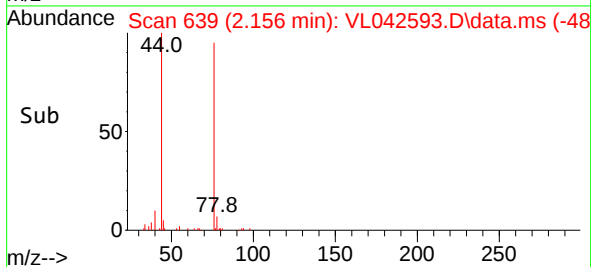
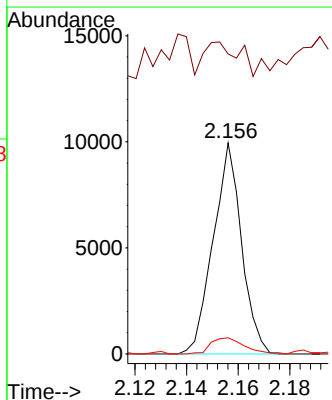
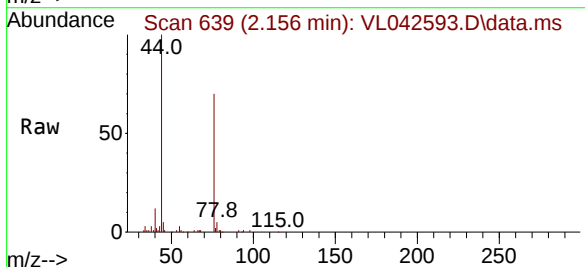
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV2DL

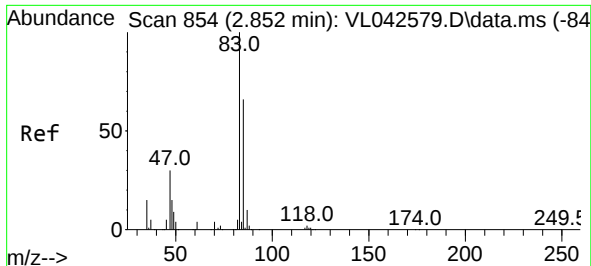
|             |              |
|-------------|--------------|
| Tgt Ion: 57 | Resp: 7026   |
| Ion Ratio   | Lower Upper  |
| 57 100      |              |
| 41 93.3     | 70.6 106.0   |
| 43 75.9     | 181.1 271.7# |
| 56 52.6     | 42.2 63.4    |



#27  
Carbon Disulfide  
Concen: 0.615 ppbv  
RT: 2.156 min Scan# 639  
Delta R.T. 0.003 min  
Lab File: VL042593.D  
Acq: 29 May 2025 19:32

|             |            |       |  |
|-------------|------------|-------|--|
| Tgt Ion: 76 | Resp: 7589 |       |  |
| Ion Ratio   | Lower      | Upper |  |
| 76 100      |            |       |  |
| 44 269.4    | 21.3       | 31.9# |  |
| 78 10.6     | 9.4        | 14.0  |  |





#29

Chloroform

Concen: 0.332 ppbv

RT: 2.862 min Scan# 81

Delta R.T. 0.010 min

Lab File: VL042593.D

Acq: 29 May 2025 19:32

Instrument :

MSVOA\_L

ClientSampleId :

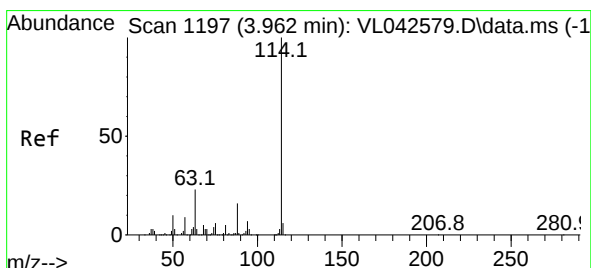
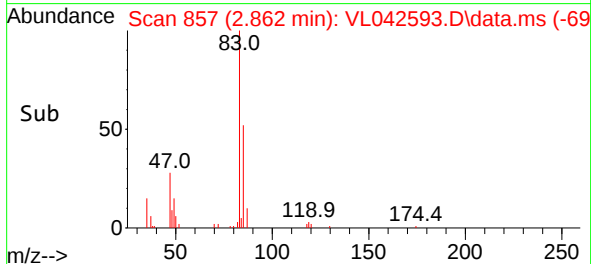
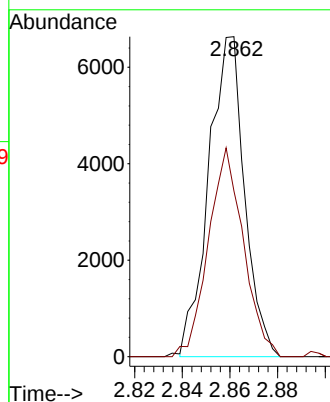
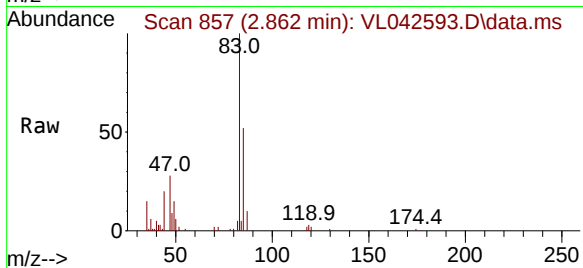
SV2DL

Tgt Ion: 83 Resp: 6940

Ion Ratio Lower Upper

83 100

85 51.7 52.8 79.2#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.972 min Scan# 1200

Delta R.T. 0.010 min

Lab File: VL042593.D

Acq: 29 May 2025 19:32

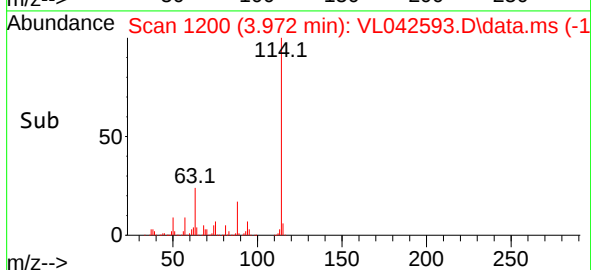
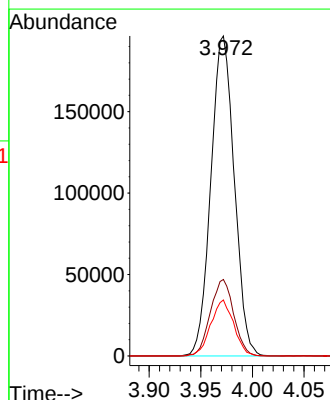
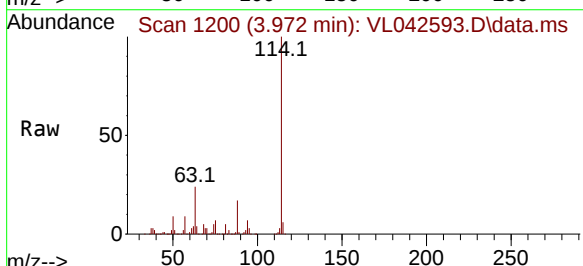
Tgt Ion: 114 Resp: 309485

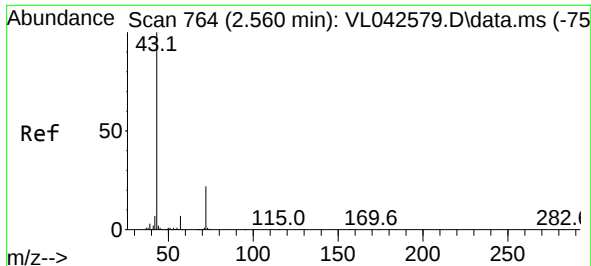
Ion Ratio Lower Upper

114 100

63 23.9 19.0 28.6

88 17.2 13.6 20.4

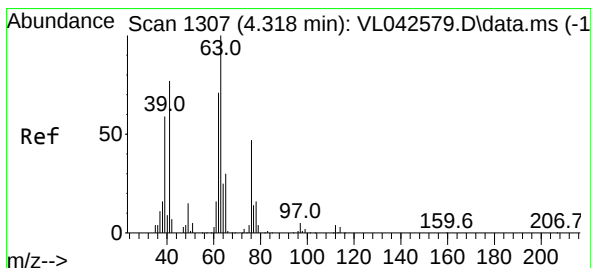
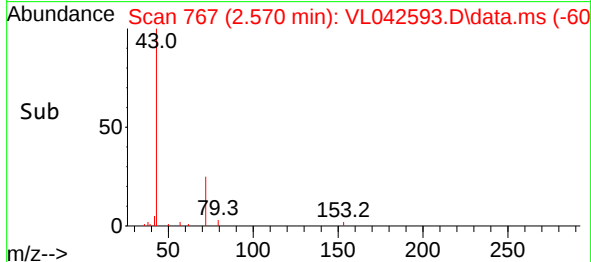
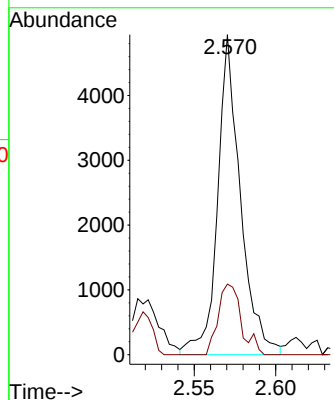
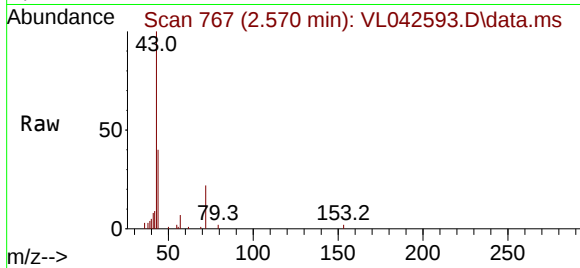




#34  
2-Butanone  
Concen: 0.218 ppbv  
RT: 2.570 min Scan# 71  
Delta R.T. 0.010 min  
Lab File: VL042593.D  
Acq: 29 May 2025 19:32

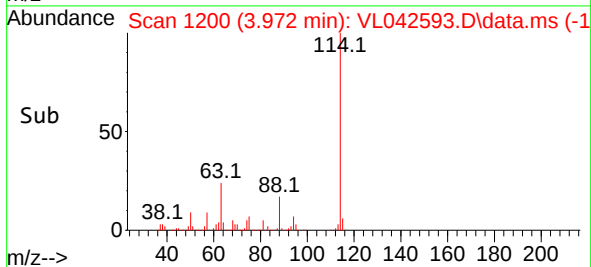
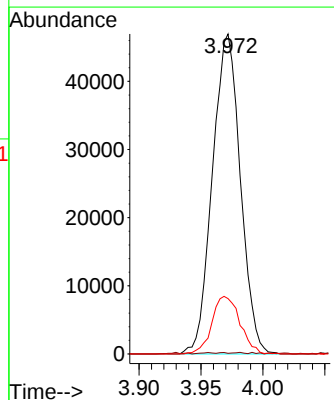
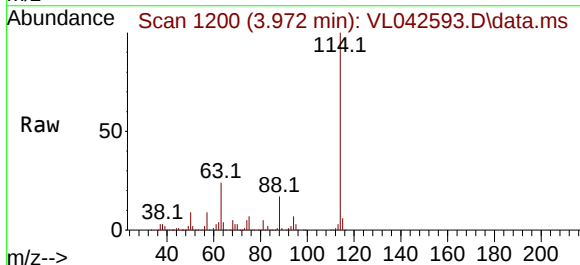
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV2DL

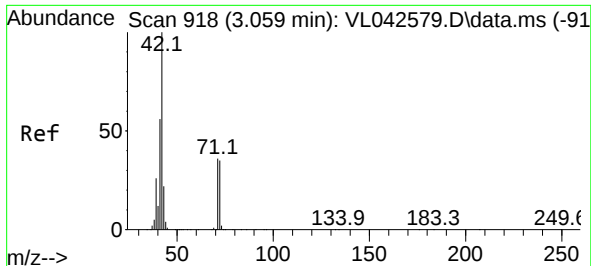
Tgt Ion: 43 Resp: 4804  
Ion Ratio Lower Upper  
43 100  
72 22.2 17.7 26.5



#39  
1,2-Dichloropropane  
Concen: 6.551 ppbv  
RT: 3.972 min Scan# 1200  
Delta R.T. -0.346 min  
Lab File: VL042593.D  
Acq: 29 May 2025 19:32

Tgt Ion: 63 Resp: 73827  
Ion Ratio Lower Upper  
63 100  
41 0.1 61.8 92.6#  
62 17.3 56.6 85.0#





#41

Tetrahydrofuran

Concen: 0.085 ppbv

RT: 3.079 min Scan# 91

Delta R.T. 0.020 min

Lab File: VL042593.D

Acq: 29 May 2025 19:32

Instrument :

MSVOA\_L

ClientSampleId :

SV2DL

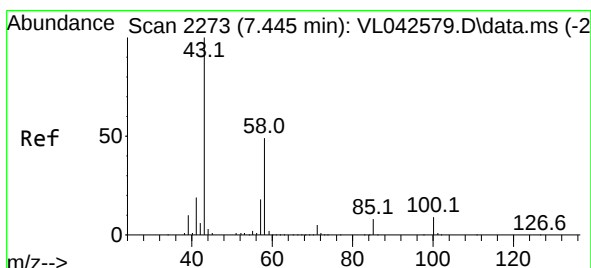
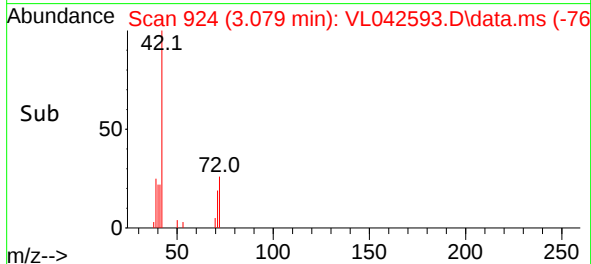
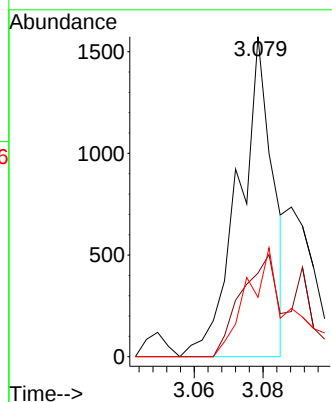
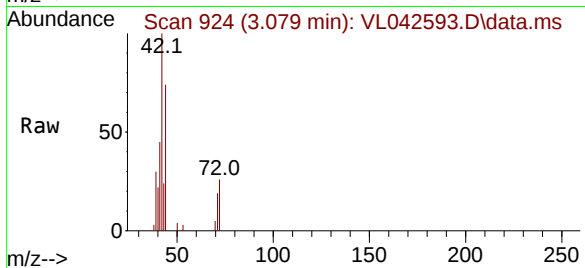
Tgt Ion: 42 Resp: 1094

Ion Ratio Lower Upper

42 100

72 53.7 28.9 43.3#

71 45.4 28.5 42.7#



#51

2-Hexanone

Concen: 0.065 ppbv

RT: 7.461 min Scan# 2278

Delta R.T. 0.016 min

Lab File: VL042593.D

Acq: 29 May 2025 19:32

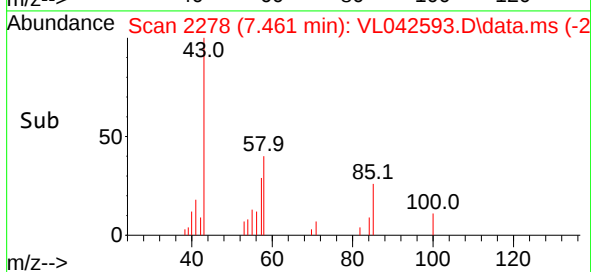
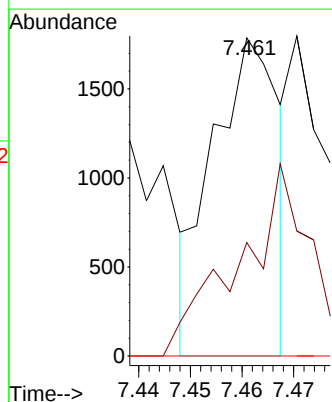
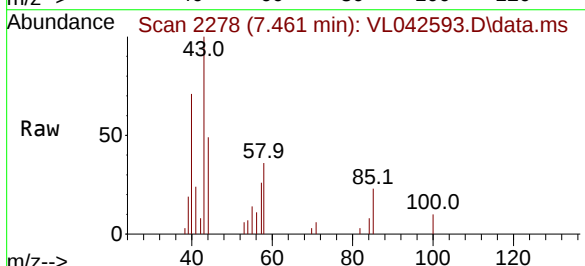
Tgt Ion: 43 Resp: 1583

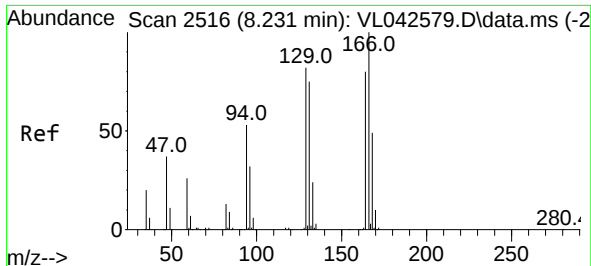
Ion Ratio Lower Upper

43 100

58 0.0 39.9 59.9#

98 0.0 0.1 0.1#

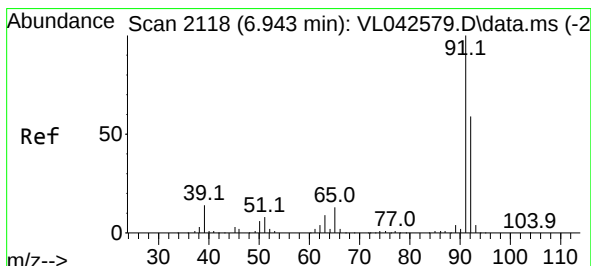
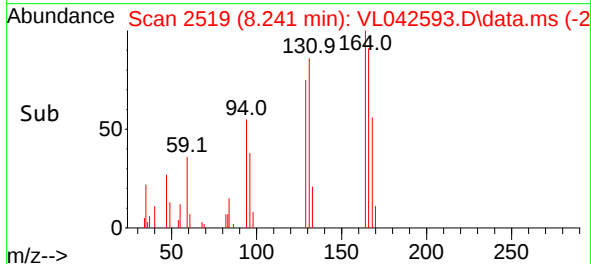
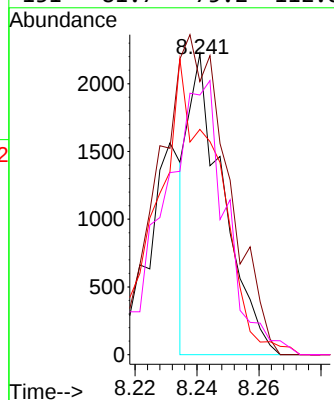
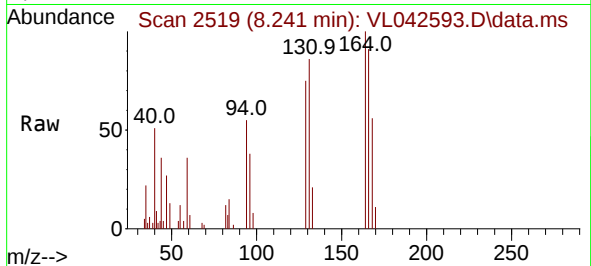




#52  
Tetrachloroethene  
Concen: 0.154 ppbv  
RT: 8.241 min Scan# 2119  
Delta R.T. 0.010 min  
Lab File: VL042593.D  
Acq: 29 May 2025 19:32

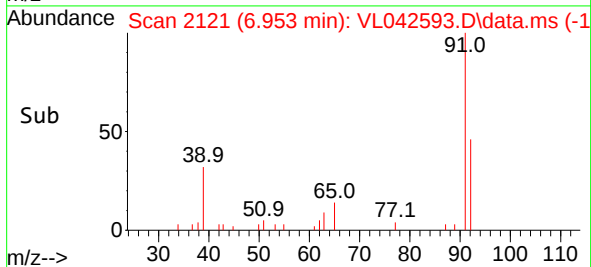
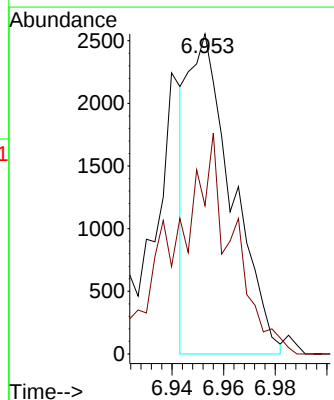
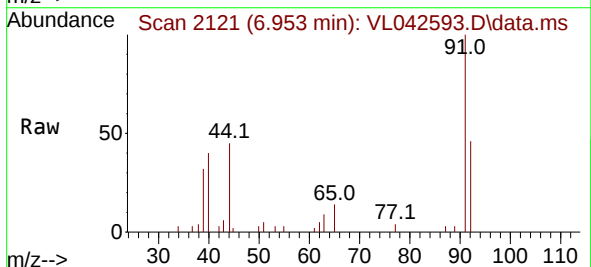
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV2DL

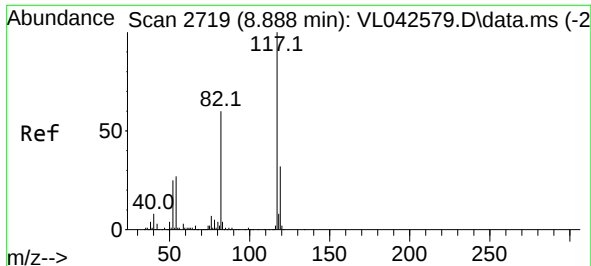
Tgt Ion:164 Resp: 1752  
Ion Ratio Lower Upper  
164 100  
166 90.8 100.0 150.0#  
129 72.2 82.2 123.4#  
131 81.7 75.2 112.8



#53  
Toluene  
Concen: 0.086 ppbv  
RT: 6.953 min Scan# 2121  
Delta R.T. 0.010 min  
Lab File: VL042593.D  
Acq: 29 May 2025 19:32

Tgt Ion: 91 Resp: 3039  
Ion Ratio Lower Upper  
91 100  
92 92.0 48.2 72.4#

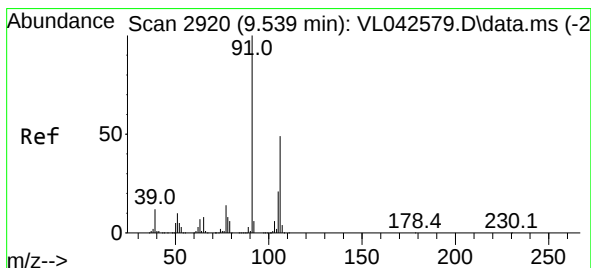
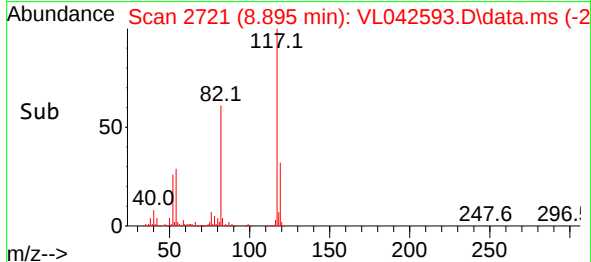
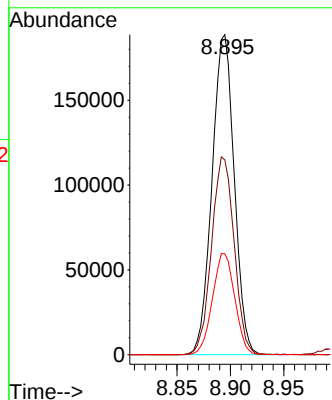
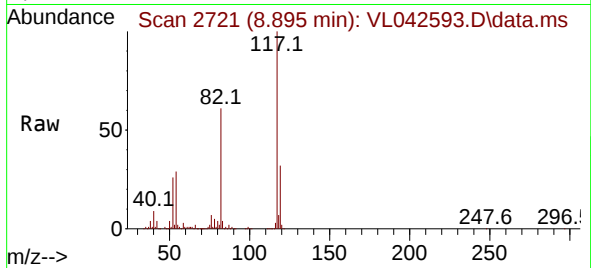




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 8.895 min Scan# 2119  
Delta R.T. 0.007 min  
Lab File: VL042593.D  
Acq: 29 May 2025 19:32

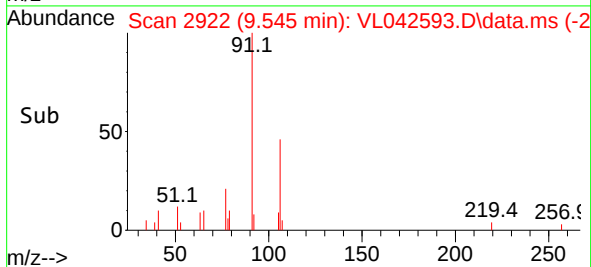
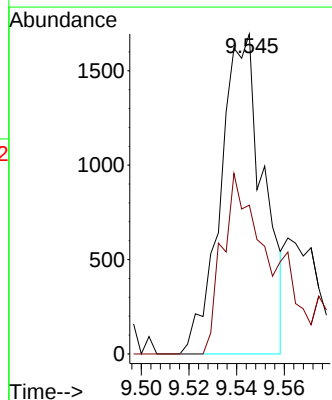
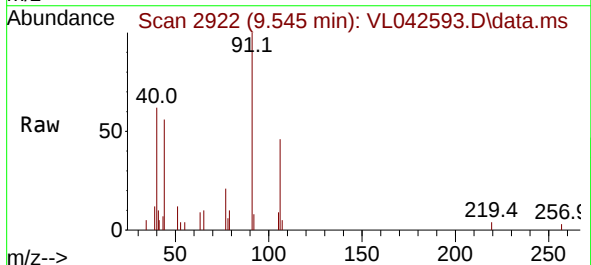
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV2DL

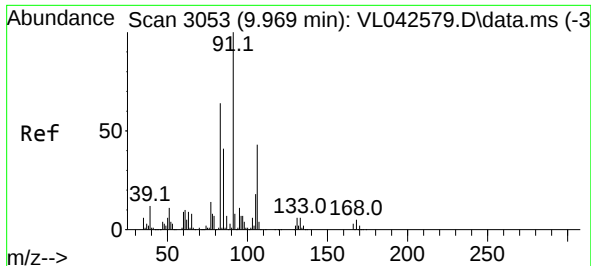
Tgt Ion:117 Resp: 273119  
Ion Ratio Lower Upper  
117 100  
82 62.8 51.2 76.8  
119 31.8 26.3 39.5



#59  
m/p-Xylene  
Concen: 0.058 ppbv  
RT: 9.545 min Scan# 2922  
Delta R.T. 0.007 min  
Lab File: VL042593.D  
Acq: 29 May 2025 19:32

Tgt Ion: 91 Resp: 2112  
Ion Ratio Lower Upper  
91 100  
106 69.6 38.8 58.2#





#60

o-Xylene

Concen: 0.035 ppbv

RT: 9.973 min Scan# 3053

Delta R.T. 0.003 min

Lab File: VL042593.D

Acq: 29 May 2025 19:32

Instrument :

MSVOA\_L

ClientSampleId :

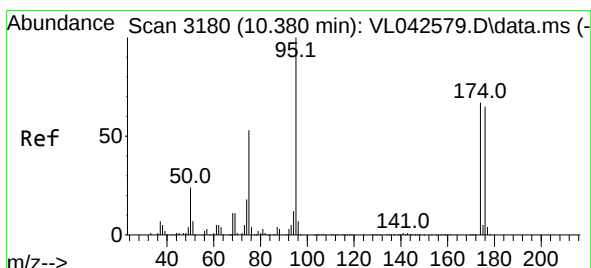
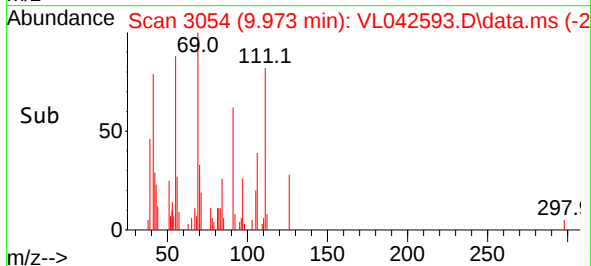
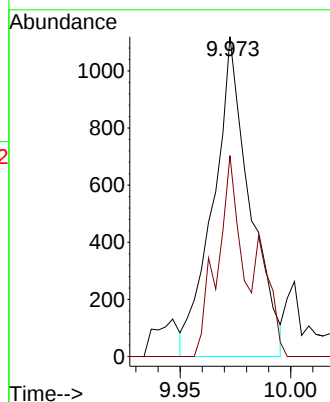
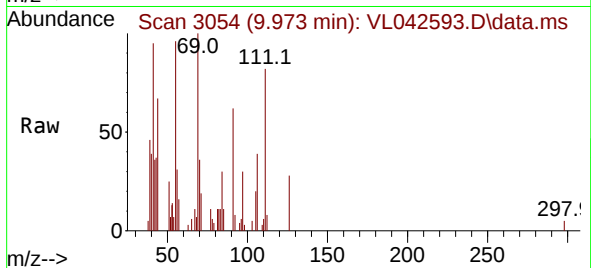
SV2DL

Tgt Ion: 91 Resp: 1288

Ion Ratio Lower Upper

91 100

106 56.6 22.9 68.5



#68

1-Bromo-4-Fluorobenzene

Concen: 10.003 ppbv

RT: 10.387 min Scan# 3182

Delta R.T. 0.007 min

Lab File: VL042593.D

Acq: 29 May 2025 19:32

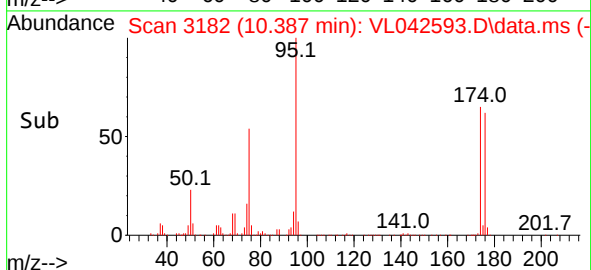
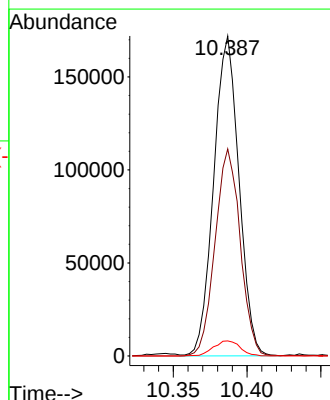
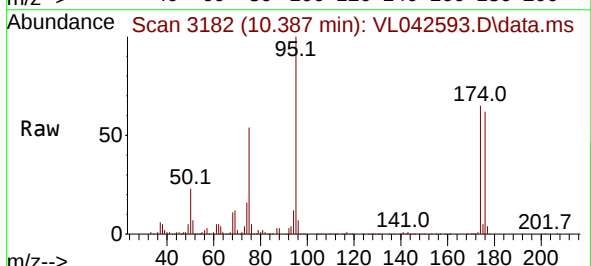
Tgt Ion: 95 Resp: 204804

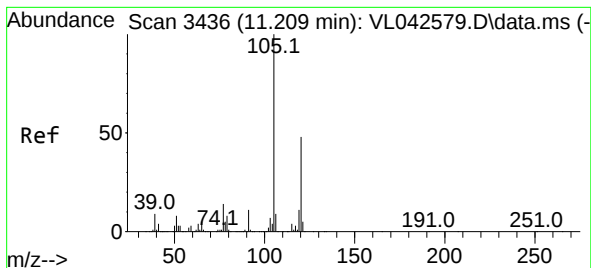
Ion Ratio Lower Upper

95 100

174 64.5 53.1 79.7

175 5.0 4.2 6.2





#73

1,3,5-Trimethylbenzene

Concen: 0.033 ppbv

RT: 11.209 min Scan# 3436

Delta R.T. 0.000 min

Lab File: VL042593.D

Acq: 29 May 2025 19:32

Instrument :

MSVOA\_L

ClientSampleId :

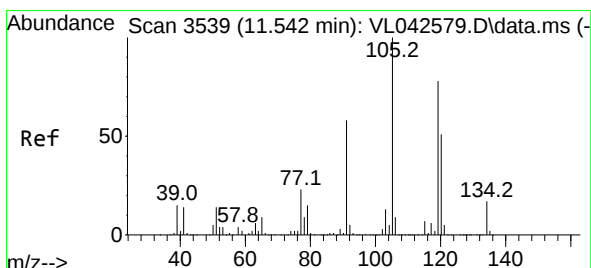
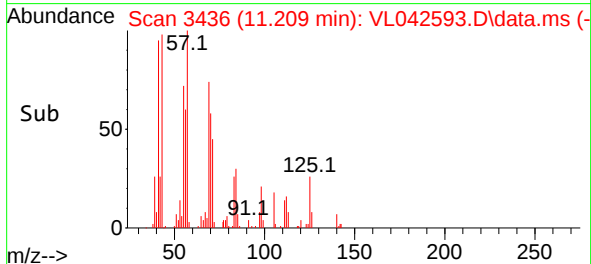
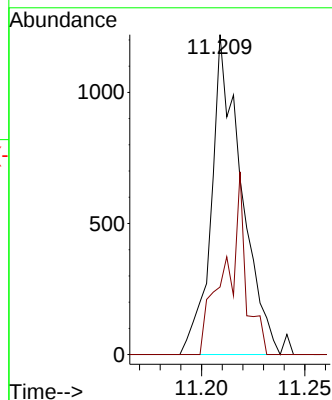
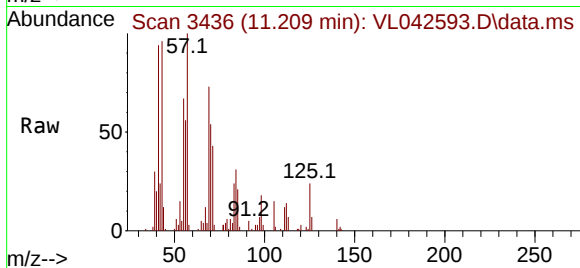
SV2DL

Tgt Ion:105 Resp: 1235

Ion Ratio Lower Upper

105 100

120 21.1 38.8 58.2#



#74

1,2,4-Trimethylbenzene

Concen: 0.076 ppbv

RT: 11.542 min Scan# 3539

Delta R.T. 0.000 min

Lab File: VL042593.D

Acq: 29 May 2025 19:32

Tgt Ion:105 Resp: 3181

Ion Ratio Lower Upper

105 100

120 44.0 40.8 61.2

91 23.2 46.8 70.2#

77 17.8 18.2 27.2#

