

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL021125\  
 Data File : VL042000.D  
 Acq On : 11 Feb 2025 12:46  
 Operator : SY/MD  
 Sample : Q1342-02  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Feb 11 22:19:40 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL011425AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Tue Jan 14 23:15:42 2025  
 Response via : Initial Calibration

| Compound                | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|-------|----------|
| -----                   |       |      |          |        |       |          |
| Internal Standards      |       |      |          |        |       |          |
| 1) Bromochloromethane   | 2.784 | 49   | 163409   | 10.000 | ppbv  | -0.01    |
| 33) 1,4-Difluorobenzene | 3.952 | 114  | 436244   | 10.000 | ppbv  | -0.02    |
| 55) Chlorobenzene-d5    | 8.875 | 117  | 374213   | 10.000 | ppbv  | -0.02    |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 10.370 | 95    | 289633   | 9.827    | ppbv | -0.02   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 98.300% |

| Target Compounds              |        |     |        |        |        | Qvalue |
|-------------------------------|--------|-----|--------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.496  | 85  | 8586   | 0.386  | ppbv   | 90     |
| 3) Chlorodifluoromethane      | 1.463  | 51  | 15991  | 0.686  | ppbv # | 79     |
| 4) Chloromethane              | 1.528  | 50  | 4437   | 0.530  | ppbv   | 96     |
| 6) Bromomethane               | 1.664  | 94  | 234    | 0.058  | ppbv # | 38     |
| 9) Propene                    | 1.483  | 41  | 6246   | 0.650  | ppbv   | 90     |
| 11) Trichlorofluoromethane    | 1.874  | 101 | 4482   | 0.194  | ppbv   | 87     |
| 12) 1,1,2-Trichlorotrifluo... | 2.136  | 101 | 1102   | 0.061  | ppbv # | 76     |
| 13) Ethanol                   | 1.719  | 45  | 30945  | 43.982 | ppbv   | 89     |
| 15) Acetone                   | 1.832  | 43  | 62268  | 3.173  | ppbv   | 98     |
| 16) 1,3-Butadiene             | 1.599  | 39  | 1533   | 0.174  | ppbv # | 77     |
| 19) Isopropyl Alcohol         | 1.884  | 45  | 25228  | 2.168  | ppbv # | 67     |
| 20) Methylene Chloride        | 2.059  | 84  | 2642   | 0.341  | ppbv # | 76     |
| 23) Vinyl Acetate             | 2.450  | 43  | 2441   | 0.251  | ppbv # | 68     |
| 25) Ethyl Acetate             | 2.836  | 43  | 1676   | 0.032  | ppbv # | 57     |
| 26) Hexane                    | 2.823  | 57  | 2496   | 0.119  | ppbv # | 59     |
| 29) Chloroform                | 2.845  | 83  | 1210   | 0.037  | ppbv   | 89     |
| 34) 2-Butanone                | 2.557  | 43  | 4321   | 0.156  | ppbv   | 98     |
| 35) Carbon Tetrachloride      | 3.761  | 117 | 1871   | 0.068  | ppbv # | 77     |
| 36) Benzene                   | 3.658  | 78  | 2557   | 0.064  | ppbv   | 98     |
| 39) 1,2-Dichloropropane       | 3.952  | 63  | 107126 | 7.633  | ppbv # | 22     |
| 53) Toluene                   | 6.920  | 91  | 5557   | 0.128  | ppbv # | 21     |
| 58) Ethyl Benzene             | 9.348  | 91  | 1807   | 0.031  | ppbv   | 92     |
| 74) 1,2,4-Trimethylbenzene    | 11.532 | 105 | 1771   | 0.033  | ppbv # | 50     |

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

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Sample : Q1342-02  
Misc : 400mL/MSVOA\_L  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :

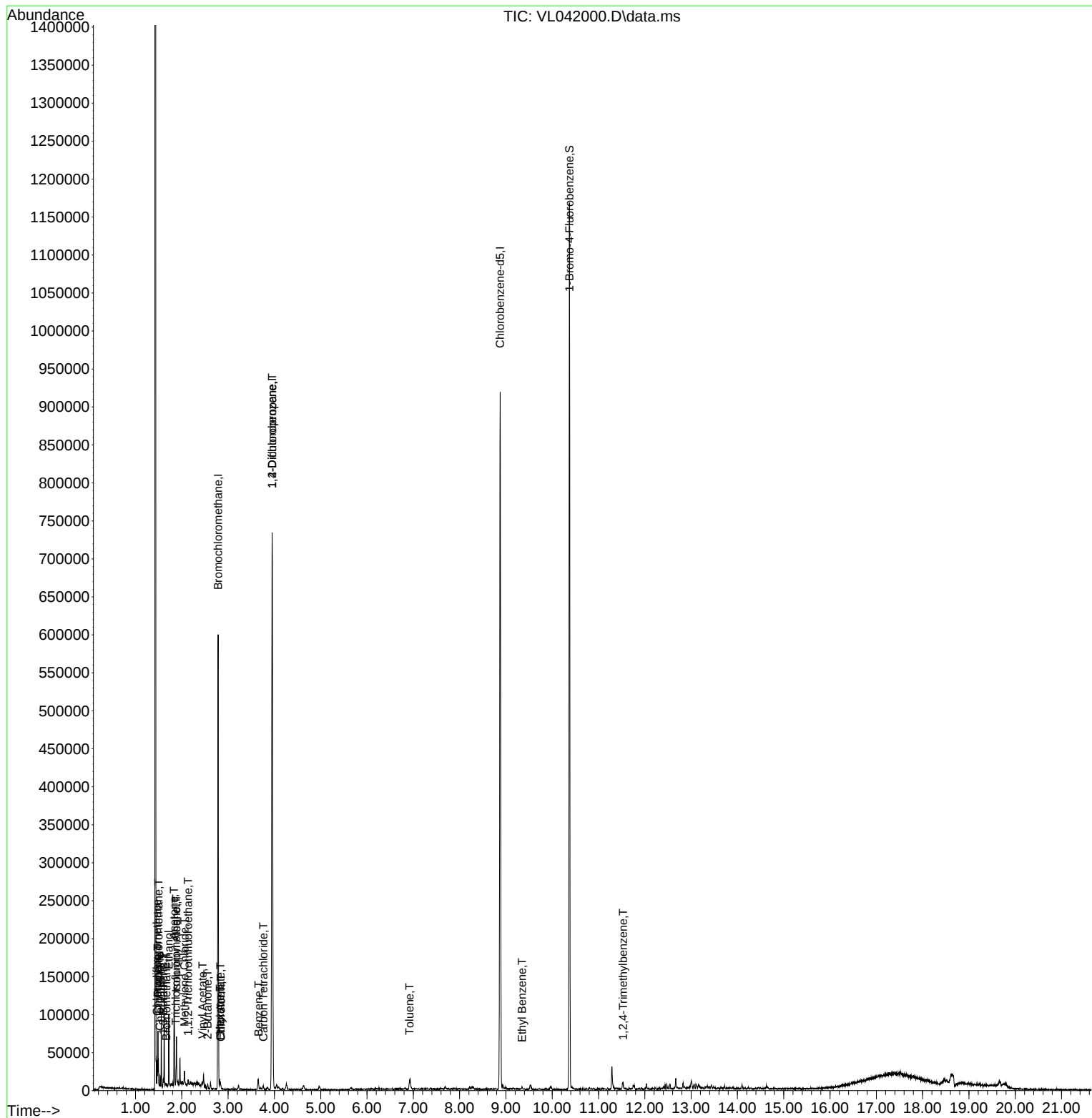
Quant Time: Feb 11 22:19:40 2025

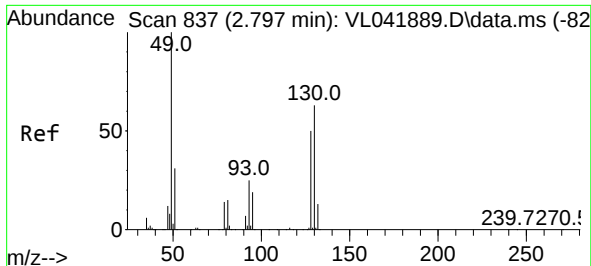
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL011425AIR.M

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

QLast Update : Tue Jan 14 23:15:42 2025

Response via : Initial Calibration

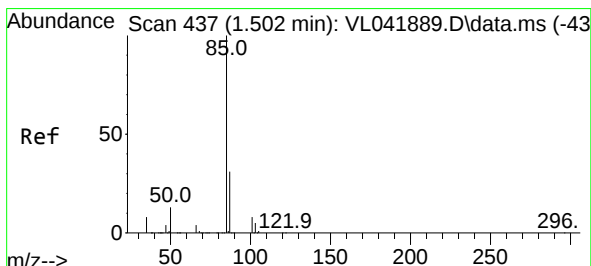
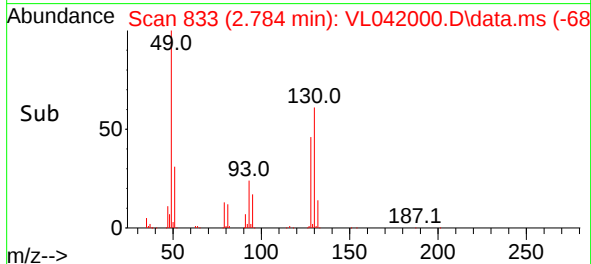
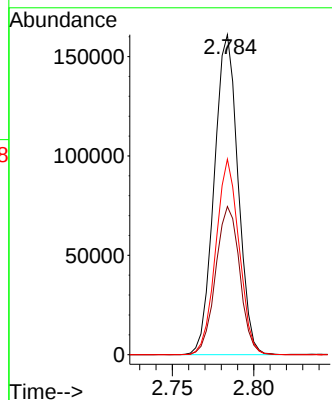
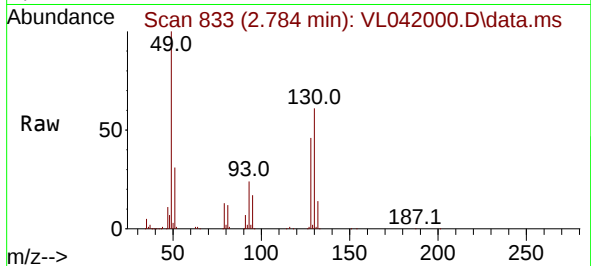




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 2.784 min Scan# 81  
Delta R.T. -0.013 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

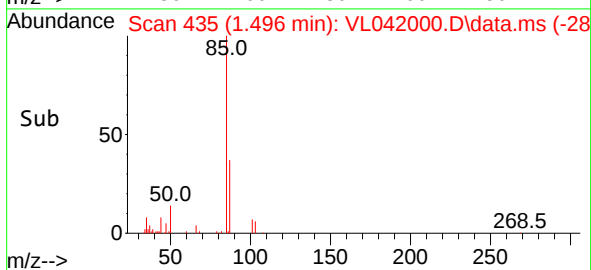
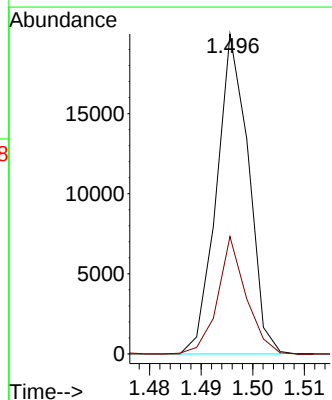
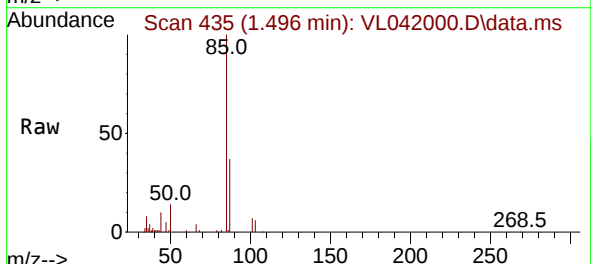
Instrument :  
MSVOA\_L  
ClientSampleId :

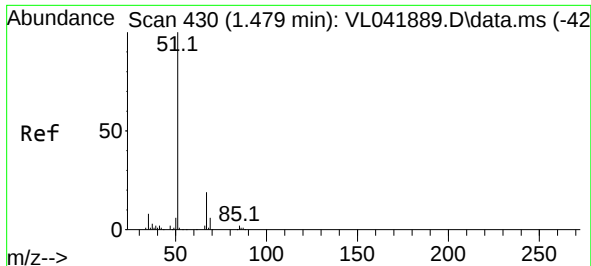
Tgt Ion: 49 Resp: 163409  
Ion Ratio Lower Upper  
49 100  
128 47.0 24.3 73.0  
130 59.7 31.1 93.2



#2  
Dichlorodifluoromethane  
Concen: 0.386 ppbv  
RT: 1.496 min Scan# 435  
Delta R.T. -0.006 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

Tgt Ion: 85 Resp: 8586  
Ion Ratio Lower Upper  
85 100  
87 36.5 24.9 37.3

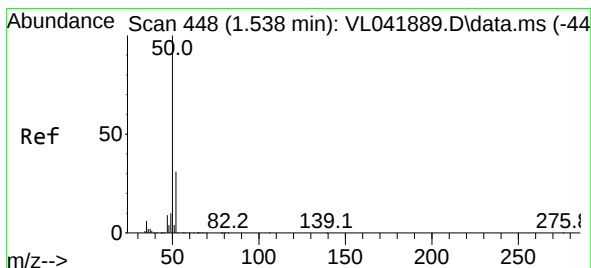
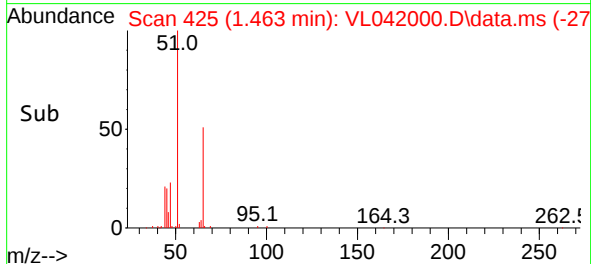
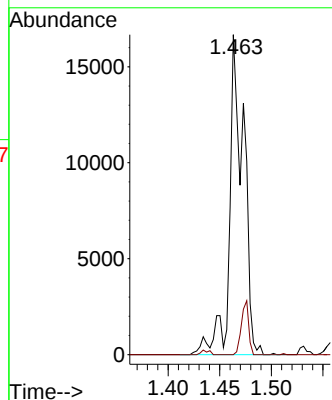
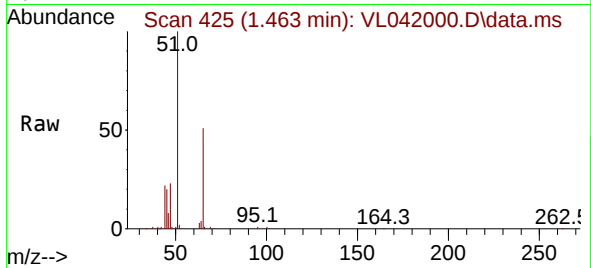




#3  
Chlorodifluoromethane  
Concen: 0.686 ppbv  
RT: 1.463 min Scan# 41  
Delta R.T. -0.016 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

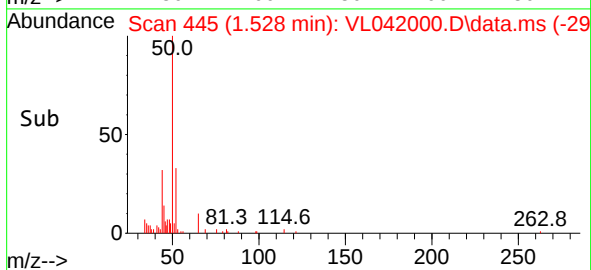
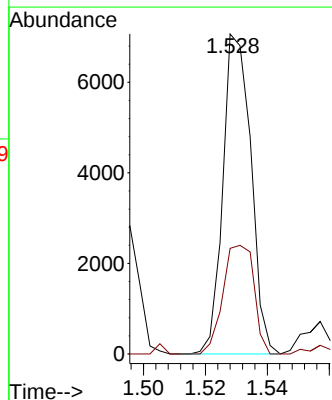
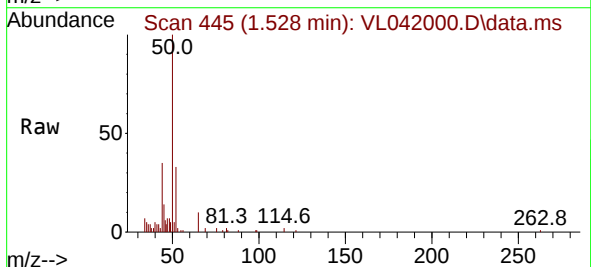
Instrument :  
MSVOA\_L  
ClientSampleId :

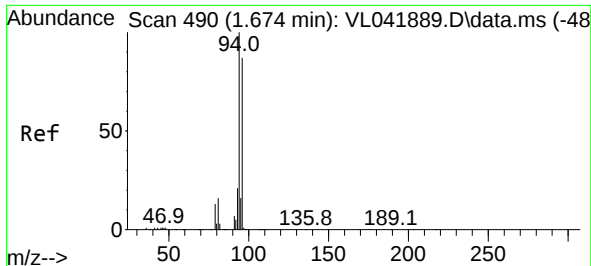
Tgt Ion: 51 Resp: 15991  
Ion Ratio Lower Upper  
51 100  
67 9.3 15.0 22.4#



#4  
Chloromethane  
Concen: 0.530 ppbv  
RT: 1.528 min Scan# 445  
Delta R.T. -0.010 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

Tgt Ion: 50 Resp: 4437  
Ion Ratio Lower Upper  
50 100  
52 33.0 24.6 36.8

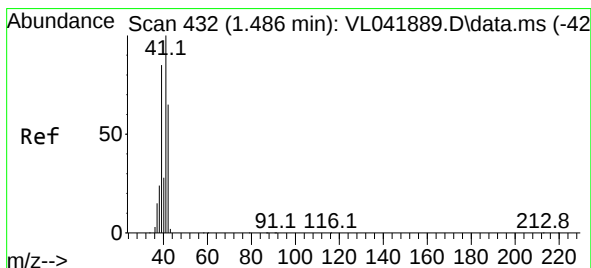
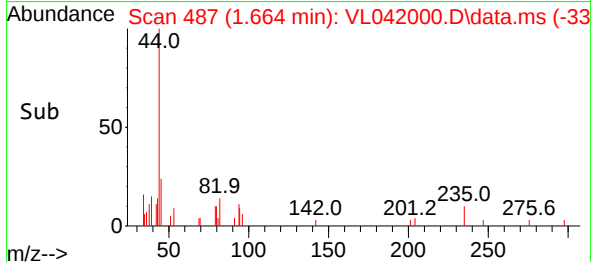
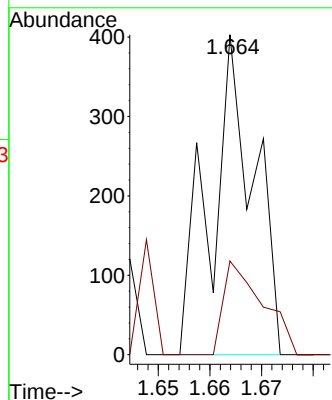
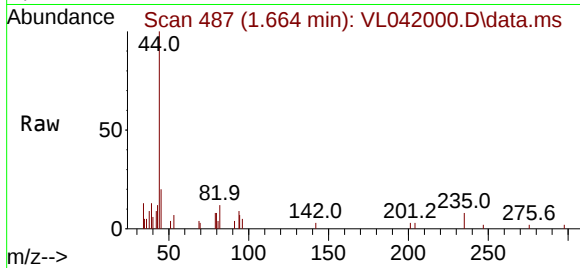




#6  
Bromomethane  
Concen: 0.058 ppbv  
RT: 1.664 min Scan# 41  
Delta R.T. -0.010 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

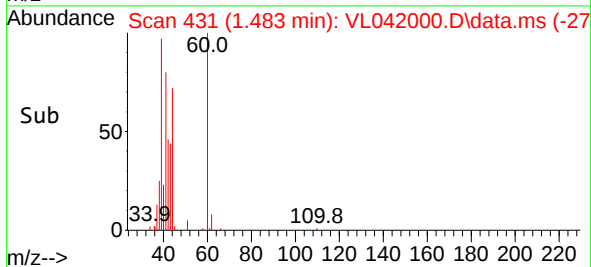
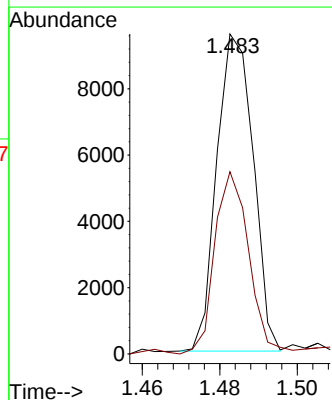
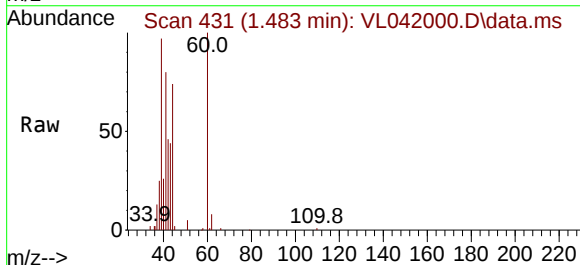
Instrument :  
MSVOA\_L  
ClientSampleId :

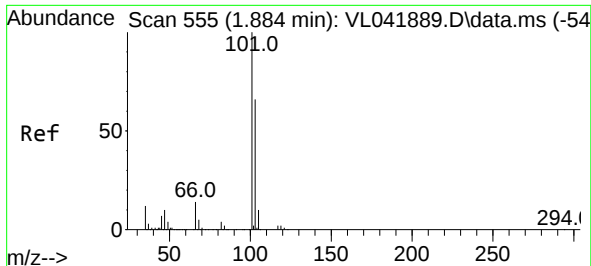
Tgt Ion: 94 Resp: 234  
Ion Ratio Lower Upper  
94 100  
96 29.3 69.5 104.3#



#9  
Propene  
Concen: 0.650 ppbv  
RT: 1.483 min Scan# 431  
Delta R.T. -0.003 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

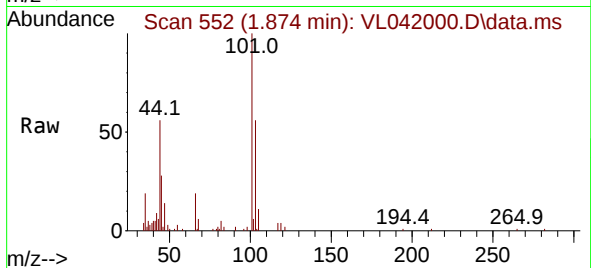
Tgt Ion: 41 Resp: 6246  
Ion Ratio Lower Upper  
41 100  
42 56.9 52.0 78.0



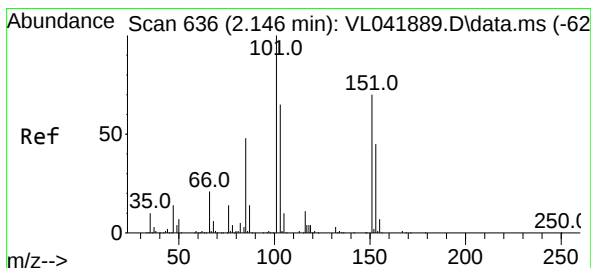
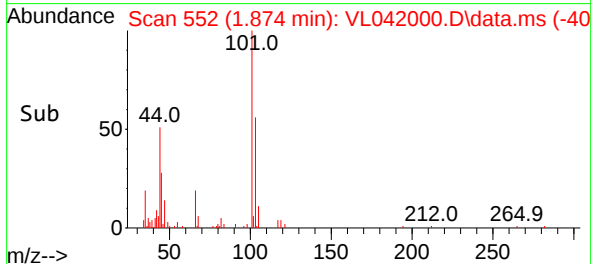
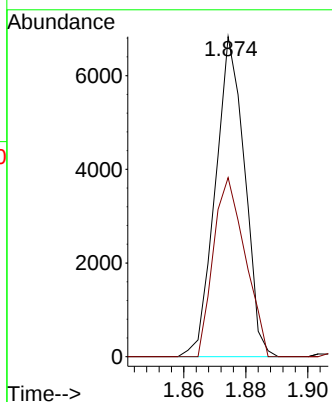


#11  
 Trichlorofluoromethane  
 Concen: 0.194 ppbv  
 RT: 1.874 min Scan# 511  
 Delta R.T. -0.010 min  
 Lab File: VL042000.D  
 Acq: 11 Feb 2025 12:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :

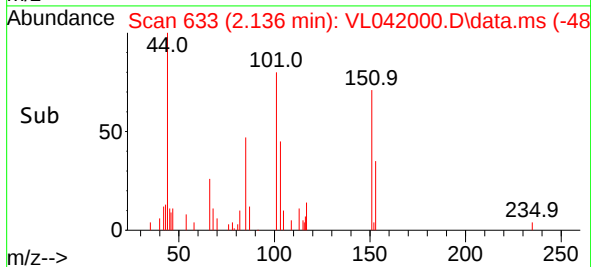
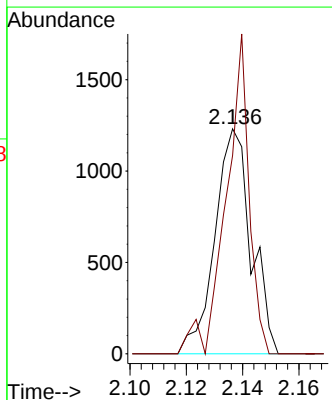
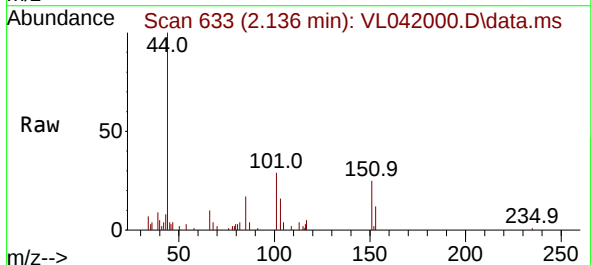


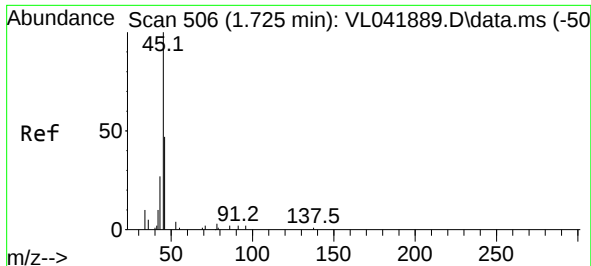
Tgt Ion:101 Resp: 4482  
 Ion Ratio Lower Upper  
 101 100  
 103 55.9 53.1 79.7



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 0.061 ppbv  
 RT: 2.136 min Scan# 633  
 Delta R.T. -0.010 min  
 Lab File: VL042000.D  
 Acq: 11 Feb 2025 12:46

Tgt Ion:101 Resp: 1102  
 Ion Ratio Lower Upper  
 101 100  
 151 90.1 56.1 84.1#

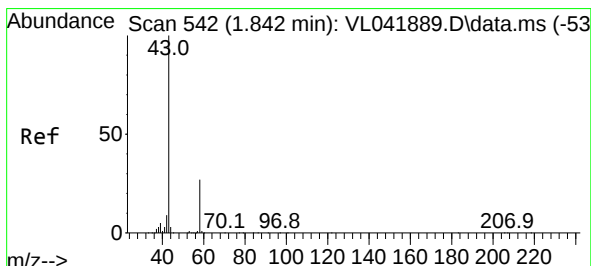
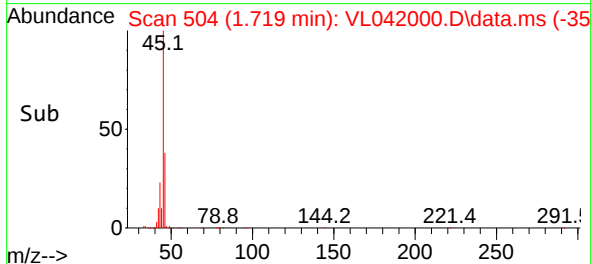
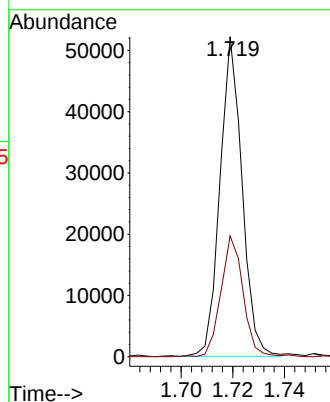
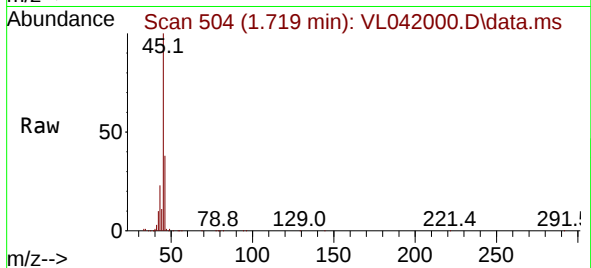




#13  
Ethanol  
Concen: 43.982 ppbv  
RT: 1.719 min Scan# 50  
Delta R.T. -0.006 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

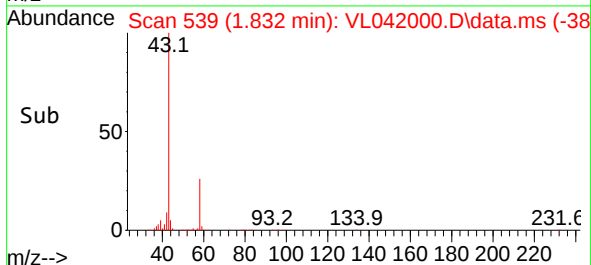
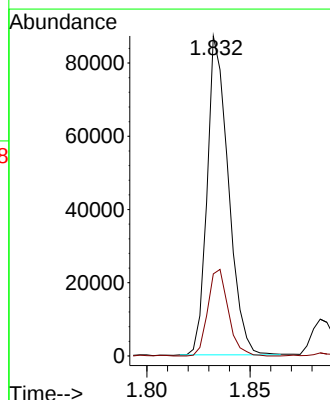
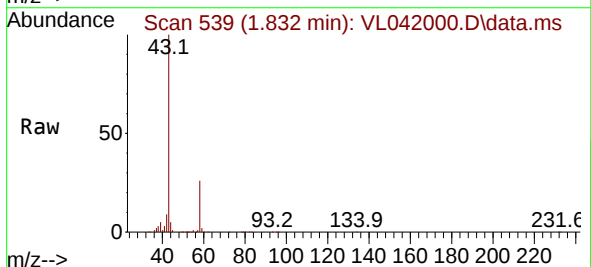
Instrument :  
MSVOA\_L  
ClientSampleId :

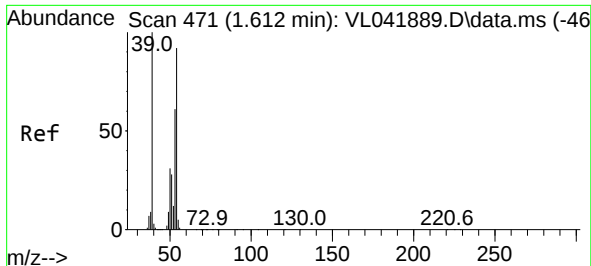
Tgt Ion: 45 Resp: 30945  
Ion Ratio Lower Upper  
45 100  
46 38.3 18.1 72.5



#15  
Acetone  
Concen: 3.173 ppbv  
RT: 1.832 min Scan# 539  
Delta R.T. -0.010 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

Tgt Ion: 43 Resp: 62268  
Ion Ratio Lower Upper  
43 100  
58 26.3 21.9 32.9

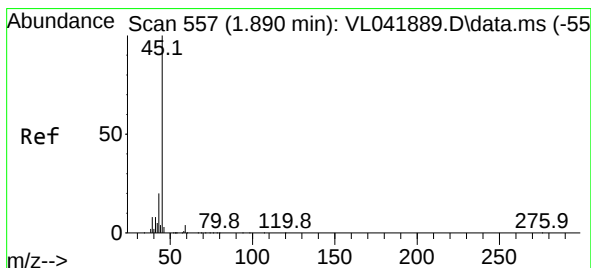
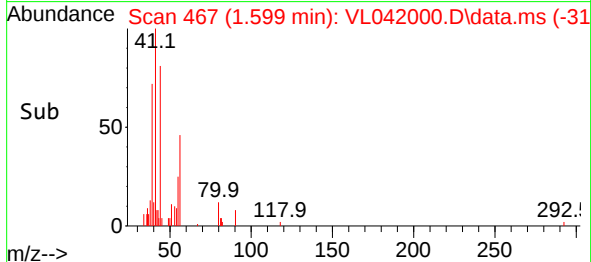
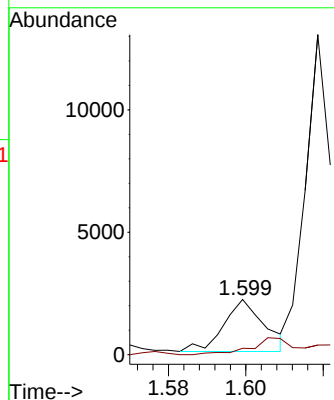
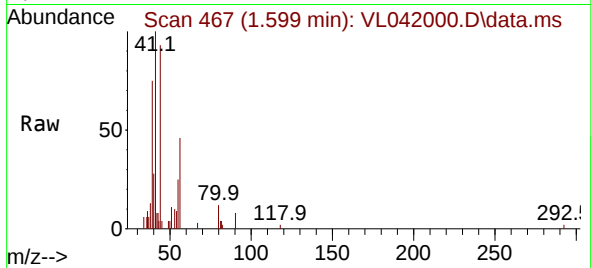




#16  
1,3-Butadiene  
Concen: 0.174 ppbv  
RT: 1.599 min Scan# 41  
Delta R.T. -0.013 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

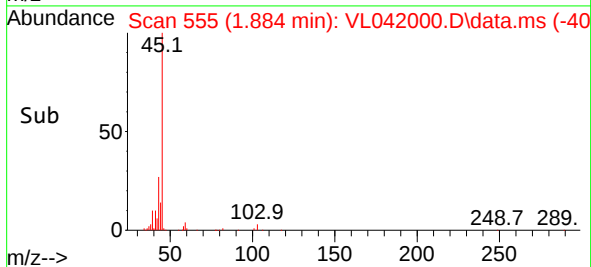
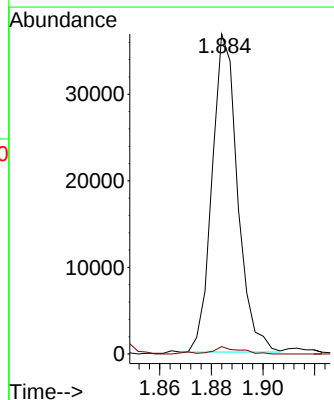
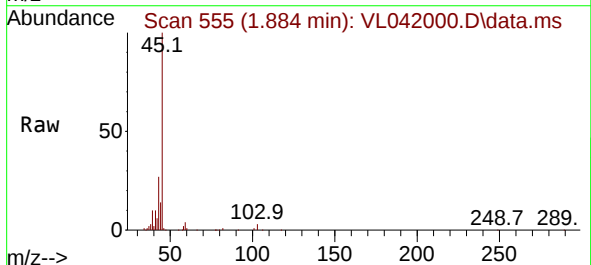
Instrument :  
MSVOA\_L  
ClientSampleId :

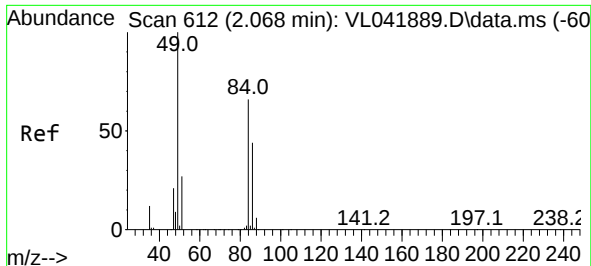
Tgt Ion: 39 Resp: 1533  
Ion Ratio Lower Upper  
39 100  
54 57.1 61.6 92.4#



#19  
Isopropyl Alcohol  
Concen: 2.168 ppbv  
RT: 1.884 min Scan# 555  
Delta R.T. -0.006 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

Tgt Ion: 45 Resp: 25228  
Ion Ratio Lower Upper  
45 100  
58 65.1 35.0 52.6#





#20

Methylene Chloride

Concen: 0.341 ppbv

RT: 2.059 min Scan# 609

Delta R.T. -0.010 min

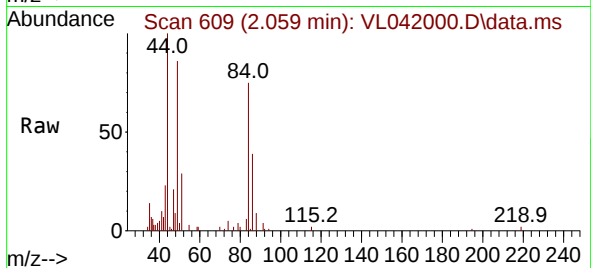
Lab File: VL042000.D

Acq: 11 Feb 2025 12:46

Instrument :

MSVOA\_L

ClientSampleId :



Tgt Ion: 84 Resp: 2642

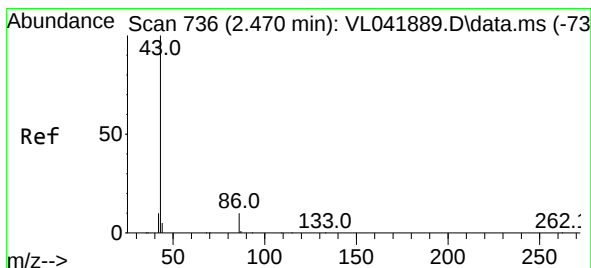
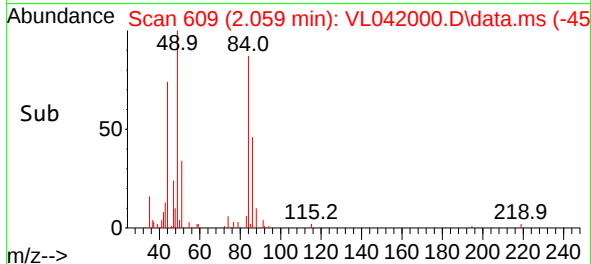
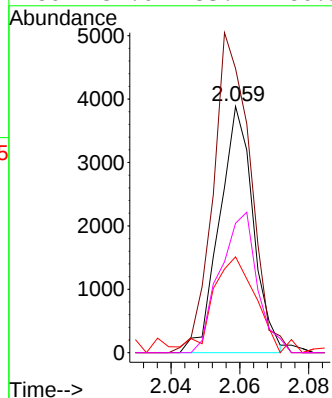
Ion Ratio Lower Upper

84 100

49 113.3 123.1 184.7#

51 38.9 35.8 53.8

86 52.6 53.7 80.5#



#23

Vinyl Acetate

Concen: 0.251 ppbv

RT: 2.450 min Scan# 730

Delta R.T. -0.019 min

Lab File: VL042000.D

Acq: 11 Feb 2025 12:46

Tgt Ion: 43 Resp: 2441

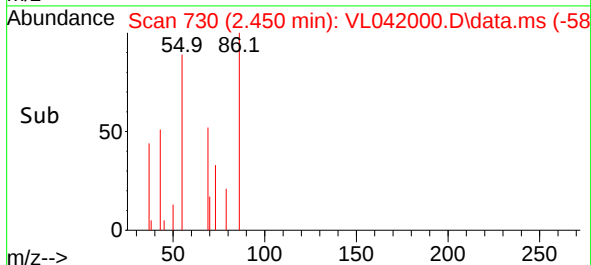
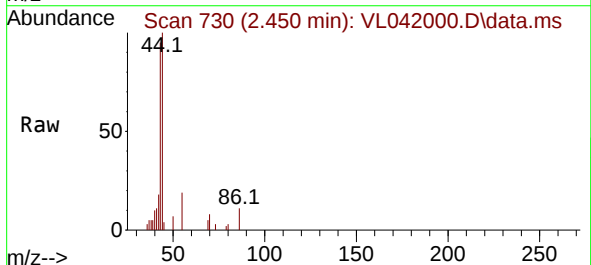
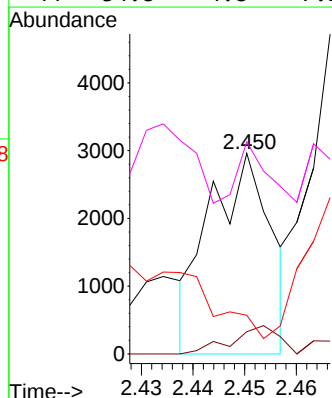
Ion Ratio Lower Upper

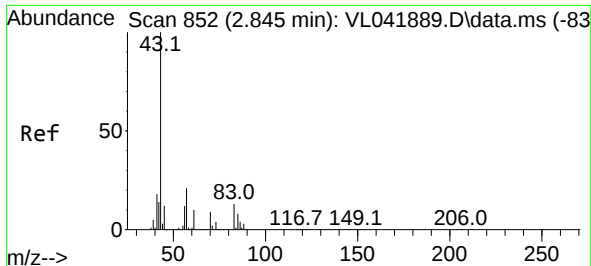
43 100

86 17.5 6.2 9.4#

42 8.5 8.5 12.7#

44 34.8 4.8 7.2#





#25

Ethyl Acetate

Concen: 0.032 ppbv

RT: 2.836 min Scan# 84

Delta R.T. -0.010 min

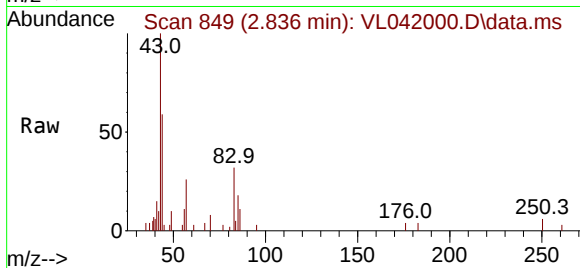
Lab File: VL042000.D

Acq: 11 Feb 2025 12:46

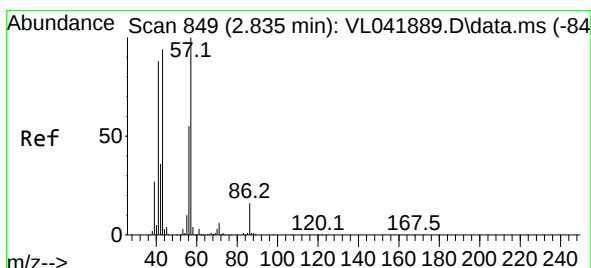
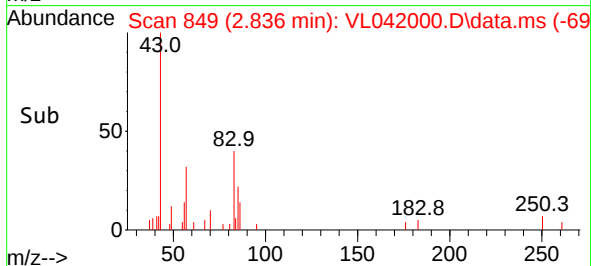
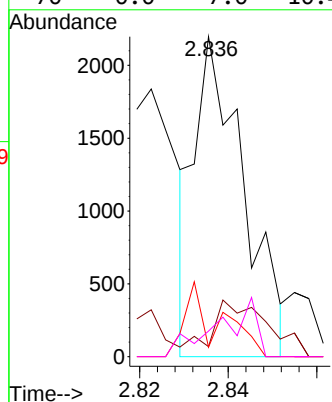
Instrument :

MSVOA\_L

ClientSampleId :



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 1676  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 45       | 40.2  | 8.2   | 12.2# |
| 61       | 16.5  | 7.4   | 11.0# |
| 70       | 0.0   | 7.0   | 10.4# |



#26

Hexane

Concen: 0.119 ppbv

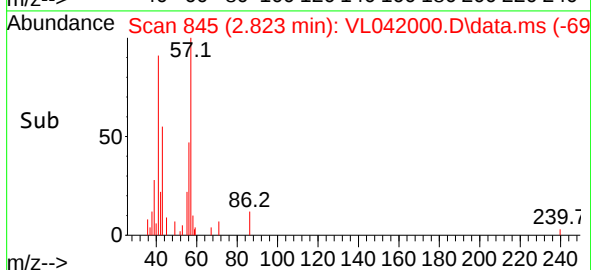
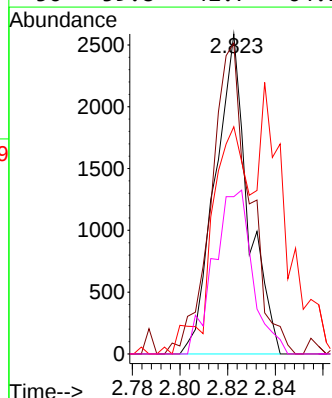
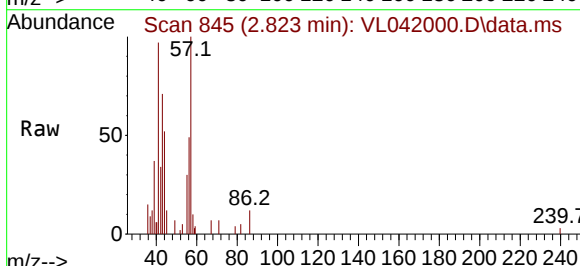
RT: 2.823 min Scan# 845

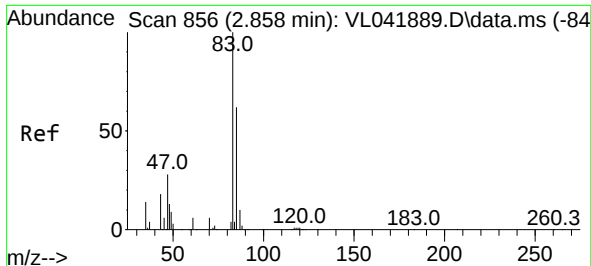
Delta R.T. -0.013 min

Lab File: VL042000.D

Acq: 11 Feb 2025 12:46

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 57    | Resp: | 2496   |
| Ion      | Ratio | Lower | Upper  |
| 57       | 100   |       |        |
| 41       | 114.5 | 73.8  | 110.8# |
| 43       | 152.6 | 197.3 | 295.9# |
| 56       | 59.8  | 42.7  | 64.1   |





#29

Chloroform

Concen: 0.037 ppbv

RT: 2.845 min Scan# 81

Delta R.T. -0.013 min

Lab File: VL042000.D

Acq: 11 Feb 2025 12:46

Instrument :

MSVOA\_L

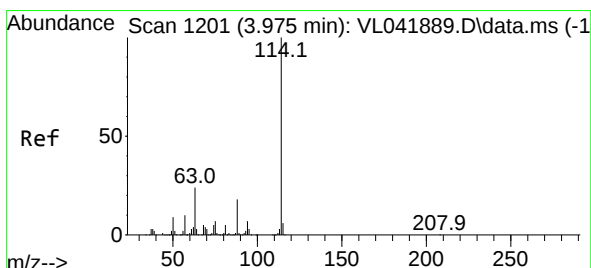
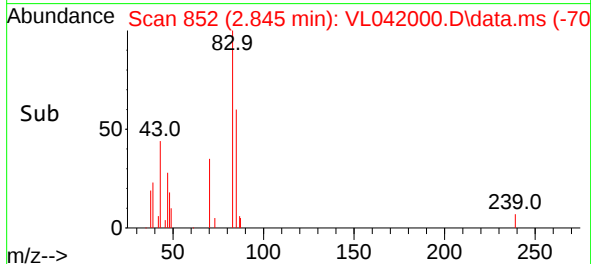
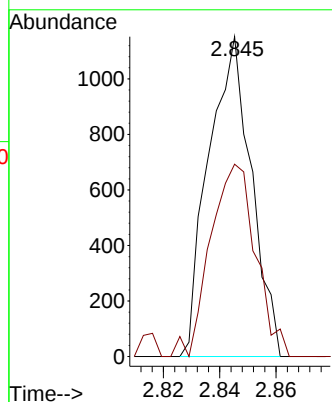
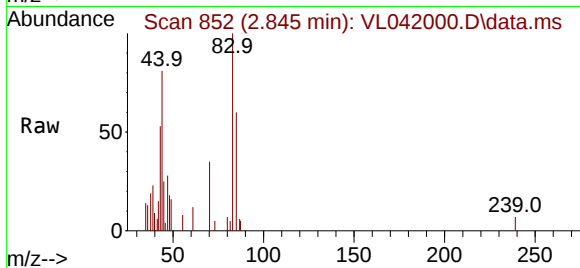
ClientSampleId :

Tgt Ion: 83 Resp: 1210

Ion Ratio Lower Upper

83 100

85 53.9 50.1 75.1



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.952 min Scan# 1194

Delta R.T. -0.023 min

Lab File: VL042000.D

Acq: 11 Feb 2025 12:46

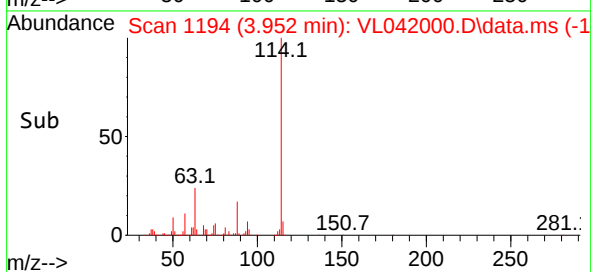
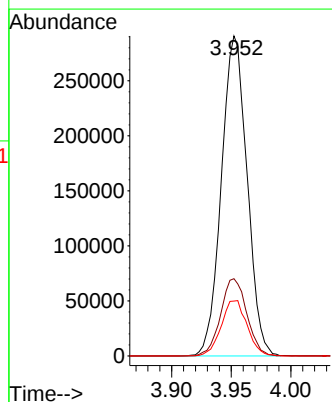
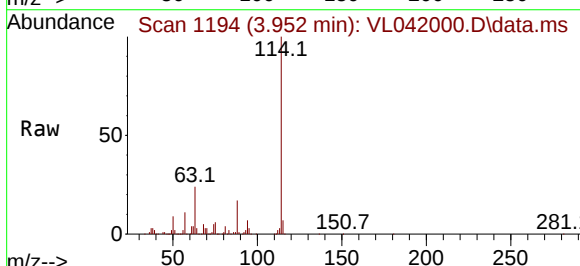
Tgt Ion: 114 Resp: 436244

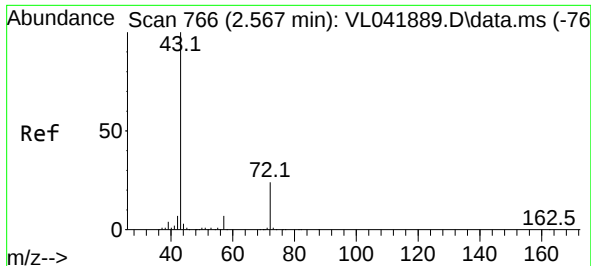
Ion Ratio Lower Upper

114 100

63 24.6 19.8 29.6

88 17.5 14.4 21.6

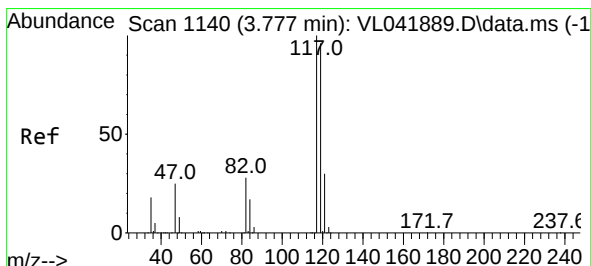
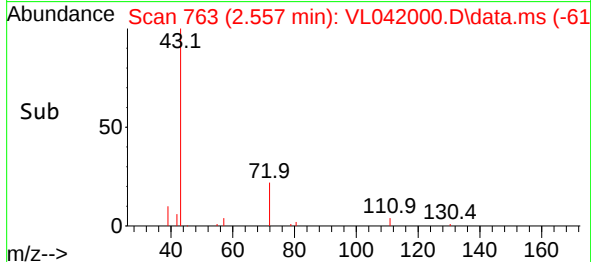
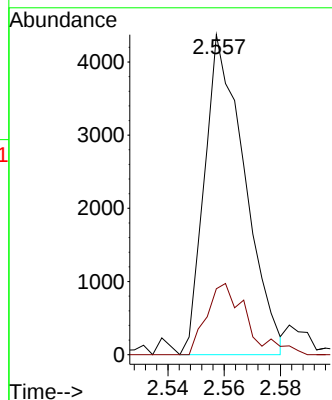
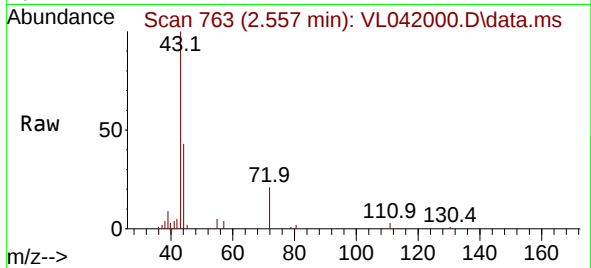




#34  
2-Butanone  
Concen: 0.156 ppbv  
RT: 2.557 min Scan# 71  
Delta R.T. -0.010 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

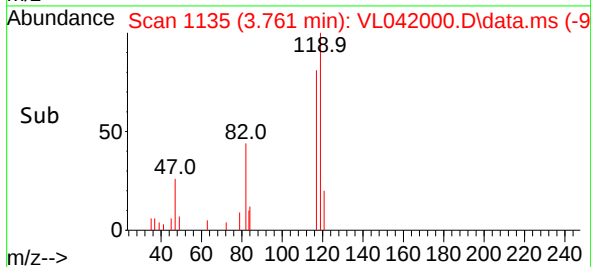
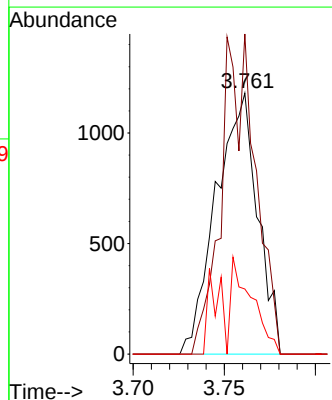
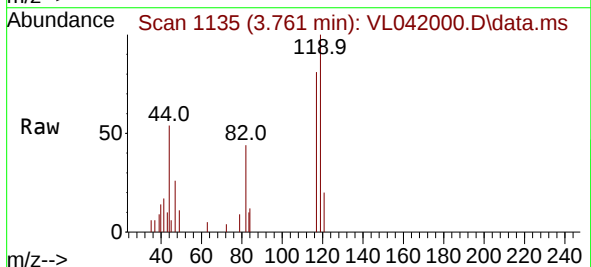
Instrument :  
MSVOA\_L  
ClientSampleId :

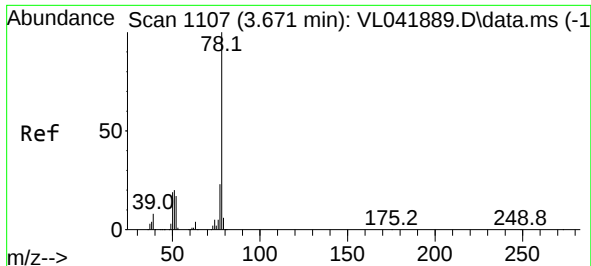
Tgt Ion: 43 Resp: 4321  
Ion Ratio Lower Upper  
43 100  
72 22.4 18.6 28.0



#35  
Carbon Tetrachloride  
Concen: 0.068 ppbv  
RT: 3.761 min Scan# 1135  
Delta R.T. -0.016 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

Tgt Ion: 117 Resp: 1871  
Ion Ratio Lower Upper  
117 100  
119 122.7 76.9 115.3#  
121 24.9 23.8 35.6

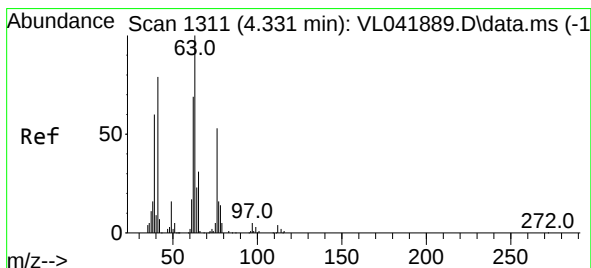
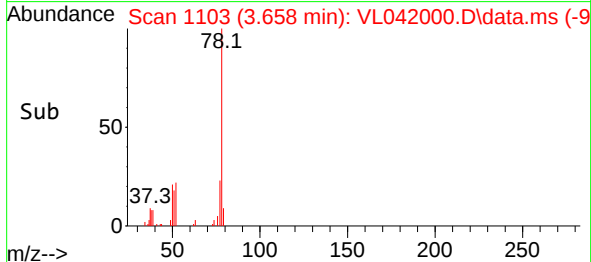
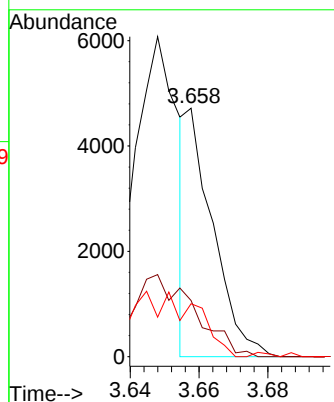
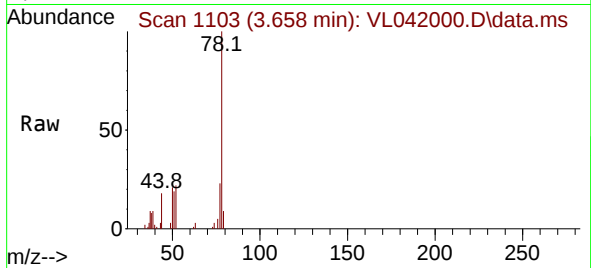




#36  
Benzene  
Concen: 0.064 ppbv  
RT: 3.658 min Scan# 1107  
Delta R.T. -0.013 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

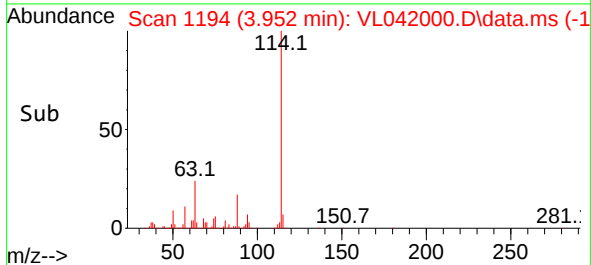
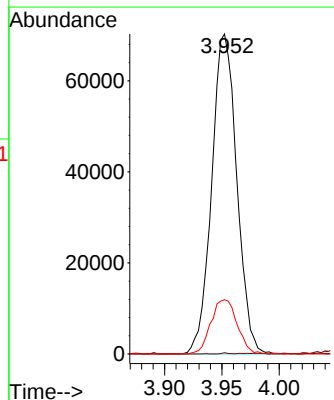
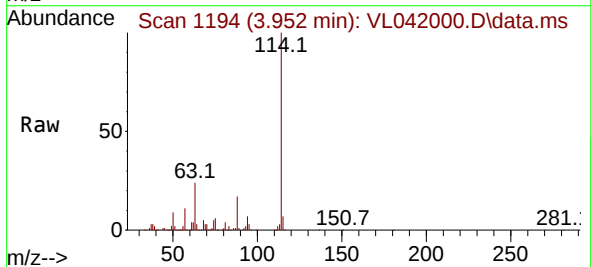
Instrument :  
MSVOA\_L  
ClientSampleId :

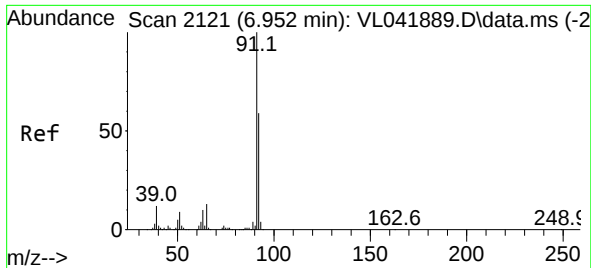
Tgt Ion: 78 Resp: 2557  
Ion Ratio Lower Upper  
78 100  
77 22.6 18.1 27.1  
50 21.3 15.2 22.8



#39  
1,2-Dichloropropane  
Concen: 7.633 ppbv  
RT: 3.952 min Scan# 1194  
Delta R.T. -0.379 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

Tgt Ion: 63 Resp: 107126  
Ion Ratio Lower Upper  
63 100  
41 0.4 63.7 95.5#  
62 17.0 55.4 83.2#

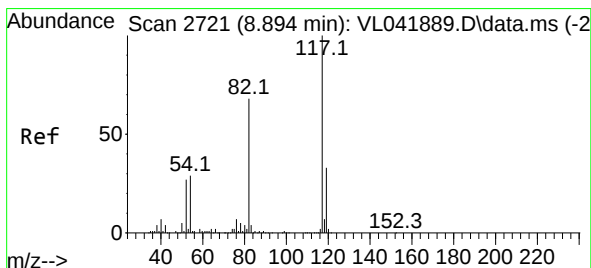
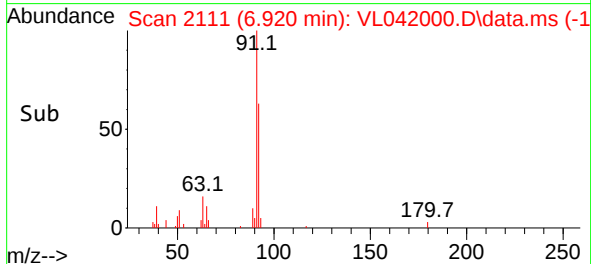
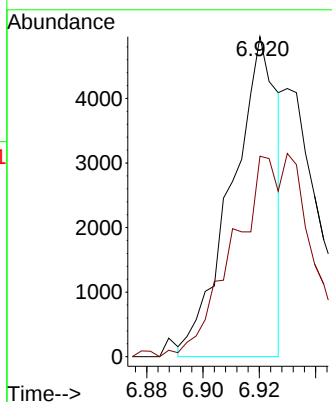
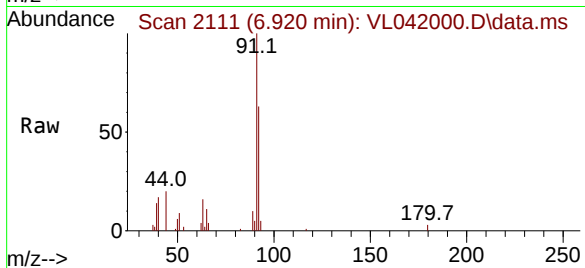




#53  
Toluene  
Concen: 0.128 ppbv  
RT: 6.920 min Scan# 2111  
Delta R.T. -0.032 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

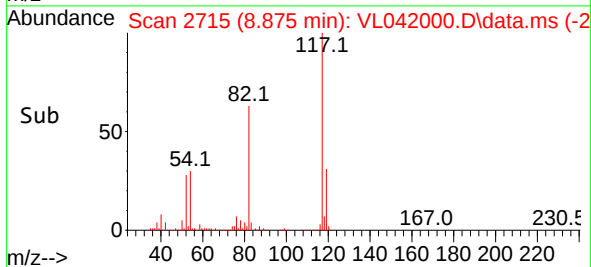
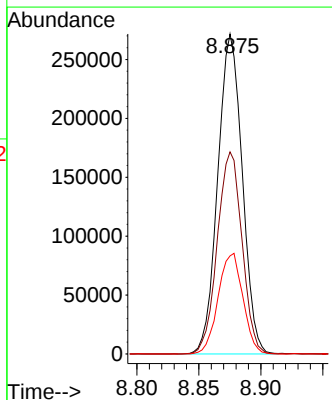
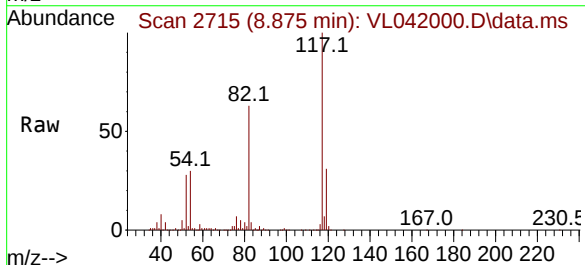
Instrument :  
MSVOA\_L  
ClientSampleId :

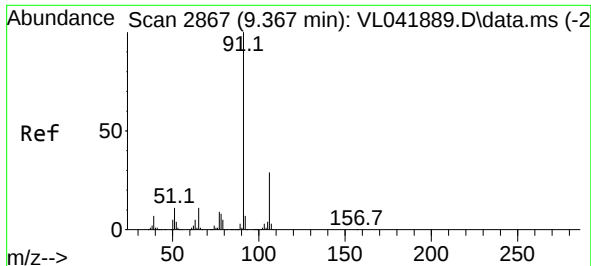
Tgt Ion: 91 Resp: 5557  
Ion Ratio Lower Upper  
91 100  
92 0.0 47.4 71.0#



#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 8.875 min Scan# 2715  
Delta R.T. -0.019 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

Tgt Ion: 117 Resp: 374213  
Ion Ratio Lower Upper  
117 100  
82 63.8 54.2 81.4  
119 31.8 25.0 37.6

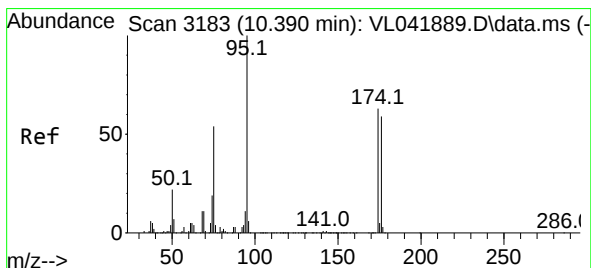
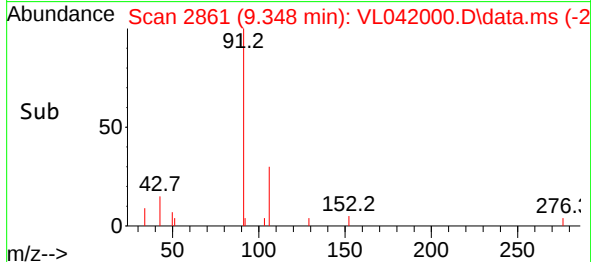
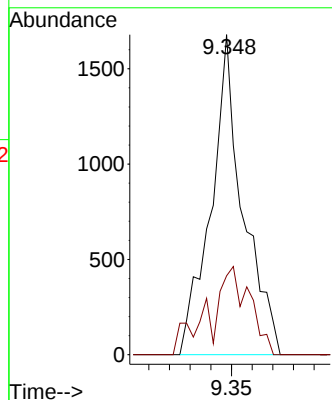
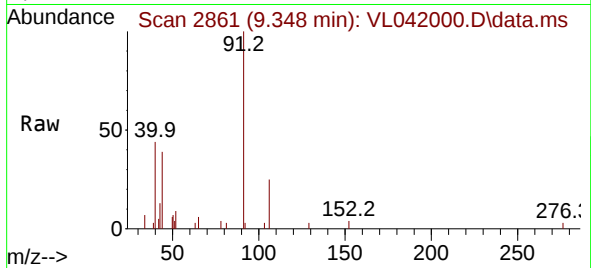




#58  
Ethyl Benzene  
Concen: 0.031 ppbv  
RT: 9.348 min Scan# 21  
Delta R.T. -0.019 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

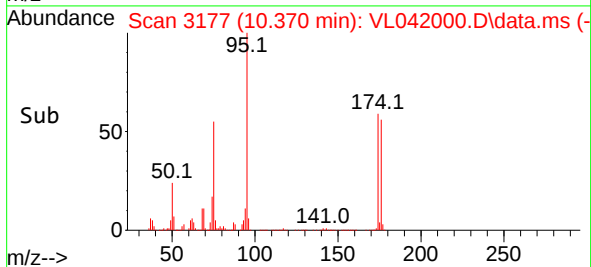
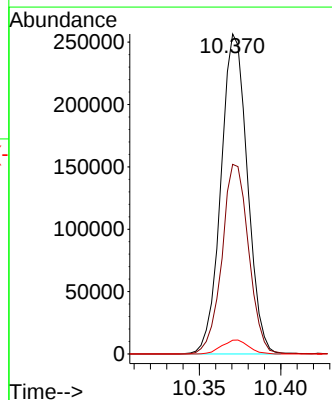
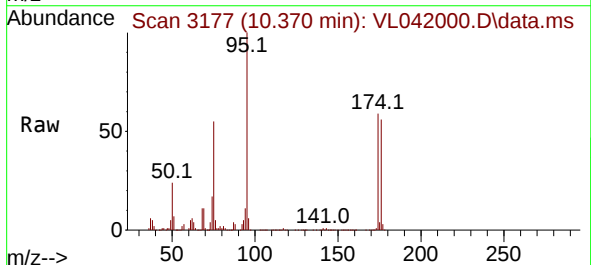
Instrument :  
MSVOA\_L  
ClientSampleId :

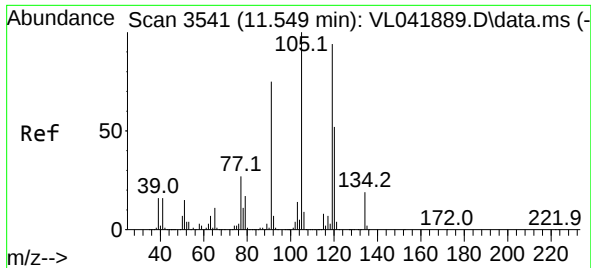
Tgt Ion: 91 Resp: 1807  
Ion Ratio Lower Upper  
91 100  
106 24.7 23.1 34.7



#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.827 ppbv  
RT: 10.370 min Scan# 3177  
Delta R.T. -0.019 min  
Lab File: VL042000.D  
Acq: 11 Feb 2025 12:46

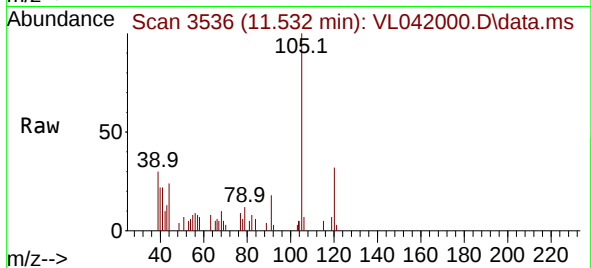
Tgt Ion: 95 Resp: 289633  
Ion Ratio Lower Upper  
95 100  
174 59.8 49.0 73.4  
175 4.4 3.8 5.8





#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.033 ppbv  
 RT: 11.532 min Scan# 3536  
 Delta R.T. -0.016 min  
 Lab File: VL042000.D  
 Acq: 11 Feb 2025 12:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 105   | Resp: | 1771  |
| Ion      | Ratio | Lower | Upper |
| 105      | 100   |       |       |
| 120      | 32.2  | 41.4  | 62.2# |
| 91       | 14.8  | 60.2  | 90.2# |
| 77       | 9.5   | 22.0  | 33.0# |

