

Data File : VL034801.D  
Acq On : 5 Mar 2020 18:28  
Operator : SY/AP  
Sample : L1698-03DL 10X  
Misc : 400ml/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
SS-6-4DL

Quant Time: Mar 06 03:44:48 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL030420AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Mar 04 06:36:39 2020  
QLast Update : Wed Mar 04 06:36:39 2020  
Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.65  | 49   | 1120602  | 10.00 | ppbv  | -0.03    |
| 33) 1,4-Difluorobenzene | 7.18  | 114  | 2338957  | 10.00 | ppbv  | -0.03    |
| 55) Chlorobenzene-d5    | 12.10 | 117  | 2307351  | 10.00 | ppbv  | -0.04    |

System Monitoring Compounds  
68) 1-Bromo-4-Fluorobenzene 14.45 95 1897491 9.86 ppbv -0.04  
Spiked Amount 10.000 Range 65 - 135 Recovery = 98.60%

| Target Compounds           | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|----------------------------|-------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane | 3.01  | 85   | 9886     | 0.054  | ppbv   | 92     |
| 9) Propene                 | 2.98  | 41   | 9804     | 0.195  | ppbv # | 80     |
| 10) Heptane                | 8.12  | 43   | 13905    | 0.109  | ppbv # | 27     |
| 13) Ethanol                | 3.57  | 45   | 98555    | 5.724  | ppbv   | 97     |
| 15) Acetone                | 3.81  | 43   | 3055038  | 22.766 | ppbv   | 97     |
| 19) Isopropyl Alcohol      | 3.95  | 45   | 149861   | 1.864  | ppbv # | 93     |
| 20) Methylene Chloride     | 4.32  | 84   | 21575    | 0.450  | ppbv   | 86     |
| 23) Vinyl Acetate          | 5.05  | 43   | 20428    | 0.114  | ppbv # | 90     |
| 25) Ethyl Acetate          | 5.67  | 43   | 19180    | 0.083  | ppbv # | 80     |
| 26) Hexane                 | 5.68  | 57   | 21797    | 0.215  | ppbv # | 50     |
| 34) 2-Butanone             | 5.24  | 43   | 22883    | 0.150  | ppbv   | 99     |
| 36) Benzene                | 6.89  | 78   | 7599     | 0.038  | ppbv # | 85     |
| 39) 1,2-Dichloropropane    | 7.18  | 63   | 659862   | 8.181  | ppbv # | 24     |
| 52) Tetrachloroethene      | 11.24 | 164  | 102808   | 1.392  | ppbv   | 90     |
| 53) Toluene                | 9.82  | 91   | 116460   | 0.551  | ppbv # | 49     |

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

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Misc : 400ml/MSVOA\_L

ALS Vial : 1 Sample Multiplier: 1

Instrument :

MSVOA\_L

ClientSampleId :

SS-6-4DL

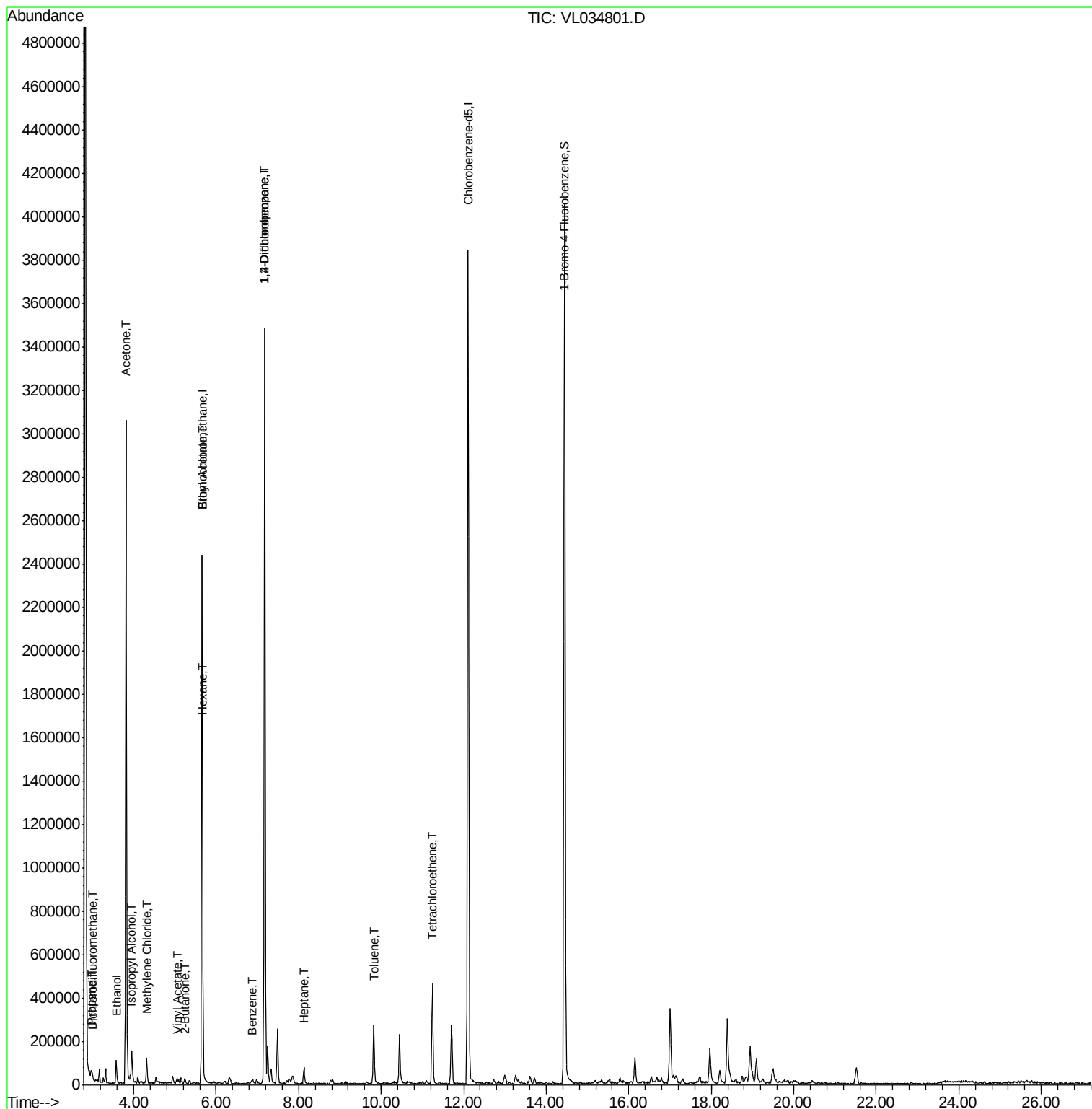
Quant Time: Mar 06 03:44:48 2020

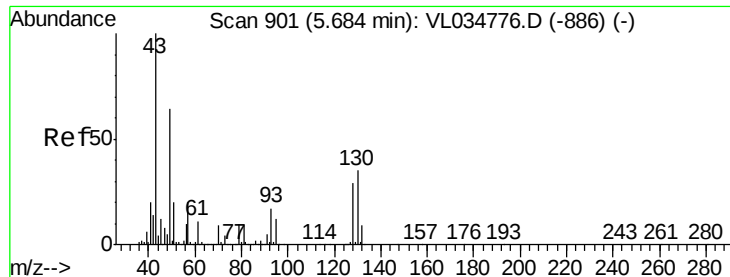
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL030420AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Mar 04 06:36:39 2020

QLast Update : Wed Mar 04 06:36:39 2020

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.03 min

Lab File: VL034801.D

Acq: 5 Mar 2020 18:28

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SS-6-4DL

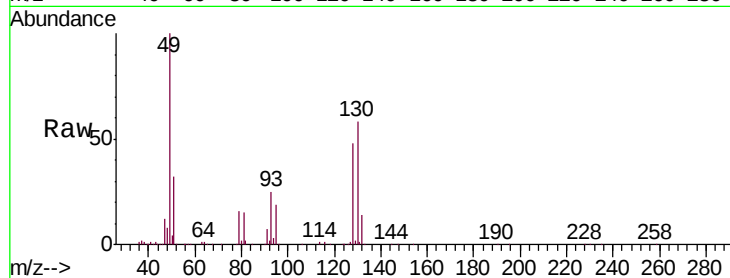
Tgt Ion: 49 Resp: 1120602

Ion Ratio Lower Upper

49 100

128 45.4 21.6 64.6

130 57.6 27.4 82.2



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V

5.65

800000

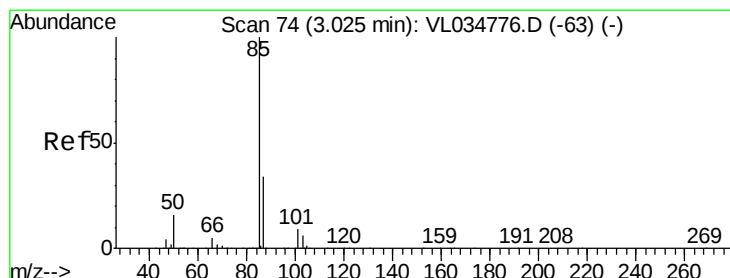
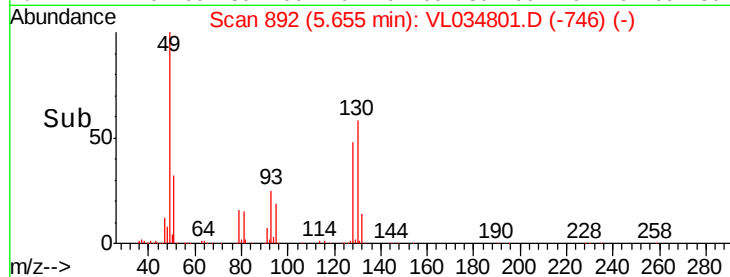
600000

400000

200000

0

Time-->



#2

Dichlorodifluoromethane

Concen: 0.054 ppbv

RT: 3.01 min Scan# 68

Delta R.T. -0.02 min

Lab File: VL034801.D

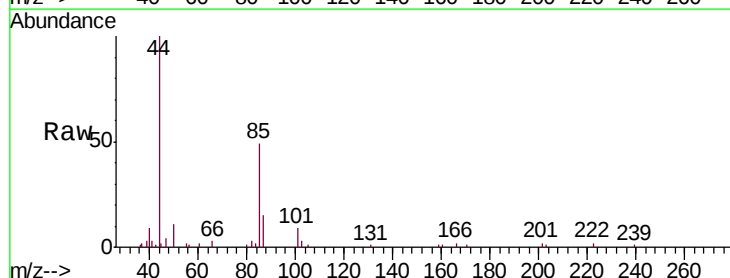
Acq: 5 Mar 2020 18:28

Tgt Ion: 85 Resp: 9886

Ion Ratio Lower Upper

85 100

87 29.6 27.2 40.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

10000

8000

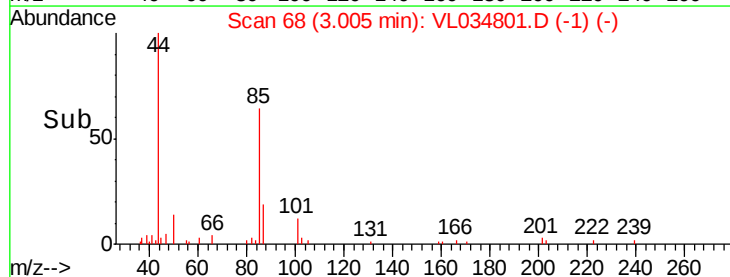
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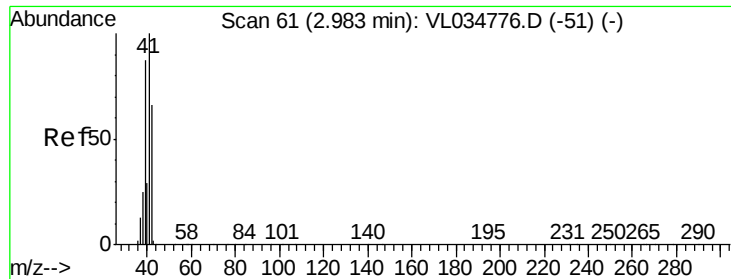
4000

2000

0

Time-->





#9

Propene

Concen: 0.195 ppbv

RT: 2.98 min Scan# 60

Delta R.T. -0.00 min

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Acq: 5 Mar 2020 18:28

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ClientSampleId :

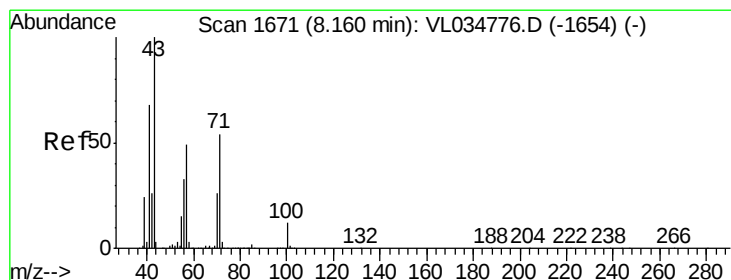
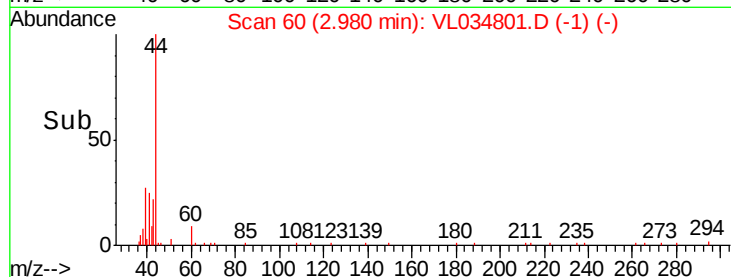
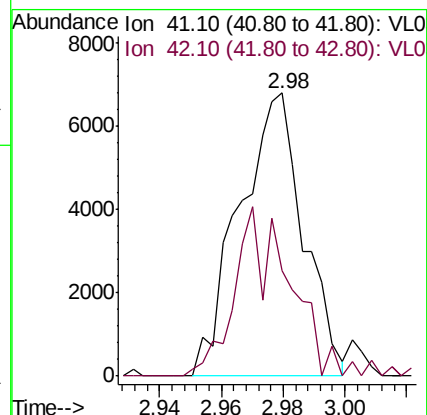
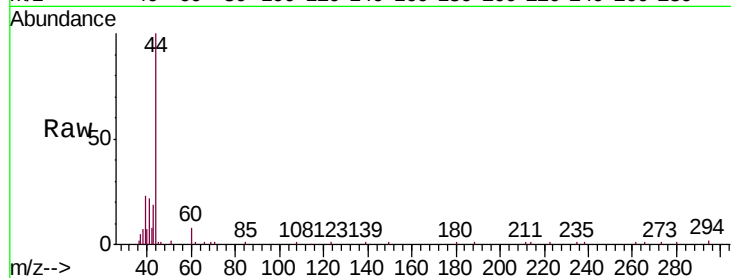
SS-6-4DL

Tgt Ion: 41 Resp: 9804

Ion Ratio Lower Upper

41 100

42 52.8 55.6 83.4#



#10

Heptane

Concen: 0.109 ppbv

RT: 8.12 min Scan# 1660

Delta R.T. -0.04 min

Lab File: VL034801.D

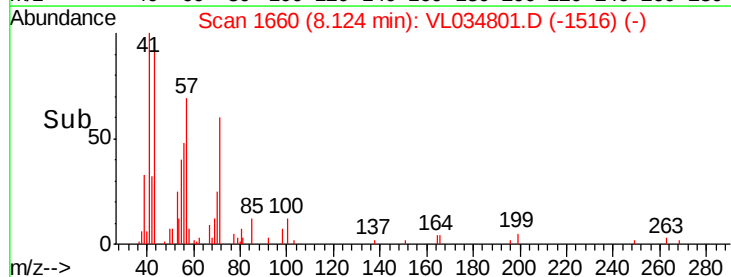
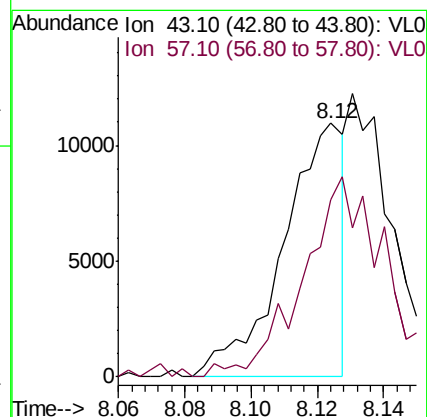
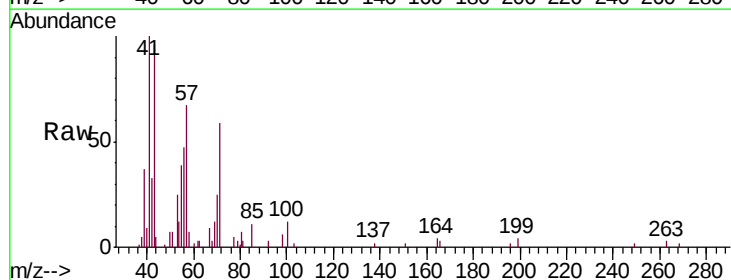
Acq: 5 Mar 2020 18:28

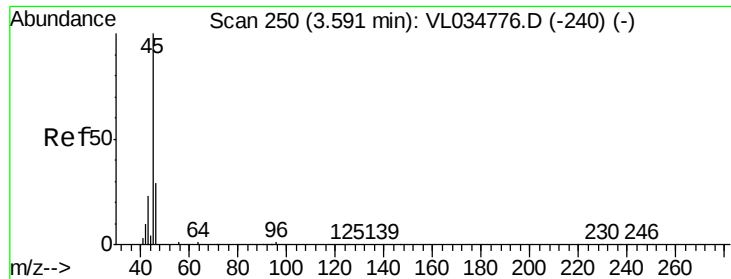
Tgt Ion: 43 Resp: 13905

Ion Ratio Lower Upper

43 100

57 0.0 40.5 60.7#

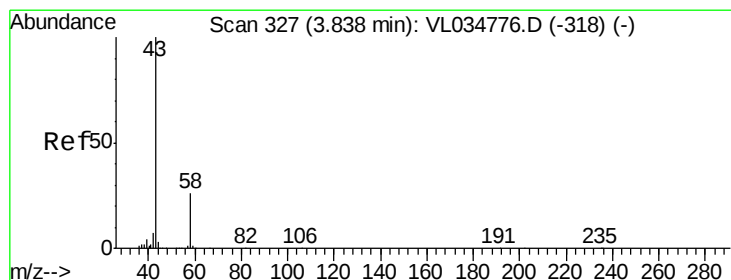
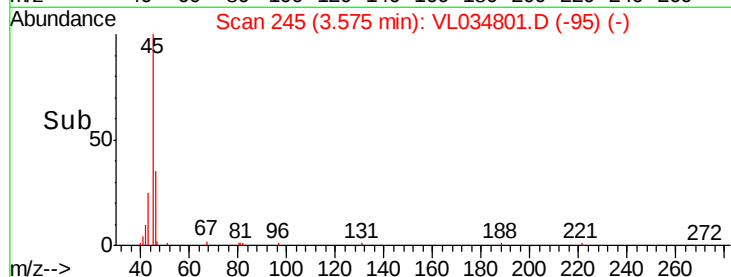
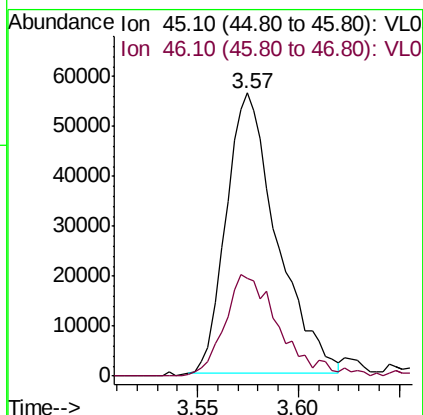
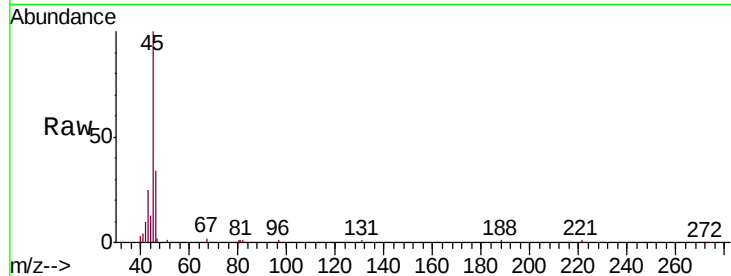




#13  
Ethanol  
Concen: 5.724 ppbv  
RT: 3.57 min Scan# 245  
Delta R.T. -0.02 min  
Lab File: VL034801.D  
Acq: 5 Mar 2020 18:28

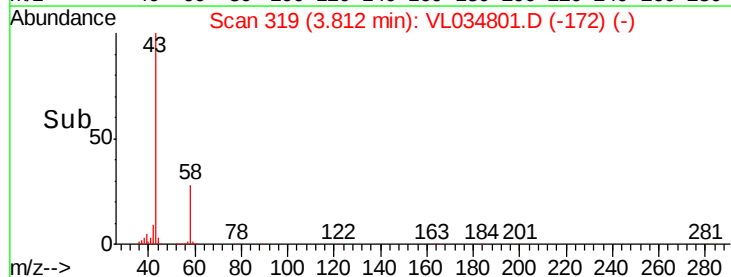
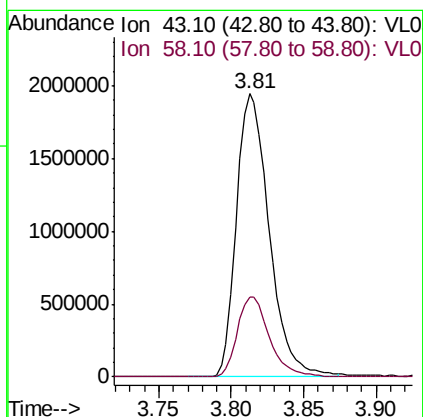
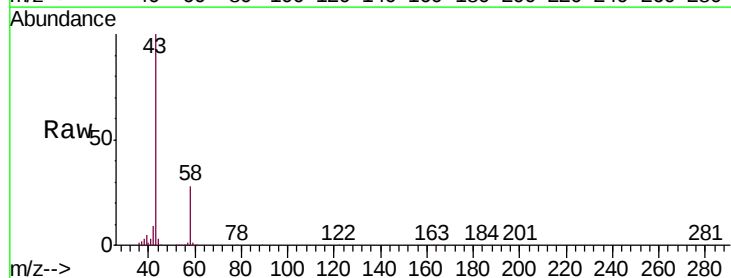
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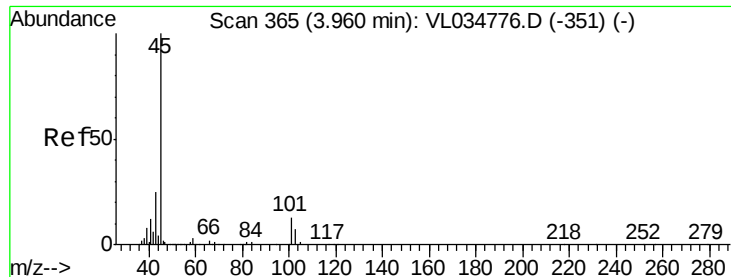
Tgt Ion: 45 Resp: 98555  
Ion Ratio Lower Upper  
45 100  
46 38.9 14.7 58.9



#15  
Acetone  
Concen: 22.766 ppbv  
RT: 3.81 min Scan# 319  
Delta R.T. -0.03 min  
Lab File: VL034801.D  
Acq: 5 Mar 2020 18:28

Tgt Ion: 43 Resp: 3055038  
Ion Ratio Lower Upper  
43 100  
58 28.0 21.0 31.6

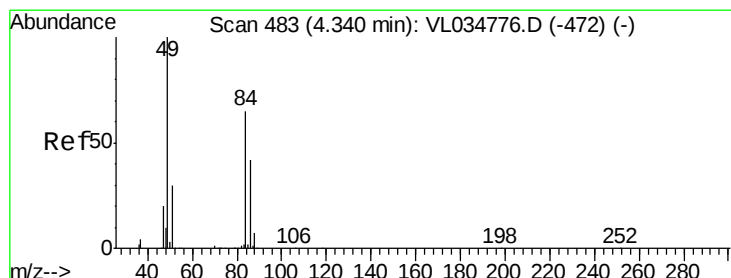
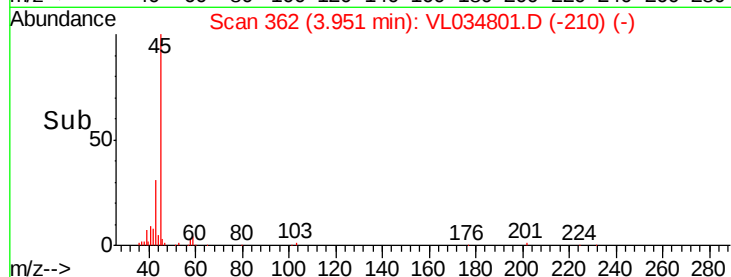
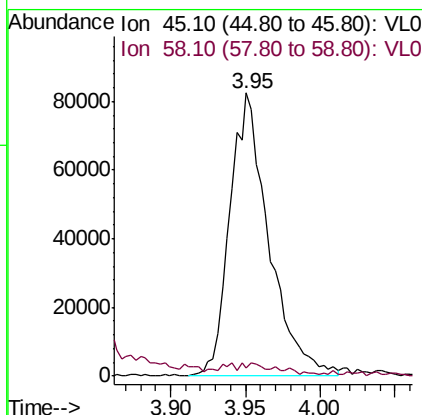
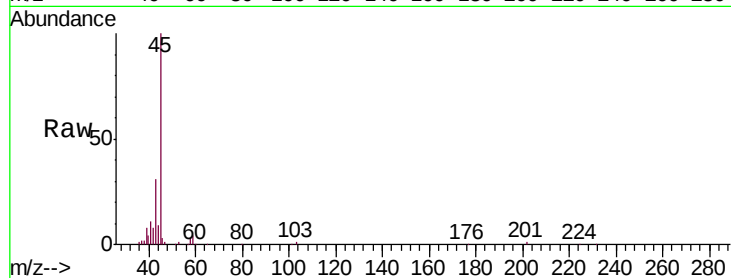




#19  
Isopropyl Alcohol  
Concen: 1.864 ppbv  
RT: 3.95 min Scan# 362  
Delta R.T. -0.01 min  
Lab File: VL034801.D  
Acq: 5 Mar 2020 18:28

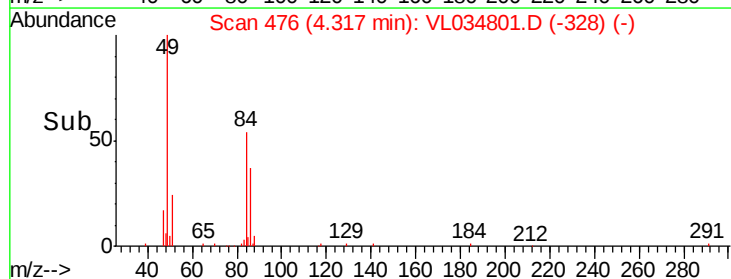
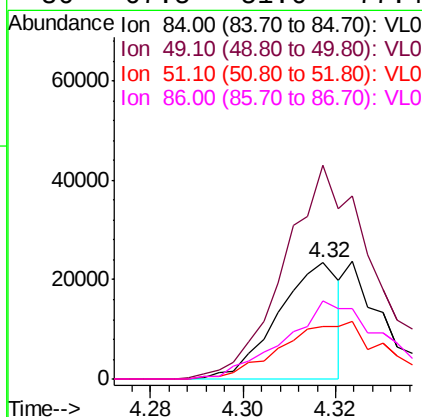
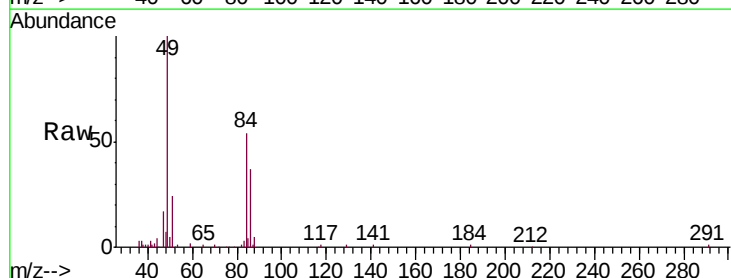
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MSVOA\_L  
ClientSampleId :  
SS-6-4DL

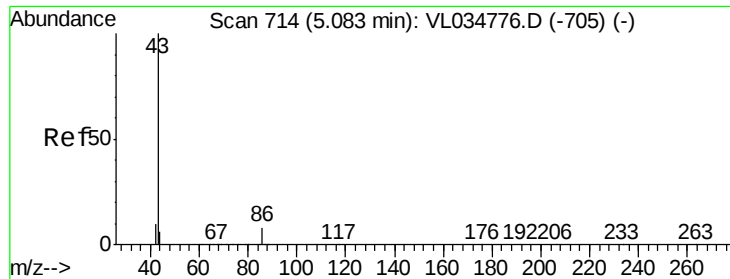
Tgt Ion: 45 Resp: 149861  
Ion Ratio Lower Upper  
45 100  
58 0.0 1.8 2.8#



#20  
Methylene Chloride  
Concen: 0.450 ppbv  
RT: 4.32 min Scan# 476  
Delta R.T. -0.02 min  
Lab File: VL034801.D  
Acq: 5 Mar 2020 18:28

Tgt Ion: 84 Resp: 21575  
Ion Ratio Lower Upper  
84 100  
49 182.6 123.2 184.8  
51 45.0 37.4 56.2  
86 67.5 51.6 77.4

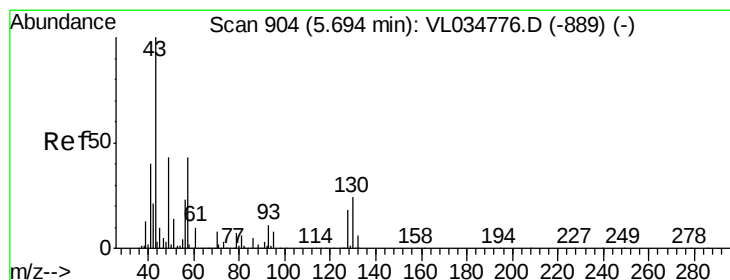
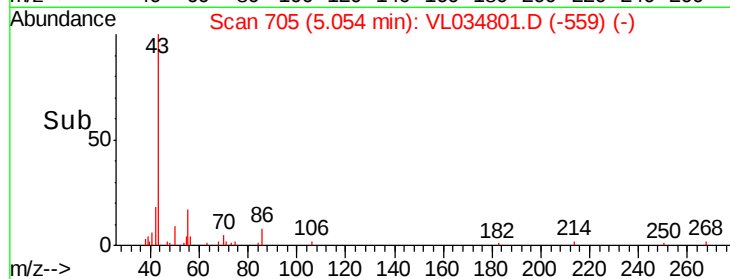
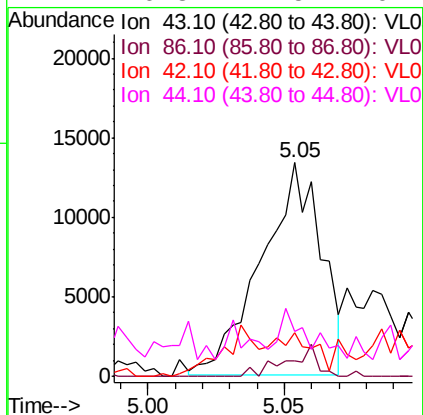
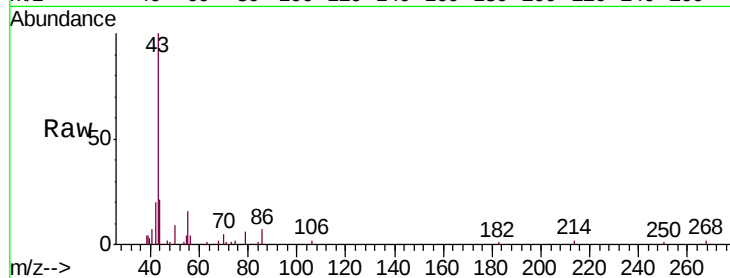




#23  
 Vinyl Acetate  
 Concen: 0.114 ppbv  
 RT: 5.05 min Scan# 705  
 Delta R.T. -0.03 min  
 Lab File: VL034801.D  
 Acq: 5 Mar 2020 18:28

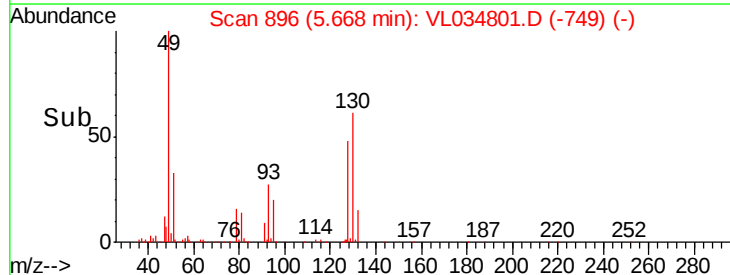
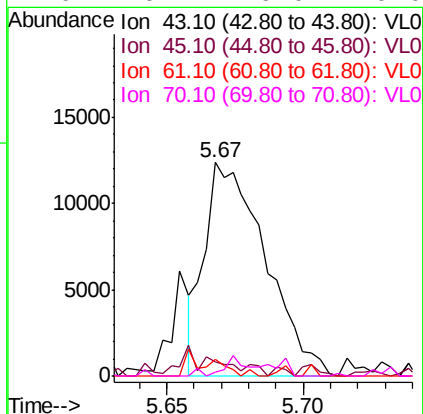
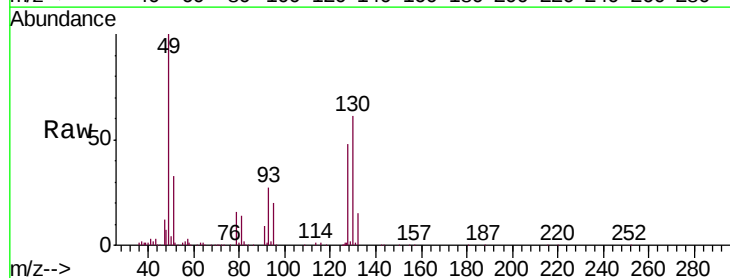
Instrument :  
 MSVOA\_L  
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 SS-6-4DL

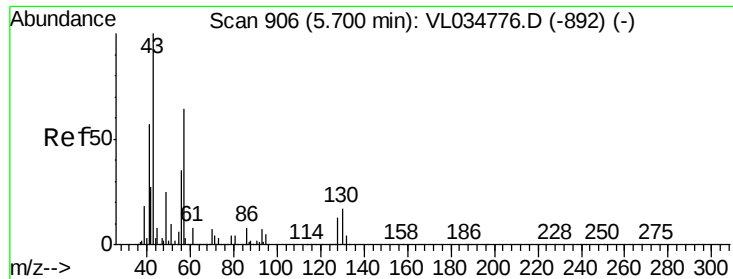
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|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 20428 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 86       | 7.2   | 5.9   | 8.9   |
| 42       | 17.6  | 8.2   | 12.2# |
| 44       | 6.8   | 4.5   | 6.7#  |



#25  
 Ethyl Acetate  
 Concen: 0.083 ppbv  
 RT: 5.67 min Scan# 896  
 Delta R.T. -0.03 min  
 Lab File: VL034801.D  
 Acq: 5 Mar 2020 18:28

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 19180 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 45       | 0.0   | 8.2   | 12.4# |
| 61       | 0.0   | 7.5   | 11.3# |
| 70       | 6.2   | 6.0   | 9.0   |

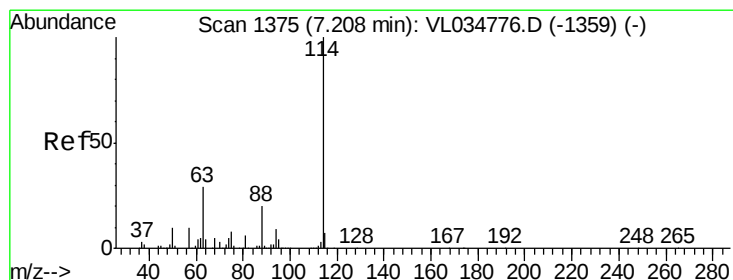
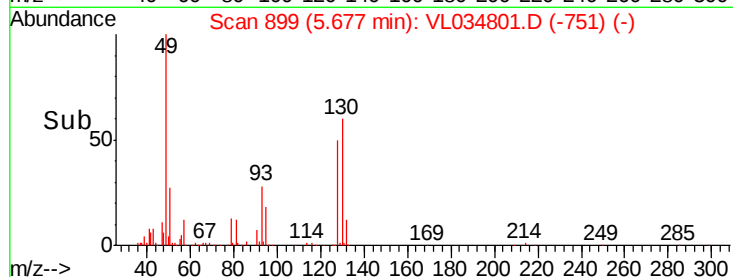
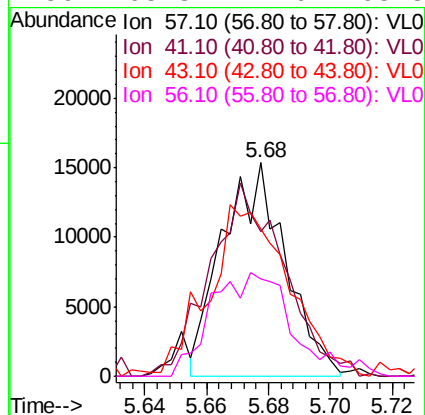
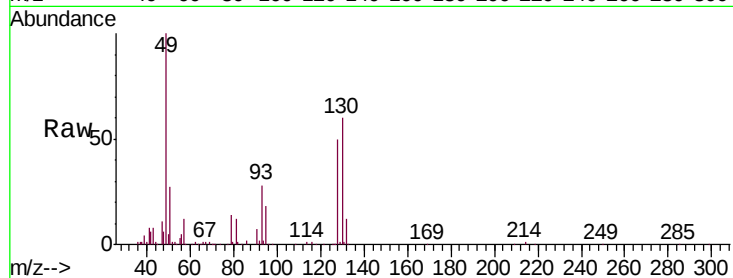




#26  
Hexane  
Concen: 0.215 ppbv  
RT: 5.68 min Scan# 899  
Delta R.T. -0.02 min  
Lab File: VL034801.D  
Acq: 5 Mar 2020 18:28

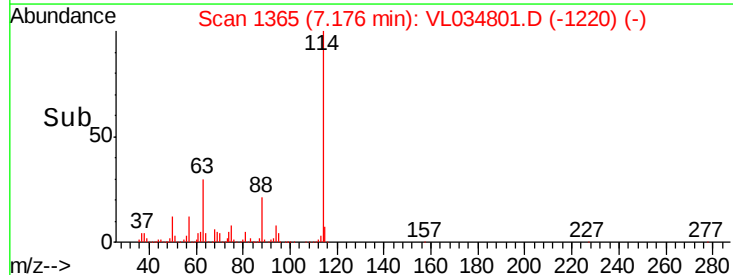
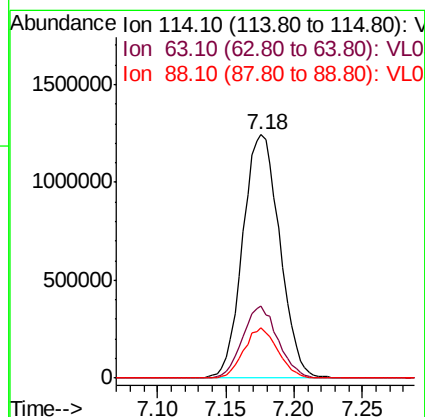
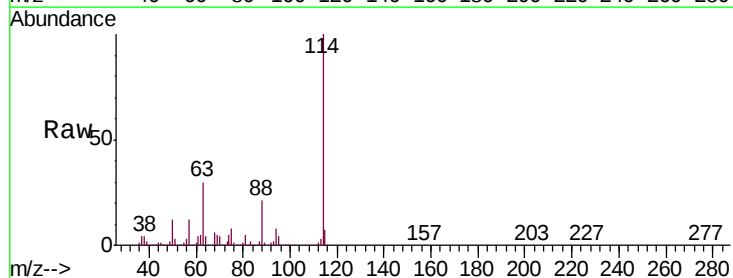
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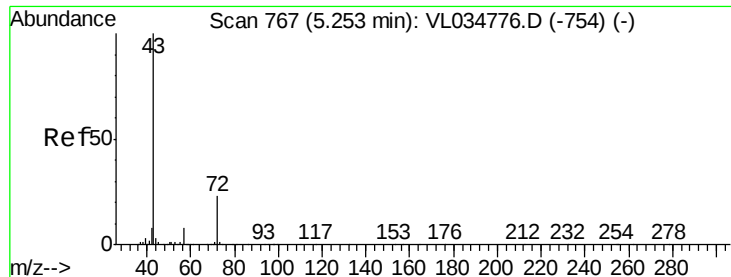
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|----------|-------|-------|--------|
| Tgt Ion: | 57    | Resp: | 21797  |
| Ion      | Ratio | Lower | Upper  |
| 57       | 100   |       |        |
| 41       | 107.1 | 72.0  | 108.0  |
| 43       | 107.5 | 179.1 | 268.7# |
| 56       | 63.3  | 42.6  | 63.8   |



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.18 min Scan# 1365  
Delta R.T. -0.03 min  
Lab File: VL034801.D  
Acq: 5 Mar 2020 18:28

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 114   | Resp: | 2338957 |
| Ion      | Ratio | Lower | Upper   |
| 114      | 100   |       |         |
| 63       | 28.4  | 23.6  | 35.4    |
| 88       | 19.2  | 15.8  | 23.8    |

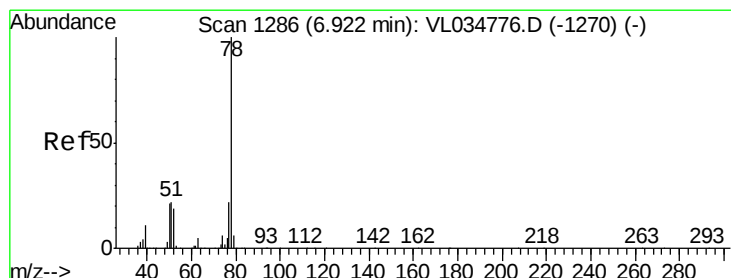
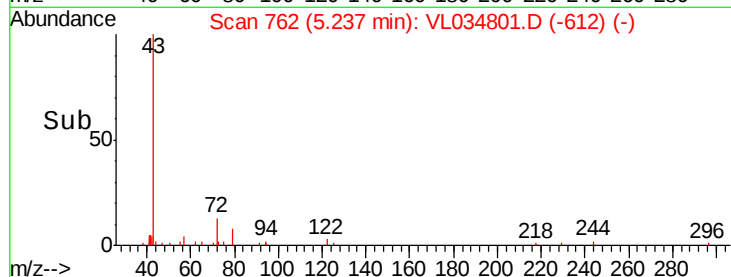
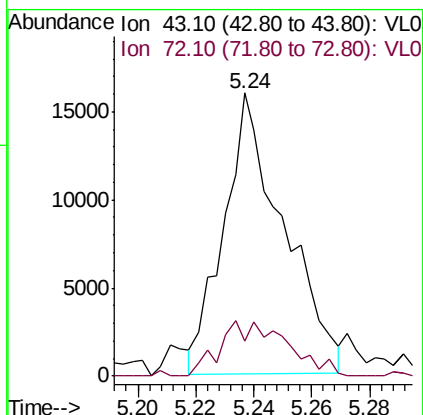
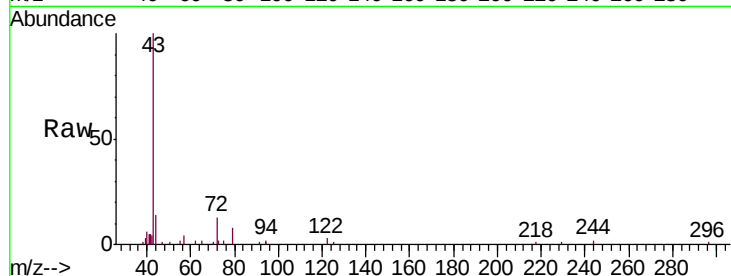




#34  
2-Butanone  
Concen: 0.150 ppbv  
RT: 5.24 min Scan# 762  
Delta R.T. -0.02 min  
Lab File: VL034801.D  
Acq: 5 Mar 2020 18:28

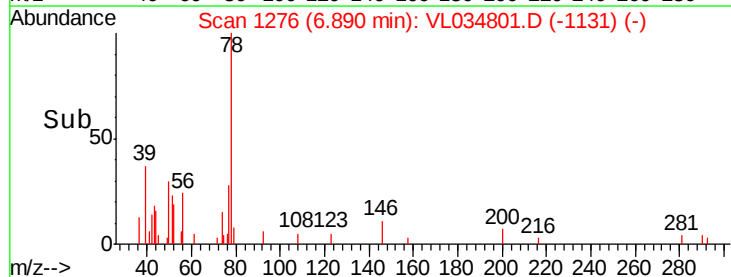
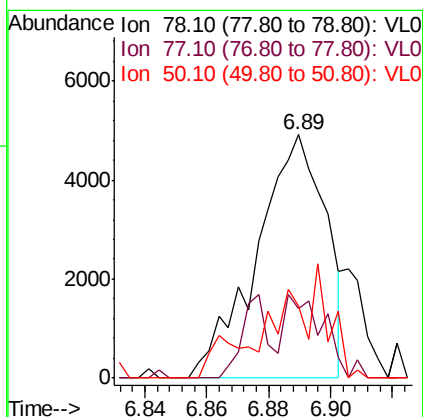
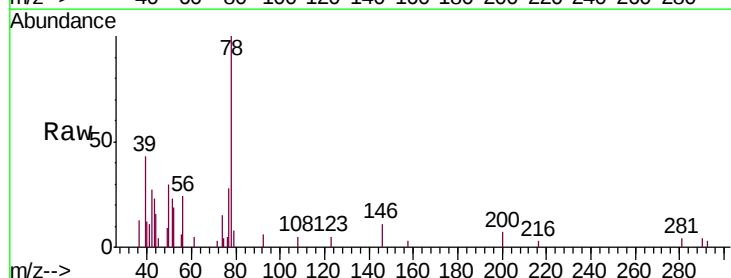
Instrument :  
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ClientSampleId :  
SS-6-4DL

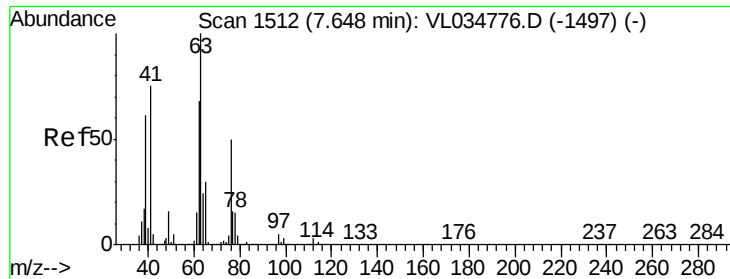
Tgt Ion: 43 Resp: 22883  
Ion Ratio Lower Upper  
43 100  
72 22.3 17.5 26.3



#36  
Benzene  
Concen: 0.038 ppbv  
RT: 6.89 min Scan# 1276  
Delta R.T. -0.03 min  
Lab File: VL034801.D  
Acq: 5 Mar 2020 18:28

Tgt Ion: 78 Resp: 7599  
Ion Ratio Lower Upper  
78 100  
77 28.3 18.0 27.0#  
50 29.5 16.9 25.3#





#39

1,2-Dichloropropane

Concen: 8.181 ppbv

RT: 7.18 min Scan# 1365

Delta R.T. -0.47 min

Lab File: VL034801.D

Acq: 5 Mar 2020 18:28

Instrument :

MSVOA\_L

ClientSampleId :

SS-6-4DL

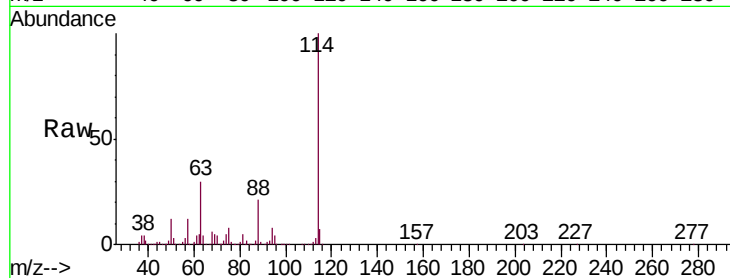
Tgt Ion: 63 Resp: 659862

Ion Ratio Lower Upper

63 100

41 0.0 60.3 90.5#

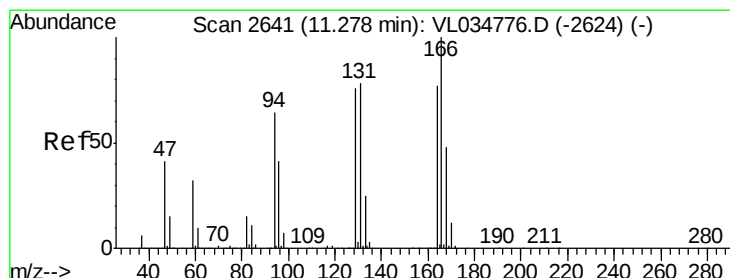
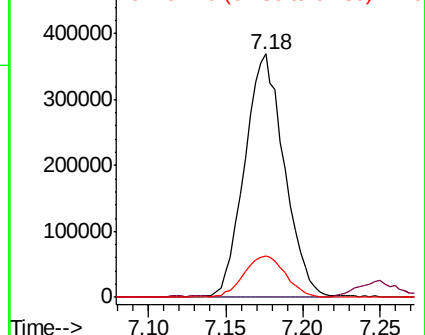
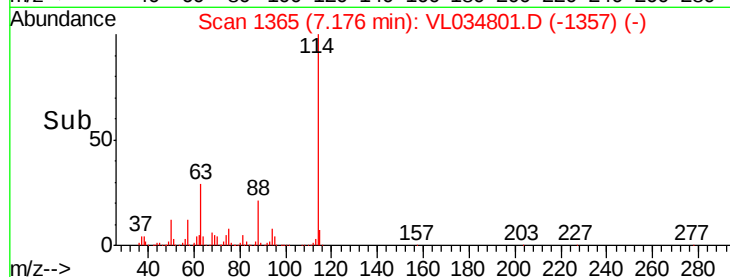
62 17.1 54.5 81.7#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#52

Tetrachloroethene

Concen: 1.392 ppbv

RT: 11.24 min Scan# 2630

Delta R.T. -0.04 min

Lab File: VL034801.D

Acq: 5 Mar 2020 18:28

Tgt Ion: 164 Resp: 102808

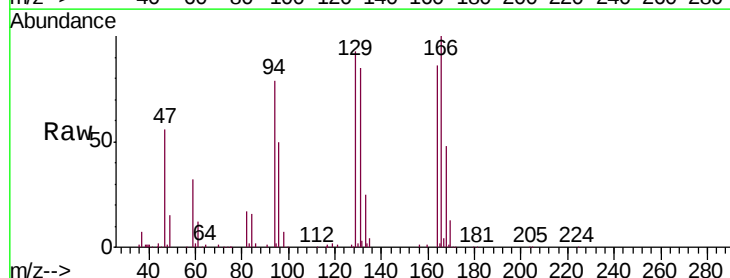
Ion Ratio Lower Upper

164 100

166 111.7 103.3 154.9

129 107.2 79.0 118.4

131 96.9 81.0 121.4

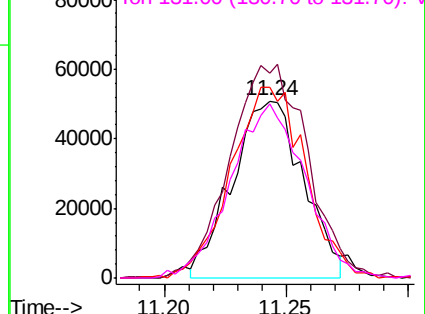
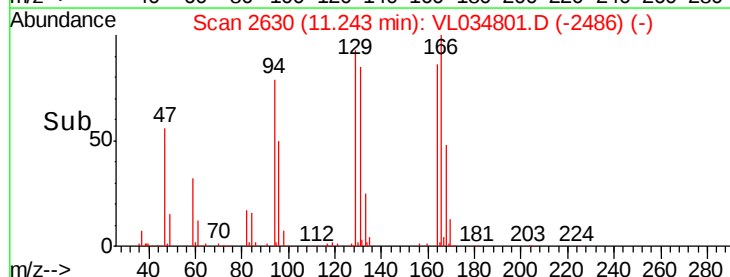


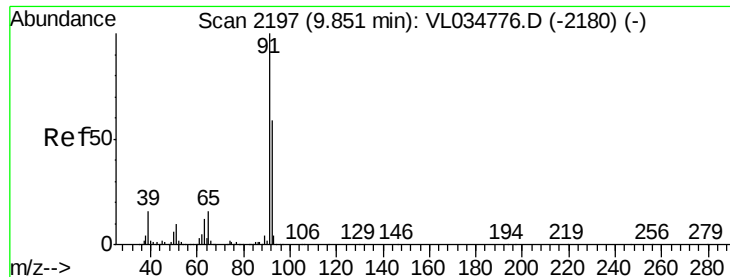
Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 0.551 ppbv

RT: 9.82 min Scan# 2187

Delta R.T. -0.03 min

Lab File: VL034801.D

Acq: 5 Mar 2020 18:28

Instrument :

MSVOA\_L

ClientSampleId :

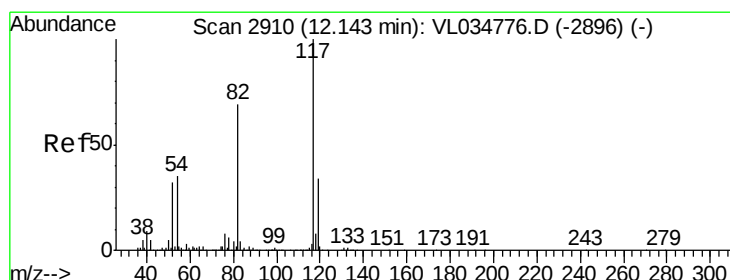
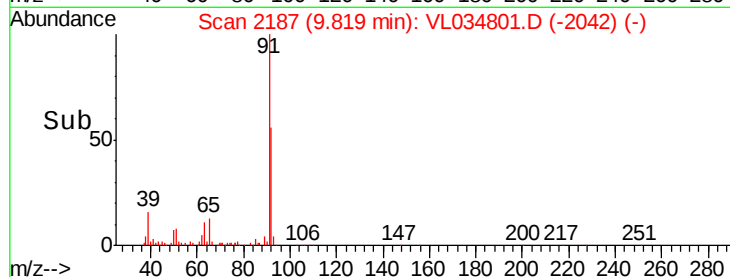
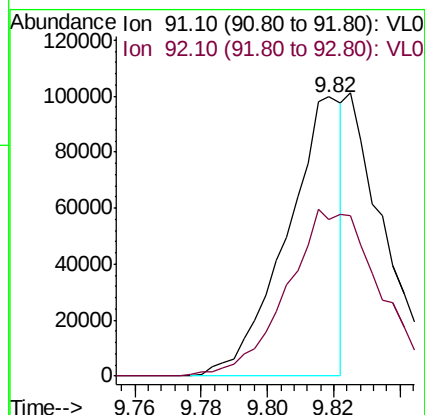
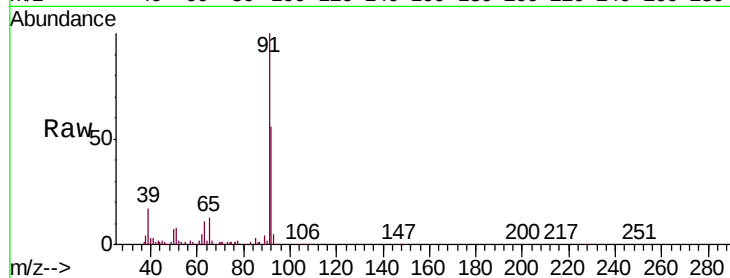
SS-6-4DL

Tgt Ion: 91 Resp: 116460

Ion Ratio Lower Upper

91 100

92 98.8 48.2 72.2#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2898

Delta R.T. -0.04 min

Lab File: VL034801.D

Acq: 5 Mar 2020 18:28

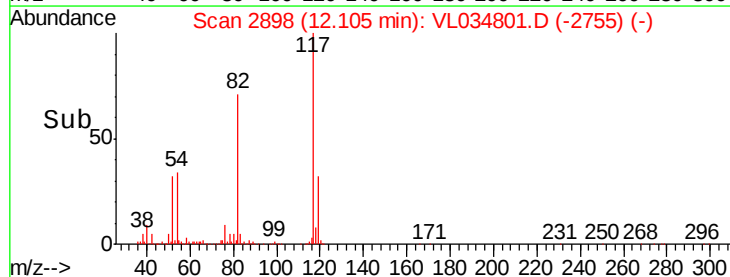
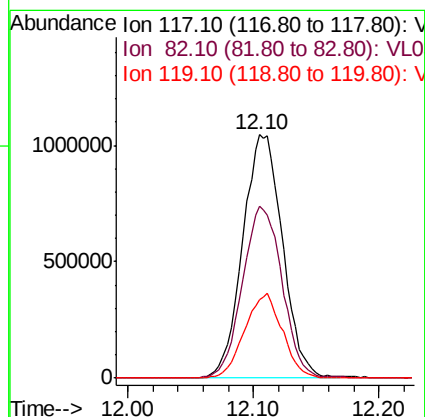
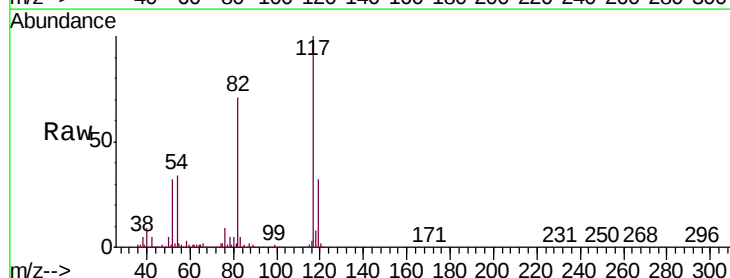
Tgt Ion: 117 Resp: 2307351

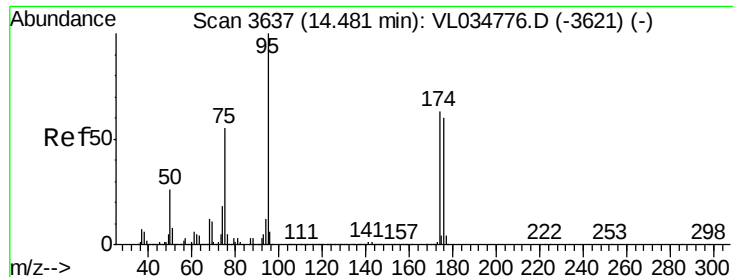
Ion Ratio Lower Upper

117 100

82 70.7 53.9 80.9

119 33.2 25.0 37.4





#68

1-Bromo-4-Fluorobenzene

Concen: 9.862 ppbv

RT: 14.45 min Scan# 3626

Delta R.T. -0.04 min

Lab File: VL034801.D

Acq: 5 Mar 2020 18:28

Instrument :

MSVOA\_L

ClientSampleId :

SS-6-4DL

Tgt Ion: 95 Resp: 1897491

Ion Ratio Lower Upper

95 100

174 64.1 50.6 76.0

175 4.9 3.8 5.6

