

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL083118\  
 Data File : VL032448.D  
 Acq On : 31 Aug 2018 19:48  
 Operator : SY/AP  
 Sample : J4717-03  
 Misc : 400ml/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VP-5

Quant Time: Sep 01 02:02:56 2018

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL083118AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 31 21:33:46 2018

QLast Update : Fri Aug 31 21:33:46 2018

Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.82  | 49   | 1520093  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.35  | 114  | 3365456  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.30 | 117  | 3219327  | 10.00 | ppbv  | 0.00     |

#### System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.63  | 95    | 2453644  | 10.27    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 102.70% |

#### Target Compounds

|                                |       |     |          |         |        | Qvalue |
|--------------------------------|-------|-----|----------|---------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.10  | 85  | 26937    | 0.139   | ppbv   | 98     |
| 3) Chlorodifluoromethane       | 3.04  | 51  | 53483    | 0.389   | ppbv   | 98     |
| 4) Chloromethane               | 3.20  | 50  | 29425    | 0.353   | ppbv   | 97     |
| 9) Propene                     | 3.06  | 41  | 9262955  | 166.882 | ppbv   | 99     |
| 10) Heptane                    | 8.30  | 43  | 963323   | 4.838   | ppbv   | 98     |
| 11) Trichlorofluoromethane     | 4.04  | 101 | 155928   | 0.889   | ppbv   | 100    |
| 12) 1,1,2-Trichlorotrifluoroet | 4.59  | 101 | 9624     | 0.081   | ppbv # | 66     |
| 13) Ethanol                    | 3.69  | 45  | 956325   | 55.273  | ppbv   | 100    |
| 15) Acetone                    | 3.94  | 43  | 18267958 | 133.452 | ppbv # | 73     |
| 16) 1,3-Butadiene              | 3.37  | 39  | 7171914  | 111.341 | ppbv # | 20     |
| 17) tert-Butyl alcohol         | 4.40  | 59  | 1283759  | 60.941  | ppbv # | 100    |
| 19) Isopropyl Alcohol          | 4.07  | 45  | 314315   | 3.500   | ppbv # | 93     |
| 20) Methylene Chloride         | 4.46  | 84  | 1335958  | 25.595  | ppbv   | 96     |
| 21) Allyl Chloride             | 4.51  | 41  | 328091   | 3.609   | ppbv # | 1      |
| 23) Vinyl Acetate              | 5.19  | 43  | 581802   | 2.564   | ppbv # | 41     |
| 24) 1,1-Dichloroethane         | 5.18  | 63  | 16910    | 0.090   | ppbv # | 89     |
| 25) Ethyl Acetate              | 5.83  | 43  | 2517525  | 7.788   | ppbv # | 78     |
| 26) Hexane                     | 5.83  | 57  | 3374704  | 23.315  | ppbv # | 41     |
| 27) Carbon Disulfide           | 4.66  | 76  | 236186   | 1.768   | ppbv   | 97     |
| 28) Methyl tert-Butyl Ether    | 5.16  | 73  | 20436    | 0.115   | ppbv # | 51     |
| 29) Chloroform                 | 5.91  | 83  | 187268   | 0.849   | ppbv   | 98     |
| 30) Cyclohexane                | 7.30  | 84  | 117117   | 1.105   | ppbv # | 67     |
| 32) 1,1,1-Trichloroethane      | 6.68  | 97  | 13102    | 0.064   | ppbv # | 21     |
| 34) 2-Butanone                 | 5.37  | 43  | 4439192  | 19.858  | ppbv   | 100    |
| 36) Benzene                    | 7.06  | 78  | 1554034  | 5.426   | ppbv   | 98     |
| 38) Trichloroethene            | 8.01  | 130 | 4576     | 0.042   | ppbv # | 73     |
| 39) 1,2-Dichloropropane        | 7.35  | 63  | 876292   | 7.151   | ppbv # | 25     |
| 41) Tetrahydrofuran            | 6.21  | 42  | 46831    | 0.385   | ppbv # | 30     |
| 42) Bromodichloromethane       | 7.98  | 83  | 32558    | 0.134   | ppbv # | 24     |
| 43) Methyl Methacrylate        | 8.17  | 69  | 9859     | 0.081   | ppbv # | 1      |
| 44) 2,2,4-Trimethylpentane     | 8.05  | 57  | 248874   | 0.449   | ppbv # | 43     |
| 50) 4-Methyl-2-Pentanone       | 8.93  | 43  | 487014   | 1.446   | ppbv   | 97     |
| 51) 2-Hexanone                 | 10.32 | 43  | 1250925  | 5.767   | ppbv # | 99     |
| 52) Tetrachloroethene          | 11.43 | 164 | 423985   | 4.774   | ppbv   | 95     |
| 53) Toluene                    | 10.00 | 91  | 4421307  | 14.769  | ppbv   | 100    |
| 58) Ethyl Benzene              | 12.92 | 91  | 1557644  | 4.043   | ppbv   | 97     |
| 59) m/p-Xylene                 | 13.17 | 91  | 4257105  | 12.394  | ppbv   | 98     |
| 60) o-Xylene                   | 13.90 | 91  | 1319817  | 3.912   | ppbv   | 95     |
| 61) Styrene                    | 13.74 | 104 | 151953   | 0.696   | ppbv   | 95     |
| 62) Isopropylbenzene           | 14.89 | 105 | 108124   | 0.228   | ppbv # | 86     |
| 63) 1,1,2,2-Tetrachloroethane  | 13.90 | 83  | 37815    | 0.125   | ppbv # | 25     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL083118\  
 Data File : VL032448.D  
 Acq On : 31 Aug 2018 19:48  
 Operator : SY/AP  
 Sample : J4717-03  
 Misc : 400ml/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

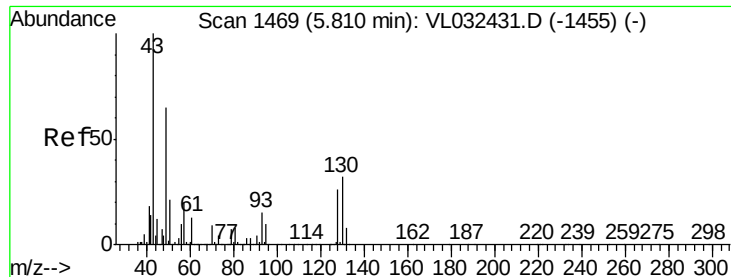
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VP-5

Quant Time: Sep 01 02:02:56 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL083118AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 31 21:33:46 2018  
 QLast Update : Fri Aug 31 21:33:46 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|----------------------------|-------|------|----------|-------|--------|----------|
| 64) n-propylbenzene        | 15.78 | 120  | 157270   | 1.268 | ppbv   | 77       |
| 65) tert-Butylbenzene      | 16.99 | 119  | 79867    | 0.195 | ppbv # | 29       |
| 67) sec-Butylbenzene       | 17.52 | 105  | 20780    | 0.034 | ppbv # | 27       |
| 69) p-Isopropyltoluene     | 17.88 | 119  | 55209    | 0.116 | ppbv # | 89       |
| 70) n-Butylbenzene         | 18.83 | 91   | 581882   | 1.078 | ppbv # | 88       |
| 71) 2-Chlorotoluene        | 15.54 | 91   | 185455   | 0.512 | ppbv   | 72       |
| 72) 4-Ethyltoluene         | 16.06 | 105  | 877636   | 2.383 | ppbv   | 98       |
| 73) 1,3,5-Trimethylbenzene | 16.21 | 105  | 419021   | 1.135 | ppbv   | 100      |
| 74) 1,2,4-Trimethylbenzene | 17.00 | 105  | 1671539  | 4.143 | ppbv # | 69       |
| 79) Naphthalene            | 22.49 | 128  | 59619    | 0.182 | ppbv # | 91       |
| 80) Naphthalene,2-methyl-  | 25.14 | 142  | 4327     | 0.050 | ppbv # | 82       |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.82 min Scan# 1471

Delta R.T. 0.01 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampled :

VP-5

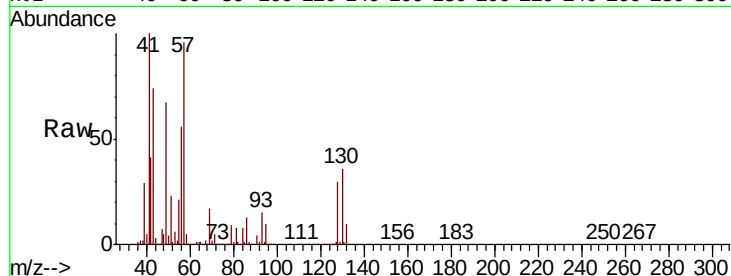
Tgt Ion: 49 Resp: 1520093

Ion Ratio Lower Upper

49 100

128 42.9 20.7 62.1

130 54.9 26.6 79.7

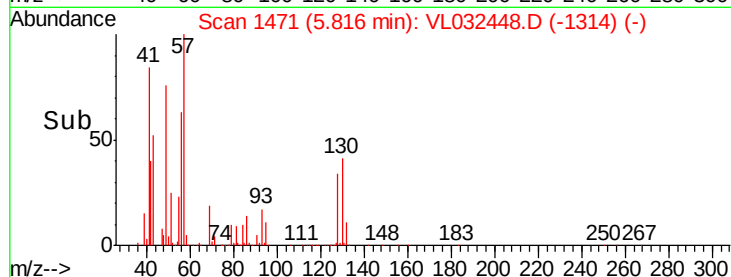


Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

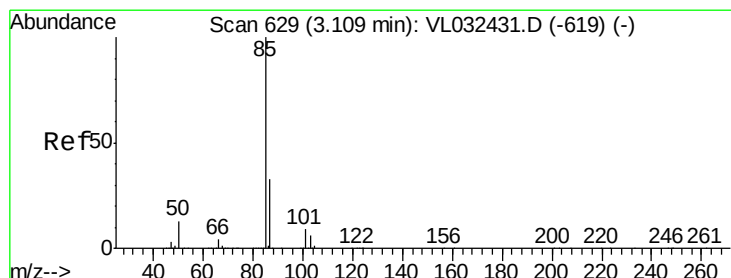
Ion 130.00 (129.70 to 130.70): V

Time-->



5.82

Time-->



#2

Dichlorodifluoromethane

Concen: 0.139 ppbv

RT: 3.10 min Scan# 627

Delta R.T. -0.01 min

Lab File: VL032448.D

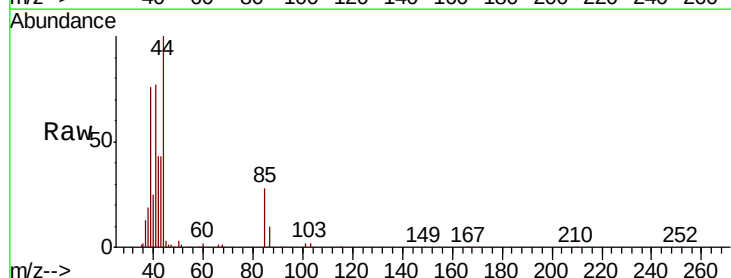
Acq: 31 Aug 2018 19:48

Tgt Ion: 85 Resp: 26937

Ion Ratio Lower Upper

85 100

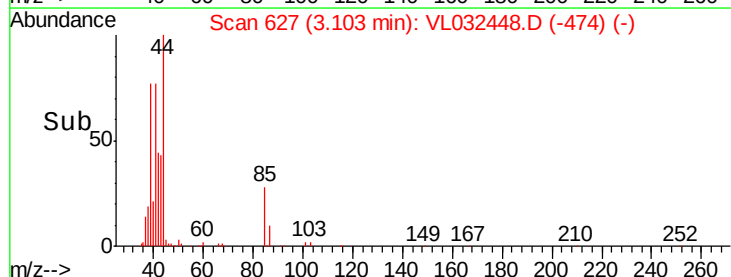
87 34.0 26.2 39.4



Abundance Ion 85.00 (84.70 to 85.70): VL0

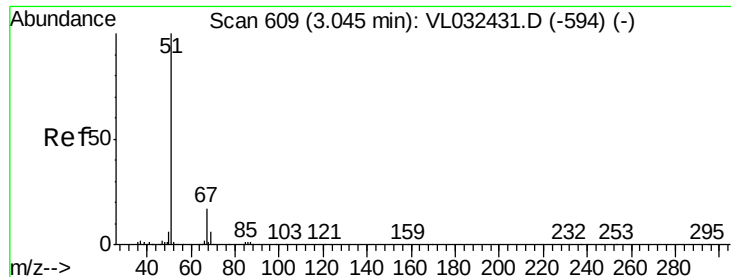
Ion 87.00 (86.70 to 87.70): VL0

Time-->



3.10

Time-->



#3

Chlorodifluoromethane

Concen: 0.389 ppbv

RT: 3.04 min Scan# 608

Delta R.T. -0.00 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampleId :

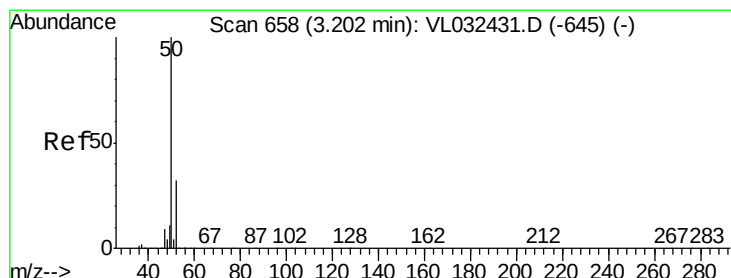
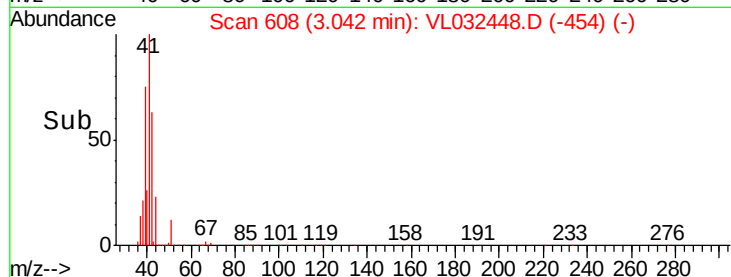
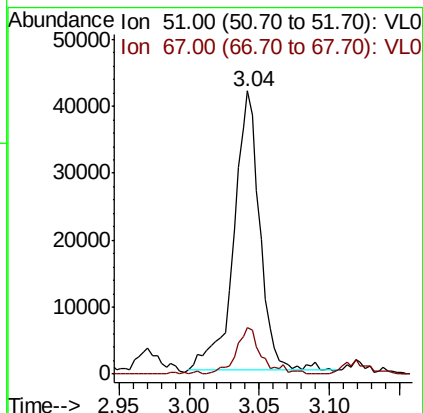
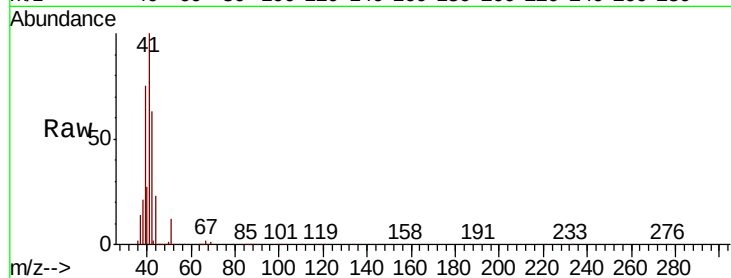
VP-5

Tgt Ion: 51 Resp: 53483

Ion Ratio Lower Upper

51 100

67 16.3 13.8 20.8



#4

Chloromethane

Concen: 0.353 ppbv

RT: 3.20 min Scan# 657

Delta R.T. -0.00 min

Lab File: VL032448.D

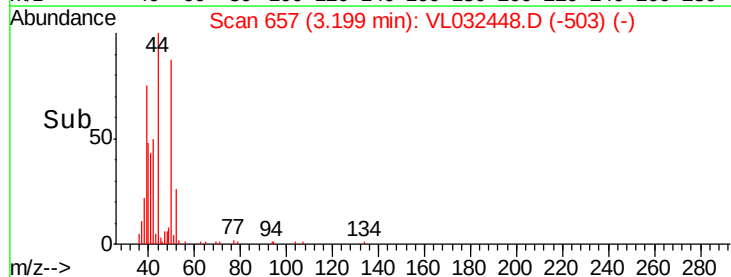
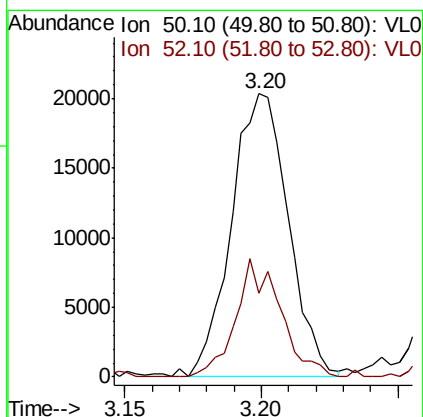
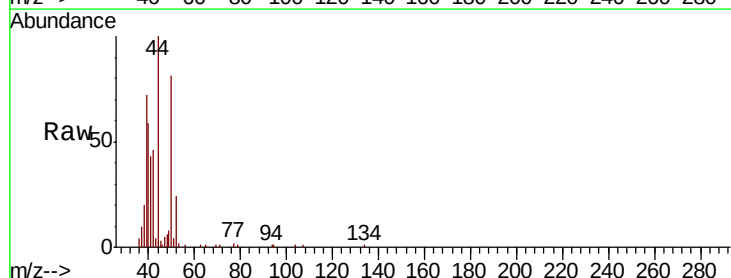
Acq: 31 Aug 2018 19:48

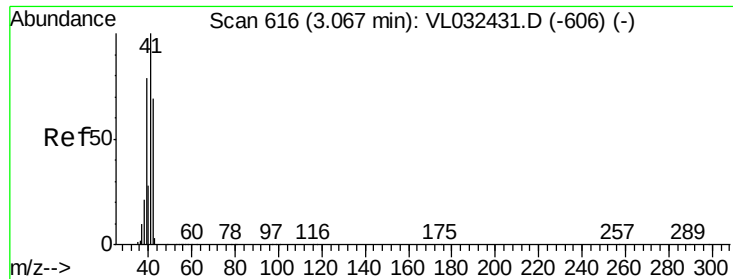
Tgt Ion: 50 Resp: 29425

Ion Ratio Lower Upper

50 100

52 30.1 25.6 38.4





#9

Propene

Concen: 166.882 ppbv

RT: 3.06 min Scan# 615

Delta R.T. -0.00 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampleId :

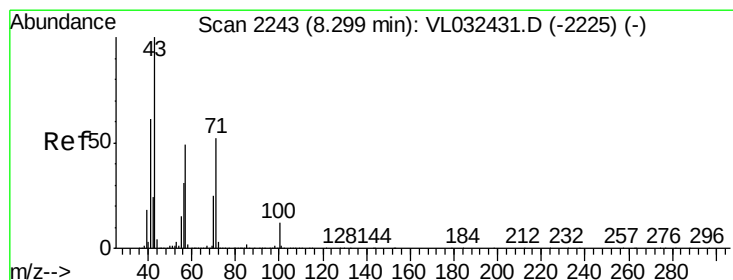
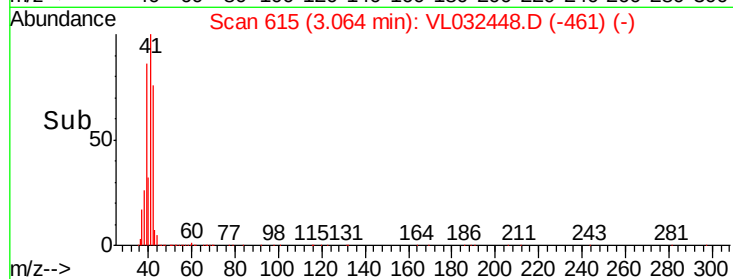
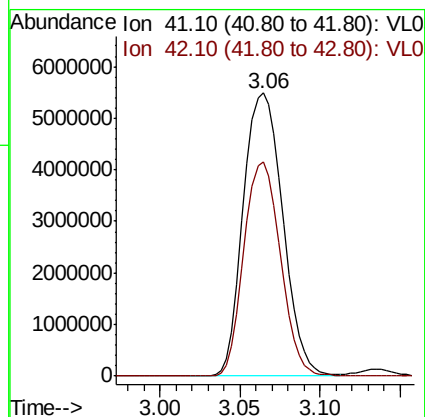
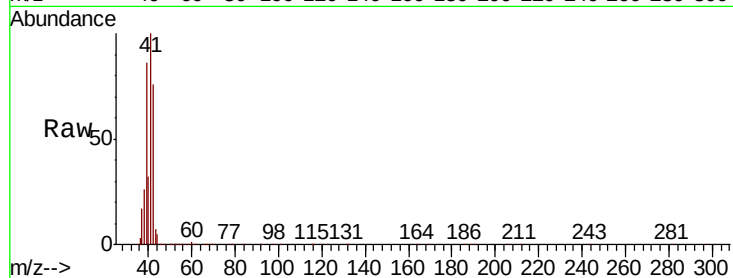
VP-5

Tgt Ion: 41 Resp: 9262955

Ion Ratio Lower Upper

41 100

42 70.3 56.6 84.8



#10

Heptane

Concen: 4.838 ppbv

RT: 8.30 min Scan# 2243

Delta R.T. -0.00 min

Lab File: VL032448.D

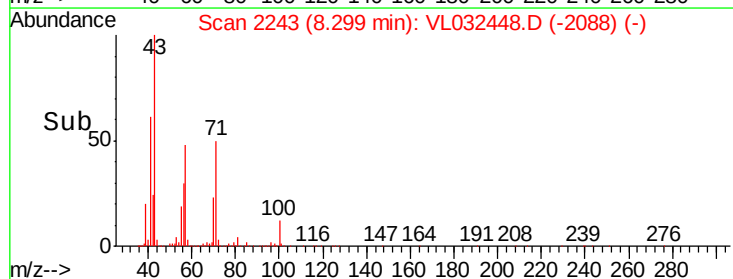
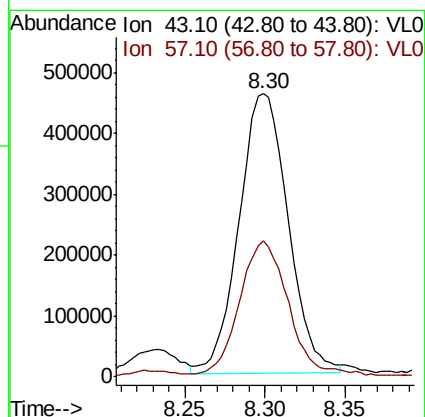
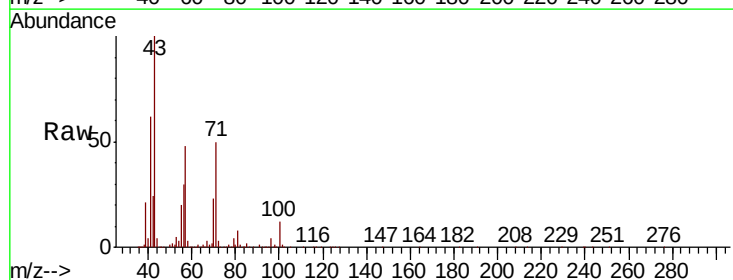
Acq: 31 Aug 2018 19:48

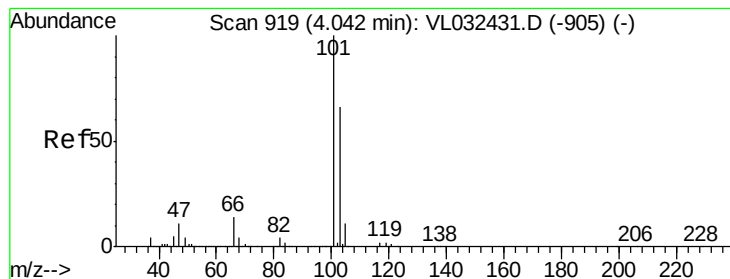
Tgt Ion: 43 Resp: 963323

Ion Ratio Lower Upper

43 100

57 48.3 39.6 59.4





#11

Trichlorofluoromethane

Concen: 0.889 ppbv

RT: 4.04 min Scan# 919

Delta R.T. -0.00 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampleId :

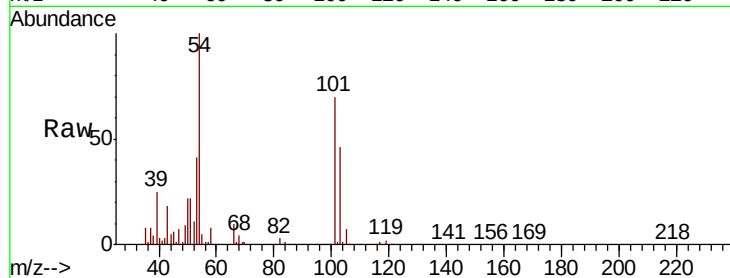
VP-5

Tgt Ion:101 Resp: 155928

Ion Ratio Lower Upper

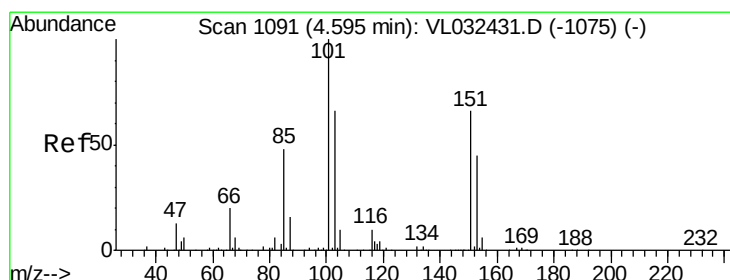
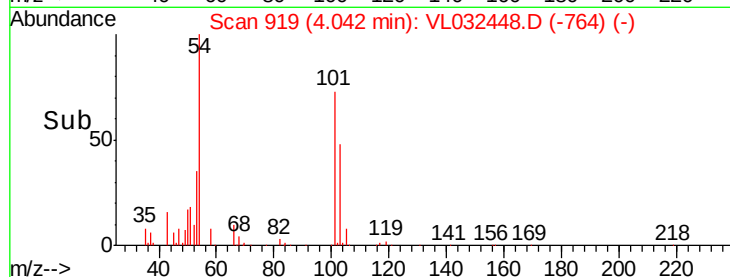
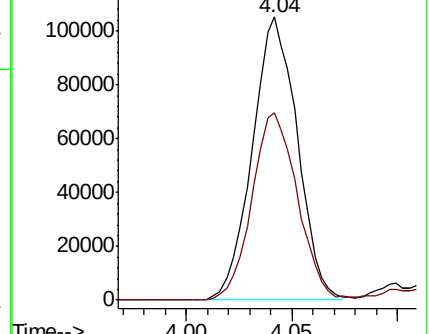
101 100

103 66.2 52.8 79.2



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.081 ppbv

RT: 4.59 min Scan# 1090

Delta R.T. -0.00 min

Lab File: VL032448.D

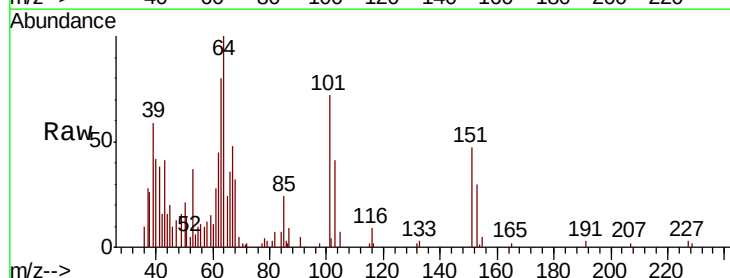
Acq: 31 Aug 2018 19:48

Tgt Ion:101 Resp: 9624

Ion Ratio Lower Upper

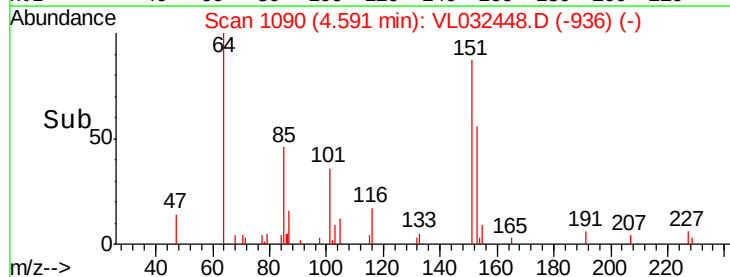
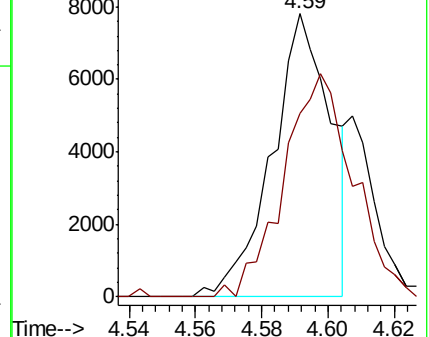
101 100

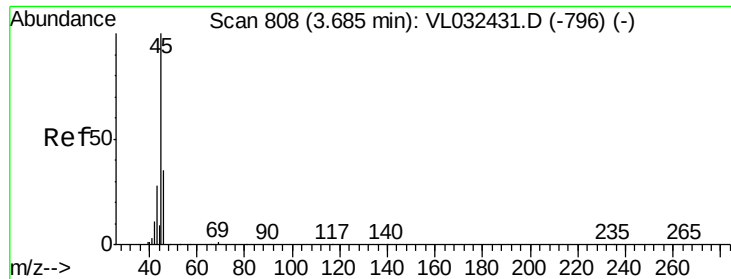
151 93.0 52.6 78.8#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 55.273 ppbv

RT: 3.69 min Scan# 810

Delta R.T. 0.01 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampled :

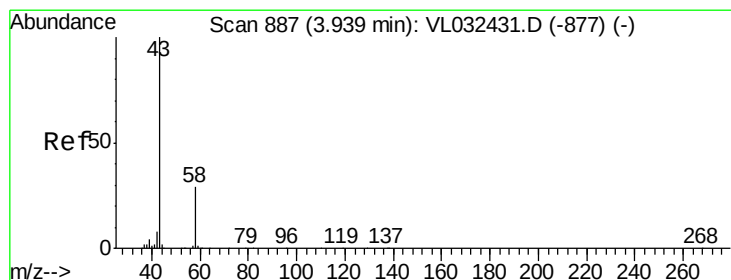
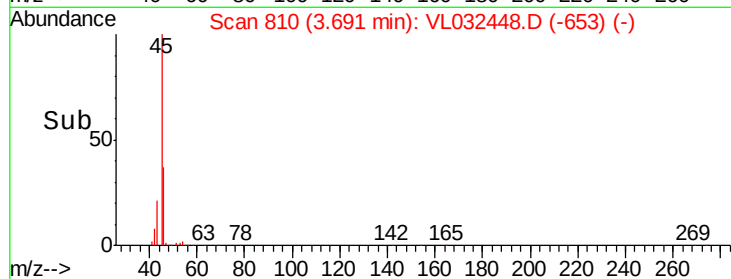
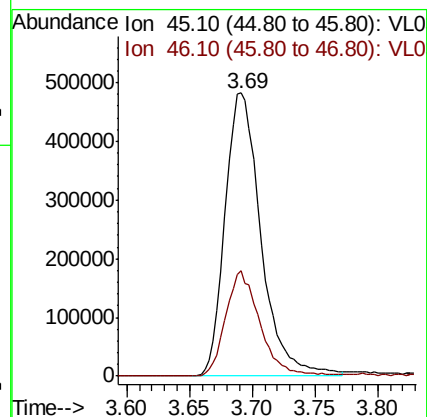
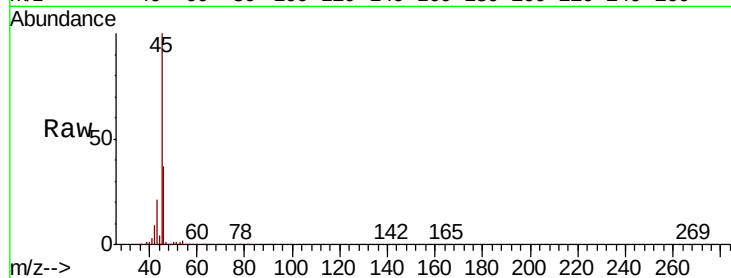
VP-5

Tgt Ion: 45 Resp: 956325

Ion Ratio Lower Upper

45 100

46 35.6 14.2 56.8



#15

Acetone

Concen: 133.452 ppbv

RT: 3.94 min Scan# 887

Delta R.T. -0.00 min

Lab File: VL032448.D

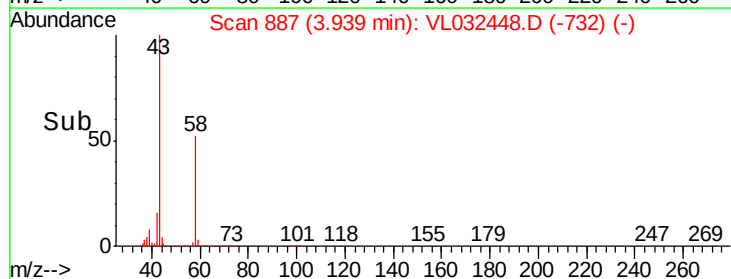
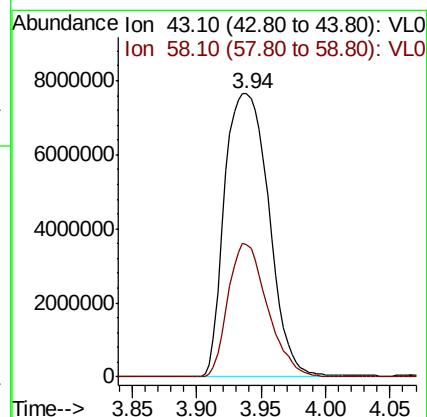
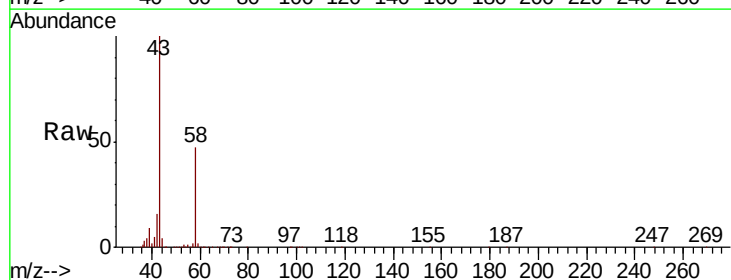
Acq: 31 Aug 2018 19:48

Tgt Ion: 43 Resp: 18267958

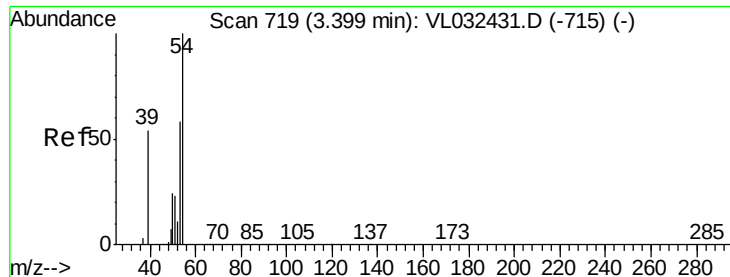
Ion Ratio Lower Upper

43 100

58 42.2 22.6 33.8#



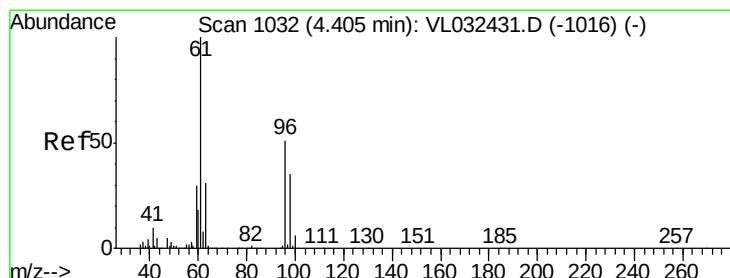
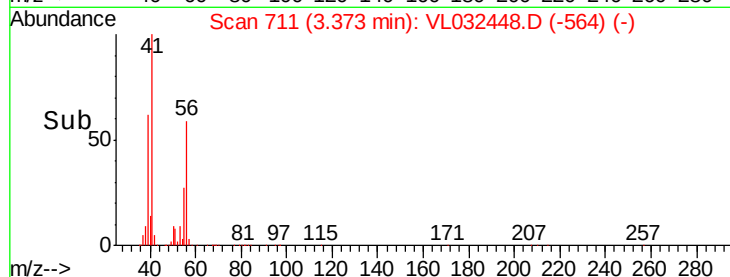
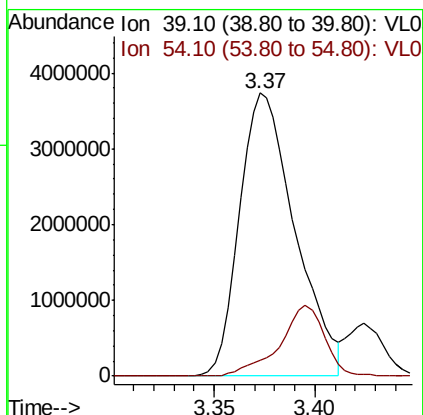
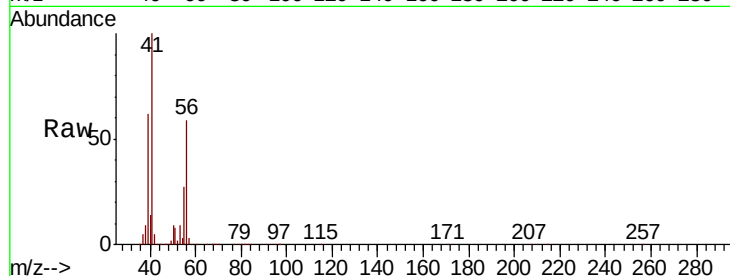




#16  
 1,3-Butadiene  
 Concen: 111.341 ppbv  
 RT: 3.37 min Scan# 711  
 Delta R.T. -0.03 min  
 Lab File: VL032448.D  
 Acq: 31 Aug 2018 19:48

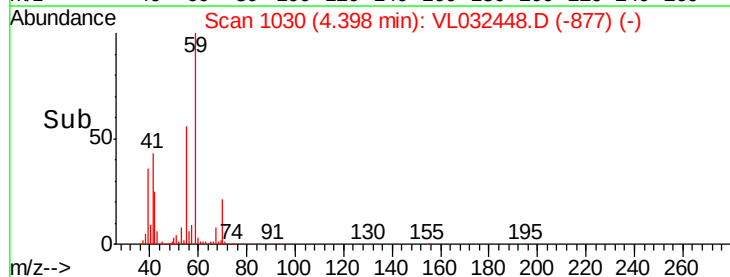
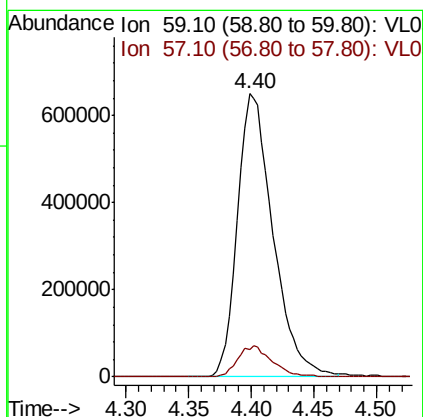
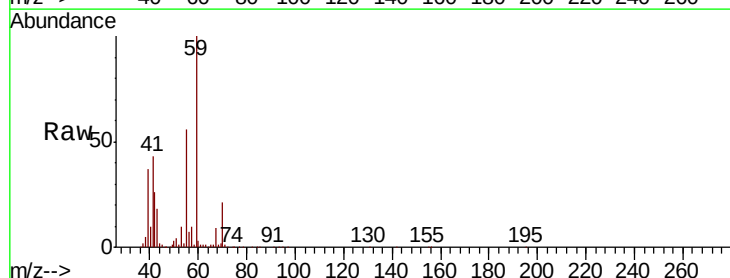
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VP-5

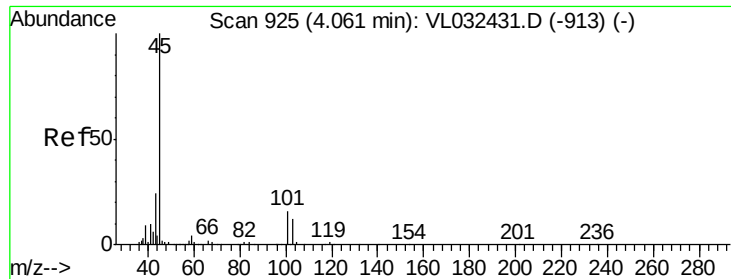
Tgt Ion: 39 Resp: 7171914  
 Ion Ratio Lower Upper  
 39 100  
 54 20.2 80.8 121.2#



#17  
 tert-Butyl alcohol  
 Concen: 60.941 ppbv  
 RT: 4.40 min Scan# 1030  
 Delta R.T. -0.01 min  
 Lab File: VL032448.D  
 Acq: 31 Aug 2018 19:48

Tgt Ion: 59 Resp: 1283759  
 Ion Ratio Lower Upper  
 59 100  
 57 10.7 0.0 0.0#

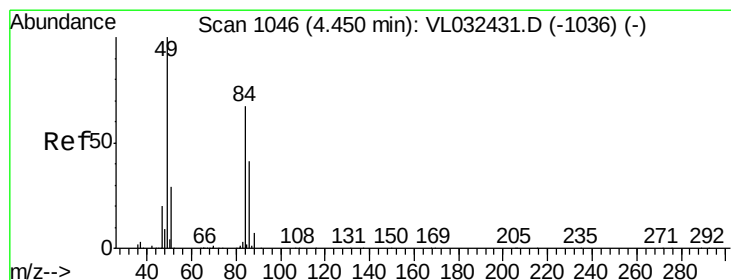
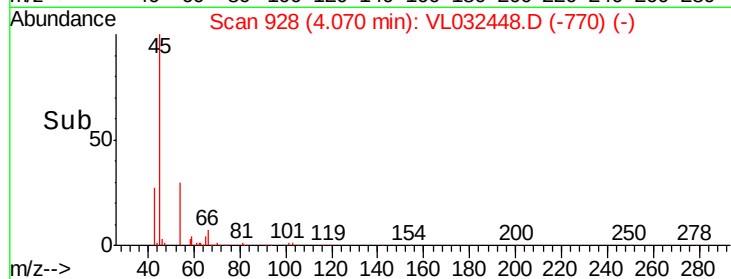
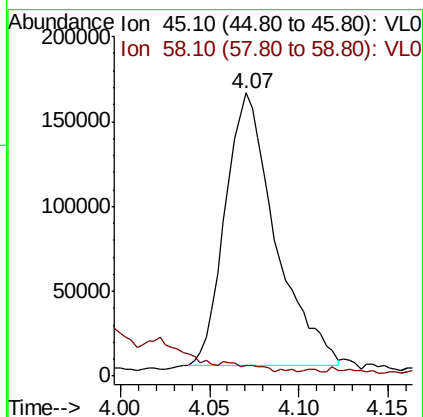
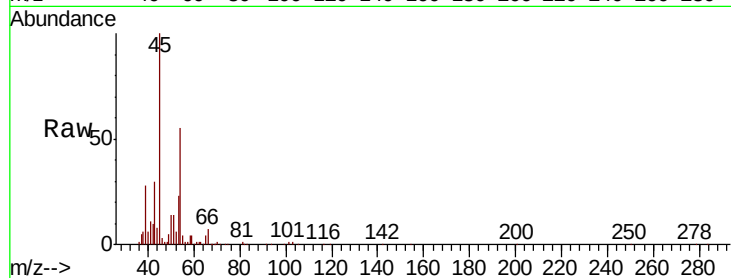




#19  
Isopropyl Alcohol  
Concen: 3.500 ppbv  
RT: 4.07 min Scan# 928  
Delta R.T. 0.01 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

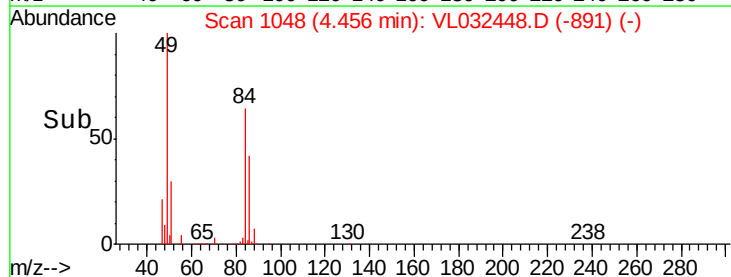
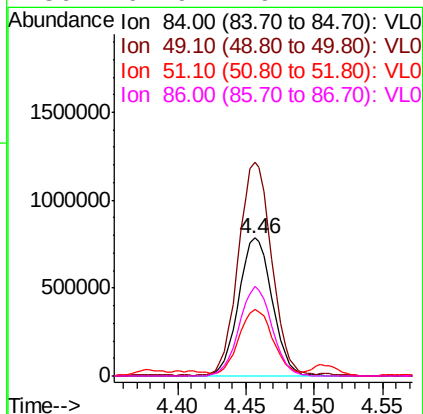
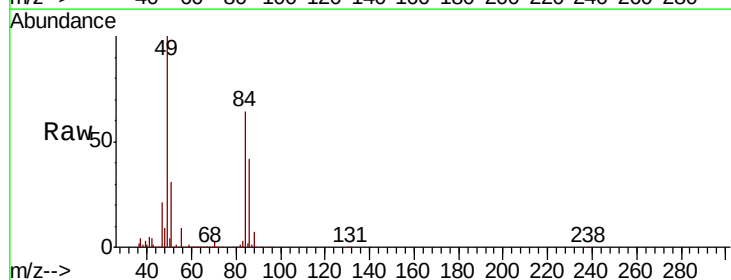
Instrument :  
MSVOA\_L  
ClientSampleId :  
VP-5

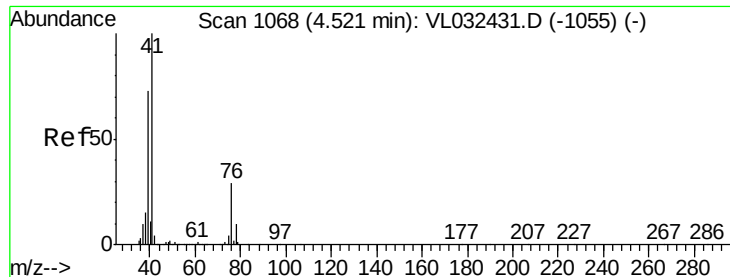
Tgt Ion: 45 Resp: 314315  
Ion Ratio Lower Upper  
45 100  
58 0.0 2.0 3.0#



#20  
Methylene Chloride  
Concen: 25.595 ppbv  
RT: 4.46 min Scan# 1048  
Delta R.T. 0.01 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

Tgt Ion: 84 Resp: 1335958  
Ion Ratio Lower Upper  
84 100  
49 154.6 119.1 178.7  
51 44.4 35.2 52.8  
86 64.9 49.4 74.2

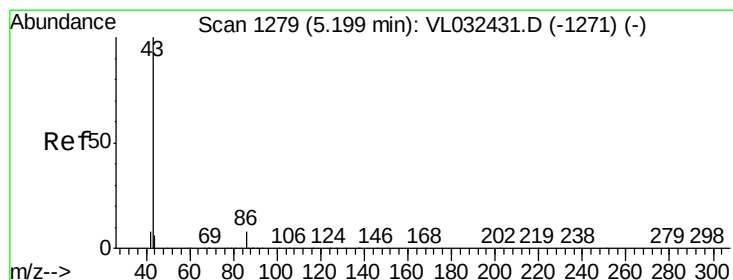
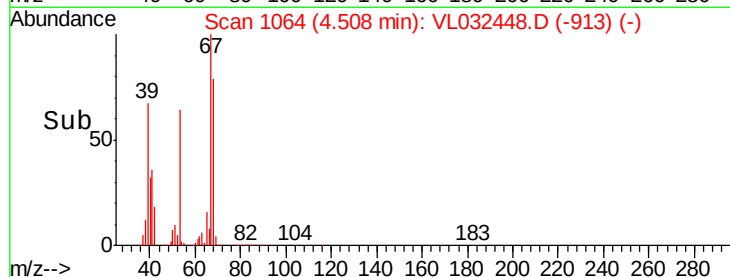
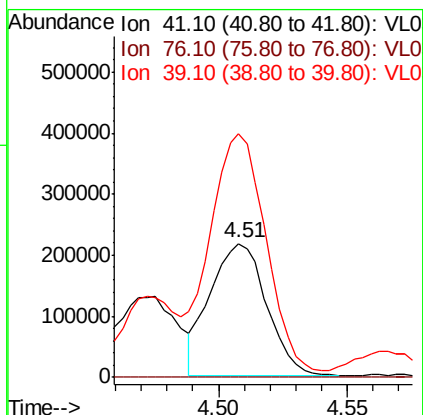
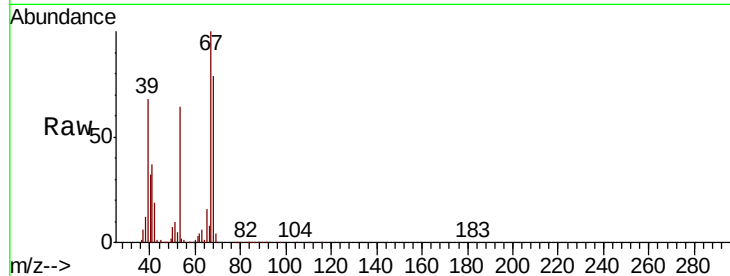




#21  
 Allyl Chloride  
 Concen: 3.609 ppbv  
 RT: 4.51 min Scan# 1064  
 Delta R.T. -0.01 min  
 Lab File: VL032448.D  
 Acq: 31 Aug 2018 19:48

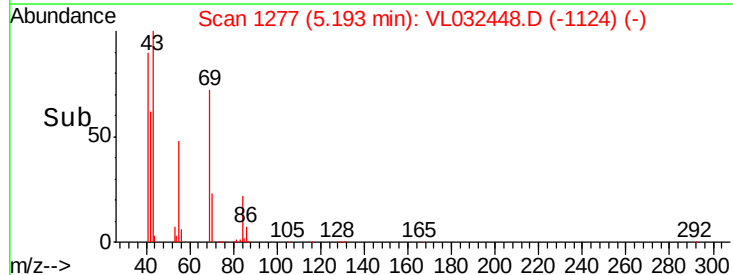
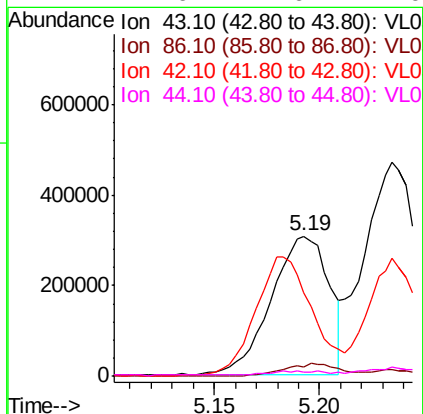
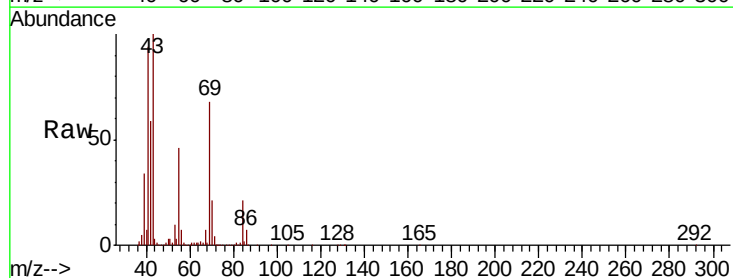
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VP-5

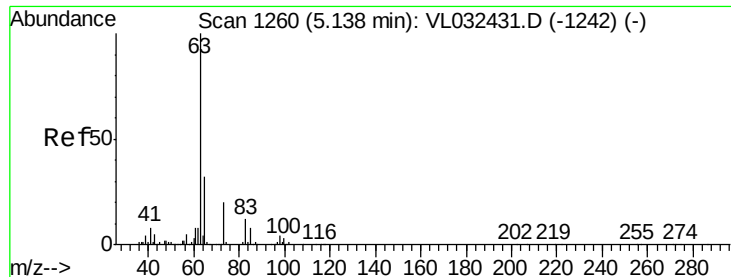
Tgt Ion: 41 Resp: 328091  
 Ion Ratio Lower Upper  
 41 100  
 76 0.0 23.6 35.4#  
 39 232.9 57.7 86.5#



#23  
 Vinyl Acetate  
 Concen: 2.564 ppbv  
 RT: 5.19 min Scan# 1277  
 Delta R.T. -0.01 min  
 Lab File: VL032448.D  
 Acq: 31 Aug 2018 19:48

Tgt Ion: 43 Resp: 581802  
 Ion Ratio Lower Upper  
 43 100  
 86 6.8 5.9 8.9  
 42 59.3 6.9 10.3#  
 44 2.6 4.6 7.0#





#24

1,1-Dichloroethane

Concen: 0.090 ppbv

RT: 5.18 min Scan# 1272

Delta R.T. 0.04 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampleId :

VP-5

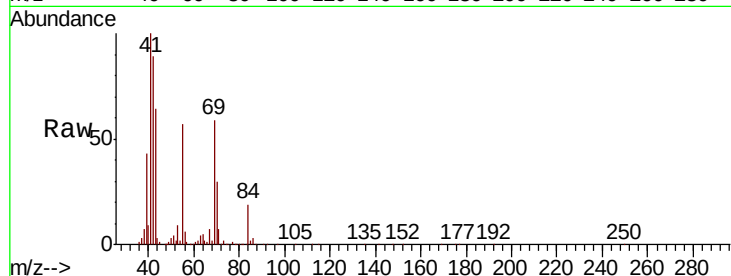
Tgt Ion: 63 Resp: 16910

Ion Ratio Lower Upper

63 100

98 0.0 2.1 6.5#

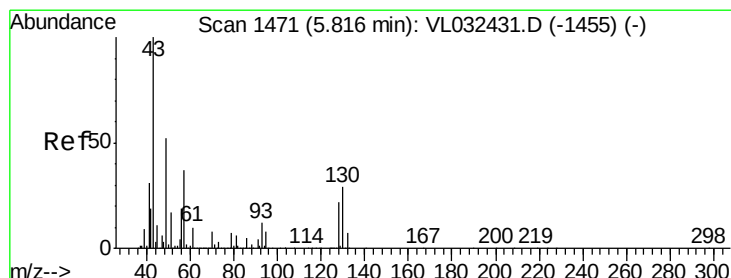
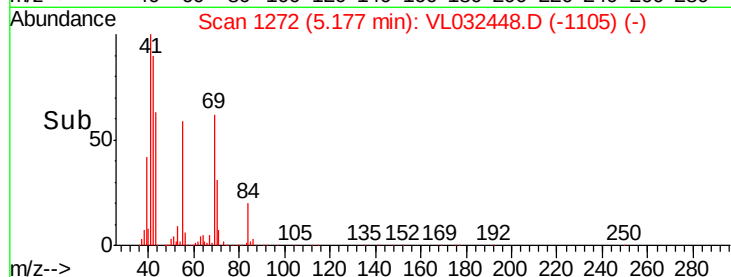
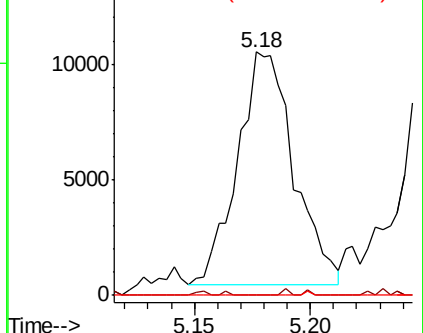
100 0.0 1.5 4.4#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0



#25

Ethyl Acetate

Concen: 7.788 ppbv

RT: 5.83 min Scan# 1474

Delta R.T. 0.01 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Tgt Ion: 43 Resp: 2517525

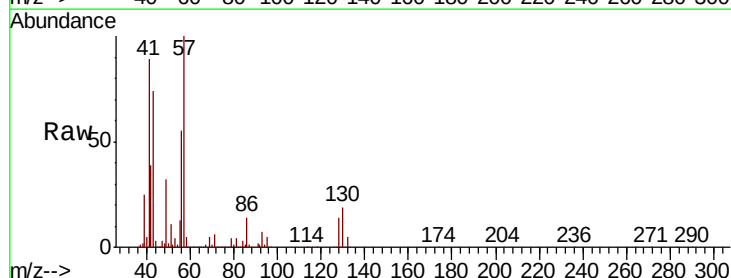
Ion Ratio Lower Upper

43 100

45 0.6 8.0 12.0#

61 0.5 7.6 11.4#

70 2.4 5.8 8.8#

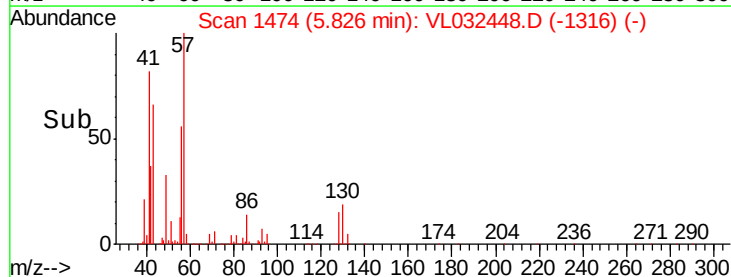
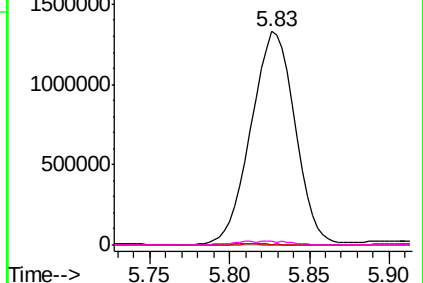


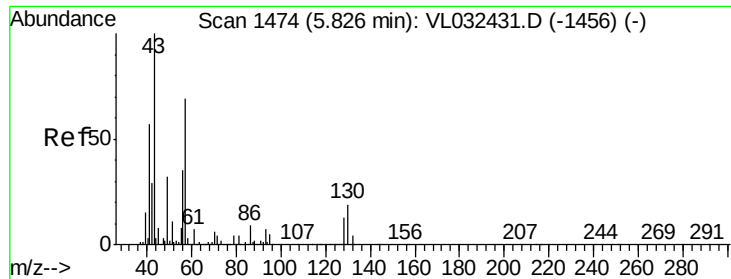
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



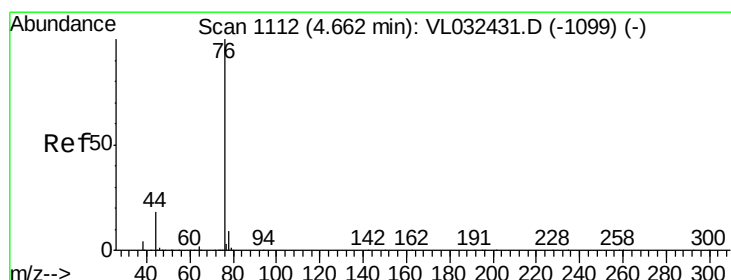
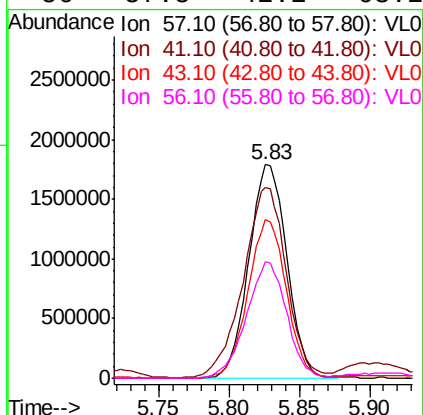
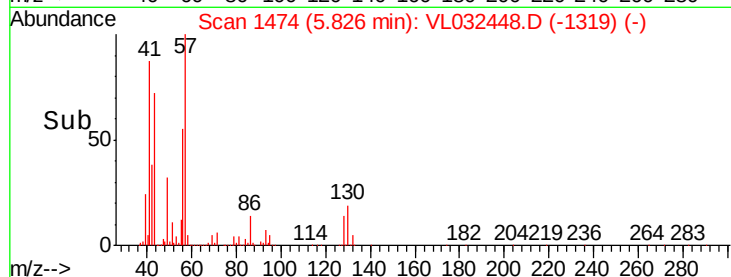
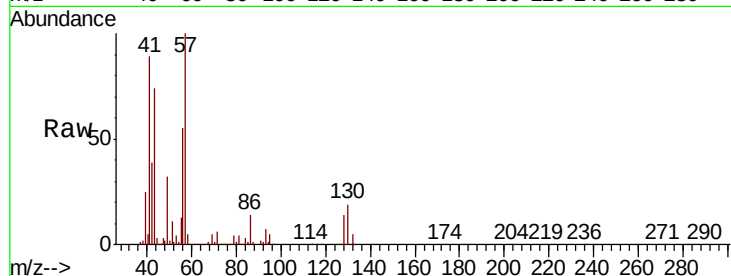


#26  
Hexane  
Concen: 23.315 ppbv  
RT: 5.83 min Scan# 1474  
Delta R.T. -0.00 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

Instrument :  
MSVOA\_L  
ClientSampled :  
VP-5

Tgt Ion: 57 Resp: 3374704

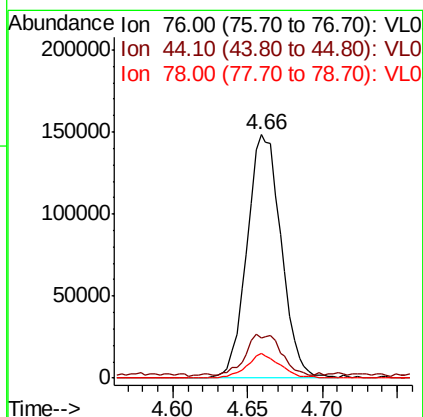
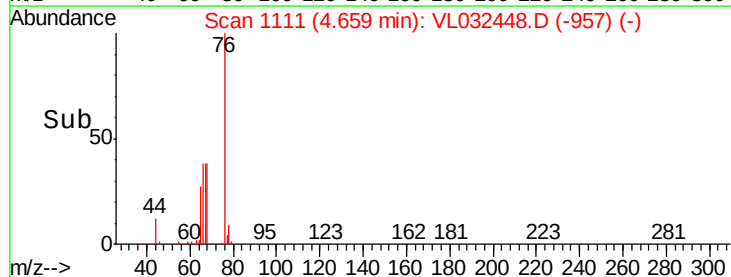
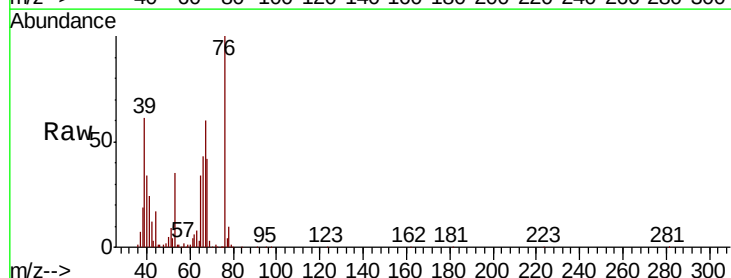
| Ion | Ratio | Lower | Upper  |
|-----|-------|-------|--------|
| 57  | 100   |       |        |
| 41  | 101.2 | 69.0  | 103.4  |
| 43  | 74.8  | 172.1 | 258.1# |
| 56  | 57.5  | 42.2  | 63.2   |

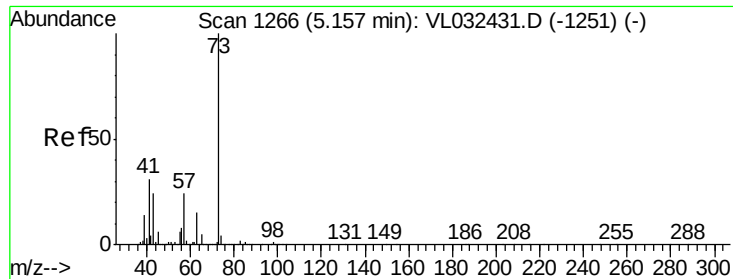


#27  
Carbon Disulfide  
Concen: 1.768 ppbv  
RT: 4.66 min Scan# 1111  
Delta R.T. -0.00 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

Tgt Ion: 76 Resp: 236186

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 76  | 100   |       |       |
| 44  | 19.1  | 14.0  | 21.0  |
| 78  | 9.8   | 7.5   | 11.3  |





#28

Methyl tert-Butyl Ether

Concen: 0.115 ppbv

RT: 5.16 min Scan# 1267

Delta R.T. 0.00 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampleId :

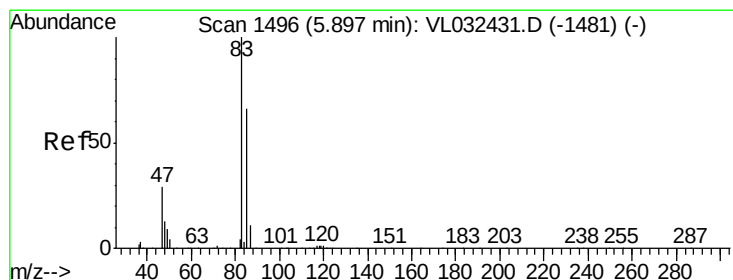
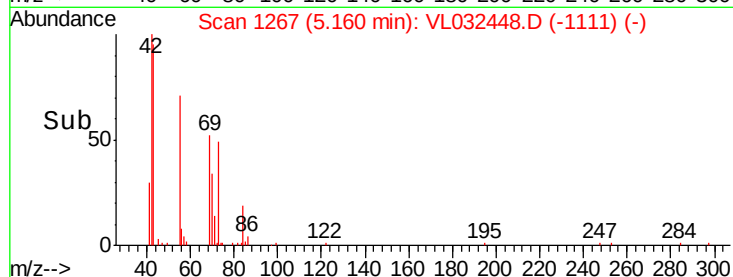
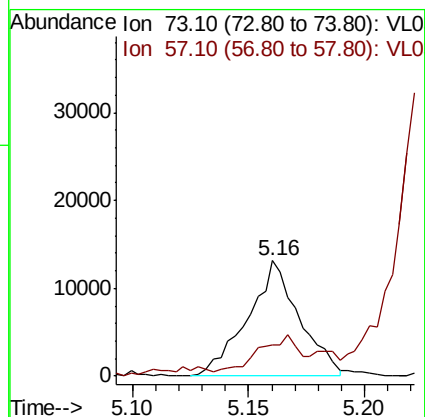
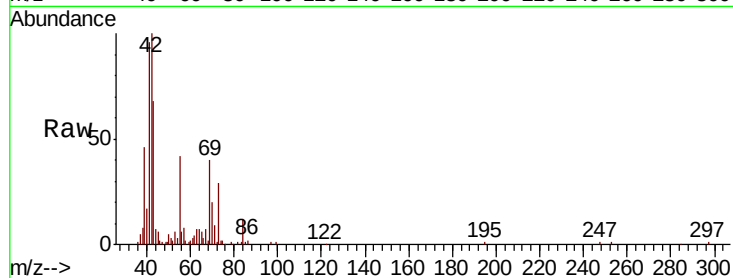
VP-5

Tgt Ion: 73 Resp: 20436

Ion Ratio Lower Upper

73 100

57 0.0 19.3 28.9#



#29

Chloroform

Concen: 0.849 ppbv

RT: 5.91 min Scan# 1499

Delta R.T. 0.01 min

Lab File: VL032448.D

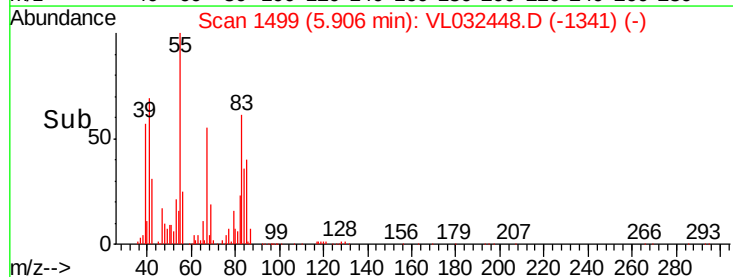
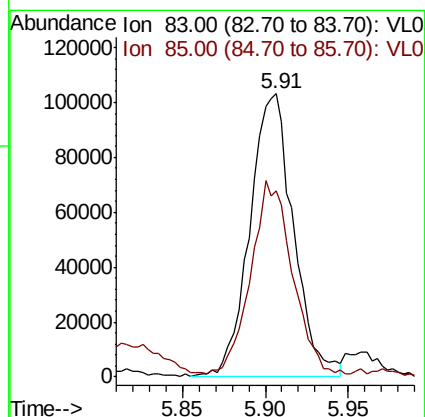
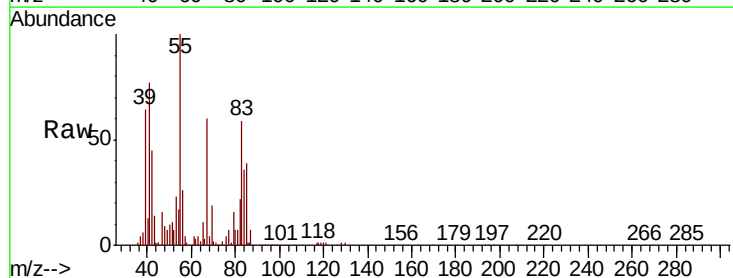
Acq: 31 Aug 2018 19:48

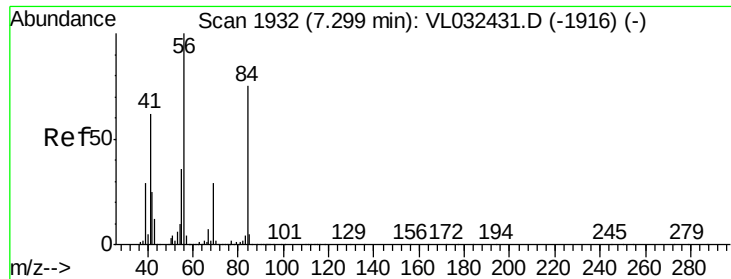
Tgt Ion: 83 Resp: 187268

Ion Ratio Lower Upper

83 100

85 64.1 52.5 78.7

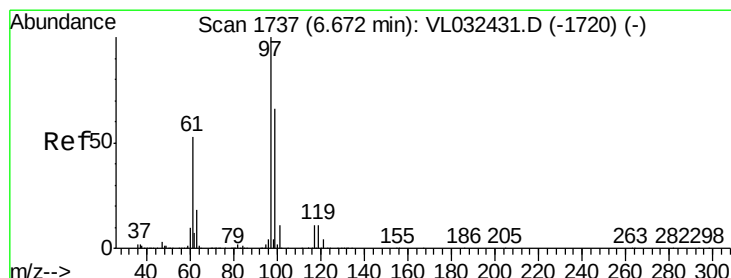
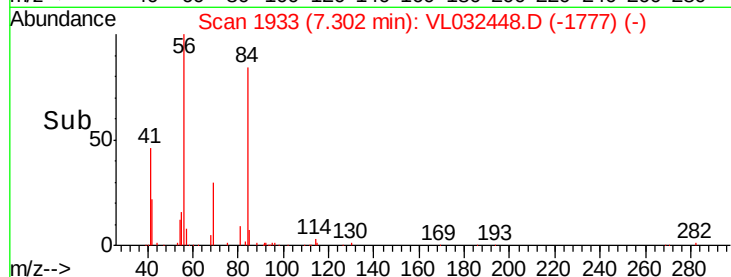
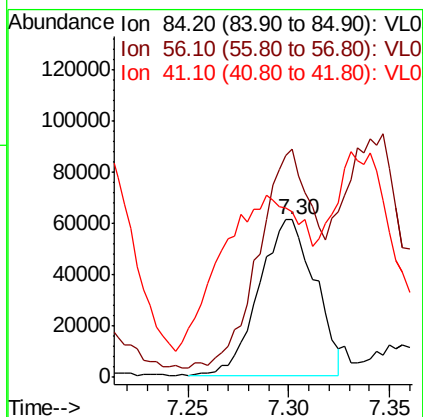
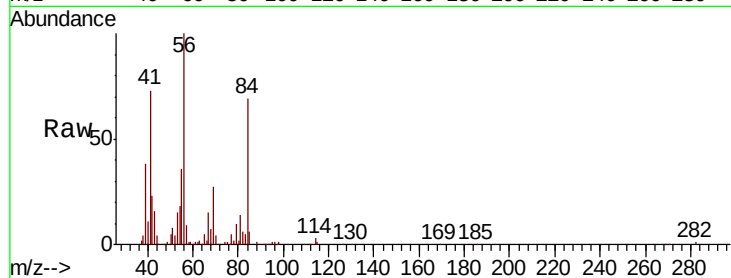




#30  
Cyclohexane  
Concen: 1.105 ppbv  
RT: 7.30 min Scan# 1933  
Delta R.T. 0.00 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

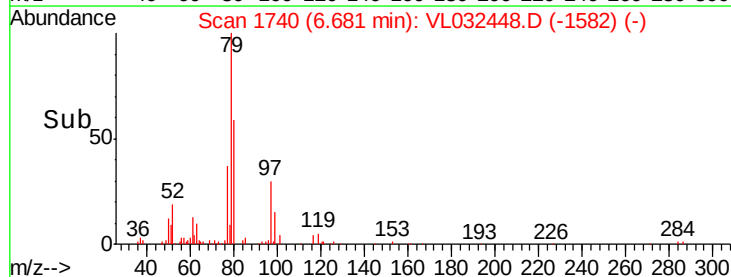
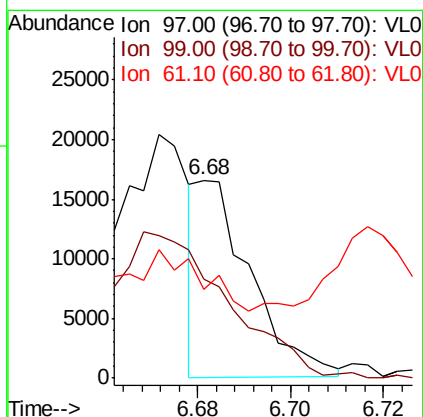
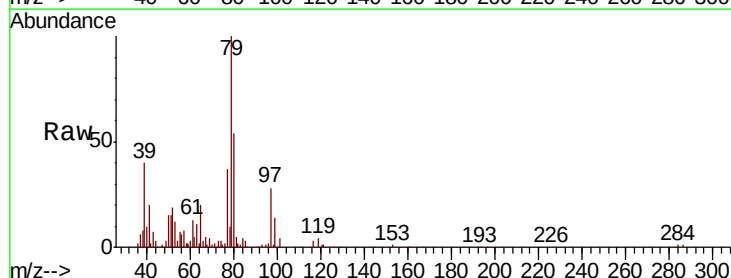
Instrument :  
MSVOA\_L  
ClientSampleId :  
VP-5

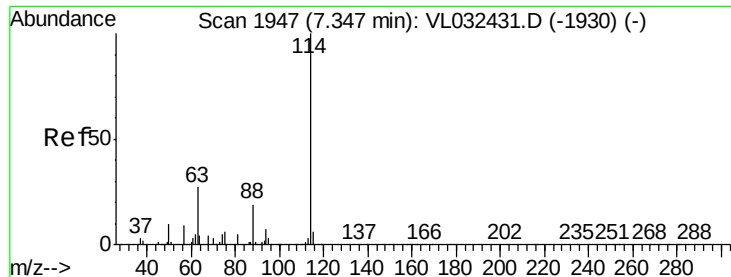
Tgt Ion: 84 Resp: 117117  
Ion Ratio Lower Upper  
84 100  
56 147.5 113.5 170.3  
41 157.4 68.1 102.1#



#32  
1,1,1-Trichloroethane  
Concen: 0.064 ppbv  
RT: 6.68 min Scan# 1740  
Delta R.T. 0.01 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

Tgt Ion: 97 Resp: 13102  
Ion Ratio Lower Upper  
97 100  
99 0.0 52.1 78.1#  
61 0.0 42.5 63.7#

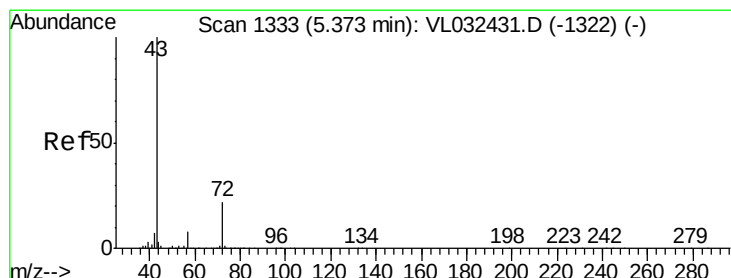
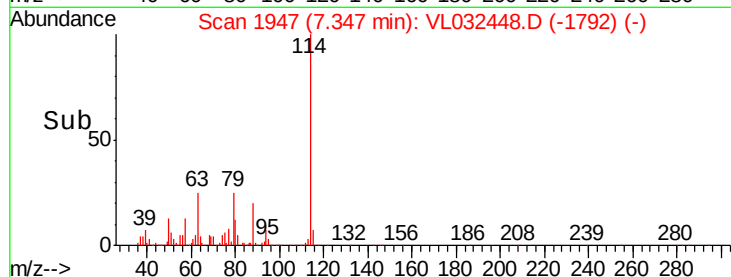
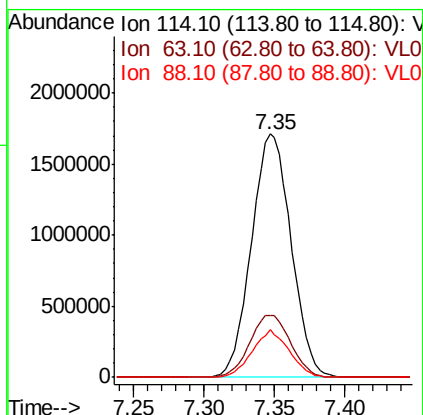
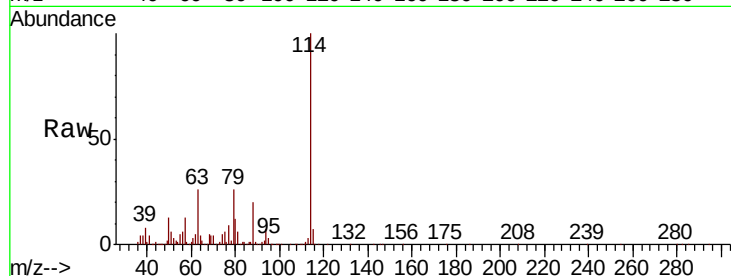




#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.35 min Scan# 1947  
 Delta R.T. -0.00 min  
 Lab File: VL032448.D  
 Acq: 31 Aug 2018 19:48

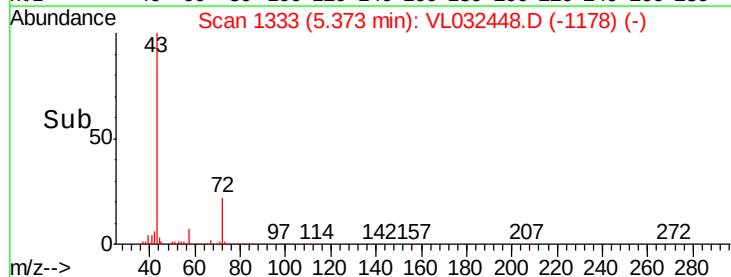
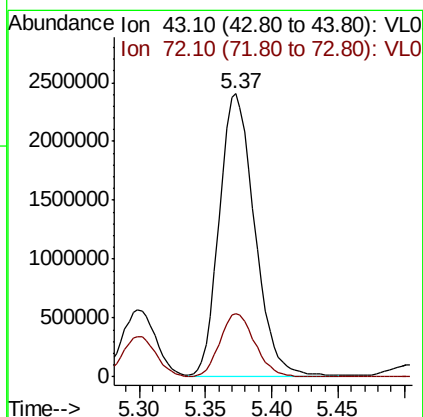
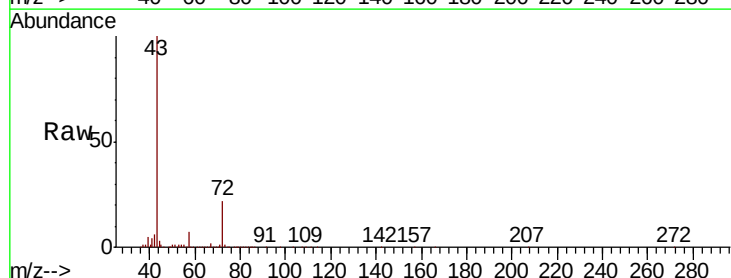
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VP-5

Tgt Ion: 114 Resp: 3365456  
 Ion Ratio Lower Upper  
 114 100  
 63 26.2 22.2 33.4  
 88 18.3 15.0 22.4

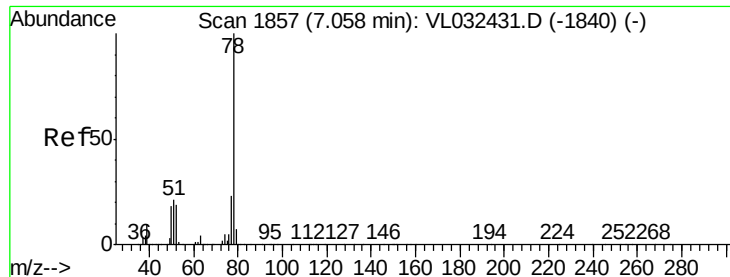


#34  
 2-Butanone  
 Concen: 19.858 ppbv  
 RT: 5.37 min Scan# 1333  
 Delta R.T. -0.00 min  
 Lab File: VL032448.D  
 Acq: 31 Aug 2018 19:48

Tgt Ion: 43 Resp: 4439192  
 Ion Ratio Lower Upper  
 43 100  
 72 22.4 17.8 26.6







#36

Benzene

Concen: 5.426 ppbv

RT: 7.06 min Scan# 1857

Delta R.T. -0.00 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampled :

VP-5

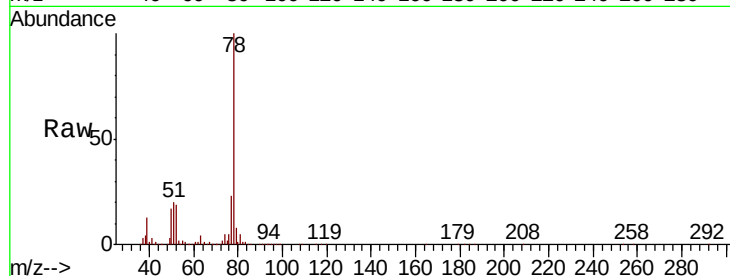
Tgt Ion: 78 Resp: 1554034

Ion Ratio Lower Upper

78 100

77 22.3 18.4 27.6

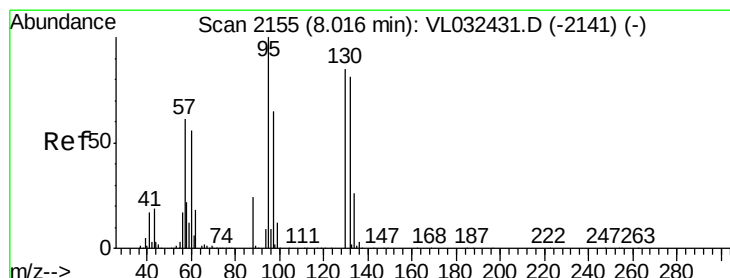
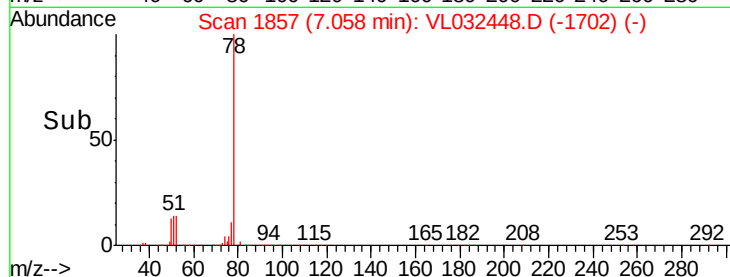
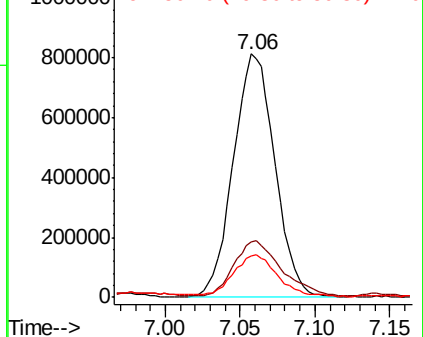
50 16.8 14.4 21.6



Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0



#38

Trichloroethene

Concen: 0.042 ppbv

RT: 8.01 min Scan# 2154

Delta R.T. -0.00 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Tgt Ion: 130 Resp: 4576

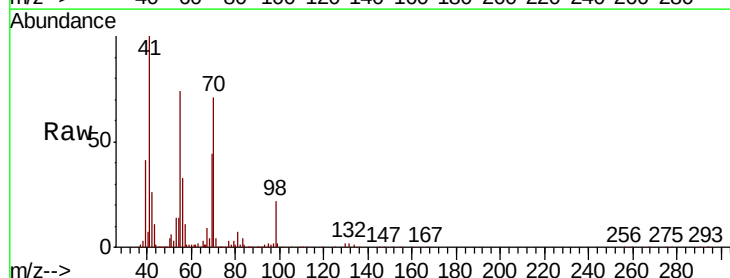
Ion Ratio Lower Upper

130 100

95 80.6 94.2 141.4#

132 85.2 76.2 114.4

97 43.5 60.8 91.2#

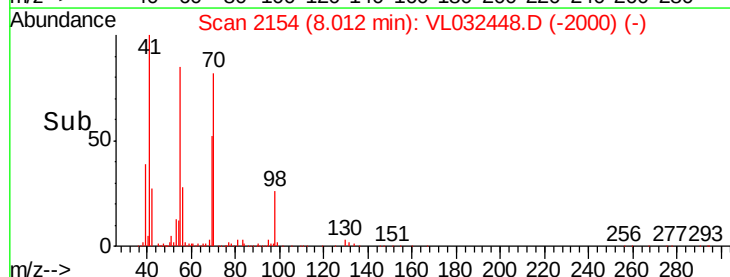
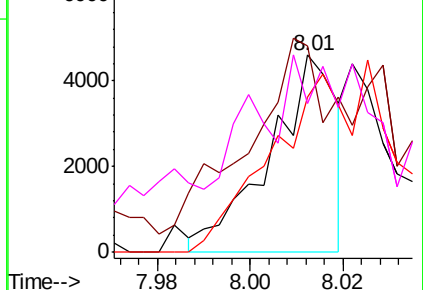


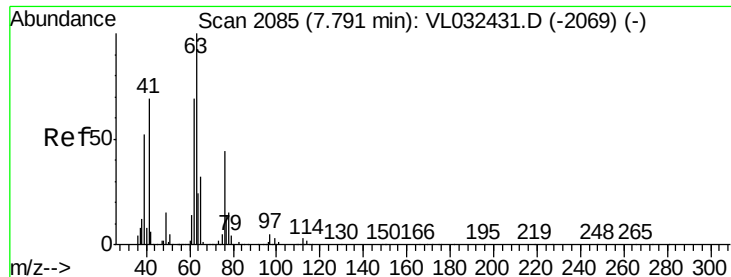
Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0

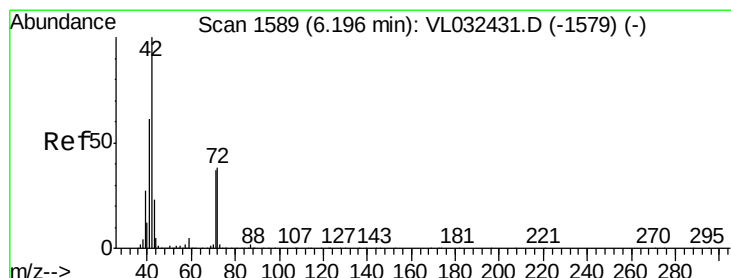
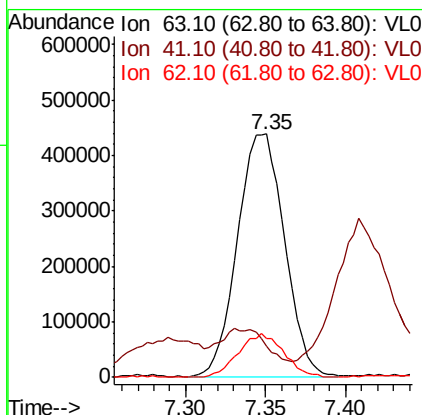
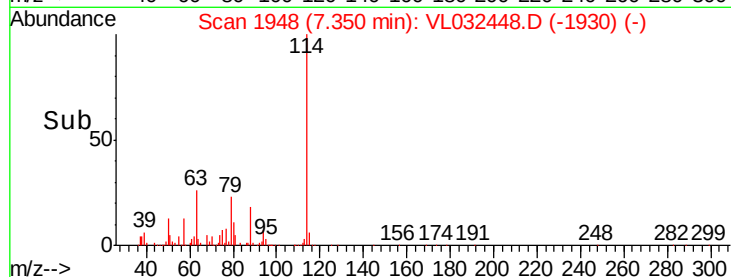
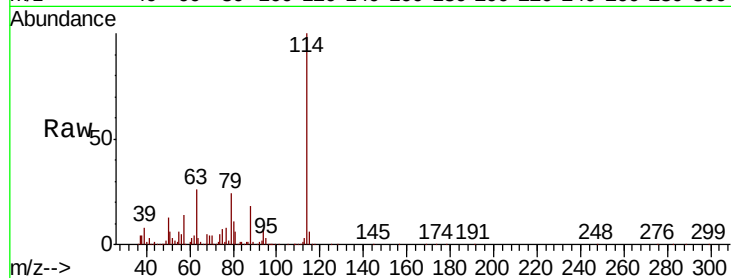




#39  
 1,2-Dichloropropane  
 Concen: 7.151 ppbv  
 RT: 7.35 min Scan# 1948  
 Delta R.T. -0.44 min  
 Lab File: VL032448.D  
 Acq: 31 Aug 2018 19:48

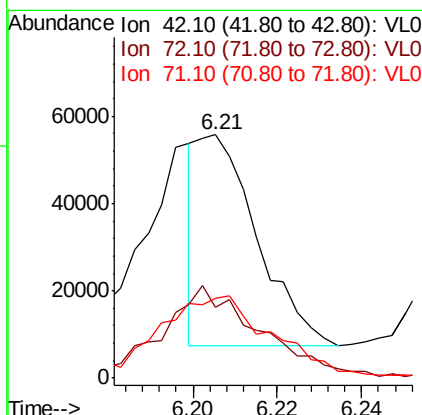
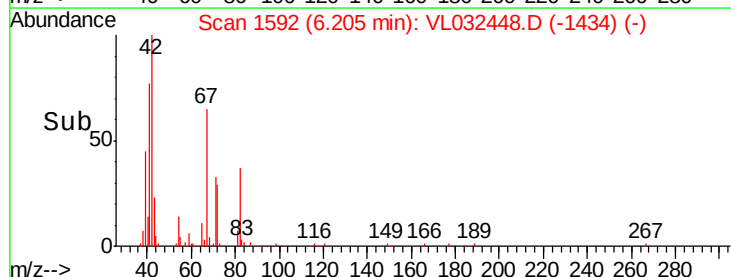
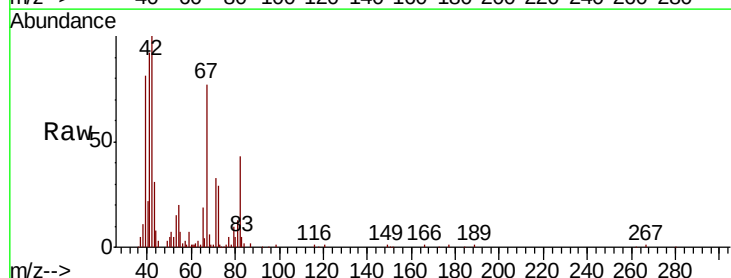
Instrument :  
 MSVOA\_L  
 ClientSampled :  
 VP-5

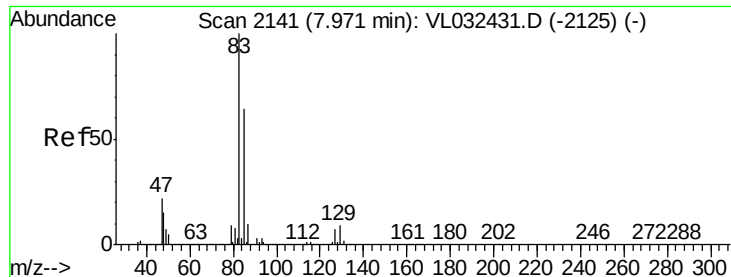
Tgt Ion: 63 Resp: 876292  
 Ion Ratio Lower Upper  
 63 100  
 41 0.0 55.4 83.0#  
 62 16.0 55.4 83.0#



#41  
 Tetrahydrofuran  
 Concen: 0.385 ppbv  
 RT: 6.21 min Scan# 1592  
 Delta R.T. 0.01 min  
 Lab File: VL032448.D  
 Acq: 31 Aug 2018 19:48

Tgt Ion: 42 Resp: 46831  
 Ion Ratio Lower Upper  
 42 100  
 72 79.7 29.5 44.3#  
 71 75.0 28.3 42.5#





#42

Bromodichloromethane

Concen: 0.134 ppbv

RT: 7.98 min Scan# 2144

Delta R.T. 0.01 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampleId :

VP-5

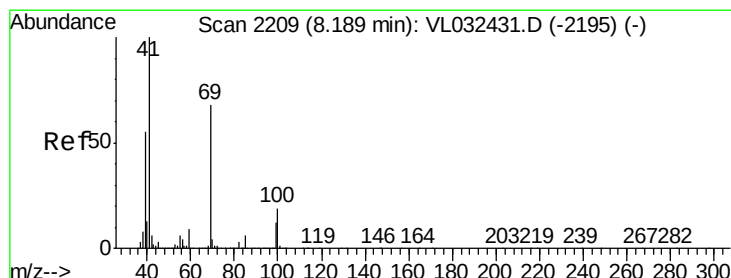
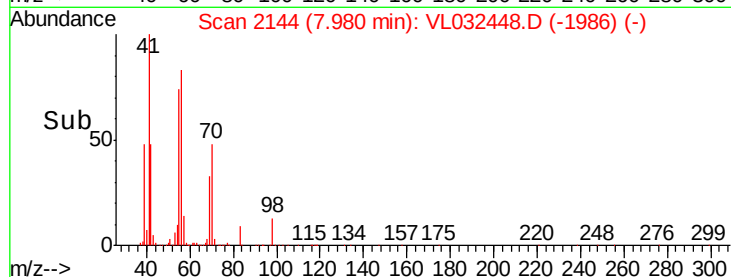
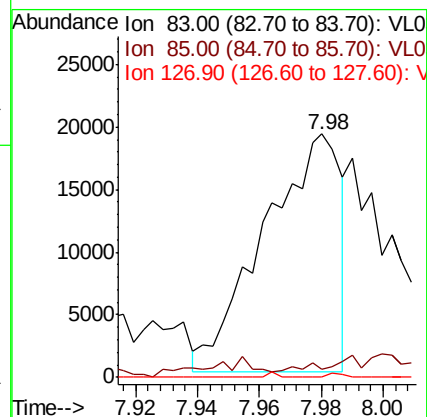
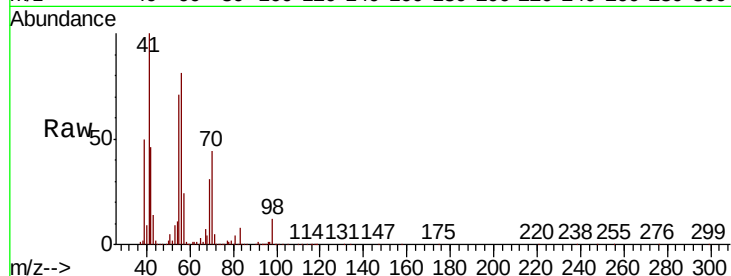
Tgt Ion: 83 Resp: 32558

Ion Ratio Lower Upper

83 100

85 0.0 51.1 76.7#

127 0.0 5.8 8.8#



#43

Methyl Methacrylate

Concen: 0.081 ppbv

RT: 8.17 min Scan# 2203

Delta R.T. -0.02 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

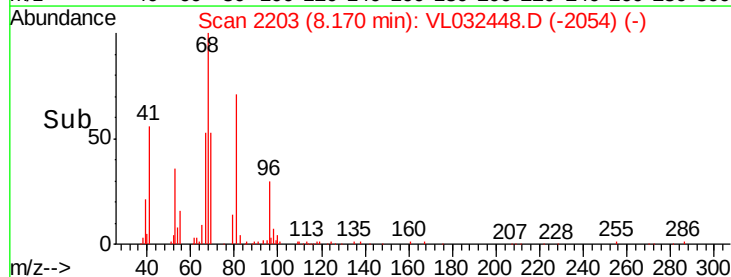
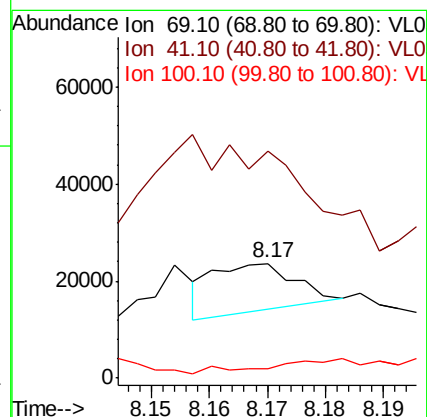
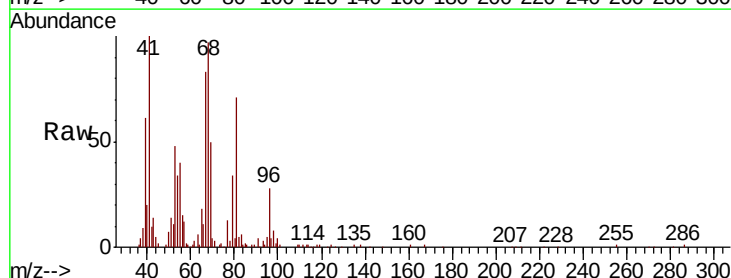
Tgt Ion: 69 Resp: 9859

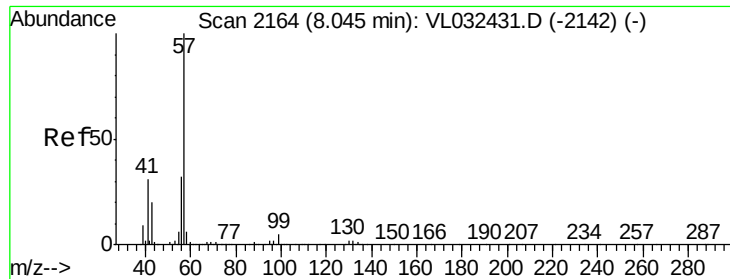
Ion Ratio Lower Upper

69 100

41 0.0 117.1 175.7#

100 91.1 23.4 35.2#

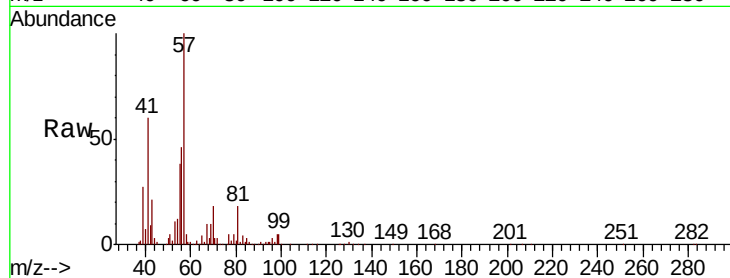




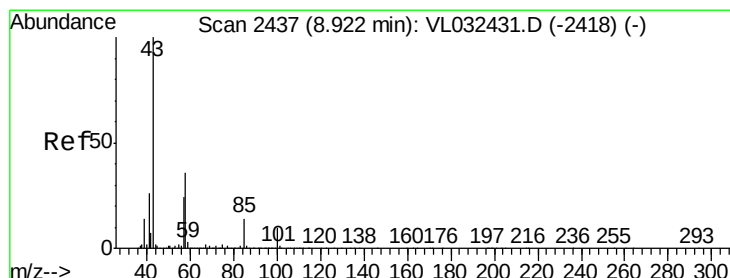
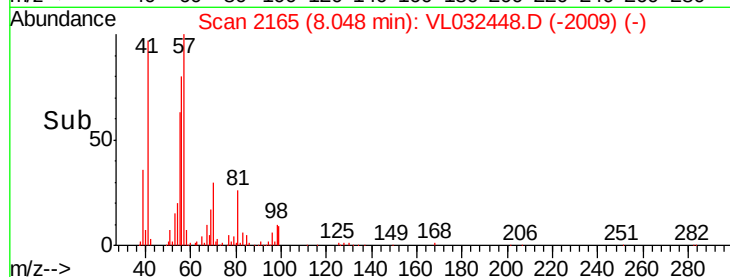
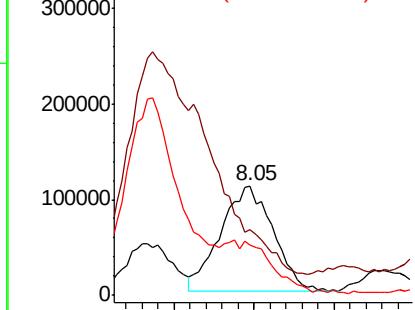
#44  
 2,2,4-Trimethylpentane  
 Concen: 0.449 ppbv  
 RT: 8.05 min Scan# 2165  
 Delta R.T. 0.00 min  
 Lab File: VL032448.D  
 Acq: 31 Aug 2018 19:48

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VP-5

Tgt Ion: 57 Resp: 248874  
 Ion Ratio Lower Upper  
 57 100  
 41 0.0 24.4 36.6#  
 56 0.0 25.7 38.5#

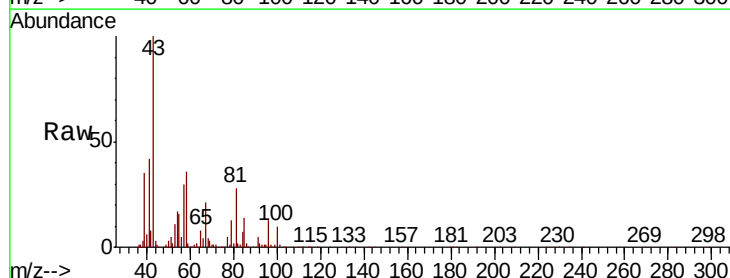


Abundance Ion 57.10 (56.80 to 57.80): VL0  
 Ion 41.10 (40.80 to 41.80): VL0  
 Ion 56.10 (55.80 to 56.80): VL0

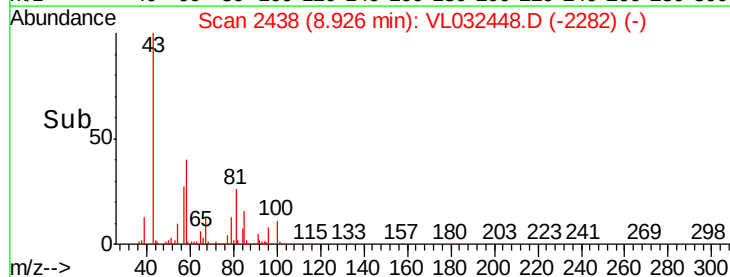
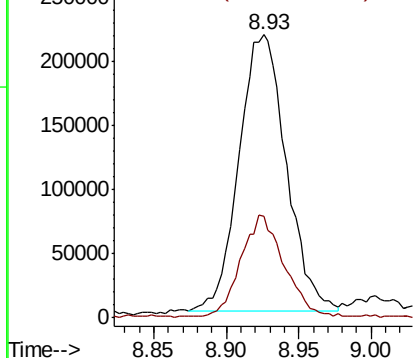


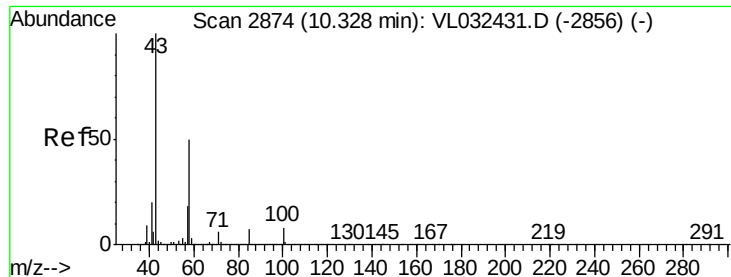
#50  
 4-Methyl-2-Pentanone  
 Concen: 1.446 ppbv  
 RT: 8.93 min Scan# 2438  
 Delta R.T. 0.00 min  
 Lab File: VL032448.D  
 Acq: 31 Aug 2018 19:48

Tgt Ion: 43 Resp: 487014  
 Ion Ratio Lower Upper  
 43 100  
 58 34.5 29.0 43.4



Abundance Ion 43.10 (42.80 to 43.80): VL0  
 Ion 58.10 (57.80 to 58.80): VL0

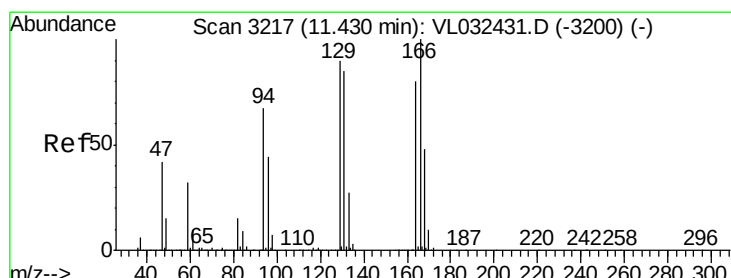
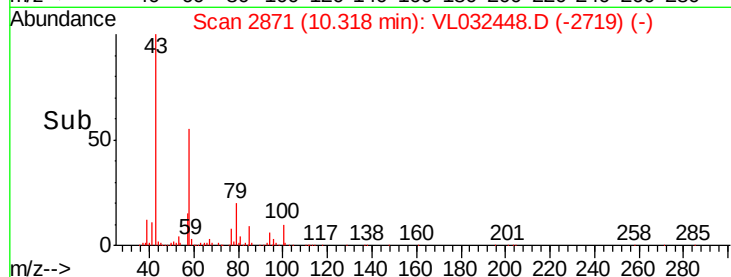
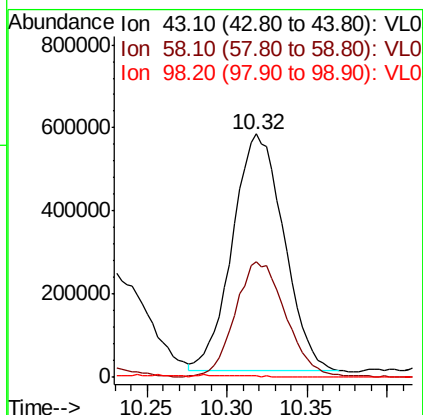
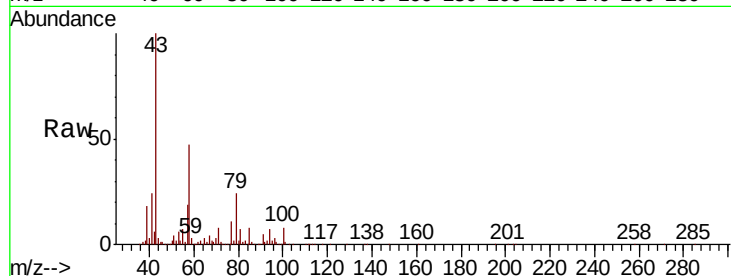




#51  
2-Hexanone  
Concen: 5.767 ppbv  
RT: 10.32 min Scan# 2871  
Delta R.T. -0.01 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

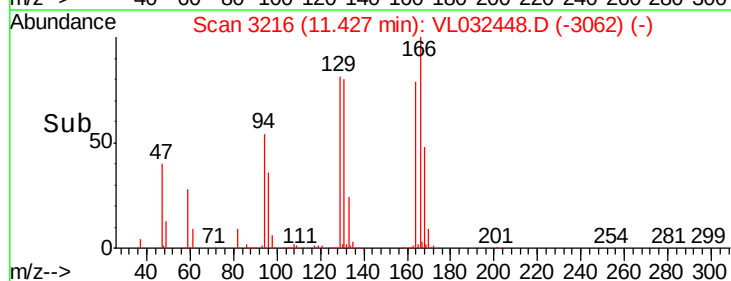
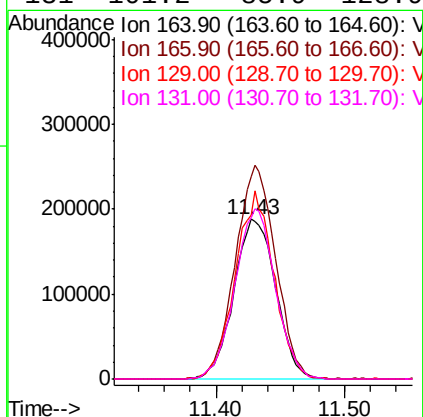
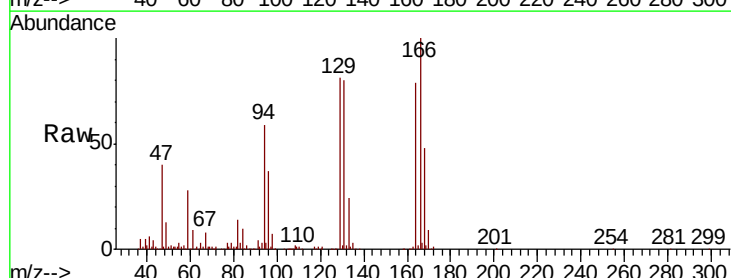
Instrument :  
MSVOA\_L  
ClientSampleId :  
VP-5

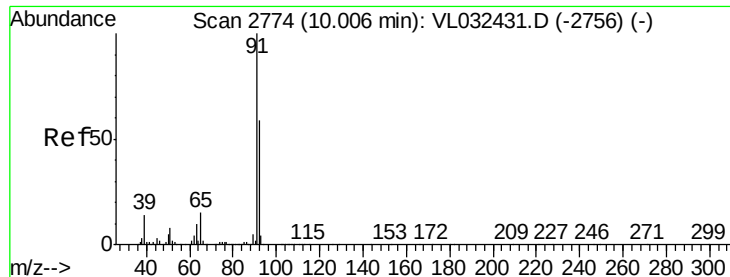
Tgt Ion: 43 Resp: 1250925  
Ion Ratio Lower Upper  
43 100  
58 48.3 39.2 58.8  
98 0.0 0.4 0.6#



#52  
Tetrachloroethene  
Concen: 4.774 ppbv  
RT: 11.43 min Scan# 3216  
Delta R.T. -0.00 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

Tgt Ion: 164 Resp: 423985  
Ion Ratio Lower Upper  
164 100  
166 126.3 100.6 150.8  
129 102.6 89.9 134.9  
131 101.2 85.9 128.9





#53

Toluene

Concen: 14.769 ppbv

RT: 10.00 min Scan# 2773

Delta R.T. -0.00 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampleId :

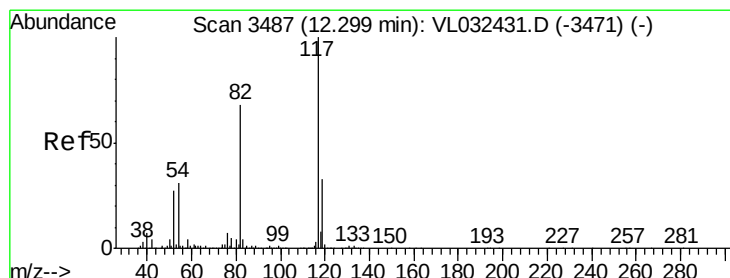
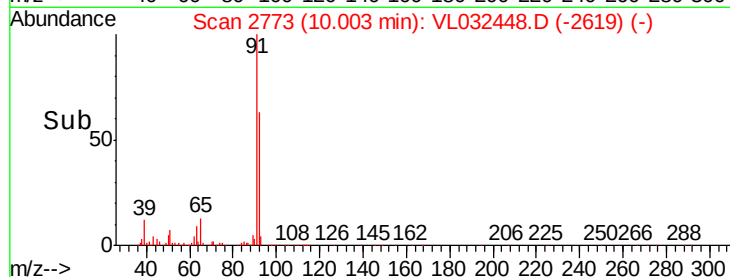
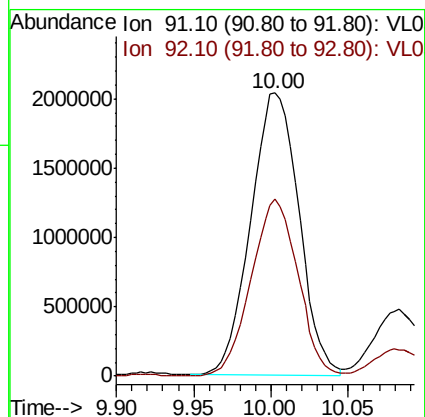
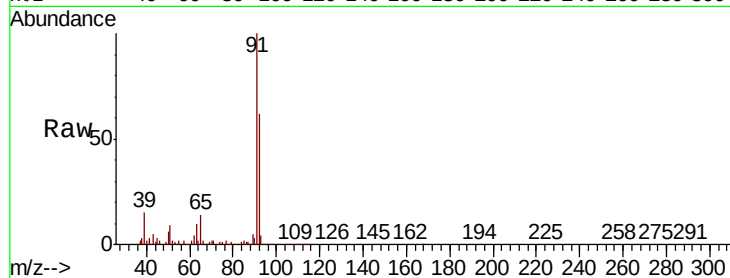
VP-5

Tgt Ion: 91 Resp: 4421307

Ion Ratio Lower Upper

91 100

92 60.4 48.1 72.1



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.30 min Scan# 3486

Delta R.T. -0.00 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

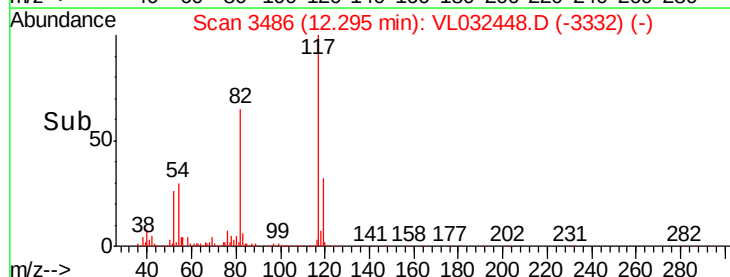
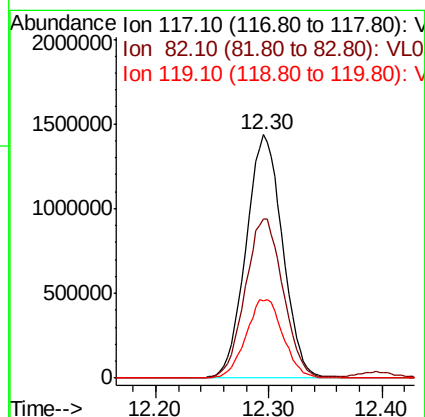
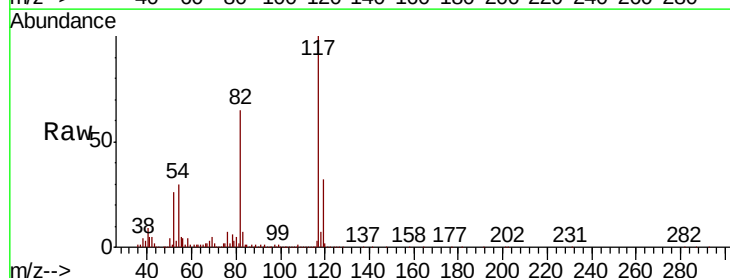
Tgt Ion: 117 Resp: 3219327

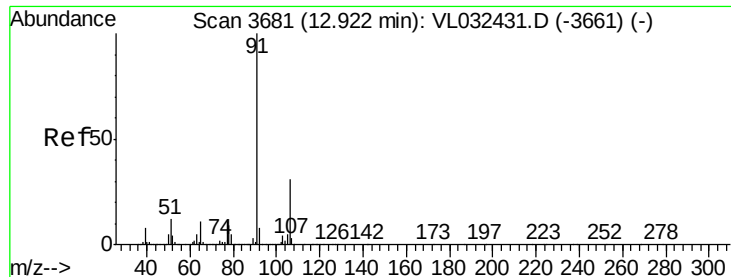
Ion Ratio Lower Upper

117 100

82 67.9 53.0 79.6

119 32.9 45.9 68.9#





#58

Ethyl Benzene

Concen: 4.043 ppbv

RT: 12.92 min Scan# 3681

Delta R.T. -0.00 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampleId :

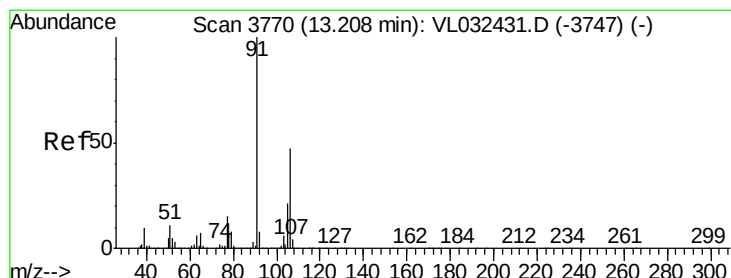
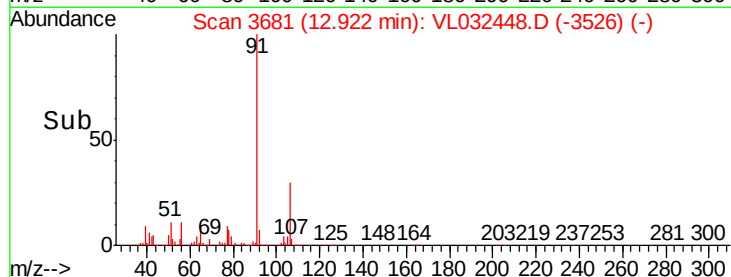
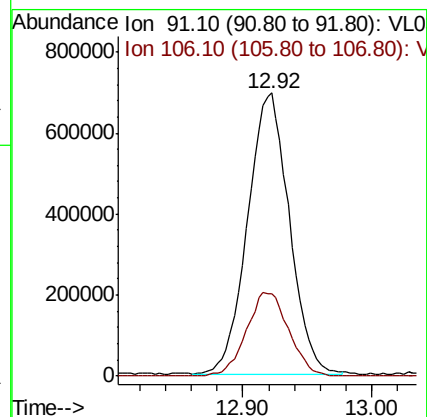
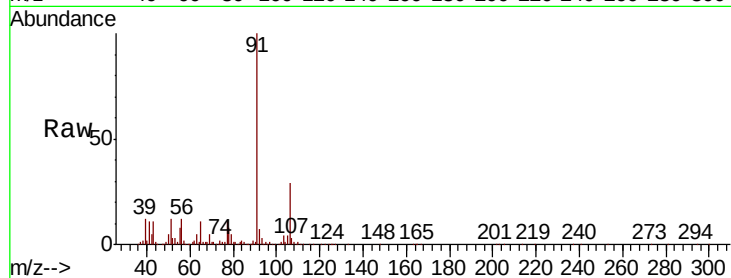
VP-5

Tgt Ion: 91 Resp: 1557644

Ion Ratio Lower Upper

91 100

106 29.2 24.8 37.2



#59

m/p-Xylene

Concen: 12.394 ppbv

RT: 13.17 min Scan# 3759

Delta R.T. -0.04 min

Lab File: VL032448.D

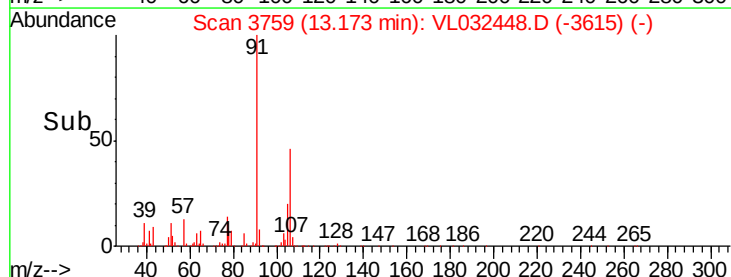
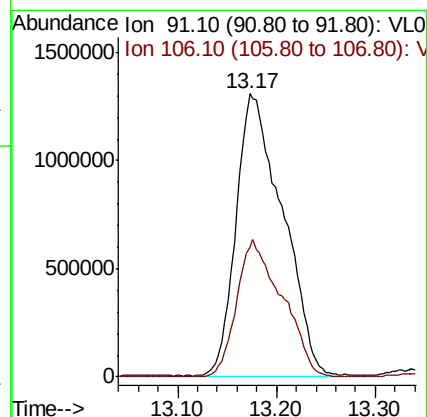
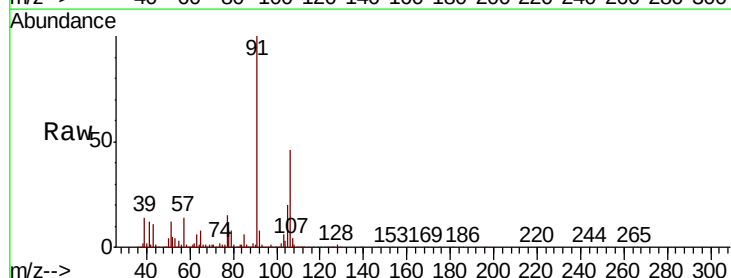
Acq: 31 Aug 2018 19:48

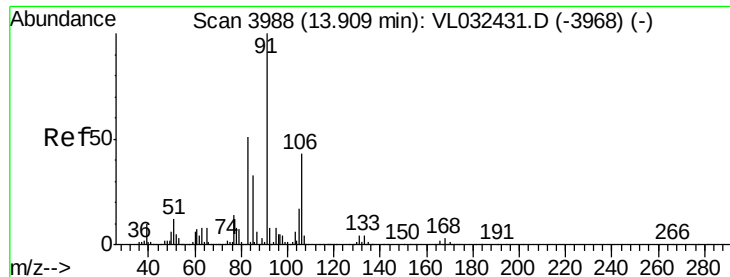
Tgt Ion: 91 Resp: 4257105

Ion Ratio Lower Upper

91 100

106 47.4 36.6 55.0

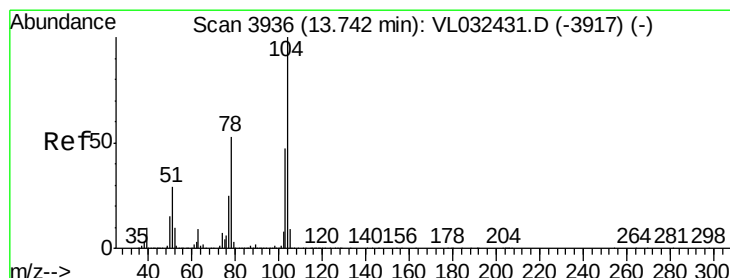
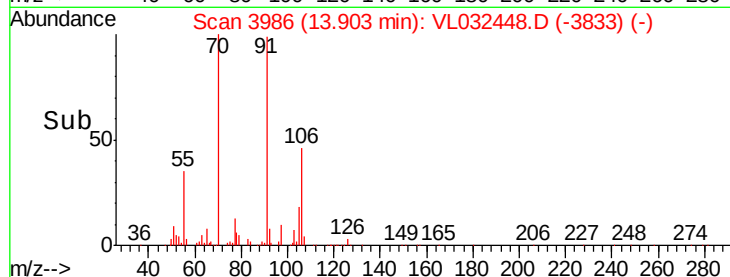
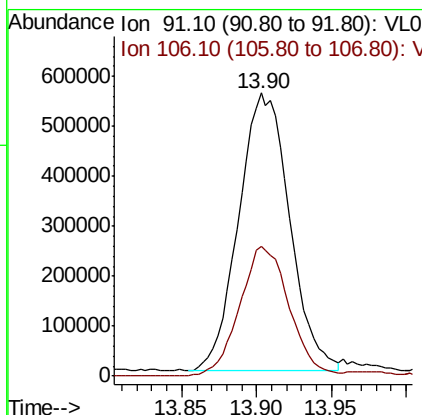
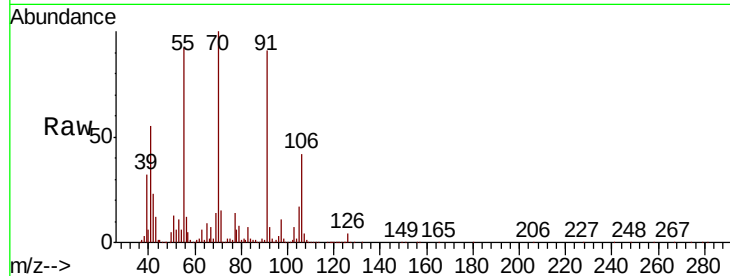




#60  
o-Xylene  
Concen: 3.912 ppbv  
RT: 13.90 min Scan# 3986  
Delta R.T. -0.01 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

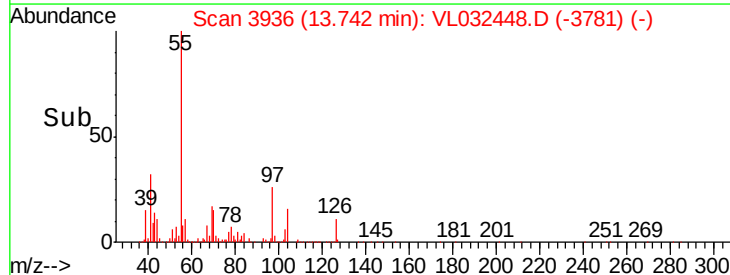
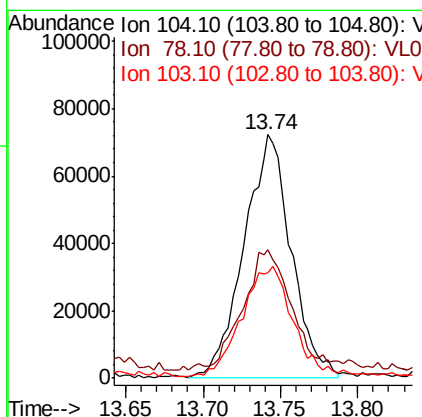
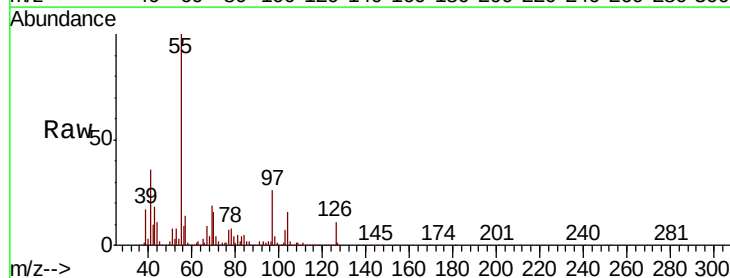
Instrument :  
MSVOA\_L  
ClientSampleId :  
VP-5

Tgt Ion: 91 Resp: 1319817  
Ion Ratio Lower Upper  
91 100  
106 46.9 21.9 65.7

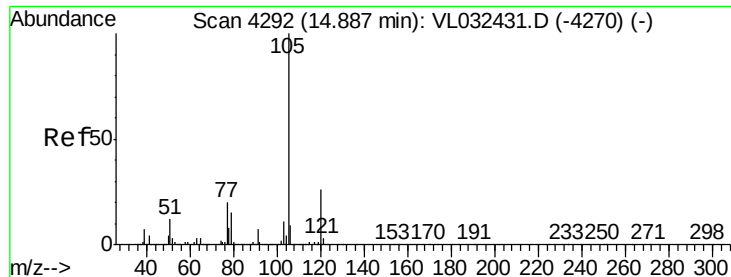


#61  
Styrene  
Concen: 0.696 ppbv  
RT: 13.74 min Scan# 3936  
Delta R.T. -0.00 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

Tgt Ion: 104 Resp: 151953  
Ion Ratio Lower Upper  
104 100  
78 55.1 41.8 62.8  
103 51.3 38.0 57.0







#62

Isopropylbenzene

Concen: 0.228 ppbv

RT: 14.89 min Scan# 4292

Delta R.T. -0.00 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampled :

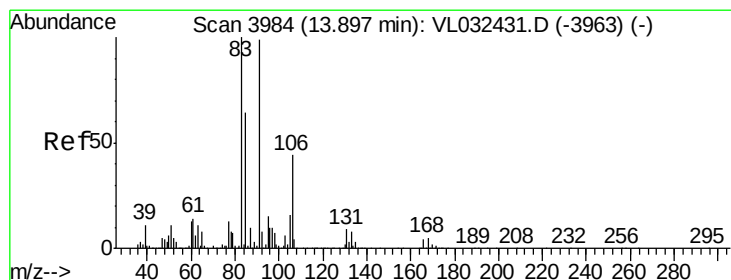
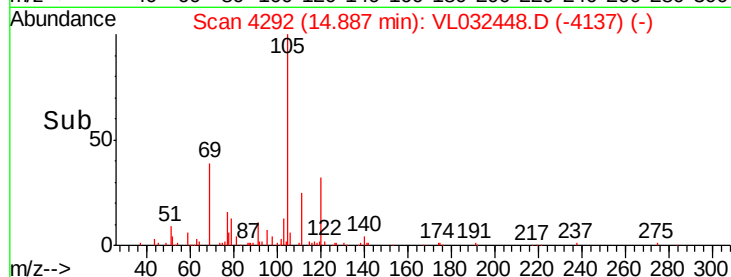
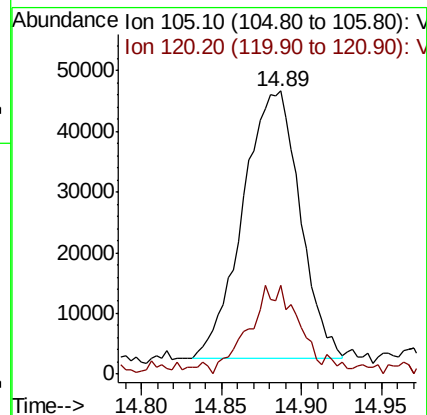
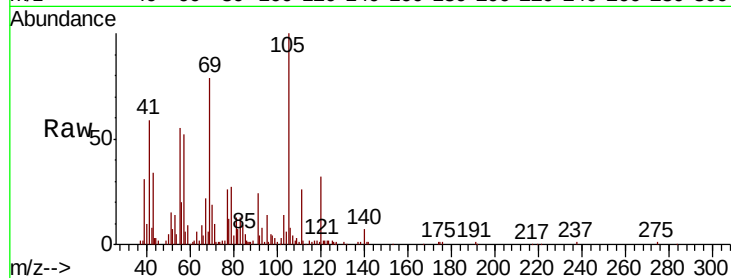
VP-5

Tgt Ion:105 Resp: 108124

Ion Ratio Lower Upper

105 100

120 32.7 20.6 31.0#



#63

1,1,2,2-Tetrachloroethane

Concen: 0.125 ppbv

RT: 13.90 min Scan# 3984

Delta R.T. -0.00 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

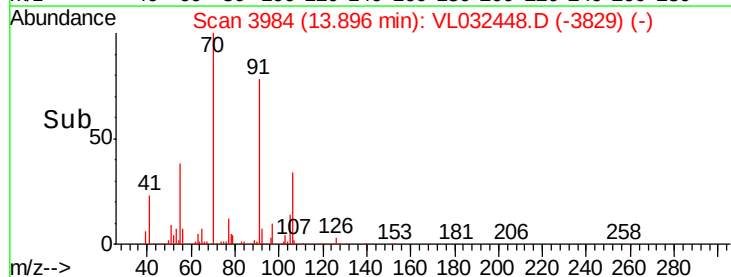
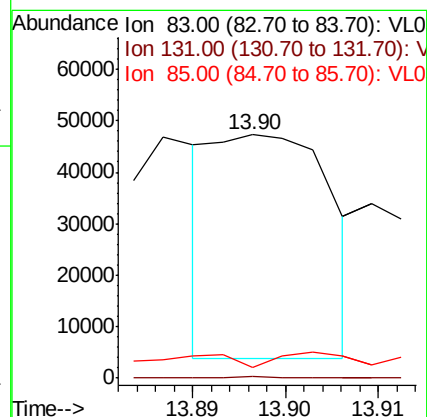
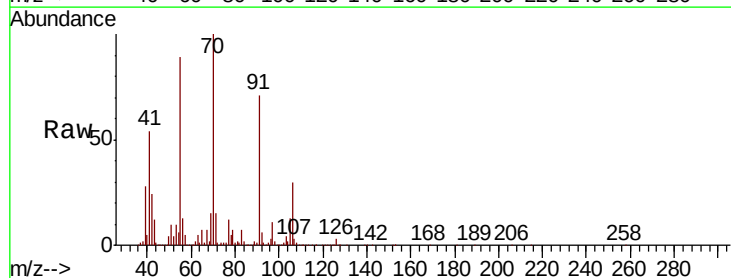
Tgt Ion: 83 Resp: 37815

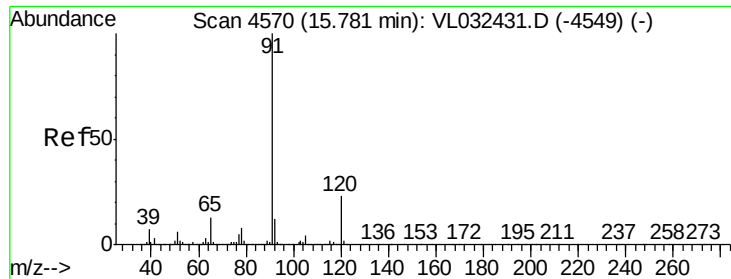
Ion Ratio Lower Upper

83 100

131 0.0 4.3 12.8#

85 0.0 32.3 96.8#

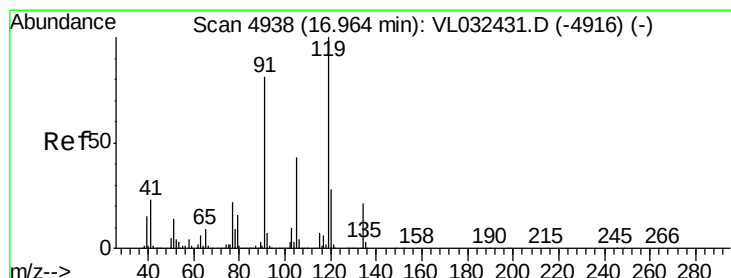
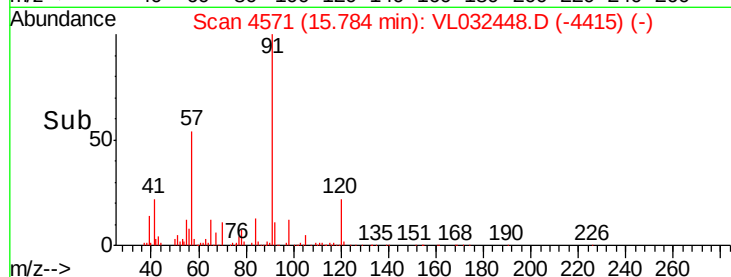
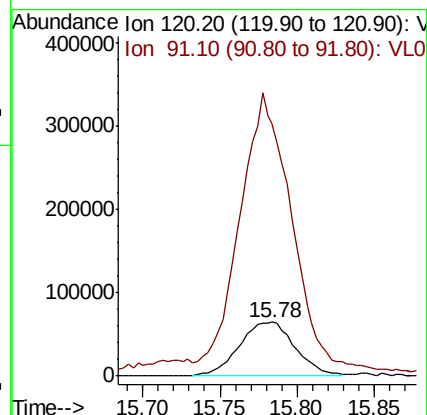
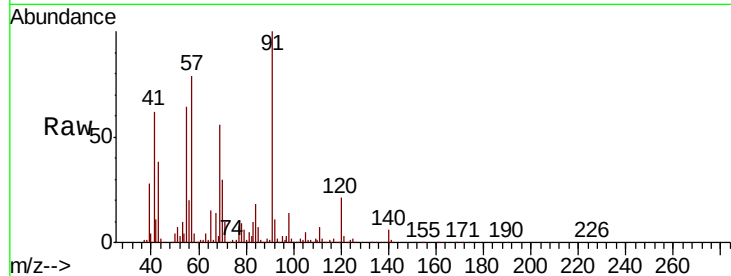




#64  
n-propylbenzene  
Concen: 1.268 ppbv  
RT: 15.78 min Scan# 4571  
Delta R.T. 0.00 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

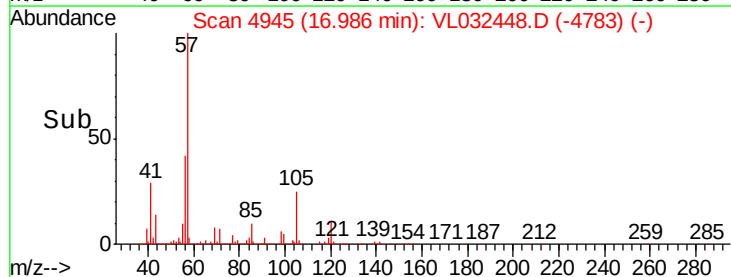
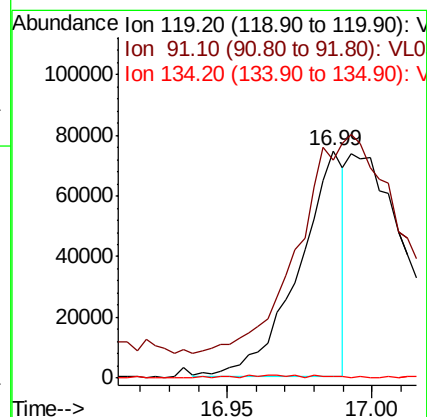
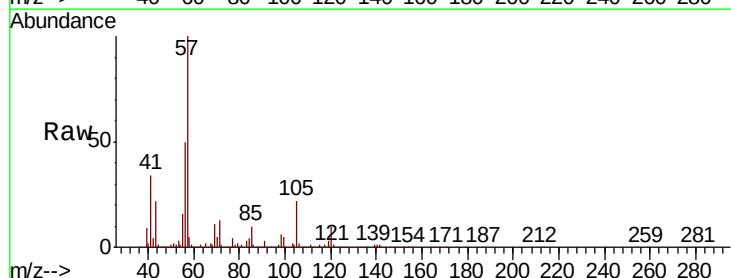
Instrument :  
MSVOA\_L  
ClientSampleId :  
VP-5

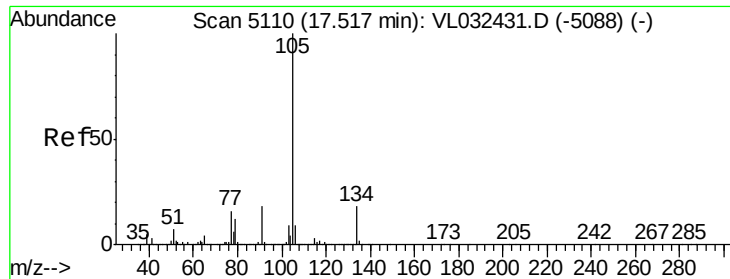
Tgt Ion:120 Resp: 157270  
Ion Ratio Lower Upper  
120 100  
91 539.8 381.8 572.6



#65  
tert-Butylbenzene  
Concen: 0.195 ppbv  
RT: 16.99 min Scan# 4945  
Delta R.T. 0.02 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

Tgt Ion:119 Resp: 79867  
Ion Ratio Lower Upper  
119 100  
91 12.0 66.5 99.7#  
134 2.9 16.0 24.0#





#67

sec-Butylbenzene

Concen: 0.034 ppbv

RT: 17.52 min Scan# 5112

Delta R.T. 0.01 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampled :

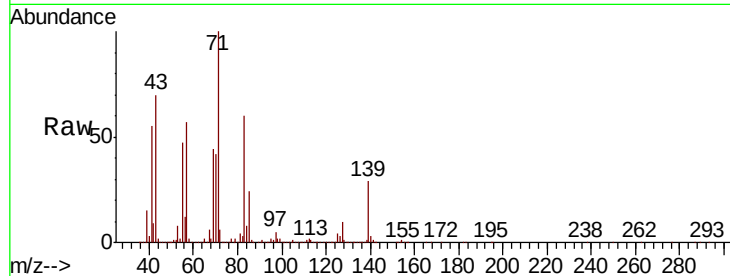
VP-5

Tgt Ion: 105 Resp: 20780

Ion Ratio Lower Upper

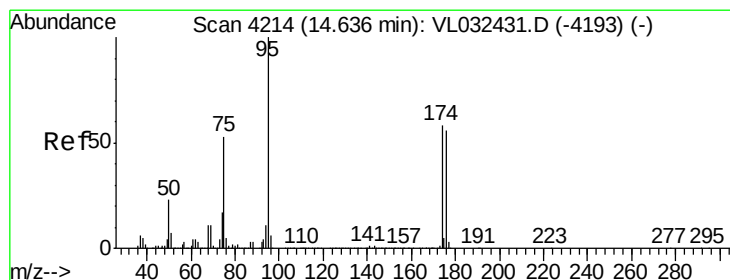
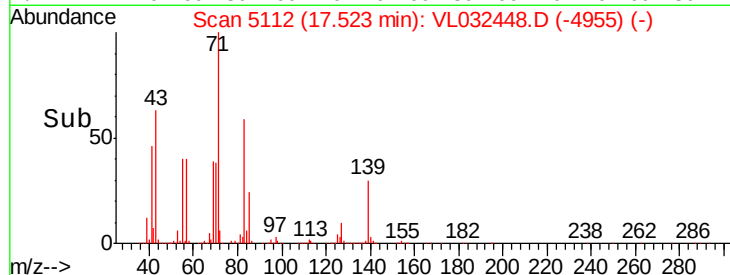
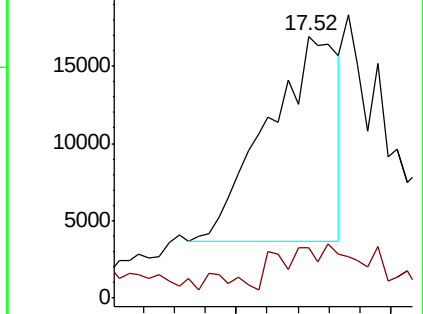
105 100

134 50.1 14.4 21.6#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.266 ppbv

RT: 14.63 min Scan# 4213

Delta R.T. -0.00 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

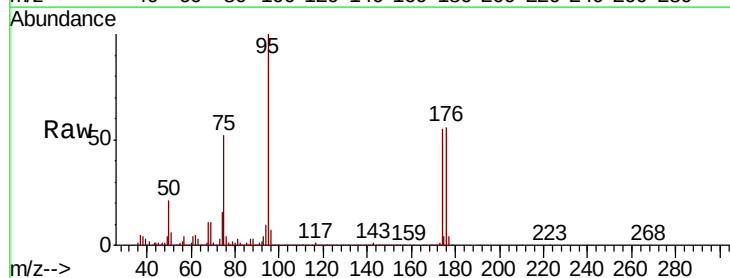
Tgt Ion: 95 Resp: 2453644

Ion Ratio Lower Upper

95 100

174 58.7 46.3 69.5

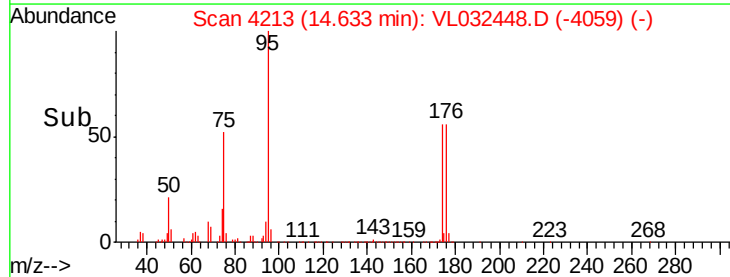
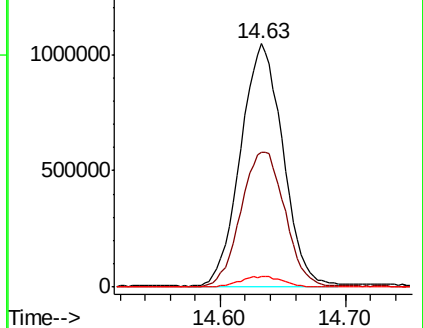
175 4.6 3.4 5.0

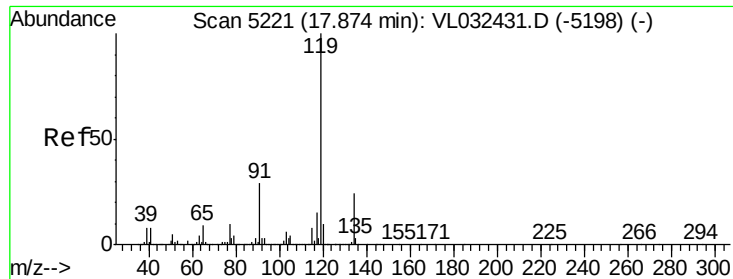


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

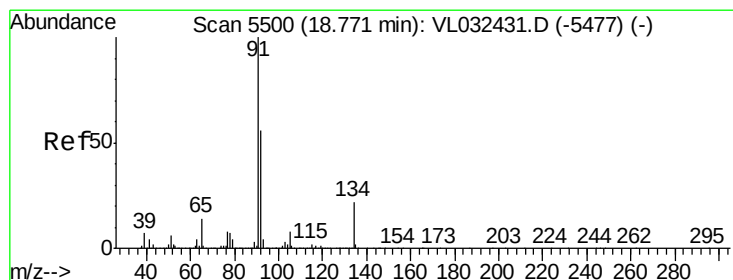
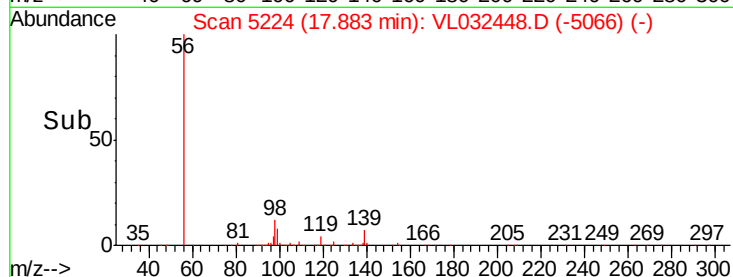
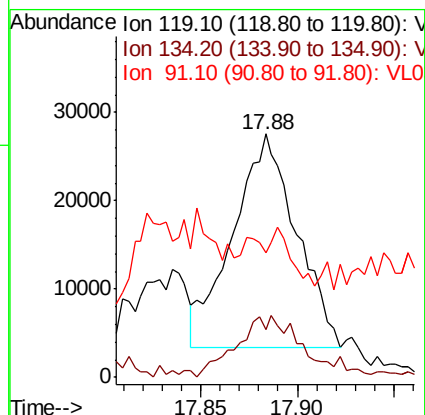
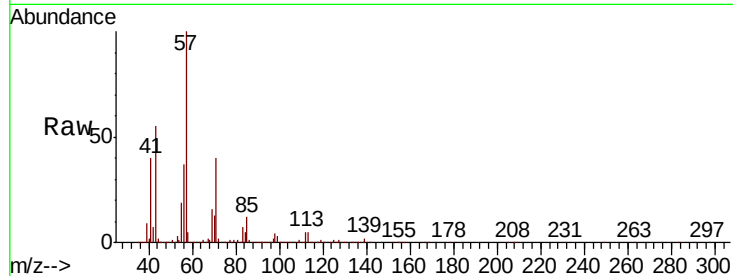




#69  
p-Isopropyltoluene  
Concen: 0.116 ppbv  
RT: 17.88 min Scan# 5224  
Delta R.T. 0.01 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

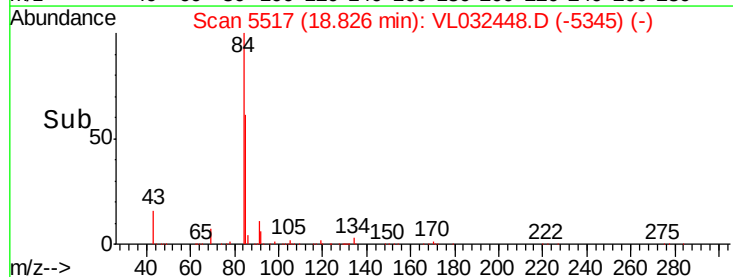
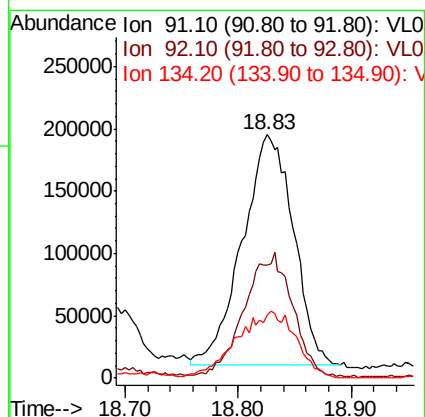
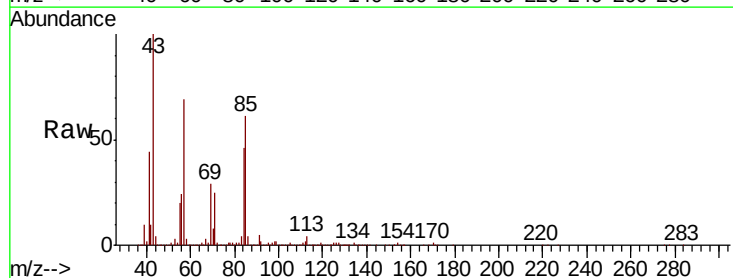
Instrument :  
MSVOA\_L  
ClientSampleId :  
VP-5

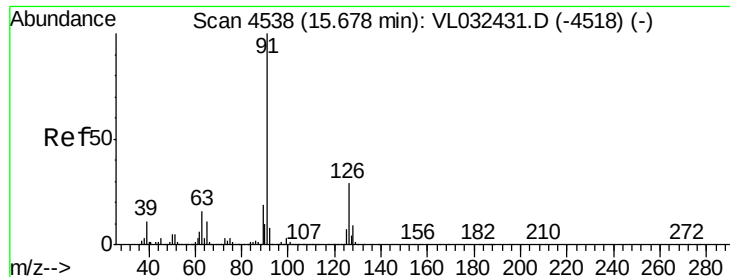
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 31.1  | 20.4  | 30.6# |
| 91      | 23.0  | 23.4  | 35.2# |



#70  
n-Butylbenzene  
Concen: 1.078 ppbv  
RT: 18.83 min Scan# 5517  
Delta R.T. 0.05 min  
Lab File: VL032448.D  
Acq: 31 Aug 2018 19:48

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 50.3  | 43.8  | 65.8  |
| 134     | 33.5  | 17.4  | 26.0# |

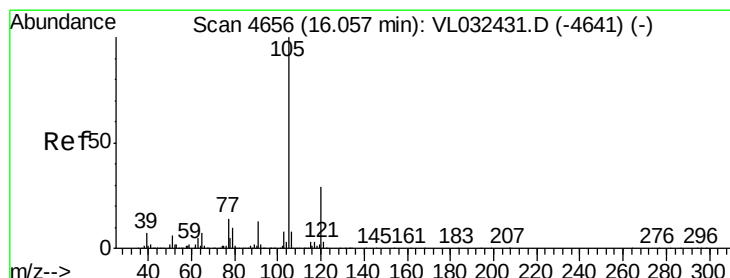
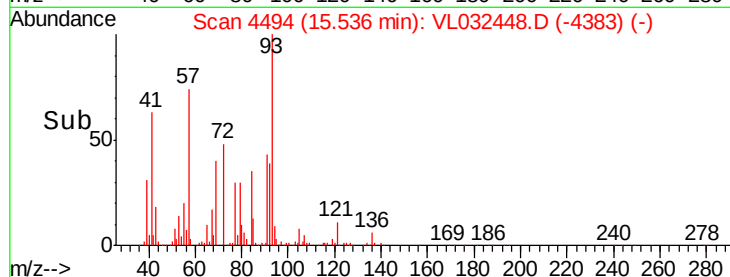
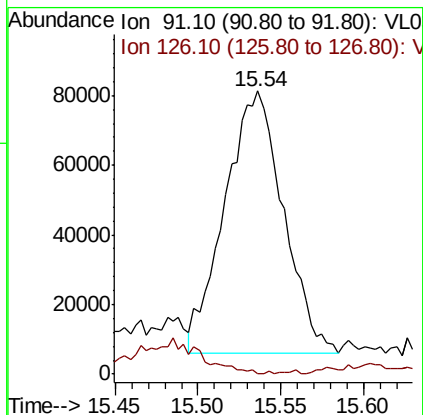
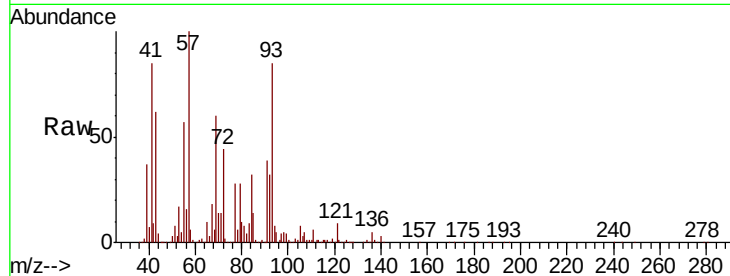




#71  
 2-Chlorotoluene  
 Concen: 0.512 ppbv  
 RT: 15.54 min Scan# 4494  
 Delta R.T. -0.14 min  
 Lab File: VL032448.D  
 Acq: 31 Aug 2018 19:48

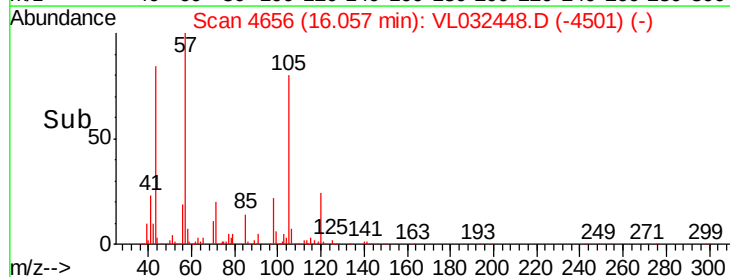
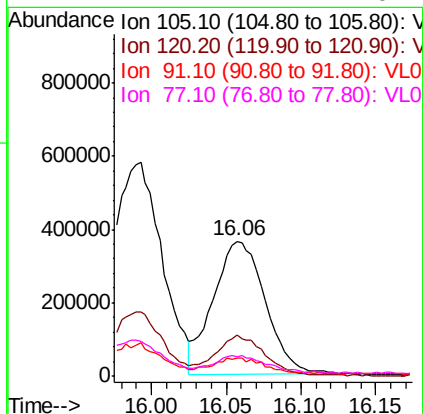
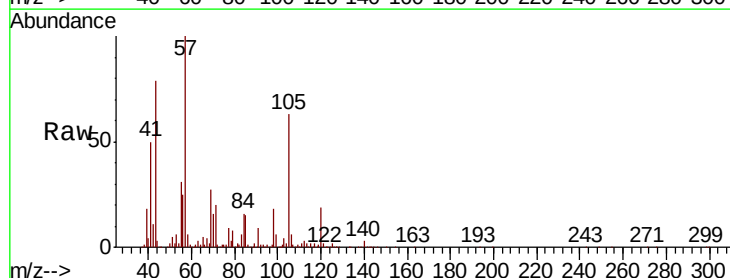
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VP-5

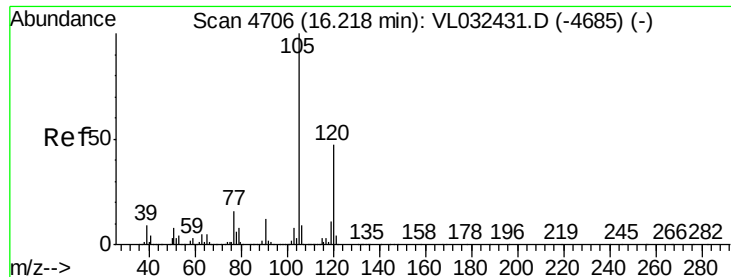
Tgt Ion: 91 Resp: 185455  
 Ion Ratio Lower Upper  
 91 100  
 126 14.4 11.9 47.7



#72  
 4-Ethyltoluene  
 Concen: 2.383 ppbv  
 RT: 16.06 min Scan# 4656  
 Delta R.T. -0.00 min  
 Lab File: VL032448.D  
 Acq: 31 Aug 2018 19:48

Tgt Ion: 105 Resp: 877636  
 Ion Ratio Lower Upper  
 105 100  
 120 30.0 23.5 35.3  
 91 14.3 10.2 15.2  
 77 14.7 11.1 16.7





#73

1,3,5-Trimethylbenzene

Concen: 1.135 ppbv

RT: 16.21 min Scan# 4705

Delta R.T. -0.00 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampled :

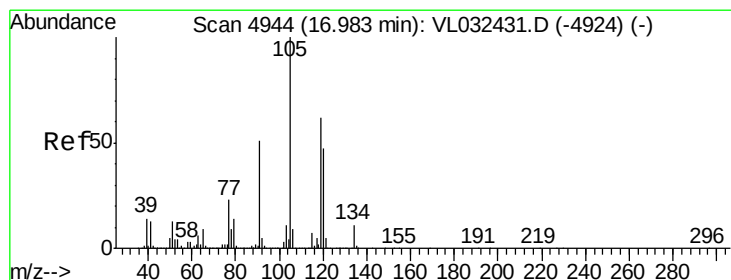
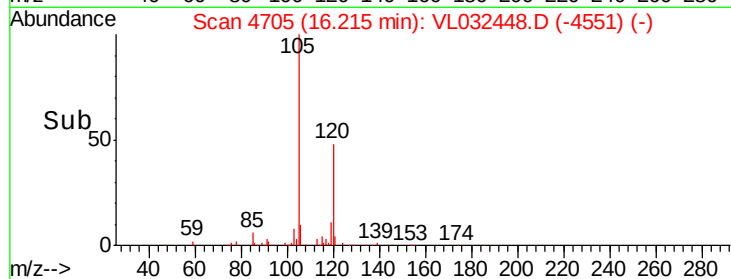
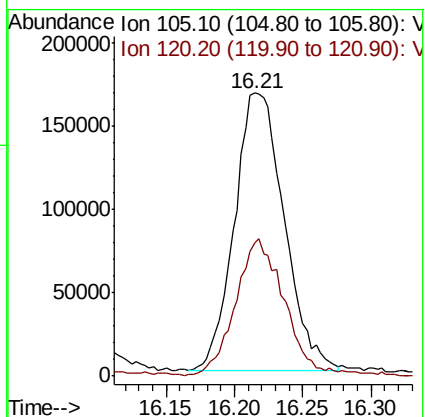
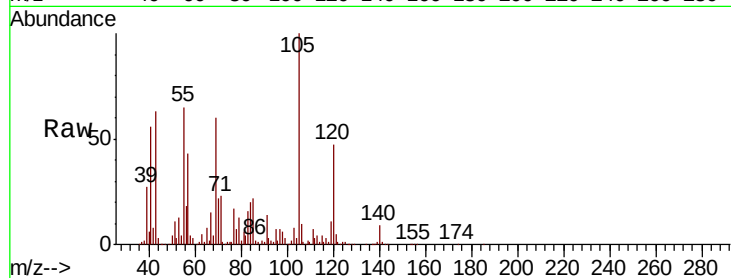
VP-5

Tgt Ion:105 Resp: 419021

Ion Ratio Lower Upper

105 100

120 47.6 37.9 56.9



#74

1,2,4-Trimethylbenzene

Concen: 4.143 ppbv

RT: 17.00 min Scan# 4948

Delta R.T. 0.01 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Tgt Ion:105 Resp: 1671539

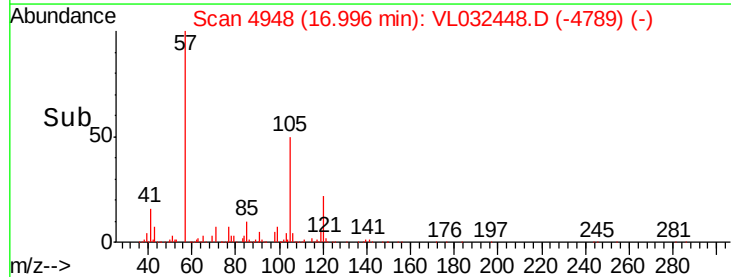
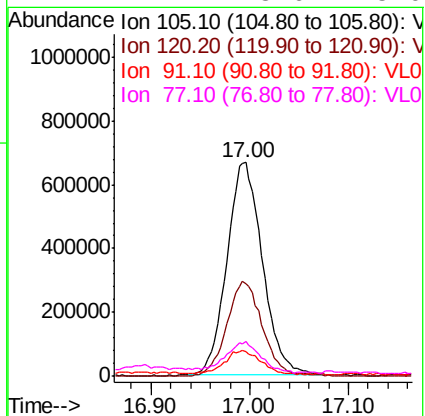
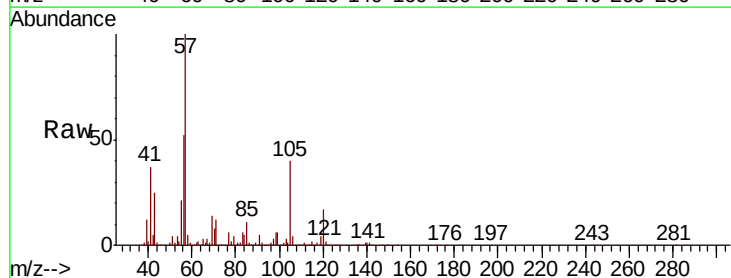
Ion Ratio Lower Upper

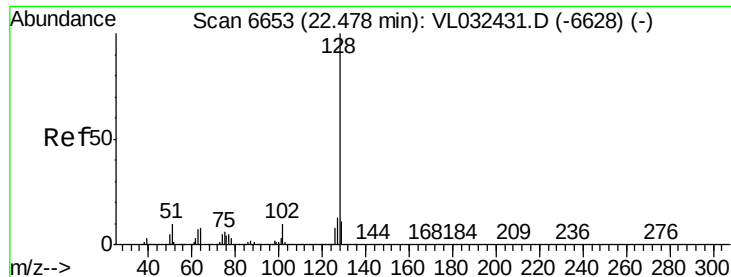
105 100

120 43.3 37.8 56.8

91 10.7 41.4 62.0#

77 14.1 18.6 28.0#





#79

Naphthalene

Concen: 0.182 ppbv

RT: 22.49 min Scan# 6657

Delta R.T. 0.01 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Instrument :

MSVOA\_L

ClientSampleId :

VP-5

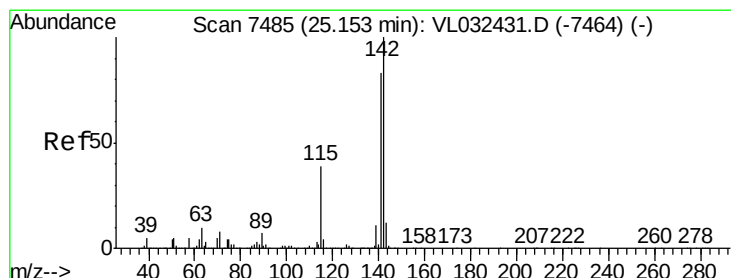
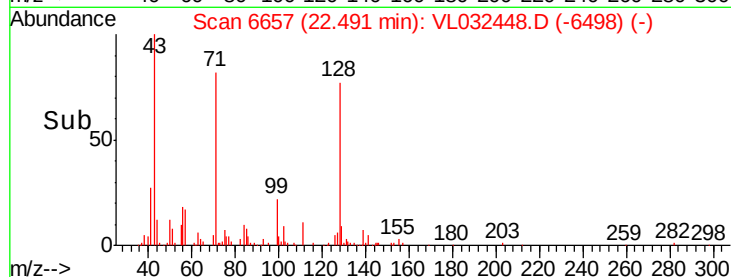
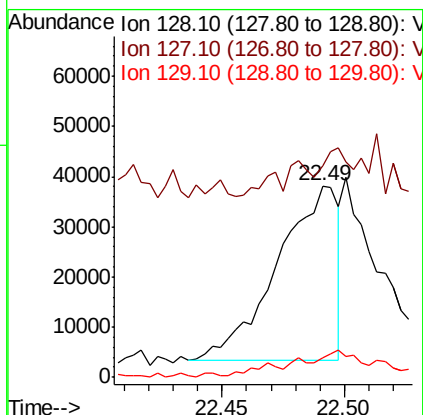
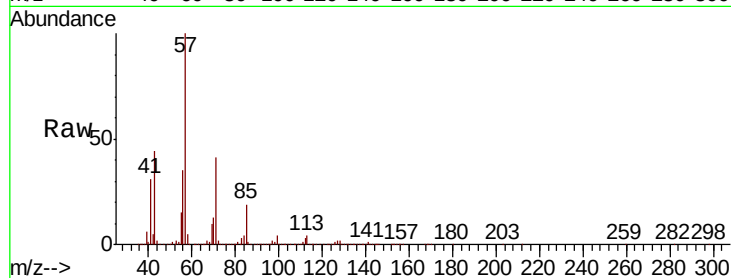
Tgt Ion:128 Resp: 59619

Ion Ratio Lower Upper

128 100

127 18.7 10.2 15.2#

129 10.2 8.5 12.7



#80

Naphthalene, 2-methyl-

Concen: 0.050 ppbv

RT: 25.14 min Scan# 7482

Delta R.T. -0.01 min

Lab File: VL032448.D

Acq: 31 Aug 2018 19:48

Tgt Ion:142 Resp: 4327

Ion Ratio Lower Upper

142 100

141 98.4 67.0 100.6

115 25.4 31.3 46.9#

