

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101818\  
 Data File : VL032660.D  
 Acq On : 18 Oct 2018 22:09  
 Operator : SY/AP  
 Sample : VSTDICV010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICSVVL101818

Manual Integrations  
 APPROVED

MMDadoda  
 10/24/2018 12:04:55 PM

Quant Time: Oct 19 01:39:50 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Oct 19 01:39:50 2018  
 QLast Update : Fri Oct 19 01:25:37 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.78  | 49   | 1633843  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.31  | 114  | 4180300  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.26 | 117  | 4222012m | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.60  | 95    | 3103935  | 9.87     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 98.70% |

| Target Compounds               | R.T. | QIon | Response | Conc   | Units  | Ovalue |
|--------------------------------|------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.09 | 85   | 1936250  | 11.632 | ppbv   | 100    |
| 3) Chlorodifluoromethane       | 3.02 | 51   | 1171972  | 9.172  | ppbv   | 98     |
| 4) Chloromethane               | 3.18 | 50   | 691976   | 9.691  | ppbv   | 100    |
| 5) Vinyl Chloride              | 3.30 | 62   | 696804   | 9.009  | ppbv   | 99     |
| 6) Bromomethane                | 3.53 | 94   | 439649   | 9.117  | ppbv   | 93     |
| 7) Chloroethane                | 3.61 | 64   | 270458   | 9.496  | ppbv   | 94     |
| 8) Dichlorotetrafluoroethane   | 3.23 | 85   | 1582268  | 9.018  | ppbv   | 91     |
| 9) Propene                     | 3.05 | 41   | 563092   | 10.709 | ppbv   | 99     |
| 10) Heptane                    | 8.26 | 43   | 2126290  | 10.493 | ppbv   | 98     |
| 11) Trichlorofluoromethane     | 4.02 | 101  | 1935165  | 8.900  | ppbv   | 96     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.57 | 101  | 1427391  | 7.894  | ppbv   | 91     |
| 13) Ethanol                    | 3.66 | 45   | 135283   | 9.002  | ppbv   | 97     |
| 14) Bromoethene                | 3.80 | 108  | 566225   | 9.266  | ppbv   | 99     |
| 15) Acetone                    | 3.91 | 43   | 1169955  | 7.755  | ppbv   | 100    |
| 16) 1,3-Butadiene              | 3.37 | 39   | 581694   | 10.481 | ppbv   | 81     |
| 17) tert-Butyl alcohol         | 4.37 | 59   | 477088   | 10.752 | ppbv # | 100    |
| 18) 1,1-Dichloroethene         | 4.36 | 96   | 773548   | 9.738  | ppbv   | 94     |
| 19) Isopropyl Alcohol          | 4.04 | 45   | 956861   | 8.906  | ppbv # | 96     |
| 20) Methylene Chloride         | 4.42 | 84   | 657014   | 8.579  | ppbv   | 98     |
| 21) Allyl Chloride             | 4.49 | 41   | 1271107  | 10.261 | ppbv   | 99     |
| 22) trans-1,2-Dichloroethene   | 4.98 | 96   | 775675   | 9.520  | ppbv   | 87     |
| 23) Vinyl Acetate              | 5.17 | 43   | 2803430  | 10.486 | ppbv   | 99     |
| 24) 1,1-Dichloroethane         | 5.11 | 63   | 2006088  | 9.559  | ppbv   | 99     |
| 25) Ethyl Acetate              | 5.79 | 43   | 3334627  | 9.602  | ppbv   | 99     |
| 26) Hexane                     | 5.80 | 57   | 1558840  | 9.487  | ppbv   | 100    |
| 27) Carbon Disulfide           | 4.63 | 76   | 1771660  | 8.888  | ppbv   | 100    |
| 28) Methyl tert-Butyl Ether    | 5.13 | 73   | 2551295  | 10.804 | ppbv   | 100    |
| 29) Chloroform                 | 5.87 | 83   | 2397561  | 9.135  | ppbv   | 100    |
| 30) Cyclohexane                | 7.26 | 84   | 1433855  | 11.024 | ppbv   | 97     |
| 31) cis-1,2-Dichloroethene     | 5.66 | 61   | 1518619  | 9.968  | ppbv   | 99     |
| 32) 1,1,1-Trichloroethane      | 6.64 | 97   | 2464489  | 9.240  | ppbv   | 98     |
| 34) 2-Butanone                 | 5.35 | 43   | 2317468  | 10.342 | ppbv   | 100    |
| 35) Carbon Tetrachloride       | 7.16 | 117  | 2640116  | 8.899  | ppbv   | 100    |
| 36) Benzene                    | 7.02 | 78   | 3406770  | 10.036 | ppbv   | 99     |
| 37) 1,2-Dichloroethane         | 6.43 | 62   | 1888594  | 9.071  | ppbv   | 97     |
| 38) Trichloroethene            | 7.98 | 130  | 1283003  | 10.210 | ppbv   | 98     |
| 39) 1,2-Dichloropropane        | 7.76 | 63   | 1303102  | 9.941  | ppbv   | 98     |
| 40) 1,4-Dioxane                | 7.98 | 88   | 418195   | 9.341  | ppbv # | 92     |
| 41) Tetrahydrofuran            | 6.17 | 42   | 1380510  | 11.055 | ppbv   | 99     |
| 42) Bromodichloromethane       | 7.94 | 83   | 2742427  | 9.401  | ppbv   | 99     |
| 43) Methyl Methacrylate        | 8.16 | 69   | 1383625  | 11.121 | ppbv   | 98     |

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 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICVVL101818

Manual Integrations  
 APPROVED

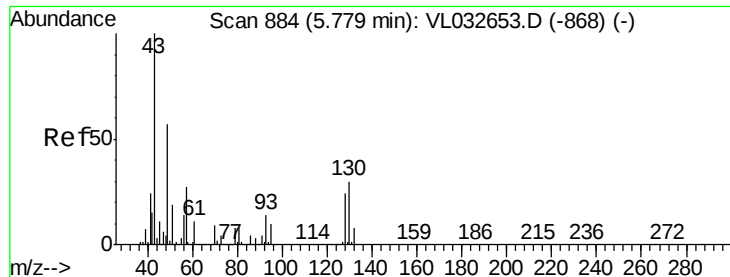
MMDadoda  
 10/24/2018 12:04:55 PM

Quant Time: Oct 19 01:39:50 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Oct 19 01:39:50 2018  
 QLast Update : Fri Oct 19 01:25:37 2018  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 8.01  | 57   | 5635880  | 9.726  | ppbv   | 100      |
| 45) t-1,3-Dichloropropene     | 9.43  | 75   | 1983019  | 11.908 | ppbv   | 99       |
| 46) cis-1,3-Dichloropropene   | 8.86  | 75   | 2104579  | 11.061 | ppbv   | 99       |
| 47) 1,1,2-Trichloroethane     | 9.63  | 97   | 1489396  | 9.616  | ppbv   | 98       |
| 48) Dibromochloromethane      | 10.47 | 129  | 2317001  | 8.974  | ppbv   | 99       |
| 49) Bromoform                 | 13.22 | 173  | 1936524  | 9.545  | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.89  | 43   | 3470701  | 10.454 | ppbv   | 100      |
| 51) 2-Hexanone                | 10.29 | 43   | 2701190  | 10.945 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.40 | 164  | 1248688  | 10.551 | ppbv   | 95       |
| 53) Toluene                   | 9.97  | 91   | 4268123  | 10.969 | ppbv   | 99       |
| 54) 1,2-Dibromoethane         | 10.78 | 107  | 2112750  | 10.036 | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.30 | 131  | 1663783  | 9.012  | ppbv # | 58       |
| 57) Chlorobenzene             | 12.32 | 112  | 2925065  | 9.420  | ppbv   | 96       |
| 58) Ethyl Benzene             | 12.88 | 91   | 5210043  | 10.622 | ppbv   | 99       |
| 59) m/p-Xylene                | 13.15 | 91   | 8547516m | 19.570 | ppbv   |          |
| 60) o-Xylene                  | 13.87 | 91   | 4048403  | 9.609  | ppbv   | 99       |
| 61) Styrene                   | 13.70 | 104  | 3196786  | 11.316 | ppbv   | 97       |
| 62) Isopropylbenzene          | 14.85 | 105  | 5724510  | 9.600  | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.86 | 83   | 2767651  | 8.384  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.74 | 120  | 1466168m | 9.894  | ppbv   |          |
| 65) tert-Butylbenzene         | 16.93 | 119  | 4785079  | 9.422  | ppbv   | 95       |
| 66) Benzyl Chloride           | 17.18 | 91   | 2757758  | 10.518 | ppbv   | 98       |
| 67) sec-Butylbenzene          | 17.48 | 105  | 6784544  | 9.393  | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.84 | 119  | 5496947  | 9.604  | ppbv   | 98       |
| 70) n-Butylbenzene            | 18.73 | 91   | 5529533  | 9.384  | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.64 | 91   | 4233879  | 9.991  | ppbv   | 97       |
| 72) 4-Ethyltoluene            | 16.02 | 105  | 4630855  | 10.320 | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.18 | 105  | 4298163  | 9.834  | ppbv   | 99       |
| 74) 1,2,4-Trimethylbenzene    | 16.95 | 105  | 4294790  | 9.201  | ppbv   | 93       |
| 75) 1,3-Dichlorobenzene       | 17.19 | 146  | 2398352  | 8.936  | ppbv   | 98       |
| 76) 1,4-Dichlorobenzene       | 17.33 | 146  | 2374374  | 9.586  | ppbv   | 98       |
| 77) 1,2-Dichlorobenzene       | 18.01 | 146  | 2278291  | 8.960  | ppbv   | 98       |
| 78) Hexachloro-1,3-Butadiene  | 23.56 | 225  | 1441228  | 11.995 | ppbv   | 100      |
| 79) Naphthalene               | 22.43 | 128  | 3633686  | 12.525 | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.13 | 142  | 1400019  | 19.845 | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.16 | 180  | 1703584m | 11.338 | ppbv   |          |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.78 min Scan# 884

Delta R.T. -0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion: 49 Resp: 1633843

Ion Ratio Lower Upper

49 100

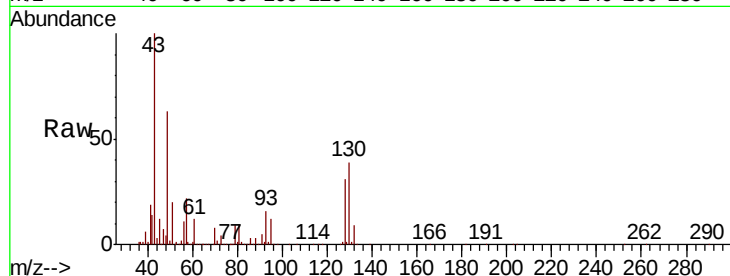
128 48.5 22.3 66.8

130 62.0 28.4 85.3

Manual Integrations  
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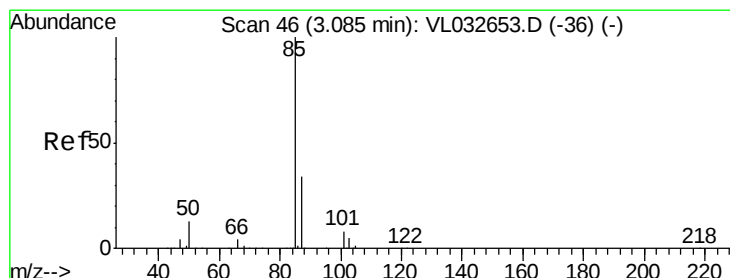
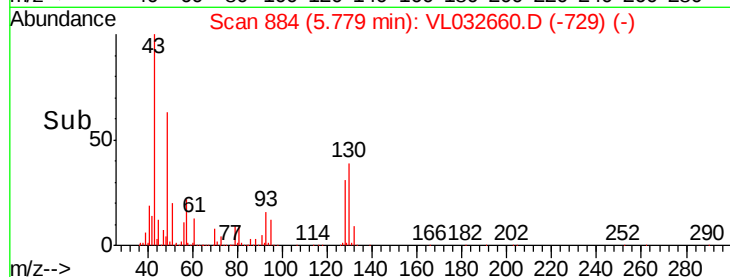
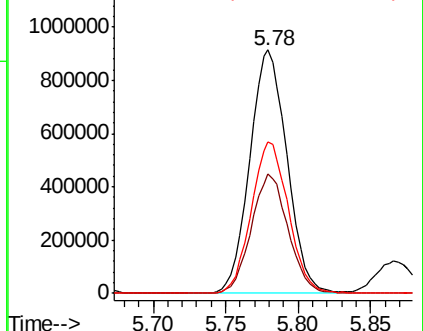
10/24/2018 12:04:55 PM



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



#2

Dichlorodifluoromethane

Concen: 11.632 ppbv

RT: 3.09 min Scan# 47

Delta R.T. 0.00 min

Lab File: VL032660.D

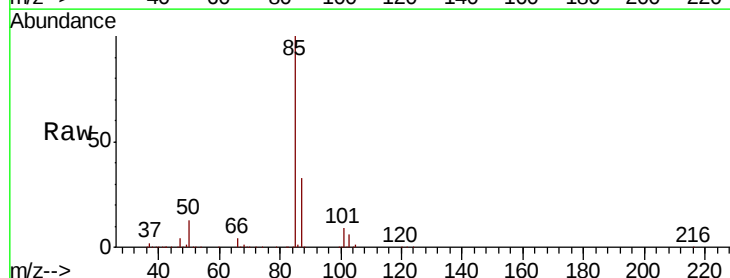
Acq: 18 Oct 2018 22:09

Tgt Ion: 85 Resp: 1936250

Ion Ratio Lower Upper

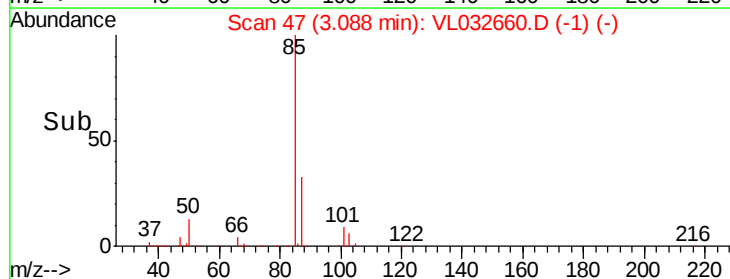
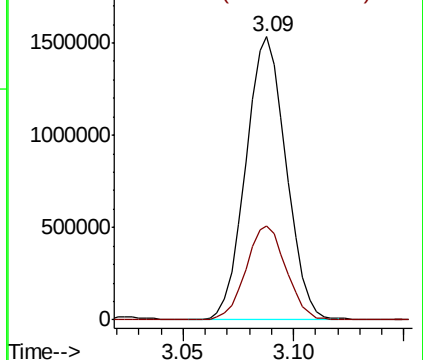
85 100

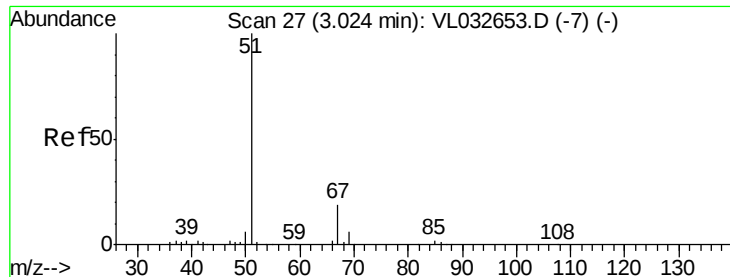
87 33.0 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 9.172 ppbv

RT: 3.02 min Scan# 27

Delta R.T. -0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion: 51 Resp: 1171972

Ion Ratio Lower Upper

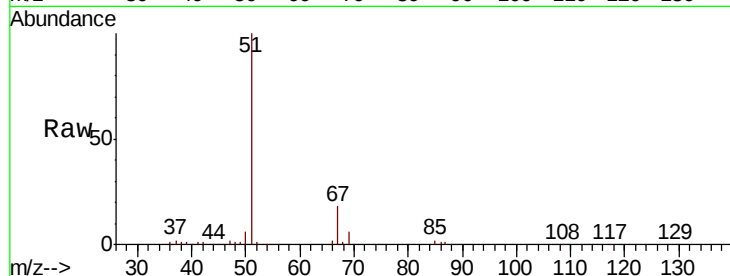
51 100

67 18.2 15.2 22.8

Manual Integrations  
APPROVED

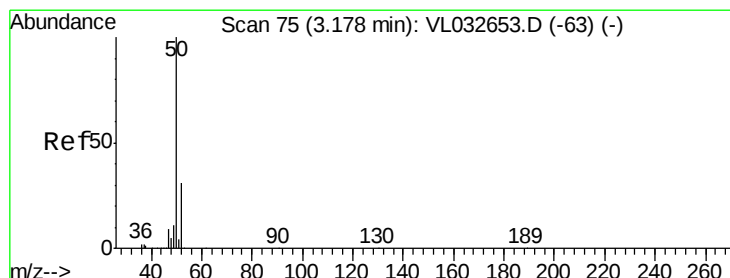
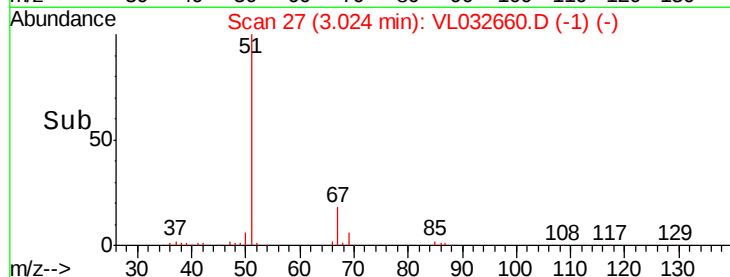
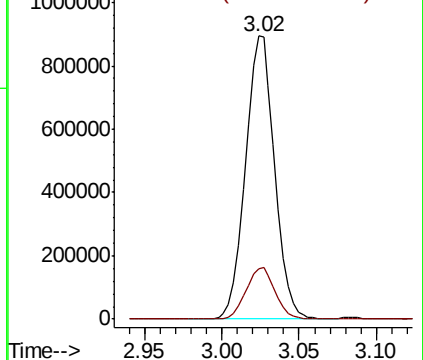
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 9.691 ppbv

RT: 3.18 min Scan# 76

Delta R.T. 0.00 min

Lab File: VL032660.D

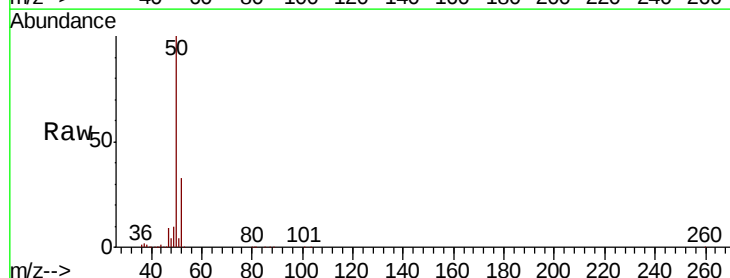
Acq: 18 Oct 2018 22:09

Tgt Ion: 50 Resp: 691976

Ion Ratio Lower Upper

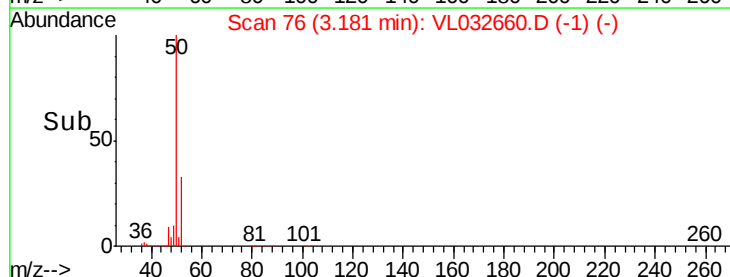
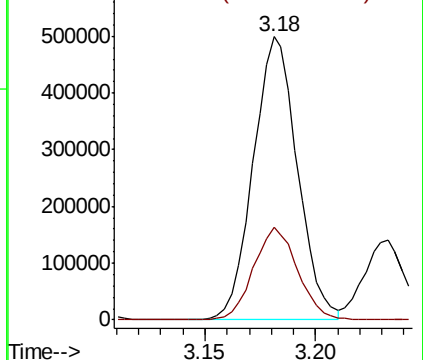
50 100

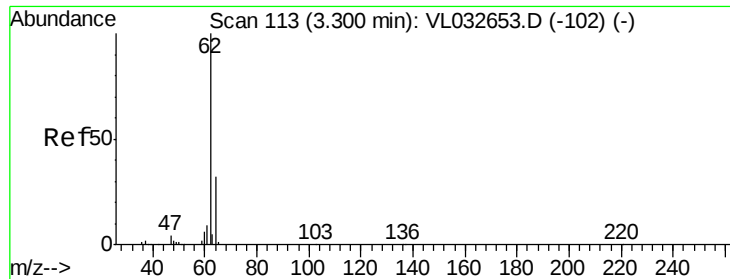
52 32.6 25.9 38.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 9.009 ppbv

RT: 3.30 min Scan# 114

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion: 62 Resp: 696804

Ion Ratio Lower Upper

62 100

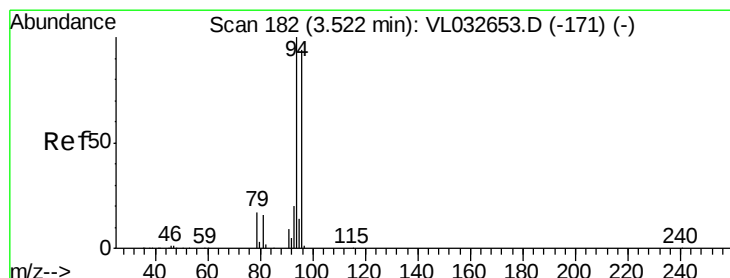
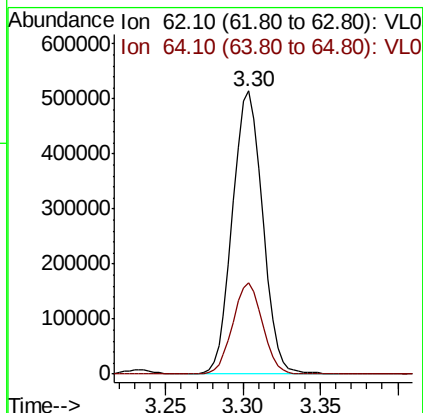
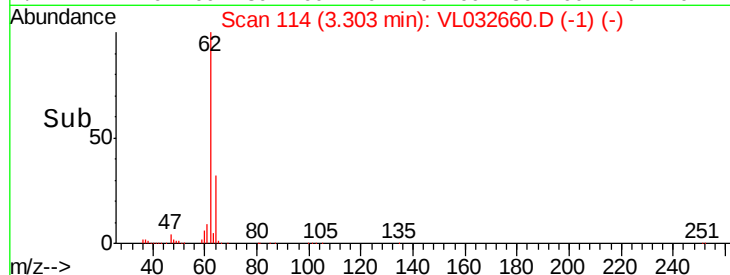
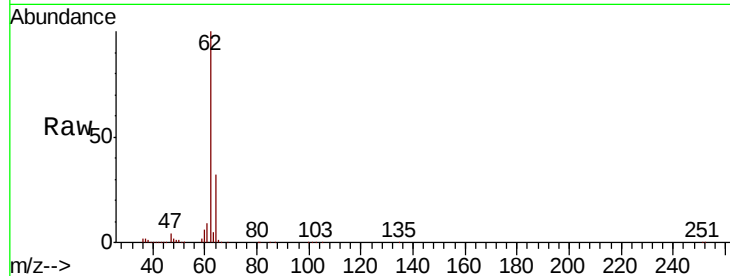
64 32.3 25.5 38.3

Manual Integrations

APPROVED

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#6

Bromomethane

Concen: 9.117 ppbv

RT: 3.53 min Scan# 184

Delta R.T. 0.01 min

Lab File: VL032660.D

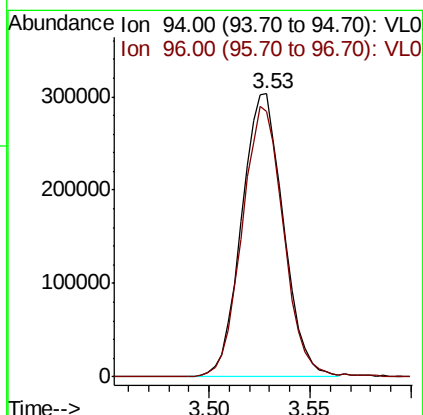
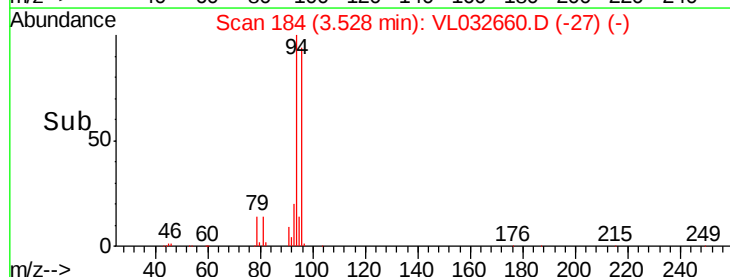
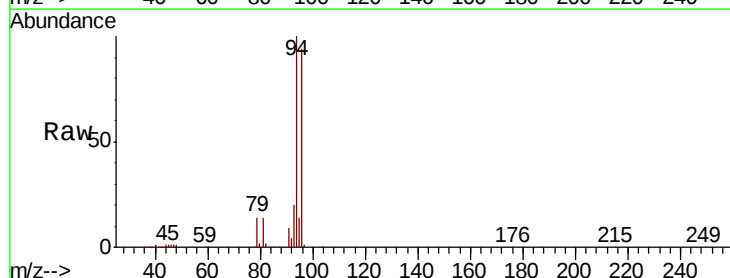
Acq: 18 Oct 2018 22:09

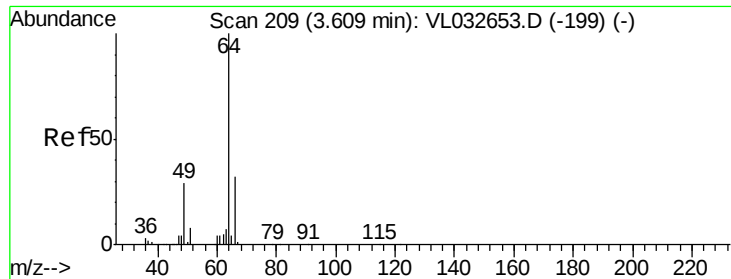
Tgt Ion: 94 Resp: 439649

Ion Ratio Lower Upper

94 100

96 94.1 69.8 104.8





#7

Chloroethane

Concen: 9.496 ppbv

RT: 3.61 min Scan# 210

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion: 64 Resp: 270458

Ion Ratio Lower Upper

64 100

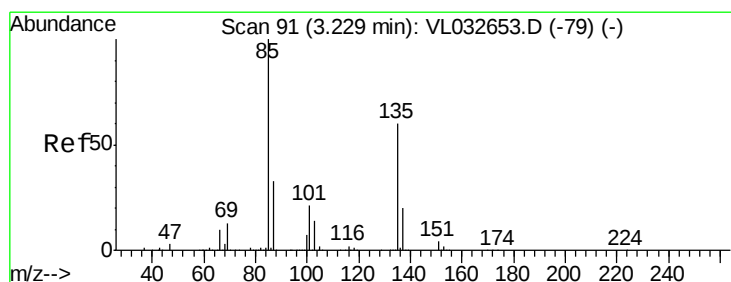
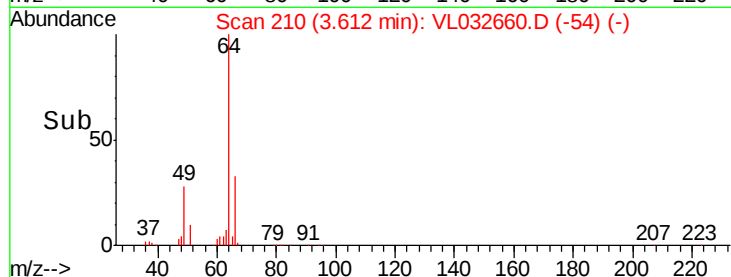
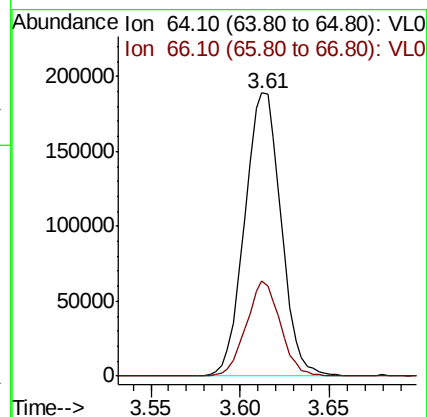
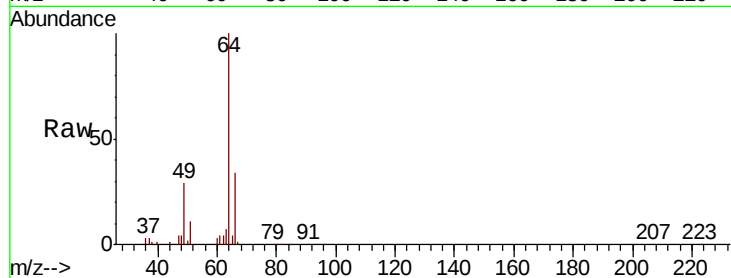
66 33.5 24.4 36.6

Manual Integrations

APPROVED

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10/24/2018 12:04:55 PM



#8

Dichlorotetrafluoroethane

Concen: 9.018 ppbv

RT: 3.23 min Scan# 91

Delta R.T. -0.00 min

Lab File: VL032660.D

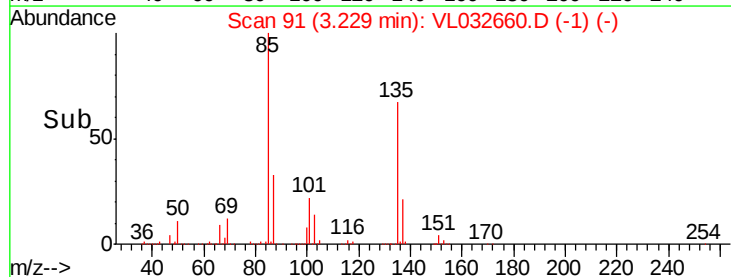
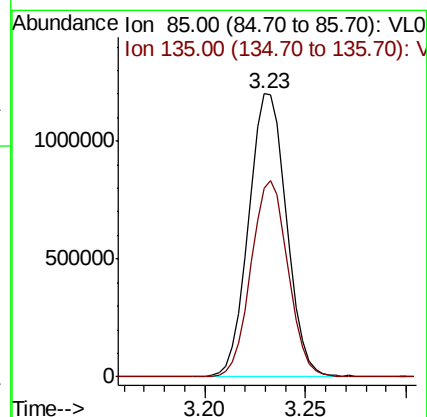
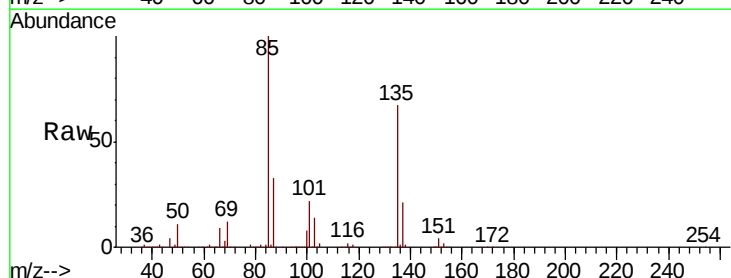
Acq: 18 Oct 2018 22:09

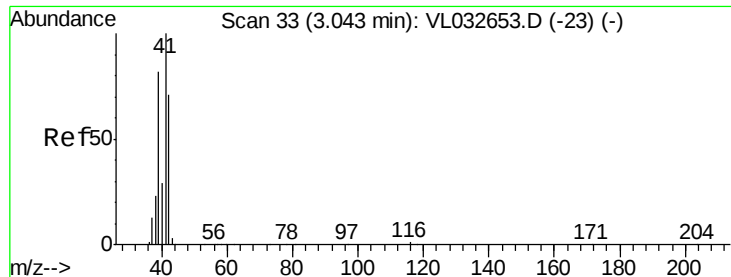
Tgt Ion: 85 Resp: 1582268

Ion Ratio Lower Upper

85 100

135 68.0 49.0 73.4





#9

Propene

Concen: 10.709 ppbv

RT: 3.05 min Scan# 34

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion: 41 Resp: 563092

Ion Ratio Lower Upper

41 100

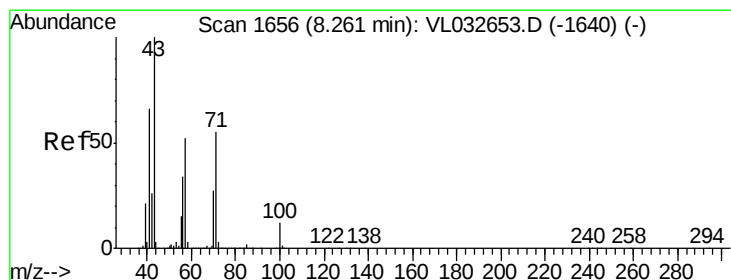
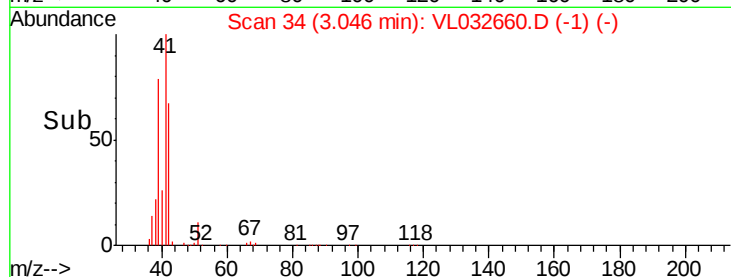
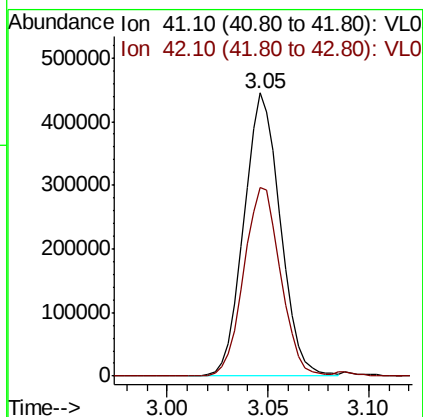
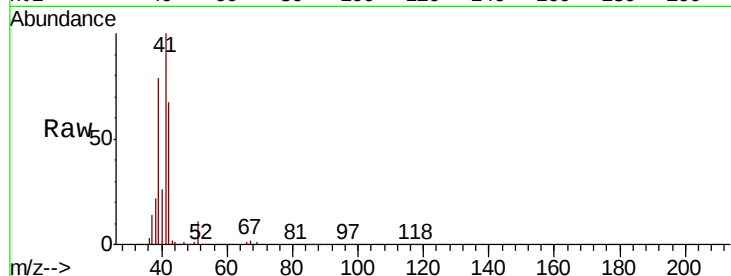
42 68.4 55.4 83.0

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#10

Heptane

Concen: 10.493 ppbv

RT: 8.26 min Scan# 1657

Delta R.T. 0.00 min

Lab File: VL032660.D

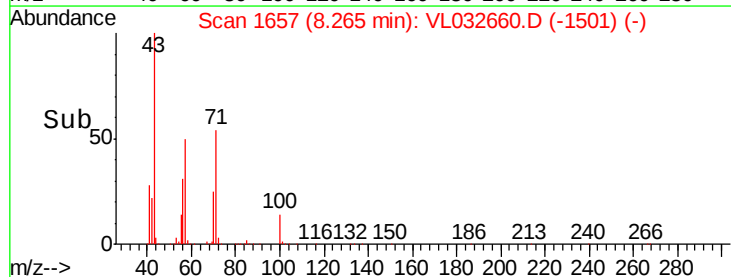
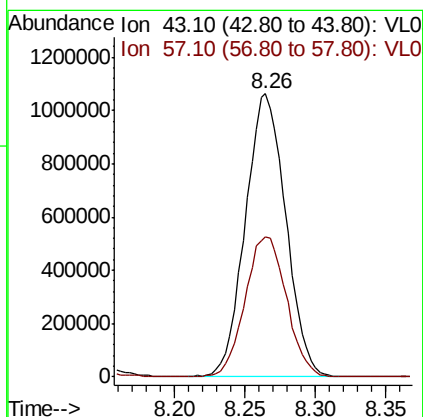
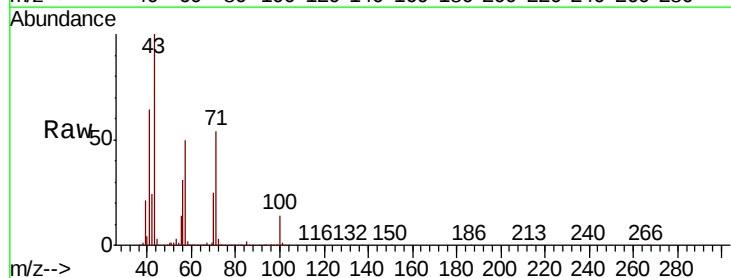
Acq: 18 Oct 2018 22:09

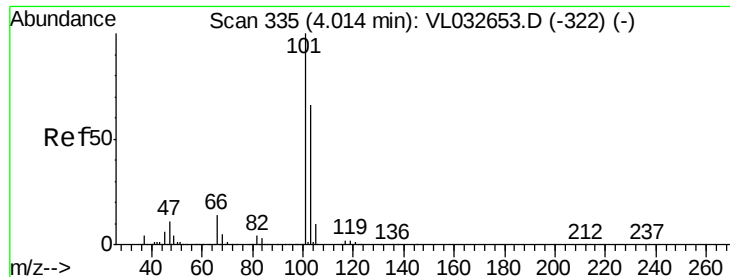
Tgt Ion: 43 Resp: 2126290

Ion Ratio Lower Upper

43 100

57 50.8 41.5 62.3





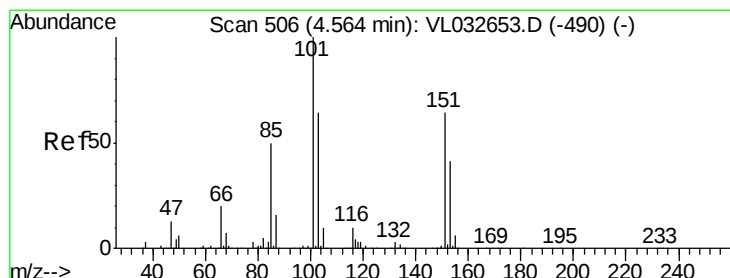
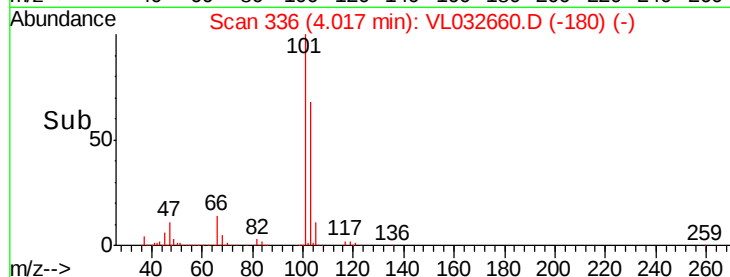
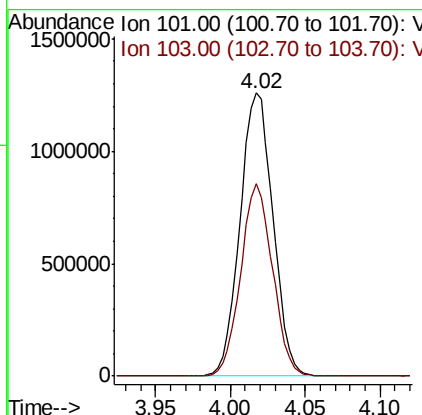
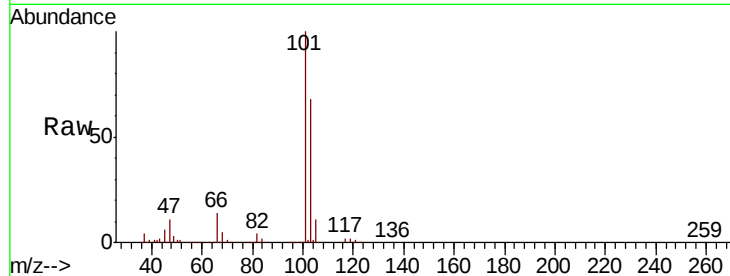
#11  
 Trichlorofluoromethane  
 Concen: 8.900 ppbv  
 RT: 4.02 min Scan# 336  
 Delta R.T. 0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICVVL101818

Tot Ion:101 Resp: 1935165  
 Ion Ratio Lower Upper  
 101 100  
 103 67.8 51.4 77.2

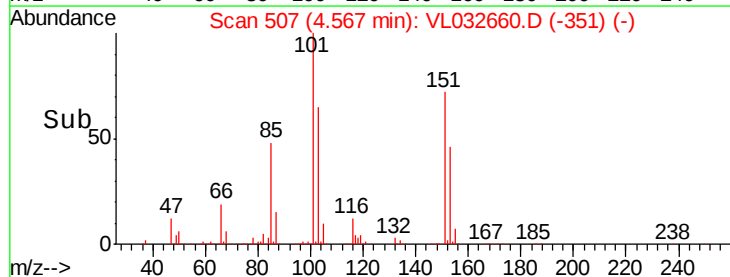
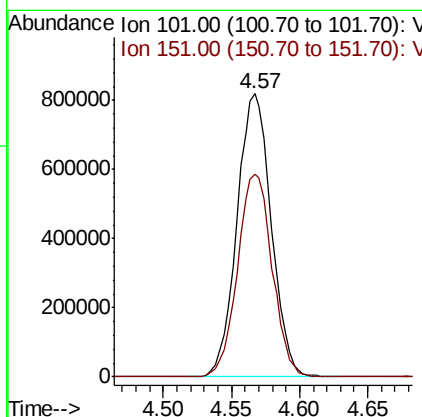
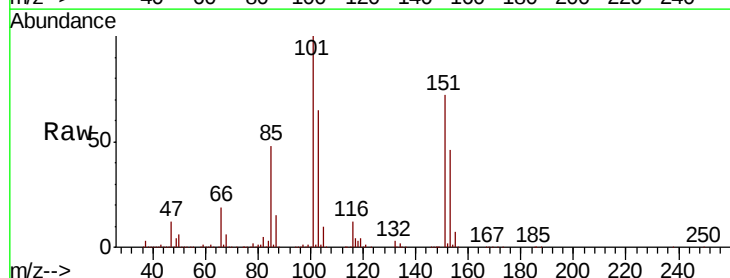
Manual Integrations  
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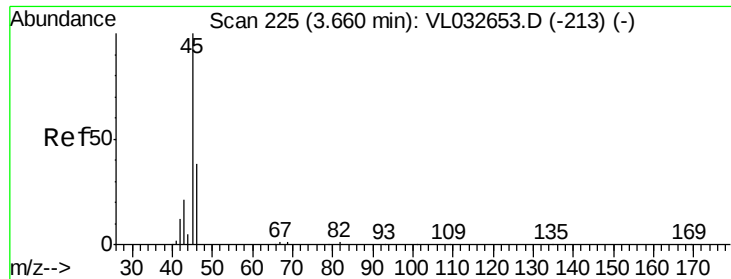
MMDadoda  
 10/24/2018 12:04:55 PM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 7.894 ppbv  
 RT: 4.57 min Scan# 507  
 Delta R.T. 0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Tgt Ion:101 Resp: 1427391  
 Ion Ratio Lower Upper  
 101 100  
 151 72.3 52.3 78.5





#13

Ethanol

Concen: 9.002 ppbv

RT: 3.66 min Scan# 226

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion: 45 Resp: 135283

Ion Ratio Lower Upper

45 100

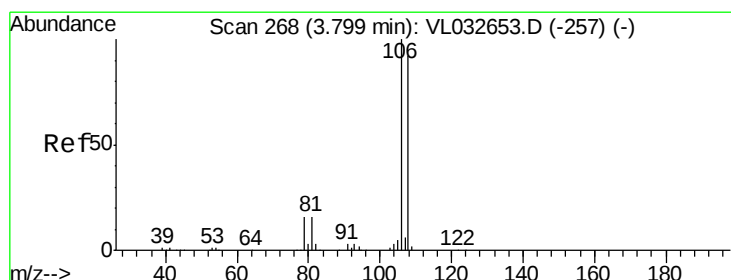
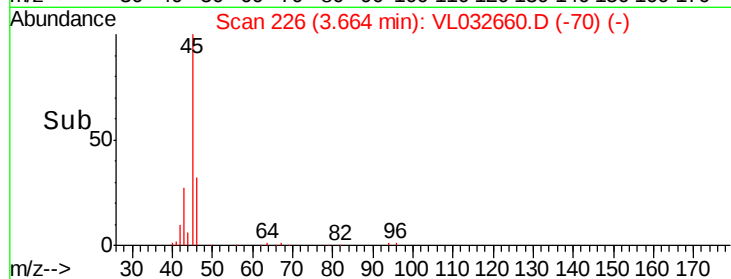
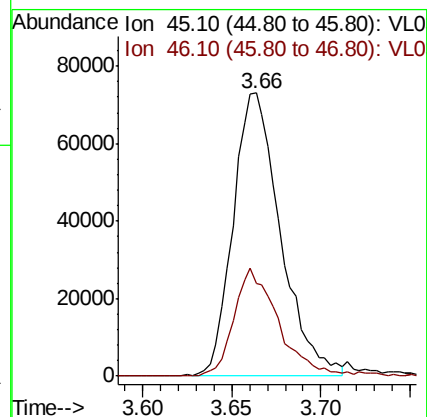
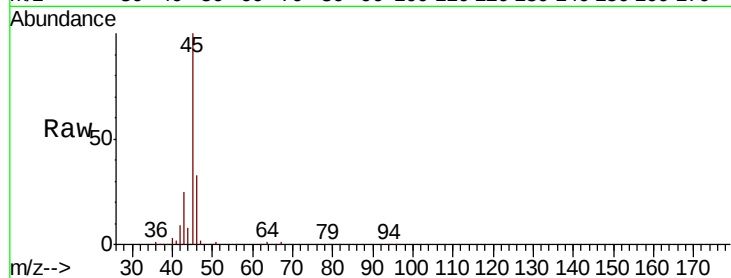
46 36.5 15.4 61.8

Manual Integrations

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#14

Bromoethene

Concen: 9.266 ppbv

RT: 3.80 min Scan# 268

Delta R.T. -0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

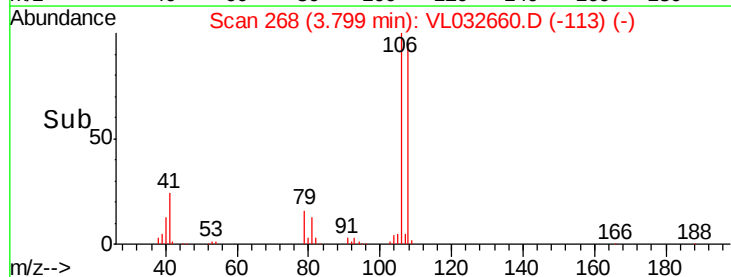
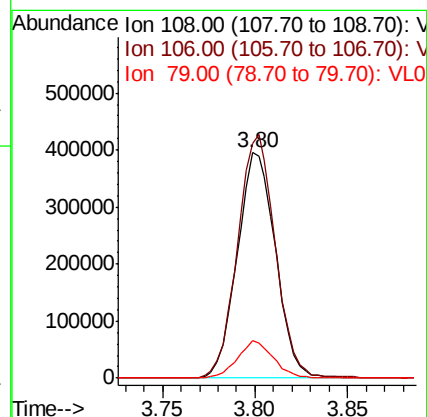
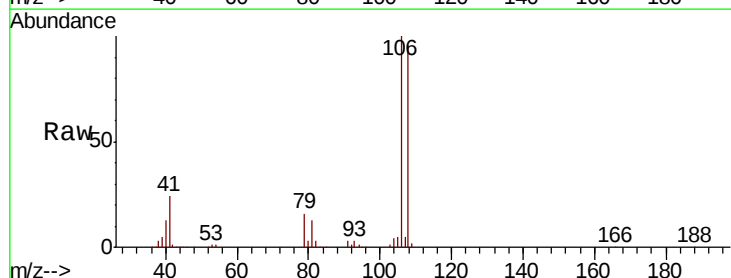
Tgt Ion: 108 Resp: 566225

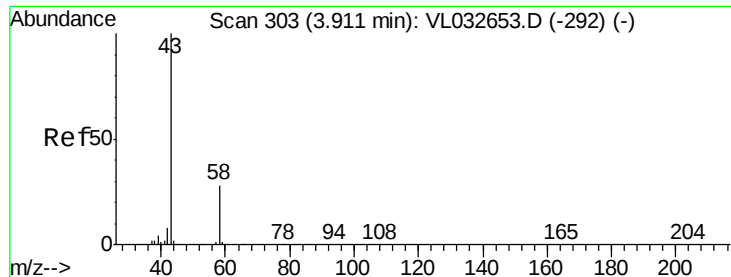
Ion Ratio Lower Upper

108 100

106 107.3 85.0 127.4

79 15.6 13.7 20.5





#15

Acetone

Concen: 7.755 ppbv

RT: 3.91 min Scan# 304

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion: 43 Resp: 1169955

Ion Ratio Lower Upper

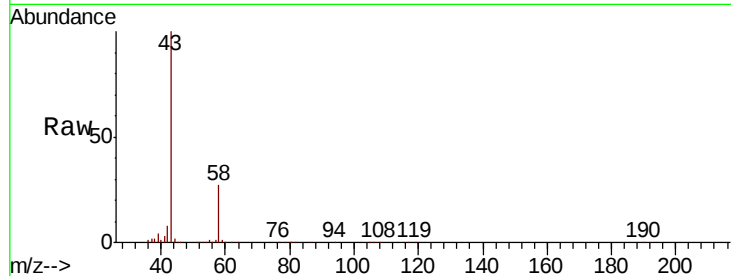
43 100

58 27.4 22.1 33.1

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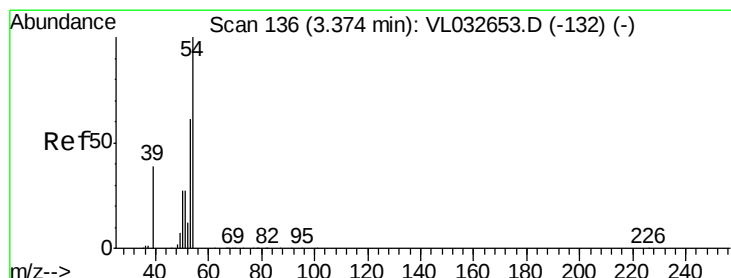
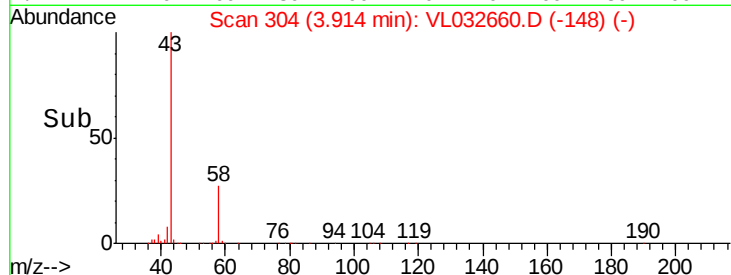
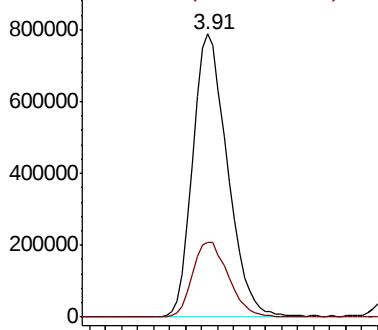
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 10.481 ppbv

RT: 3.37 min Scan# 136

Delta R.T. -0.00 min

Lab File: VL032660.D

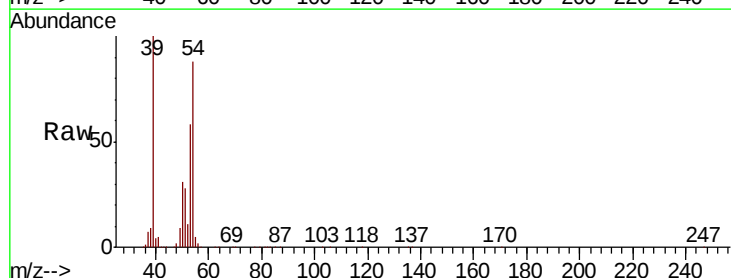
Acq: 18 Oct 2018 22:09

Tgt Ion: 39 Resp: 581694

Ion Ratio Lower Upper

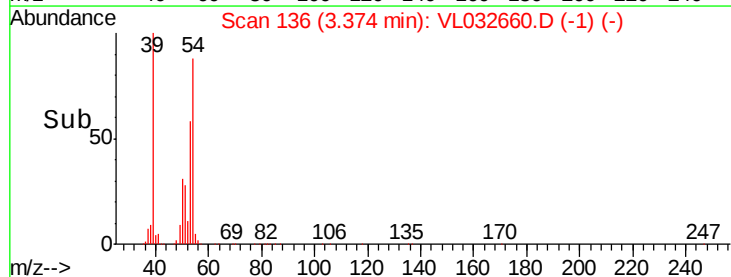
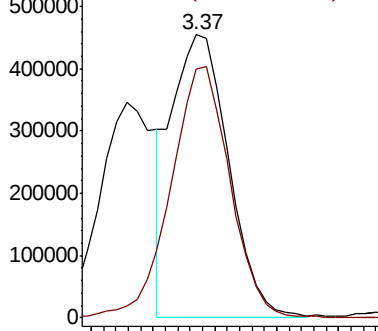
39 100

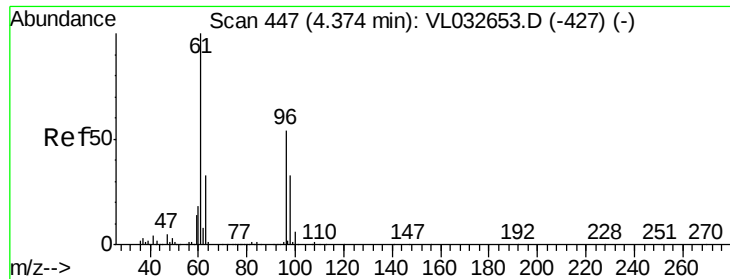
54 93.1 90.4 135.6



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#17

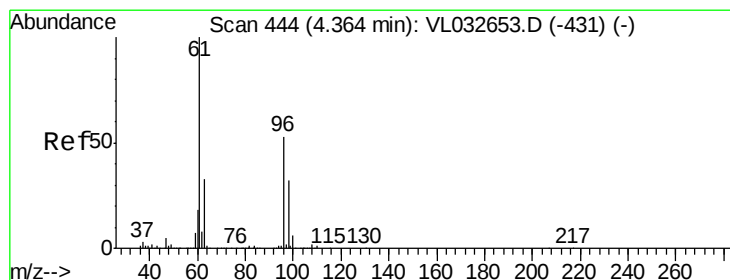
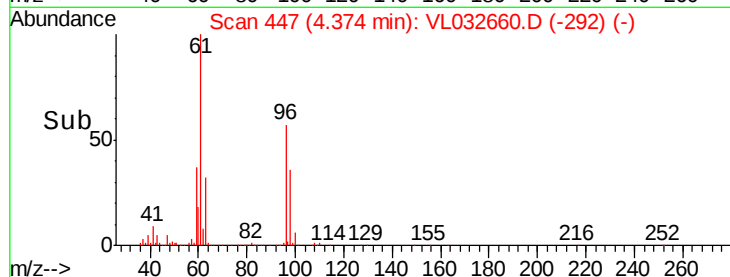
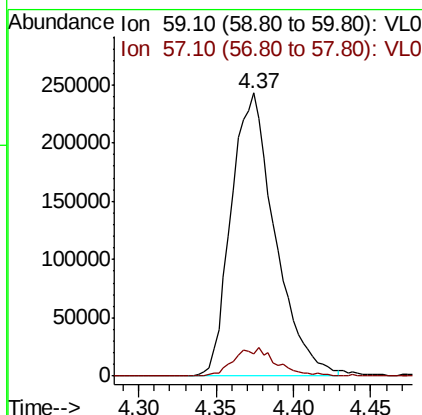
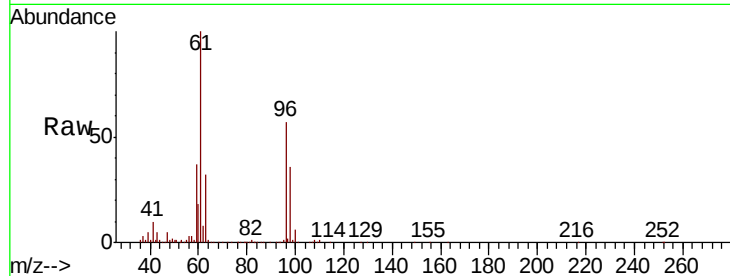
tert-Butyl alcohol  
Concen: 10.752 ppbv  
RT: 4.37 min Scan# 447  
Delta R.T. -0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

Tot Ion: 59 Resp: 477088  
Ion Ratio Lower Upper  
59 100  
57 9.8 0.0 0.0#

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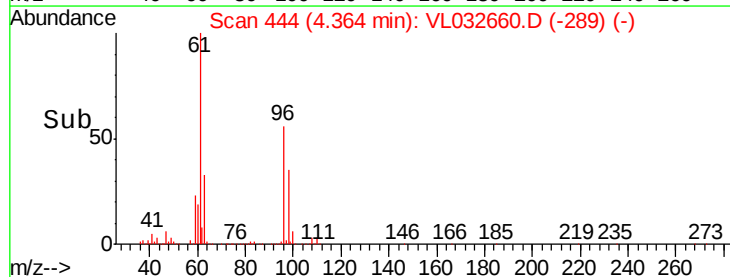
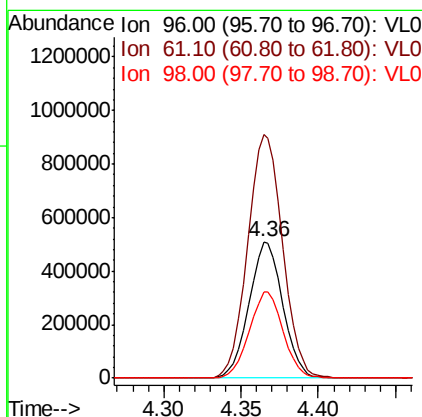
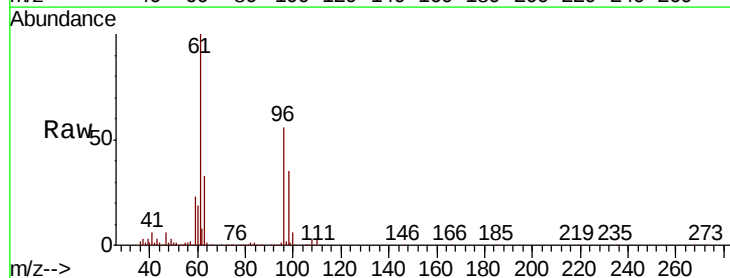
MMDadoda  
10/24/2018 12:04:55 PM

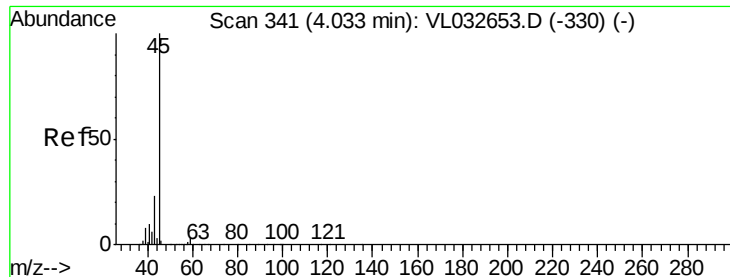


#18

1,1-Dichloroethene  
Concen: 9.738 ppbv  
RT: 4.36 min Scan# 444  
Delta R.T. -0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Tgt Ion: 96 Resp: 773548  
Ion Ratio Lower Upper  
96 100  
61 178.8 151.6 227.4  
98 63.1 50.6 75.8





#19

Isopropyl Alcohol

Concen: 8.906 ppbv

RT: 4.04 min Scan# 342

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion: 45 Resp: 956861

Ion Ratio Lower Upper

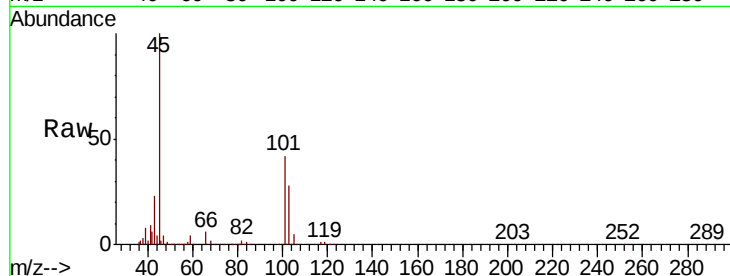
45 100

58 1.2 2.0 3.0#

Manual Integrations  
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Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

600000

500000

400000

300000

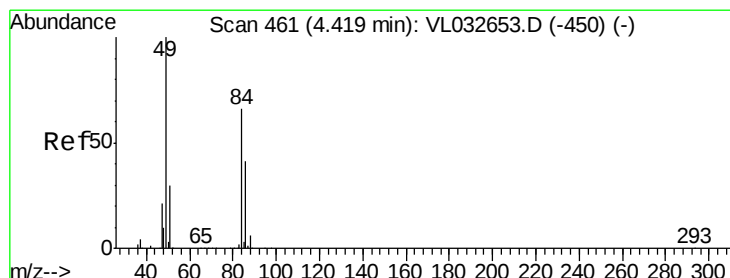
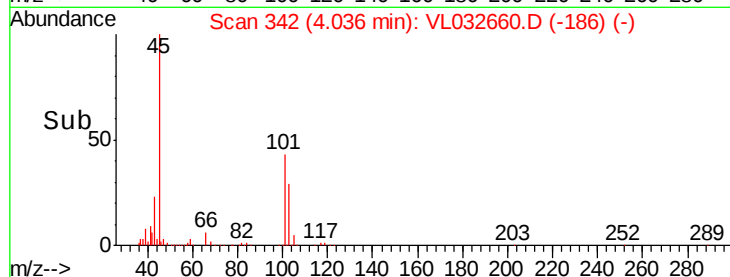
200000

100000

0

4.00 4.05 4.10

Time-->



#20

Methylene Chloride

Concen: 8.579 ppbv

RT: 4.42 min Scan# 462

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Tgt Ion: 84 Resp: 657014

Ion Ratio Lower Upper

84 100

49 142.9 113.5 170.3

51 44.3 34.8 52.2

86 63.6 47.9 71.9

Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

800000

600000

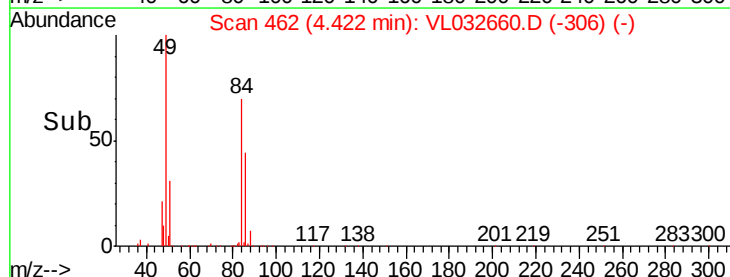
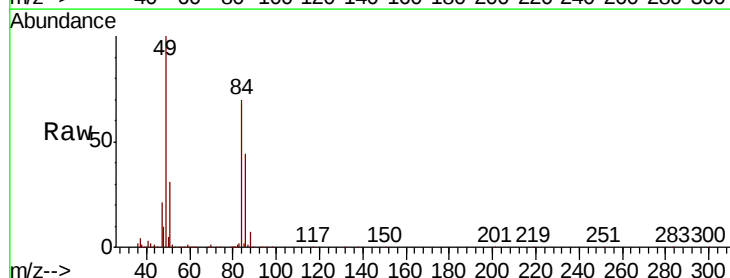
400000

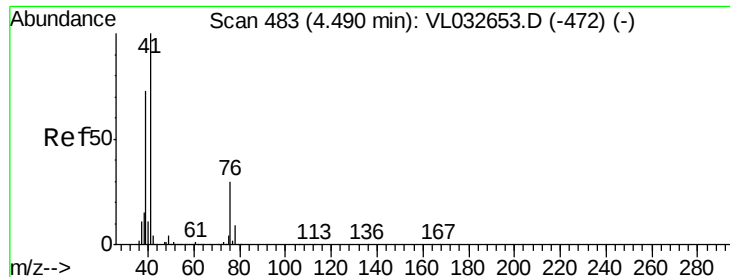
200000

0

4.35 4.40 4.45 4.50

Time-->





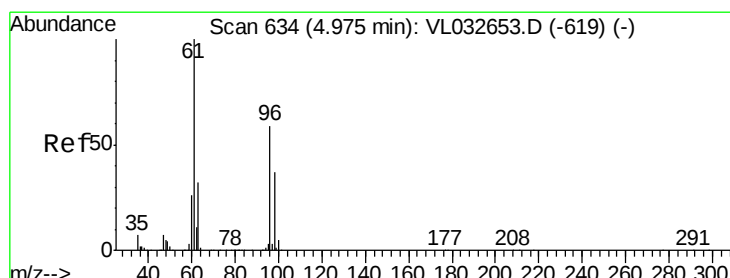
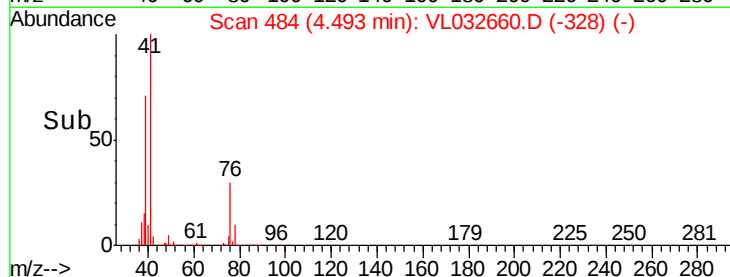
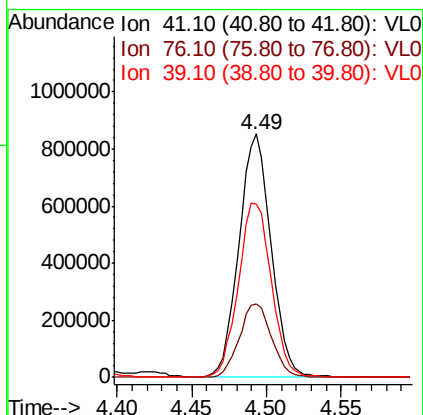
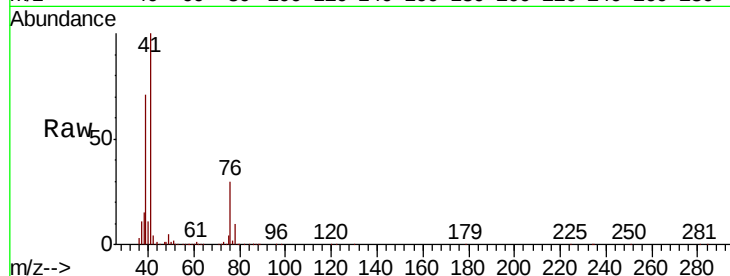
#21  
Allvl Chloride  
Concen: 10.261 ppbv  
RT: 4.49 min Scan# 484  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 41      | 100   |       |       |
| 76      | 30.7  | 24.3  | 36.5  |
| 39      | 73.9  | 60.3  | 90.5  |

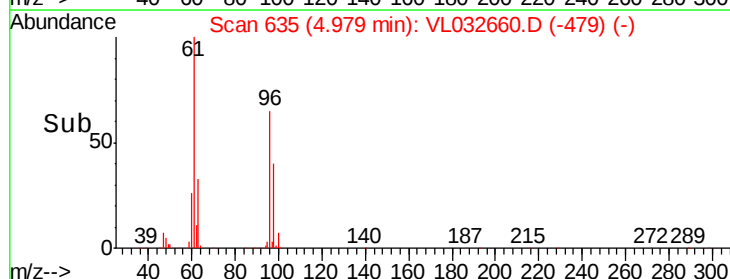
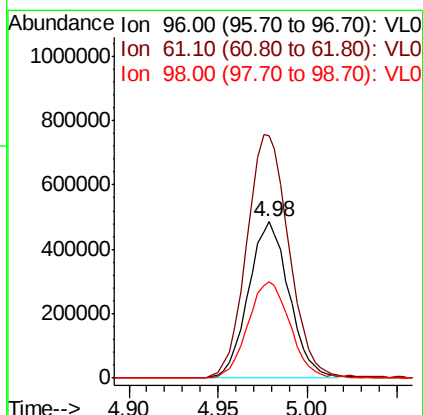
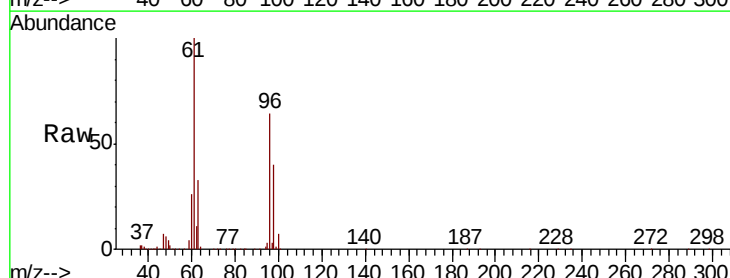
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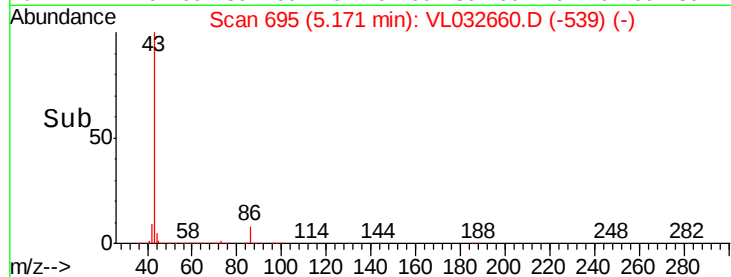
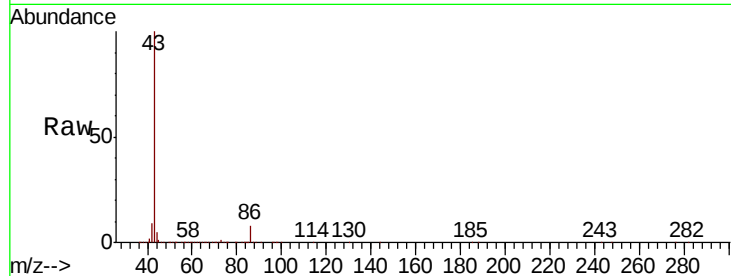
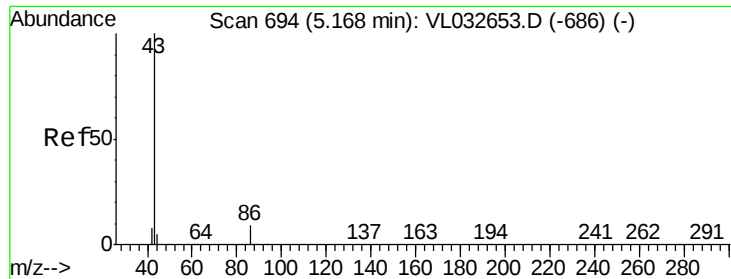
MMDadoda  
10/24/2018 12:04:55 PM



#22  
trans-1,2-Dichloroethene  
Concen: 9.520 ppbv  
RT: 4.98 min Scan# 635  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

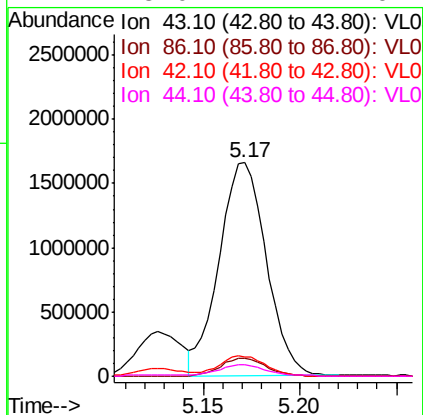
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 155.1 | 140.4 | 210.6 |
| 98      | 61.7  | 55.0  | 82.6  |





#23  
 Vinyl Acetate  
 Concen: 10.486 ppbv  
 RT: 5.17 min Scan# 695  
 Delta R.T. 0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

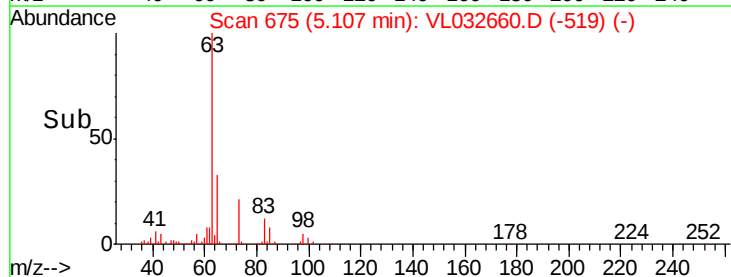
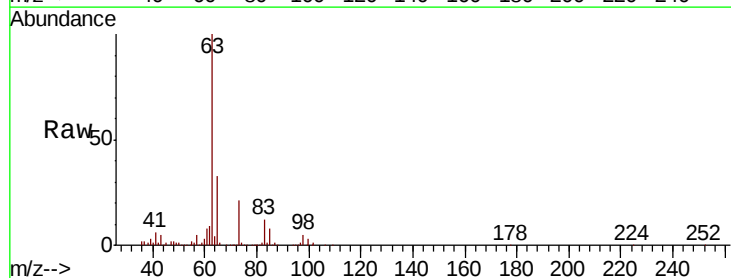
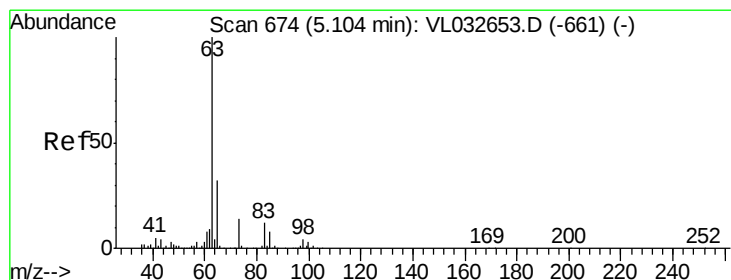
| Tot Ion | Ion | Ratio | Lower | Upper |
|---------|-----|-------|-------|-------|
| 43      | 100 |       |       |       |
| 86      | 8.3 | 6.1   | 9.1   |       |
| 42      | 9.2 | 7.4   | 11.2  |       |
| 44      | 5.0 | 4.2   | 6.2   |       |



Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICVVL101818

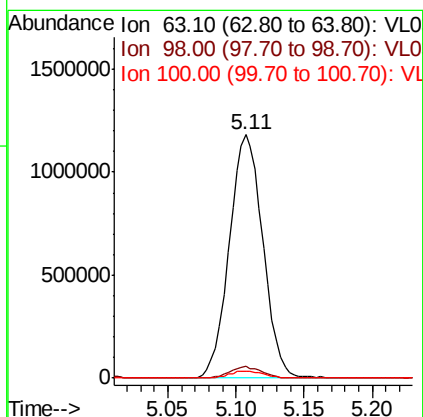
Manual Integrations  
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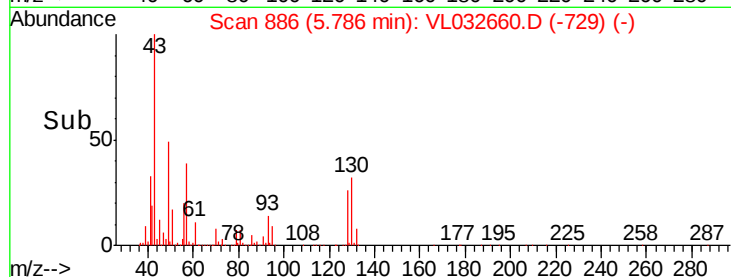
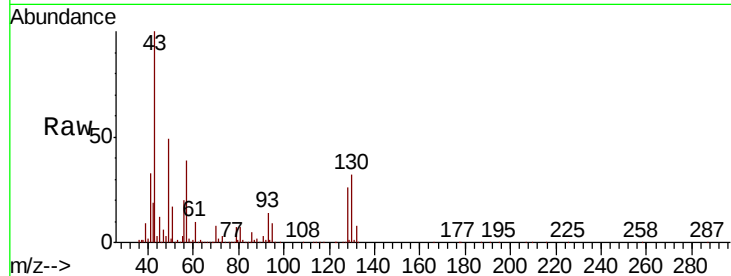
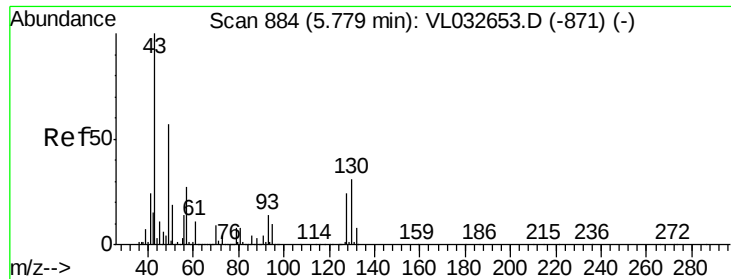
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#24  
 1,1-Dichloroethane  
 Concen: 9.559 ppbv  
 RT: 5.11 min Scan# 675  
 Delta R.T. 0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

| Tgt Ion | Ion | Ratio | Lower | Upper |
|---------|-----|-------|-------|-------|
| 63      | 100 |       |       |       |
| 98      | 4.7 | 2.1   | 6.3   |       |
| 100     | 2.8 | 1.2   | 3.6   |       |





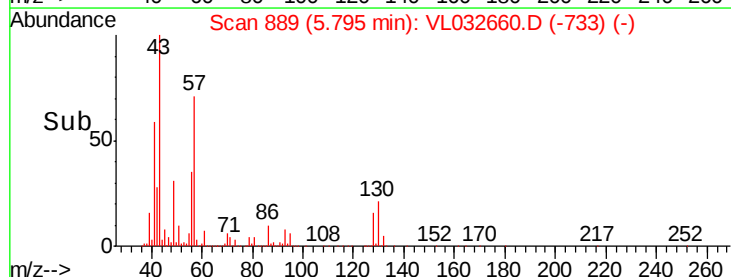
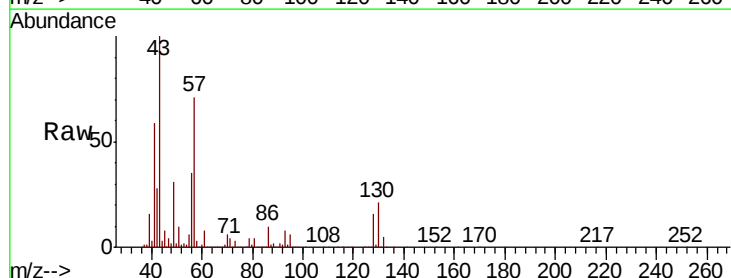
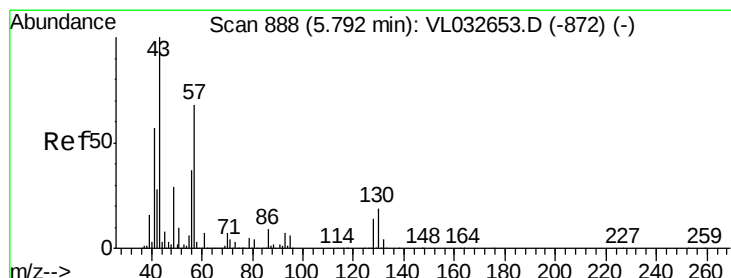
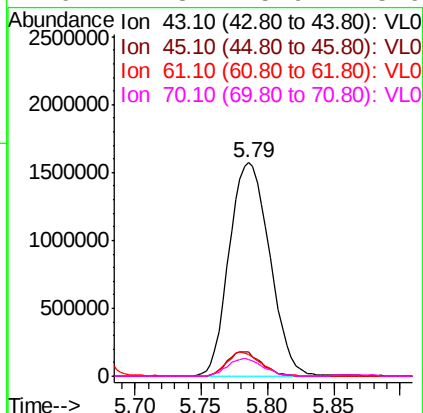
#25  
Ethyl Acetate  
Concen: 9.602 ppbv  
RT: 5.79 min Scan# 886  
Delta R.T. 0.01 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

| Tot Ion | 43    | Resp  | 3334627 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 43      | 100   |       |         |
| 45      | 10.1  | 8.0   | 12.0    |
| 61      | 9.7   | 8.0   | 12.0    |
| 70      | 7.3   | 5.9   | 8.9     |

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

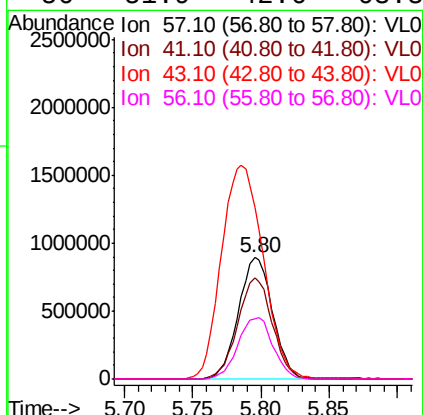
Manual Integrations  
APPROVED

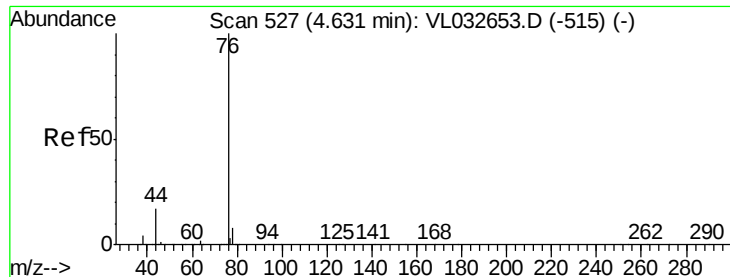
MMDadoda  
10/24/2018 12:04:55 PM



#26  
Hexane  
Concen: 9.487 ppbv  
RT: 5.80 min Scan# 889  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

| Tgt Ion | 57    | Resp  | 1558840 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 57      | 100   |       |         |
| 41      | 83.9  | 67.4  | 101.0   |
| 43      | 214.8 | 171.9 | 257.9   |
| 56      | 51.9  | 42.6  | 63.8    |





#27

Carbon Disulfide

Concen: 8.888 ppbv

RT: 4.63 min Scan# 528

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion: 76 Resp: 1771660

Ion Ratio Lower Upper

76 100

44 17.2 13.7 20.5

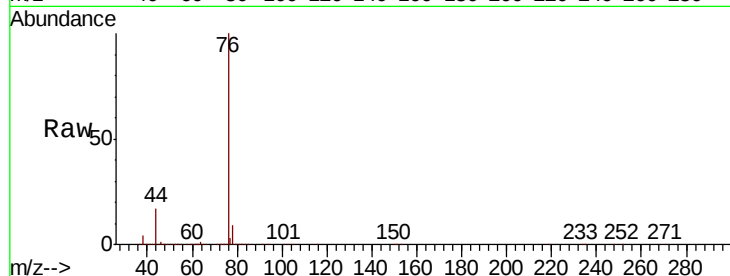
78 9.1 7.4 11.2

Manual Integrations

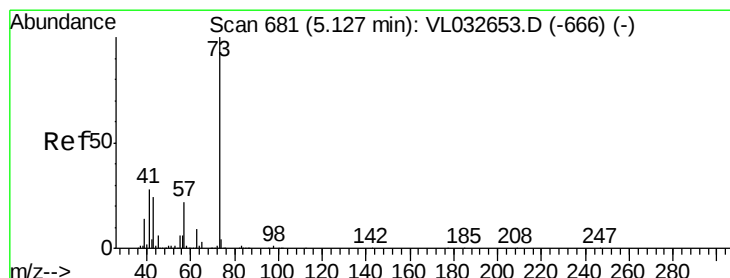
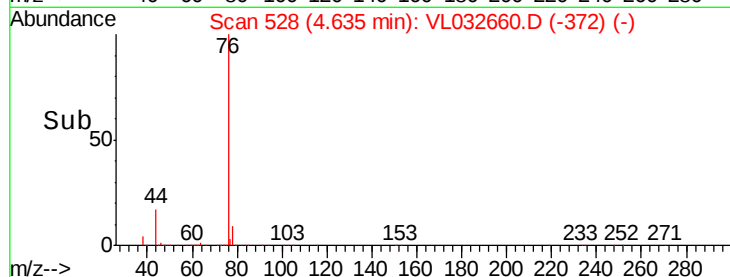
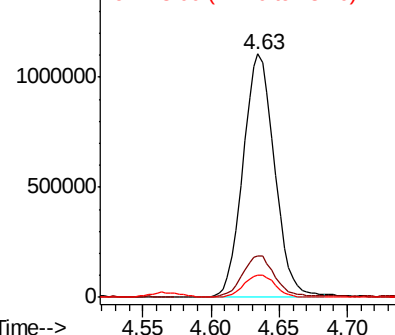
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Abundance Ion 76.00 (75.70 to 76.70): VL0  
1500000  
Ion 44.10 (43.80 to 44.80): VL0  
Ion 78.00 (77.70 to 78.70): VL0



#28

Methyl tert-Butyl Ether

Concen: 10.804 ppbv

RT: 5.13 min Scan# 682

Delta R.T. 0.00 min

Lab File: VL032660.D

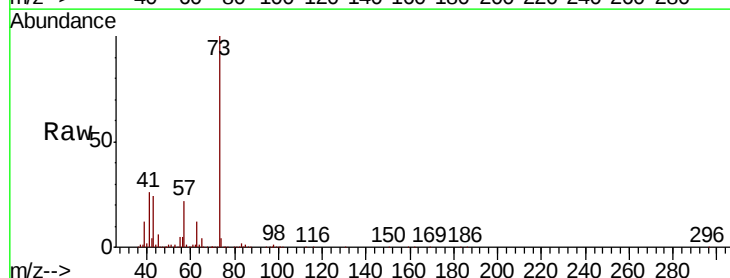
Acq: 18 Oct 2018 22:09

Tgt Ion: 73 Resp: 2551295

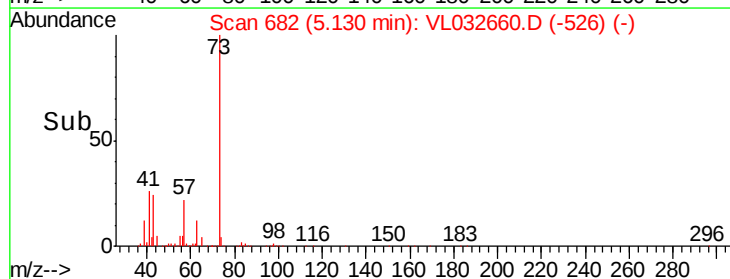
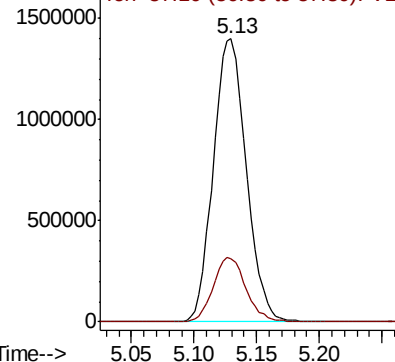
Ion Ratio Lower Upper

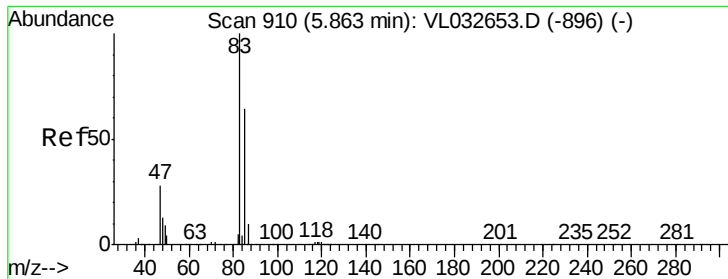
73 100

57 22.6 18.0 27.0



Abundance Ion 73.10 (72.80 to 73.80): VL0  
1500000  
Ion 57.10 (56.80 to 57.80): VL0





#29

Chloroform

Concen: 9.135 ppbv

RT: 5.87 min Scan# 911

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion: 83 Resp: 2397561

Ion Ratio Lower Upper

83 100

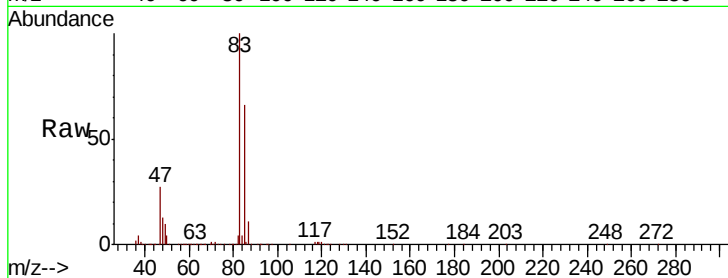
85 66.1 53.0 79.6

Manual Integrations

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Abundance Ion 83.00 (82.70 to 83.70): VL0

1500000 Ion 85.00 (84.70 to 85.70): VL0

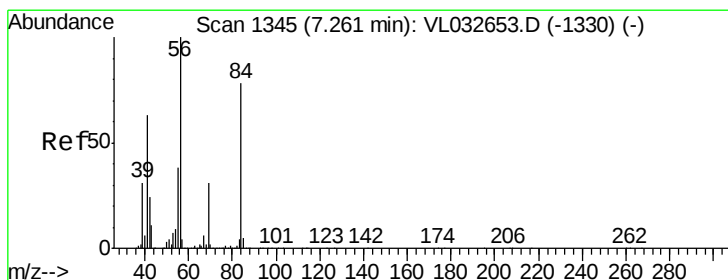
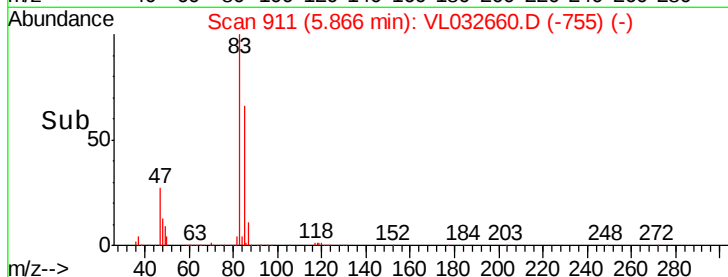
5.87

1000000

500000

0

Time--> 5.80 5.85 5.90 5.95



#30

Cyclohexane

Concen: 11.024 ppbv

RT: 7.26 min Scan# 1346

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

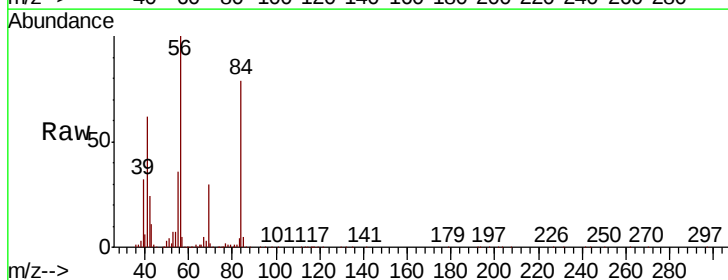
Tgt Ion: 84 Resp: 1433855

Ion Ratio Lower Upper

84 100

56 131.4 108.3 162.5

41 78.6 64.8 97.2



Abundance Ion 84.20 (83.90 to 84.90): VL0

1200000 Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

800000

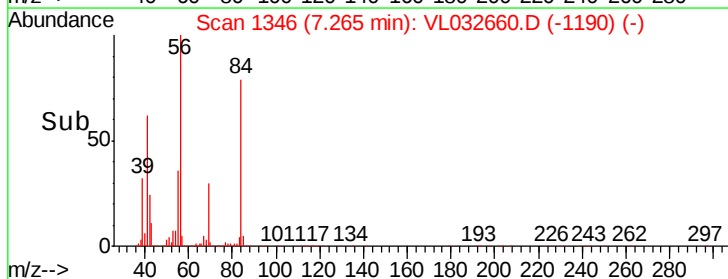
600000

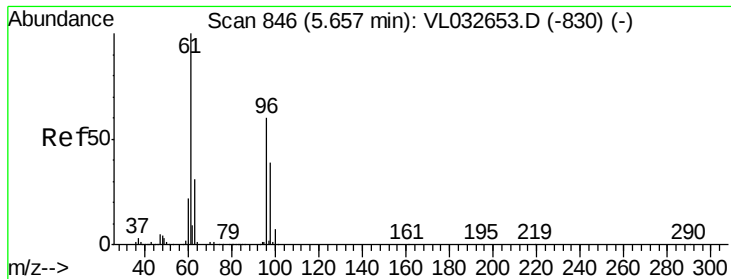
400000

200000

0

Time--> 7.15 7.20 7.25 7.30 7.35





#31

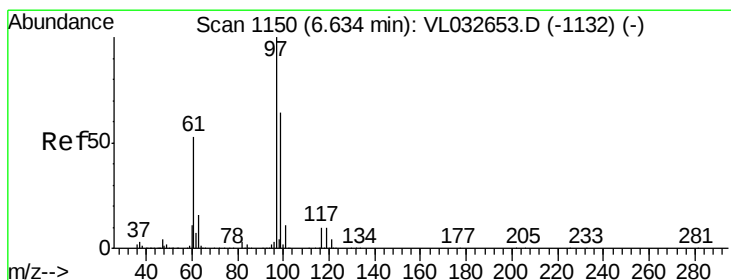
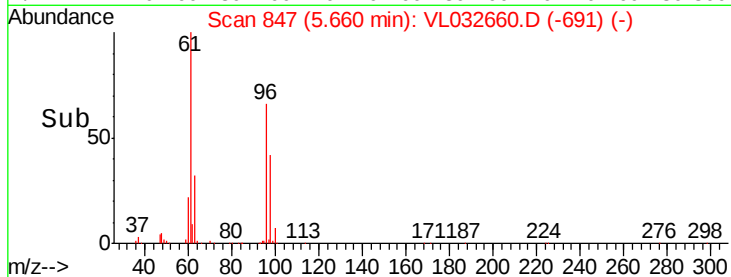
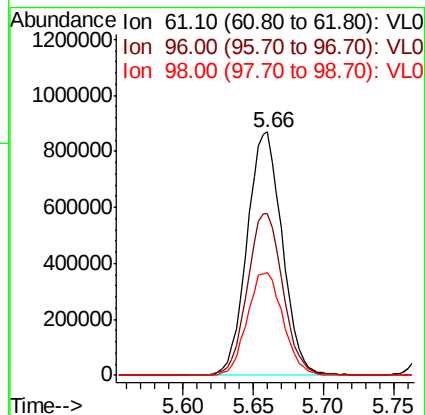
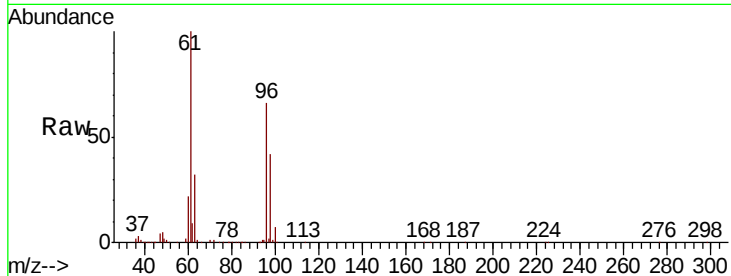
cis-1,2-Dichloroethene  
Concen: 9.968 ppbv  
RT: 5.66 min Scan# 847  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampled :  
ICVVL101818

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61      | 100   |       |       |
| 96      | 66.2  | 51.8  | 77.6  |
| 98      | 42.2  | 33.8  | 50.6  |

Manual Integrations  
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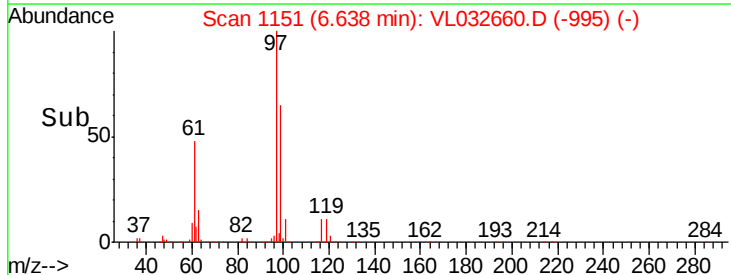
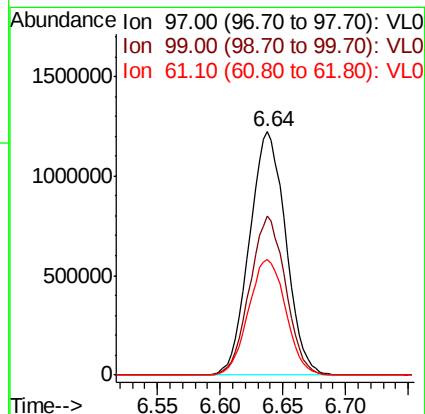
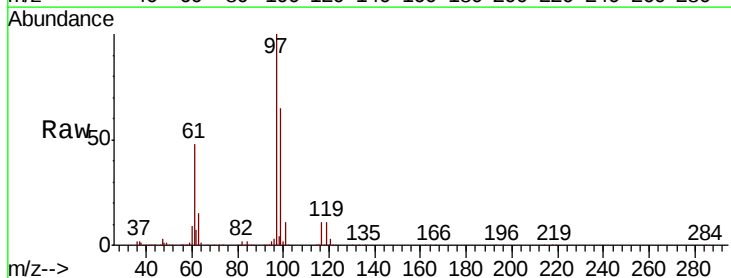
MMDadoda  
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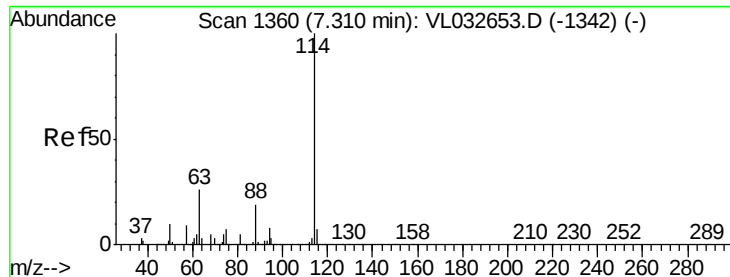


#32

1,1,1-Trichloroethane  
Concen: 9.240 ppbv  
RT: 6.64 min Scan# 1151  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 64.7  | 52.0  | 78.0  |
| 61      | 48.8  | 40.7  | 61.1  |





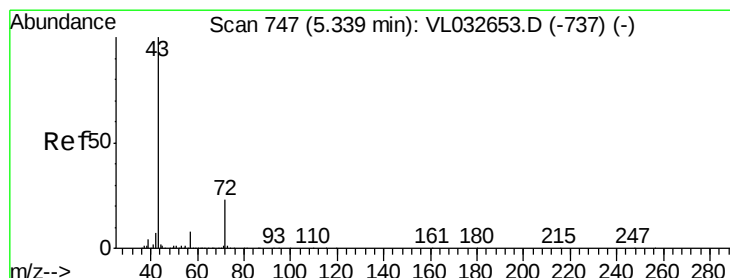
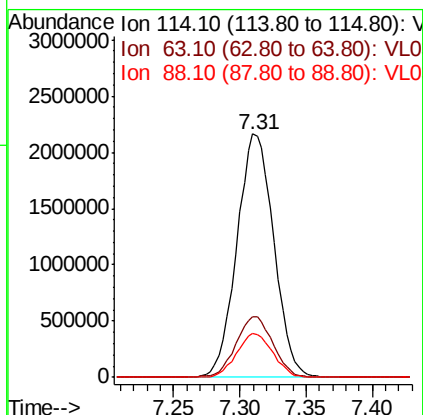
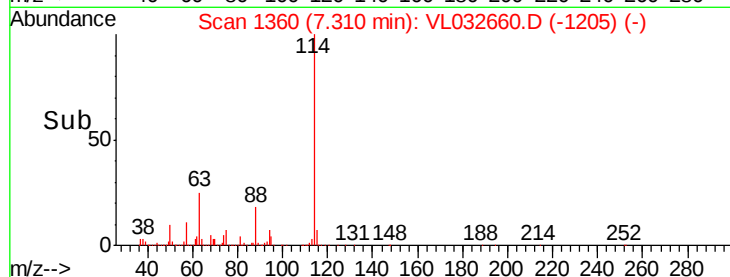
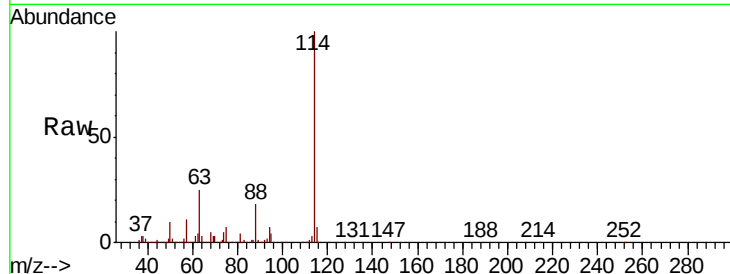
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.31 min Scan# 1360  
 Delta R.T. -0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICVVL101818

Tot Ion:114 Resp: 4180300  
 Ion Ratio Lower Upper  
 114 100  
 63 25.1 21.7 32.5  
 88 17.8 14.9 22.3

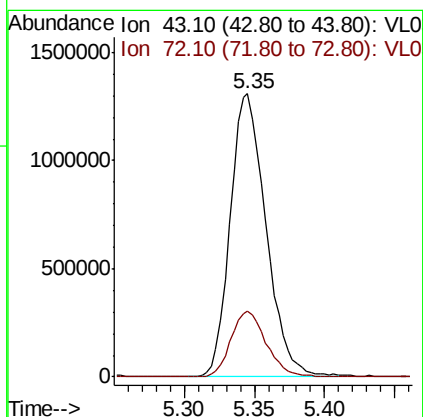
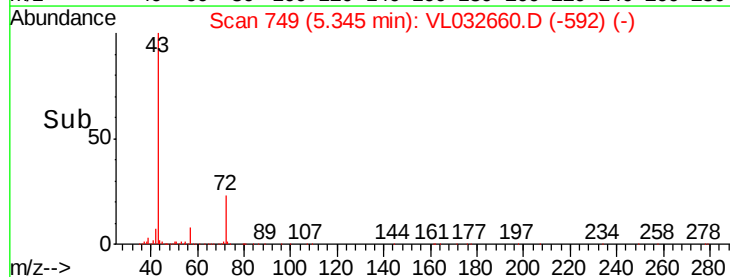
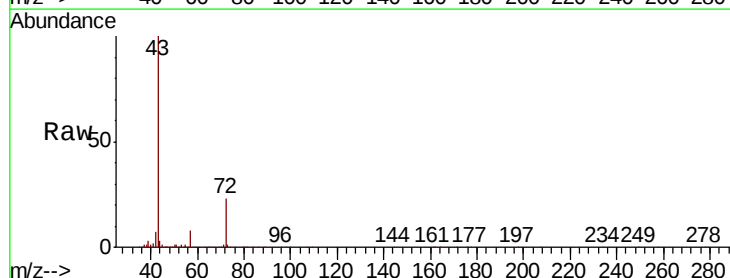
Manual Integrations  
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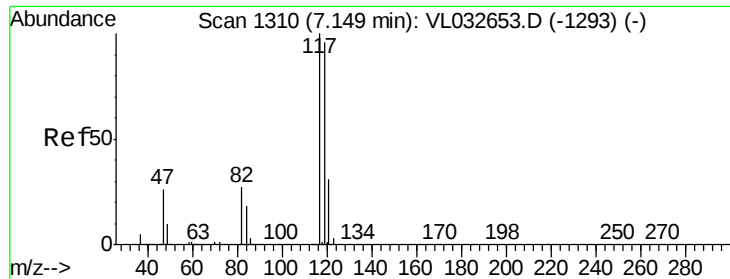
MMDadoda  
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#34  
 2-Butanone  
 Concen: 10.342 ppbv  
 RT: 5.35 min Scan# 749  
 Delta R.T. 0.01 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Tgt Ion: 43 Resp: 2317468  
 Ion Ratio Lower Upper  
 43 100  
 72 23.1 18.6 27.8





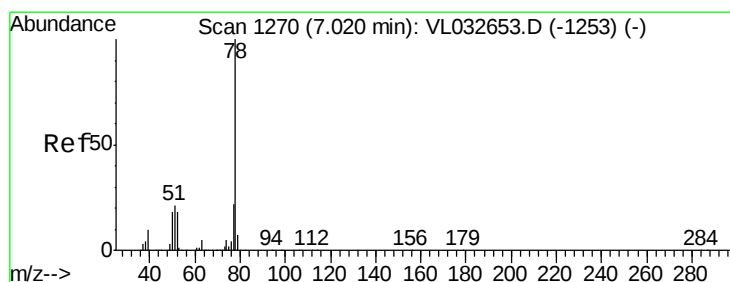
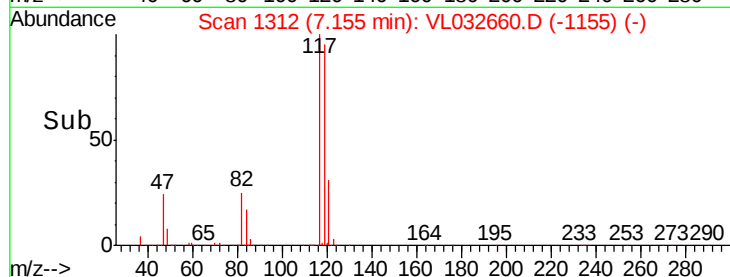
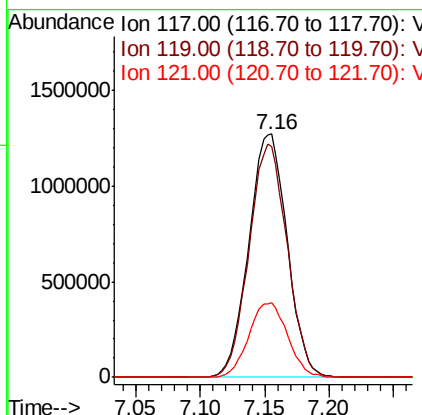
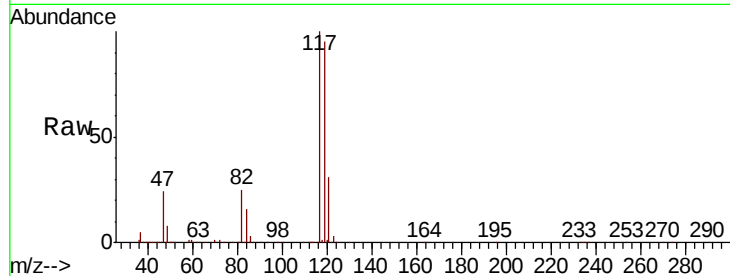
#35  
Carbon Tetrachloride  
Concen: 8.899 ppbv  
RT: 7.16 min Scan# 1312  
Delta R.T. 0.01 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

Tot Ion:117 Resp: 2640116  
Ion Ratio Lower Upper  
117 100  
119 95.0 75.7 113.5  
121 30.8 24.7 37.1

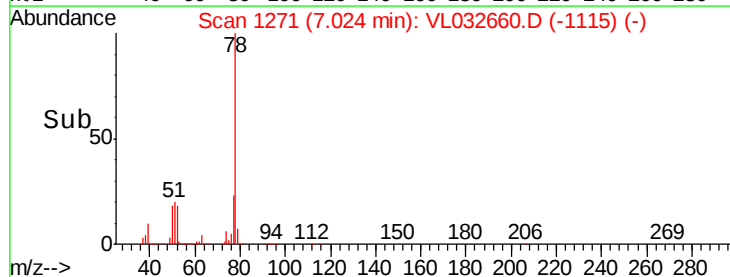
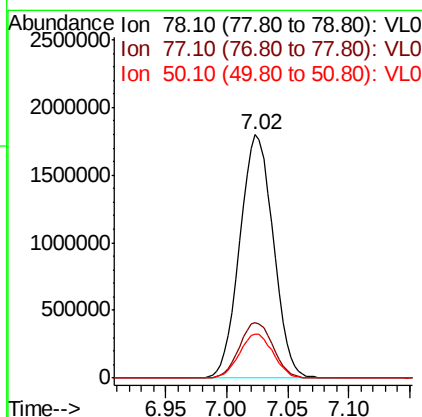
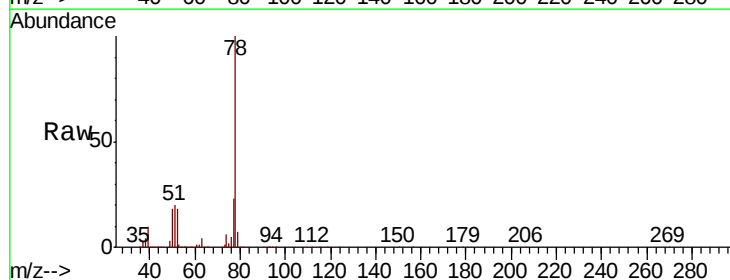
Manual Integrations  
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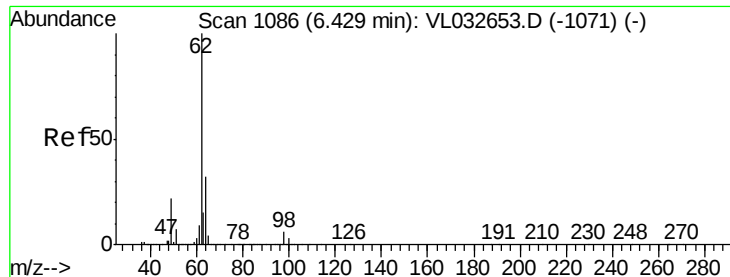
MMDadoda  
10/24/2018 12:04:55 PM



#36  
Benzene  
Concen: 10.036 ppbv  
RT: 7.02 min Scan# 1271  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Tgt Ion: 78 Resp: 3406770  
Ion Ratio Lower Upper  
78 100  
77 22.8 18.1 27.1  
50 18.2 15.1 22.7





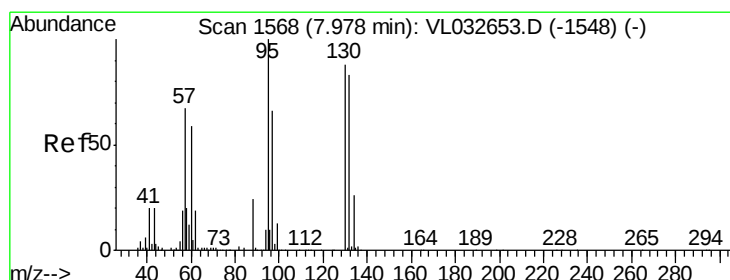
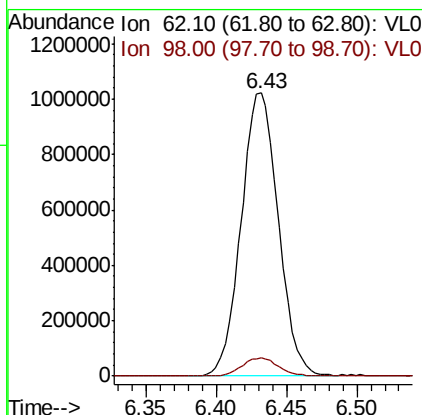
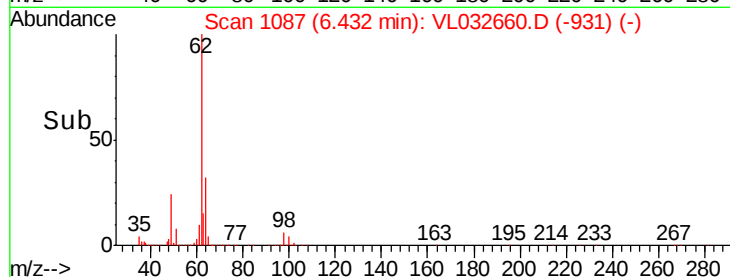
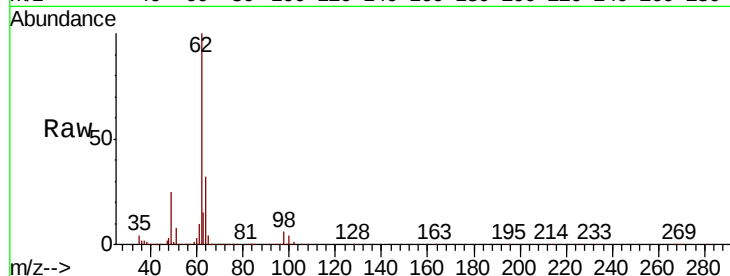
#37  
 1,2-Dichloroethane  
 Concen: 9.071 ppbv  
 RT: 6.43 min Scan# 1087  
 Delta R.T. 0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICVVL101818

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62      | 100   |       |       |
| 98      | 6.4   | 4.4   | 6.6   |

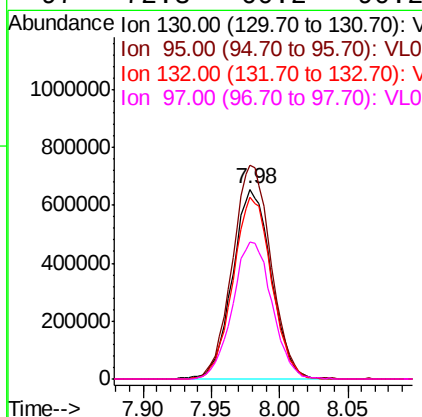
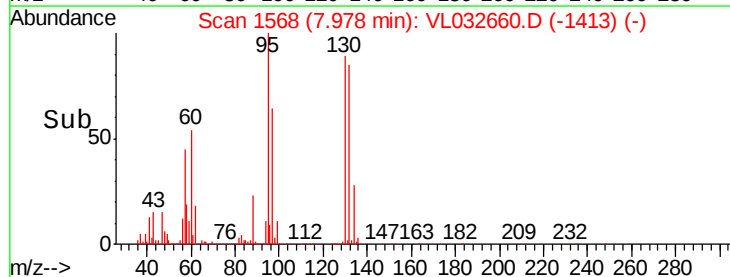
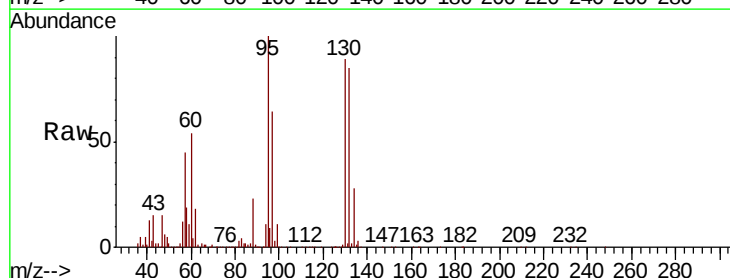
Manual Integrations  
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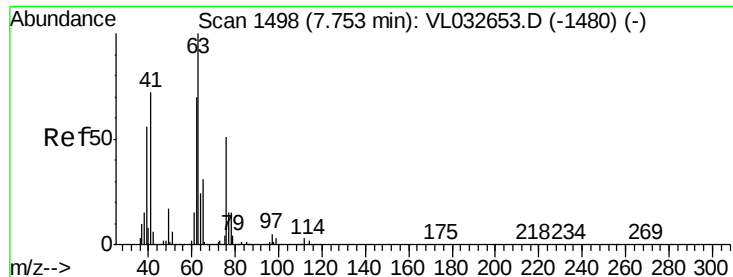
MMDadoda  
 10/24/2018 12:04:55 PM



#38  
 Trichloroethene  
 Concen: 10.210 ppbv  
 RT: 7.98 min Scan# 1568  
 Delta R.T. -0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 130     | 100   |       |       |
| 95      | 112.7 | 93.4  | 140.0 |
| 132     | 95.7  | 76.5  | 114.7 |
| 97      | 72.3  | 60.2  | 90.2  |





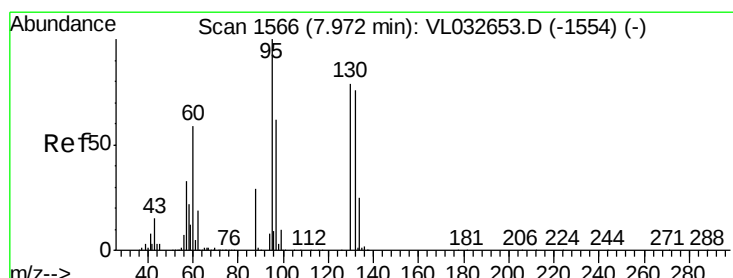
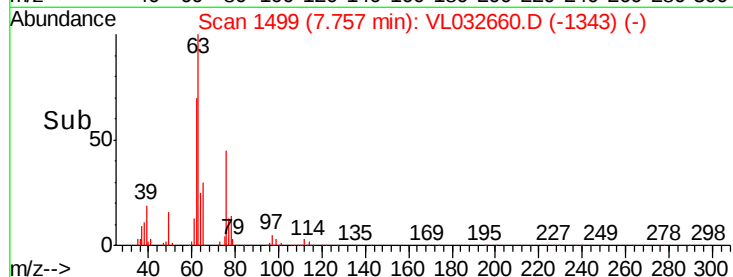
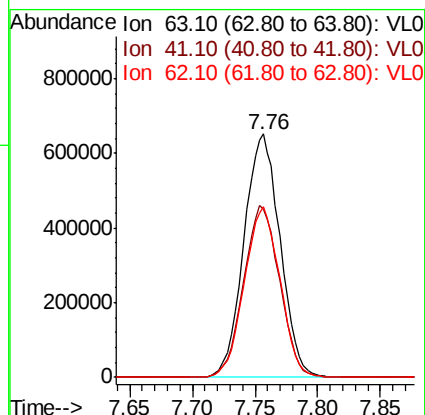
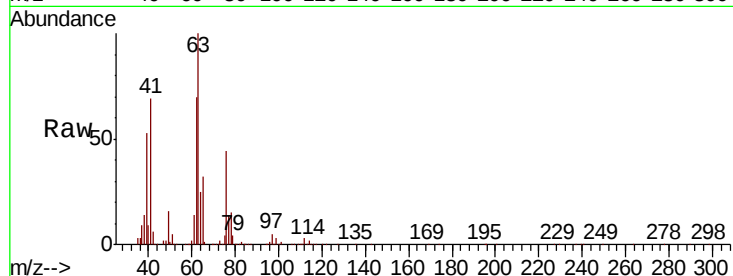
#39  
 1,2-Dichloropropane  
 Concen: 9.941 ppbv  
 RT: 7.76 min Scan# 1499  
 Delta R.T. 0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICVVL101818

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 68.8  | 56.2  | 84.4  |
| 62      | 70.1  | 54.4  | 81.6  |

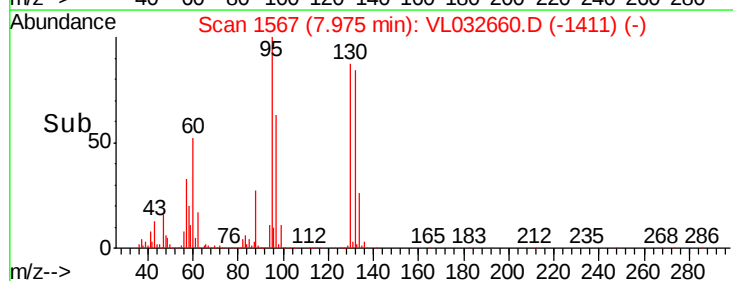
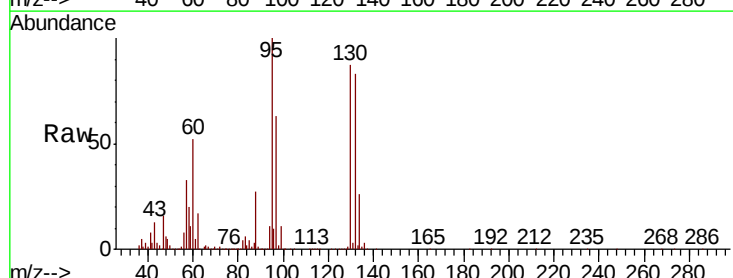
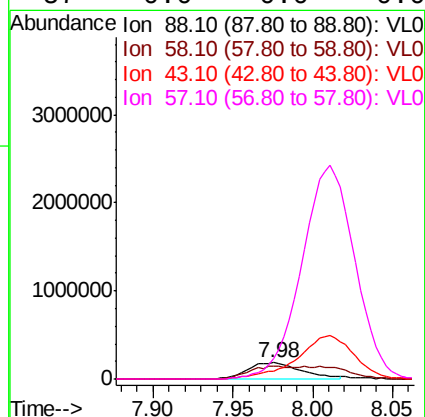
Manual Integrations  
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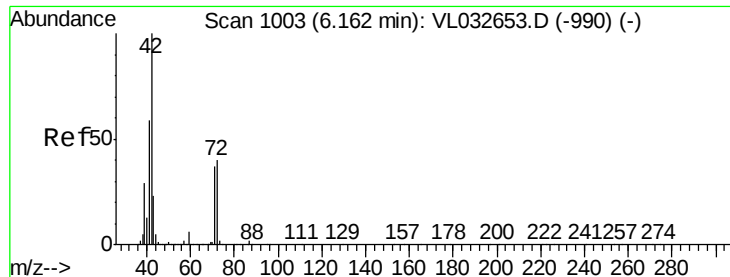
MMDadoda  
 10/24/2018 12:04:55 PM



#40  
 1,4-Dioxane  
 Concen: 9.341 ppbv  
 RT: 7.98 min Scan# 1567  
 Delta R.T. 0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 88      | 100   |       |       |
| 58      | 138.9 | 104.0 | 156.0 |
| 43      | 0.0   | 0.0   | 0.0   |
| 57      | 0.0   | 0.0   | 0.0   |





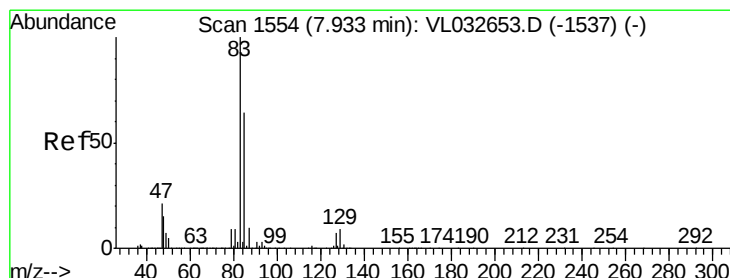
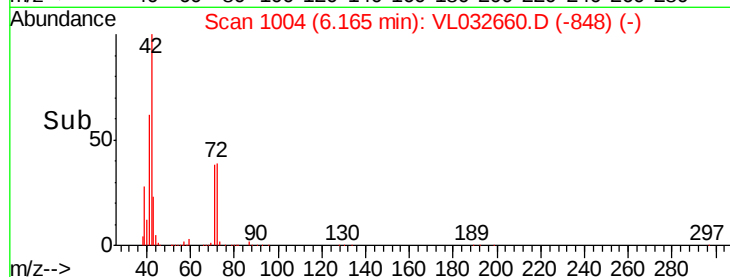
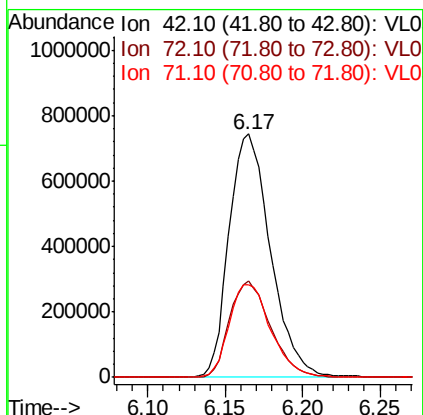
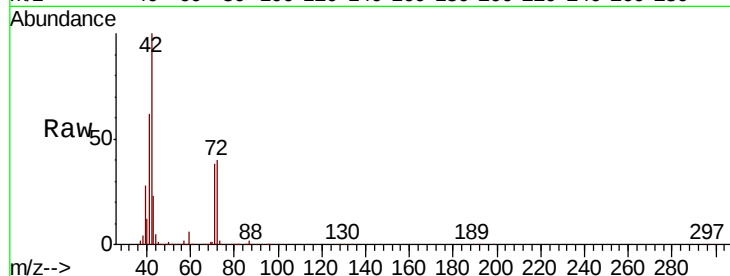
#41  
Tetrahydrofuran  
Concen: 11.055 ppbv  
RT: 6.17 min Scan# 1004  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

Tot Ion: 42 Resp: 1380510  
Ion Ratio Lower Upper  
42 100  
72 39.5 32.4 48.6  
71 38.7 31.3 46.9

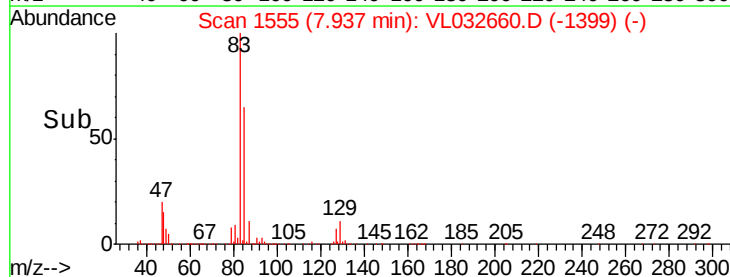
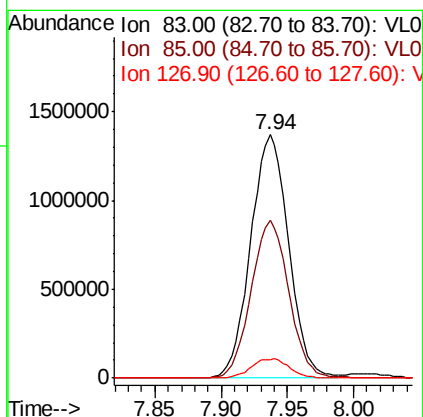
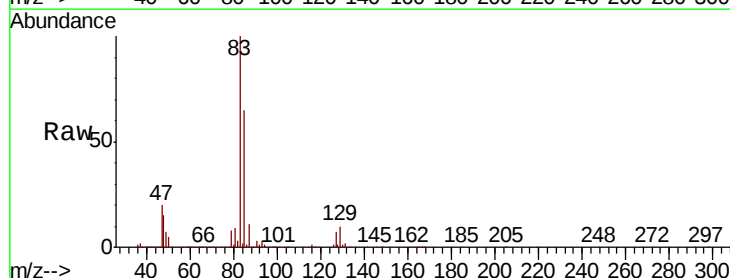
Manual Integrations  
APPROVED

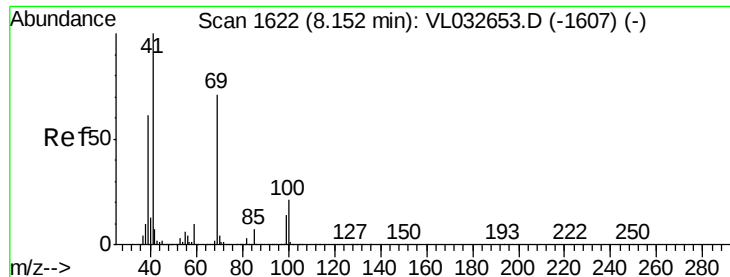
MMDadoda  
10/24/2018 12:04:55 PM



#42  
Bromodichloromethane  
Concen: 9.401 ppbv  
RT: 7.94 min Scan# 1555  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Tgt Ion: 83 Resp: 2742427  
Ion Ratio Lower Upper  
83 100  
85 64.7 52.4 78.6  
127 7.4 6.1 9.1





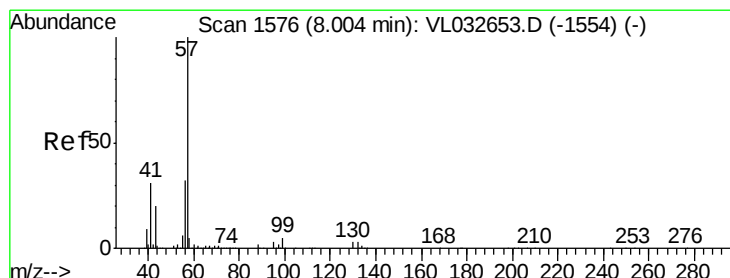
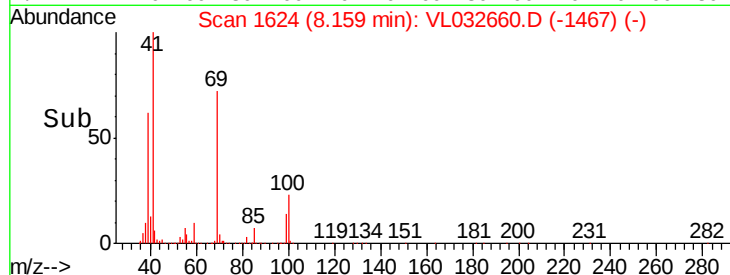
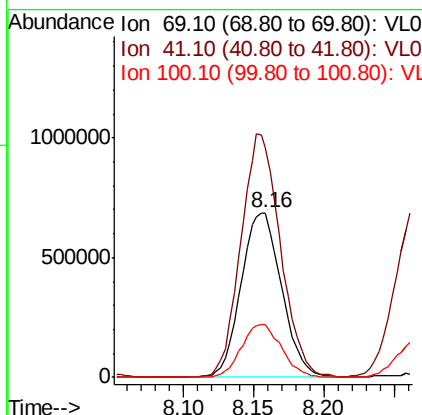
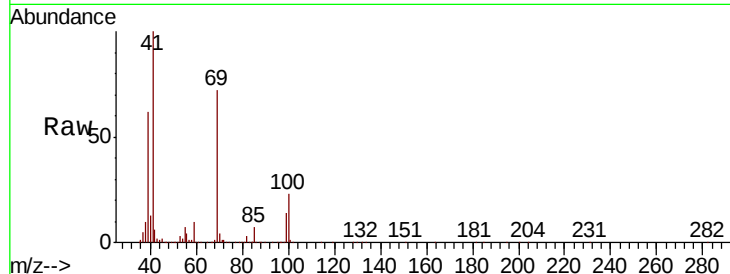
#43  
Methyl Methacrylate  
Concen: 11.121 ppbv  
RT: 8.16 min Scan# 1624  
Delta R.T. 0.01 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

Tot Ion: 69 Resp: 1383625  
Ion Ratio Lower Upper  
69 100  
41 144.3 113.2 169.8  
100 31.9 24.4 36.6

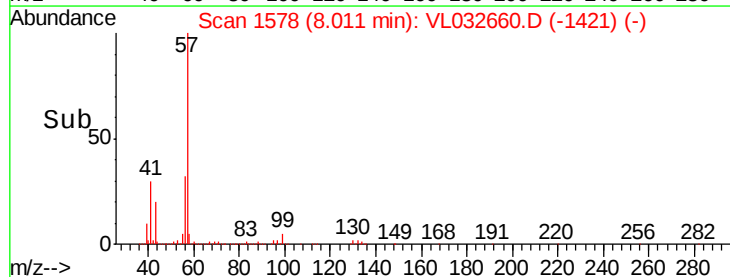
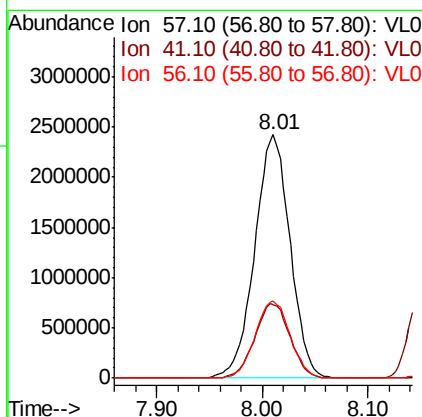
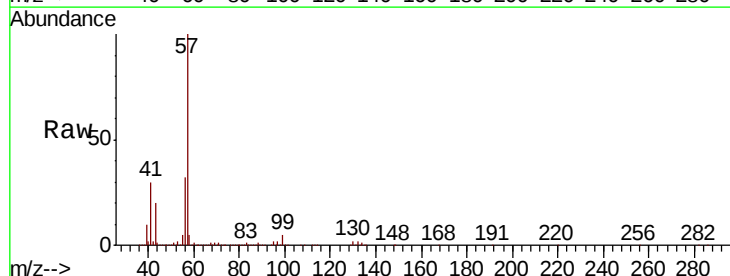
Manual Integrations  
APPROVED

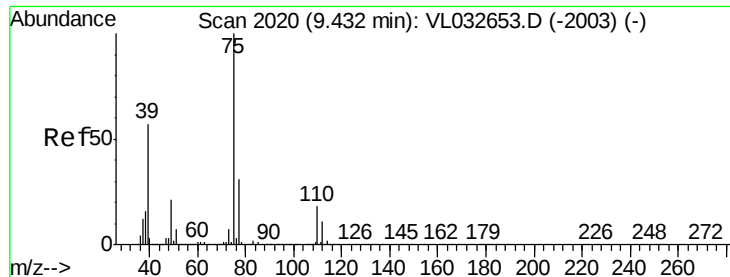
MMDadoda  
10/24/2018 12:04:55 PM



#44  
2,2,4-Trimethylpentane  
Concen: 9.726 ppbv  
RT: 8.01 min Scan# 1578  
Delta R.T. 0.01 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Tgt Ion: 57 Resp: 5635880  
Ion Ratio Lower Upper  
57 100  
41 30.8 24.7 37.1  
56 31.5 25.0 37.4





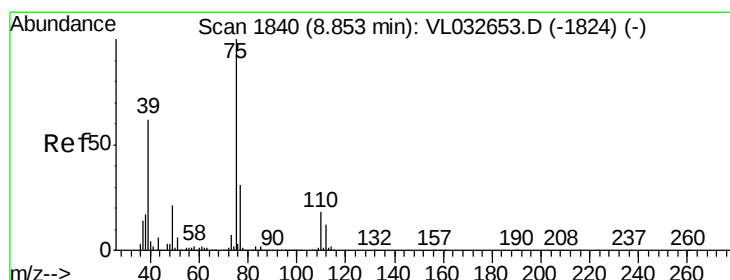
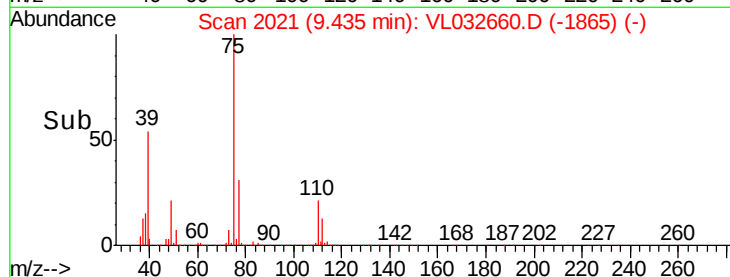
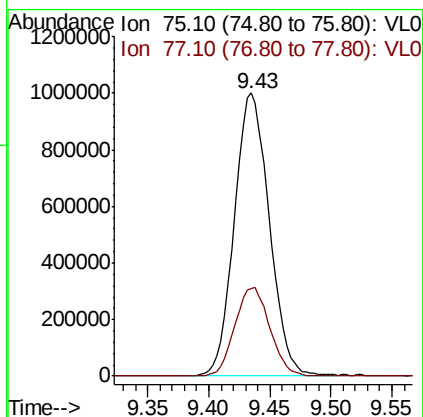
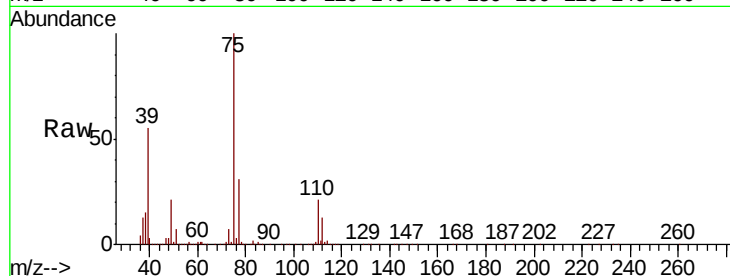
#45  
t-1,3-Dichloropropene  
Concen: 11.908 ppbv  
RT: 9.43 min Scan# 2021  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

Tot Ion: 75 Resp: 1983019  
Ion Ratio Lower Upper  
75 100  
77 31.0 25.3 37.9

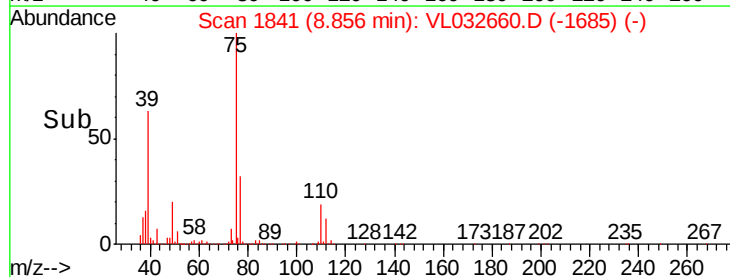
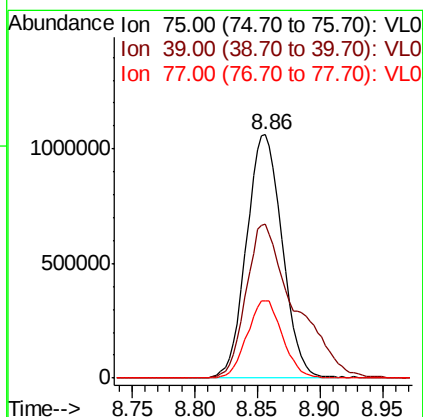
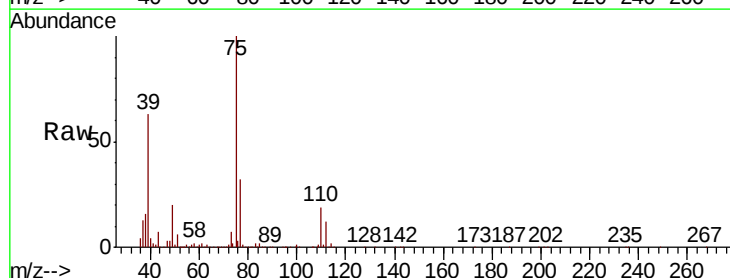
Manual Integrations  
APPROVED

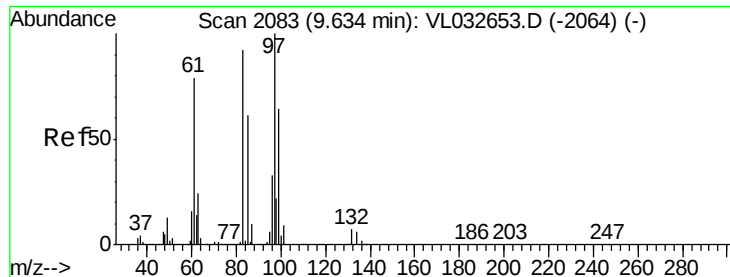
MMDadoda  
10/24/2018 12:04:55 PM



#46  
cis-1,3-Dichloropropene  
Concen: 11.061 ppbv  
RT: 8.86 min Scan# 1841  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Tgt Ion: 75 Resp: 2104579  
Ion Ratio Lower Upper  
75 100  
39 63.1 50.9 76.3  
77 31.7 25.8 38.6





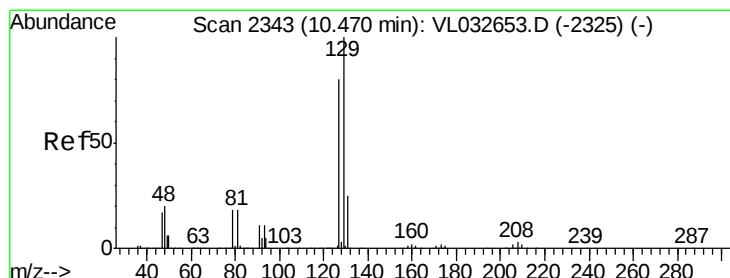
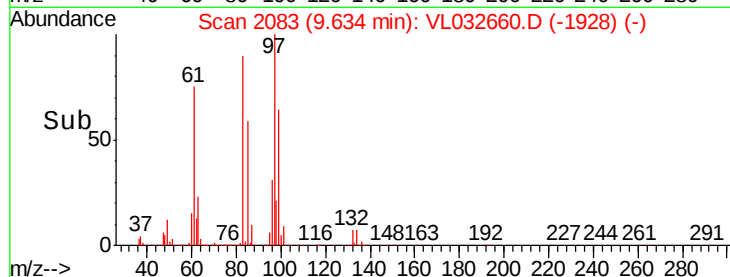
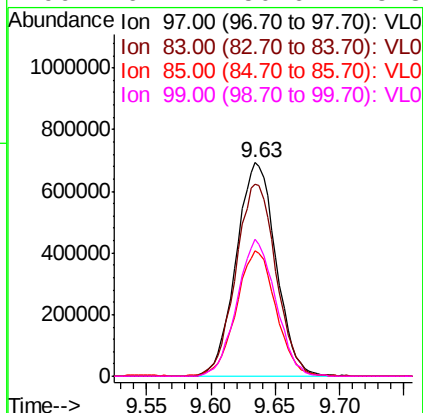
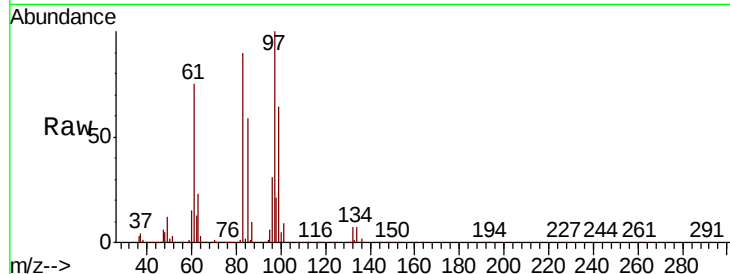
#47  
 1,1,2-Trichloroethane  
 Concen: 9.616 ppbv  
 RT: 9.63 min Scan# 2083  
 Delta R.T. -0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICVVL101818

| Tot Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 97      | 100  |       |       |       |
| 83      | 89.6 | 73.5  | 110.3 |       |
| 85      | 58.4 | 45.8  | 68.6  |       |
| 99      | 64.2 | 50.6  | 75.8  |       |

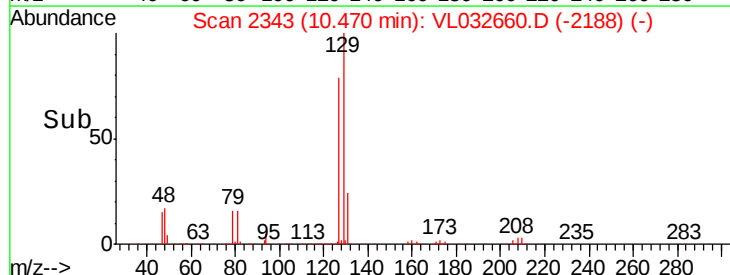
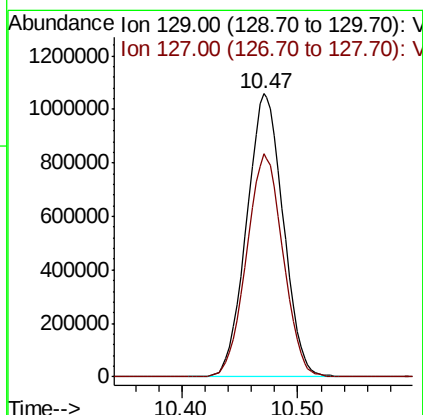
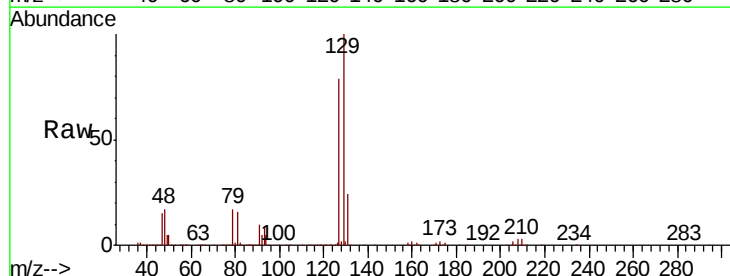
Manual Integrations  
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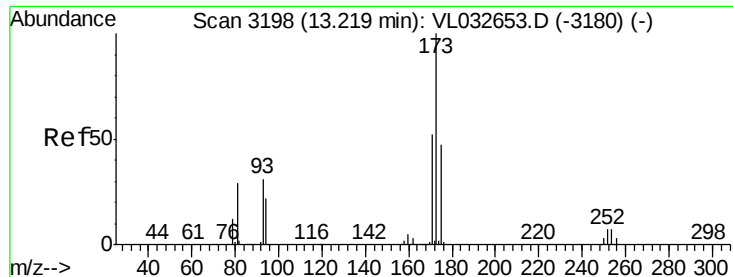
MMDadoda  
 10/24/2018 12:04:55 PM



#48  
 Dibromochloromethane  
 Concen: 8.974 ppbv  
 RT: 10.47 min Scan# 2343  
 Delta R.T. -0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 129     | 100  |       |       |       |
| 127     | 78.8 | 39.1  | 117.5 |       |





#49

Bromoform

Concen: 9.545 ppbv

RT: 13.22 min Scan# 3199

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion:173 Resp: 1936524

Ion Ratio Lower Upper

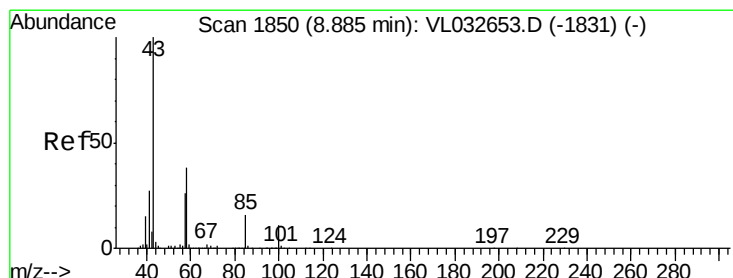
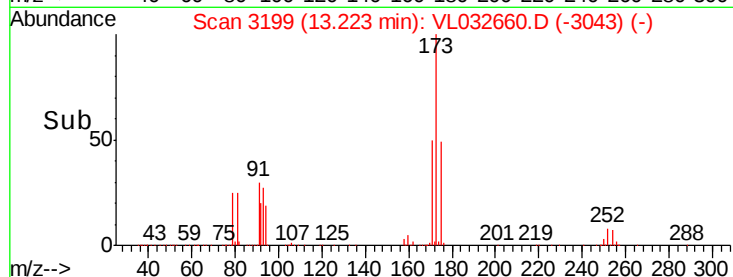
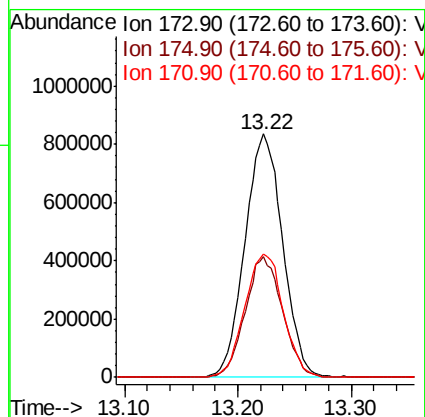
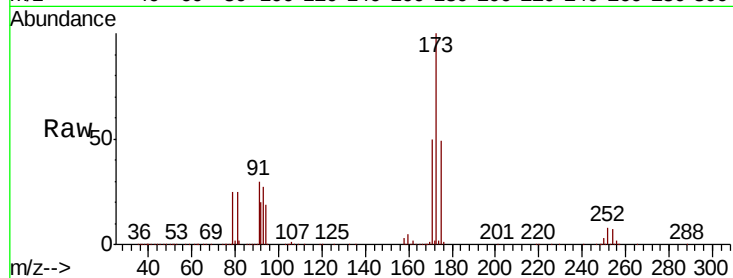
173 100

175 48.9 39.0 58.4

171 51.7 42.2 63.2

Manual Integrations  
APPROVED

MMDadoda  
10/24/2018 12:04:55 PM



#50

4-Methyl-2-Pentanone

Concen: 10.454 ppbv

RT: 8.89 min Scan# 1851

Delta R.T. 0.00 min

Lab File: VL032660.D

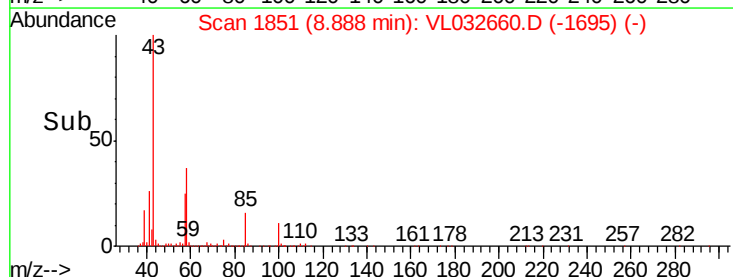
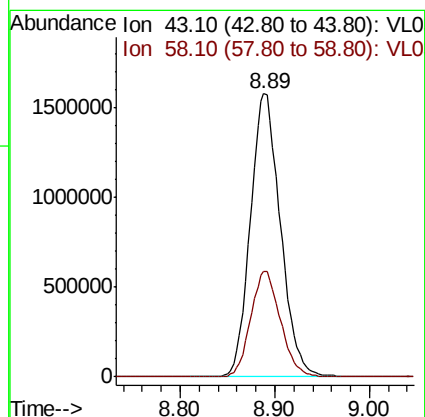
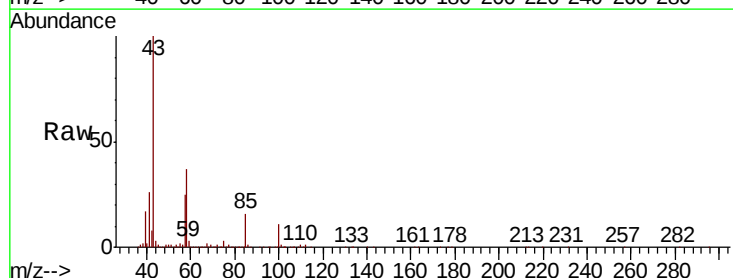
Acq: 18 Oct 2018 22:09

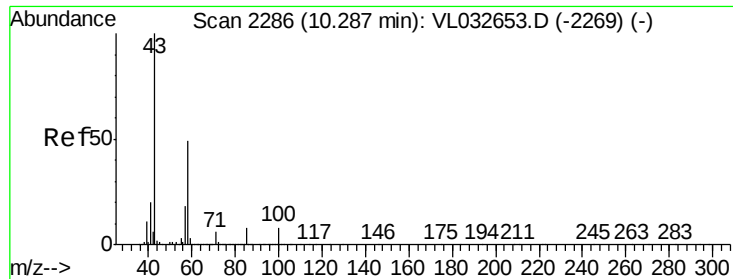
Tgt Ion: 43 Resp: 3470701

Ion Ratio Lower Upper

43 100

58 36.8 29.7 44.5





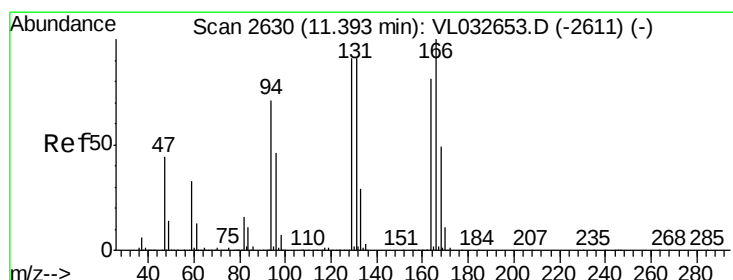
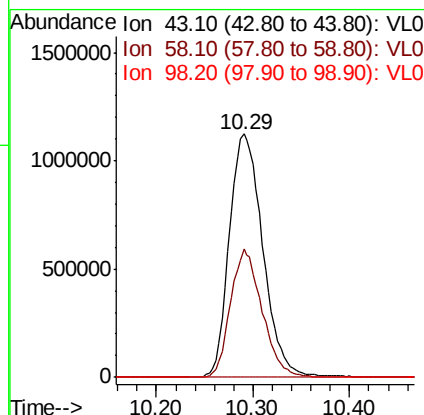
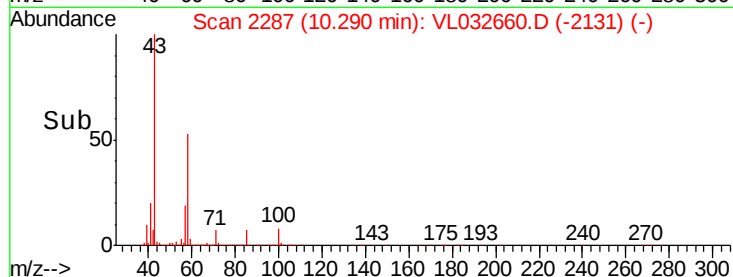
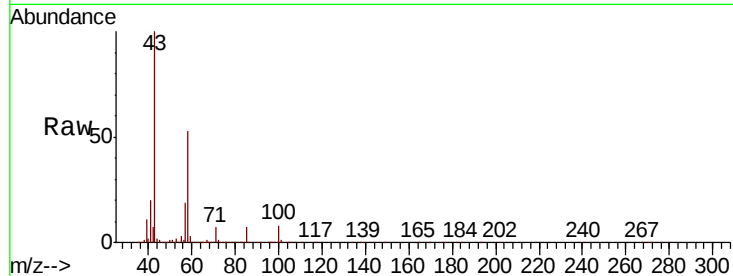
#51  
2-Hexanone  
Concen: 10.945 ppbv  
RT: 10.29 min Scan# 2287  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 49.8  | 40.4  | 60.6  |
| 98      | 0.2   | 0.4   | 0.6#  |

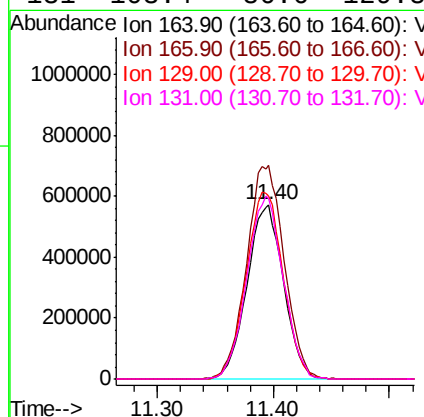
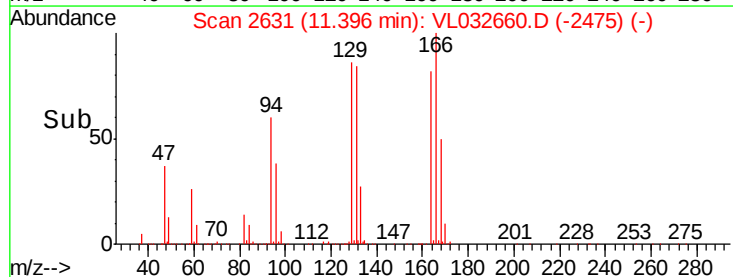
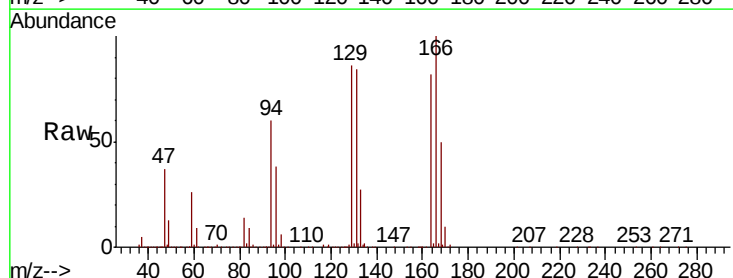
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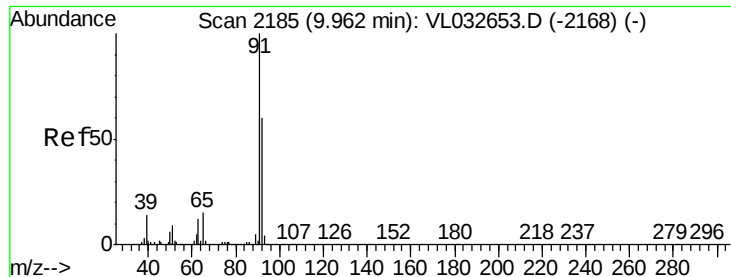
MMDadoda  
10/24/2018 12:04:55 PM



#52  
Tetrachloroethene  
Concen: 10.551 ppbv  
RT: 11.40 min Scan# 2631  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 122.4 | 100.5 | 150.7 |
| 129     | 104.9 | 90.0  | 135.0 |
| 131     | 103.4 | 86.6  | 129.8 |





#53

Toluene

Concen: 10.969 ppbv

RT: 9.97 min Scan# 2186

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion: 91 Resp: 4268123

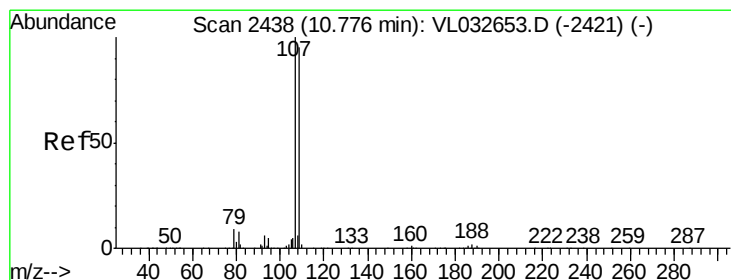
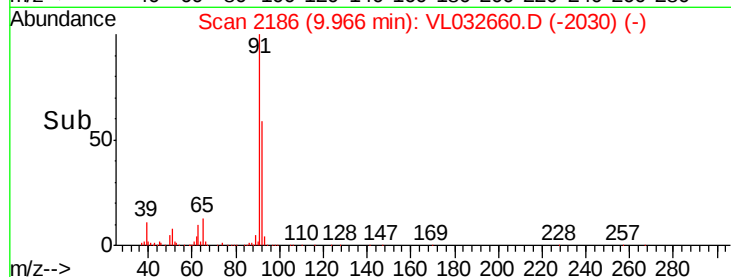
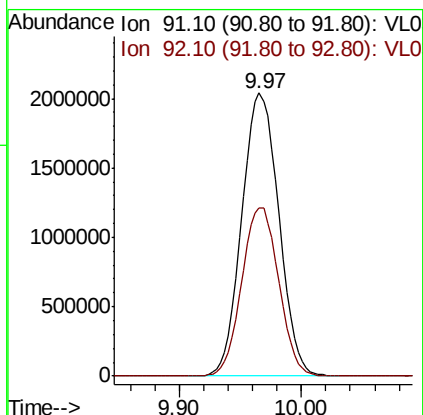
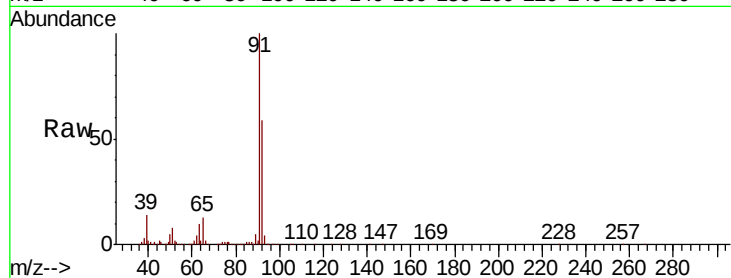
Ion Ratio Lower Upper

91 100

92 59.6 48.4 72.6

Manual Integrations  
APPROVED

MMDadoda  
10/24/2018 12:04:55 PM



#54

1,2-Dibromoethane

Concen: 10.036 ppbv

RT: 10.78 min Scan# 2439

Delta R.T. 0.00 min

Lab File: VL032660.D

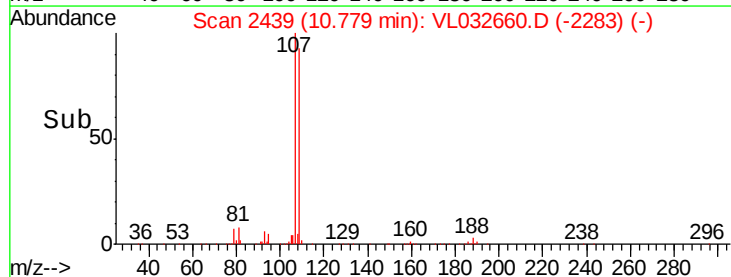
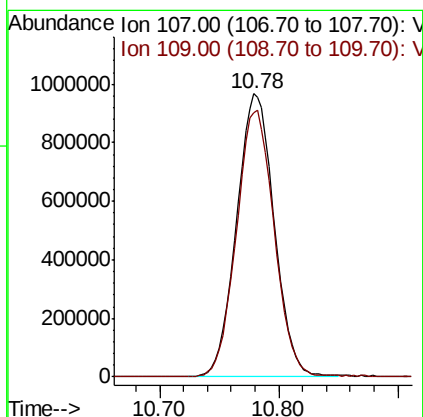
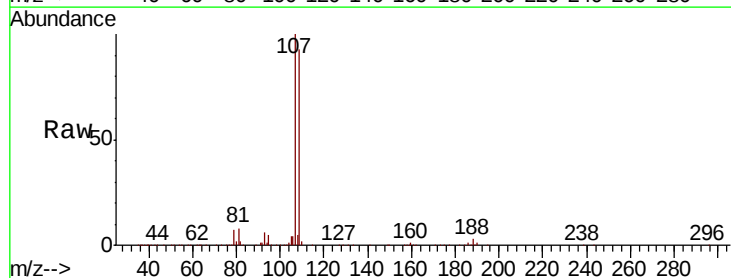
Acq: 18 Oct 2018 22:09

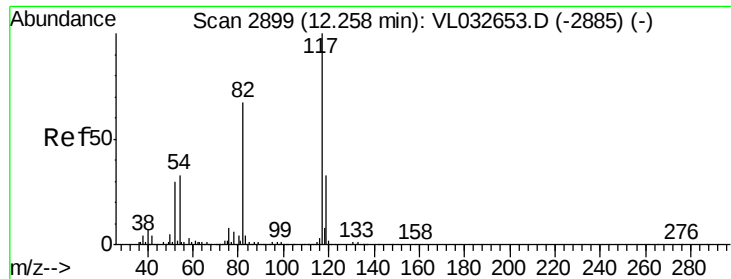
Tgt Ion: 107 Resp: 2112750

Ion Ratio Lower Upper

107 100

109 93.2 75.3 112.9





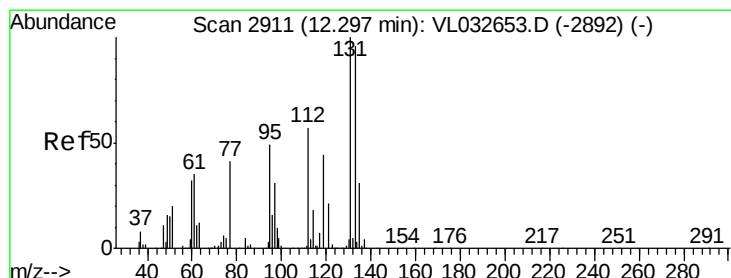
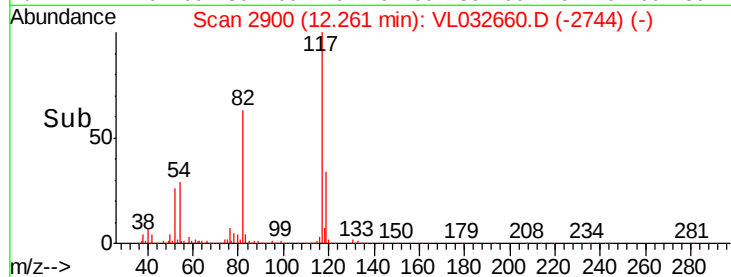
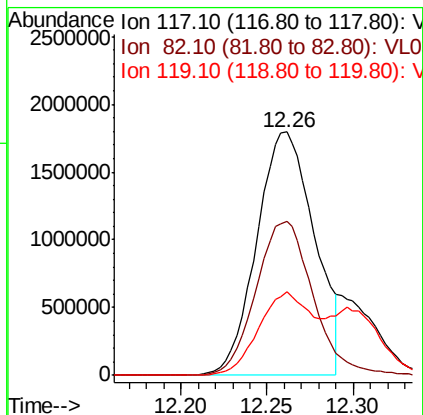
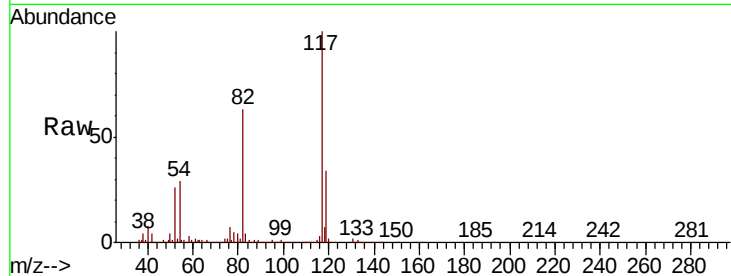
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv m  
RT: 12.26 min Scan# 2900  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

Tot Ion:117 Resp: 4222012  
Ion Ratio Lower Upper  
117 100  
82 62.6 52.7 79.1  
119 55.8 26.7 40.1#

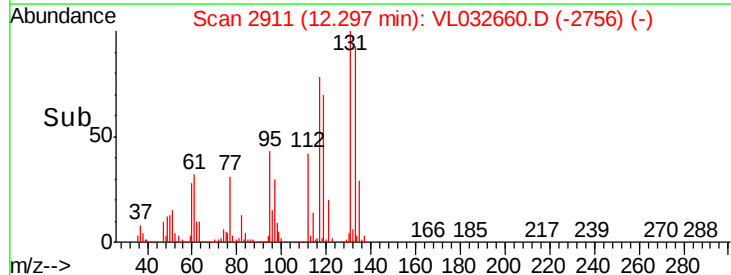
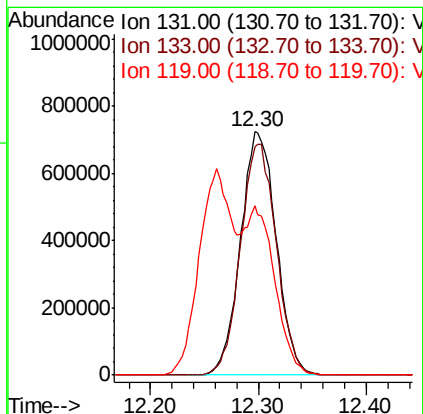
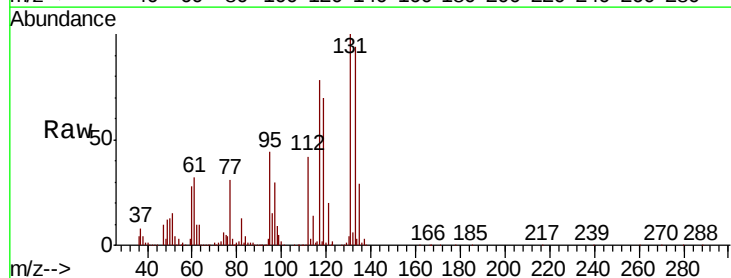
Manual Integrations  
APPROVED

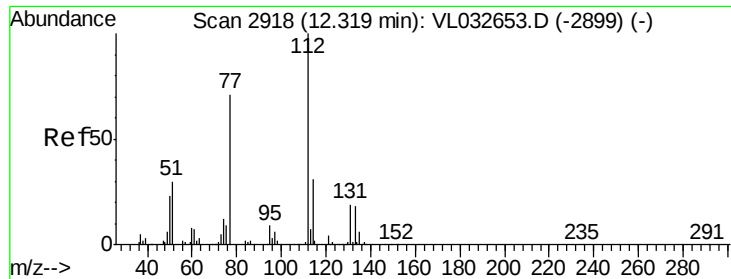
MMDadoda  
10/24/2018 12:04:55 PM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 9.012 ppbv  
RT: 12.30 min Scan# 2911  
Delta R.T. -0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Tgt Ion:131 Resp: 1663783  
Ion Ratio Lower Upper  
131 100  
133 95.5 75.4 113.2  
119 141.9 49.1 73.7#





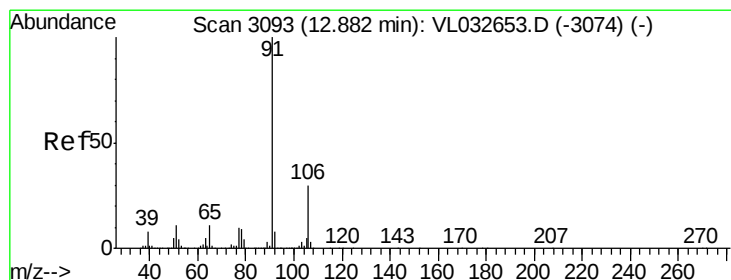
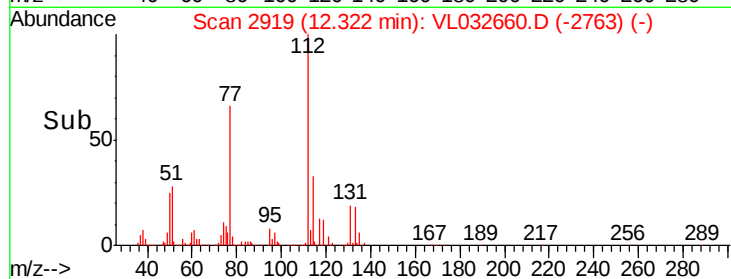
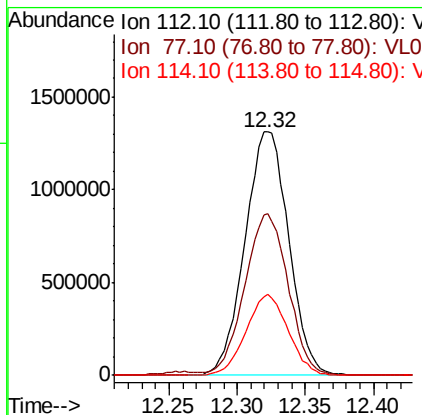
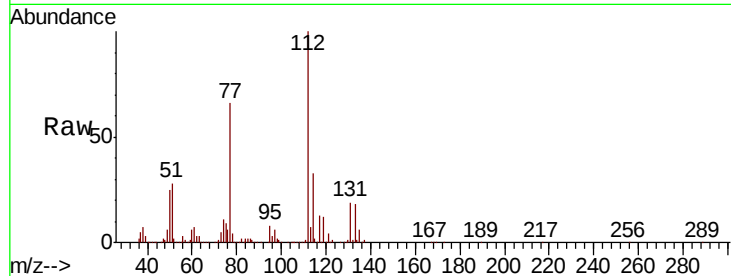
#57  
Chlorobenzene  
Concen: 9.420 ppbv  
RT: 12.32 min Scan# 2919  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 77      | 66.2  | 56.8  | 85.2  |
| 114     | 33.2  | 30.3  | 37.1  |

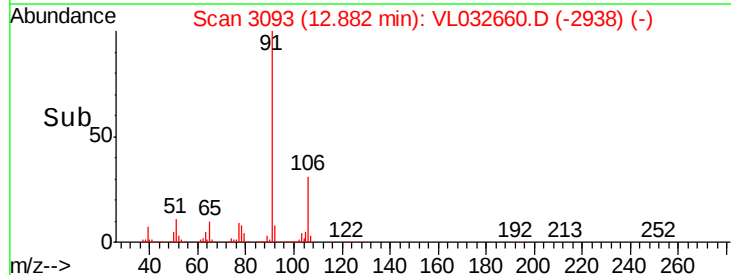
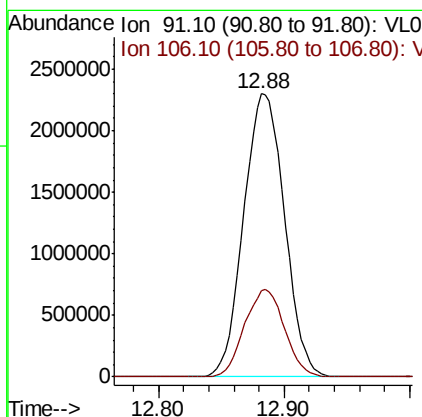
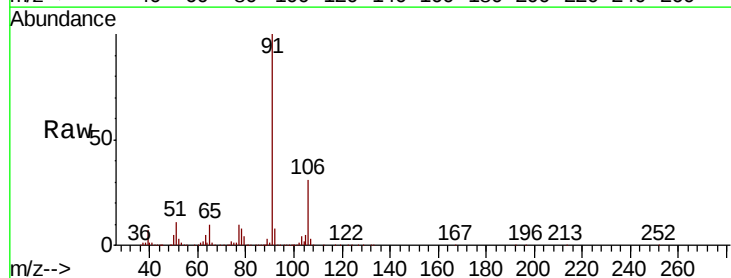
Manual Integrations  
APPROVED

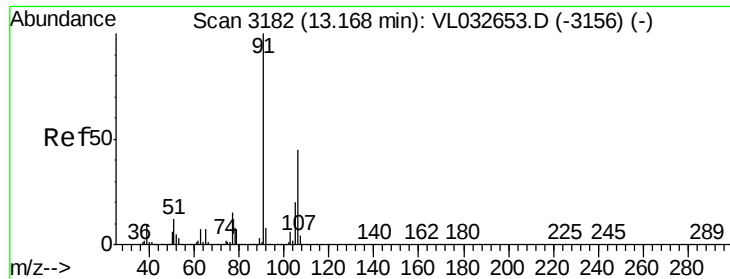
MMDadoda  
10/24/2018 12:04:55 PM



#58  
Ethyl Benzene  
Concen: 10.622 ppbv  
RT: 12.88 min Scan# 3093  
Delta R.T. -0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 30.6  | 24.2  | 36.2  |





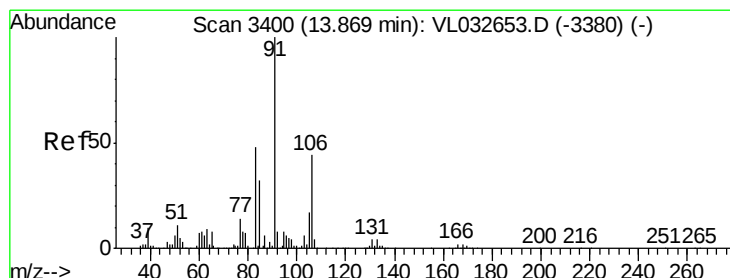
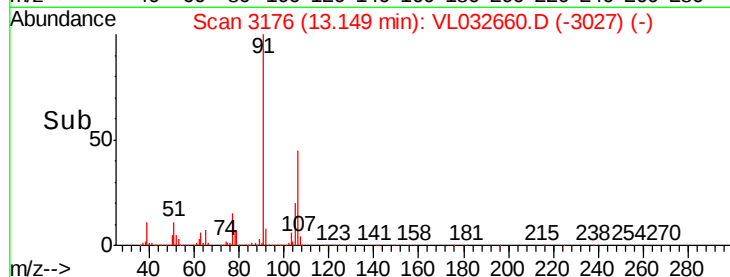
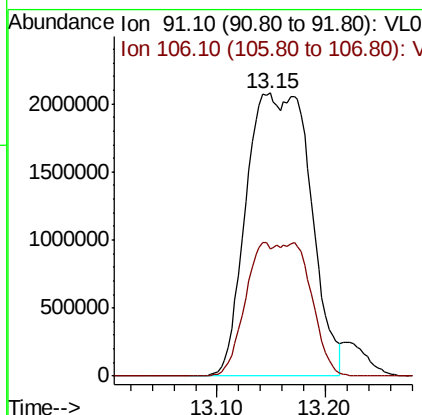
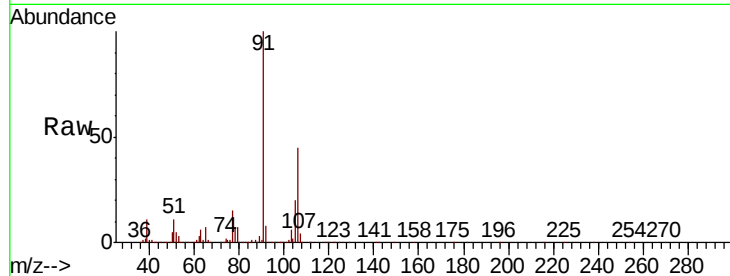
#59  
m/p-Xylene  
Concen: 19.570 ppbv m  
RT: 13.15 min Scan# 3176  
Delta R.T. -0.02 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

Tot Ion: 91 Resp: 8547516  
Ion Ratio Lower Upper  
91 100  
106 46.3 35.9 53.9

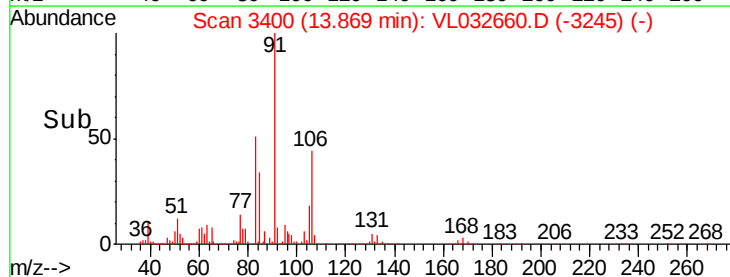
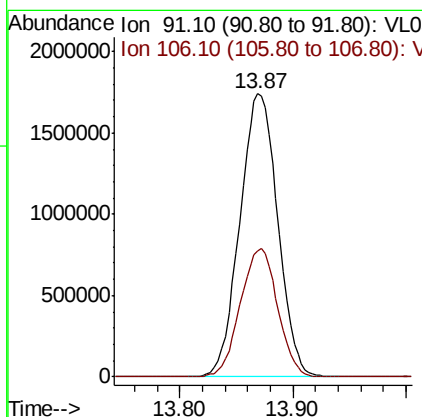
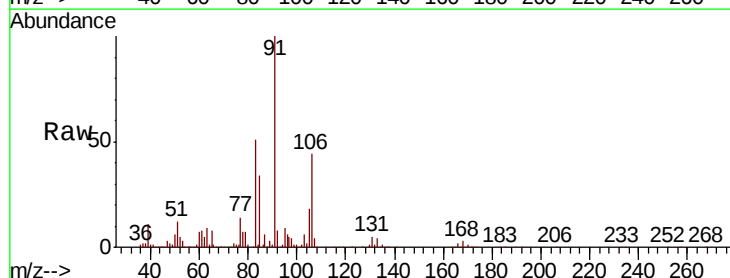
Manual Integrations  
APPROVED

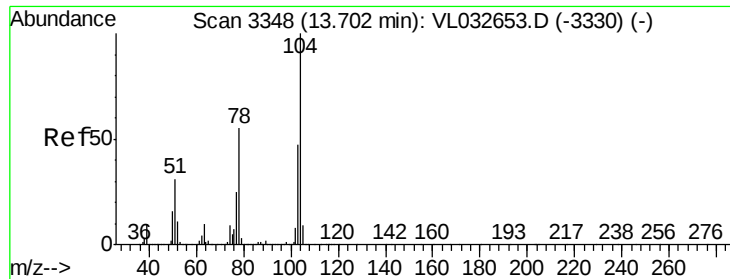
MMDadoda  
10/24/2018 12:04:55 PM



#60  
o-Xylene  
Concen: 9.609 ppbv  
RT: 13.87 min Scan# 3400  
Delta R.T. -0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Tgt Ion: 91 Resp: 4048403  
Ion Ratio Lower Upper  
91 100  
106 44.8 22.1 66.1





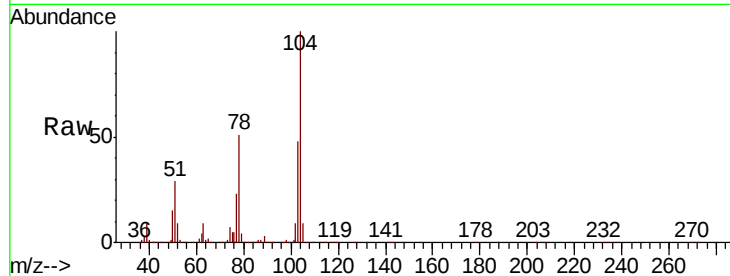
#61  
Stvrene  
Concen: 11.316 ppbv  
RT: 13.70 min Scan# 3349  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

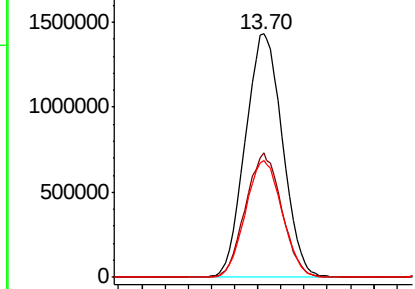
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 50.0  | 42.8  | 64.2  |
| 103     | 47.4  | 37.4  | 56.0  |

Manual Integrations  
APPROVED

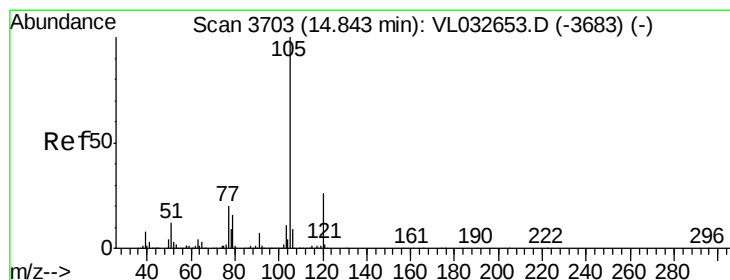
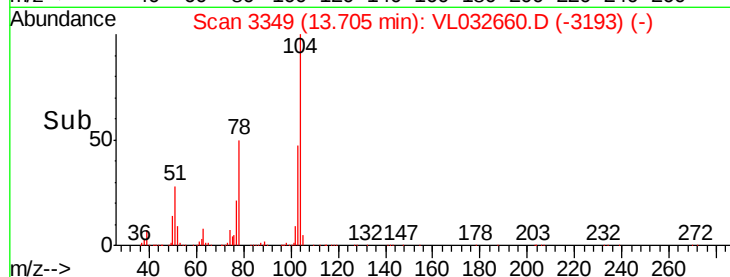
MMDadoda  
10/24/2018 12:04:55 PM



Abundance Ion 104.10 (103.80 to 104.80): V  
Ion 78.10 (77.80 to 78.80): VL0  
Ion 103.10 (102.80 to 103.80): V

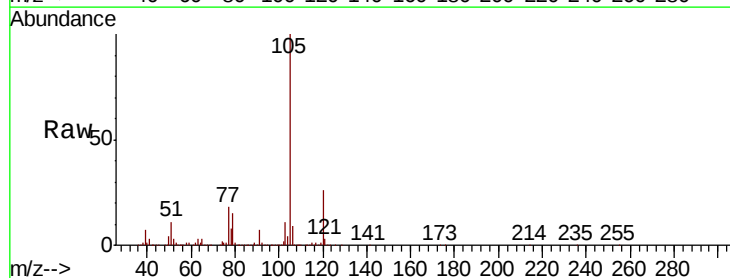


Time-->

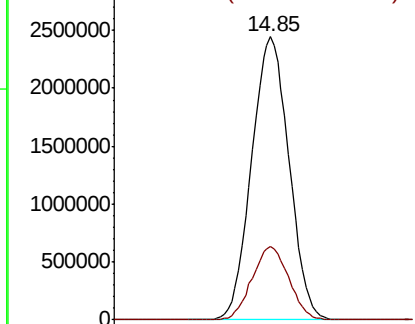


#62  
Isopropylbenzene  
Concen: 9.600 ppbv  
RT: 14.85 min Scan# 3704  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

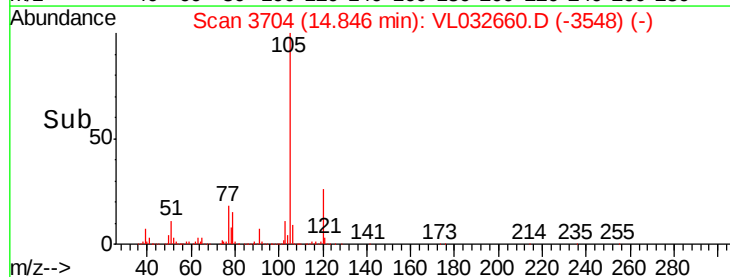
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 25.6  | 20.5  | 30.7  |

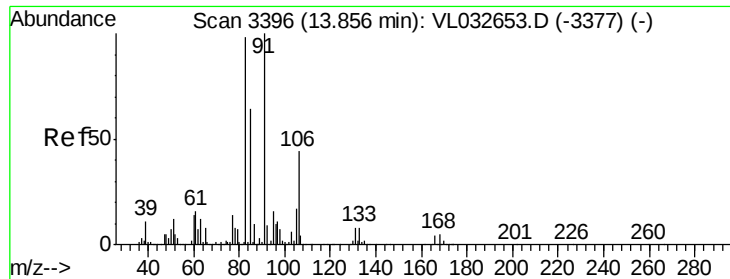


Abundance Ion 105.10 (104.80 to 105.80): V  
Ion 120.20 (119.90 to 120.90): V



Time-->





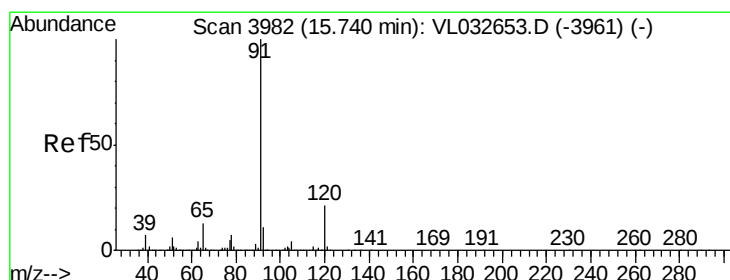
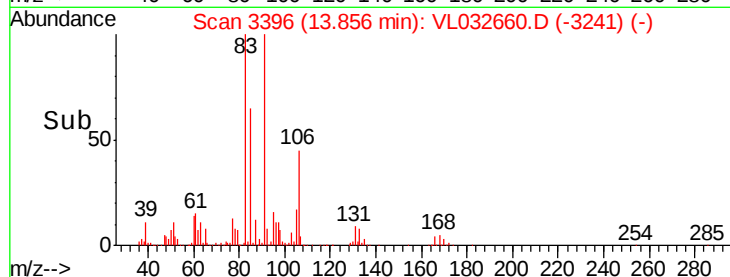
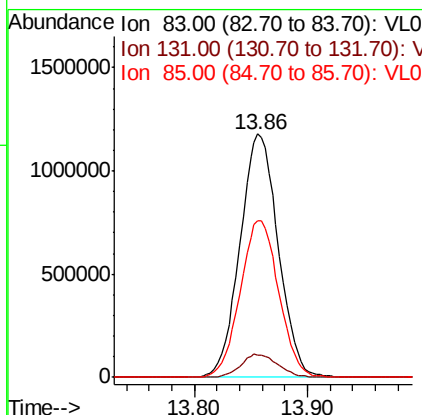
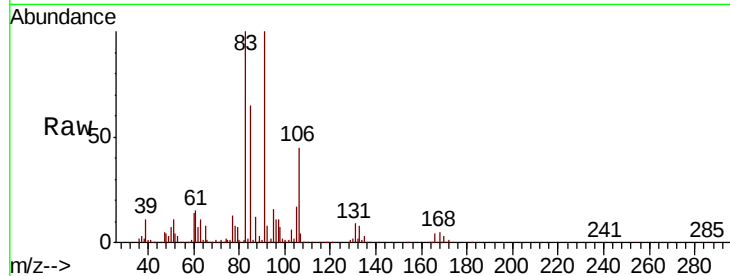
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 8.384 ppbv  
 RT: 13.86 min Scan# 3396  
 Delta R.T. -0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICVVL101818

| Tot Ion | 83    | Resp  | 2767651 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 83      | 100   |       |         |
| 131     | 9.3   | 4.3   | 12.9    |
| 85      | 65.3  | 32.3  | 96.9    |

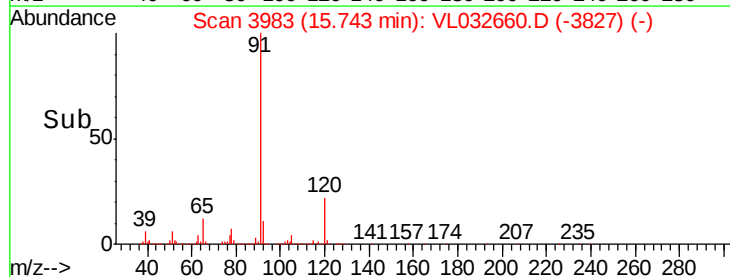
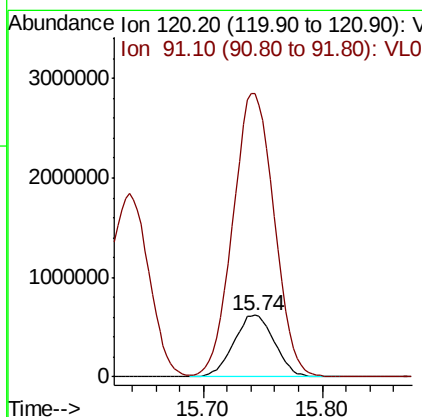
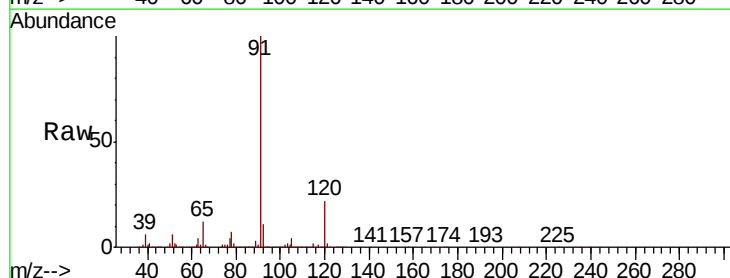
Manual Integrations  
 APPROVED

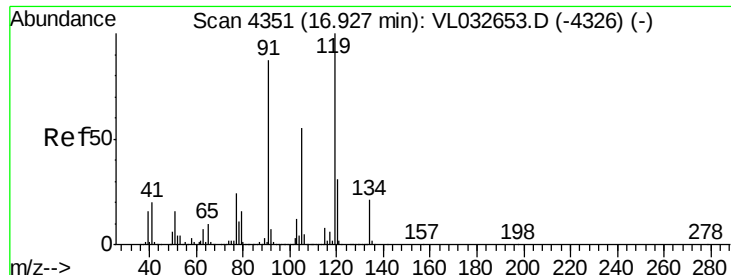
MMDadoda  
 10/24/2018 12:04:55 PM



#64  
 n-propylbenzene  
 Concen: 9.894 ppbv m  
 RT: 15.74 min Scan# 3983  
 Delta R.T. 0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

| Tgt Ion | 120   | Resp  | 1466168 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 120     | 100   |       |         |
| 91      | 467.9 | 390.2 | 585.2   |





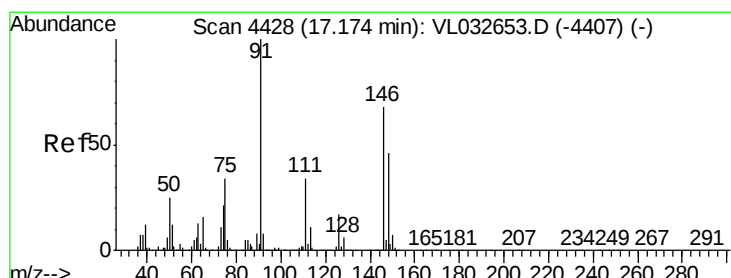
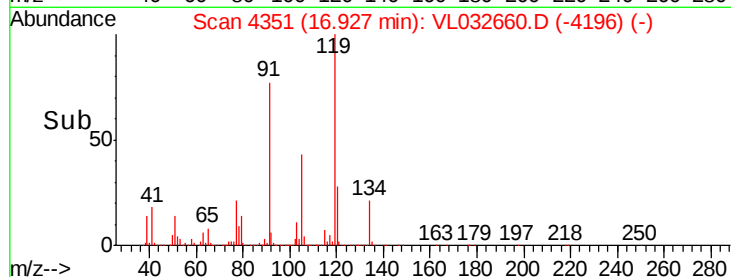
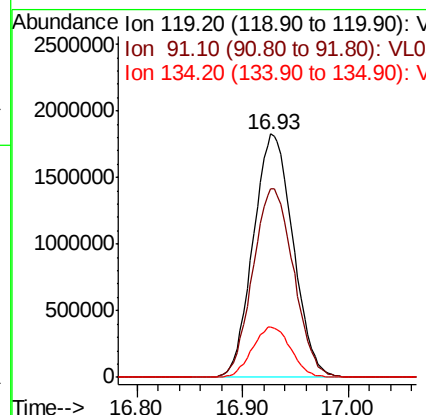
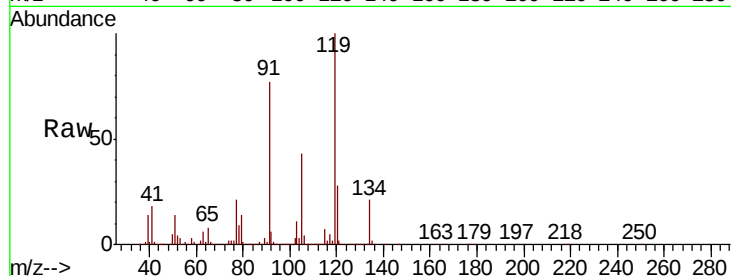
#65  
tert-Butylbenzene  
Concen: 9.422 ppbv  
RT: 16.93 min Scan# 4351  
Delta R.T. -0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

Tot Ion:119 Resp: 4785079  
Ion Ratio Lower Upper  
119 100  
91 79.6 67.8 101.8  
134 20.1 15.8 23.8

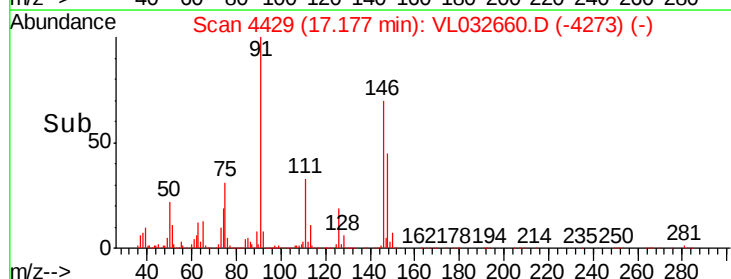
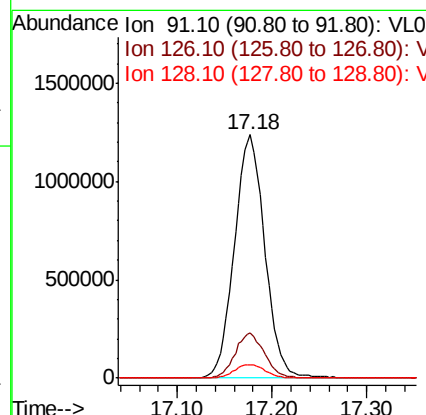
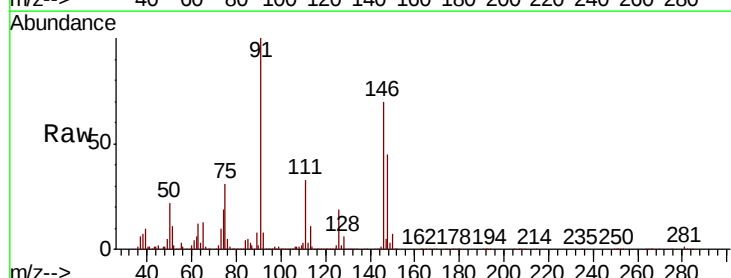
Manual Integrations  
APPROVED

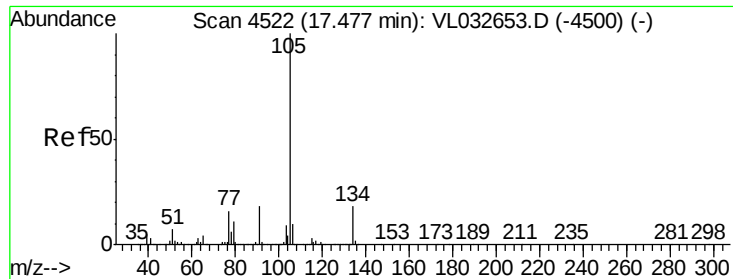
MMDadoda  
10/24/2018 12:04:55 PM



#66  
Benzyl Chloride  
Concen: 10.518 ppbv  
RT: 17.18 min Scan# 4429  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Tgt Ion: 91 Resp: 2757758  
Ion Ratio Lower Upper  
91 100  
126 18.1 13.9 20.9  
128 5.7 4.3 6.5





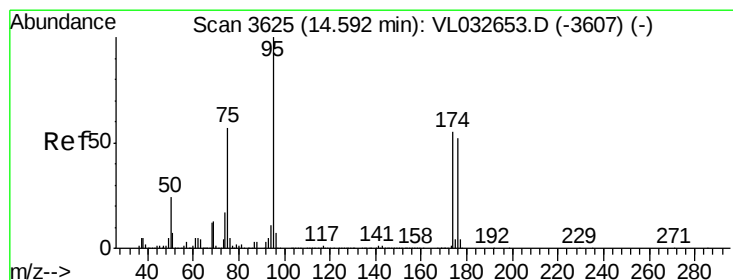
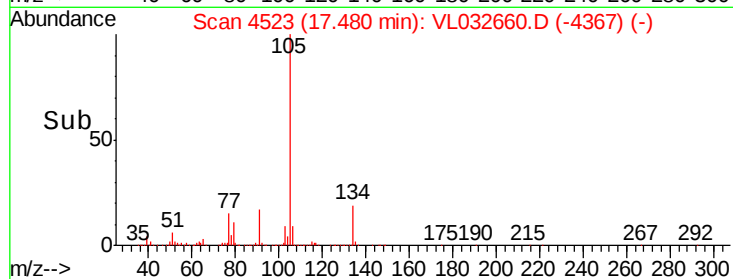
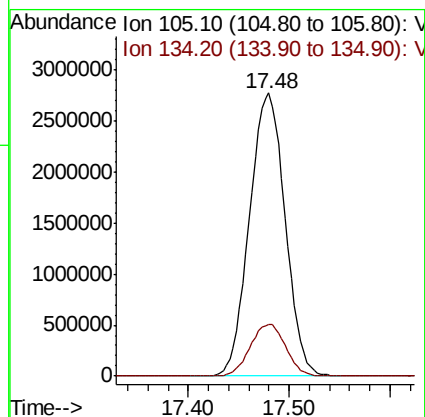
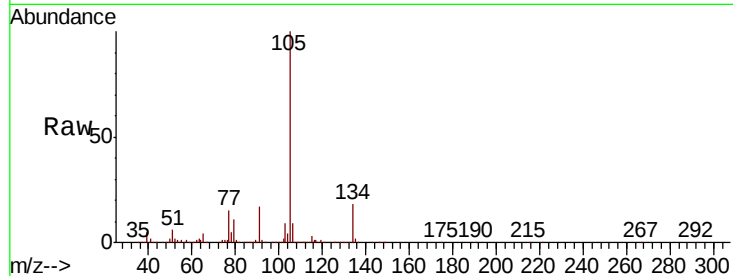
#67  
 sec-Butylbenzene  
 Concen: 9.393 ppbv  
 RT: 17.48 min Scan# 4523  
 Delta R.T. 0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICVVL101818

Tot Ion: 105 Resp: 6784544  
 Ion Ratio Lower Upper  
 105 100  
 134 18.3 14.2 21.2

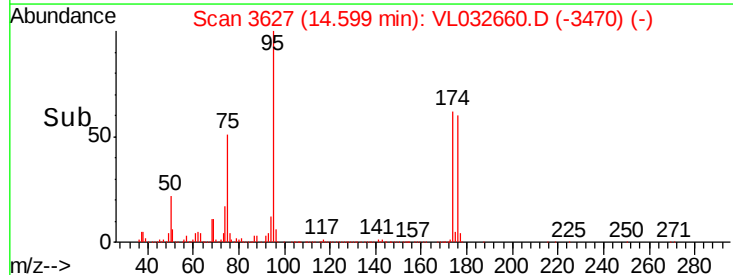
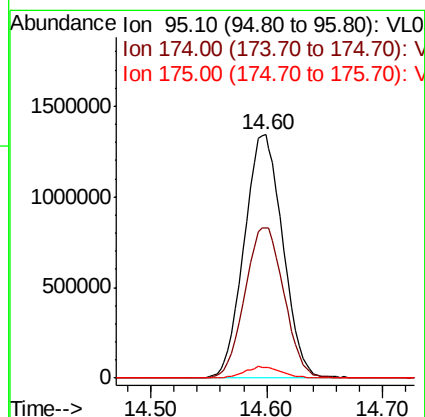
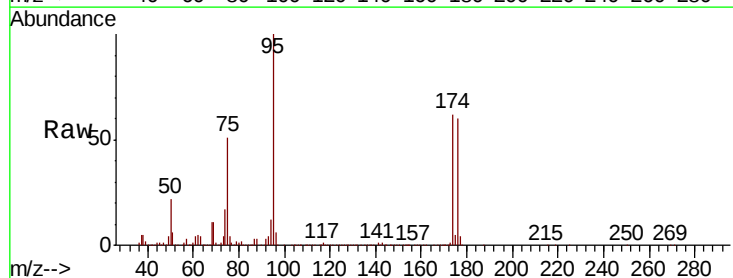
Manual Integrations  
 APPROVED

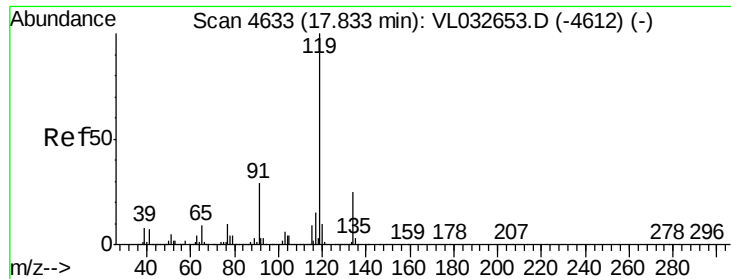
MMDadoda  
 10/24/2018 12:04:55 PM



#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 9.874 ppbv  
 RT: 14.60 min Scan# 3627  
 Delta R.T. 0.01 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Tgt Ion: 95 Resp: 3103935  
 Ion Ratio Lower Upper  
 95 100  
 174 63.1 46.0 69.0  
 175 4.5 3.4 5.0





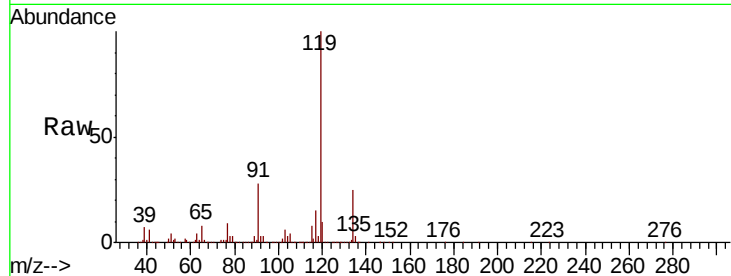
#69  
 p-Isopropyltoluene  
 Concen: 9.604 ppbv  
 RT: 17.84 min Scan# 4634  
 Delta R.T. 0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICVVL101818

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 25.2  | 20.2  | 30.2  |
| 91      | 28.0  | 24.0  | 36.0  |

Manual Integrations  
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 10/24/2018 12:04:55 PM

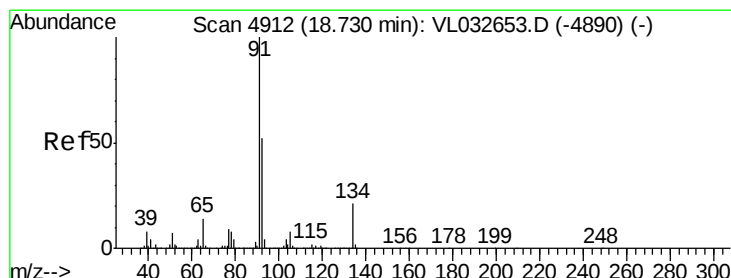
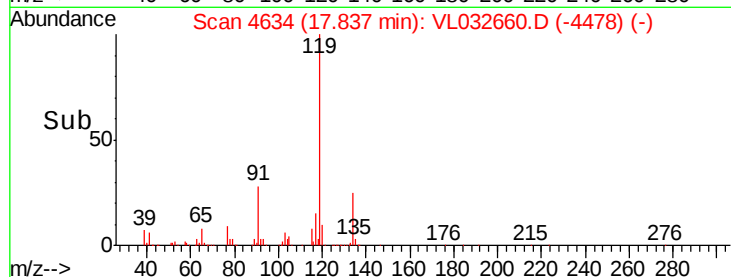
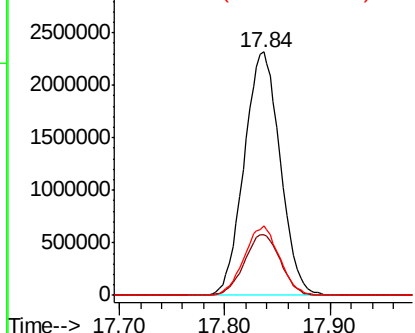


Abundance

Ion 119.10 (118.80 to 119.80): V

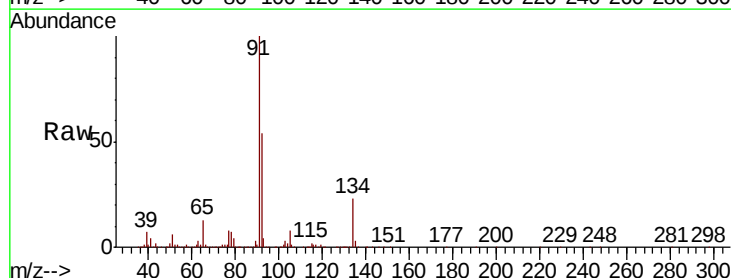
Ion 134.20 (133.90 to 134.90): V

Ion 91.10 (90.80 to 91.80): V



#70  
 n-Butylbenzene  
 Concen: 9.384 ppbv  
 RT: 18.73 min Scan# 4913  
 Delta R.T. 0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 53.9  | 43.0  | 64.4  |
| 134     | 22.5  | 17.0  | 25.6  |

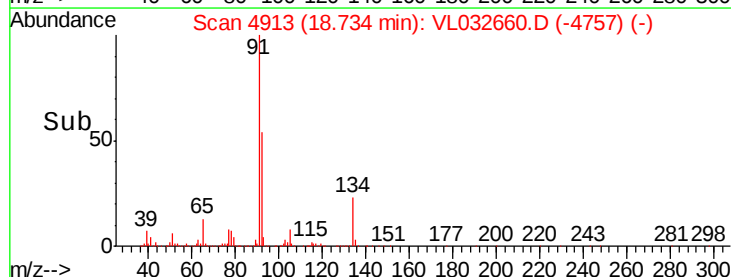
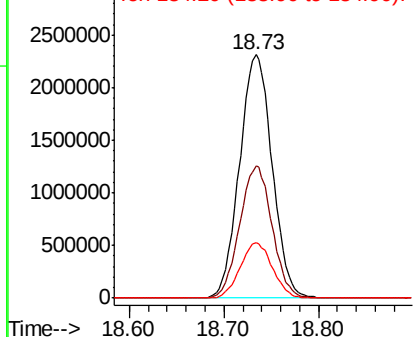


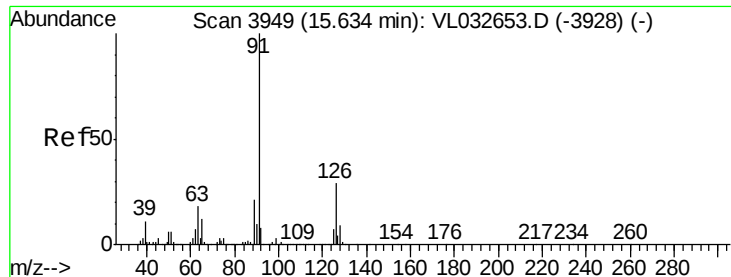
Abundance

Ion 91.10 (90.80 to 91.80): V

Ion 92.10 (91.80 to 92.80): V

Ion 134.20 (133.90 to 134.90): V





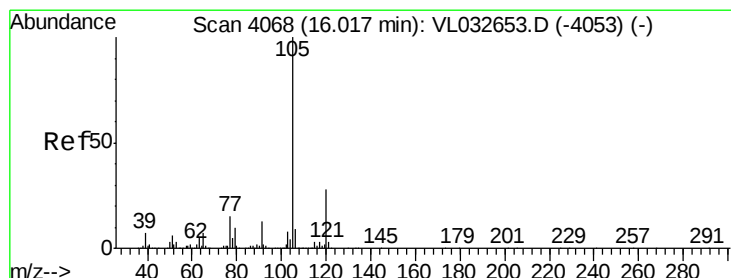
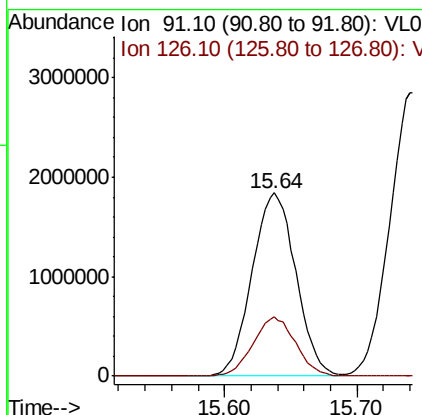
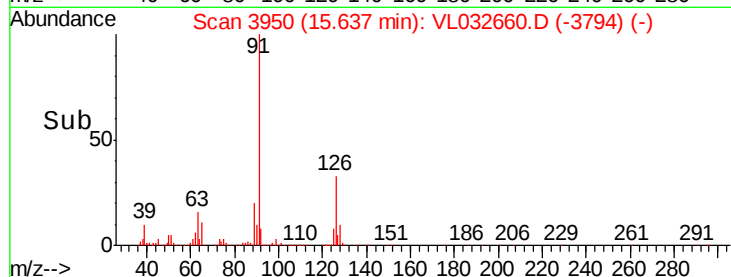
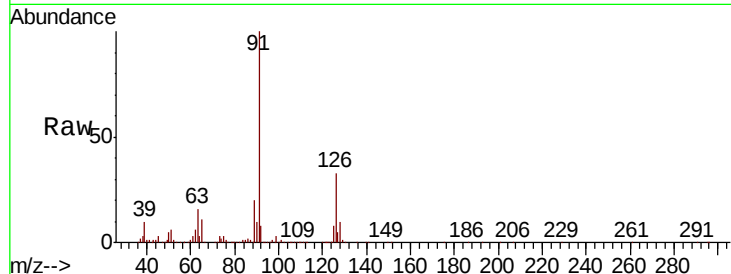
#71  
 2-Chlorotoluene  
 Concen: 9.991 ppbv  
 RT: 15.64 min Scan# 3950  
 Delta R.T. 0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICVVL101818

Tot Ion: 91 Resp: 4233879  
 Ion Ratio Lower Upper  
 91 100  
 126 31.3 11.8 47.4

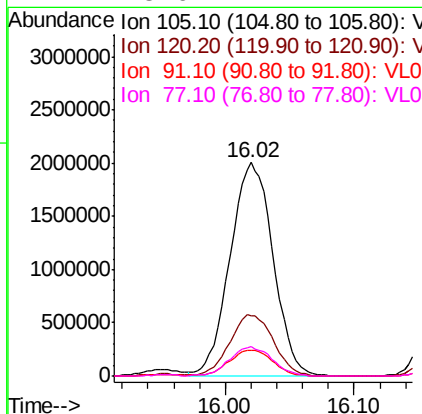
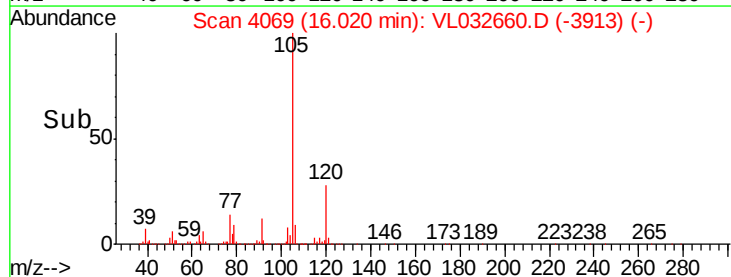
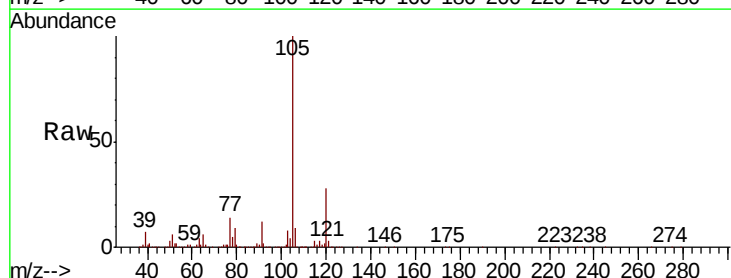
Manual Integrations  
 APPROVED

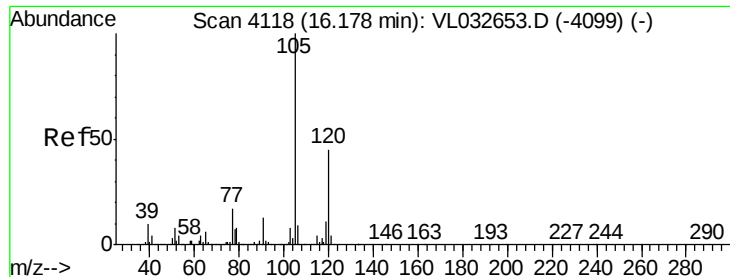
MMDadoda  
 10/24/2018 12:04:55 PM



#72  
 4-Ethyltoluene  
 Concen: 10.320 ppbv  
 RT: 16.02 min Scan# 4069  
 Delta R.T. 0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Tgt Ion: 105 Resp: 4630855  
 Ion Ratio Lower Upper  
 105 100  
 120 29.0 23.7 35.5  
 91 12.4 10.4 15.6  
 77 13.6 11.4 17.2





#73

1,3,5-Trimethylbenzene

Concen: 9.834 ppbv

RT: 16.18 min Scan# 4119

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion:105 Resp: 4298163

Ion Ratio Lower Upper

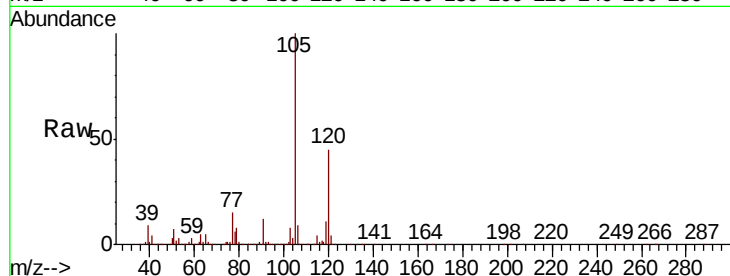
105 100

120 44.8 35.4 53.2

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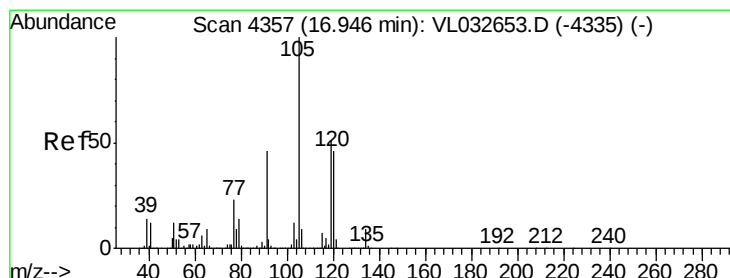
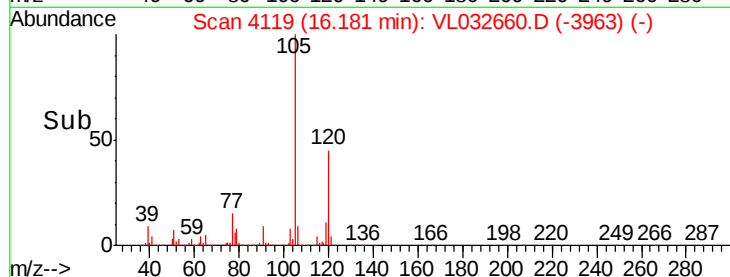
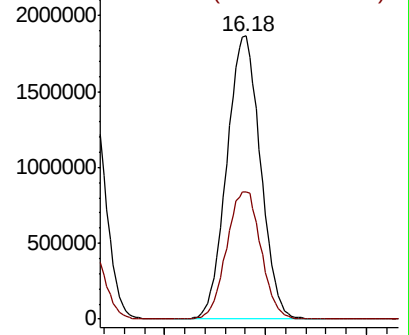
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10/24/2018 12:04:55 PM



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 9.201 ppbv

RT: 16.95 min Scan# 4357

Delta R.T. -0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Tgt Ion:105 Resp: 4294790

Ion Ratio Lower Upper

105 100

120 47.6 35.8 53.8

91 48.8 33.2 49.8

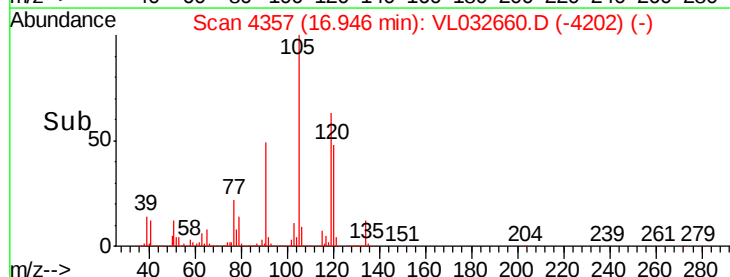
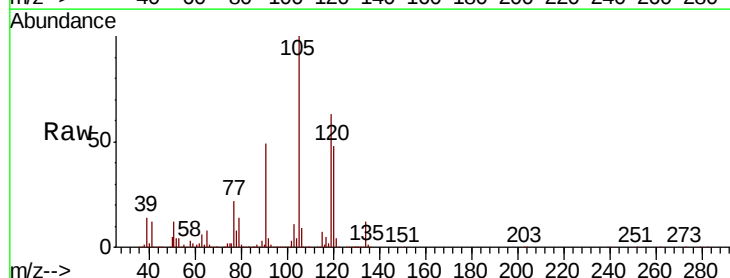
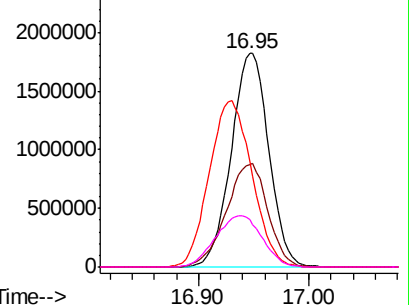
77 22.0 16.2 24.4

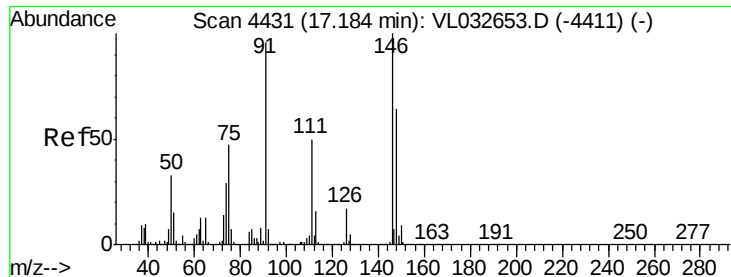
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





#75

1,3-Dichlorobenzene

Concen: 8.936 ppbv

RT: 17.19 min Scan# 4432

Delta R.T. 0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

Instrument :

MSVOA\_L

ClientSampleId :

ICVVL101818

Tot Ion:146 Resp: 2398352

Ion Ratio Lower Upper

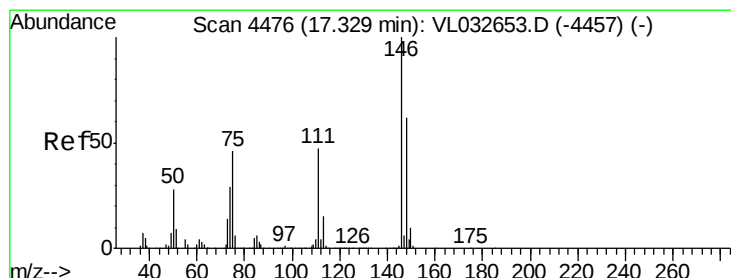
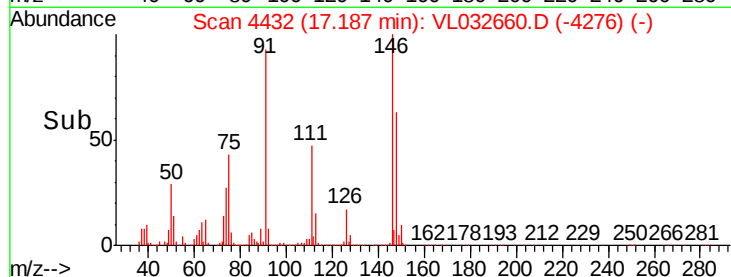
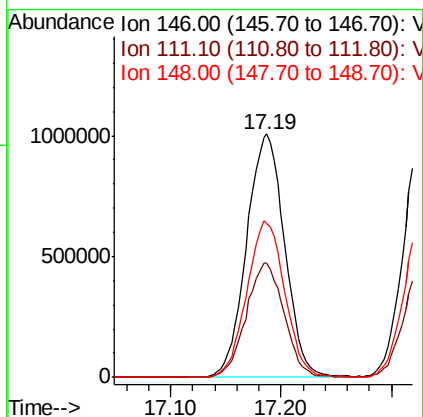
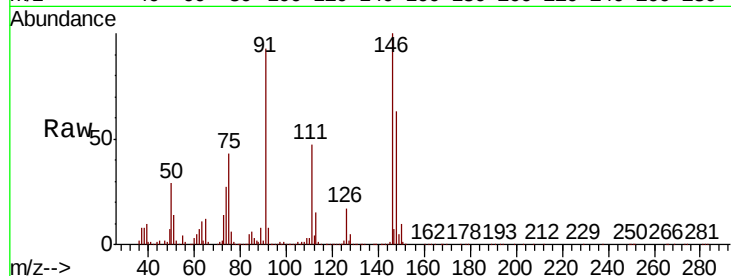
146 100

111 46.9 24.4 73.2

148 64.4 31.9 95.9

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#76

1,4-Dichlorobenzene

Concen: 9.586 ppbv

RT: 17.33 min Scan# 4476

Delta R.T. -0.00 min

Lab File: VL032660.D

Acq: 18 Oct 2018 22:09

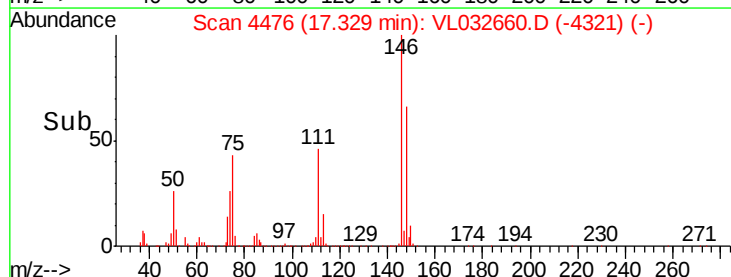
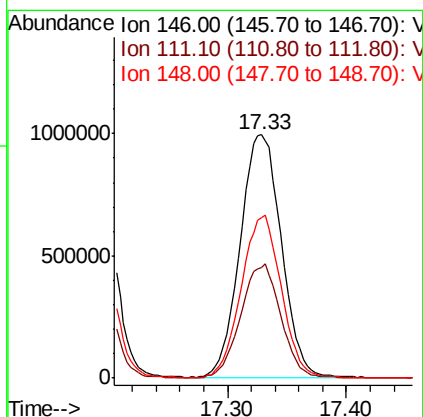
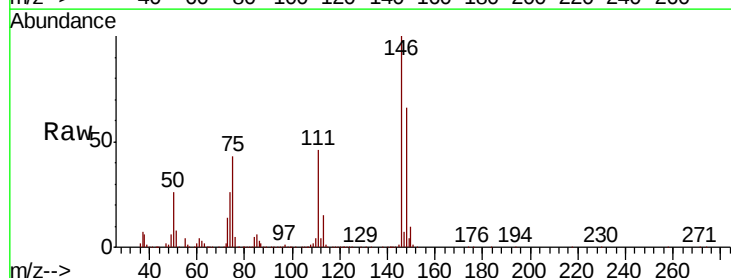
Tgt Ion:146 Resp: 2374374

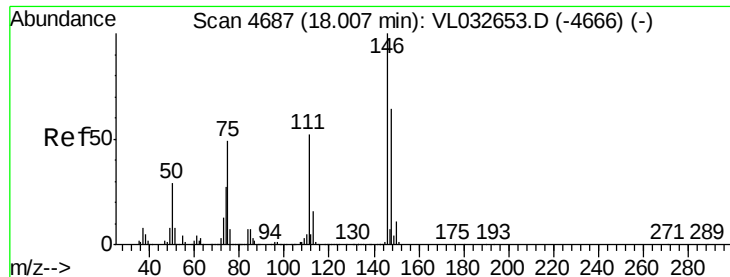
Ion Ratio Lower Upper

146 100

111 45.7 23.7 71.1

148 65.5 32.1 96.3





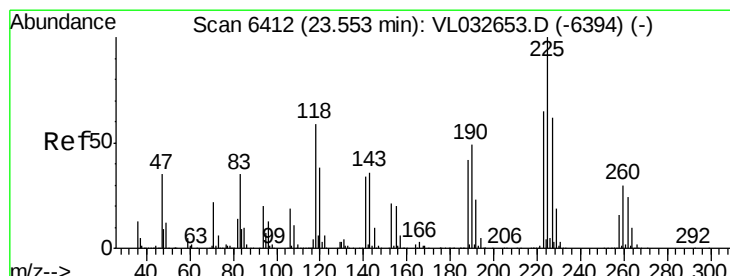
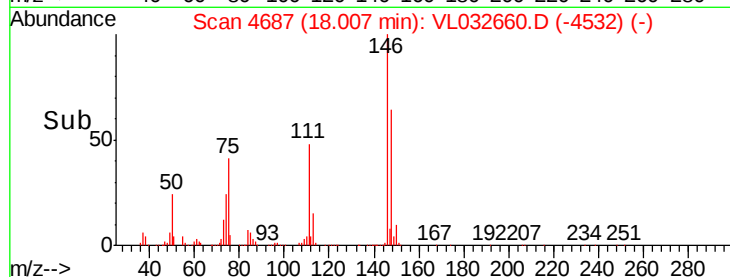
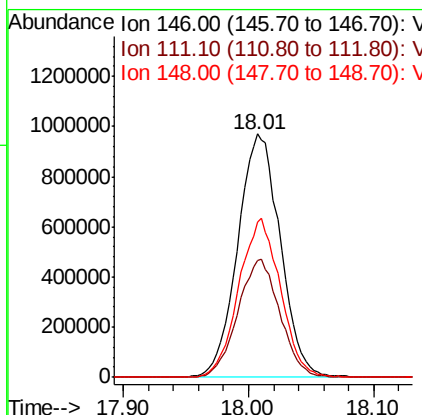
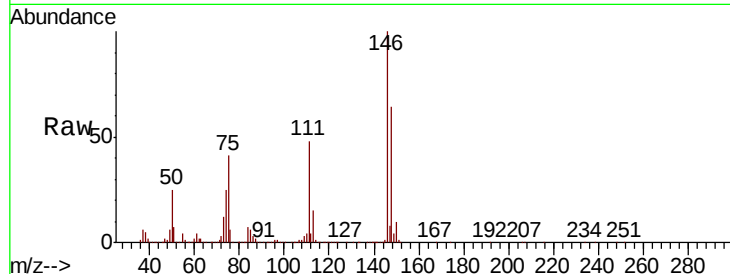
#77  
 1,2-Dichlorobenzene  
 Concen: 8.960 ppbv  
 RT: 18.01 min Scan# 4687  
 Delta R.T. -0.00 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICVVL101818

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 48.1  | 25.3  | 75.8  |
| 148     | 64.5  | 31.9  | 95.9  |

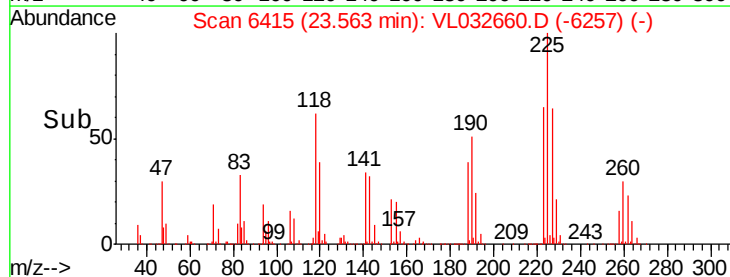
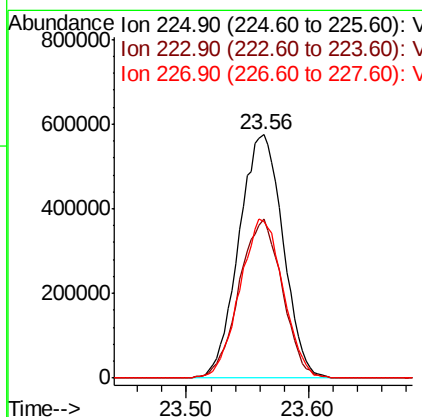
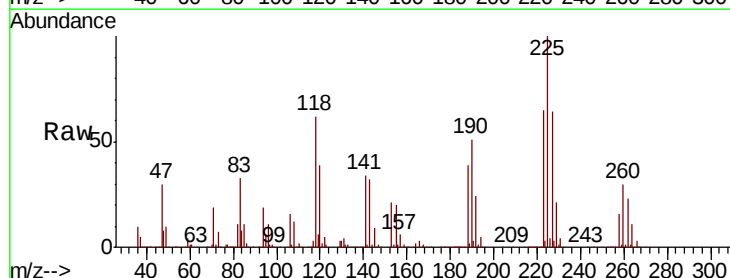
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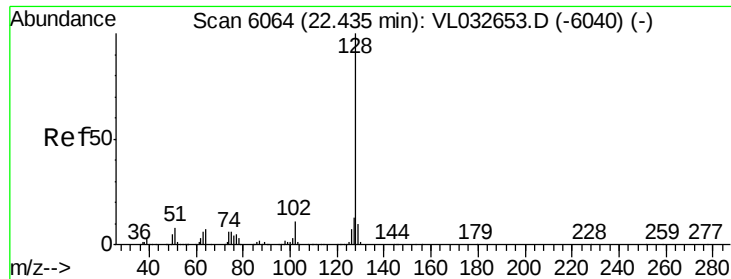
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#78  
 Hexachloro-1,3-Butadiene  
 Concen: 11.995 ppbv  
 RT: 23.56 min Scan# 6415  
 Delta R.T. 0.01 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 63.6  | 50.7  | 76.1  |
| 227     | 63.9  | 50.7  | 76.1  |





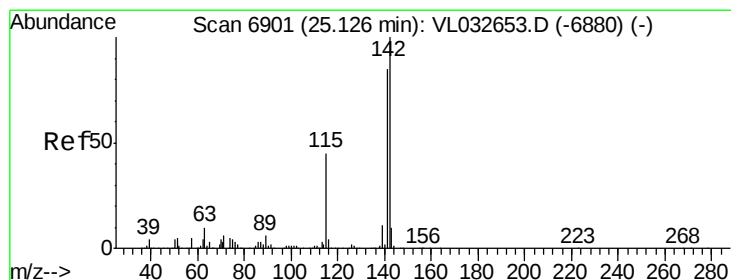
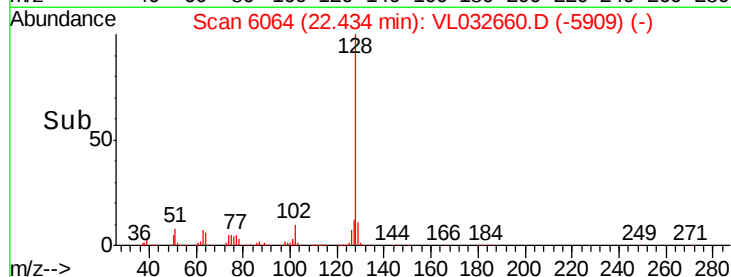
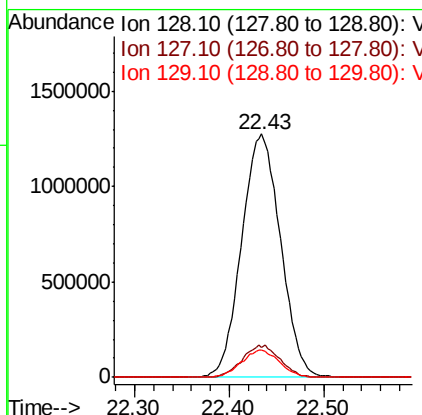
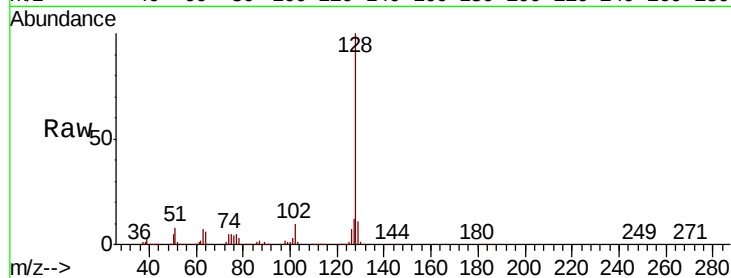
#79  
Naphthalene  
Concen: 12.525 ppbv  
RT: 22.43 min Scan# 6064  
Delta R.T. -0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Instrument :  
MSVOA\_L  
ClientSampleId :  
ICVVL101818

Tot Ion:128 Resp: 3633686  
Ion Ratio Lower Upper  
128 100  
127 12.4 10.3 15.5  
129 11.2 8.6 13.0

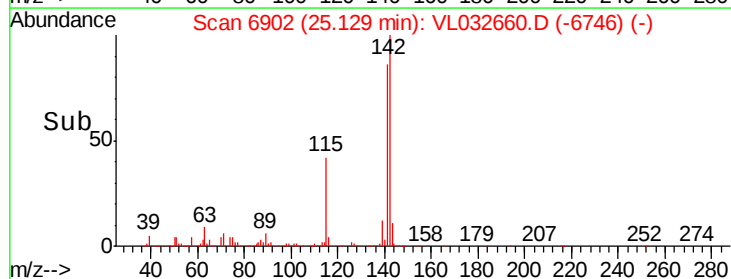
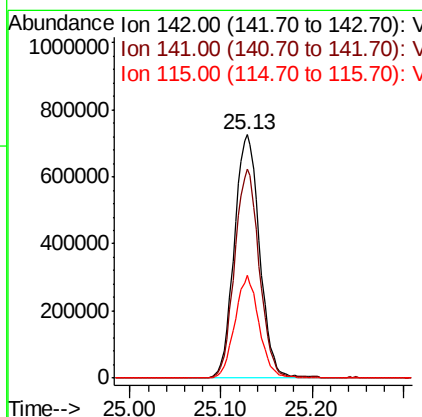
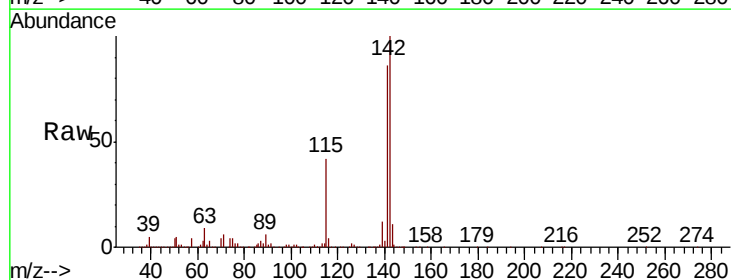
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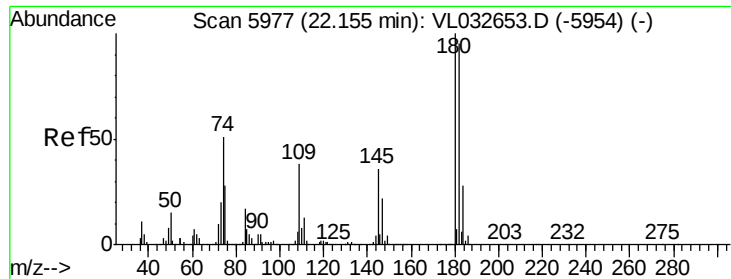
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#80  
Naphthalene, 2-methyl-  
Concen: 19.845 ppbv  
RT: 25.13 min Scan# 6902  
Delta R.T. 0.00 min  
Lab File: VL032660.D  
Acq: 18 Oct 2018 22:09

Tgt Ion:142 Resp: 1400019  
Ion Ratio Lower Upper  
142 100  
141 84.3 67.5 101.3  
115 40.4 33.5 50.3





#81  
 1,2,4-Trichlorobenzene  
 Concen: 11.338 ppbv m  
 RT: 22.16 min Scan# 5979  
 Delta R.T. 0.01 min  
 Lab File: VL032660.D  
 Acq: 18 Oct 2018 22:09

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 ICVVL101818

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 180     | 100   |       |        |
| 182     | 0.0   | 76.5  | 114.7# |
| 184     | 29.7  | 24.7  | 37.1   |

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