

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL103018\  
 Data File : VL032710.D  
 Acq On : 31 Oct 2018 9:50  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VSTDCCC010EC

Manual Integrations  
 APPROVED

MMDadoda  
 10/31/2018 10:40:10 AM

Quant Time: Oct 31 10:20:46 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct 26 10:20:46 2018  
 QLast Update : Thu Oct 25 05:15:43 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1406629  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.31  | 114  | 3625636  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 3720963m | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.59  | 95    | 2772528  | 10.01    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.10% |

| Target Compounds               | R.T. | QIon | Response | Conc   | Units  | Ovalue |
|--------------------------------|------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.08 | 85   | 994632   | 6.940  | ppbv   | 99     |
| 3) Chlorodifluoromethane       | 3.02 | 51   | 1158414  | 10.531 | ppbv   | 98     |
| 4) Chloromethane               | 3.18 | 50   | 673863   | 10.962 | ppbv   | 98     |
| 5) Vinyl Chloride              | 3.30 | 62   | 675765   | 10.149 | ppbv   | 98     |
| 6) Bromomethane                | 3.52 | 94   | 406196   | 9.784  | ppbv   | 95     |
| 7) Chloroethane                | 3.61 | 64   | 242745   | 9.900  | ppbv   | 98     |
| 8) Dichlorotetrafluoroethane   | 3.23 | 85   | 1515043  | 10.030 | ppbv   | 90     |
| 9) Propene                     | 3.04 | 41   | 548526   | 12.117 | ppbv   | 99     |
| 10) Heptane                    | 8.25 | 43   | 1999254  | 11.460 | ppbv   | 98     |
| 11) Trichlorofluoromethane     | 4.01 | 101  | 1562841  | 8.349  | ppbv   | 98     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.56 | 101  | 1118786  | 7.187  | ppbv   | 89     |
| 13) Ethanol                    | 3.65 | 45   | 138234   | 10.684 | ppbv   | 95     |
| 14) Bromoethene                | 3.80 | 108  | 516126   | 9.810  | ppbv   | 99     |
| 15) Acetone                    | 3.91 | 43   | 1112291  | 8.563  | ppbv   | 99     |
| 16) 1,3-Butadiene              | 3.37 | 39   | 552193   | 11.556 | ppbv   | 82     |
| 17) tert-Butyl alcohol         | 4.36 | 59   | 388245   | 10.163 | ppbv # | 100    |
| 18) 1,1-Dichloroethene         | 4.36 | 96   | 541973   | 7.925  | ppbv   | 99     |
| 19) Isopropyl Alcohol          | 4.03 | 45   | 926873   | 10.020 | ppbv # | 96     |
| 20) Methylene Chloride         | 4.42 | 84   | 460281   | 6.981  | ppbv   | 92     |
| 21) Allyl Chloride             | 4.49 | 41   | 898583   | 8.426  | ppbv   | 99     |
| 22) trans-1,2-Dichloroethene   | 4.97 | 96   | 634817   | 9.049  | ppbv   | 89     |
| 23) Vinyl Acetate              | 5.17 | 43   | 2716973  | 11.804 | ppbv   | 99     |
| 24) 1,1-Dichloroethane         | 5.10 | 63   | 1884019  | 10.427 | ppbv   | 98     |
| 25) Ethyl Acetate              | 5.78 | 43   | 3153824  | 10.549 | ppbv   | 99     |
| 26) Hexane                     | 5.79 | 57   | 1452537  | 10.268 | ppbv   | 98     |
| 27) Carbon Disulfide           | 4.63 | 76   | 1479040  | 8.619  | ppbv   | 98     |
| 28) Methyl tert-Butyl Ether    | 5.12 | 73   | 2435804  | 11.981 | ppbv   | 99     |
| 29) Chloroform                 | 5.86 | 83   | 2279161  | 10.086 | ppbv   | 98     |
| 30) Cyclohexane                | 7.26 | 84   | 1321138  | 11.799 | ppbv   | 97     |
| 31) cis-1,2-Dichloroethene     | 5.65 | 61   | 1514137  | 11.543 | ppbv   | 98     |
| 32) 1,1,1-Trichloroethane      | 6.63 | 97   | 2440023  | 10.626 | ppbv   | 98     |
| 34) 2-Butanone                 | 5.34 | 43   | 2158203  | 11.104 | ppbv   | 100    |
| 35) Carbon Tetrachloride       | 7.15 | 117  | 2533794  | 9.847  | ppbv   | 98     |
| 36) Benzene                    | 7.02 | 78   | 3130229  | 10.632 | ppbv   | 99     |
| 37) 1,2-Dichloroethane         | 6.42 | 62   | 1822311  | 10.091 | ppbv   | 98     |
| 38) Trichloroethene            | 7.97 | 130  | 1239715  | 11.375 | ppbv   | 98     |
| 39) 1,2-Dichloropropane        | 7.75 | 63   | 1225881  | 10.782 | ppbv   | 98     |
| 40) 1,4-Dioxane                | 7.97 | 88   | 405991   | 10.456 | ppbv # | 98     |
| 41) Tetrahydrofuran            | 6.16 | 42   | 1207051  | 11.145 | ppbv   | 99     |
| 42) Bromodichloromethane       | 7.93 | 83   | 2600644  | 10.279 | ppbv   | 99     |
| 43) Methyl Methacrylate        | 8.15 | 69   | 1282207  | 11.883 | ppbv   | 96     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL103018\  
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 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

Manual Integrations  
 APPROVED

MMDadoda  
 10/31/2018 10:40:10 AM

Quant Time: Oct 31 10:20:46 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct 2  
 QLast Update : Thu Oct 25 05:15:43 2018  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 8.00  | 57   | 5274796  | 10.495 | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.43  | 75   | 1876568  | 12.992 | ppbv   | 97       |
| 46) cis-1,3-Dichloropropene   | 8.85  | 75   | 1954441  | 11.843 | ppbv   | 99       |
| 47) 1,1,2-Trichloroethane     | 9.63  | 97   | 1414455  | 10.529 | ppbv   | 97       |
| 48) Dibromochloromethane      | 10.47 | 129  | 2490432  | 11.122 | ppbv   | 100      |
| 49) Bromoform                 | 13.22 | 173  | 1894874  | 10.769 | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.88  | 43   | 3009030  | 10.450 | ppbv   | 99       |
| 51) 2-Hexanone                | 10.28 | 43   | 2582867  | 12.067 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.39 | 164  | 1133868  | 11.046 | ppbv   | 97       |
| 53) Toluene                   | 9.96  | 91   | 3967891  | 11.757 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.77 | 107  | 1981627  | 10.853 | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.30 | 131  | 1610013  | 9.895  | ppbv   | 99       |
| 57) Chlorobenzene             | 12.32 | 112  | 2768982  | 10.119 | ppbv   | 94       |
| 58) Ethyl Benzene             | 12.88 | 91   | 4897239  | 11.329 | ppbv   | 98       |
| 59) m/p-Xylene                | 13.14 | 91   | 8086650m | 21.007 | ppbv   |          |
| 60) o-Xylene                  | 13.87 | 91   | 3866307  | 10.412 | ppbv   | 99       |
| 61) Styrene                   | 13.70 | 104  | 3023084  | 12.142 | ppbv   | 97       |
| 62) Isopropylbenzene          | 14.84 | 105  | 5529727  | 10.522 | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.85 | 83   | 2592498  | 8.911  | ppbv   | 100      |
| 64) n-propylbenzene           | 15.74 | 120  | 1416757  | 10.848 | ppbv   | 91       |
| 65) tert-Butylbenzene         | 16.93 | 119  | 4650431  | 10.390 | ppbv   | 95       |
| 66) Benzyl Chloride           | 17.17 | 91   | 2714209  | 11.745 | ppbv   | 98       |
| 67) sec-Butylbenzene          | 17.47 | 105  | 6525017  | 10.251 | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.83 | 119  | 5308566  | 10.524 | ppbv   | 98       |
| 70) n-Butylbenzene            | 18.73 | 91   | 5681112  | 10.940 | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.63 | 91   | 4054484  | 10.856 | ppbv   | 97       |
| 72) 4-Ethyltoluene            | 16.02 | 105  | 4460404  | 11.278 | ppbv   | 100      |
| 73) 1,3,5-Trimethylbenzene    | 16.17 | 105  | 4154263  | 10.784 | ppbv   | 98       |
| 74) 1,2,4-Trimethylbenzene    | 16.94 | 105  | 4189985  | 10.185 | ppbv   | 96       |
| 75) 1,3-Dichlorobenzene       | 17.18 | 146  | 2337532  | 9.882  | ppbv   | 98       |
| 76) 1,4-Dichlorobenzene       | 17.32 | 146  | 2328478  | 10.667 | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 18.00 | 146  | 2209525  | 9.859  | ppbv   | 98       |
| 78) Hexachloro-1,3-Butadiene  | 23.56 | 225  | 1382785  | 13.059 | ppbv   | 98       |
| 79) Naphthalene               | 22.43 | 128  | 3526251  | 13.791 | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.13 | 142  | 1466299  | 23.583 | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.15 | 180  | 1712864  | 12.935 | ppbv   | 99       |

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

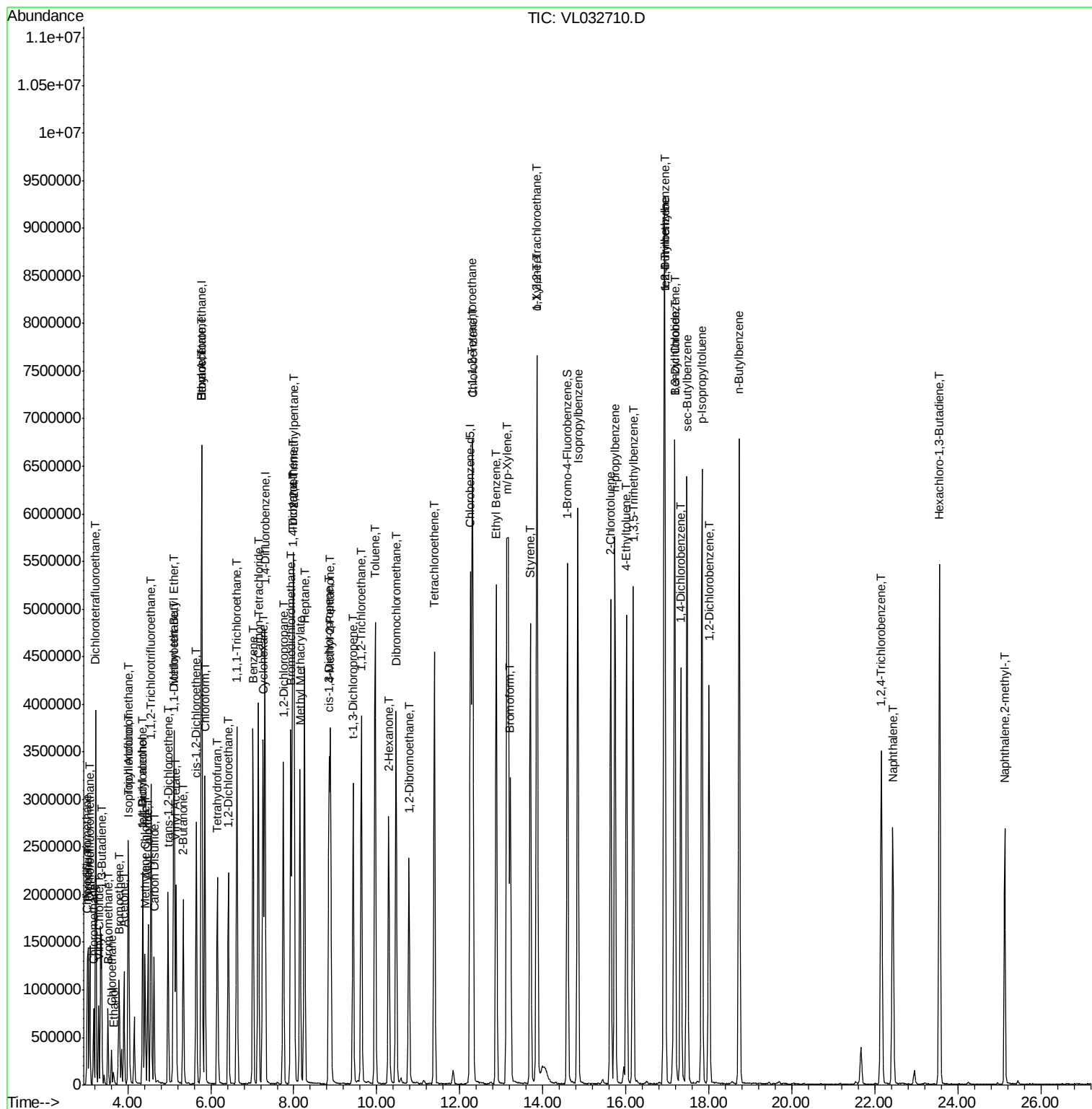
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL103018\  
Data File : VL032710.D  
Acq On : 31 Oct 2018 9:50  
Operator : SY/AP  
Sample : VSTDCCC010  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

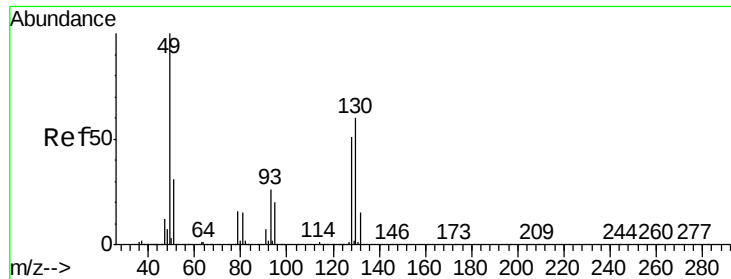
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

Manual Integrations  
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MMDadoda  
10/31/2018 10:40:10 AM

Quant Time: Oct 31 10:20:46 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct  
QLast Update : Thu Oct 25 05:15:43 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 881

Delta R.T. -0.01 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 49 Resp: 1406629

Ion Ratio Lower Upper

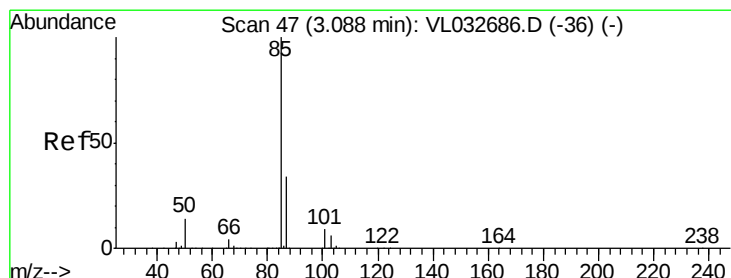
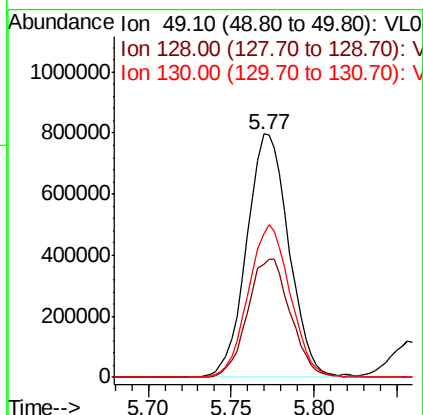
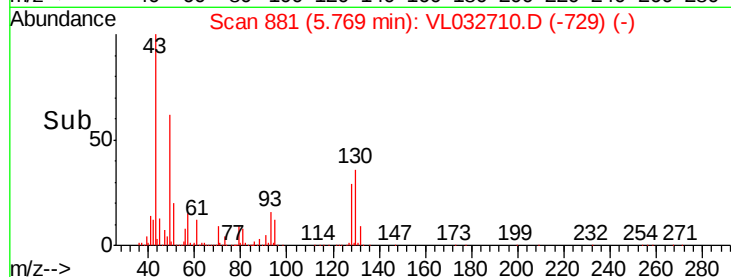
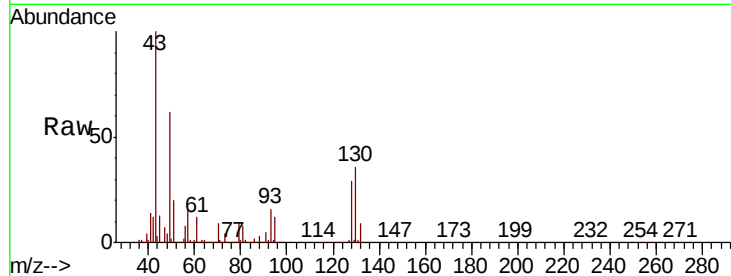
49 100

128 49.8 22.3 66.8

130 63.0 28.4 85.3

Manual Integrations  
APPROVED

MMDadoda  
10/31/2018 10:40:10 AM



#2

Dichlorodifluoromethane

Concen: 6.940 ppbv

RT: 3.08 min Scan# 46

Delta R.T. -0.00 min

Lab File: VL032710.D

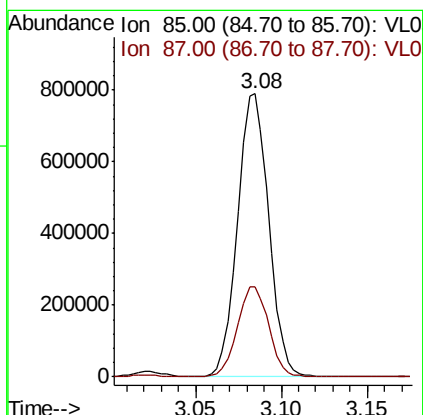
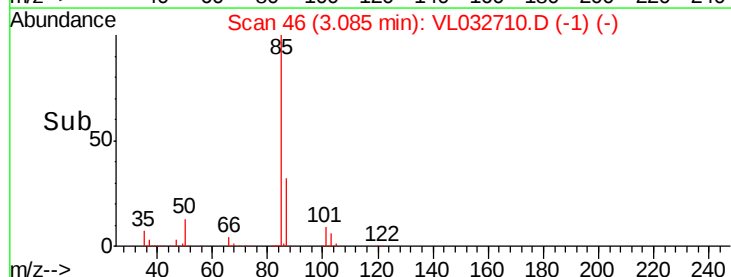
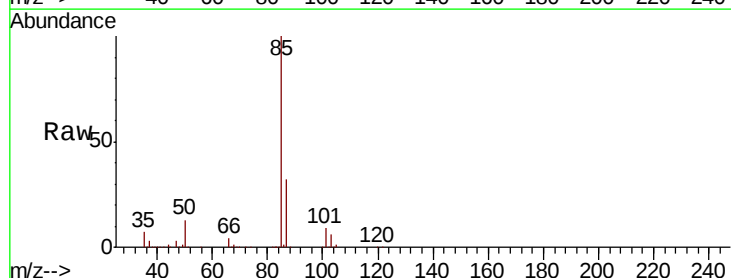
Acq: 31 Oct 2018 9:50

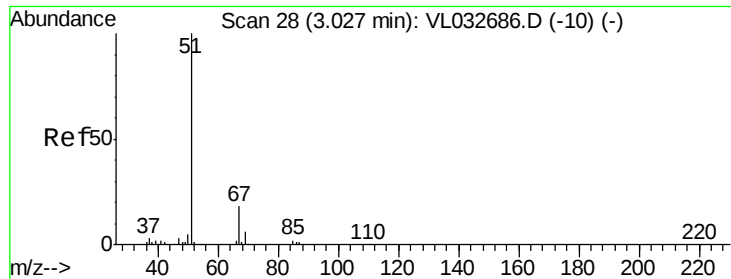
Tgt Ion: 85 Resp: 994632

Ion Ratio Lower Upper

85 100

87 31.9 26.2 39.2





#3

Chlorodifluoromethane

Concen: 10.531 ppbv

RT: 3.02 min Scan# 26

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 51 Resp: 1158414

Ion Ratio Lower Upper

51 100

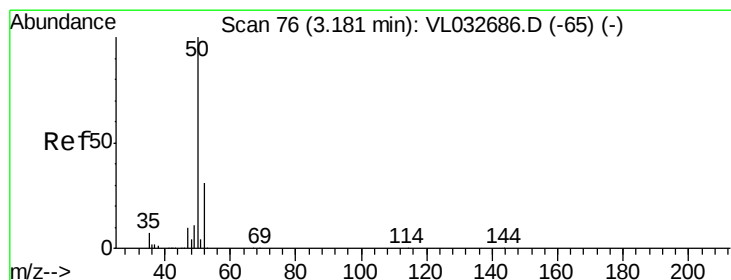
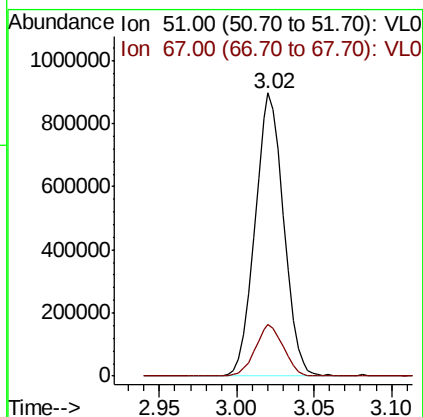
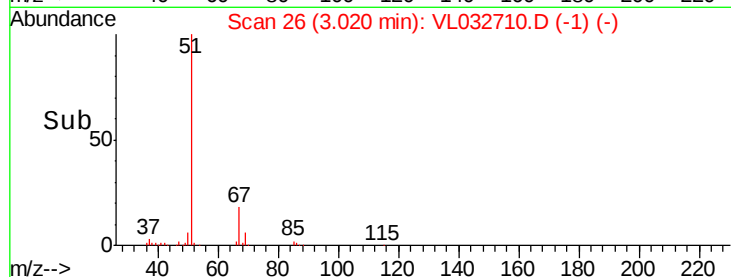
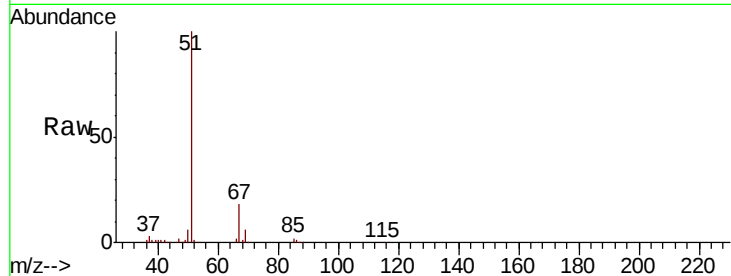
67 18.2 15.2 22.8

Manual Integrations

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#4

Chloromethane

Concen: 10.962 ppbv

RT: 3.18 min Scan# 75

Delta R.T. -0.00 min

Lab File: VL032710.D

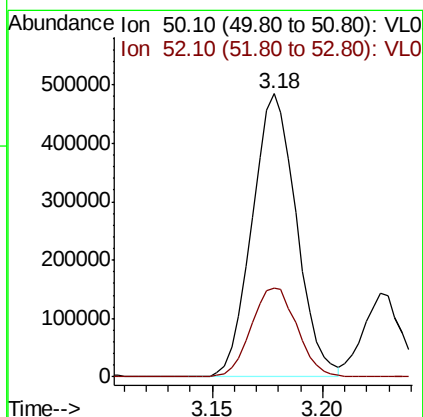
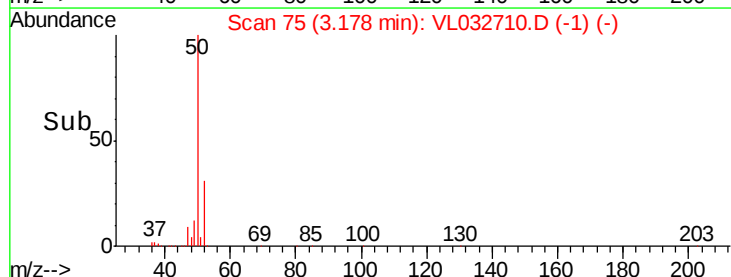
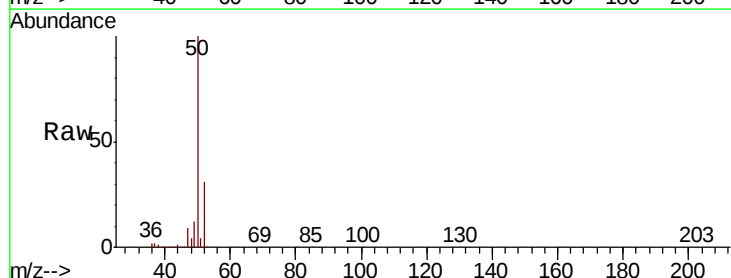
Acq: 31 Oct 2018 9:50

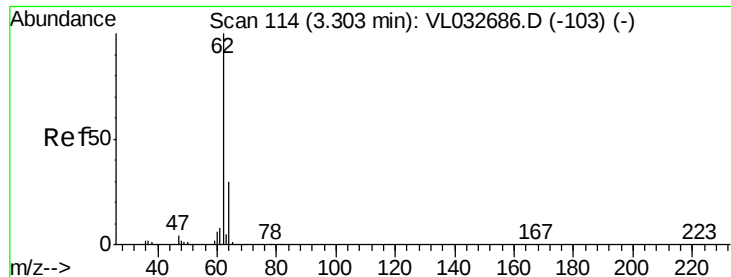
Tgt Ion: 50 Resp: 673863

Ion Ratio Lower Upper

50 100

52 31.2 25.9 38.9





#5

Vinyl Chloride

Concen: 10.149 ppbv

RT: 3.30 min Scan# 113

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 62 Resp: 675765

Ion Ratio Lower Upper

62 100

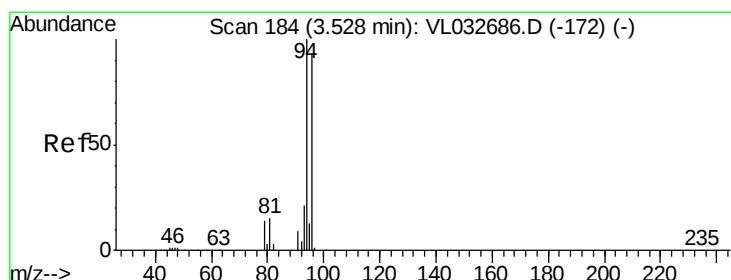
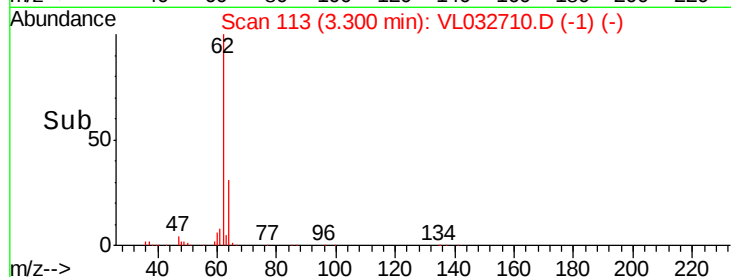
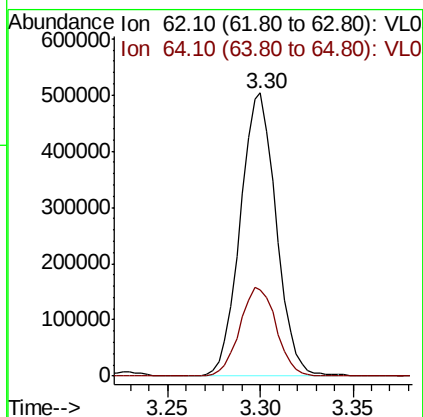
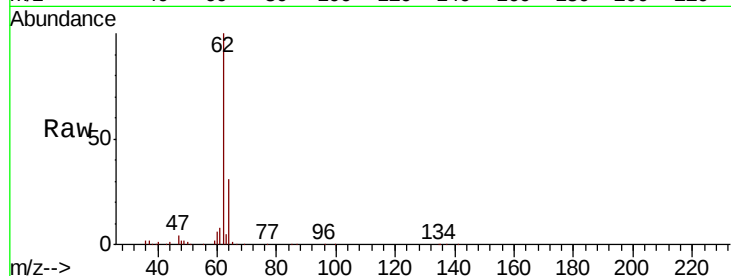
64 30.6 25.5 38.3

Manual Integrations

APPROVED

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10/31/2018 10:40:10 AM



#6

Bromomethane

Concen: 9.784 ppbv

RT: 3.52 min Scan# 182

Delta R.T. -0.00 min

Lab File: VL032710.D

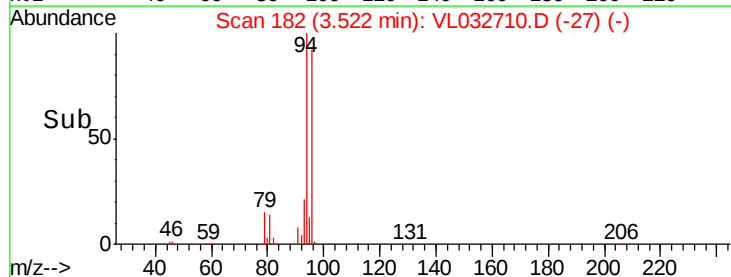
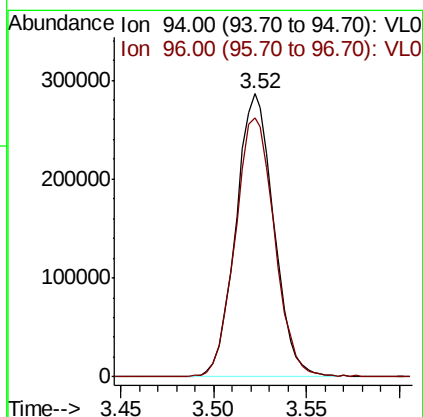
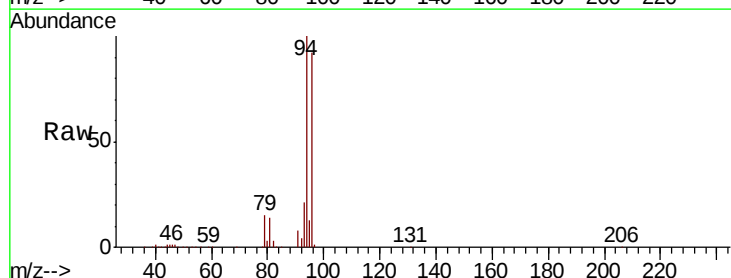
Acq: 31 Oct 2018 9:50

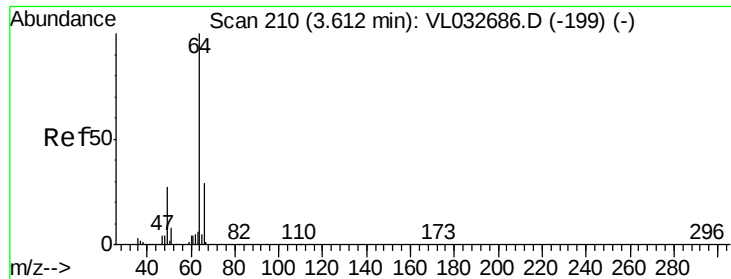
Tgt Ion: 94 Resp: 406196

Ion Ratio Lower Upper

94 100

96 91.5 69.8 104.8





#7

Chloroethane

Concen: 9.900 ppbv

RT: 3.61 min Scan# 209

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 64 Resp: 242745

Ion Ratio Lower Upper

64 100

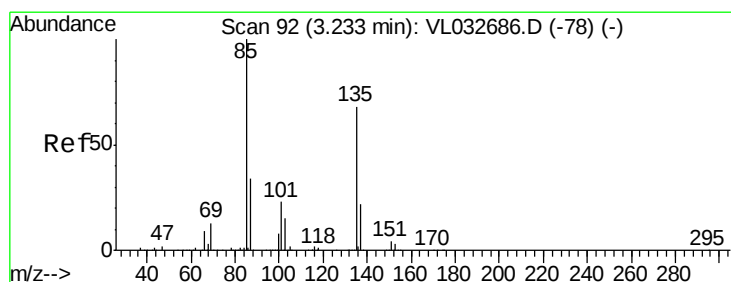
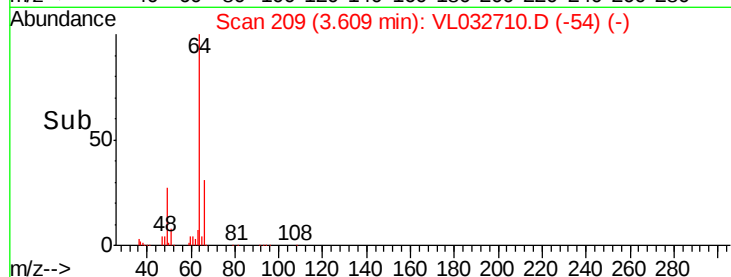
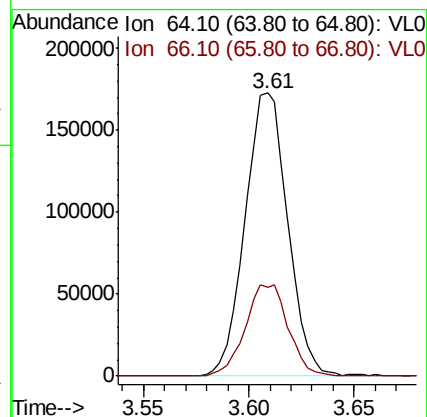
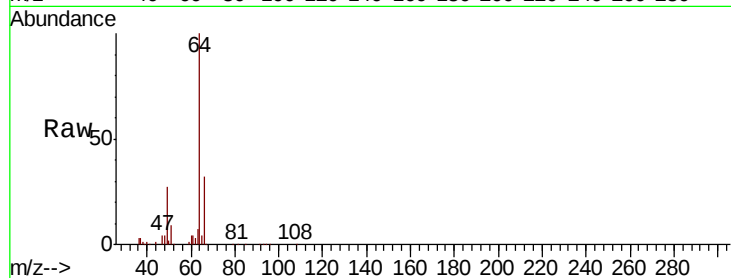
66 31.5 24.4 36.6

Manual Integrations

APPROVED

MMDadoda

10/31/2018 10:40:10 AM



#8

Dichlorotetrafluoroethane

Concen: 10.030 ppbv

RT: 3.23 min Scan# 90

Delta R.T. -0.00 min

Lab File: VL032710.D

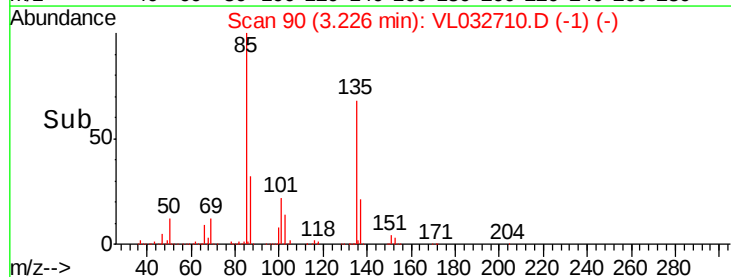
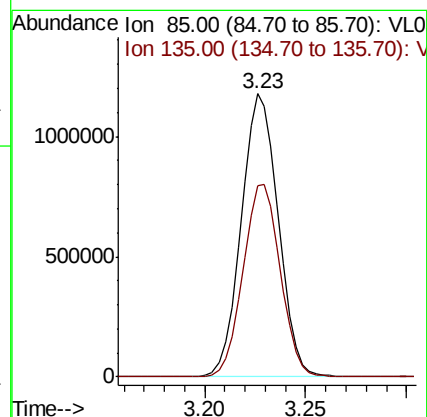
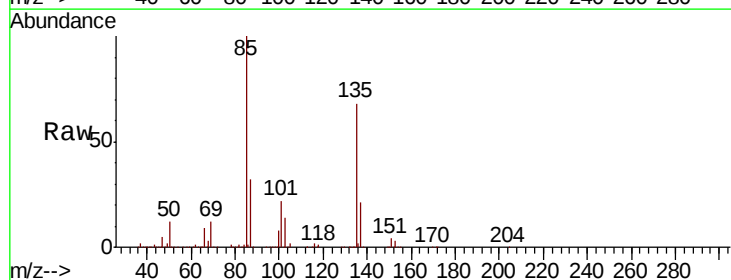
Acq: 31 Oct 2018 9:50

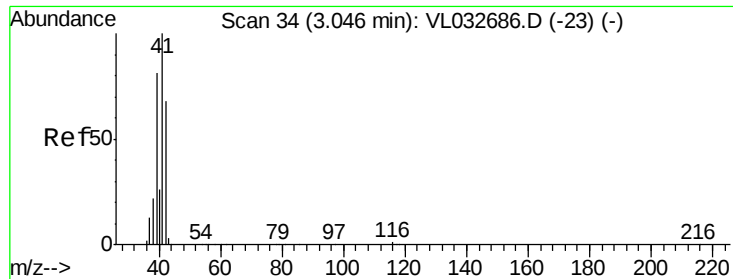
Tgt Ion: 85 Resp: 1515043

Ion Ratio Lower Upper

85 100

135 68.7 49.0 73.4





#9

Propene

Concen: 12.117 ppbv

RT: 3.04 min Scan# 33

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 41 Resp: 548526

Ion Ratio Lower Upper

41 100

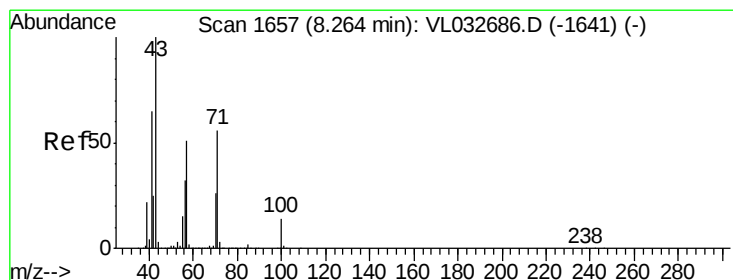
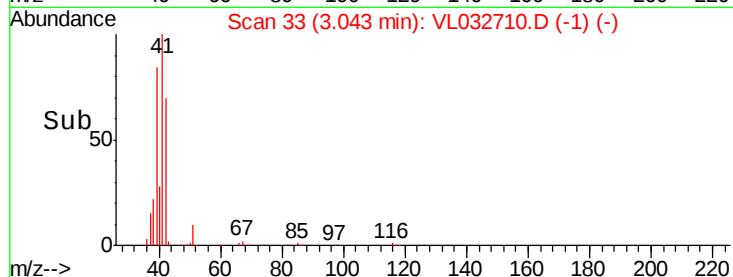
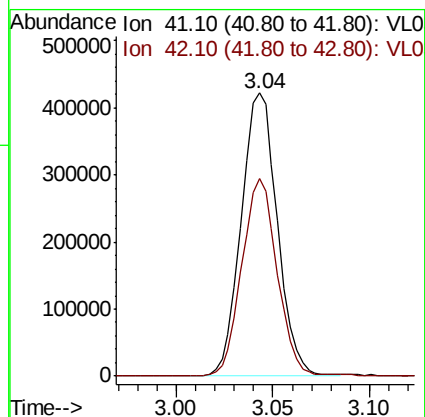
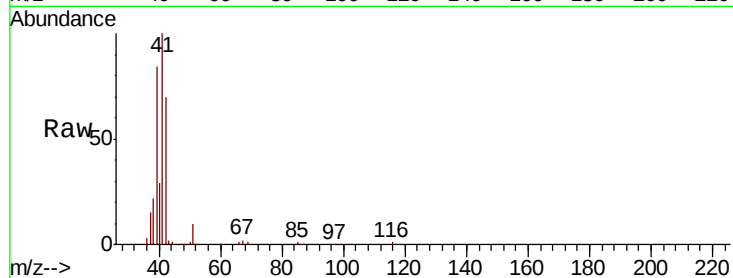
42 68.6 55.4 83.0

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#10

Heptane

Concen: 11.460 ppbv

RT: 8.25 min Scan# 1654

Delta R.T. -0.01 min

Lab File: VL032710.D

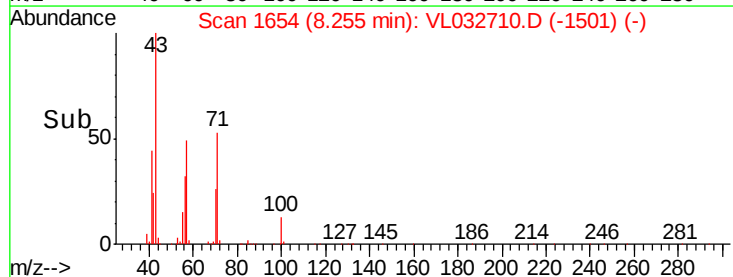
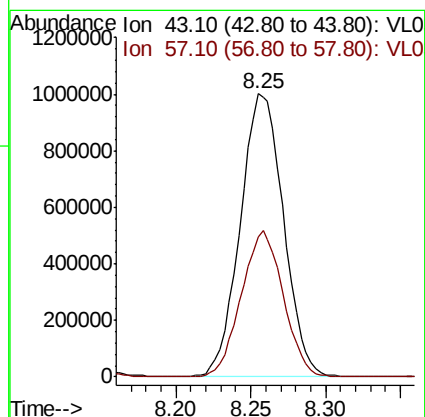
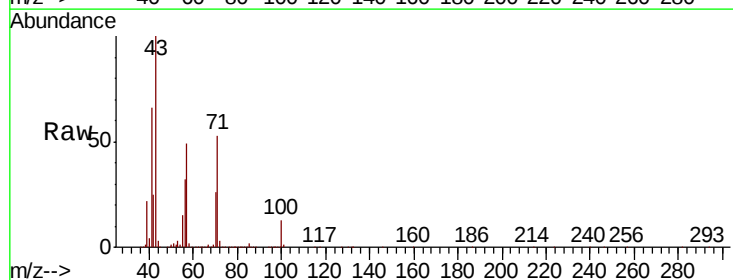
Acq: 31 Oct 2018 9:50

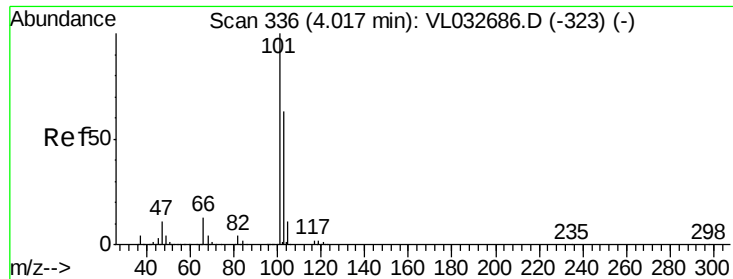
Tgt Ion: 43 Resp: 1999254

Ion Ratio Lower Upper

43 100

57 50.6 41.5 62.3





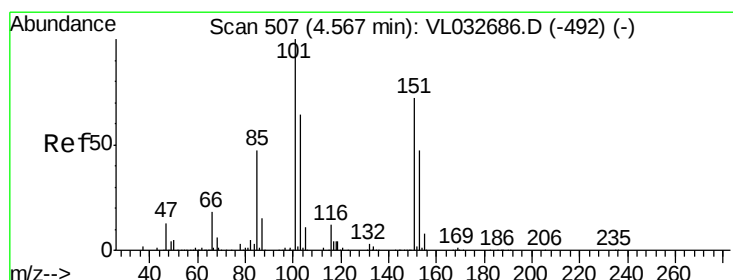
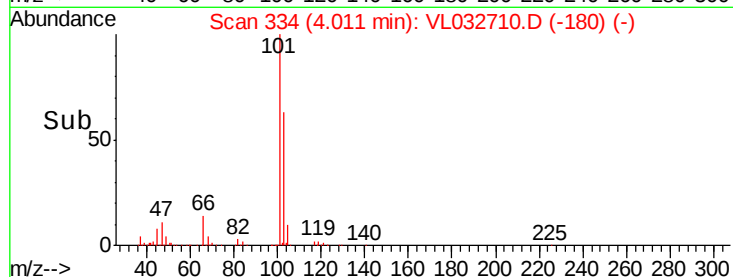
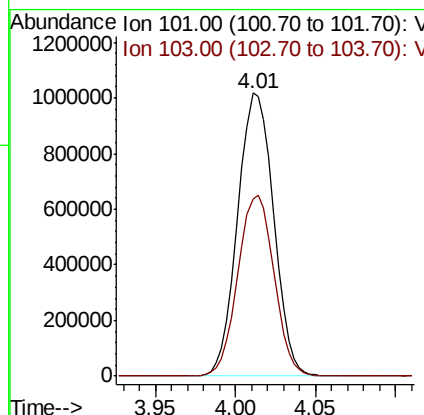
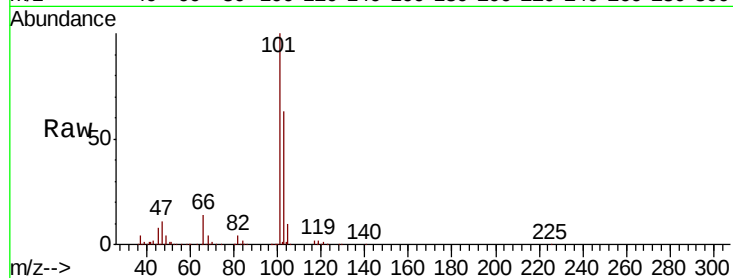
#11  
 Trichlorofluoromethane  
 Concen: 8.349 ppbv  
 RT: 4.01 min Scan# 334  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

Tot Ion:101 Resp: 1562841  
 Ion Ratio Lower Upper  
 101 100  
 103 62.6 51.4 77.2

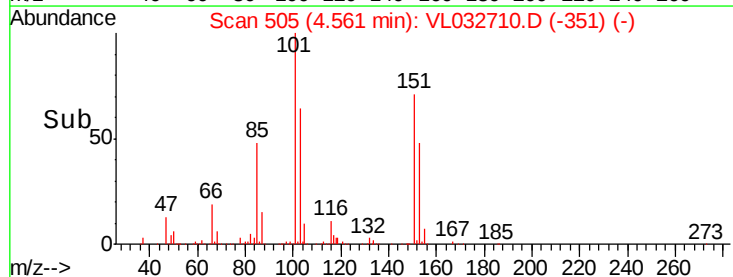
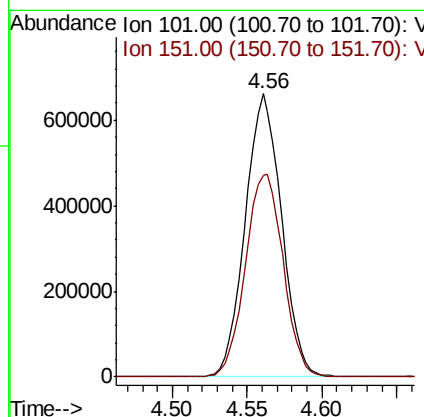
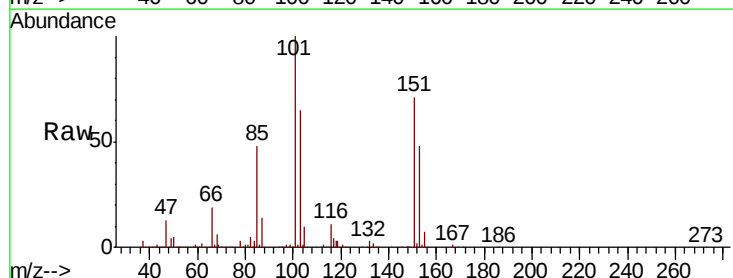
Manual Integrations  
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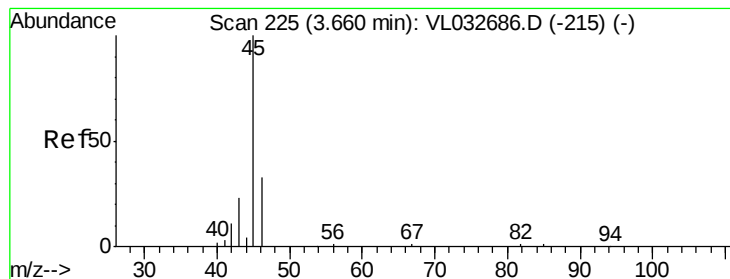
MMDadoda  
 10/31/2018 10:40:10 AM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 7.187 ppbv  
 RT: 4.56 min Scan# 505  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Tgt Ion:101 Resp: 1118786  
 Ion Ratio Lower Upper  
 101 100  
 151 74.3 52.3 78.5





#13

Ethanol

Concen: 10.684 ppbv

RT: 3.65 min Scan# 223

Delta R.T. -0.01 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 45 Resp: 138234

Ion Ratio Lower Upper

45 100

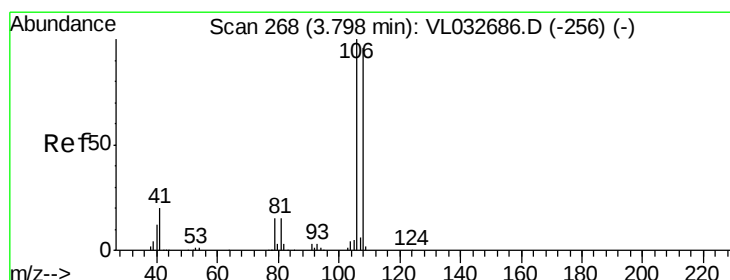
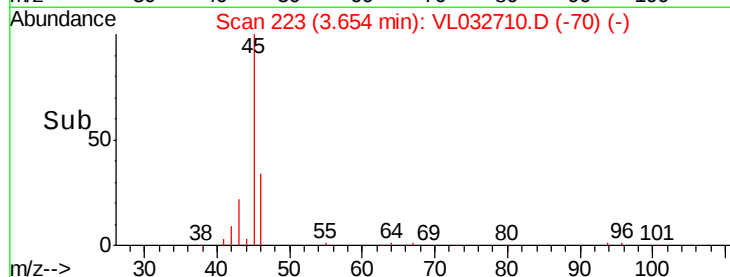
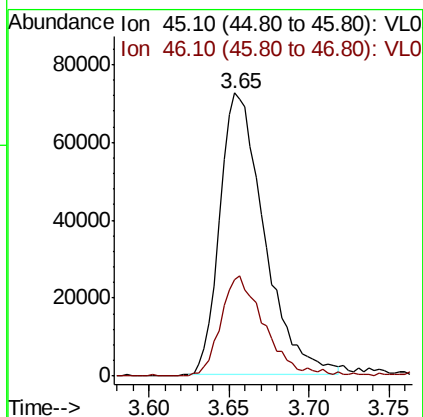
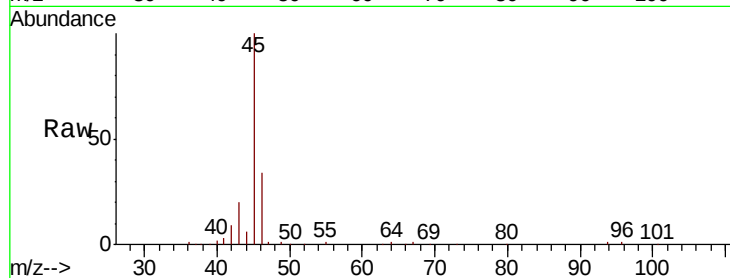
46 35.3 15.4 61.8

Manual Integrations

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#14

Bromoethene

Concen: 9.810 ppbv

RT: 3.80 min Scan# 267

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

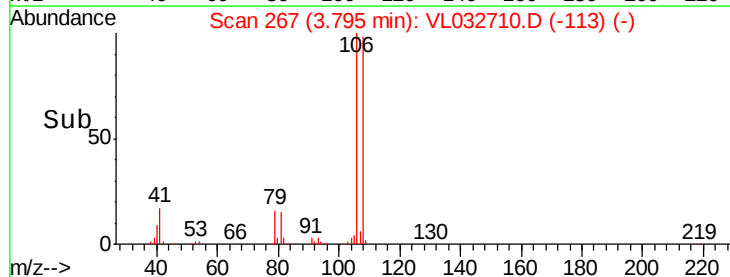
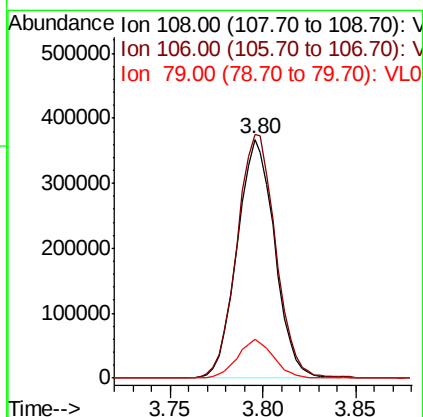
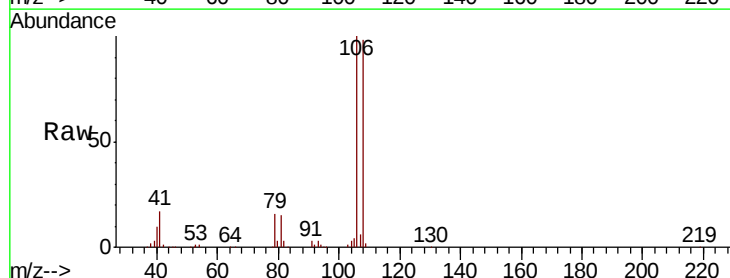
Tgt Ion: 108 Resp: 516126

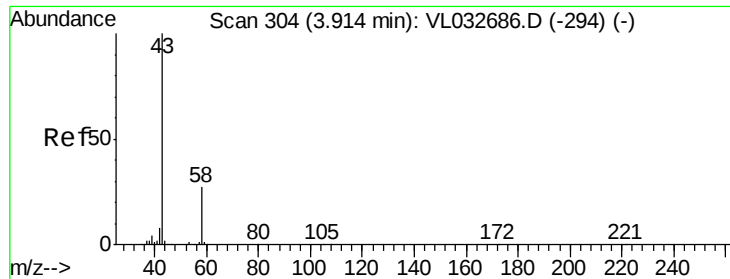
Ion Ratio Lower Upper

108 100

106 106.0 85.0 127.4

79 15.9 13.7 20.5





#15

Acetone

Concen: 8.563 ppbv

RT: 3.91 min Scan# 302

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 43 Resp: 1112291

Ion Ratio Lower Upper

43 100

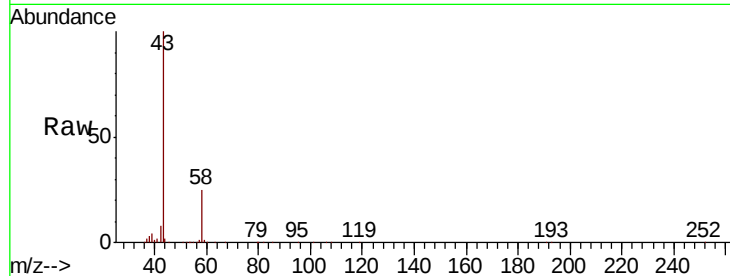
58 27.2 22.1 33.1

Manual Integrations

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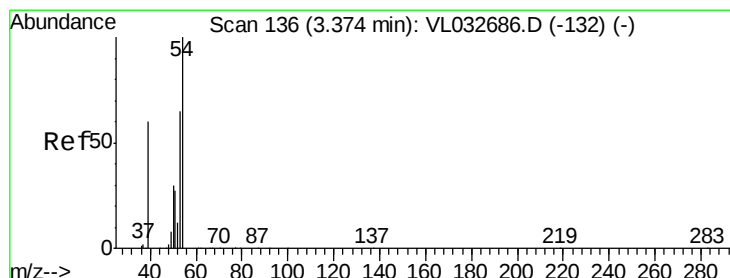
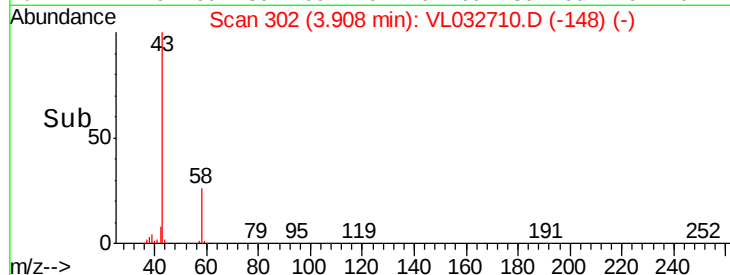
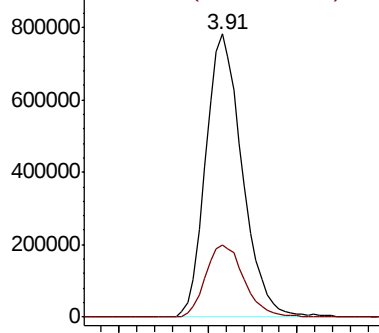
MMDadoda

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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: 11.556 ppbv

RT: 3.37 min Scan# 135

Delta R.T. -0.00 min

Lab File: VL032710.D

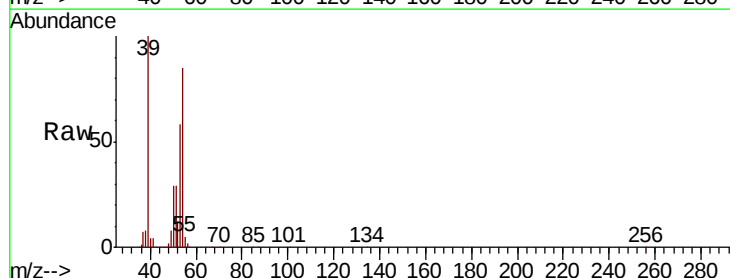
Acq: 31 Oct 2018 9:50

Tgt Ion: 39 Resp: 552193

Ion Ratio Lower Upper

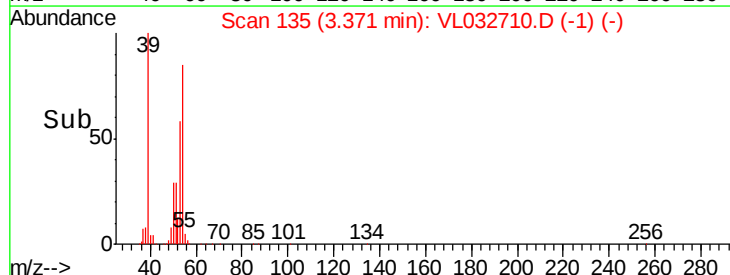
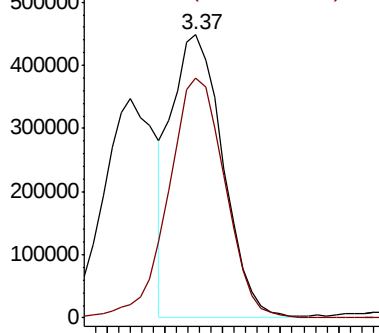
39 100

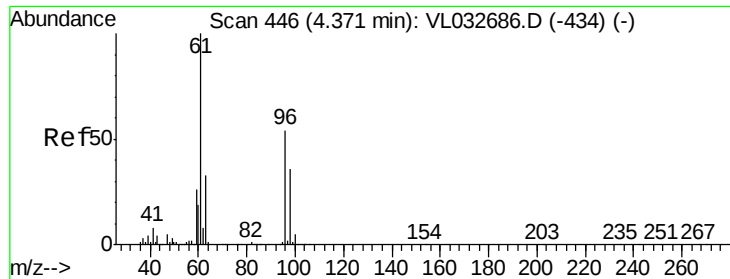
54 94.1 90.4 135.6



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#17

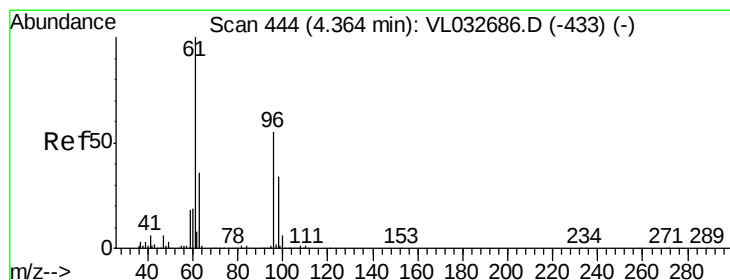
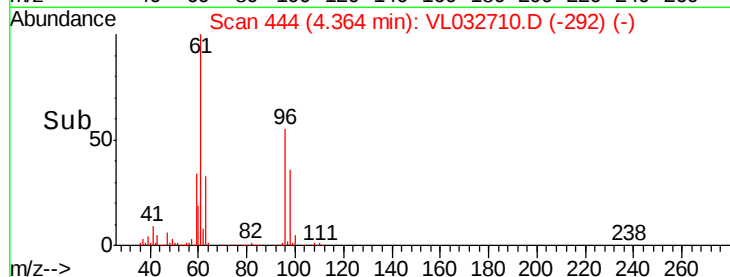
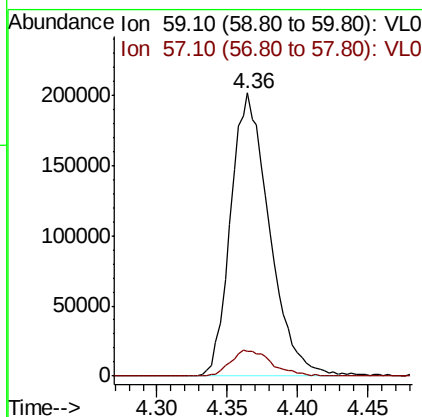
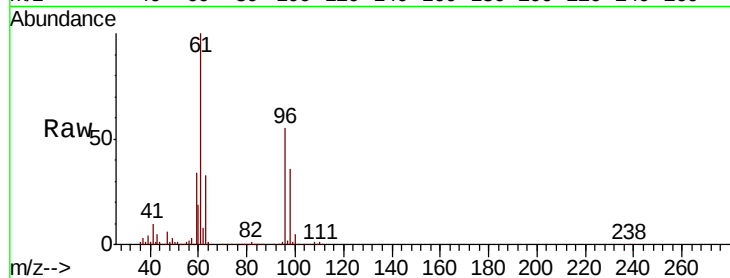
tert-Butyl alcohol  
Concen: 10.163 ppbv  
RT: 4.36 min Scan# 444  
Delta R.T. -0.01 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 59      | 100   |       |       |
| 57      | 9.8   | 0.0   | 0.0#  |

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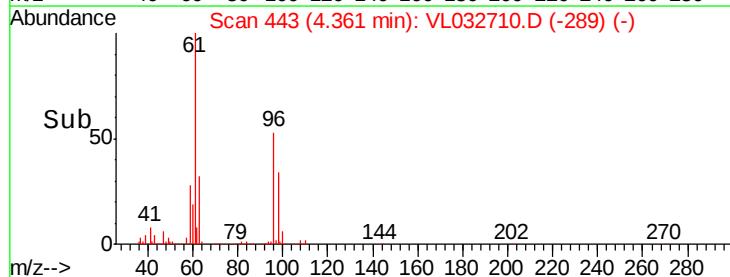
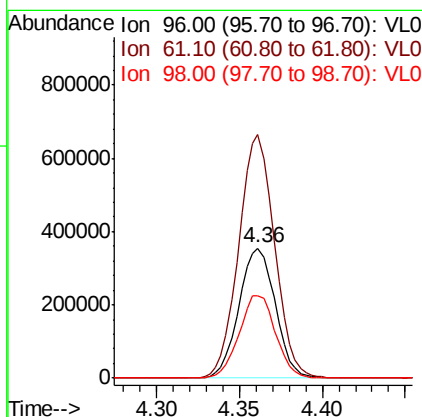
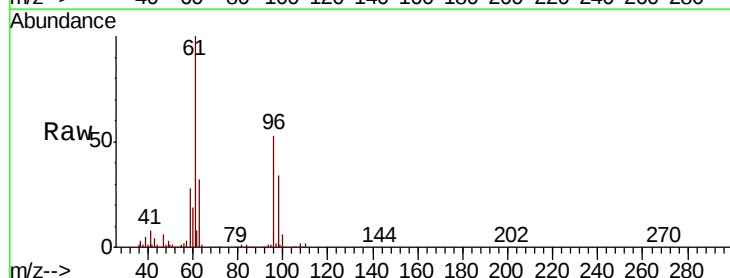
MMDadoda  
10/31/2018 10:40:10 AM

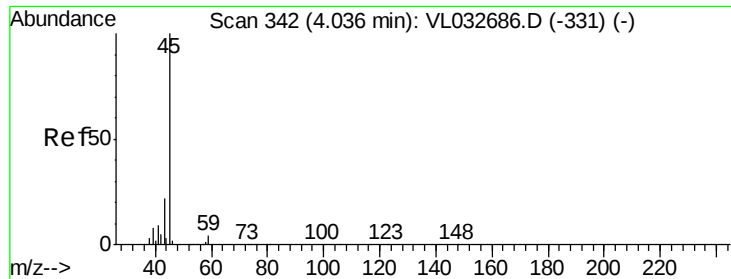


#18

1,1-Dichloroethene  
Concen: 7.925 ppbv  
RT: 4.36 min Scan# 443  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 187.3 | 151.6 | 227.4 |
| 98      | 63.7  | 50.6  | 75.8  |





#19

Isopropyl Alcohol

Concen: 10.020 ppbv

RT: 4.03 min Scan# 340

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 45 Resp: 926873

Ion Ratio Lower Upper

45 100

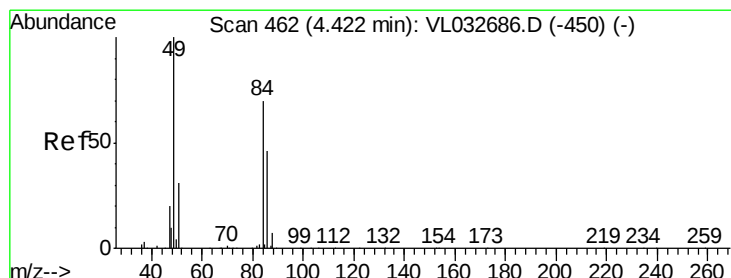
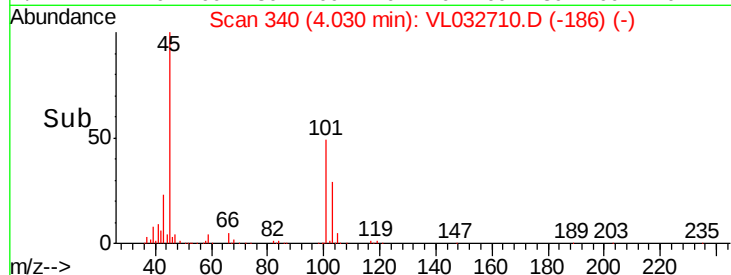
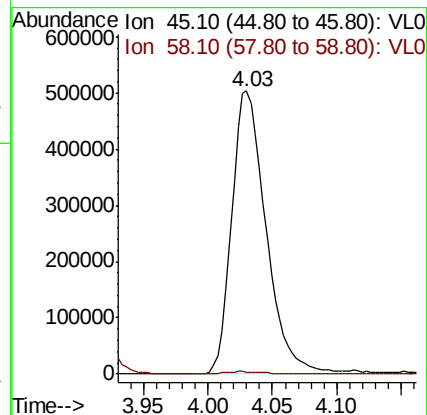
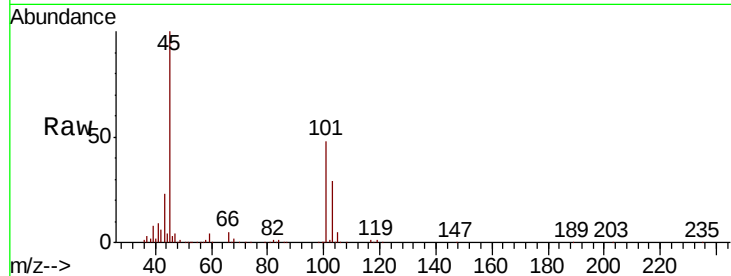
58 1.2 2.0 3.0#

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#20

Methylene Chloride

Concen: 6.981 ppbv

RT: 4.42 min Scan# 460

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Tgt Ion: 84 Resp: 460281

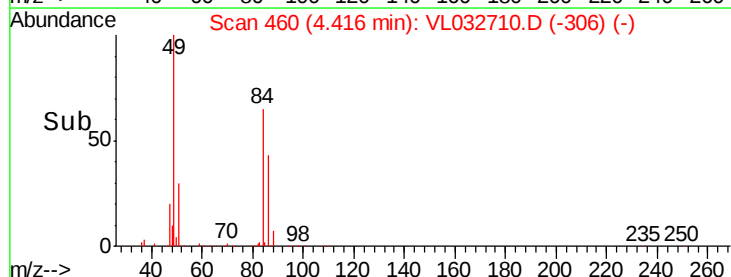
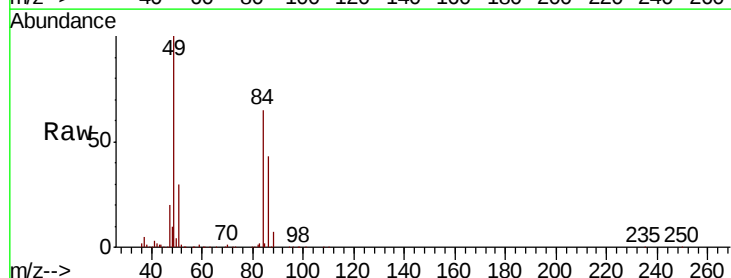
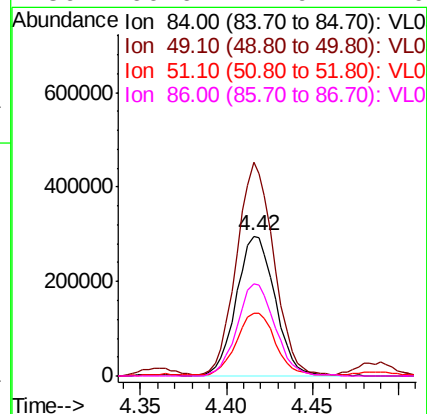
Ion Ratio Lower Upper

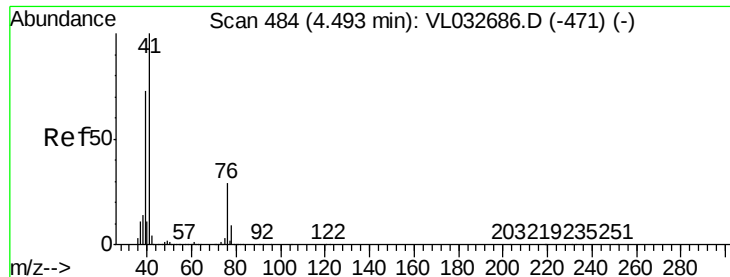
84 100

49 152.5 113.5 170.3

51 44.9 34.8 52.2

86 66.6 47.9 71.9





#21

Allvl Chloride

Concen: 8.426 ppbv

RT: 4.49 min Scan# 482

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

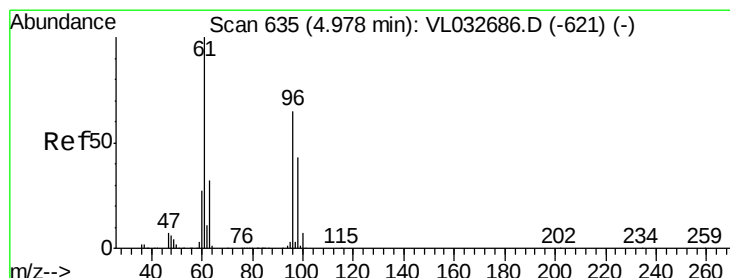
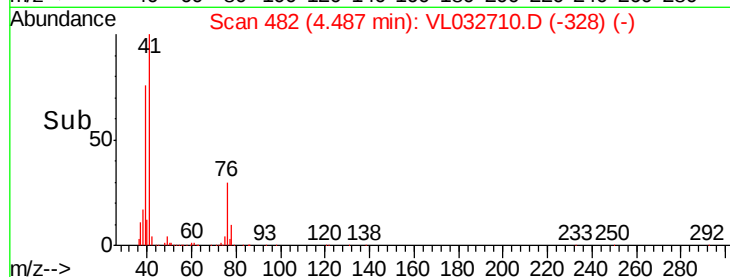
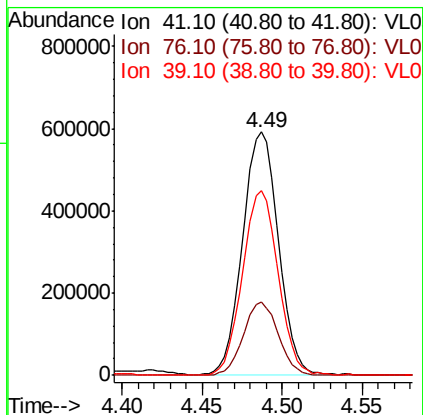
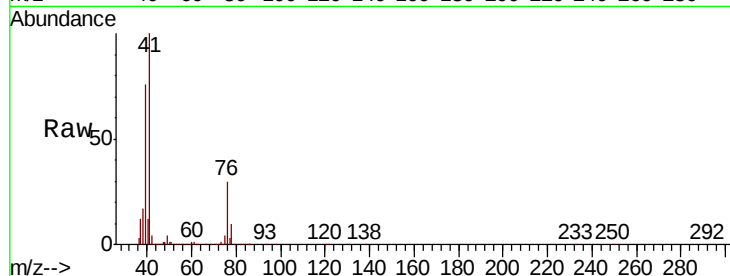
ClientSampleId :

VSTDCCC010EC

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 41    | Resp: | 898583 |
| Ion Ratio | Lower | Upper |        |
| 41        | 100   |       |        |
| 76        | 29.4  | 24.3  | 36.5   |
| 39        | 75.8  | 60.3  | 90.5   |

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#22

trans-1,2-Dichloroethene

Concen: 9.049 ppbv

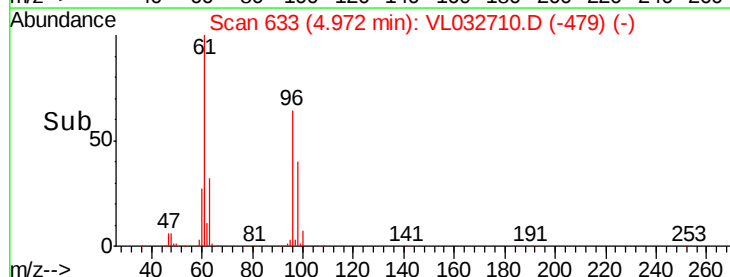
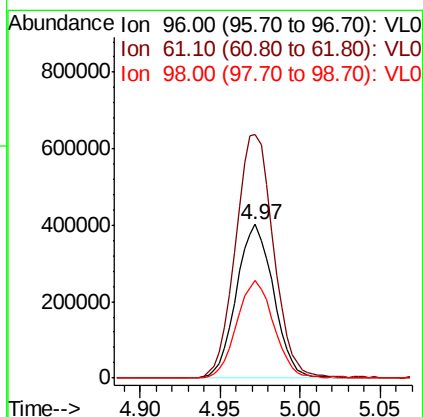
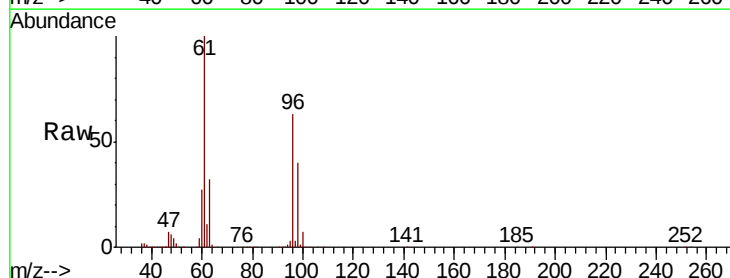
RT: 4.97 min Scan# 633

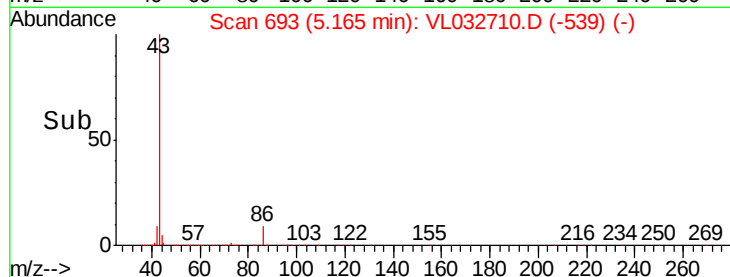
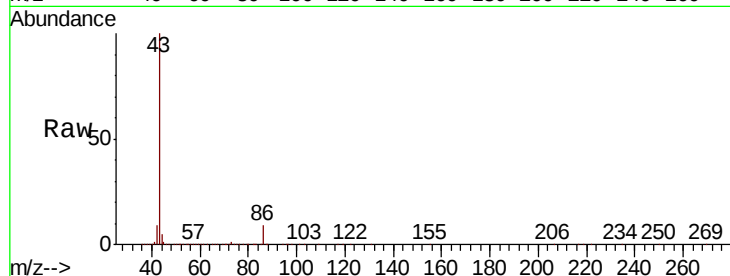
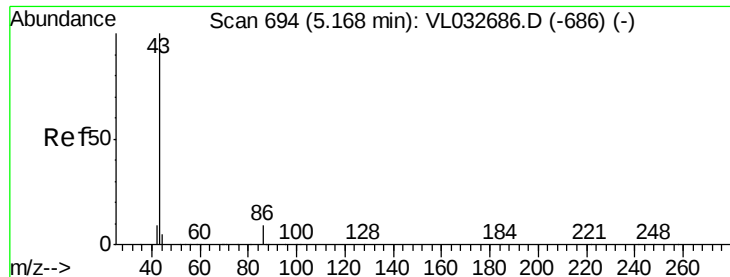
Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

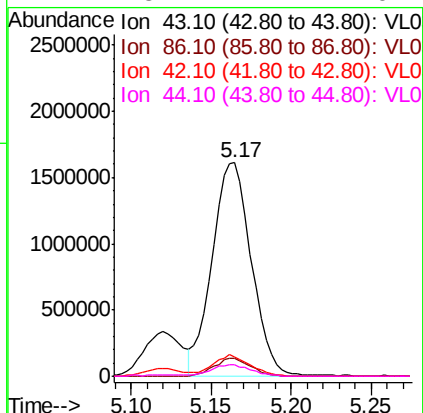
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 96    | Resp: | 634817 |
| Ion Ratio | Lower | Upper |        |
| 96        | 100   |       |        |
| 61        | 158.5 | 140.4 | 210.6  |
| 98        | 63.5  | 55.0  | 82.6   |





#23  
Vinvl Acetate  
Concen: 11.804 ppbv  
RT: 5.17 min Scan# 693  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

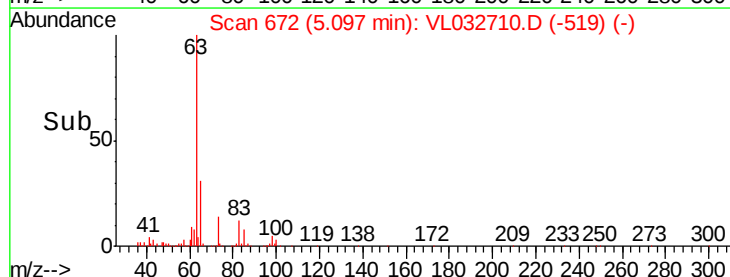
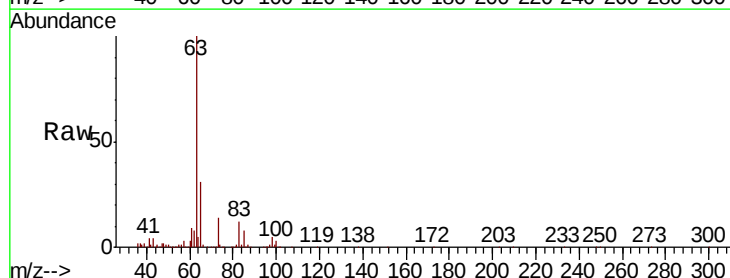
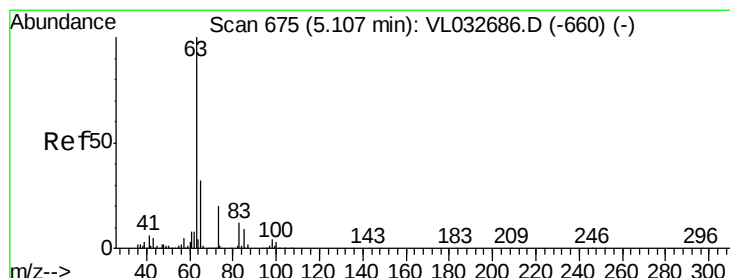
| Tot Ion | 43    | Resp  | 2716973 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 43      | 100   |       |         |
| 86      | 8.5   | 6.1   | 9.1     |
| 42      | 9.1   | 7.4   | 11.2    |
| 44      | 5.2   | 4.2   | 6.2     |



Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

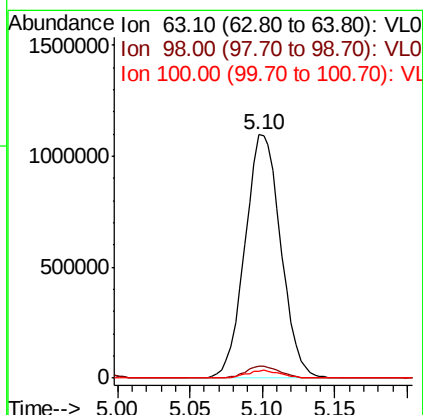
Manual Integrations  
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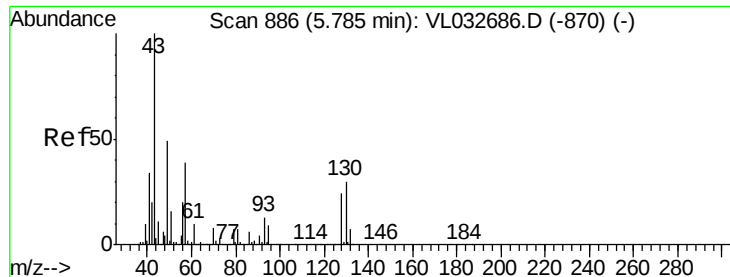
MMDadoda  
10/31/2018 10:40:10 AM



#24  
1,1-Dichloroethane  
Concen: 10.427 ppbv  
RT: 5.10 min Scan# 672  
Delta R.T. -0.01 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

| Tgt Ion | 63    | Resp  | 1884019 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 63      | 100   |       |         |
| 98      | 4.8   | 2.1   | 6.3     |
| 100     | 2.8   | 1.2   | 3.6     |





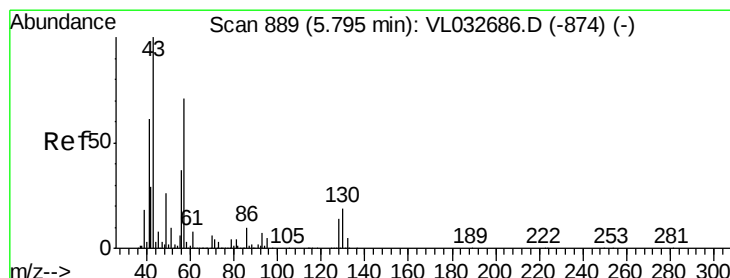
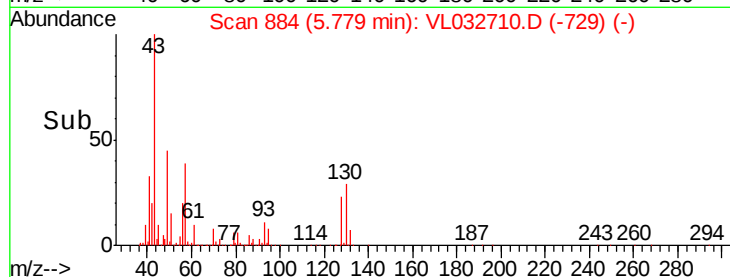
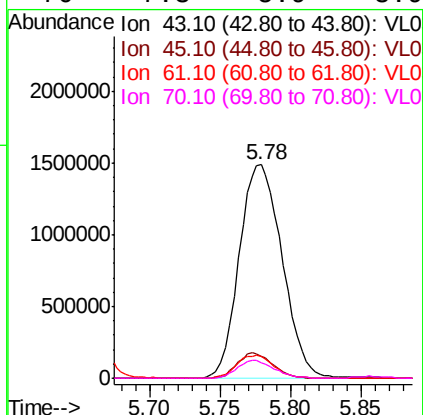
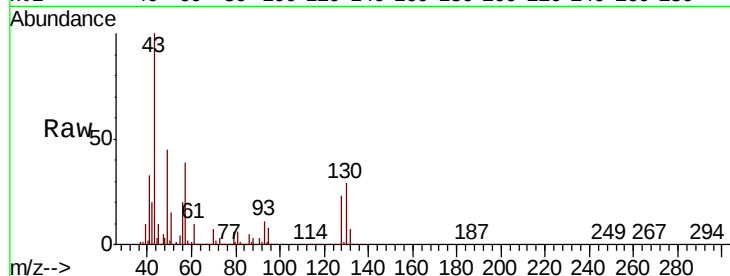
#25  
Ethyl Acetate  
Concen: 10.549 ppbv  
RT: 5.78 min Scan# 884  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 45      | 10.0  | 8.0   | 12.0  |
| 61      | 9.5   | 8.0   | 12.0  |
| 70      | 7.3   | 5.9   | 8.9   |

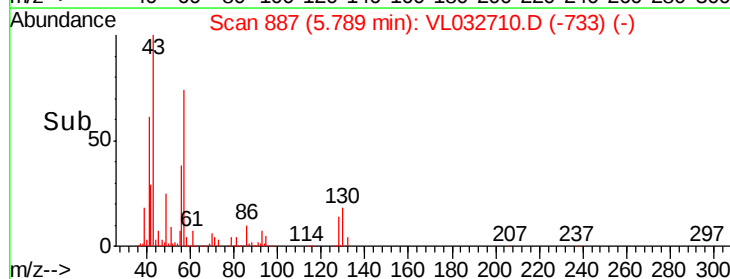
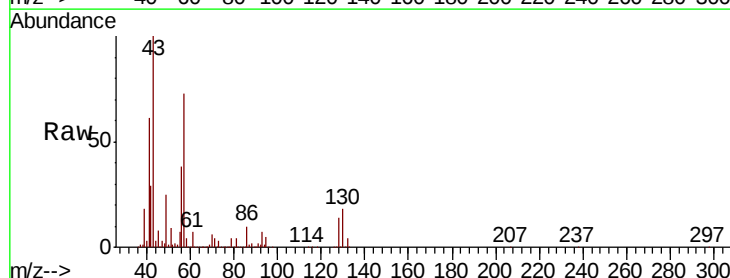
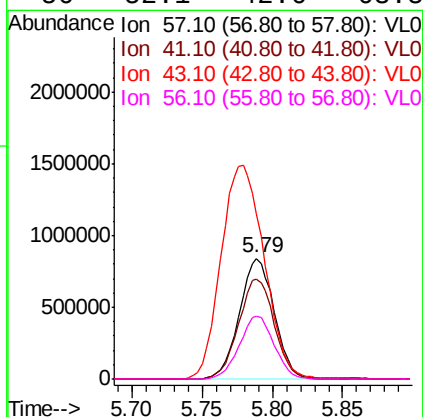
Manual Integrations  
APPROVED

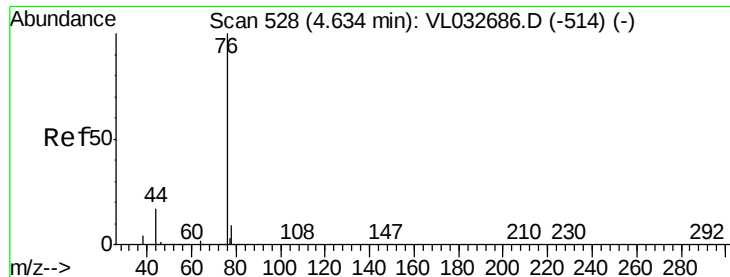
MMDadoda  
10/31/2018 10:40:10 AM



#26  
Hexane  
Concen: 10.268 ppbv  
RT: 5.79 min Scan# 887  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 85.3  | 67.4  | 101.0 |
| 43      | 218.1 | 171.9 | 257.9 |
| 56      | 52.1  | 42.6  | 63.8  |





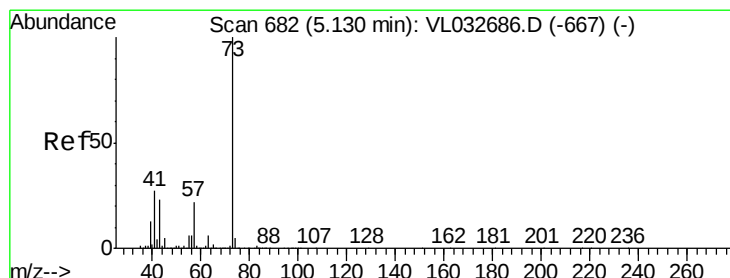
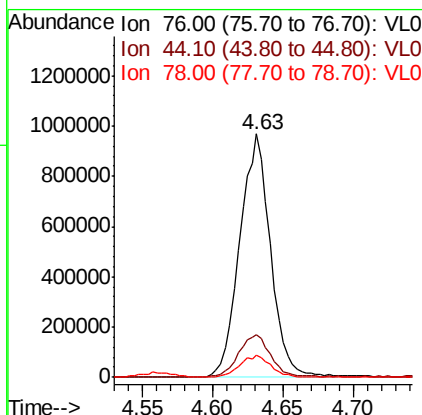
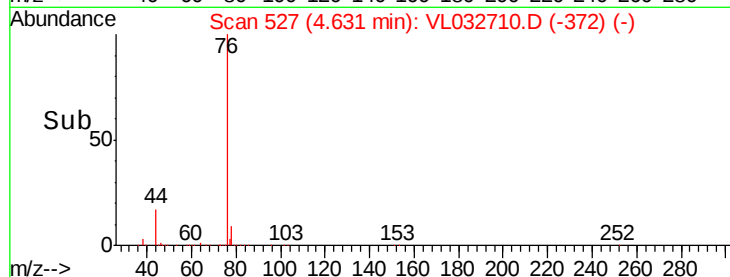
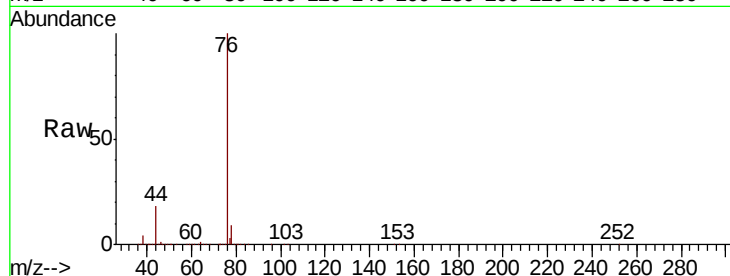
#27  
Carbon Disulfide  
Concen: 8.619 ppbv  
RT: 4.63 min Scan# 527  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

Tot Ion: 76 Resp: 1479040  
Ion Ratio Lower Upper  
76 100  
44 18.0 13.7 20.5  
78 9.1 7.4 11.2

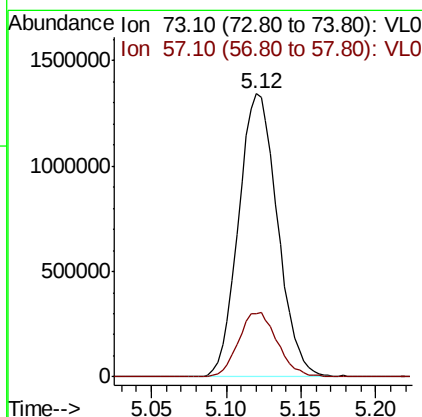
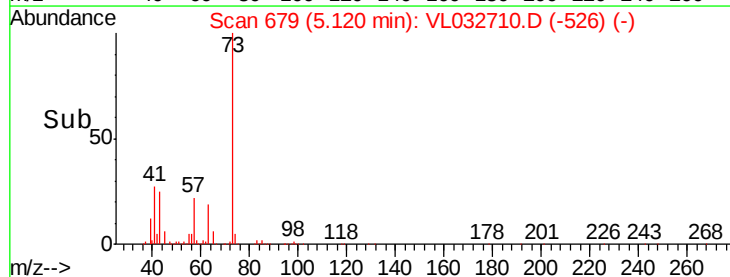
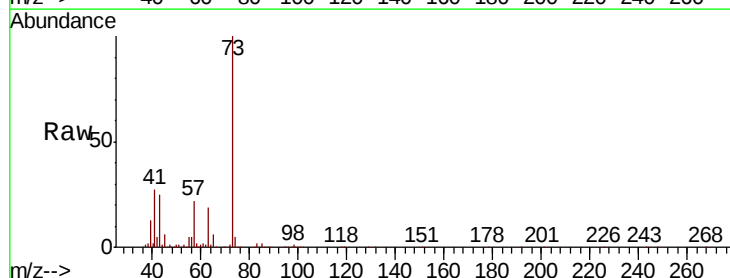
Manual Integrations  
APPROVED

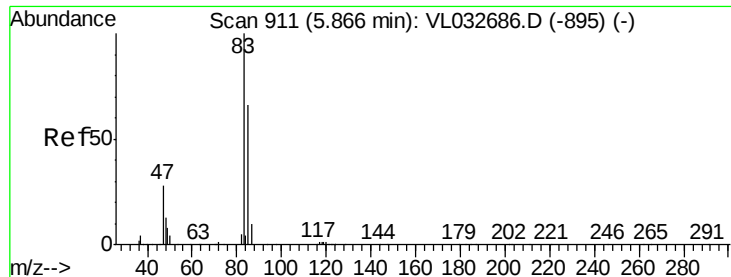
MMDadoda  
10/31/2018 10:40:10 AM



#28  
Methyl tert-Butyl Ether  
Concen: 11.981 ppbv  
RT: 5.12 min Scan# 679  
Delta R.T. -0.01 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Tgt Ion: 73 Resp: 2435804  
Ion Ratio Lower Upper  
73 100  
57 22.9 18.0 27.0





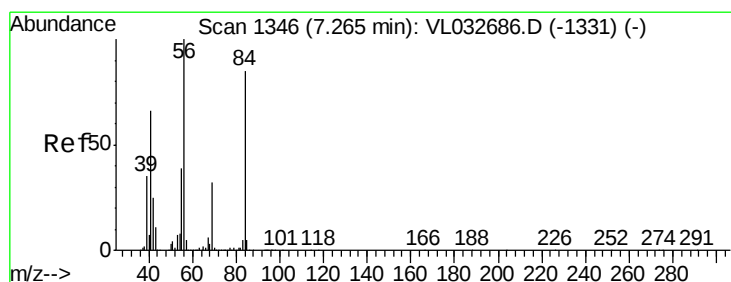
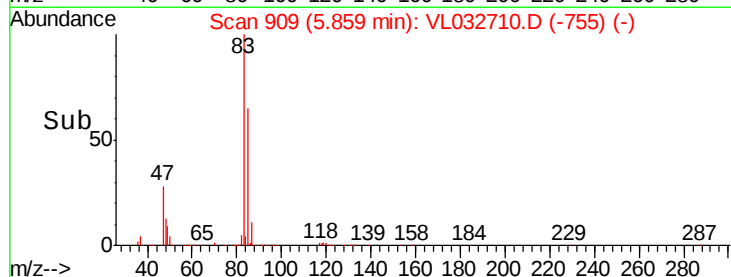
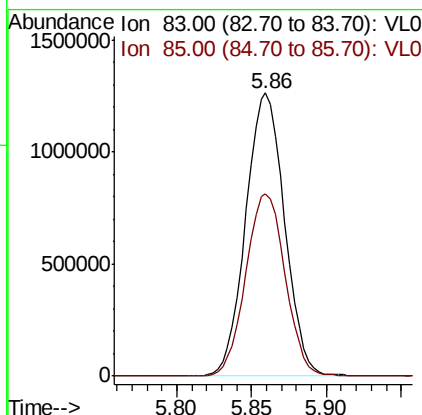
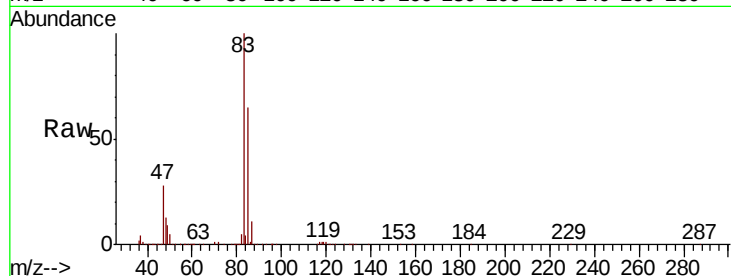
#29  
Chloroform  
Concen: 10.086 ppbv  
RT: 5.86 min Scan# 909  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

Tot Ion: 83 Resp: 2279161  
Ion Ratio Lower Upper  
83 100  
85 64.4 53.0 79.6

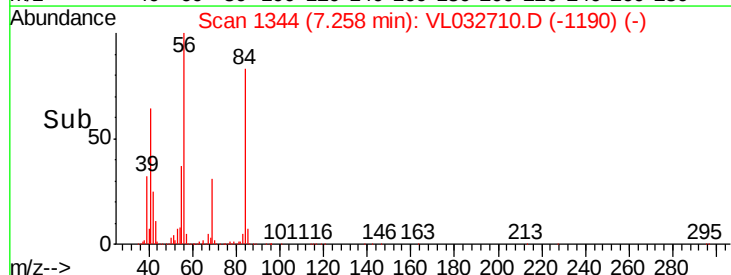
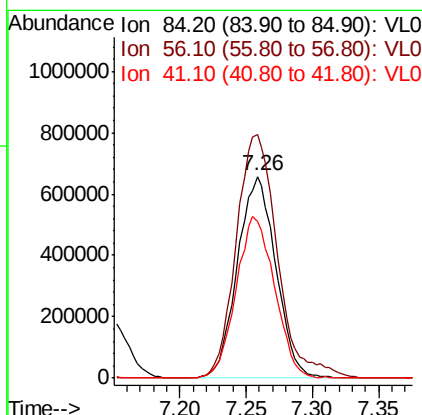
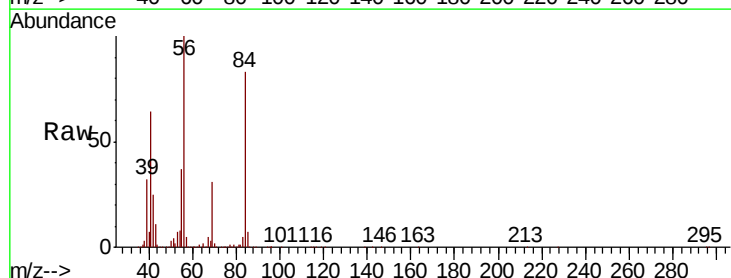
Manual Integrations  
APPROVED

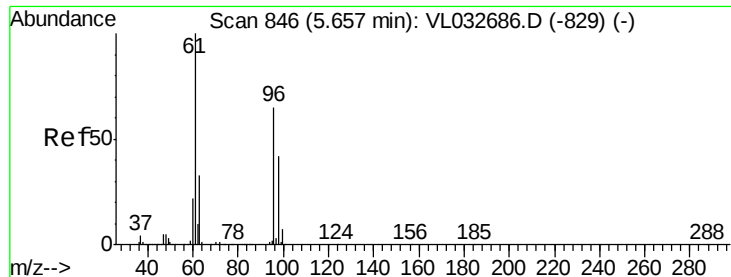
MMDadoda  
10/31/2018 10:40:10 AM



#30  
Cyclohexane  
Concen: 11.799 ppbv  
RT: 7.26 min Scan# 1344  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Tgt Ion: 84 Resp: 1321138  
Ion Ratio Lower Upper  
84 100  
56 130.5 108.3 162.5  
41 80.4 64.8 97.2





#31

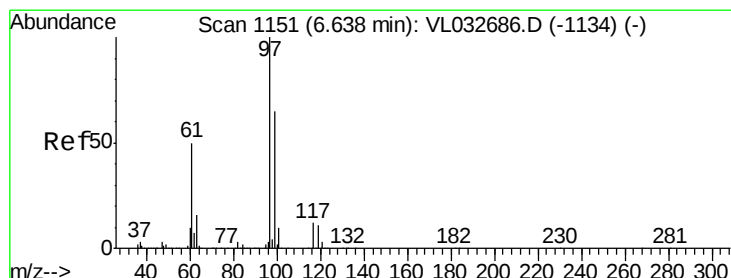
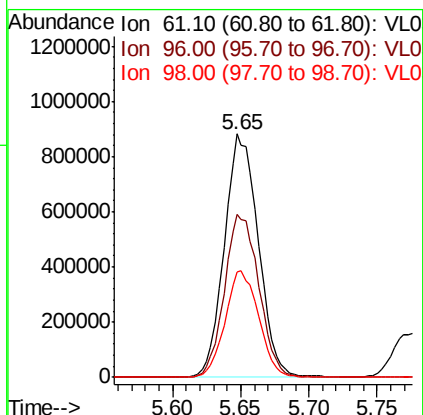
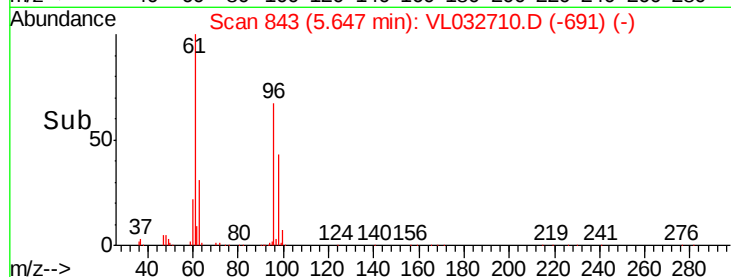
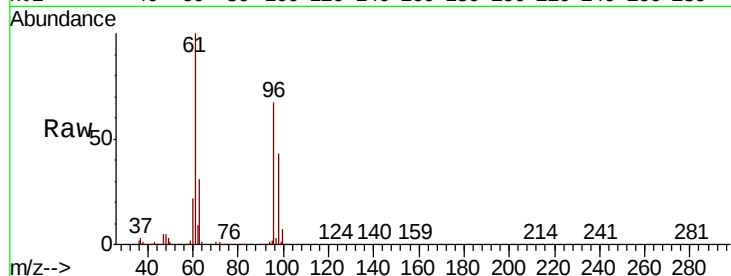
cis-1,2-Dichloroethene  
Concen: 11.543 ppbv  
RT: 5.65 min Scan# 843  
Delta R.T. -0.01 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61      | 100   |       |       |
| 96      | 67.0  | 51.8  | 77.6  |
| 98      | 43.2  | 33.8  | 50.6  |

Manual Integrations  
APPROVED

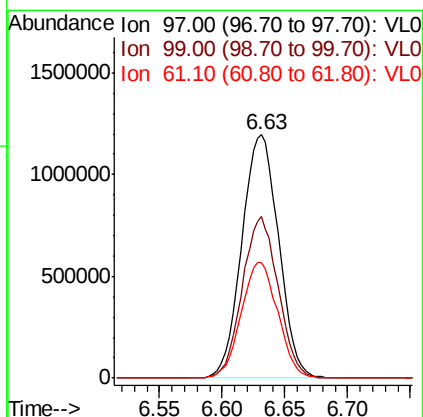
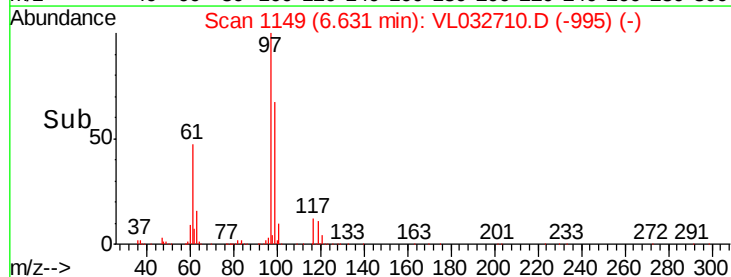
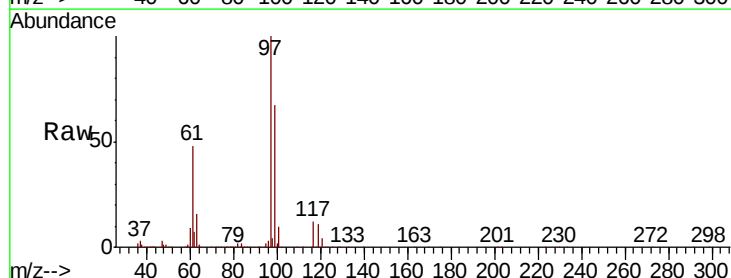
MMDadoda  
10/31/2018 10:40:10 AM

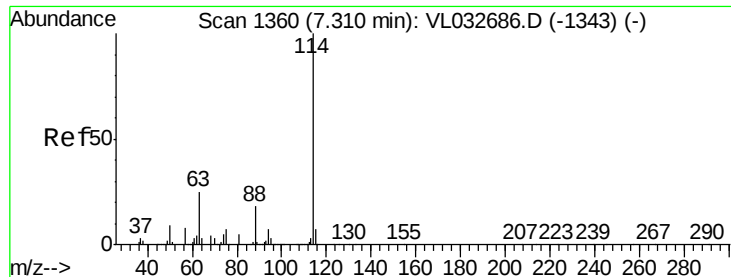


#32

1,1,1-Trichloroethane  
Concen: 10.626 ppbv  
RT: 6.63 min Scan# 1149  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 64.8  | 52.0  | 78.0  |
| 61      | 47.5  | 40.7  | 61.1  |





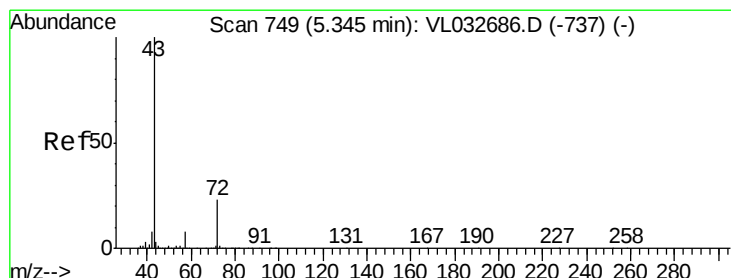
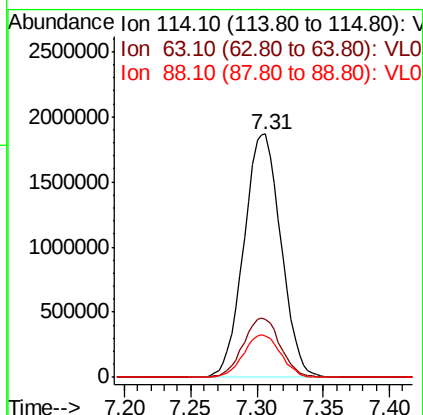
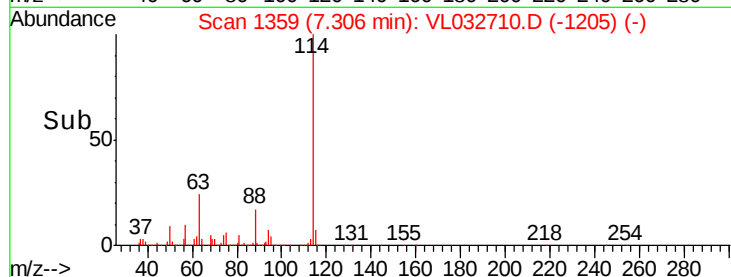
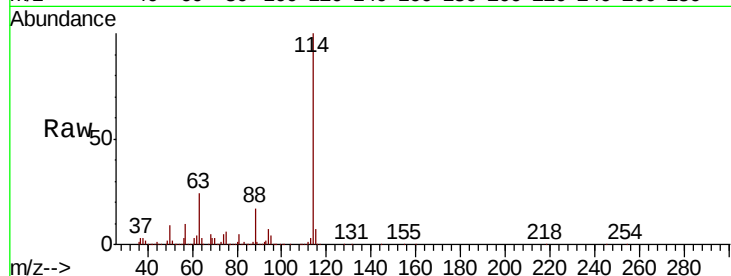
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.31 min Scan# 1359  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 24.6  | 21.7  | 32.5  |
| 88      | 17.6  | 14.9  | 22.3  |

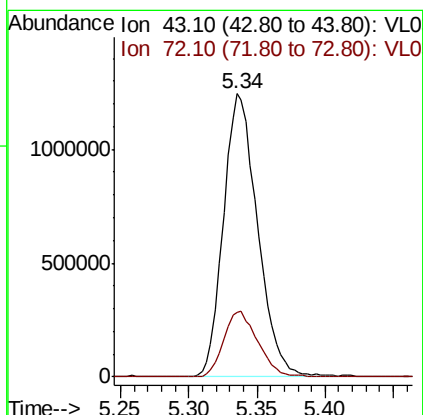
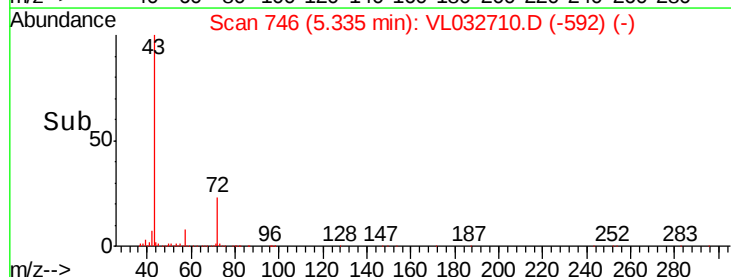
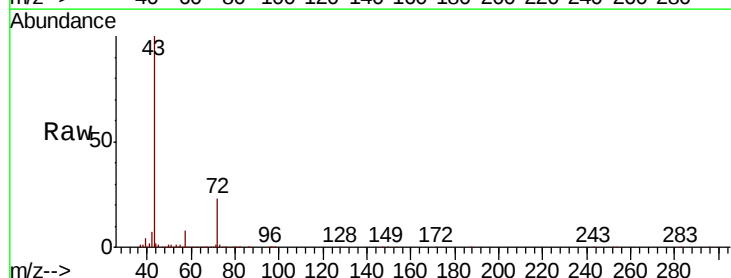
Manual Integrations  
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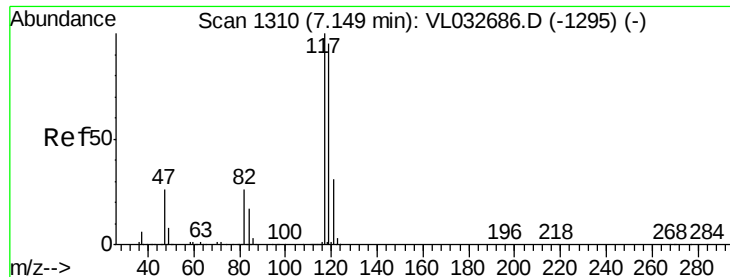
MMDadoda  
 10/31/2018 10:40:10 AM



#34  
 2-Butanone  
 Concen: 11.104 ppbv  
 RT: 5.34 min Scan# 746  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 23.4  | 18.6  | 27.8  |





#35

Carbon Tetrachloride

Concen: 9.847 ppbv

RT: 7.15 min Scan# 1309

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 117 Resp: 2533794

Ion Ratio Lower Upper

117 100

119 97.3 75.7 113.5

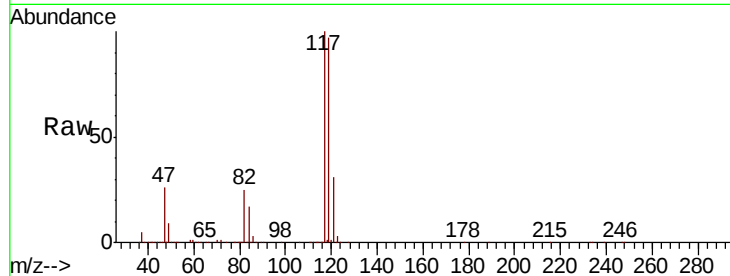
121 30.7 24.7 37.1

Manual Integrations

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MMDadoda

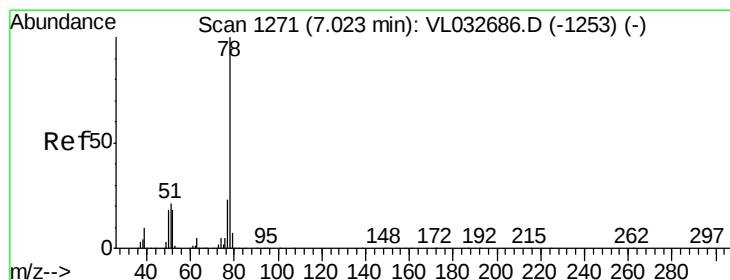
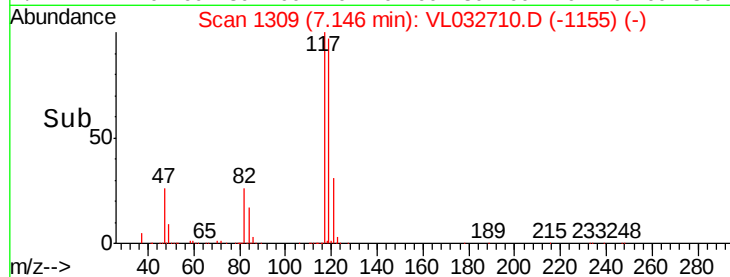
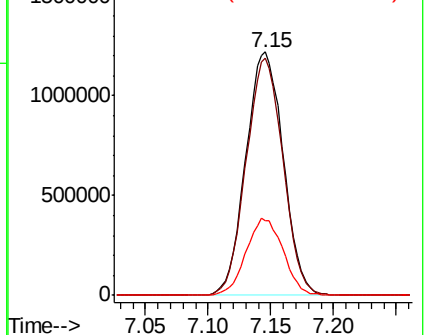
10/31/2018 10:40:10 AM



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 10.632 ppbv

RT: 7.02 min Scan# 1269

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

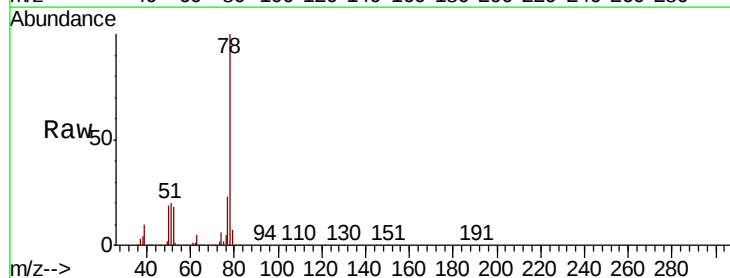
Tgt Ion: 78 Resp: 3130229

Ion Ratio Lower Upper

78 100

77 23.2 18.1 27.1

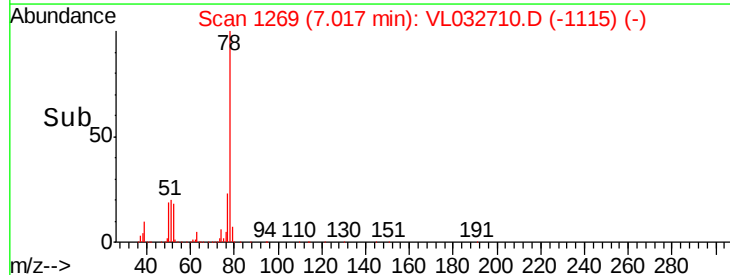
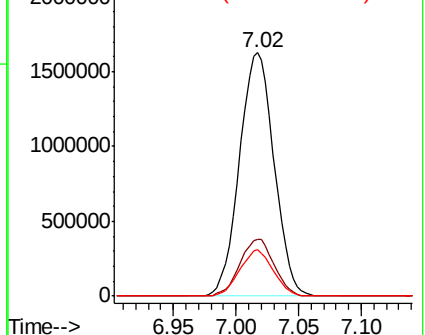
50 18.9 15.1 22.7

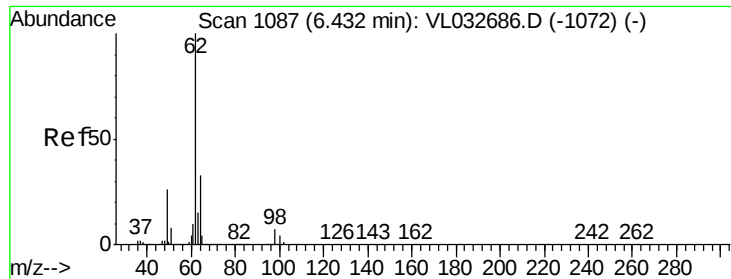


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





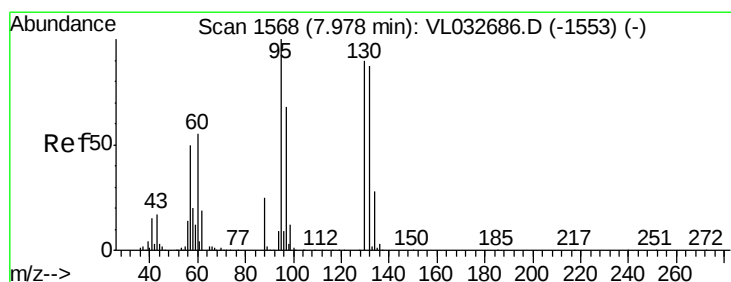
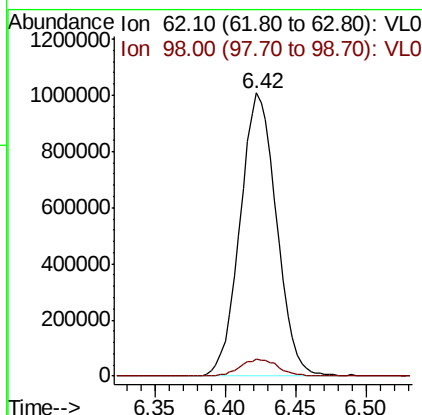
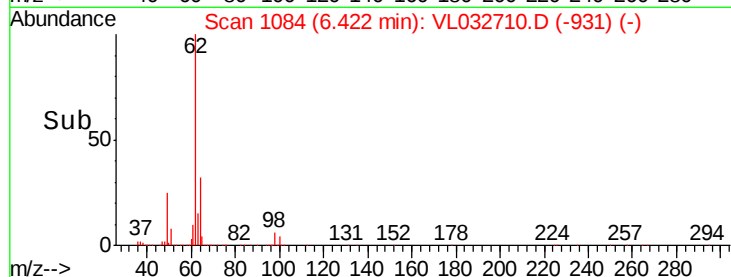
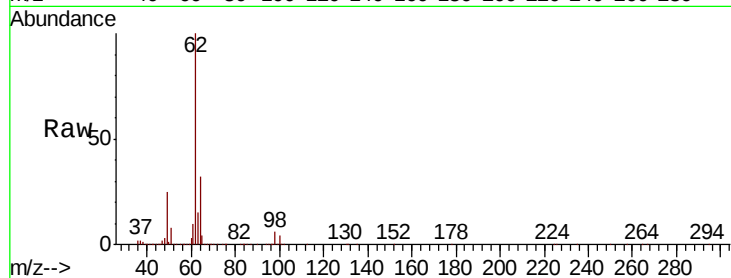
#37  
 1,2-Dichloroethane  
 Concen: 10.091 ppbv  
 RT: 6.42 min Scan# 1084  
 Delta R.T. -0.01 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

Tot Ion: 62 Resp: 1822311  
 Ion Ratio Lower Upper  
 62 100  
 98 6.3 4.4 6.6

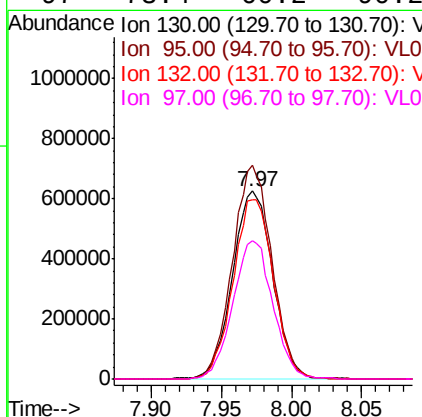
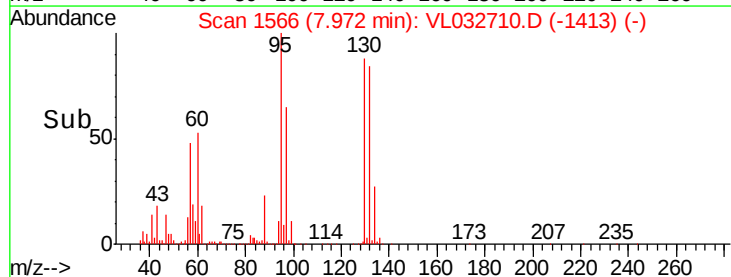
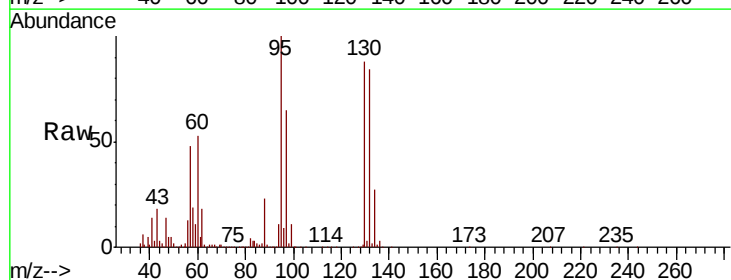
Manual Integrations  
 APPROVED

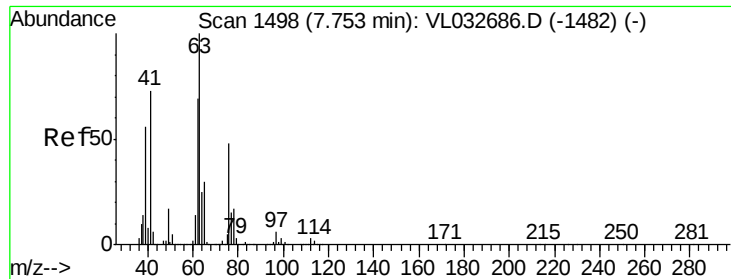
MMDadoda  
 10/31/2018 10:40:10 AM



#38  
 Trichloroethene  
 Concen: 11.375 ppbv  
 RT: 7.97 min Scan# 1566  
 Delta R.T. -0.01 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Tgt Ion: 130 Resp: 1239715  
 Ion Ratio Lower Upper  
 130 100  
 95 113.5 93.4 140.0  
 132 95.1 76.5 114.7  
 97 73.4 60.2 90.2





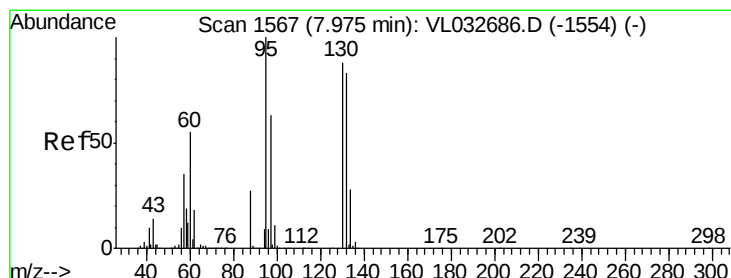
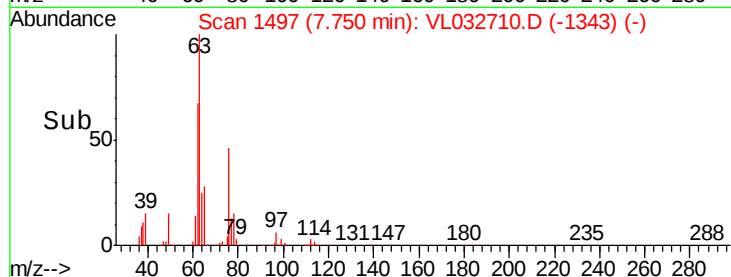
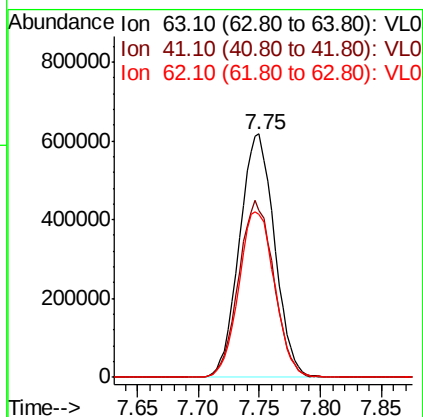
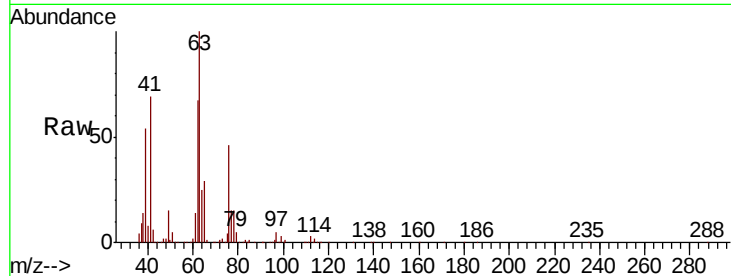
#39  
 1,2-Dichloropropane  
 Concen: 10.782 ppbv  
 RT: 7.75 min Scan# 1497  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 68.5  | 56.2  | 84.4  |
| 62      | 67.0  | 54.4  | 81.6  |

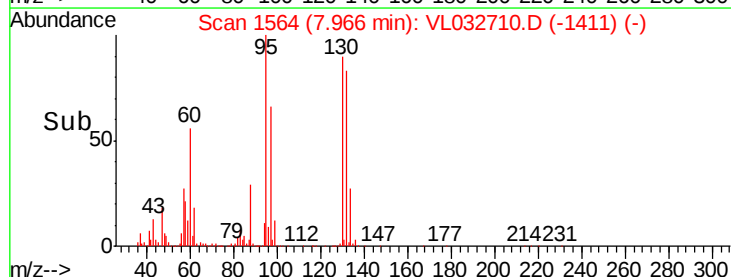
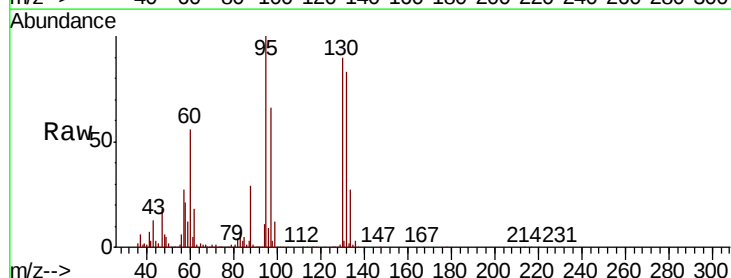
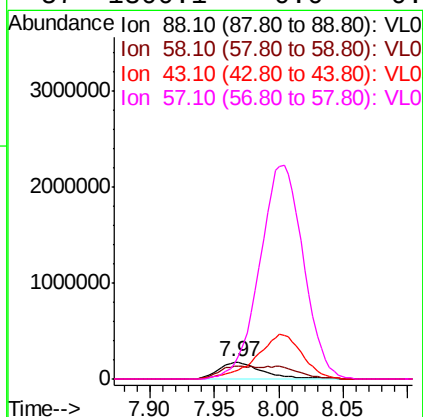
Manual Integrations  
 APPROVED

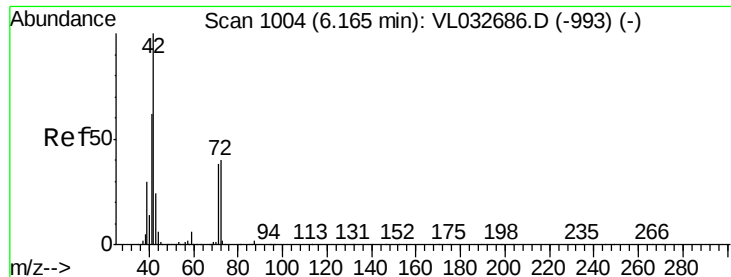
MMDadoda  
 10/31/2018 10:40:10 AM



#40  
 1,4-Dioxane  
 Concen: 10.456 ppbv  
 RT: 7.97 min Scan# 1564  
 Delta R.T. -0.01 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

| Tgt Ion | Ratio  | Lower | Upper |
|---------|--------|-------|-------|
| 88      | 100    |       |       |
| 58      | 132.6  | 104.0 | 156.0 |
| 43      | 285.0  | 0.0   | 0.0#  |
| 57      | 1300.1 | 0.0   | 0.0#  |





#41

Tetrahydrofuran

Concen: 11.145 ppbv

RT: 6.16 min Scan# 1001

Delta R.T. -0.01 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

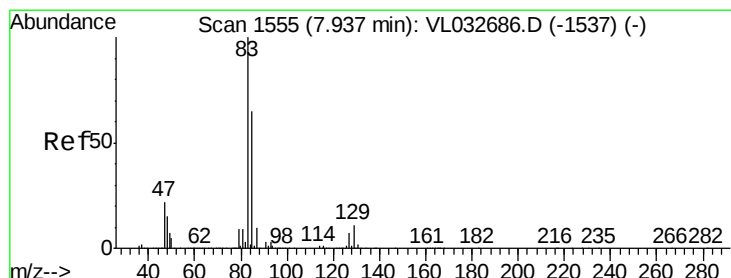
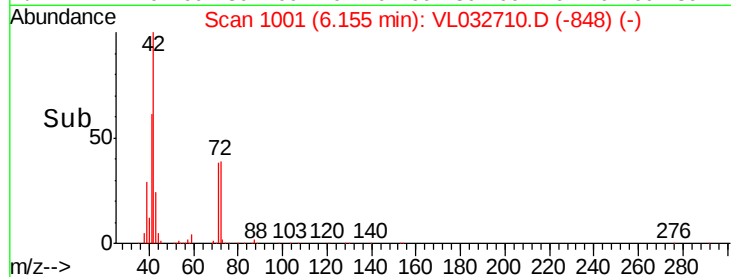
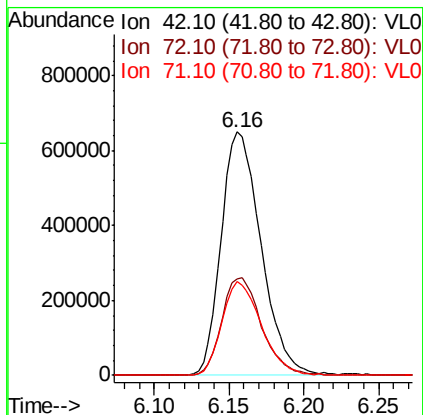
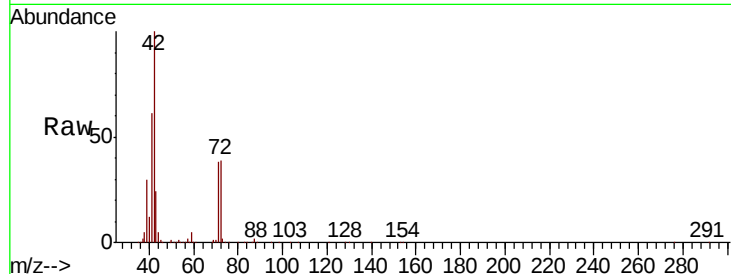
ClientSampleId :

VSTDCCC010EC

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 42    | Resp: | 1207051 |
| Ion      | Ratio | Lower | Upper   |
| 42       | 100   |       |         |
| 72       | 40.2  | 32.4  | 48.6    |
| 71       | 38.3  | 31.3  | 46.9    |

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#42

Bromodichloromethane

Concen: 10.279 ppbv

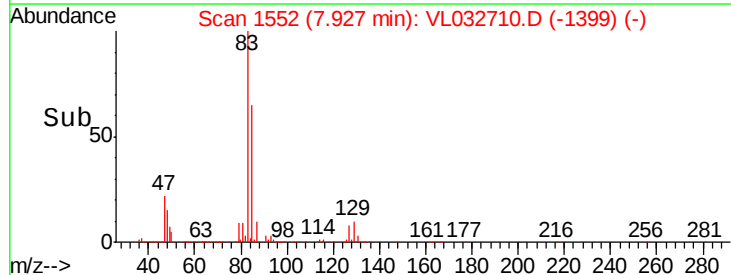
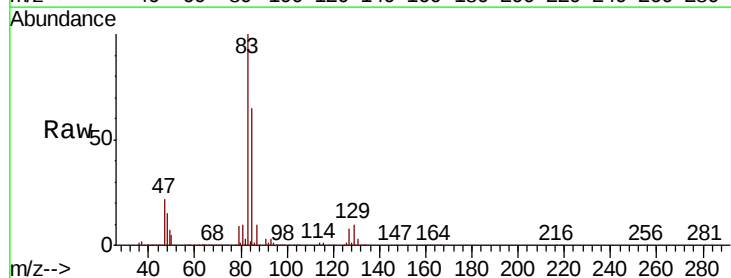
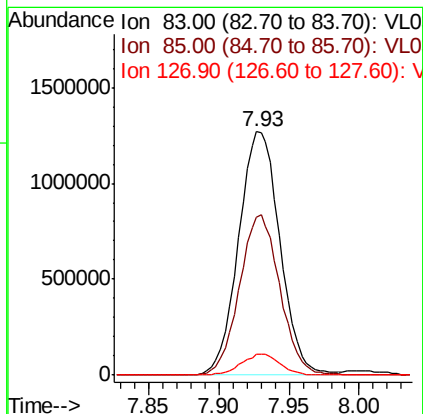
RT: 7.93 min Scan# 1552

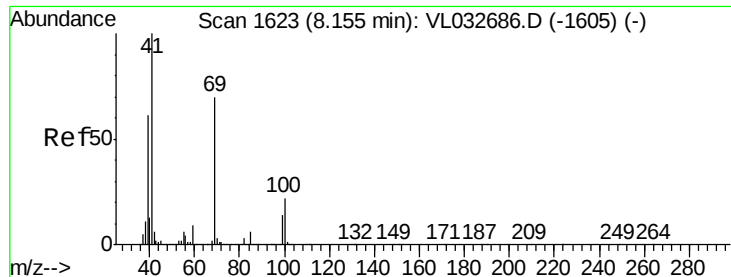
Delta R.T. -0.01 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 83    | Resp: | 2600644 |
| Ion      | Ratio | Lower | Upper   |
| 83       | 100   |       |         |
| 85       | 64.6  | 52.4  | 78.6    |
| 127      | 8.3   | 6.1   | 9.1     |





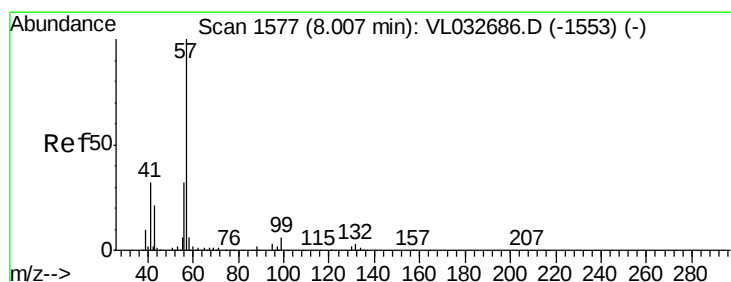
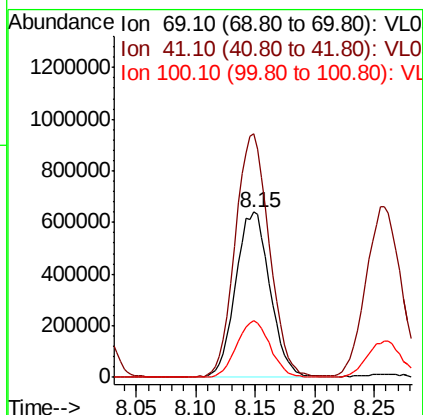
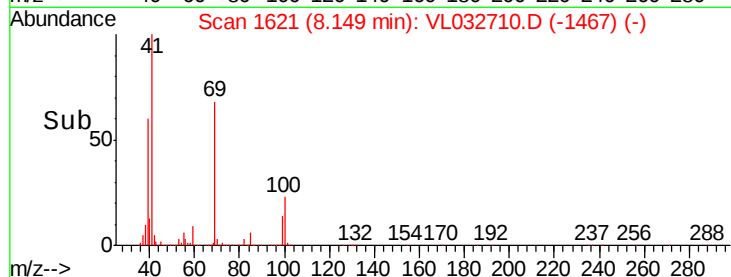
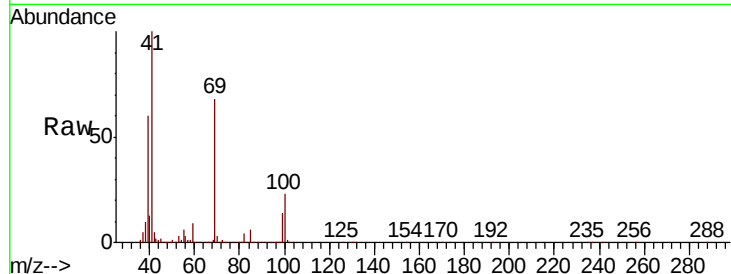
#43  
Methvl Methacrvlate  
Concen: 11.883 ppbv  
RT: 8.15 min Scan# 1621  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

Tot Ion: 69 Resp: 1282207  
Ion Ratio Lower Upper  
69 100  
41 146.0 113.2 169.8  
100 33.2 24.4 36.6

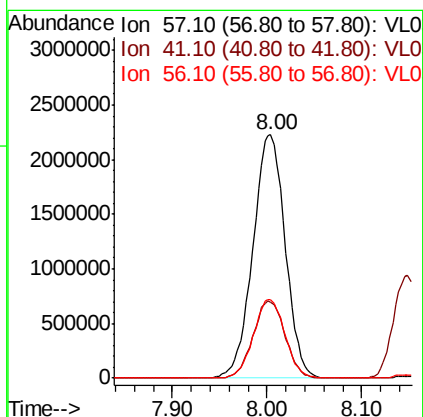
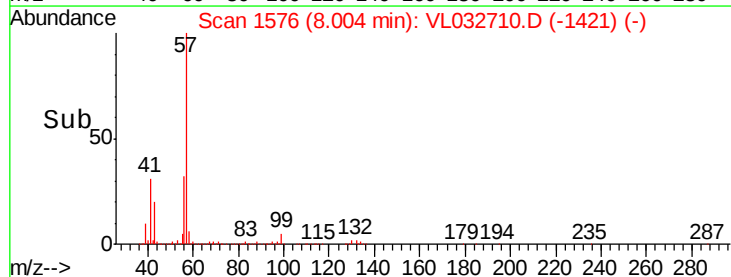
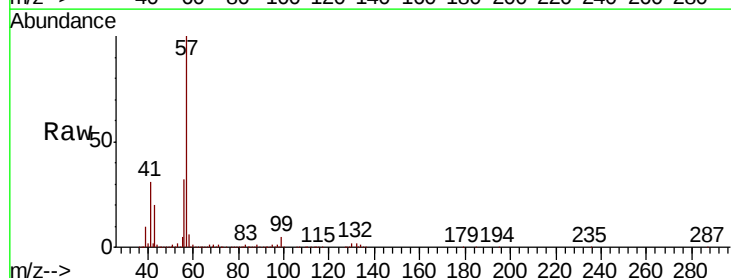
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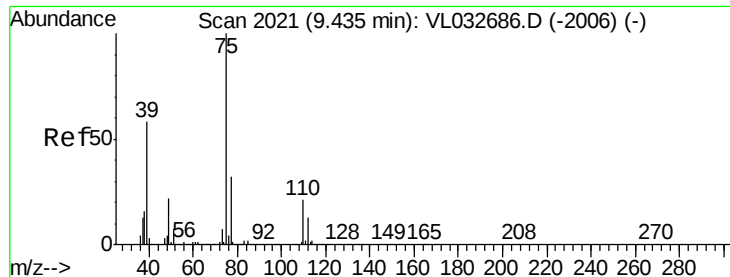
MMDadoda  
10/31/2018 10:40:10 AM



#44  
2,2,4-Trimethylpentane  
Concen: 10.495 ppbv  
RT: 8.00 min Scan# 1576  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Tgt Ion: 57 Resp: 5274796  
Ion Ratio Lower Upper  
57 100  
41 31.4 24.7 37.1  
56 31.4 25.0 37.4





#45

t-1,3-Dichloropropene

Concen: 12.992 ppbv

RT: 9.43 min Scan# 2019

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Tot Ion: 75 Resp: 1876568

Ion Ratio Lower Upper

75 100

77 30.2 25.3 37.9

Instrument :

MSVOA\_L

ClientSampleId :

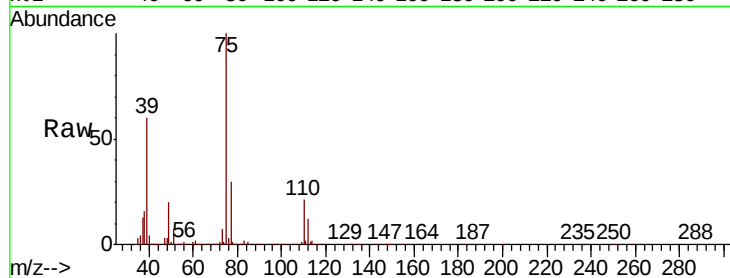
VSTDCCC010EC

Manual Integrations

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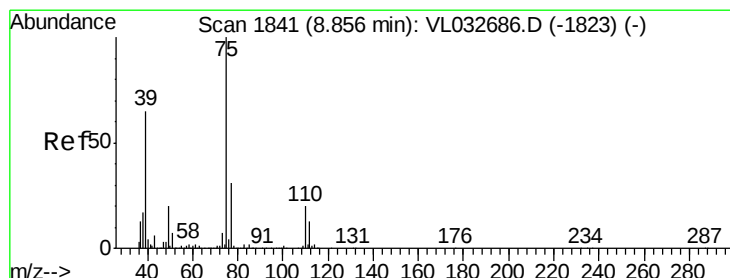
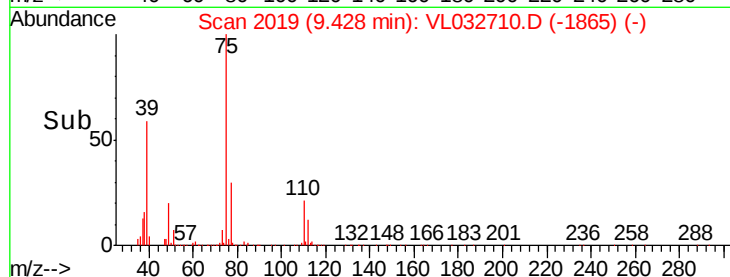
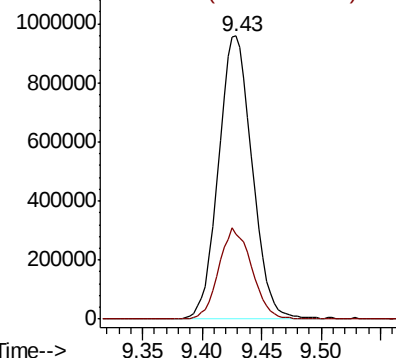
MMDadoda

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Abundance Ion 75.10 (74.80 to 75.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#46

cis-1,3-Dichloropropene

Concen: 11.843 ppbv

RT: 8.85 min Scan# 1838

Delta R.T. -0.01 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

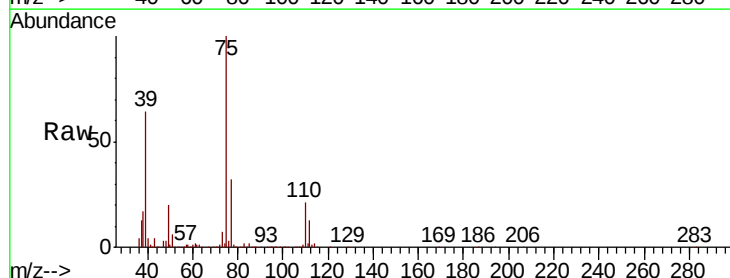
Tgt Ion: 75 Resp: 1954441

Ion Ratio Lower Upper

75 100

39 64.3 50.9 76.3

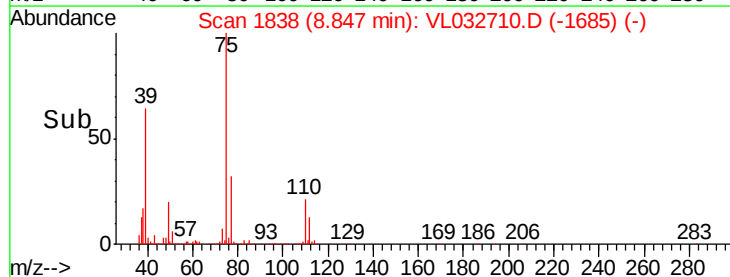
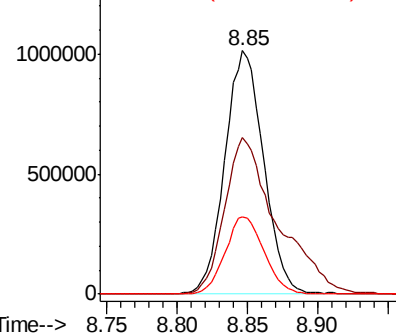
77 31.8 25.8 38.6

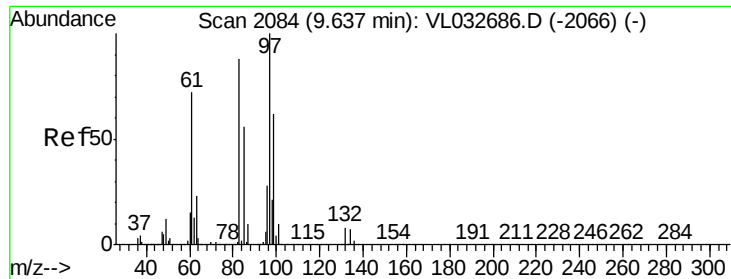


Abundance Ion 75.00 (74.70 to 75.70): VL0

Ion 39.00 (38.70 to 39.70): VL0

Ion 77.00 (76.70 to 77.70): VL0





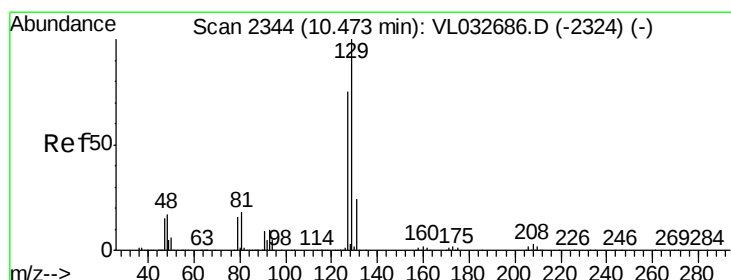
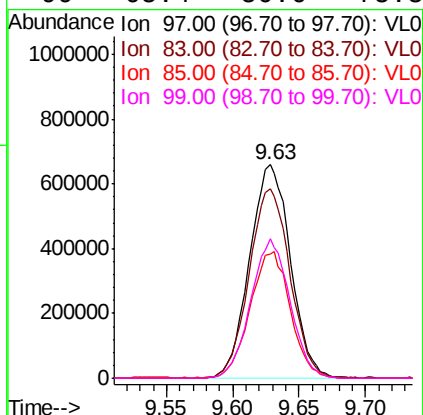
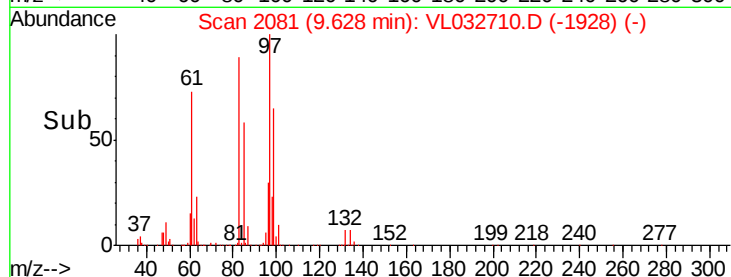
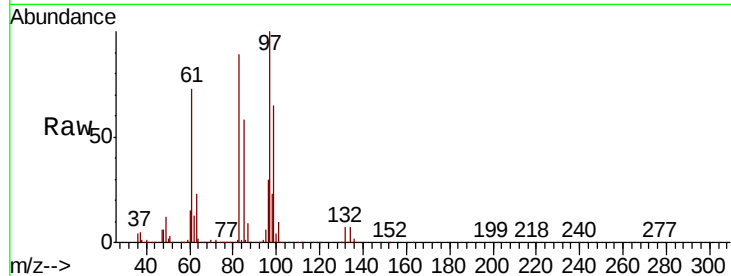
#47  
 1,1,2-Trichloroethane  
 Concen: 10.529 ppbv  
 RT: 9.63 min Scan# 2081  
 Delta R.T. -0.01 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 97      | 100  |       |       |       |
| 83      | 88.7 | 73.5  | 110.3 |       |
| 85      | 57.8 | 45.8  | 68.6  |       |
| 99      | 65.4 | 50.6  | 75.8  |       |

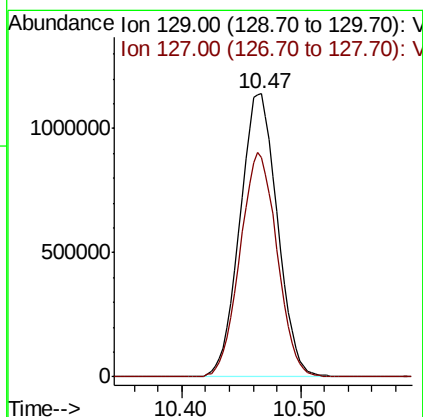
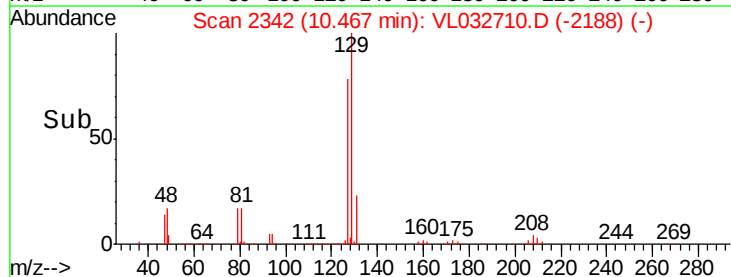
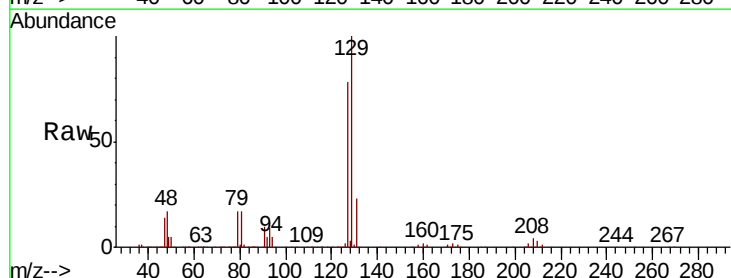
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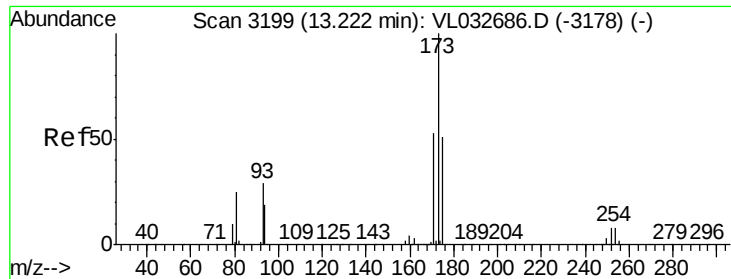
MMDadoda  
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#48  
 Dibromochloromethane  
 Concen: 11.122 ppbv  
 RT: 10.47 min Scan# 2342  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 129     | 100  |       |       |       |
| 127     | 78.3 | 39.1  | 117.5 |       |





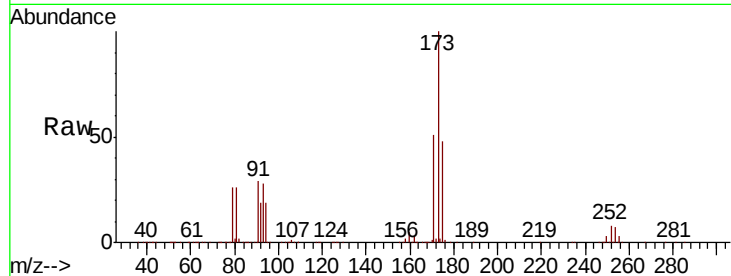
#49  
Bromoform  
Concen: 10.769 ppbv  
RT: 13.22 min Scan# 3197  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

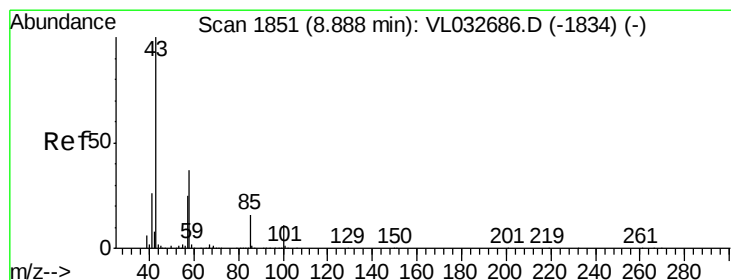
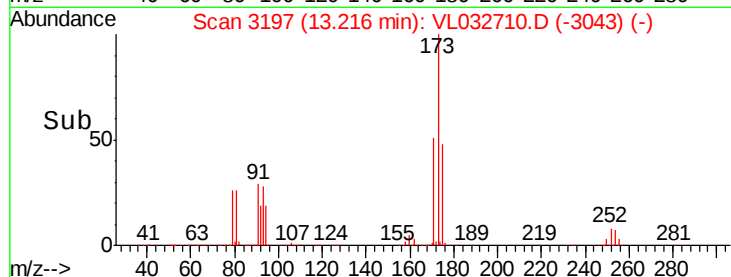
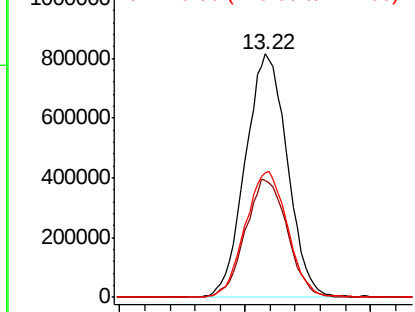
Tot Ion:173 Resp: 1894874  
Ion Ratio Lower Upper  
173 100  
175 48.7 39.0 58.4  
171 52.1 42.2 63.2

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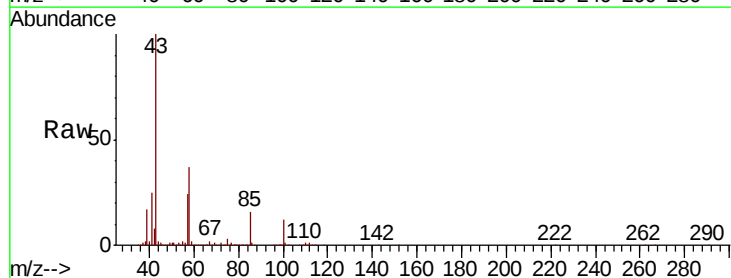


Abundance Ion 172.90 (172.60 to 173.60): V  
Ion 174.90 (174.60 to 175.60): V  
Ion 170.90 (170.60 to 171.60): V

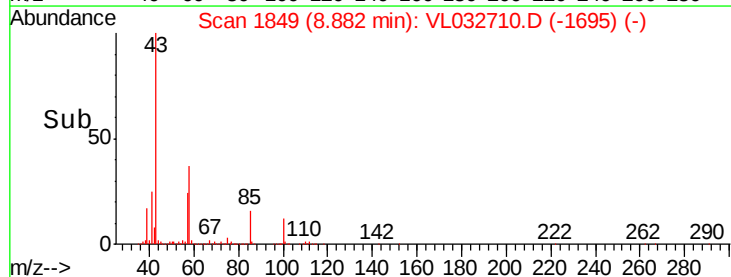
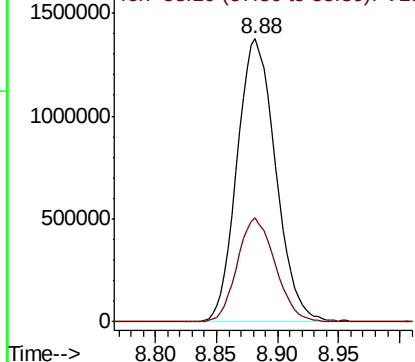


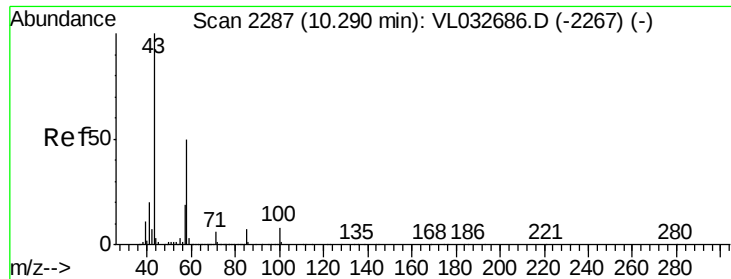
#50  
4-Methyl-2-Pentanone  
Concen: 10.450 ppbv  
RT: 8.88 min Scan# 1849  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Tgt Ion: 43 Resp: 3009030  
Ion Ratio Lower Upper  
43 100  
58 36.3 29.7 44.5



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





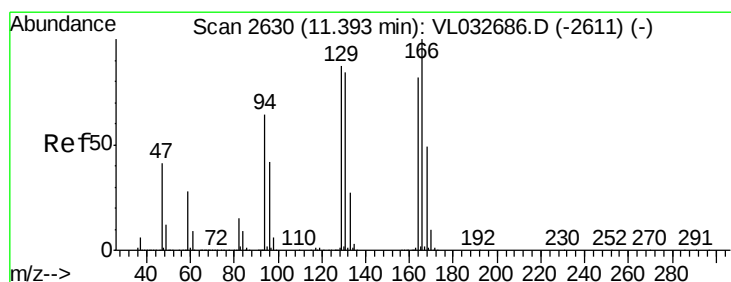
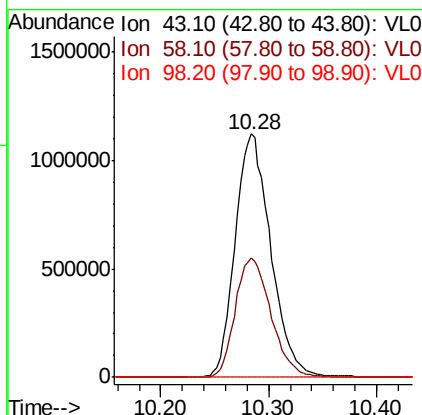
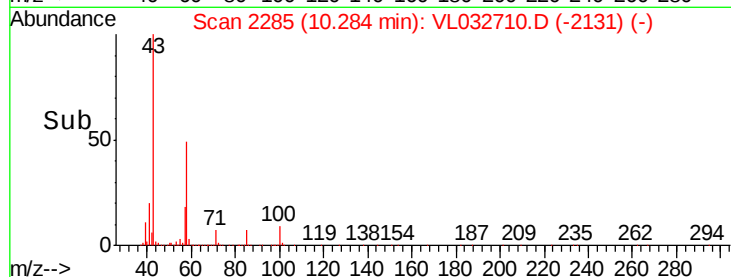
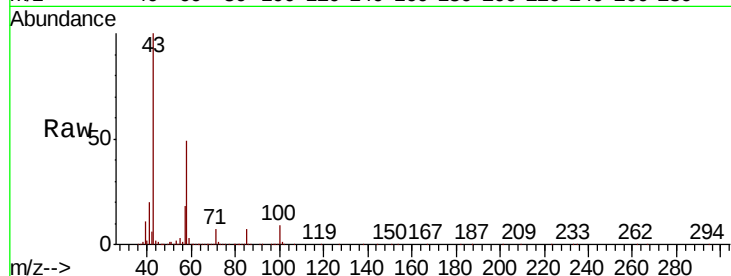
#51  
2-Hexanone  
Concen: 12.067 ppbv  
RT: 10.28 min Scan# 2285  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

Tot Ion: 43 Resp: 2582867  
Ion Ratio Lower Upper  
43 100  
58 49.5 40.4 60.6  
98 0.3 0.4 0.6#

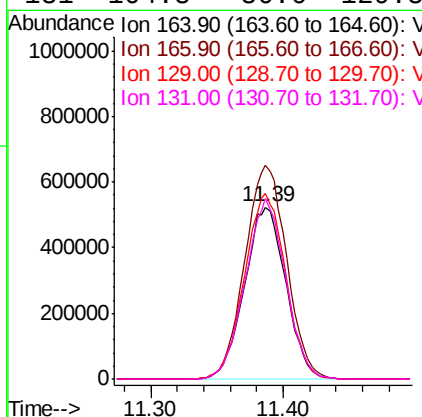
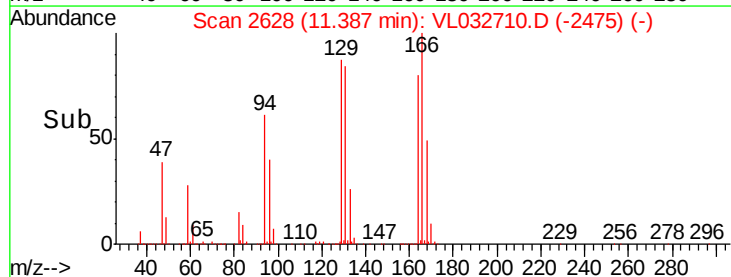
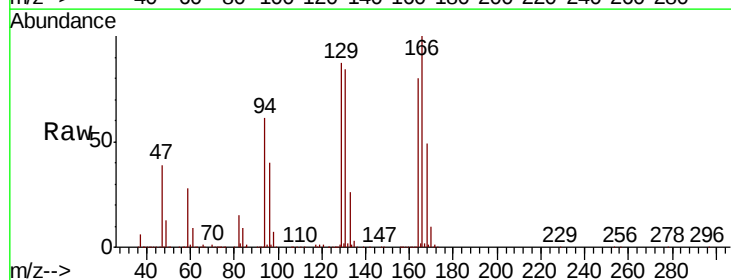
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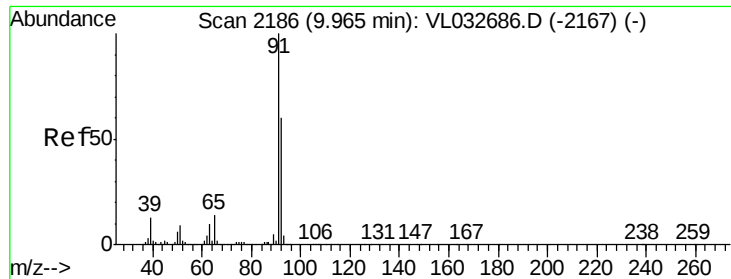
MMDadoda  
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#52  
Tetrachloroethene  
Concen: 11.046 ppbv  
RT: 11.39 min Scan# 2628  
Delta R.T. -0.01 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Tgt Ion: 164 Resp: 1133868  
Ion Ratio Lower Upper  
164 100  
166 124.3 100.5 150.7  
129 108.0 90.0 135.0  
131 104.8 86.6 129.8





#53

Toluene

Concen: 11.757 ppbv

RT: 9.96 min Scan# 2185

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 91 Resp: 3967891

Ion Ratio Lower Upper

91 100

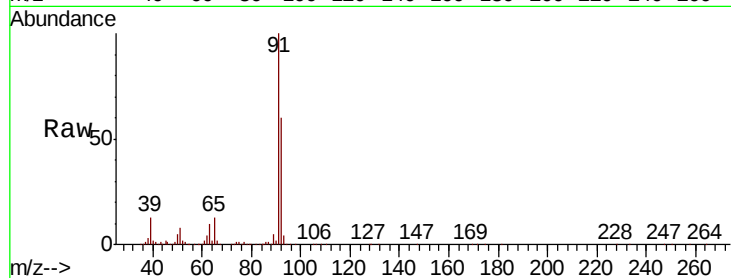
92 60.2 48.4 72.6

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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

2000000

1500000

1000000

500000

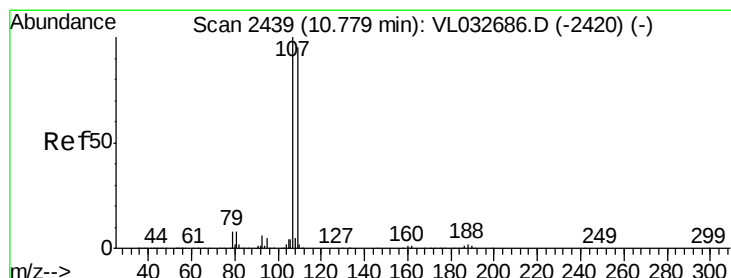
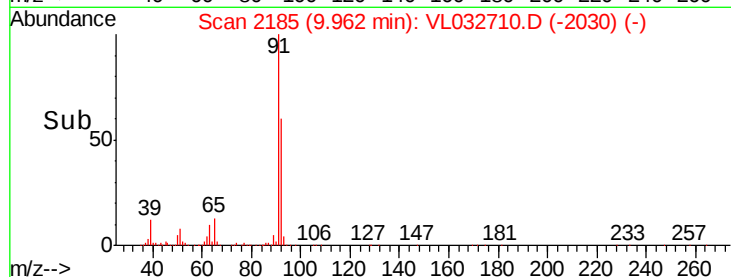
0

9.90

9.96

10.00

Time-->



#54

1,2-Dibromoethane

Concen: 10.853 ppbv

RT: 10.77 min Scan# 2437

Delta R.T. -0.00 min

Lab File: VL032710.D

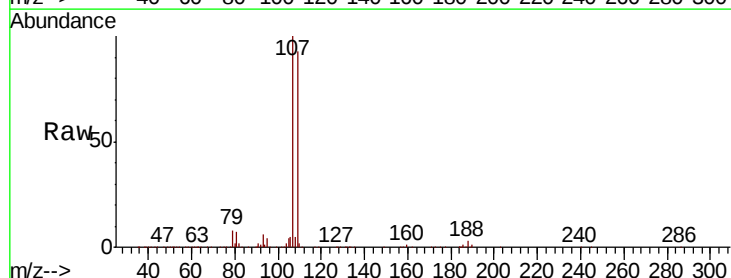
Acq: 31 Oct 2018 9:50

Tgt Ion:107 Resp: 1981627

Ion Ratio Lower Upper

107 100

109 93.0 75.3 112.9



Abundance Ion 107.00 (106.70 to 107.70): V

Ion 109.00 (108.70 to 109.70): V

1000000

800000

600000

400000

200000

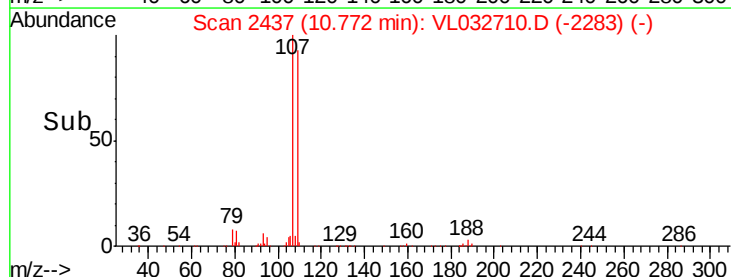
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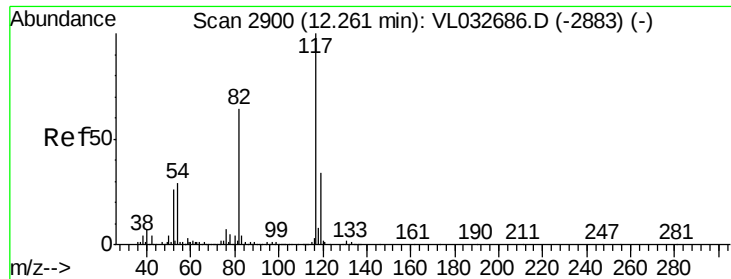
10.70

10.77

10.80

Time-->





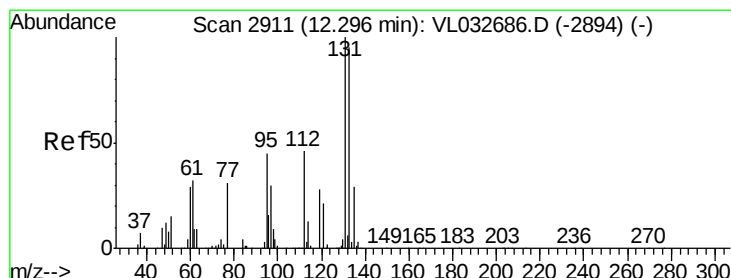
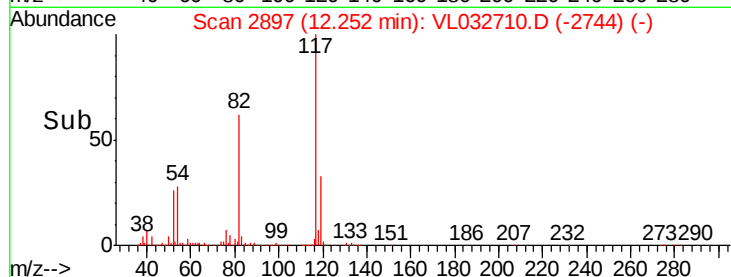
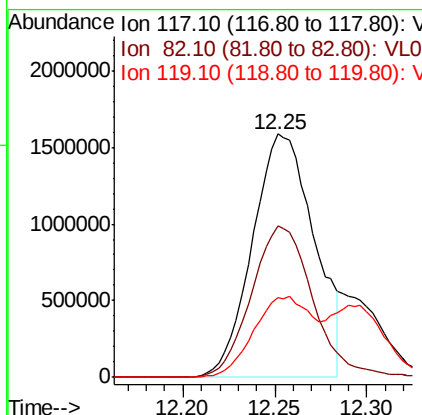
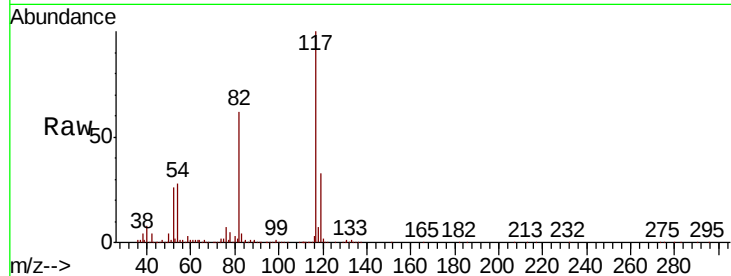
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv m  
RT: 12.25 min Scan# 2897  
Delta R.T. -0.01 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

Tot Ion:117 Resp: 3720963  
Ion Ratio Lower Upper  
117 100  
82 61.9 52.7 79.1  
119 31.0 26.7 40.1

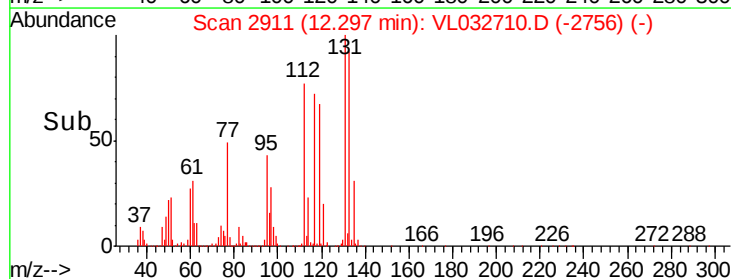
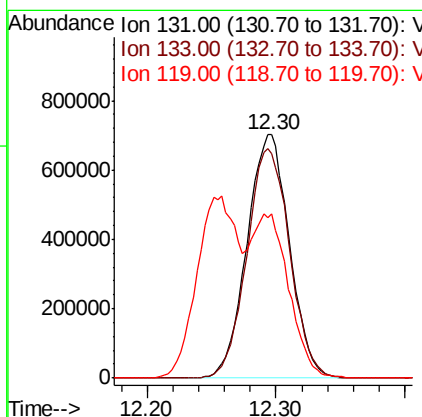
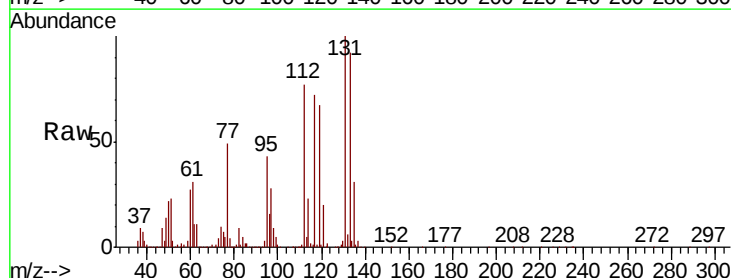
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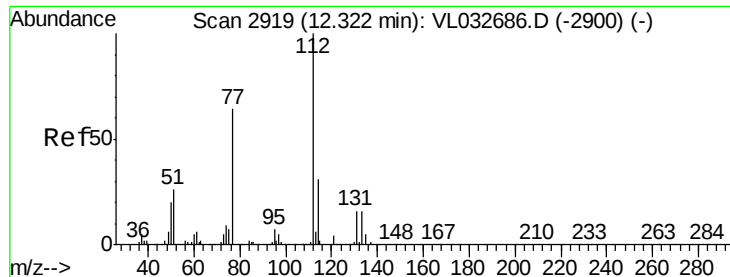
MMDadoda  
10/31/2018 10:40:10 AM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 9.895 ppbv  
RT: 12.30 min Scan# 2911  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Tgt Ion:131 Resp: 1610013  
Ion Ratio Lower Upper  
131 100  
133 95.1 75.4 113.2  
119 62.6 49.1 73.7





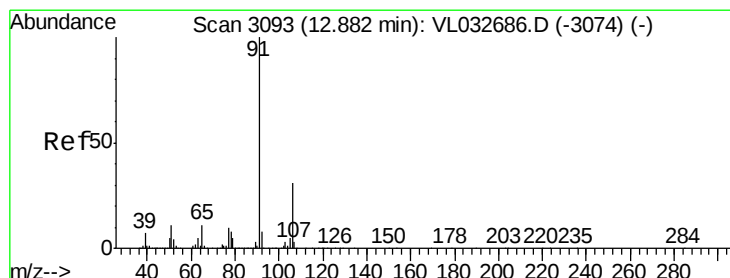
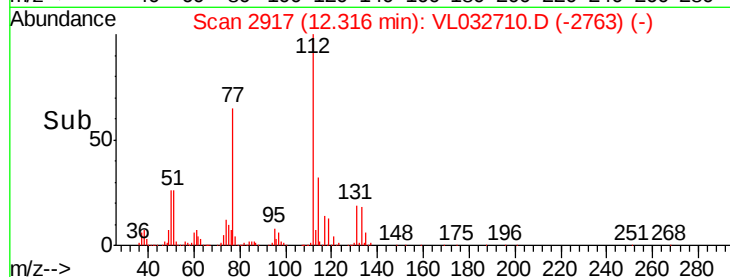
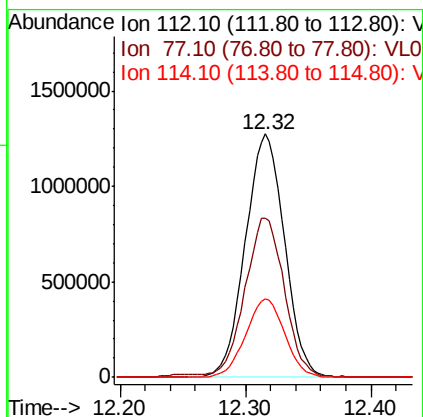
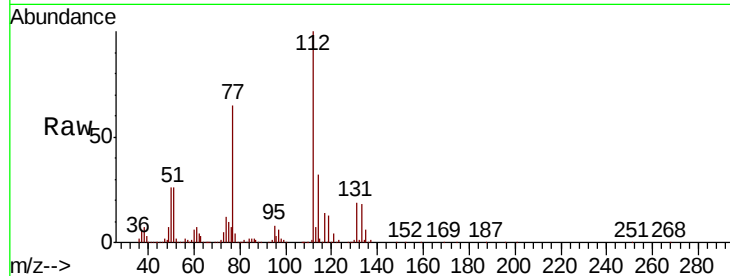
#57  
Chlorobenzene  
Concen: 10.119 ppbv  
RT: 12.32 min Scan# 2917  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 77      | 65.0  | 56.8  | 85.2  |
| 114     | 32.4  | 30.3  | 37.1  |

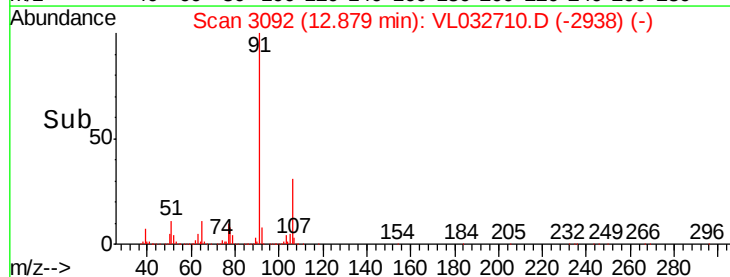
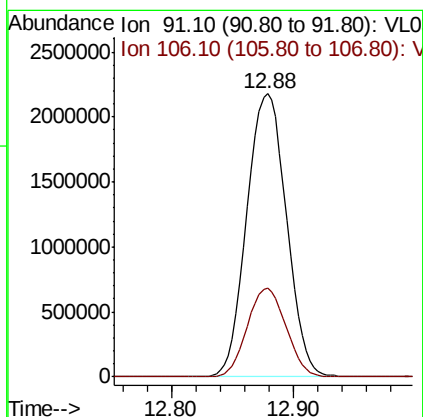
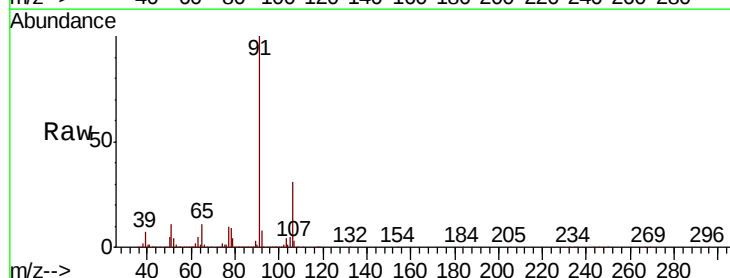
Manual Integrations  
APPROVED

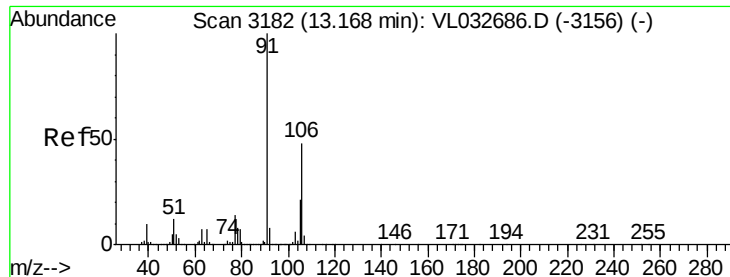
MMDadoda  
10/31/2018 10:40:10 AM



#58  
Ethyl Benzene  
Concen: 11.329 ppbv  
RT: 12.88 min Scan# 3092  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 31.4  | 24.2  | 36.2  |





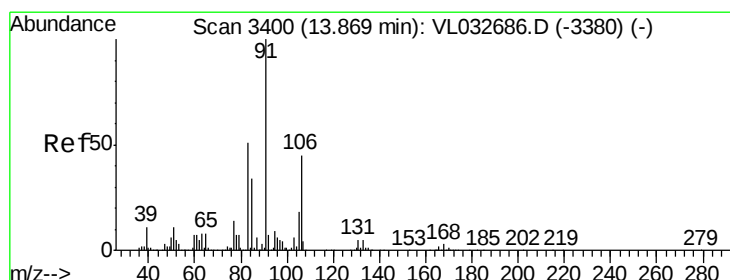
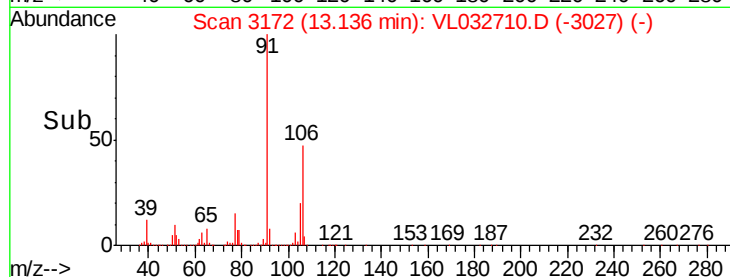
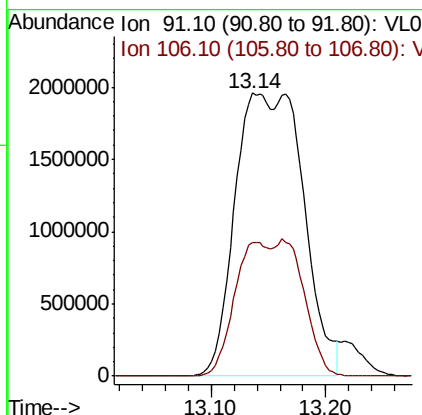
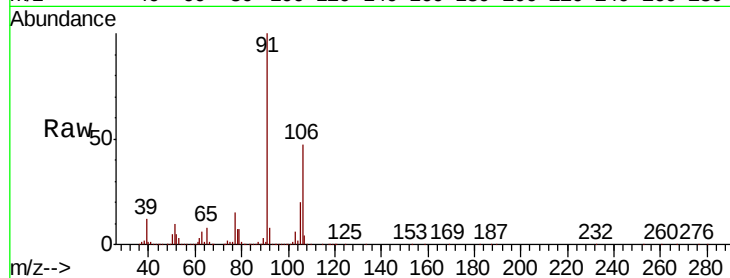
#59  
m/p-Xylene  
Concen: 21.007 ppbv m  
RT: 13.14 min Scan# 3172  
Delta R.T. -0.03 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

Tot Ion: 91 Resp: 8086650  
Ion Ratio Lower Upper  
91 100  
106 46.6 35.9 53.9

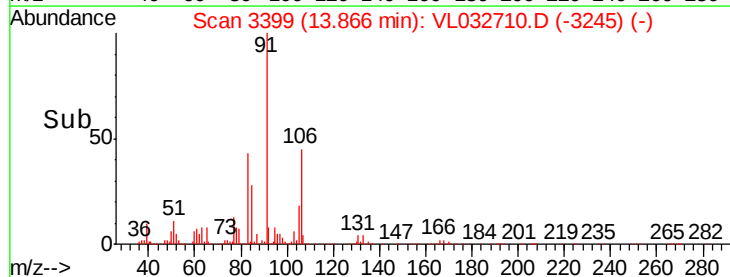
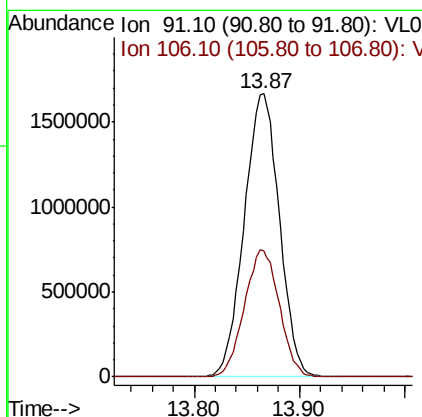
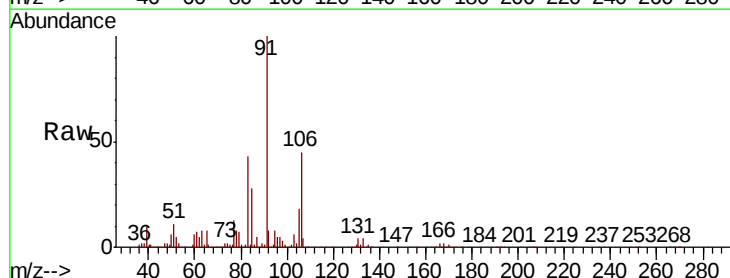
Manual Integrations  
APPROVED

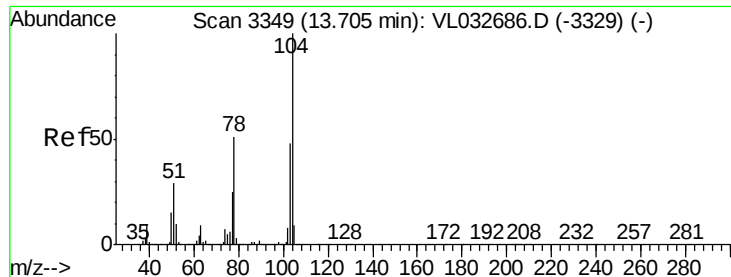
MMDadoda  
10/31/2018 10:40:10 AM



#60  
o-Xylene  
Concen: 10.412 ppbv  
RT: 13.87 min Scan# 3399  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Tgt Ion: 91 Resp: 3866307  
Ion Ratio Lower Upper  
91 100  
106 44.7 22.1 66.1





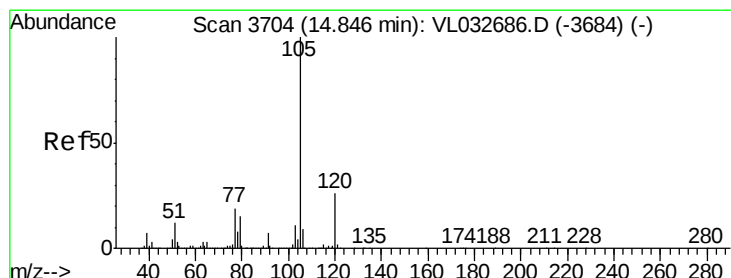
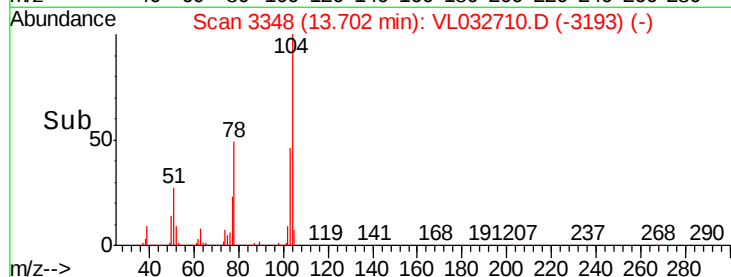
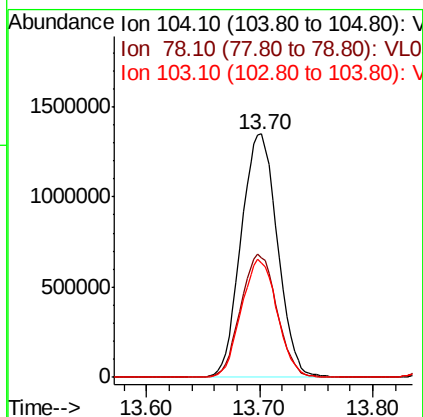
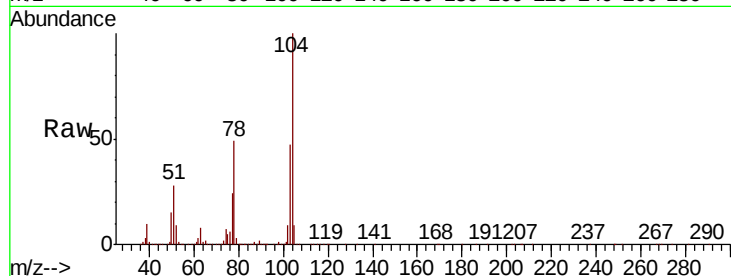
#61  
Stvrene  
Concen: 12.142 ppbv  
RT: 13.70 min Scan# 3348  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 50.3  | 42.8  | 64.2  |
| 103     | 47.7  | 37.4  | 56.0  |

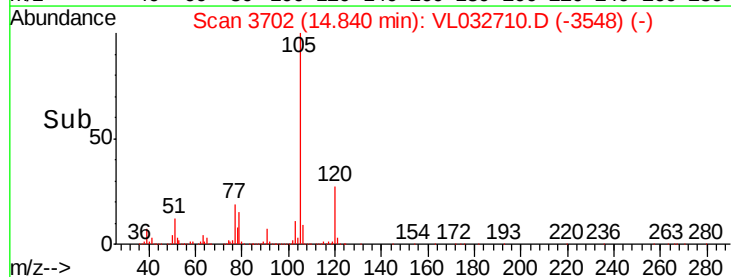
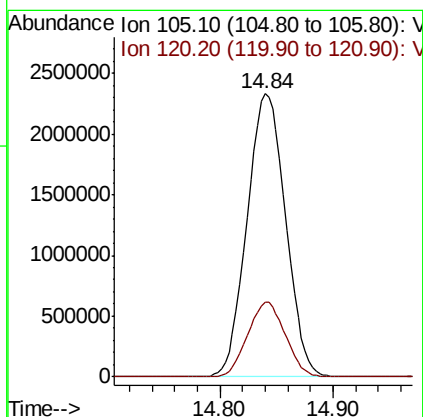
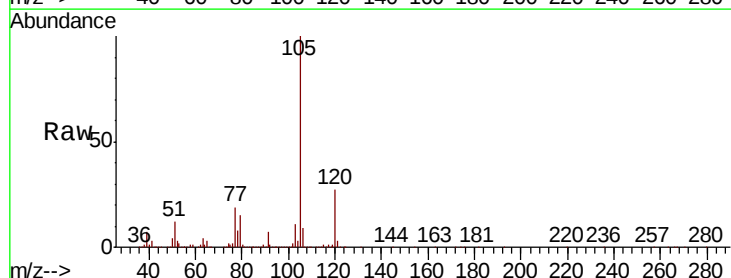
Manual Integrations  
APPROVED

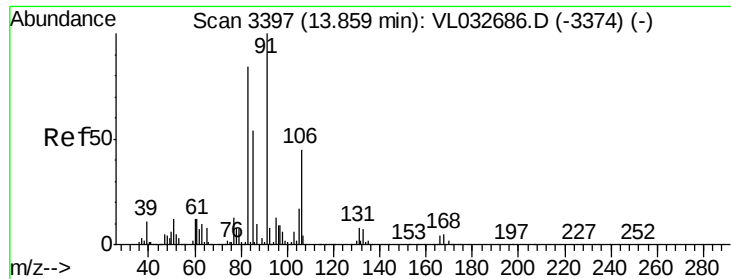
MMDadoda  
10/31/2018 10:40:10 AM



#62  
Isopropylbenzene  
Concen: 10.522 ppbv  
RT: 14.84 min Scan# 3702  
Delta R.T. -0.00 min  
Lab File: VL032710.D  
Acq: 31 Oct 2018 9:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 25.8  | 20.5  | 30.7  |





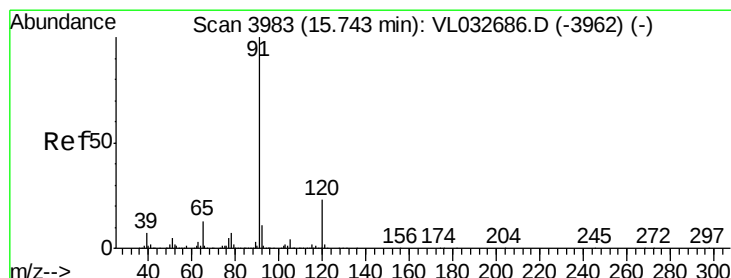
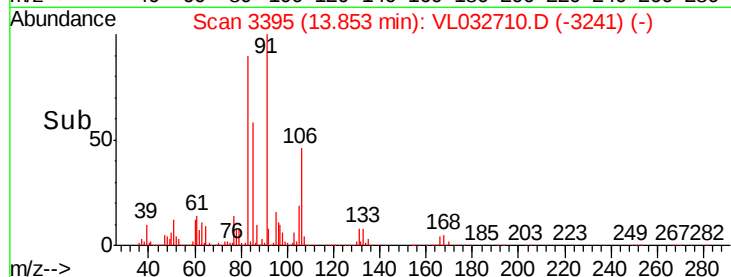
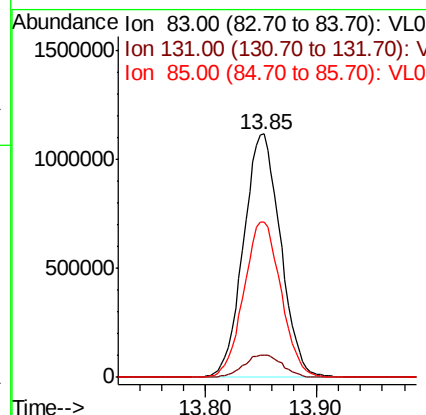
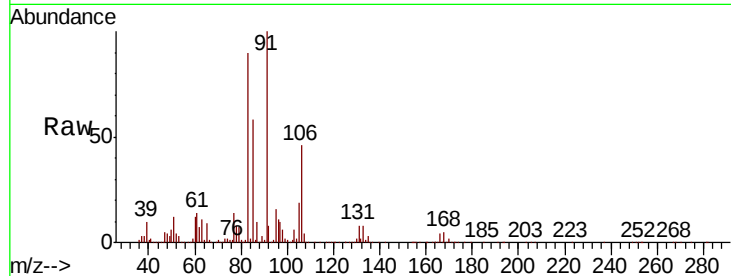
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 8.911 ppbv  
 RT: 13.85 min Scan# 3395  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 131     | 9.6   | 4.3   | 12.9  |
| 85      | 64.7  | 32.3  | 96.9  |

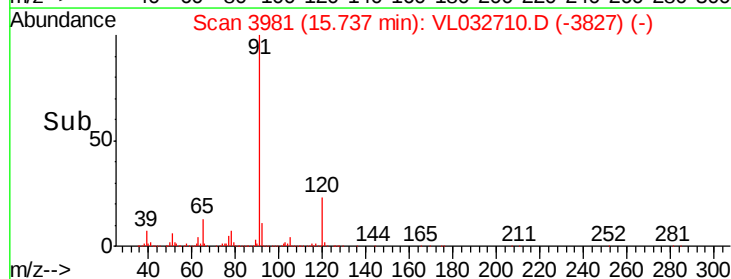
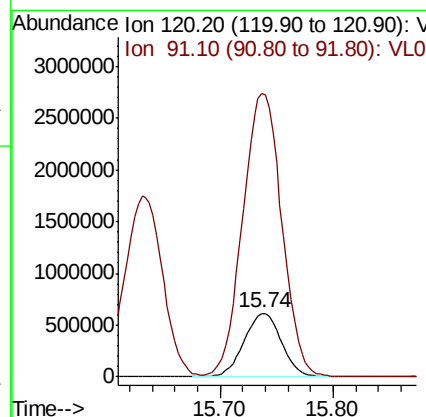
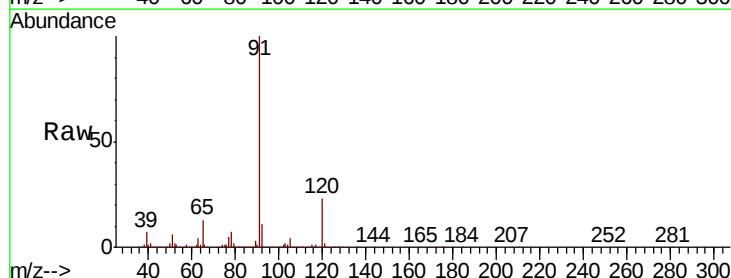
Manual Integrations  
 APPROVED

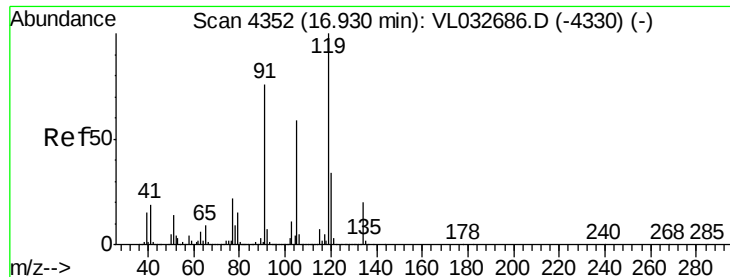
MMDadoda  
 10/31/2018 10:40:10 AM



#64  
 n-propylbenzene  
 Concen: 10.848 ppbv  
 RT: 15.74 min Scan# 3981  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 120     | 100   |       |       |
| 91      | 464.6 | 390.2 | 585.2 |





#65

tert-Butylbenzene

Concen: 10.390 ppbv

RT: 16.93 min Scan# 4351

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion:119 Resp: 4650431

Ion Ratio Lower Upper

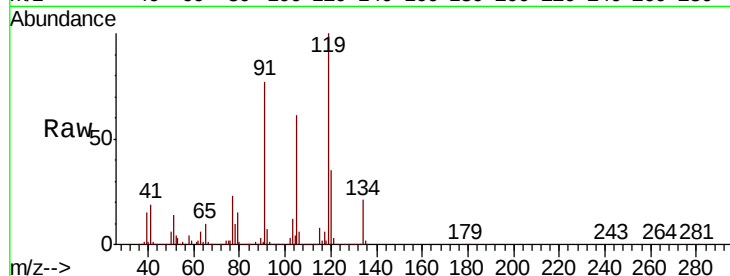
119 100

91 79.4 67.8 101.8

134 20.0 15.8 23.8

Manual Integrations  
APPROVED

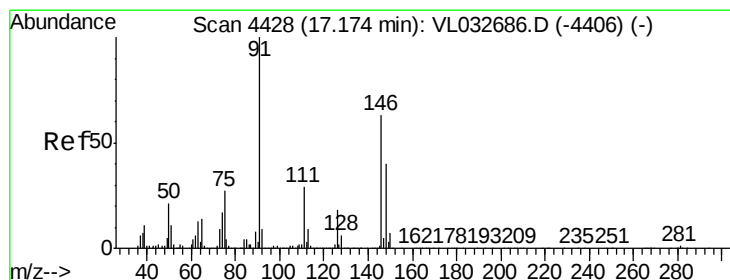
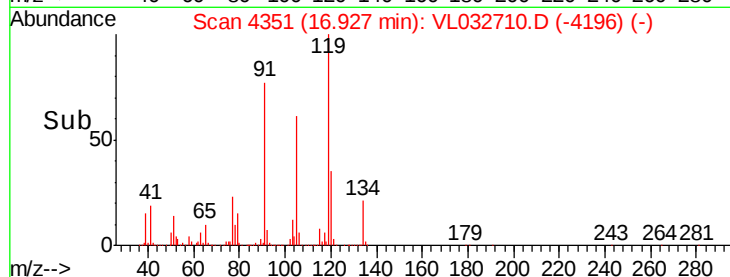
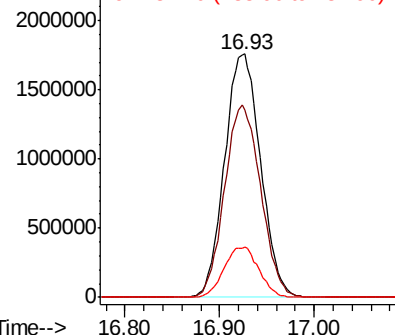
MMDadoda  
10/31/2018 10:40:10 AM



Abundance Ion 119.20 (118.90 to 119.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 134.20 (133.90 to 134.90): V



#66

Benzyl Chloride

Concen: 11.745 ppbv

RT: 17.17 min Scan# 4427

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

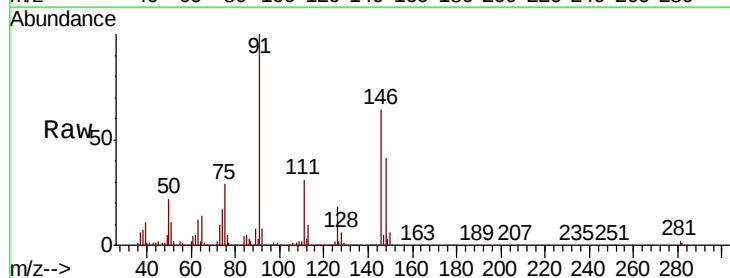
Tgt Ion: 91 Resp: 2714209

Ion Ratio Lower Upper

91 100

126 18.3 13.9 20.9

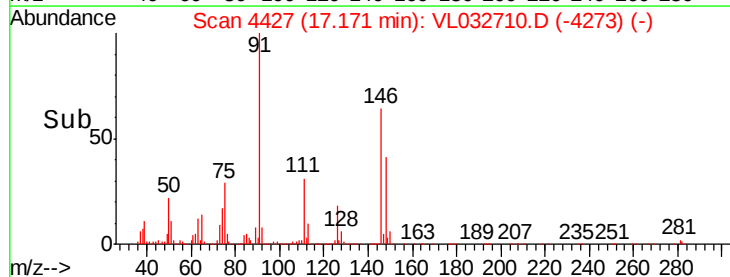
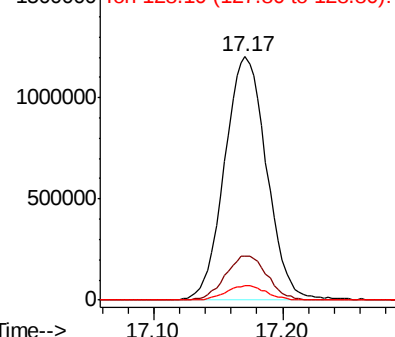
128 5.8 4.3 6.5

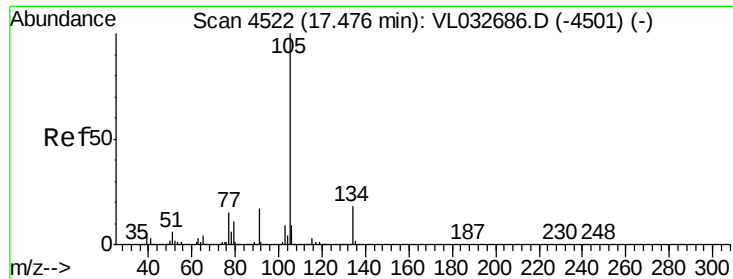


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

Ion 128.10 (127.80 to 128.80): V





#67

sec-Butylbenzene

Concen: 10.251 ppbv

RT: 17.47 min Scan# 4521

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion:105 Resp: 6525017

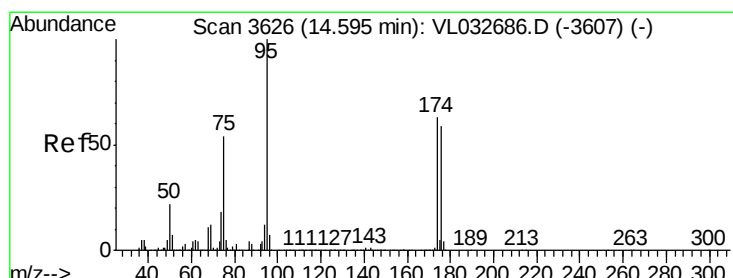
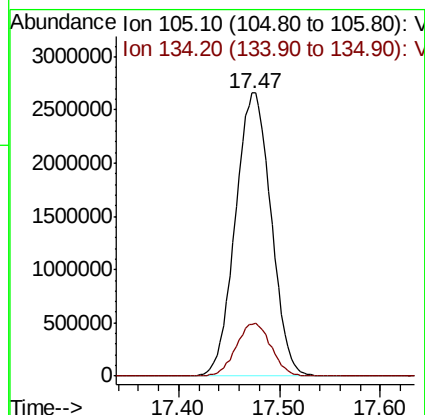
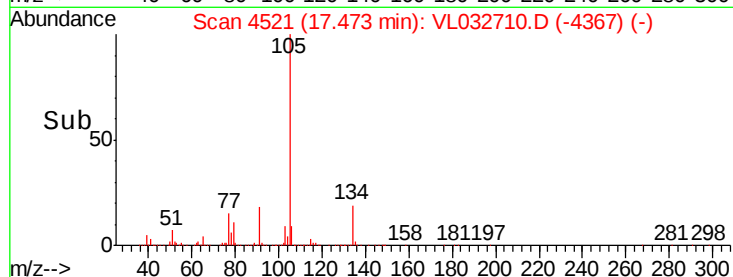
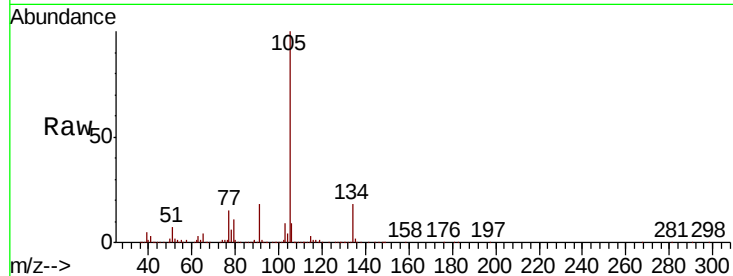
Ion Ratio Lower Upper

105 100

134 18.2 14.2 21.2

Manual Integrations  
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MMDadoda  
10/31/2018 10:40:10 AM



#68

1-Bromo-4-Fluorobenzene

Concen: 10.007 ppbv

RT: 14.59 min Scan# 3624

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

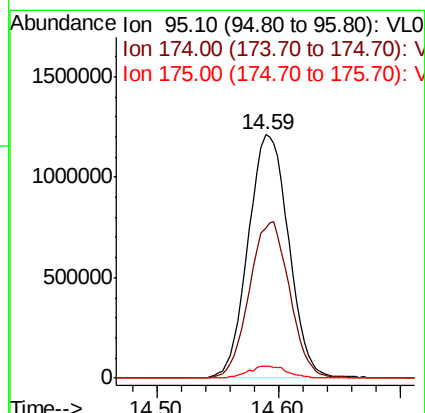
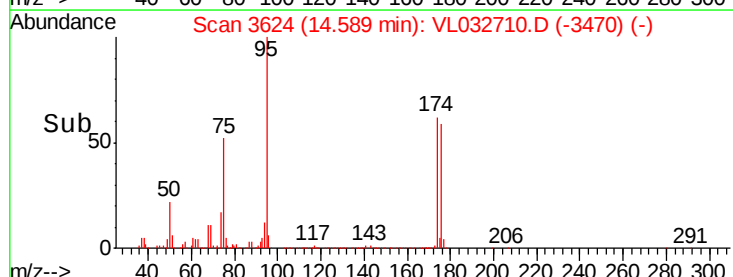
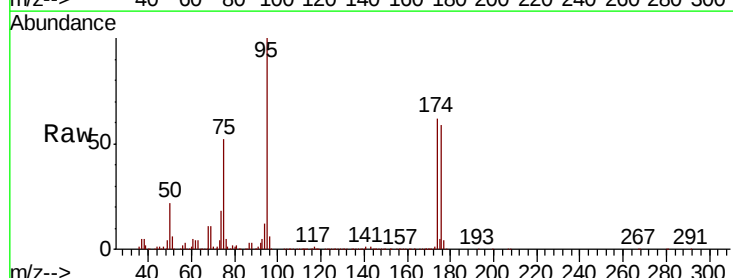
Tgt Ion: 95 Resp: 2772528

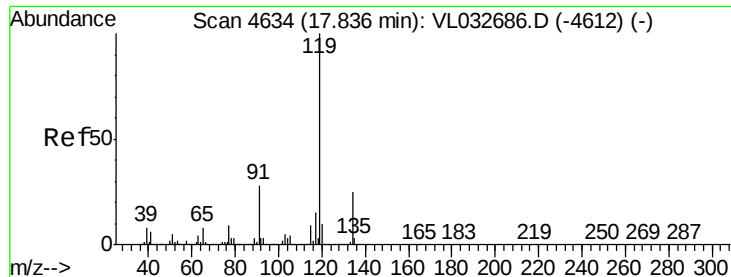
Ion Ratio Lower Upper

95 100

174 64.2 46.0 69.0

175 4.8 3.4 5.0





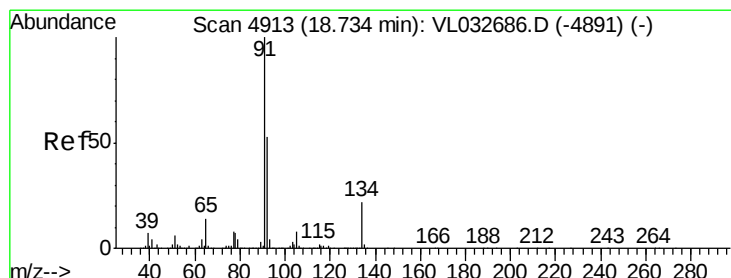
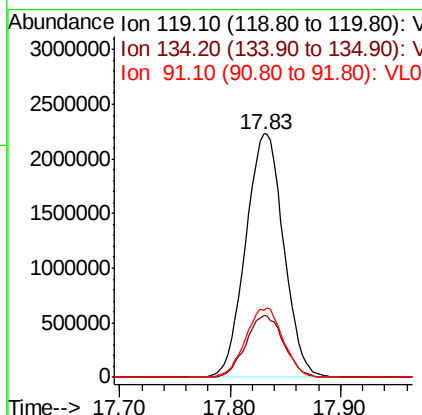
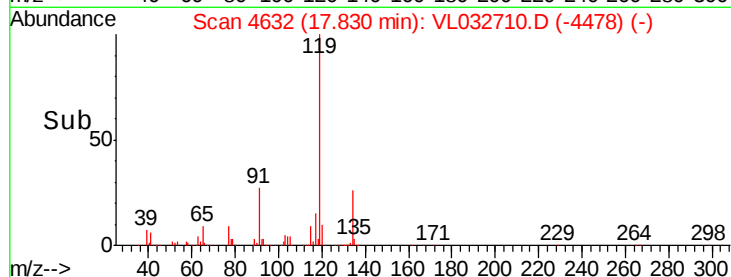
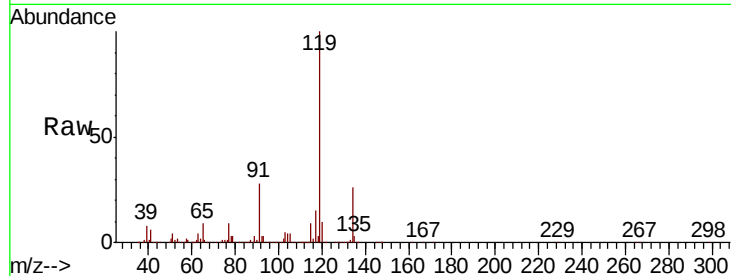
#69  
 p-Isopropyltoluene  
 Concen: 10.524 ppbv  
 RT: 17.83 min Scan# 4632  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 25.4  | 20.2  | 30.2  |
| 91      | 28.2  | 24.0  | 36.0  |

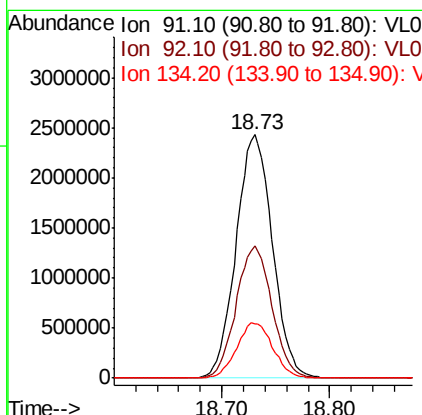
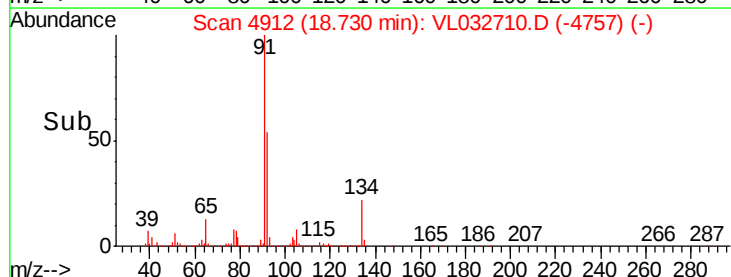
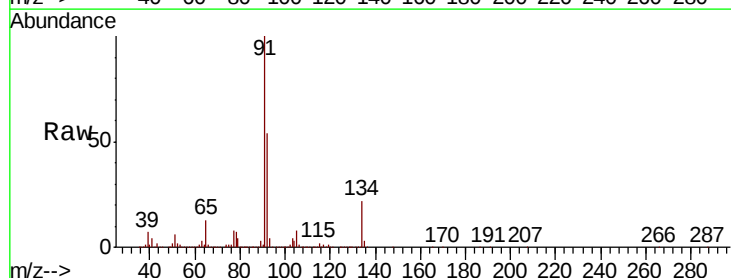
Manual Integrations  
 APPROVED

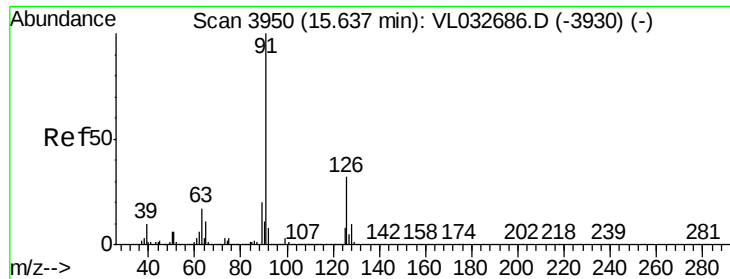
MMDadoda  
 10/31/2018 10:40:10 AM



#70  
 n-Butylbenzene  
 Concen: 10.940 ppbv  
 RT: 18.73 min Scan# 4912  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 53.7  | 43.0  | 64.4  |
| 134     | 22.7  | 17.0  | 25.6  |





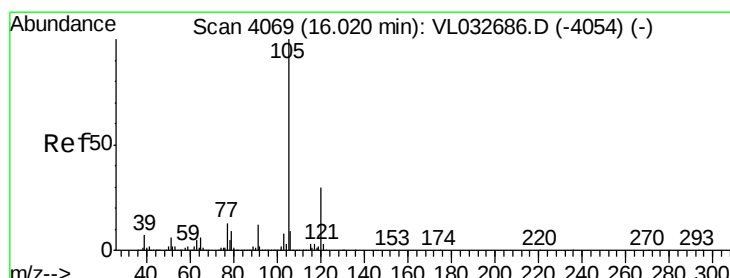
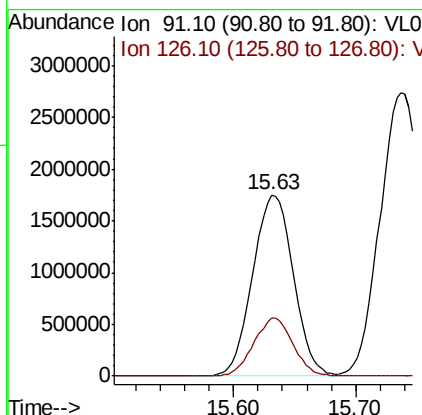
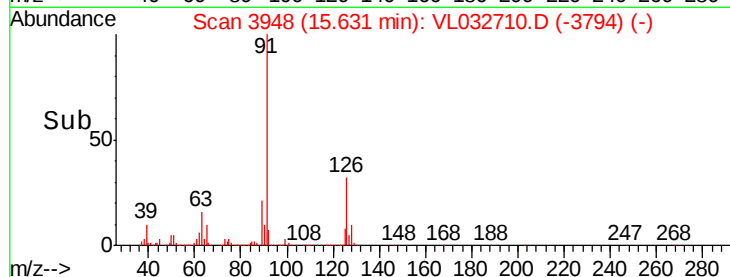
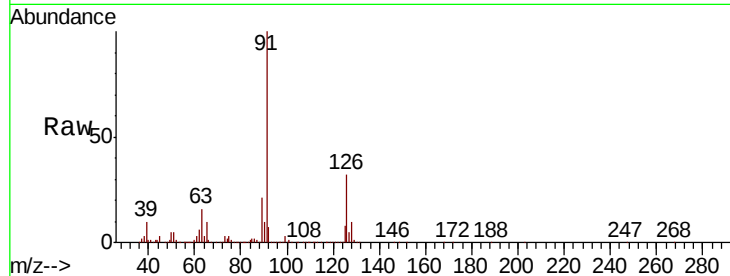
#71  
 2-Chlorotoluene  
 Concen: 10.856 ppbv  
 RT: 15.63 min Scan# 3948  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

Tot Ion: 91 Resp: 4054484  
 Ion Ratio Lower Upper  
 91 100  
 126 31.0 11.8 47.4

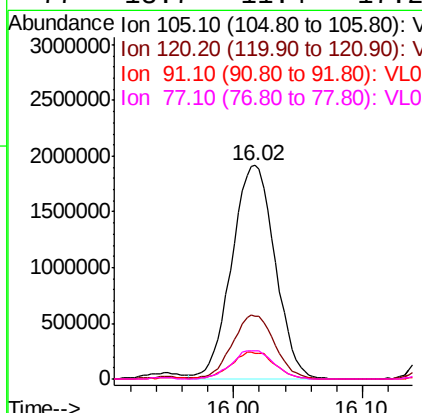
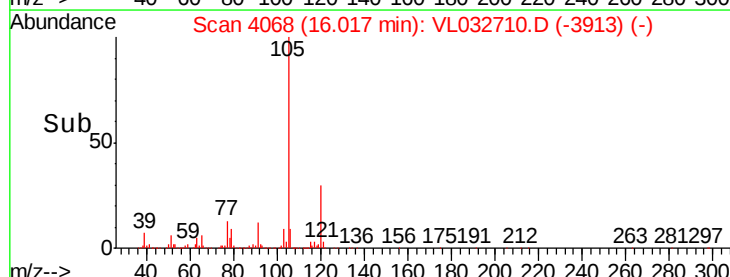
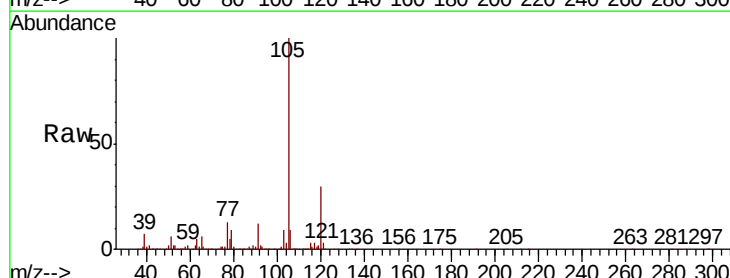
Manual Integrations  
 APPROVED

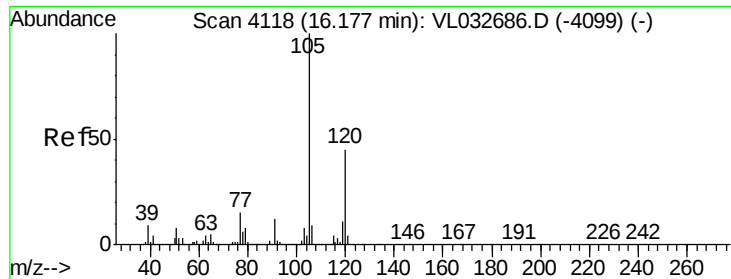
MMDadoda  
 10/31/2018 10:40:10 AM



#72  
 4-Ethyltoluene  
 Concen: 11.278 ppbv  
 RT: 16.02 min Scan# 4068  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Tgt Ion: 105 Resp: 4460404  
 Ion Ratio Lower Upper  
 105 100  
 120 29.5 23.7 35.5  
 91 13.1 10.4 15.6  
 77 13.7 11.4 17.2





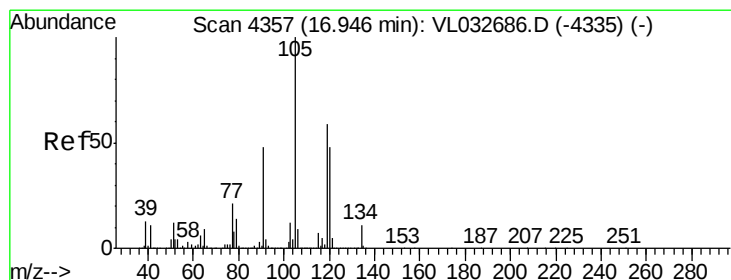
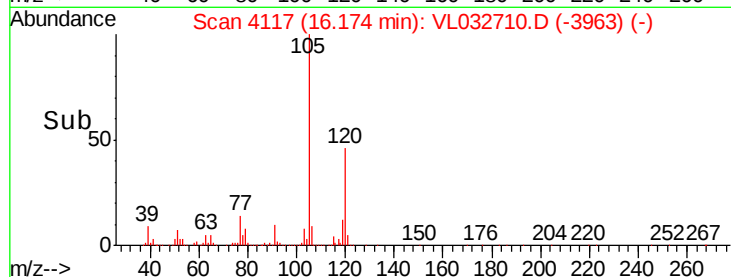
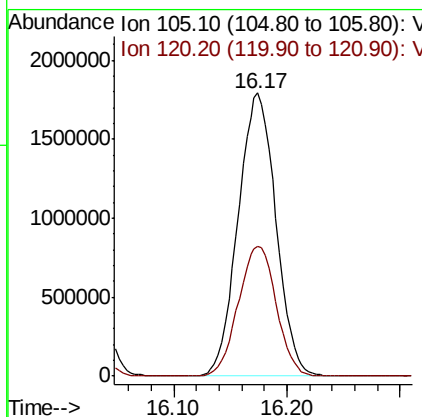
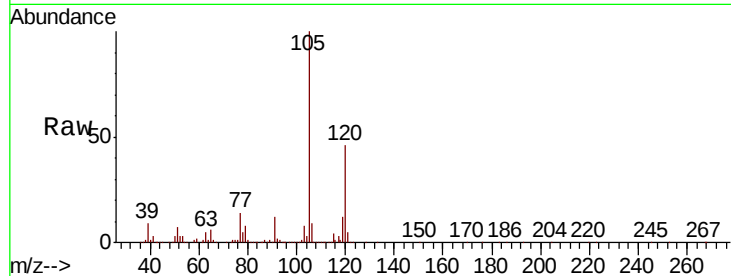
#73  
 1,3,5-Trimethylbenzene  
 Concen: 10.784 ppbv  
 RT: 16.17 min Scan# 4117  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

Tot Ion:105 Resp: 4154263  
 Ion Ratio Lower Upper  
 105 100  
 120 45.9 35.4 53.2

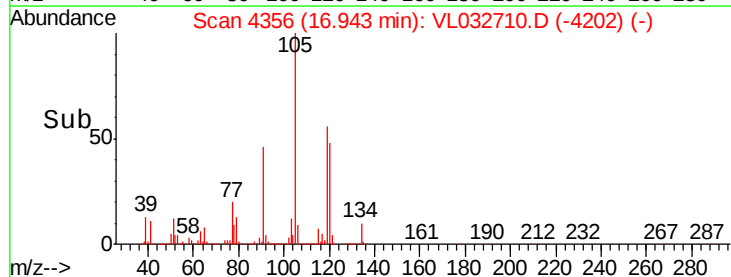
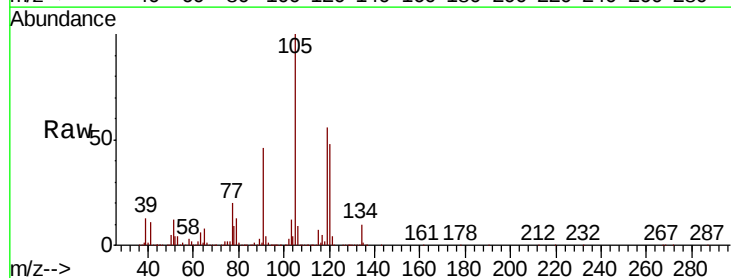
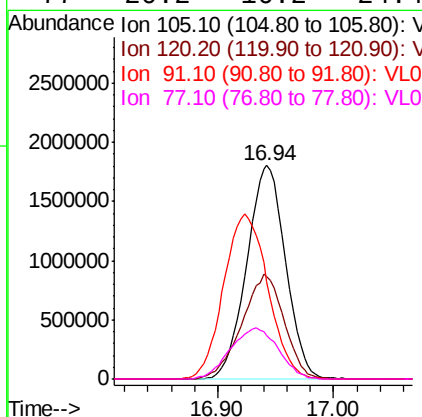
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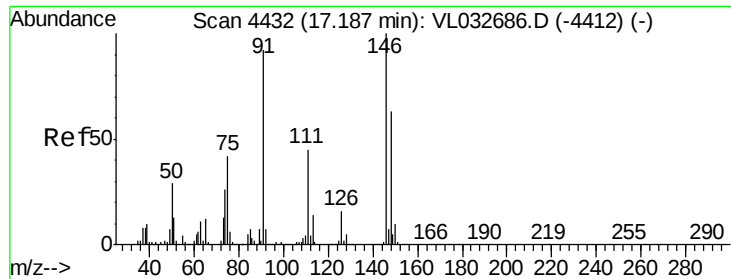
MMDadoda  
 10/31/2018 10:40:10 AM



#74  
 1,2,4-Trimethylbenzene  
 Concen: 10.185 ppbv  
 RT: 16.94 min Scan# 4356  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Tgt Ion:105 Resp: 4189985  
 Ion Ratio Lower Upper  
 105 100  
 120 47.6 35.8 53.8  
 91 45.4 33.2 49.8  
 77 20.2 16.2 24.4





#75

1,3-Dichlorobenzene

Concen: 9.882 ppbv

RT: 17.18 min Scan# 4430

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion:146 Resp: 2337532

Ion Ratio Lower Upper

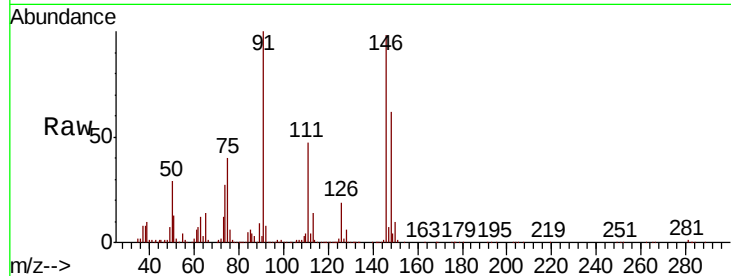
146 100

111 47.3 24.4 73.2

148 64.9 31.9 95.9

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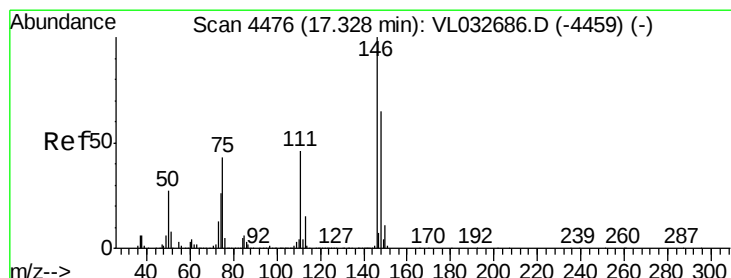
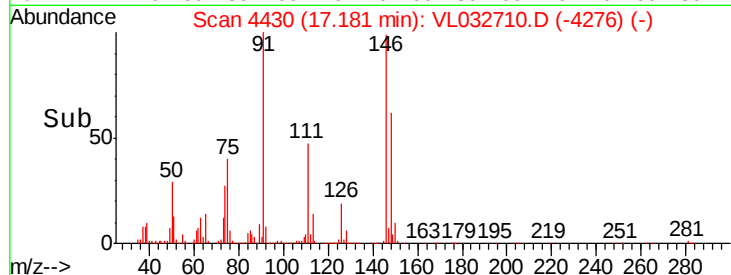
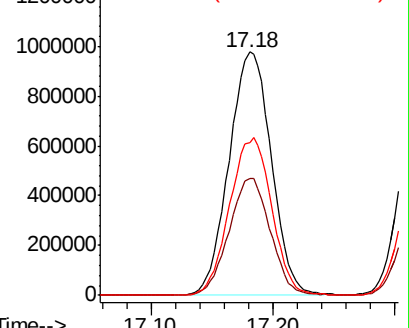
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Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#76

1,4-Dichlorobenzene

Concen: 10.667 ppbv

RT: 17.32 min Scan# 4474

Delta R.T. -0.01 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

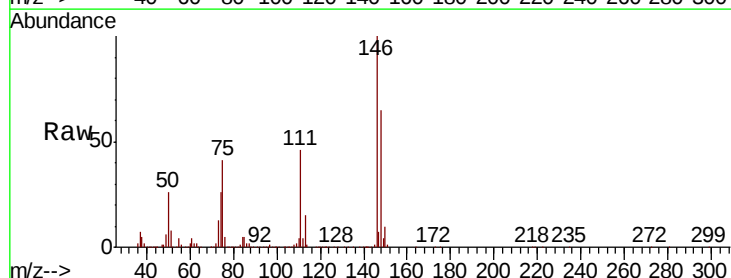
Tgt Ion:146 Resp: 2328478

Ion Ratio Lower Upper

146 100

111 45.5 23.7 71.1

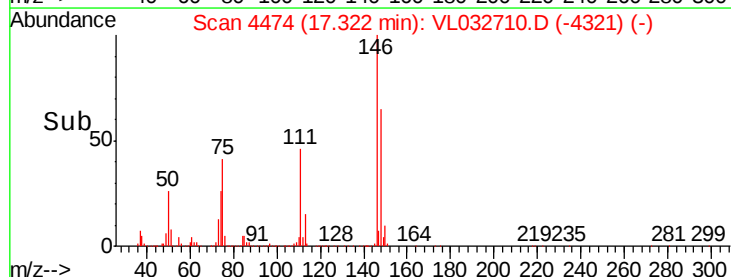
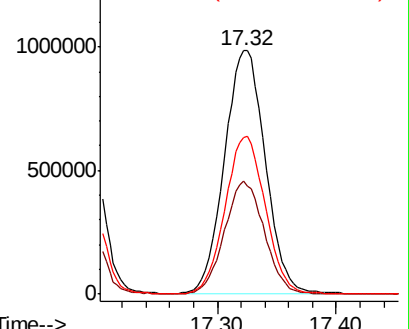
148 64.4 32.1 96.3

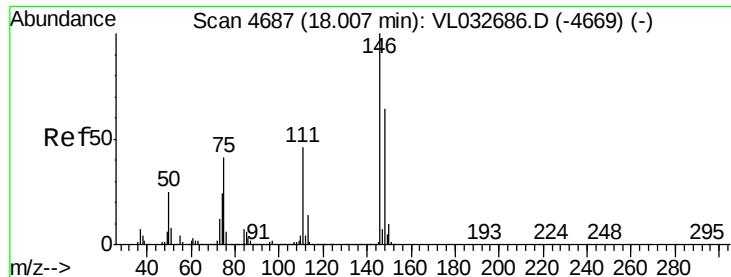


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V





#77

1,2-Dichlorobenzene

Concen: 9.859 ppbv

RT: 18.00 min Scan# 4686

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion:146 Resp: 2209525

Ion Ratio Lower Upper

146 100

111 48.4 25.3 75.8

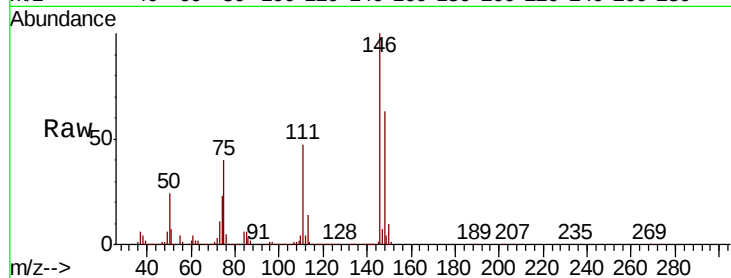
148 64.8 31.9 95.9

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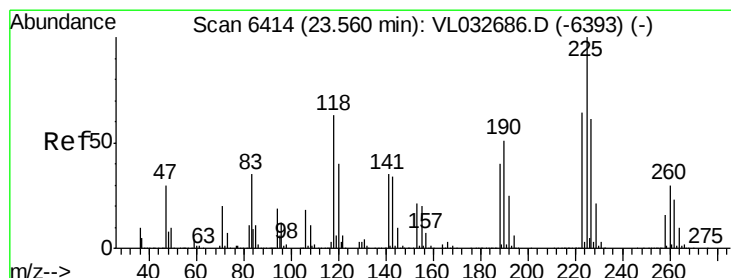
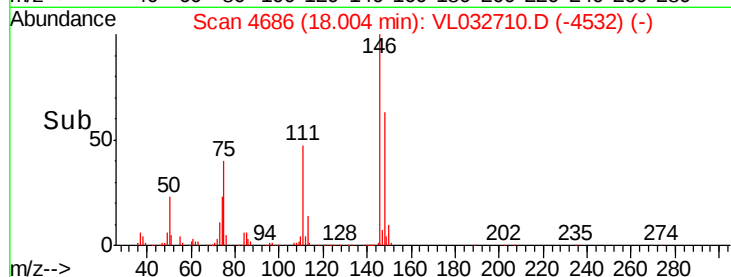
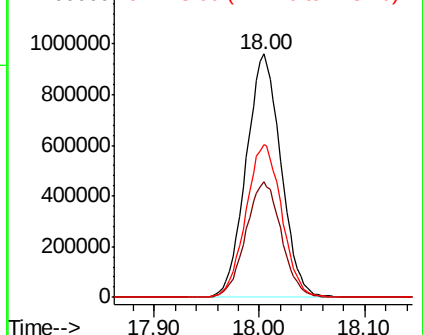


Abundance

Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#78

Hexachloro-1,3-Butadiene

Concen: 13.059 ppbv

RT: 23.56 min Scan# 6414

Delta R.T. 0.01 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

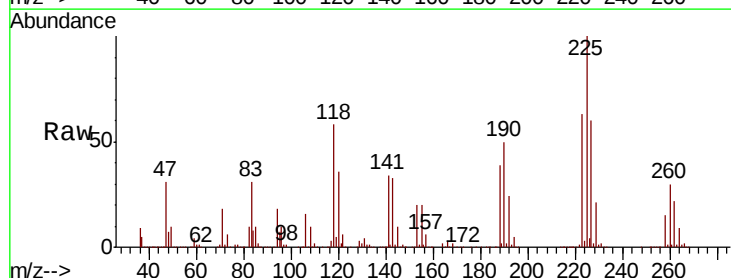
Tgt Ion:225 Resp: 1382785

Ion Ratio Lower Upper

225 100

223 64.5 50.7 76.1

227 64.8 50.7 76.1

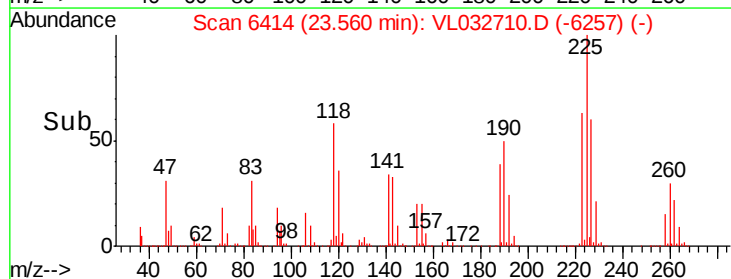
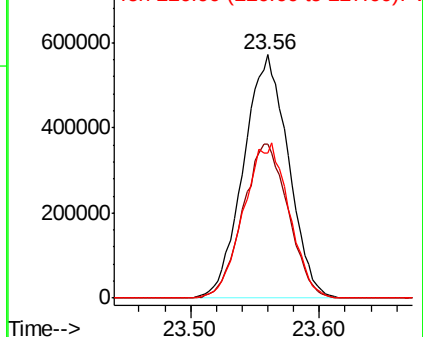


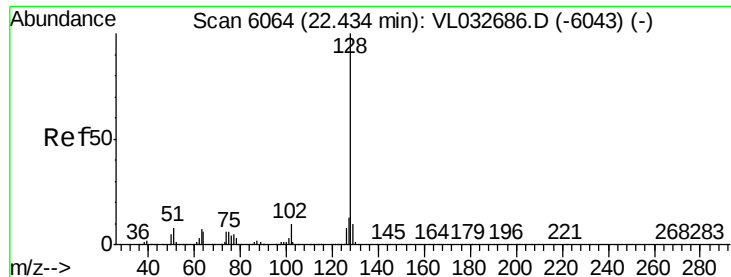
Abundance

Ion 224.90 (224.60 to 225.60): V

Ion 222.90 (222.60 to 223.60): V

Ion 226.90 (226.60 to 227.60): V





#79

Naphthalene

Concen: 13.791 ppbv

RT: 22.43 min Scan# 6063

Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

Instrument :

MSVOA\_L

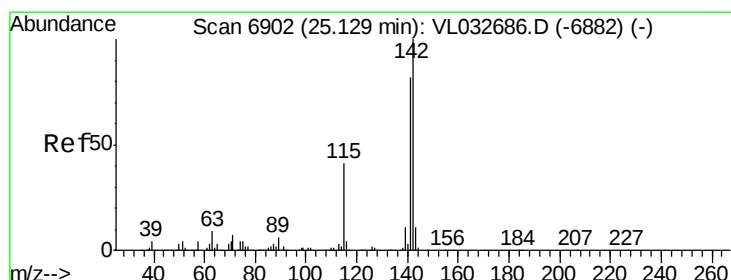
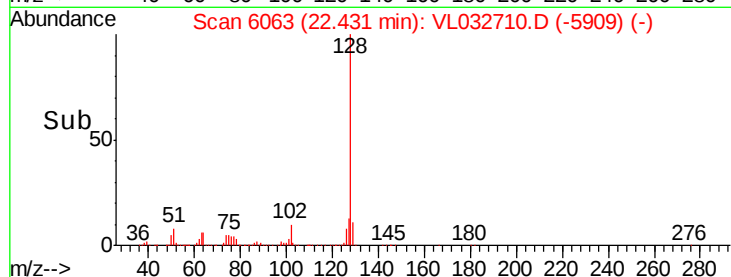
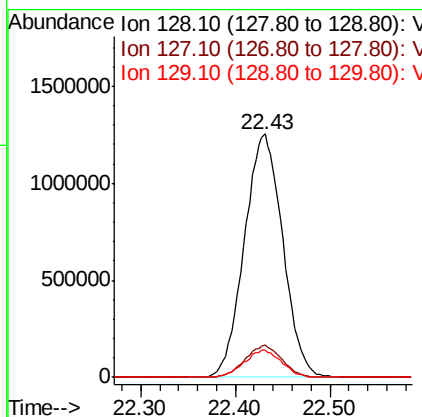
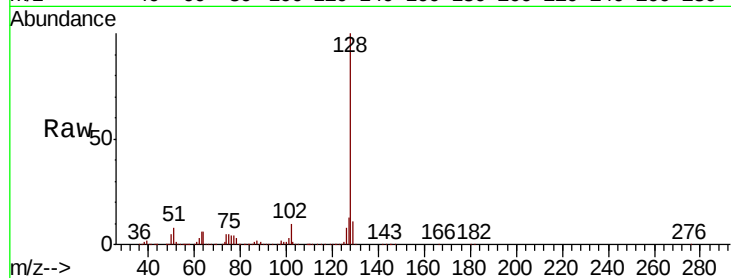
ClientSampleId :

VSTDCCC010EC

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 128   | Resp: | 3526251 |
| Ion      | Ratio | Lower | Upper   |
| 128      | 100   |       |         |
| 127      | 13.1  | 10.3  | 15.5    |
| 129      | 11.3  | 8.6   | 13.0    |

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#80

Naphthalene, 2-methyl-

Concen: 23.583 ppbv

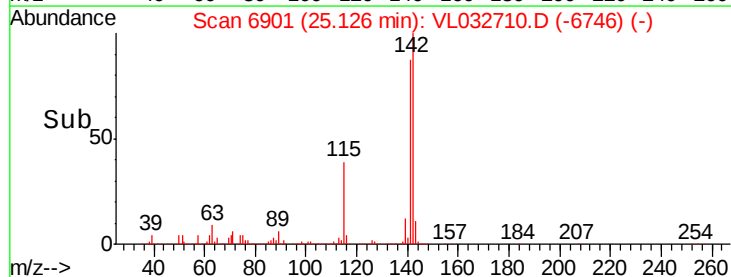
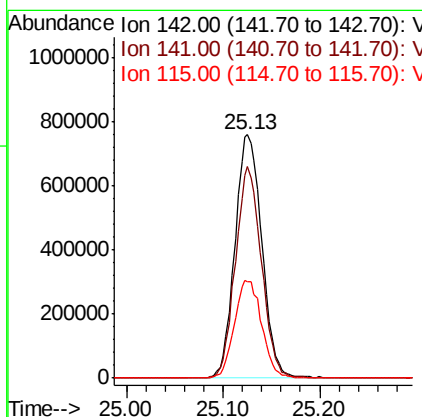
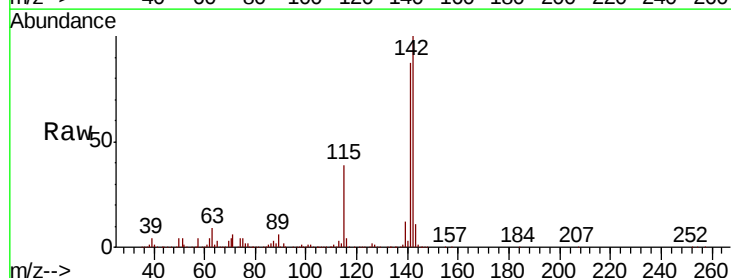
RT: 25.13 min Scan# 6901

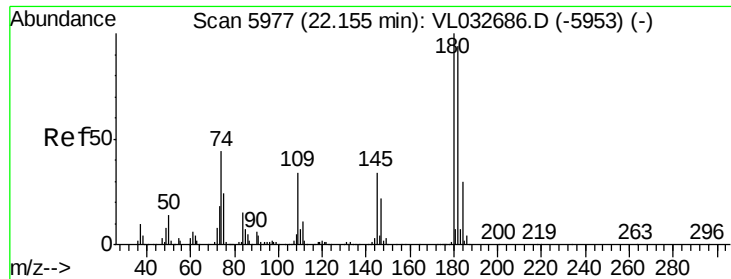
Delta R.T. -0.00 min

Lab File: VL032710.D

Acq: 31 Oct 2018 9:50

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 142   | Resp: | 1466299 |
| Ion      | Ratio | Lower | Upper   |
| 142      | 100   |       |         |
| 141      | 84.2  | 67.5  | 101.3   |
| 115      | 40.7  | 33.5  | 50.3    |





#81  
 1,2,4-Trichlorobenzene  
 Concen: 12.935 ppbv  
 RT: 22.15 min Scan# 5977  
 Delta R.T. -0.00 min  
 Lab File: VL032710.D  
 Acq: 31 Oct 2018 9:50

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.3  | 76.5  | 114.7 |
| 184     | 30.6  | 24.7  | 37.1  |

Manual Integrations  
 APPROVED

MMDadoda  
 10/31/2018 10:40:10 AM

