

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040419\  
 Data File : VL033531.D  
 Acq On : 4 Apr 2019 12:31  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Manual Integrations  
 APPROVED

MMDadoda  
 4/8/2019 3:22:12 AM

Quant Time: Apr 05 02:17:26 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Mar 2  
 QLast Update : Tue Mar 26 16:00:50 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 1112290  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 2617158  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.24 | 117  | 2746839m | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 2154088  | 10.00    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.00% |

| Target Compounds               |      |     |         |        | Ovalue   |
|--------------------------------|------|-----|---------|--------|----------|
| 2) Dichlorodifluoromethane     | 3.07 | 85  | 1882665 | 11.605 | ppbv 98  |
| 3) Chlorodifluoromethane       | 3.01 | 51  | 1085208 | 8.475  | ppbv 98  |
| 4) Chloromethane               | 3.17 | 50  | 593399  | 8.757  | ppbv 98  |
| 5) Vinyl Chloride              | 3.29 | 62  | 593631  | 8.916  | ppbv 98  |
| 6) Bromomethane                | 3.51 | 94  | 375445  | 8.775  | ppbv 93  |
| 7) Chloroethane                | 3.60 | 64  | 213837  | 8.630  | ppbv 96  |
| 8) Dichlorotetrafluoroethane   | 3.22 | 85  | 1497589 | 8.664  | ppbv 99  |
| 9) Propene                     | 3.03 | 41  | 464117  | 8.630  | ppbv 99  |
| 10) Heptane                    | 8.24 | 43  | 1209340 | 8.413  | ppbv 99  |
| 11) Trichlorofluoromethane     | 4.00 | 101 | 1693919 | 8.473  | ppbv 97  |
| 12) 1,1,2-Trichlorotrifluoroet | 4.55 | 101 | 1135792 | 8.458  | ppbv 99  |
| 13) Ethanol                    | 3.64 | 45  | 136719  | 9.825  | ppbv 65  |
| 14) Bromoethene                | 3.79 | 108 | 460640  | 8.601  | ppbv 100 |
| 15) Acetone                    | 3.90 | 43  | 1044089 | 7.807  | ppbv 99  |
| 16) 1,3-Butadiene              | 3.36 | 39  | 482304  | 9.092  | ppbv 90  |
| 17) tert-Butyl alcohol         | 4.35 | 59  | 214962  | 8.742  | ppbv 100 |
| 18) 1,1-Dichloroethene         | 4.35 | 96  | 505453  | 8.763  | ppbv 98  |
| 19) Isopropyl Alcohol          | 4.02 | 45  | 770272  | 9.106  | ppbv 100 |
| 20) Methylene Chloride         | 4.41 | 84  | 426210  | 7.507  | ppbv 94  |
| 21) Allyl Chloride             | 4.47 | 41  | 736858  | 8.716  | ppbv 99  |
| 22) trans-1,2-Dichloroethene   | 4.96 | 96  | 531583  | 8.833  | ppbv 97  |
| 23) Vinyl Acetate              | 5.15 | 43  | 1706903 | 8.967  | ppbv 99  |
| 24) 1,1-Dichloroethane         | 5.09 | 63  | 1205656 | 8.338  | ppbv 99  |
| 25) Ethyl Acetate              | 5.76 | 43  | 2028288 | 8.174  | ppbv 99  |
| 26) Hexane                     | 5.78 | 57  | 897812  | 8.137  | ppbv 99  |
| 27) Carbon Disulfide           | 4.62 | 76  | 1242164 | 9.468  | ppbv 99  |
| 28) Methyl tert-Butyl Ether    | 5.11 | 73  | 1462655 | 9.204  | ppbv 100 |
| 29) Chloroform                 | 5.84 | 83  | 1553230 | 8.213  | ppbv 97  |
| 30) Cyclohexane                | 7.24 | 84  | 778980  | 8.925  | ppbv 99  |
| 31) cis-1,2-Dichloroethene     | 5.64 | 61  | 980163  | 8.936  | ppbv 97  |
| 32) 1,1,1-Trichloroethane      | 6.62 | 97  | 1608287 | 8.930  | ppbv 100 |
| 34) 2-Butanone                 | 5.32 | 43  | 1322956 | 8.414  | ppbv 100 |
| 35) Carbon Tetrachloride       | 7.13 | 117 | 1677740 | 9.051  | ppbv 99  |
| 36) Benzene                    | 7.00 | 78  | 1944651 | 8.856  | ppbv 98  |
| 37) 1,2-Dichloroethane         | 6.41 | 62  | 1221387 | 8.298  | ppbv 100 |
| 38) Trichloroethene            | 7.96 | 130 | 770658  | 9.325  | ppbv 96  |
| 39) 1,2-Dichloropropane        | 7.73 | 63  | 721346  | 8.386  | ppbv 98  |
| 40) 1,4-Dioxane                | 7.95 | 88  | 283068  | 9.226  | ppbv 87  |
| 41) Tetrahydrofuran            | 6.14 | 42  | 775648  | 8.968  | ppbv 97  |
| 42) Bromodichloromethane       | 7.91 | 83  | 1733917 | 8.649  | ppbv 97  |
| 43) Methyl Methacrylate        | 8.13 | 69  | 795954  | 8.927  | ppbv 99  |

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 QLast Update : Tue Mar 26 16:00:50 2019  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.99  | 57   | 3230401  | 8.418  | ppbv   | 100      |
| 45) t-1,3-Dichloropropene     | 9.41  | 75   | 1118947  | 10.221 | ppbv   | 100      |
| 46) cis-1,3-Dichloropropene   | 8.83  | 75   | 1237744  | 9.682  | ppbv   | 99       |
| 47) 1,1,2-Trichloroethane     | 9.61  | 97   | 830737   | 8.505  | ppbv   | 98       |
| 48) Dibromochloromethane      | 10.45 | 129  | 1543635  | 9.369  | ppbv   | 99       |
| 49) Bromoform                 | 13.20 | 173  | 1422552  | 9.038  | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.87  | 43   | 2025154  | 8.796  | ppbv   | 100      |
| 51) 2-Hexanone                | 10.26 | 43   | 1604234  | 9.341  | ppbv   | 100      |
| 52) Tetrachloroethene         | 11.37 | 164  | 776294   | 9.369  | ppbv   | 98       |
| 53) Toluene                   | 9.94  | 91   | 2350678  | 9.212  | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.76 | 107  | 1332405  | 8.721  | ppbv   | 96       |
| 56) 1,1,1,2-Tetrachloroethane | 12.27 | 131  | 1088007  | 8.642  | ppbv # | 85       |
| 57) Chlorobenzene             | 12.30 | 112  | 1812805  | 8.499  | ppbv   | 96       |
| 58) Ethyl Benzene             | 12.86 | 91   | 3325373  | 9.065  | ppbv   | 97       |
| 59) m/p-Xylene                | 13.15 | 91   | 5675840m | 17.323 | ppbv   |          |
| 60) o-Xylene                  | 13.85 | 91   | 2759904  | 8.711  | ppbv   | 99       |
| 61) Styrene                   | 13.69 | 104  | 2070752  | 9.523  | ppbv   | 100      |
| 62) Isopropylbenzene          | 14.82 | 105  | 3887069  | 8.664  | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.84 | 83   | 1924221  | 8.248  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.72 | 120  | 1014742  | 8.913  | ppbv   | 97       |
| 65) tert-Butylbenzene         | 16.91 | 119  | 3565536  | 9.018  | ppbv   | 99       |
| 66) Benzyl Chloride           | 17.15 | 91   | 2051397  | 11.158 | ppbv   | 98       |
| 67) sec-Butylbenzene          | 17.46 | 105  | 5015383  | 8.920  | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.81 | 119  | 4196780  | 9.167  | ppbv   | 100      |
| 70) n-Butylbenzene            | 18.71 | 91   | 4366258  | 9.002  | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.61 | 91   | 3015392  | 8.839  | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 16.00 | 105  | 3277365  | 9.202  | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.16 | 105  | 3142515  | 9.221  | ppbv   | 97       |
| 74) 1,2,4-Trimethylbenzene    | 16.93 | 105  | 3279922  | 8.979  | ppbv   | 95       |
| 75) 1,3-Dichlorobenzene       | 17.16 | 146  | 1944515  | 8.613  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.31 | 146  | 1937858  | 8.809  | ppbv   | 100      |
| 77) 1,2-Dichlorobenzene       | 17.99 | 146  | 1896002  | 8.851  | ppbv   | 100      |
| 78) Hexachloro-1,3-Butadiene  | 23.54 | 225  | 1460921  | 10.302 | ppbv   | 99       |
| 79) Naphthalene               | 22.41 | 128  | 3233088  | 10.339 | ppbv   | 100      |
| 80) Naphthalene, 2-methyl-    | 25.11 | 142  | 1356303  | 12.924 | ppbv   | 98       |
| 81) 1,2,4-Trichlorobenzene    | 22.13 | 180  | 1673155  | 9.646  | ppbv   | 100      |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 49 Resp: 1112290

Ion Ratio Lower Upper

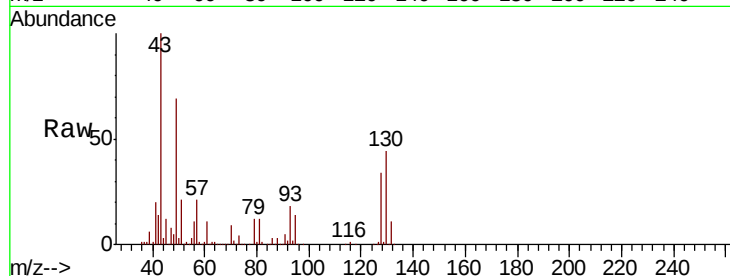
49 100

128 49.7 24.0 72.0

130 63.4 31.2 93.6

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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0

5.76

800000

600000

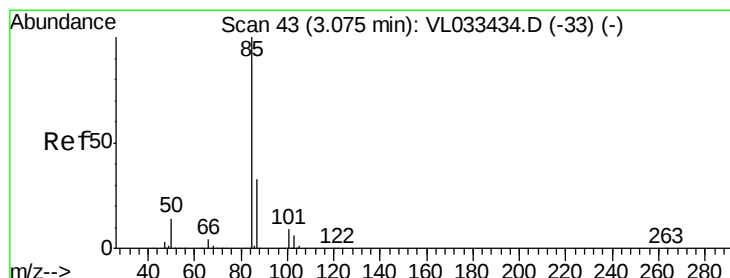
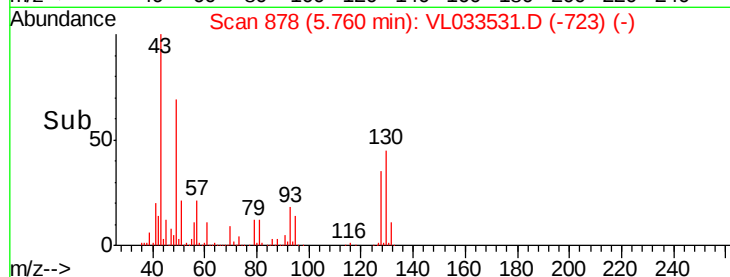
400000

200000

0

5.70 5.75 5.80

Time-->



#2

Dichlorodifluoromethane

Concen: 11.605 ppbv

RT: 3.07 min Scan# 42

Delta R.T. -0.00 min

Lab File: VL033531.D

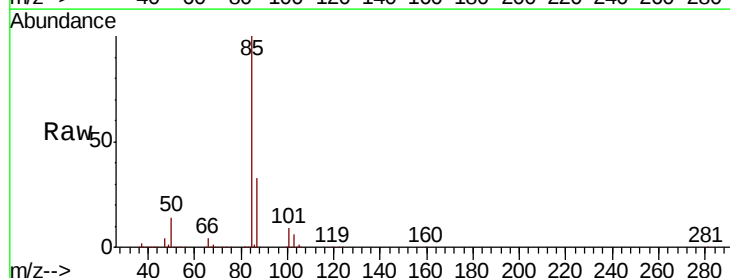
Acq: 4 Apr 2019 12:31

Tgt Ion: 85 Resp: 1882665

Ion Ratio Lower Upper

85 100

87 32.5 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.07

1500000

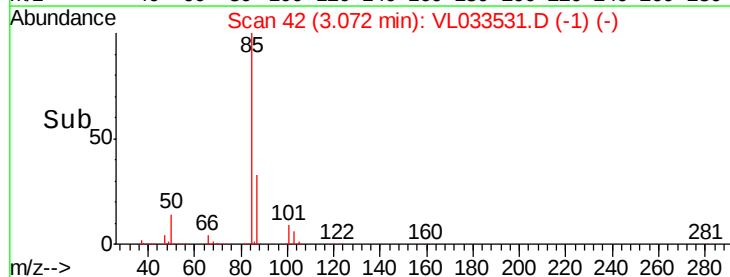
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500000

0

3.00 3.05 3.10

Time-->





#3

Chlorodifluoromethane

Concen: 8.475 ppbv

RT: 3.01 min Scan# 23

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 51 Resp: 1085208

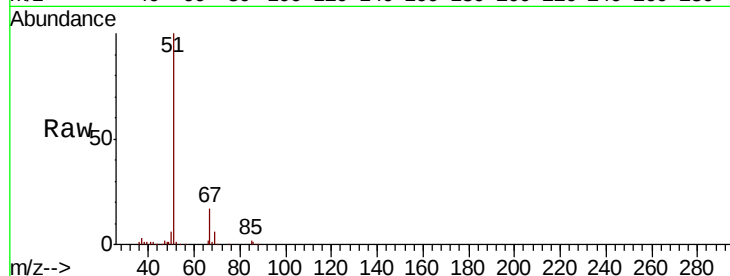
Ion Ratio Lower Upper

51 100

67 18.9 15.7 23.5

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4/8/2019 3:22:12 AM



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

1000000

800000

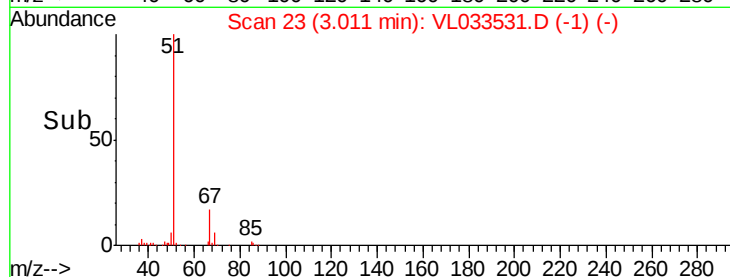
600000

400000

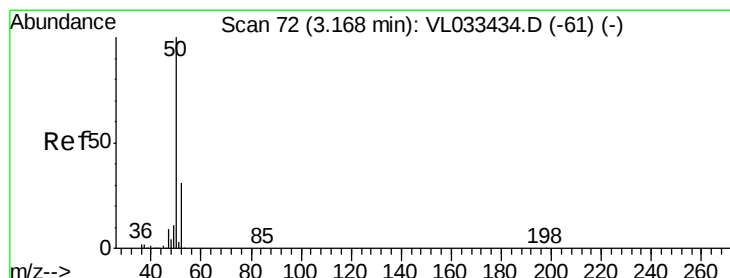
200000

0

Time-->



Time-->



#4

Chloromethane

Concen: 8.757 ppbv

RT: 3.17 min Scan# 72

Delta R.T. 0.00 min

Lab File: VL033531.D

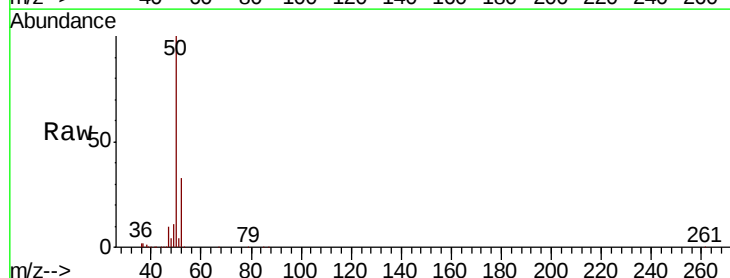
Acq: 4 Apr 2019 12:31

Tgt Ion: 50 Resp: 593399

Ion Ratio Lower Upper

50 100

52 32.6 25.0 37.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

500000

400000

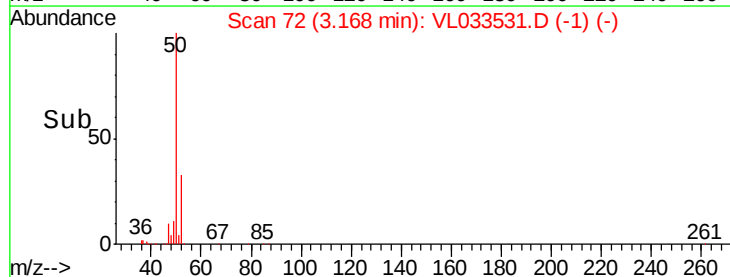
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200000

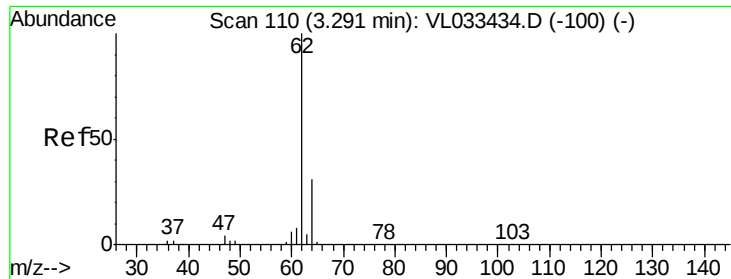
100000

0

Time-->



Time-->



#5

Vinyl Chloride

Concen: 8.916 ppbv

RT: 3.29 min Scan# 109

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 62 Resp: 593631

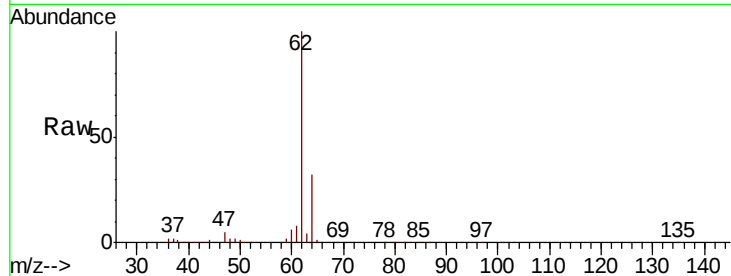
Ion Ratio Lower Upper

62 100

64 32.1 24.9 37.3

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Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0

3.29

400000

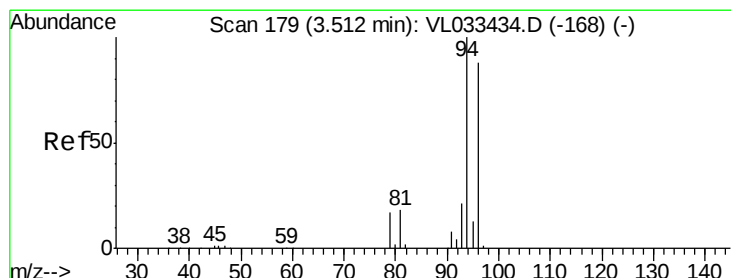
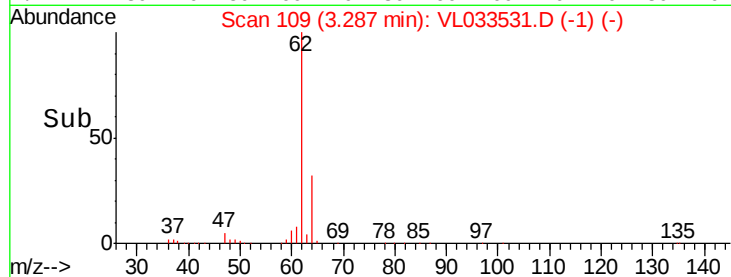
300000

200000

100000

0

Time-->



#6

Bromomethane

Concen: 8.775 ppbv

RT: 3.51 min Scan# 178

Delta R.T. -0.00 min

Lab File: VL033531.D

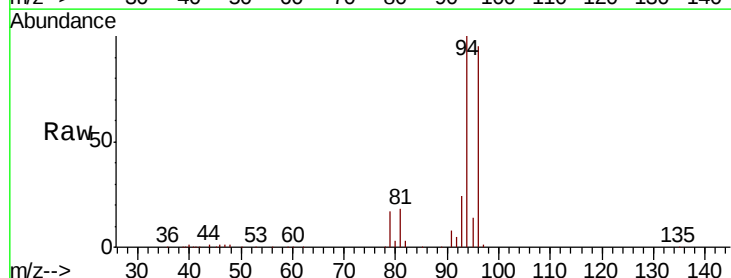
Acq: 4 Apr 2019 12:31

Tgt Ion: 94 Resp: 375445

Ion Ratio Lower Upper

94 100

96 94.5 70.2 105.2



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0

3.51

300000

250000

200000

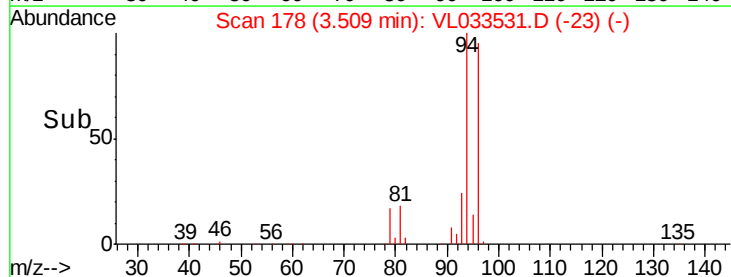
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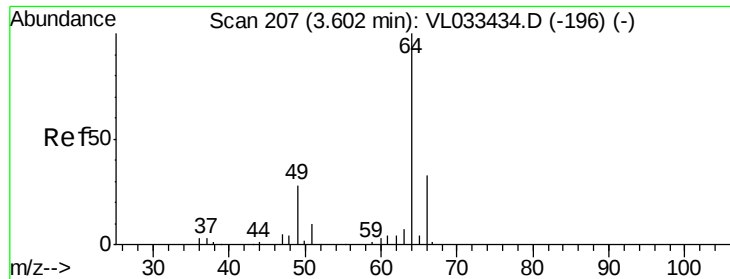
100000

50000

0

Time-->





#7

Chloroethane

Concen: 8.630 ppbv

RT: 3.60 min Scan# 205

Delta R.T. -0.01 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 64 Resp: 213837

Ion Ratio Lower Upper

64 100

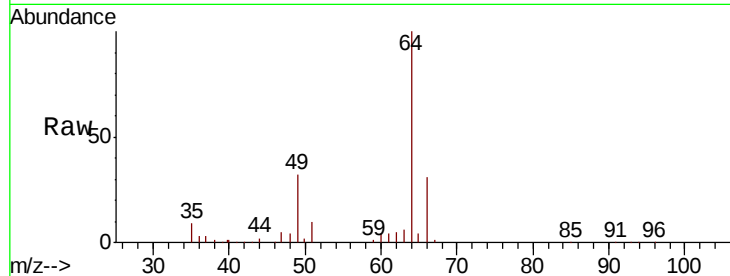
66 31.2 26.7 40.1

Manual Integrations

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Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0

3.60

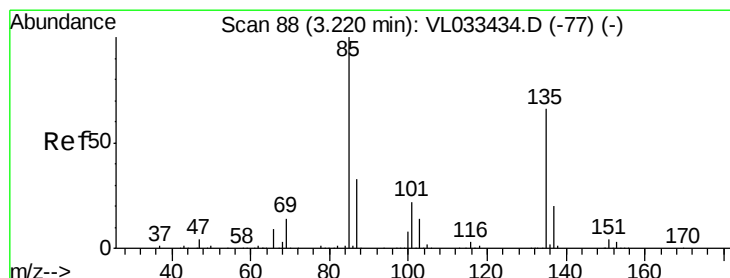
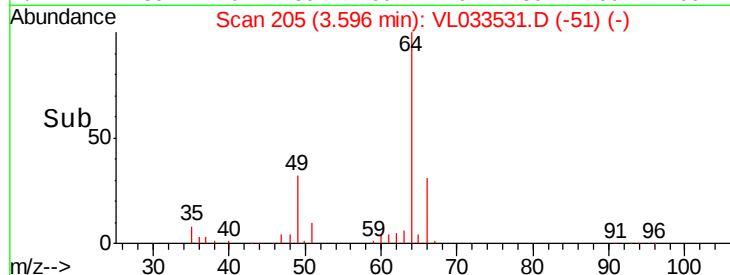
150000

100000

50000

0

Time-->



#8

Dichlorotetrafluoroethane

Concen: 8.664 ppbv

RT: 3.22 min Scan# 87

Delta R.T. -0.00 min

Lab File: VL033531.D

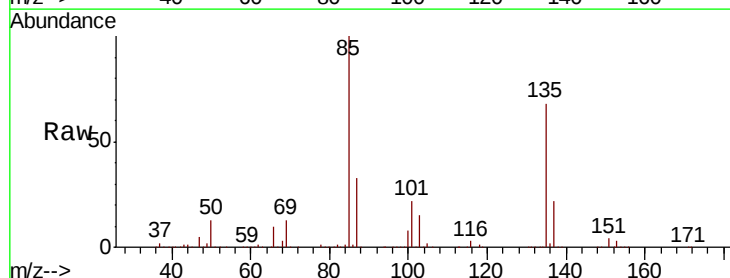
Acq: 4 Apr 2019 12:31

Tgt Ion: 85 Resp: 1497589

Ion Ratio Lower Upper

85 100

135 68.0 54.0 81.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V

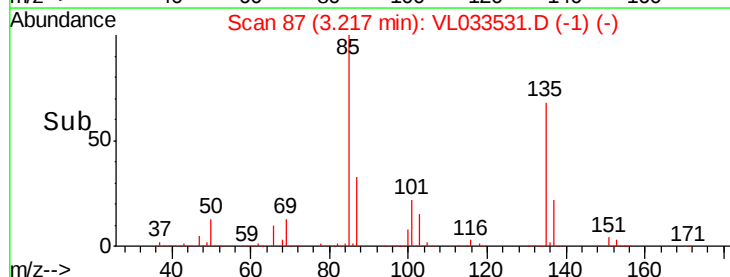
3.22

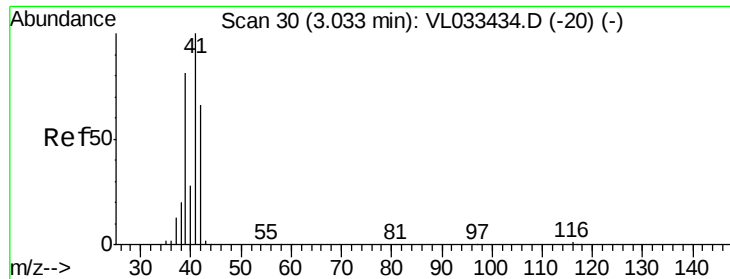
1000000

500000

0

Time-->





#9

Propene

Concen: 8.630 ppbv

RT: 3.03 min Scan# 30

Delta R.T. 0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 41 Resp: 464117

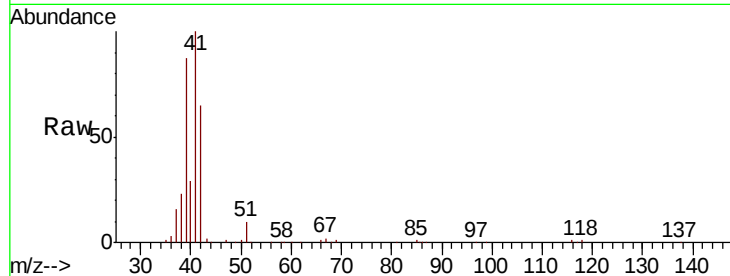
Ion Ratio Lower Upper

41 100

42 68.5 53.9 80.9

Manual Integrations  
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4/8/2019 3:22:12 AM



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

3.03

400000

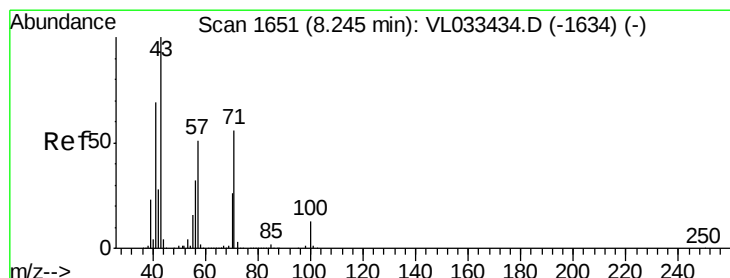
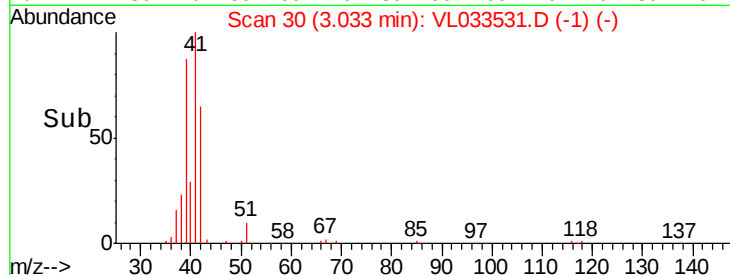
300000

200000

100000

0

Time-->



#10

Heptane

Concen: 8.413 ppbv

RT: 8.24 min Scan# 1650

Delta R.T. -0.00 min

Lab File: VL033531.D

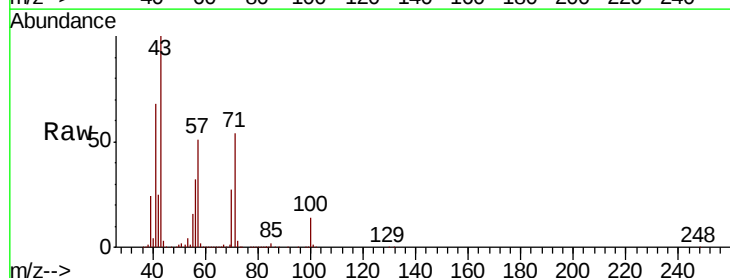
Acq: 4 Apr 2019 12:31

Tgt Ion: 43 Resp: 1209340

Ion Ratio Lower Upper

43 100

57 51.6 40.6 60.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

8.24

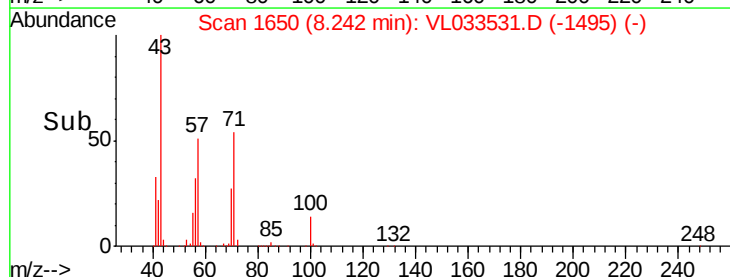
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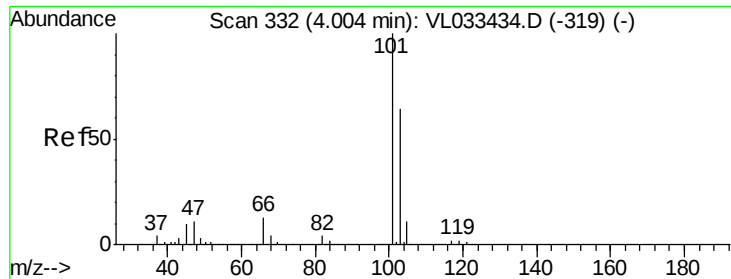
400000

200000

0

Time-->





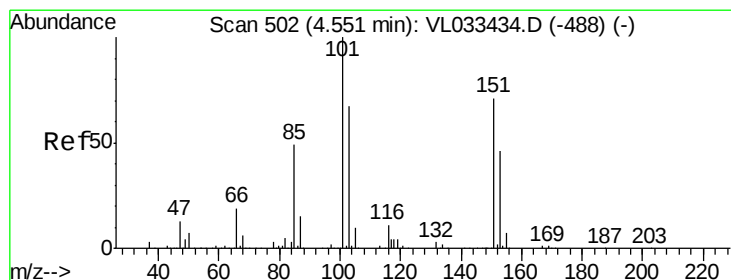
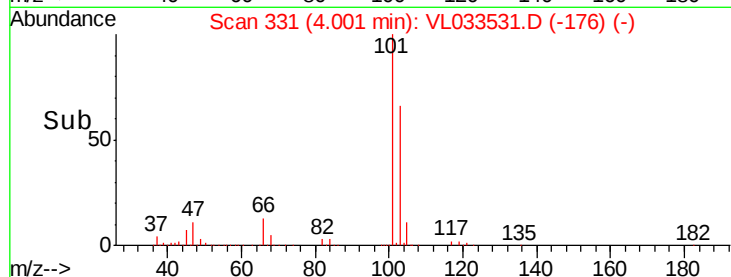
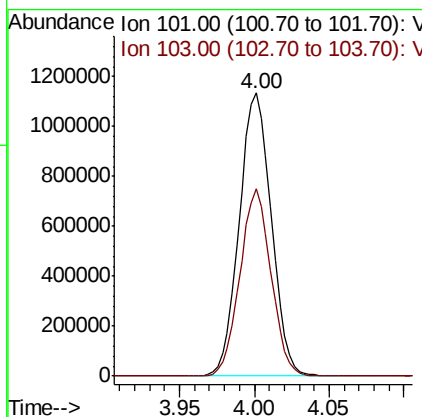
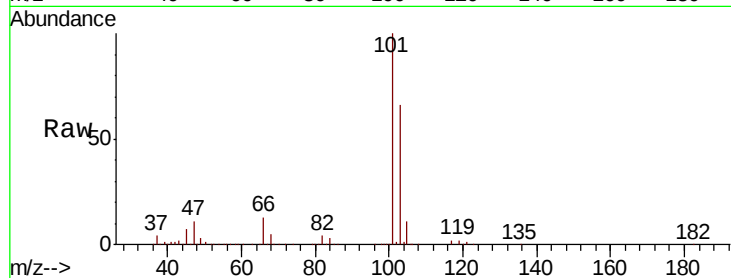
#11  
 Trichlorofluoromethane  
 Concen: 8.473 ppbv  
 RT: 4.00 min Scan# 331  
 Delta R.T. -0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Tot Ion:101 Resp: 1693919  
 Ion Ratio Lower Upper  
 101 100  
 103 66.4 51.3 76.9

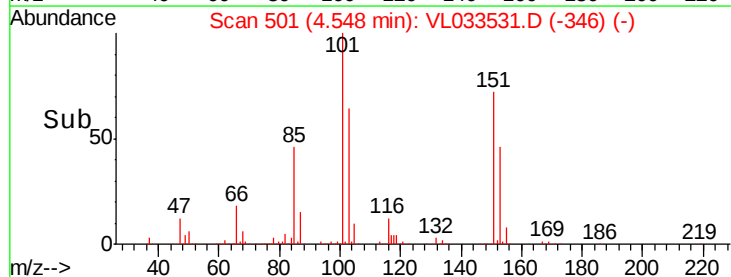
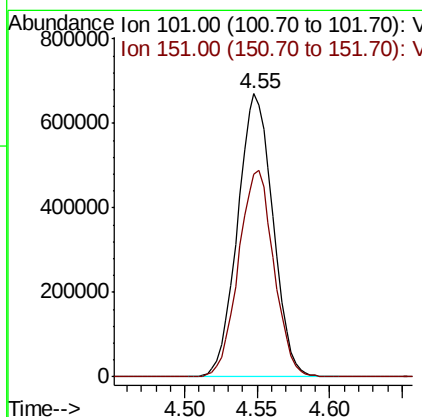
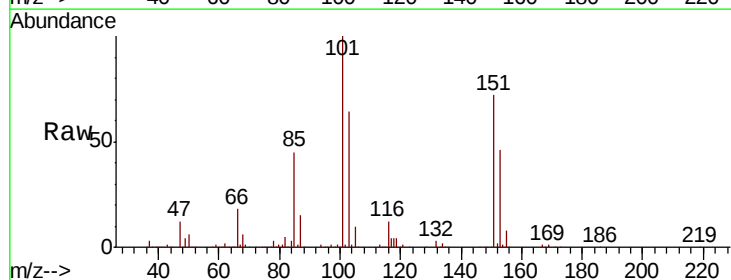
Manual Integrations  
 APPROVED

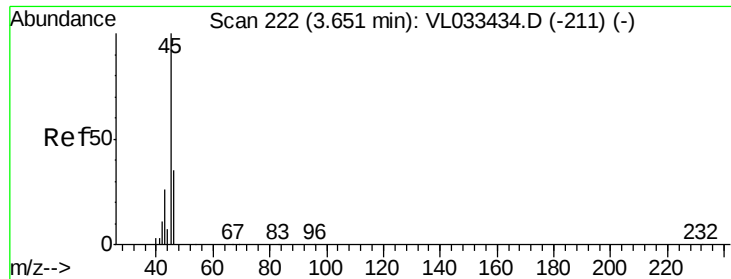
MMDadoda  
 4/8/2019 3:22:12 AM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 8.458 ppbv  
 RT: 4.55 min Scan# 501  
 Delta R.T. -0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

Tgt Ion:101 Resp: 1135792  
 Ion Ratio Lower Upper  
 101 100  
 151 73.1 57.7 86.5





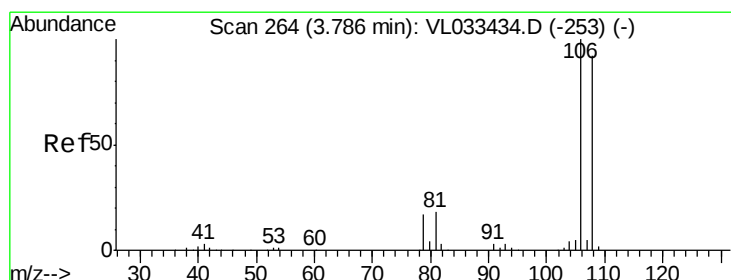
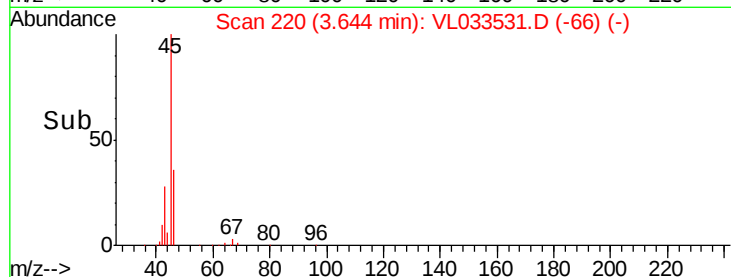
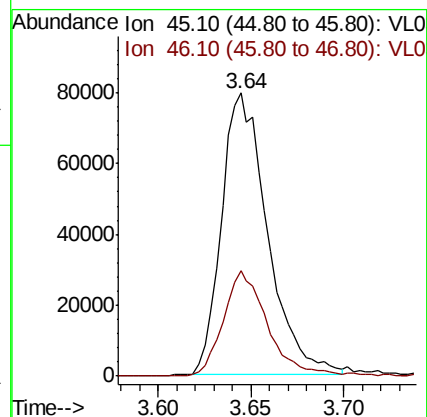
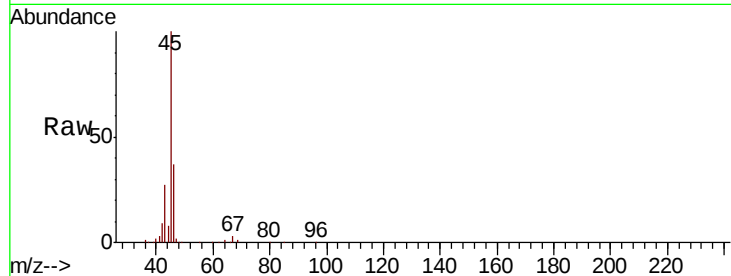
#13  
Ethanol  
Concen: 9.825 ppbv  
RT: 3.64 min Scan# 220  
Delta R.T. -0.01 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

| Tot Ion   | 45   | Resp  | 136719 |
|-----------|------|-------|--------|
| Ion Ratio | 100  | Lower | Upper  |
| 45        | 100  |       |        |
| 46        | 36.5 | 25.4  | 101.8  |

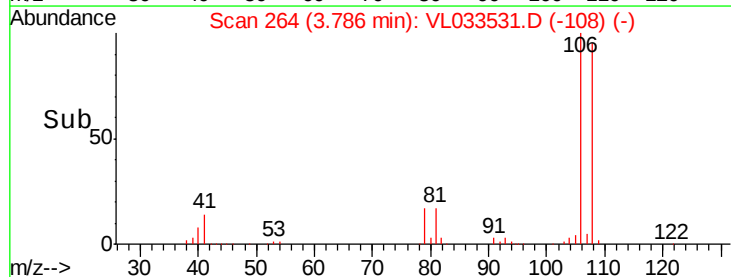
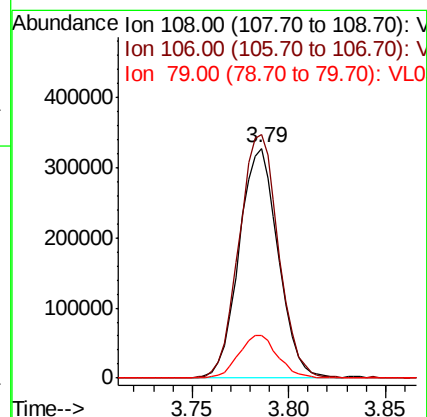
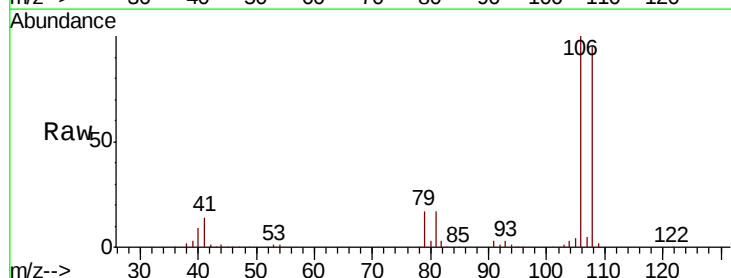
Manual Integrations  
APPROVED

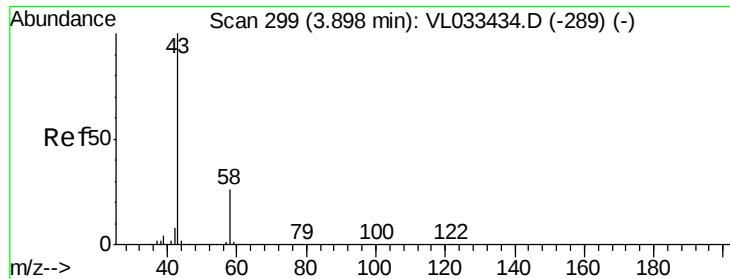
MMDadoda  
4/8/2019 3:22:12 AM



#14  
Bromoethene  
Concen: 8.601 ppbv  
RT: 3.79 min Scan# 264  
Delta R.T. 0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

| Tgt Ion   | 108   | Resp  | 460640 |
|-----------|-------|-------|--------|
| Ion Ratio | 100   | Lower | Upper  |
| 108       | 100   |       |        |
| 106       | 107.9 | 86.4  | 129.6  |
| 79        | 19.0  | 15.8  | 23.8   |





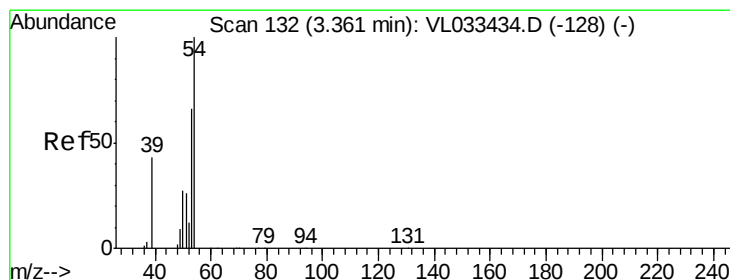
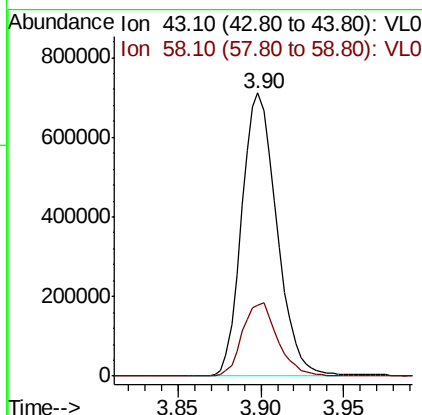
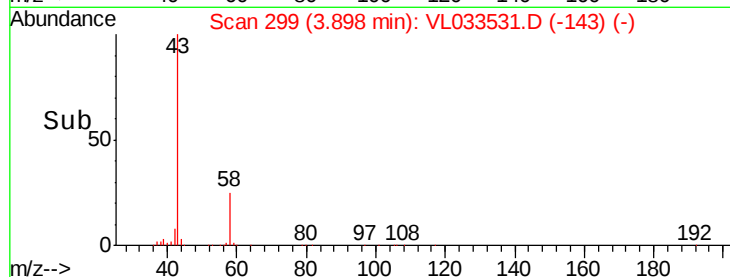
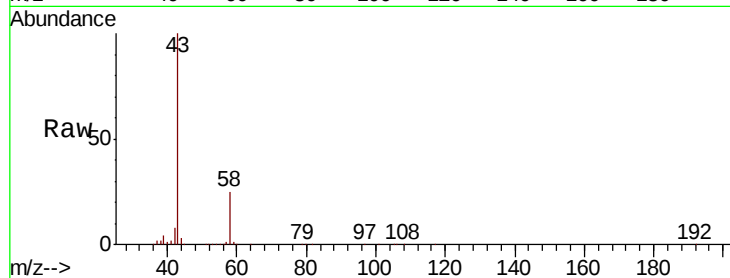
#15  
Acetone  
Concen: 7.807 ppbv  
RT: 3.90 min Scan# 299  
Delta R.T. 0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

Tot Ion: 43 Resp: 1044089  
Ion Ratio Lower Upper  
43 100  
58 26.4 20.5 30.7

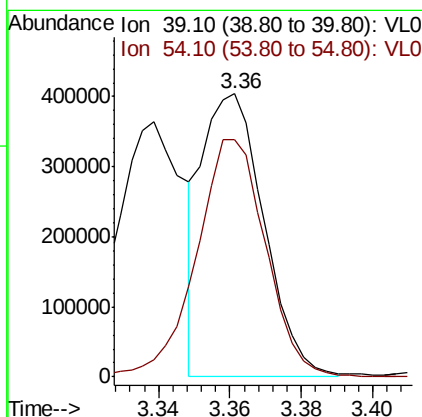
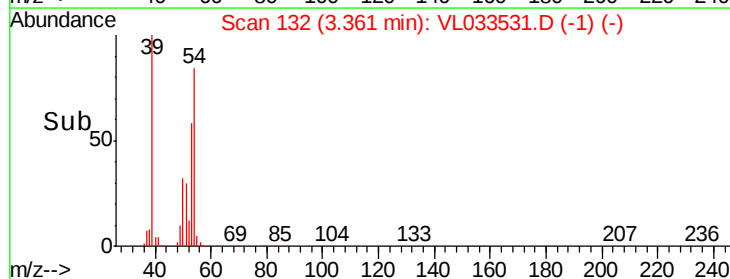
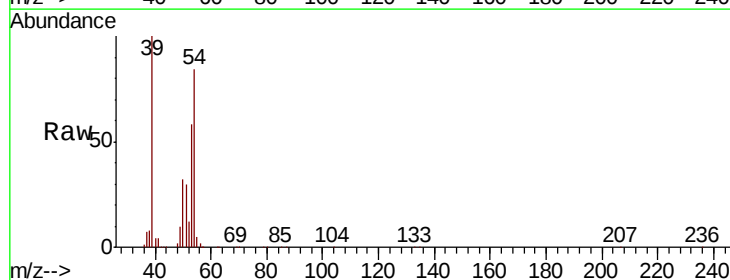
Manual Integrations  
APPROVED

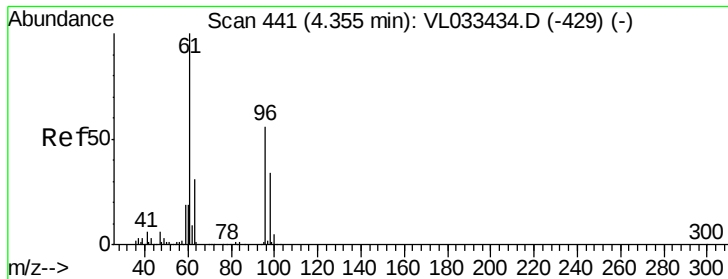
MMDadoda  
4/8/2019 3:22:12 AM



#16  
1,3-Butadiene  
Concen: 9.092 ppbv  
RT: 3.36 min Scan# 132  
Delta R.T. 0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Tgt Ion: 39 Resp: 482304  
Ion Ratio Lower Upper  
39 100  
54 95.6 69.4 104.2





#17

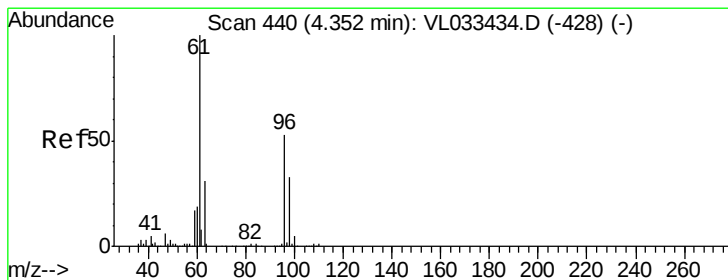
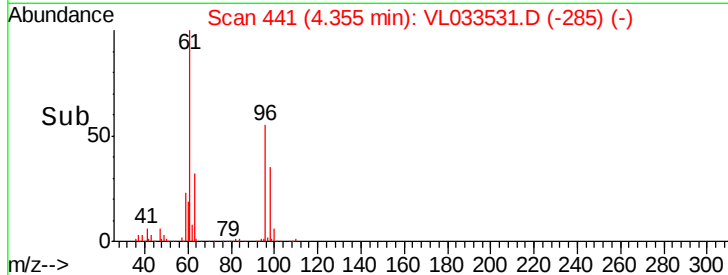
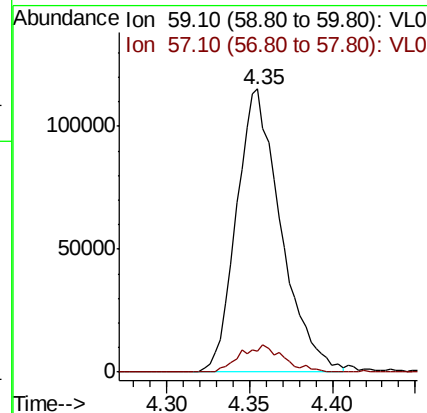
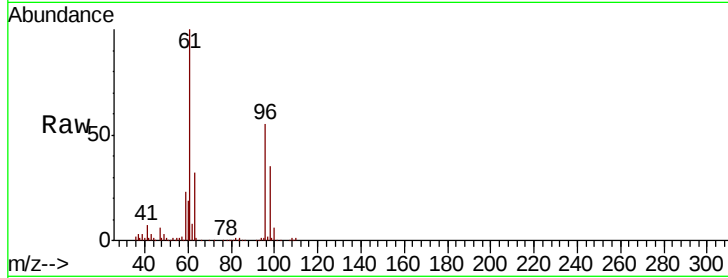
tert-Butyl alcohol  
Concen: 8.742 ppbv  
RT: 4.35 min Scan# 441  
Delta R.T. 0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

| Tot Ion | 59    | Resp  | 214962 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 59      | 100   |       |        |
| 57      | 9.6   | 7.8   | 11.8   |

Manual Integrations  
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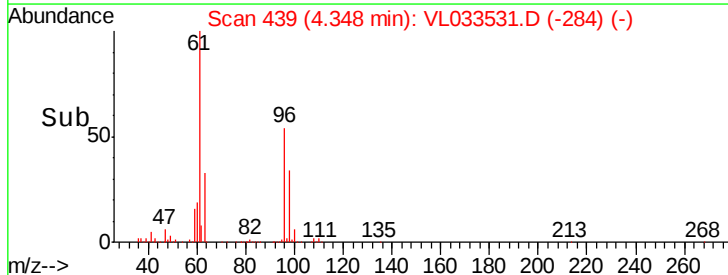
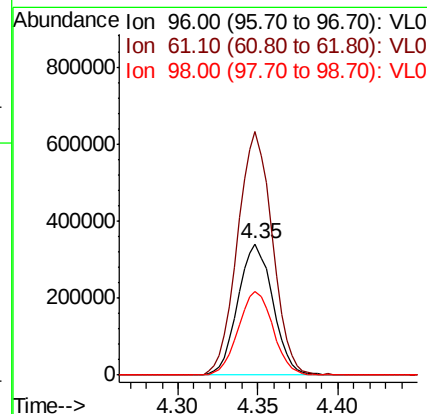
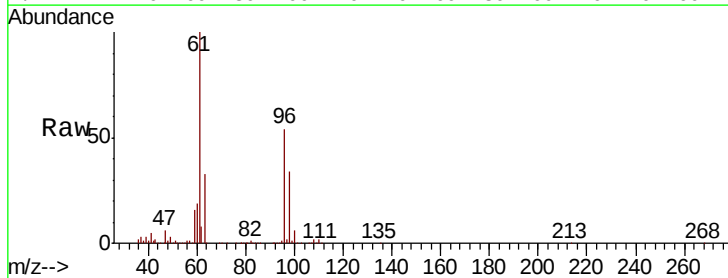
MMDadoda  
4/8/2019 3:22:12 AM

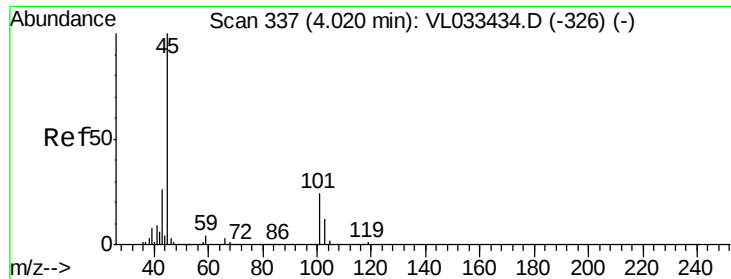


#18

1,1-Dichloroethene  
Concen: 8.763 ppbv  
RT: 4.35 min Scan# 439  
Delta R.T. -0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

| Tgt Ion | 96    | Resp  | 505453 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 96      | 100   |       |        |
| 61      | 185.4 | 149.8 | 224.6  |
| 98      | 63.3  | 48.7  | 73.1   |





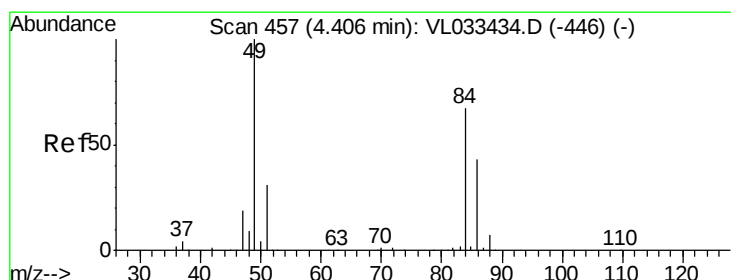
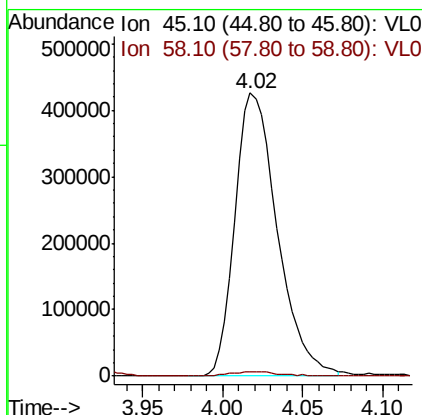
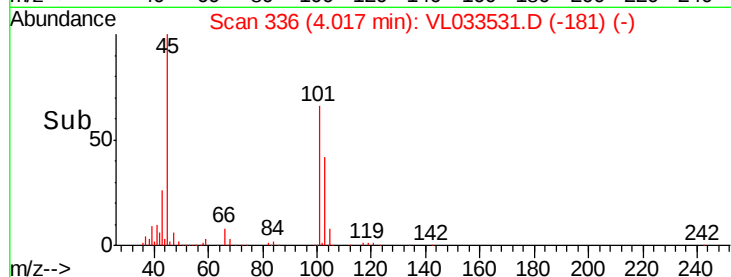
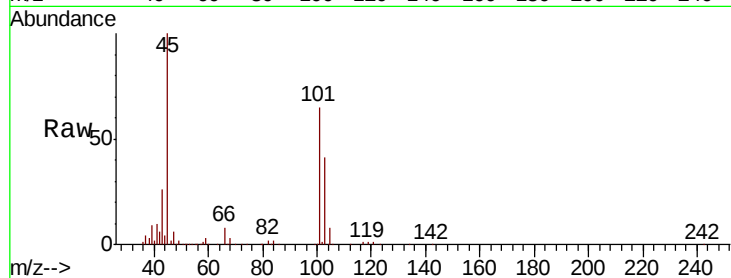
#19  
Isopropyl Alcohol  
Concen: 9.106 ppbv  
RT: 4.02 min Scan# 336  
Delta R.T. -0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

Tot Ion: 45 Resp: 770272  
Ion Ratio Lower Upper  
45 100  
58 1.7 1.4 2.2

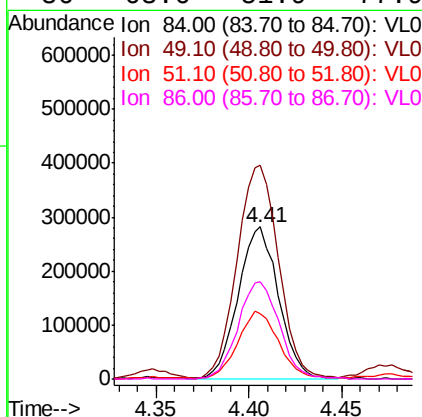
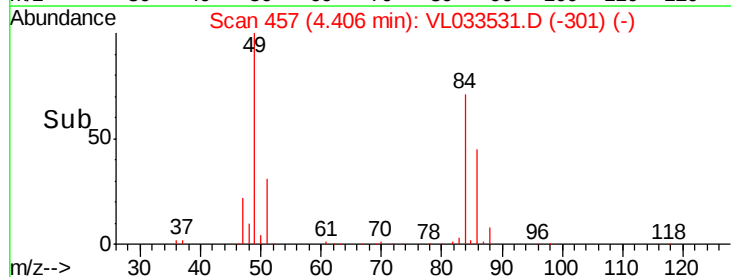
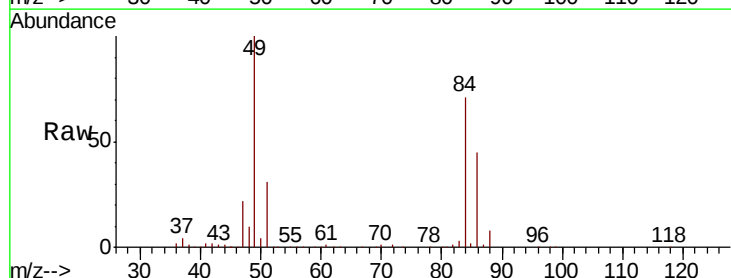
Manual Integrations  
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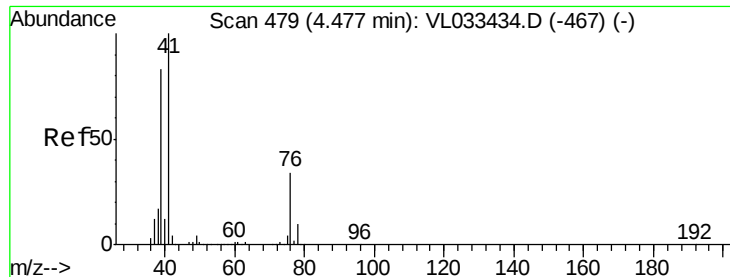
MMDadoda  
4/8/2019 3:22:12 AM



#20  
Methylene Chloride  
Concen: 7.507 ppbv  
RT: 4.41 min Scan# 457  
Delta R.T. 0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Tgt Ion: 84 Resp: 426210  
Ion Ratio Lower Upper  
84 100  
49 139.4 120.0 180.0  
51 42.8 36.7 55.1  
86 63.6 51.9 77.9





#21

Allvl Chloride

Concen: 8.716 ppbv

RT: 4.47 min Scan# 478

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

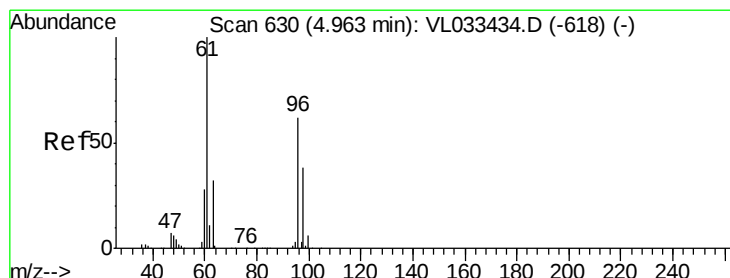
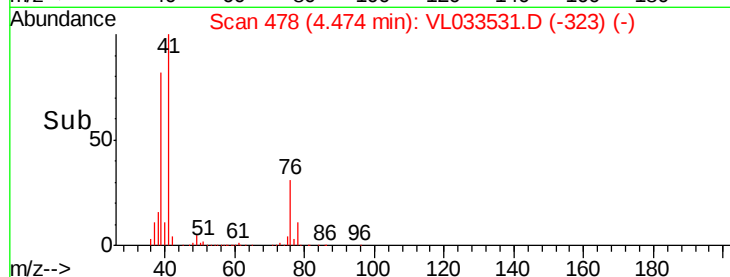
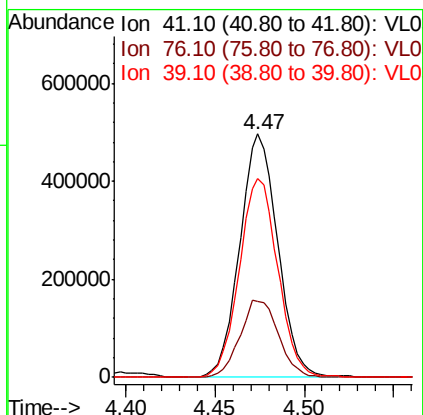
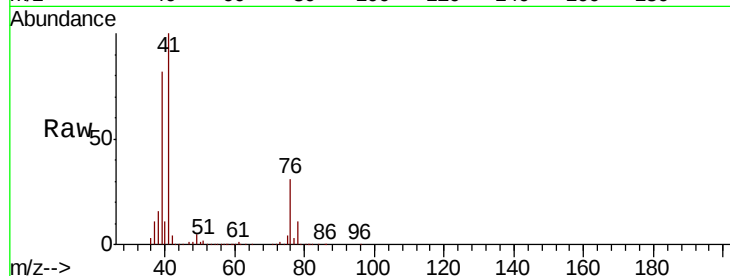
ClientSampleId :

VSTDCCC010

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 41    | Resp: | 736858 |
| Ion Ratio | Lower | Upper |        |
| 41        | 100   |       |        |
| 76        | 32.3  | 25.4  | 38.2   |
| 39        | 83.0  | 65.3  | 97.9   |

Manual Integrations  
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MMDadoda  
4/8/2019 3:22:12 AM



#22

trans-1,2-Dichloroethene

Concen: 8.833 ppbv

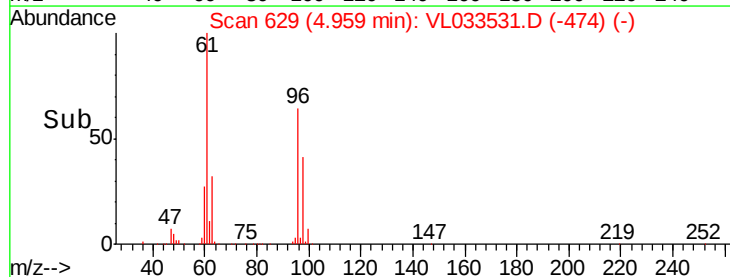
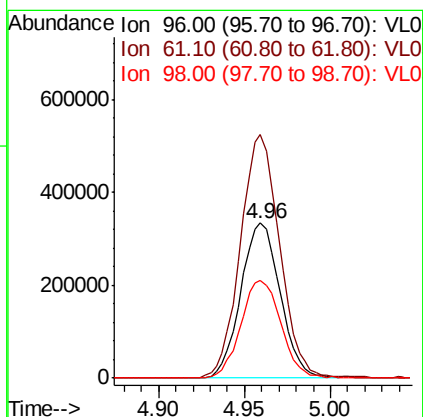
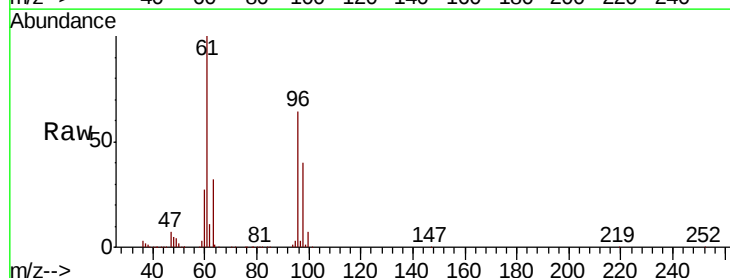
RT: 4.96 min Scan# 629

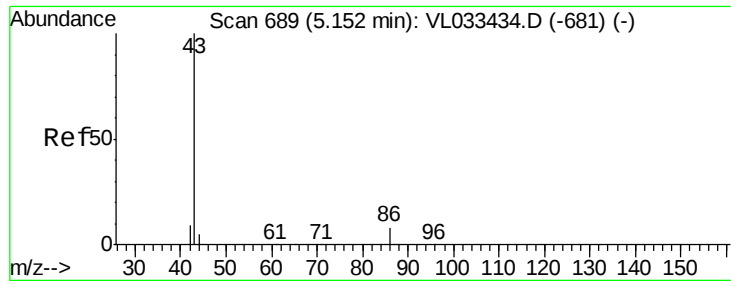
Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 96    | Resp: | 531583 |
| Ion Ratio | Lower | Upper |        |
| 96        | 100   |       |        |
| 61        | 157.4 | 128.9 | 193.3  |
| 98        | 63.4  | 49.5  | 74.3   |





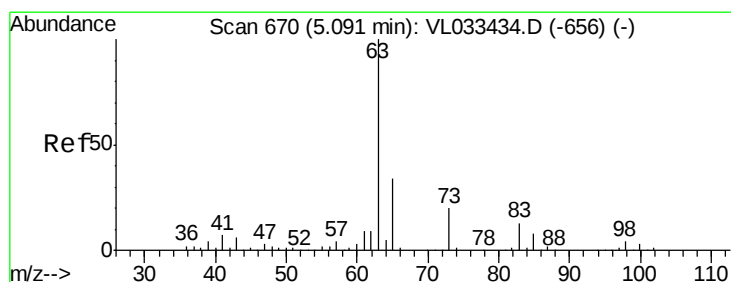
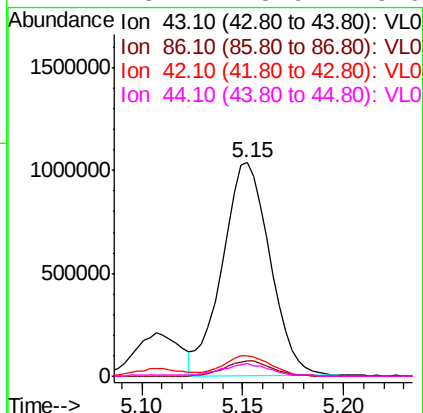
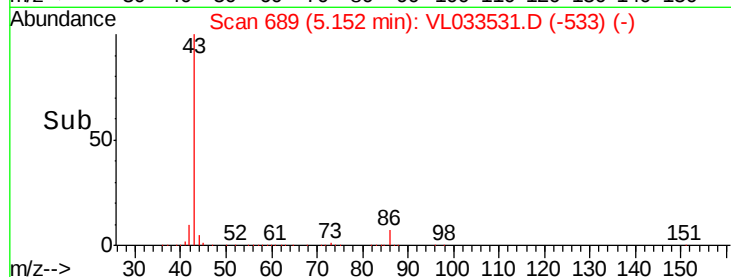
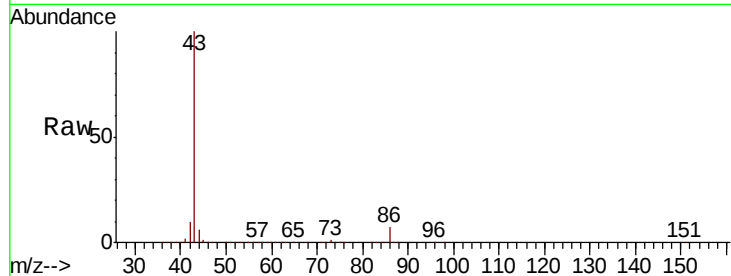
#23  
 Vinyl Acetate  
 Concen: 8.967 ppbv  
 RT: 5.15 min Scan# 689  
 Delta R.T. 0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

| Tot Ion: | 43    | Resp: | 1706903 |
|----------|-------|-------|---------|
| Ion      | Ratio | Lower | Upper   |
| 43       | 100   |       |         |
| 86       | 7.4   | 5.6   | 8.4     |
| 42       | 9.7   | 8.0   | 12.0    |
| 44       | 5.7   | 3.9   | 5.9     |

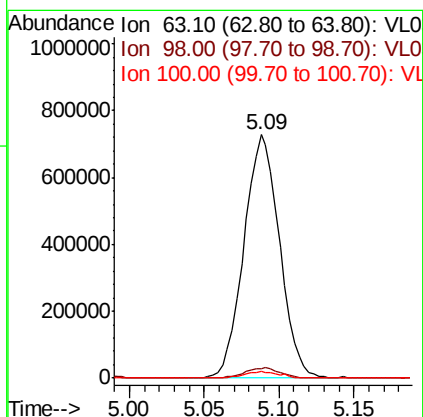
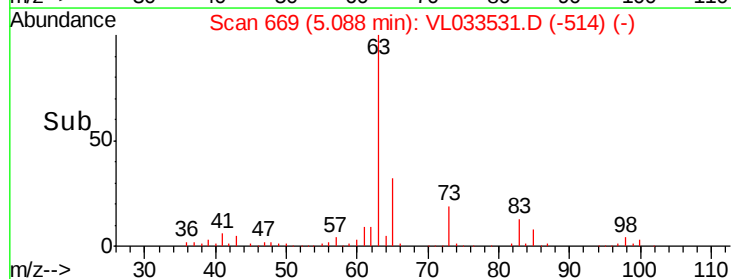
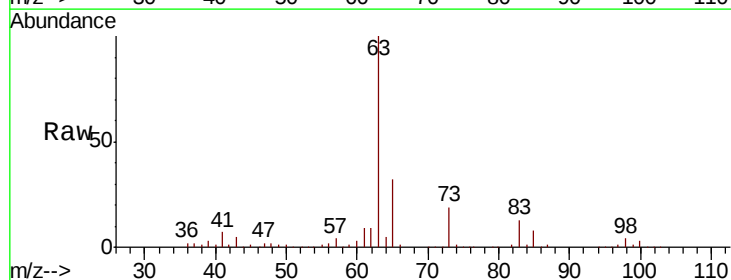
Manual Integrations  
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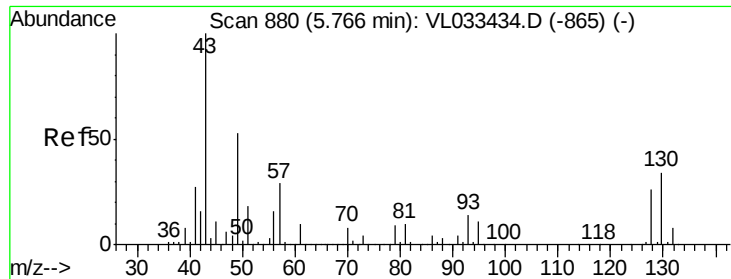
MMDadoda  
 4/8/2019 3:22:12 AM



#24  
 1,1-Dichloroethane  
 Concen: 8.338 ppbv  
 RT: 5.09 min Scan# 669  
 Delta R.T. -0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

| Tgt Ion: | 63    | Resp: | 1205656 |
|----------|-------|-------|---------|
| Ion      | Ratio | Lower | Upper   |
| 63       | 100   |       |         |
| 98       | 3.9   | 2.2   | 6.6     |
| 100      | 2.6   | 1.5   | 4.4     |





#25

Ethyl Acetate

Concen: 8.174 ppbv

RT: 5.76 min Scan# 879

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 43 Resp: 2028288

Ion Ratio Lower Upper

43 100

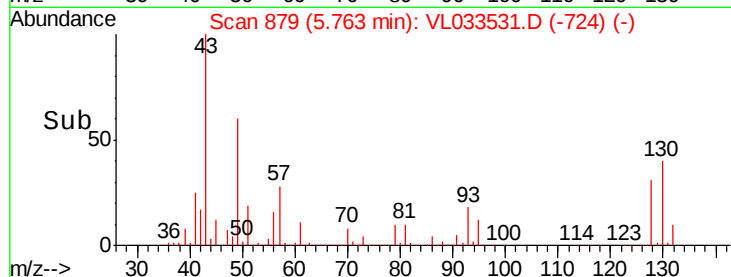
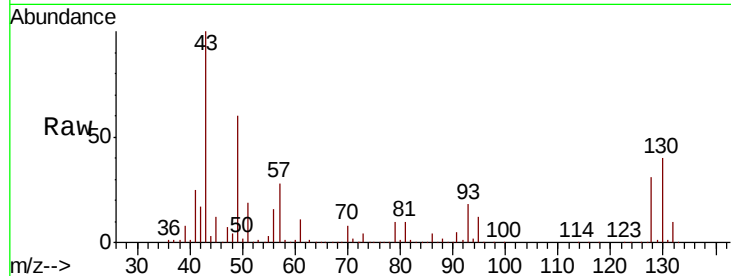
45 9.8 7.8 11.6

61 9.5 7.3 10.9

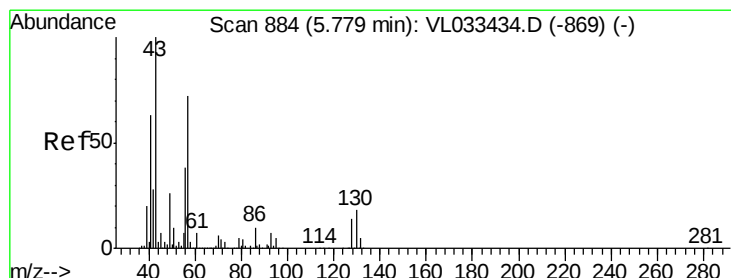
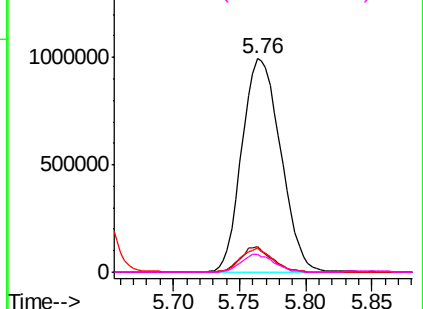
70 7.2 5.6 8.4

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4/8/2019 3:22:12 AM



Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 45.10 (44.80 to 45.80): VL0  
Ion 61.10 (60.80 to 61.80): VL0  
Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 8.137 ppbv

RT: 5.78 min Scan# 883

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Tgt Ion: 57 Resp: 897812

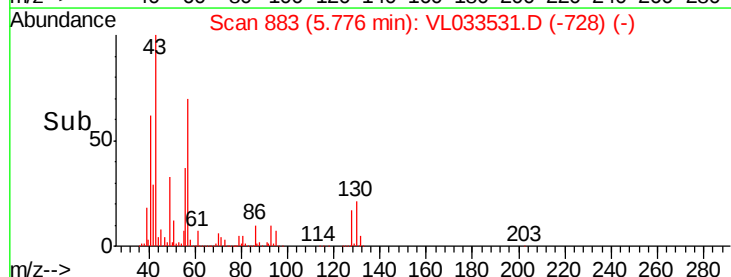
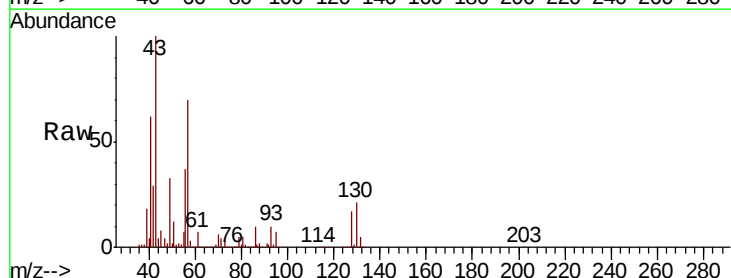
Ion Ratio Lower Upper

57 100

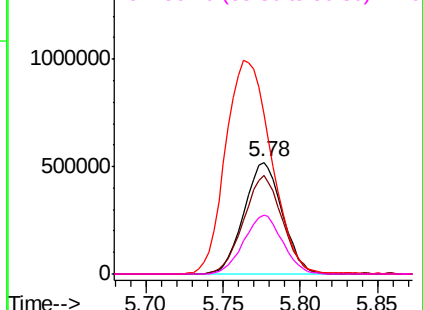
41 88.7 70.7 106.1

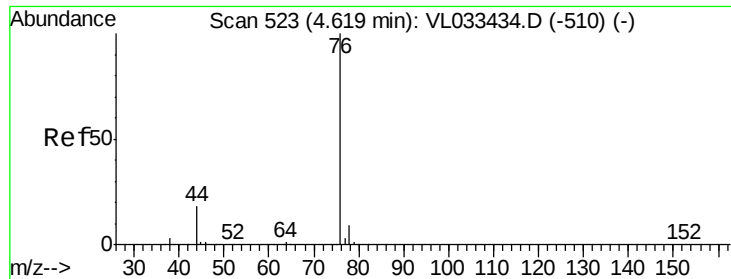
43 226.8 182.6 274.0

56 53.3 42.0 63.0



Abundance Ion 57.10 (56.80 to 57.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0  
Ion 43.10 (42.80 to 43.80): VL0  
Ion 56.10 (55.80 to 56.80): VL0





#27

Carbon Disulfide

Concen: 9.468 ppbv

RT: 4.62 min Scan# 522

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 76 Resp: 1242164

Ion Ratio Lower Upper

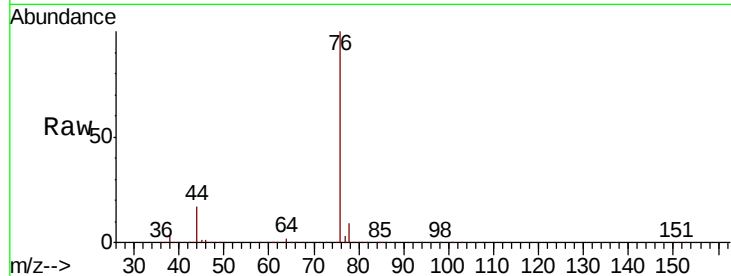
76 100

44 17.8 14.8 22.2

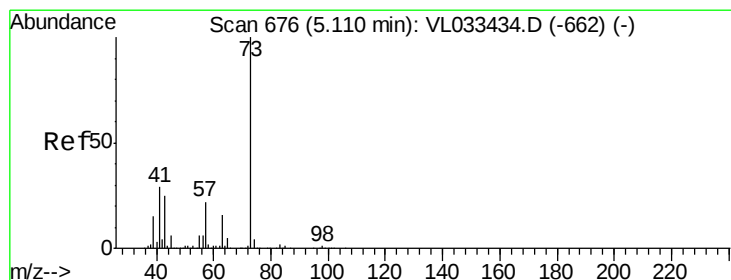
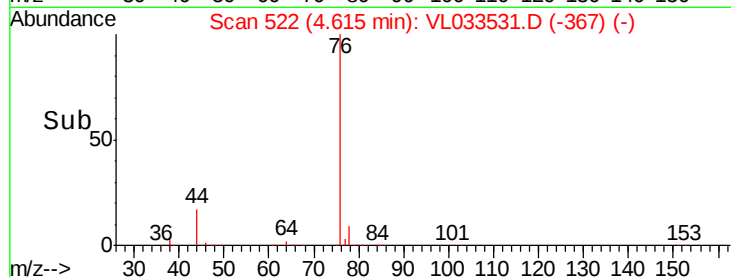
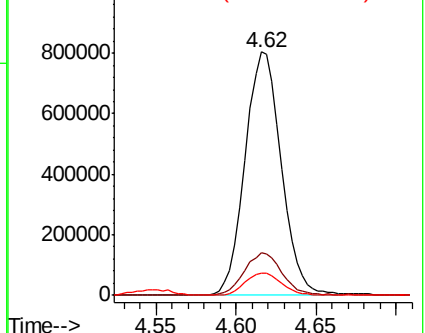
78 9.3 7.6 11.4

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



#28

Methyl tert-Butyl Ether

Concen: 9.204 ppbv

RT: 5.11 min Scan# 676

Delta R.T. 0.00 min

Lab File: VL033531.D

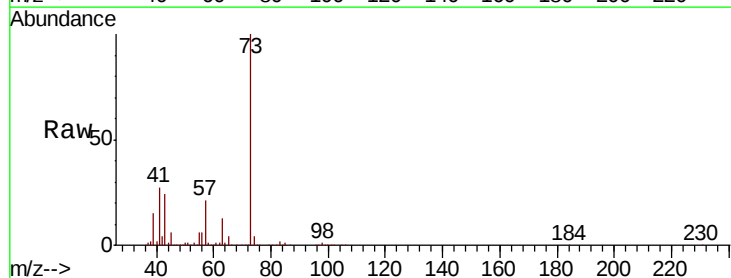
Acq: 4 Apr 2019 12:31

Tgt Ion: 73 Resp: 1462655

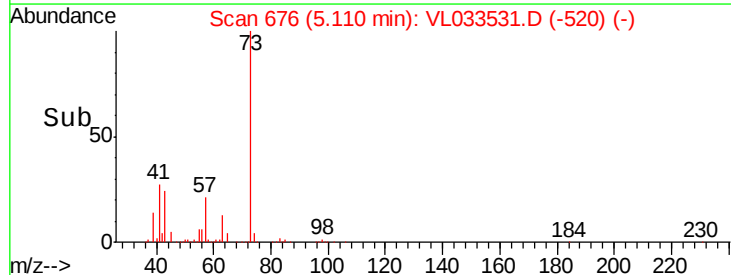
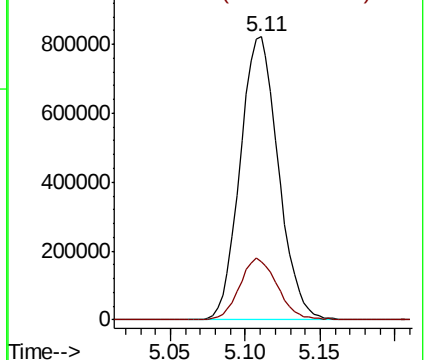
Ion Ratio Lower Upper

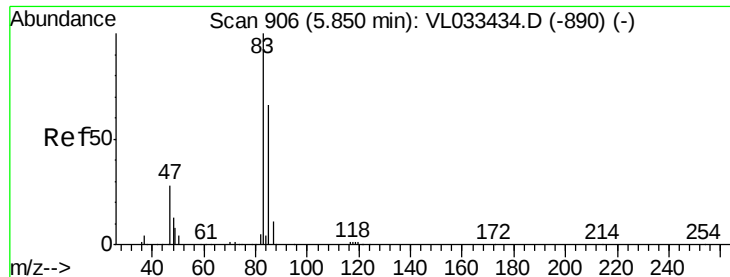
73 100

57 21.6 17.4 26.2



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





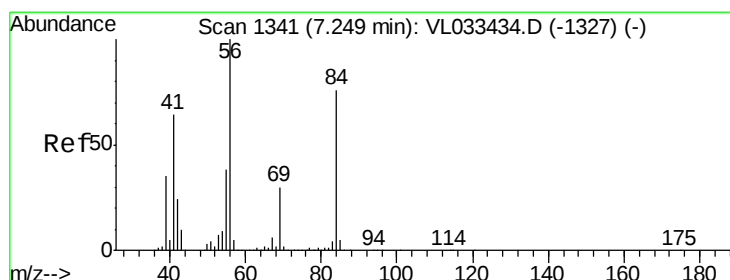
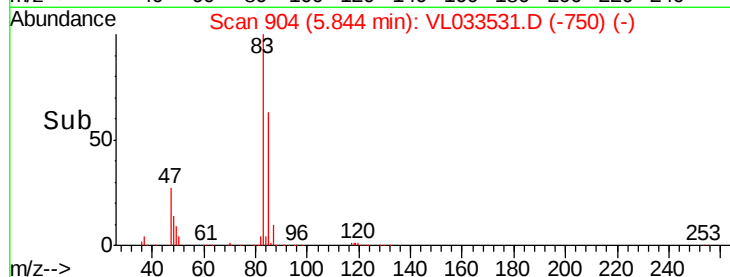
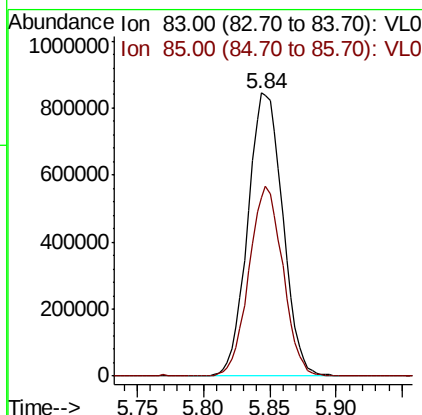
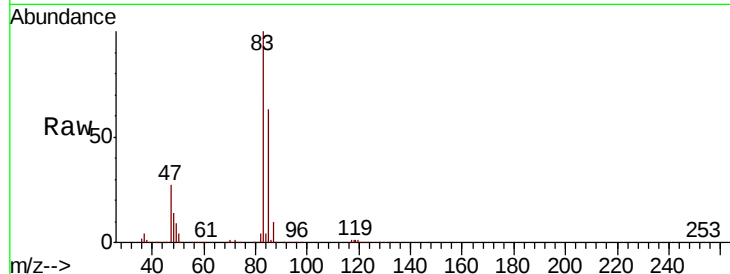
#29  
Chloroform  
Concen: 8.213 ppbv  
RT: 5.84 min Scan# 904  
Delta R.T. -0.01 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

Tot Ion: 83 Resp: 1553230  
Ion Ratio Lower Upper  
83 100  
85 63.1 52.6 79.0

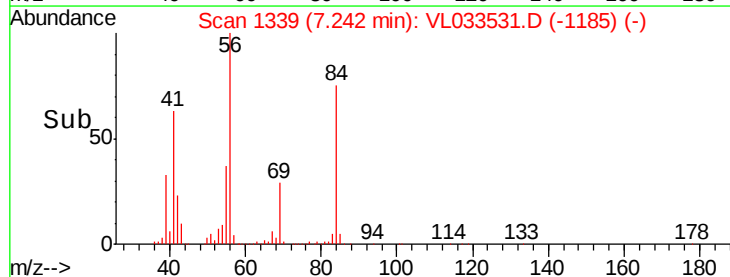
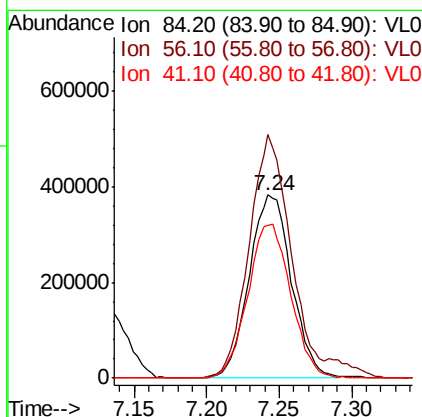
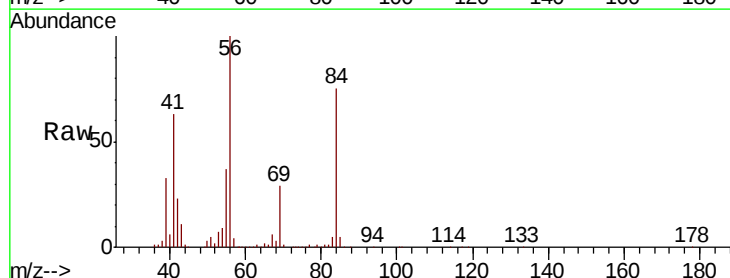
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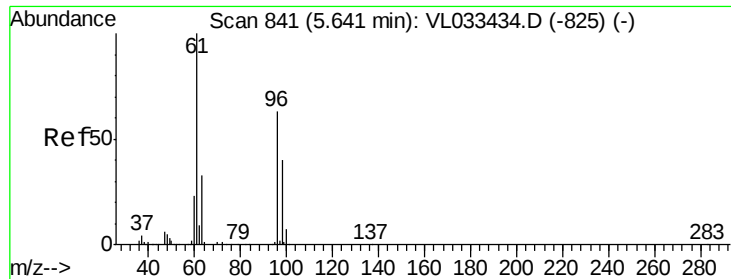
MMDadoda  
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#30  
Cyclohexane  
Concen: 8.925 ppbv  
RT: 7.24 min Scan# 1339  
Delta R.T. -0.01 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Tgt Ion: 84 Resp: 778980  
Ion Ratio Lower Upper  
84 100  
56 135.9 109.7 164.5  
41 85.3 68.2 102.2





#31

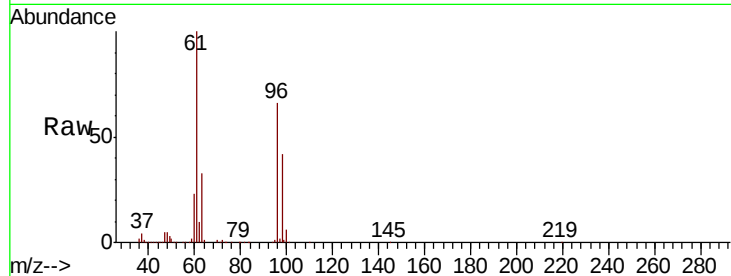
cis-1,2-Dichloroethene  
 Concen: 8.936 ppbv  
 RT: 5.64 min Scan# 840  
 Delta R.T. -0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

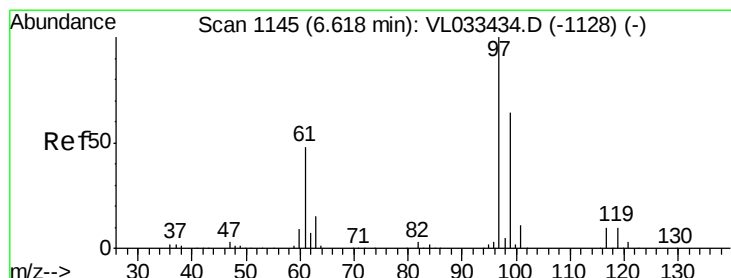
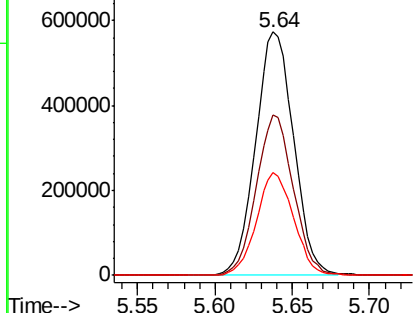
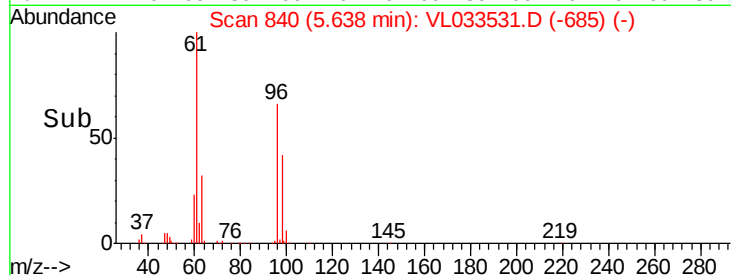
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61      | 100   |       |       |
| 96      | 65.8  | 50.6  | 76.0  |
| 98      | 42.1  | 32.2  | 48.2  |

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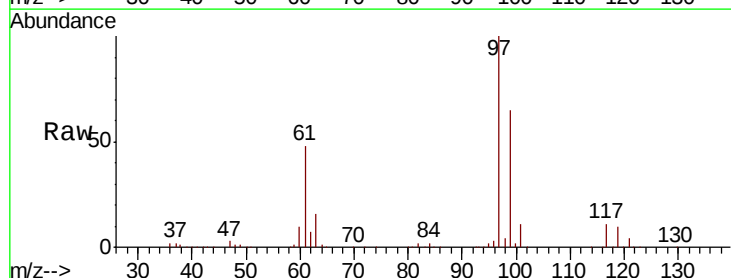
Abundance Ion 61.10 (60.80 to 61.80): VL0  
 Ion 96.00 (95.70 to 96.70): VL0  
 Ion 98.00 (97.70 to 98.70): VL0



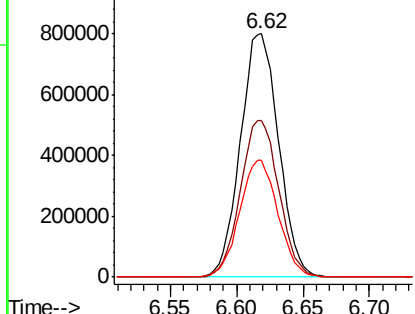
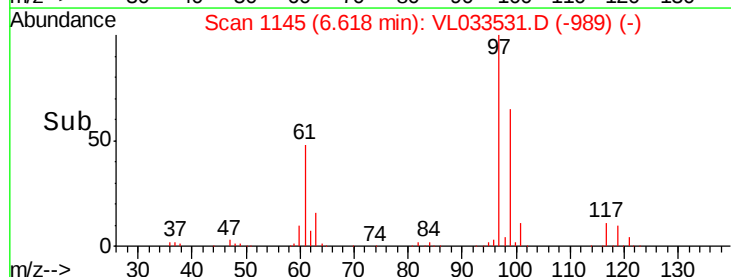
#32

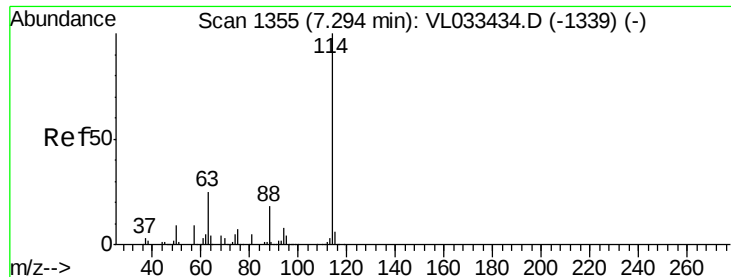
1,1,1-Trichloroethane  
 Concen: 8.930 ppbv  
 RT: 6.62 min Scan# 1145  
 Delta R.T. 0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 64.7  | 51.5  | 77.3  |
| 61      | 48.3  | 38.8  | 58.2  |



Abundance Ion 97.00 (96.70 to 97.70): VL0  
 Ion 99.00 (98.70 to 99.70): VL0  
 Ion 61.10 (60.80 to 61.80): VL0





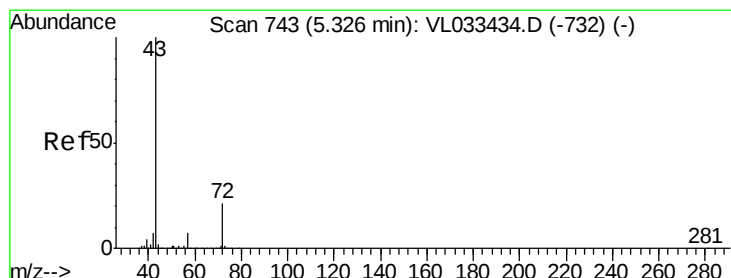
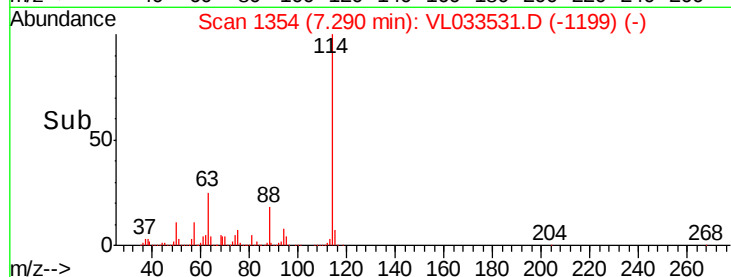
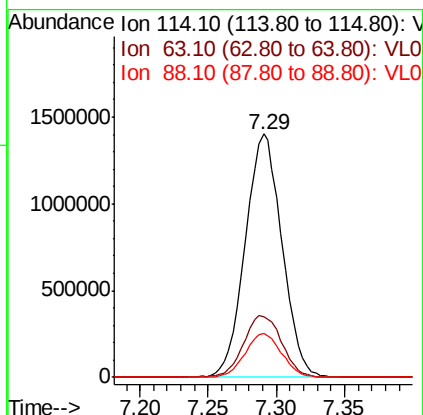
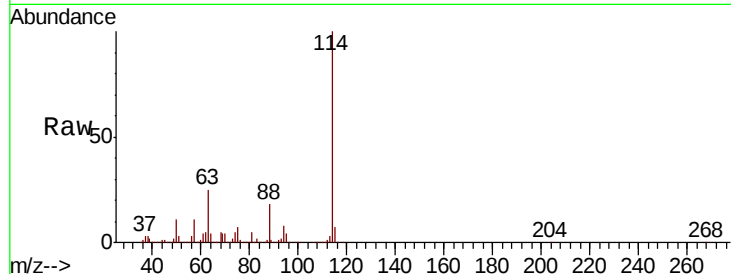
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.29 min Scan# 1354  
 Delta R.T. -0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 26.7  | 21.5  | 32.3  |
| 88      | 17.9  | 14.5  | 21.7  |

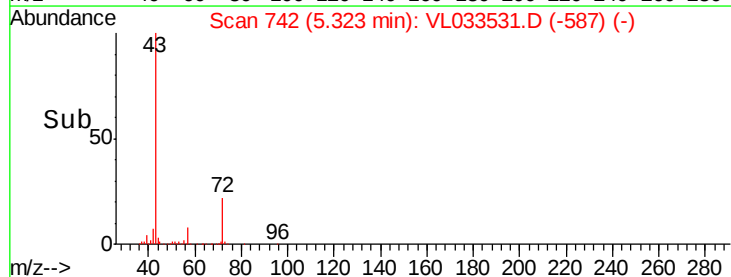
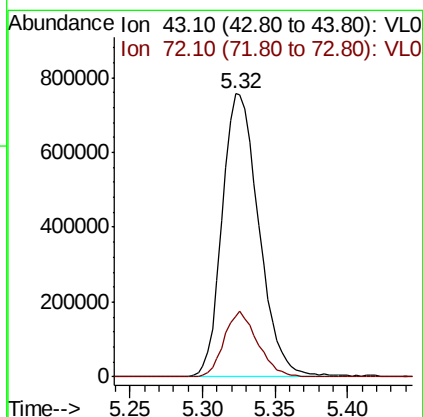
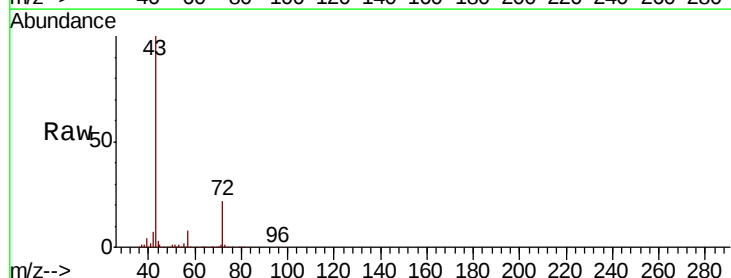
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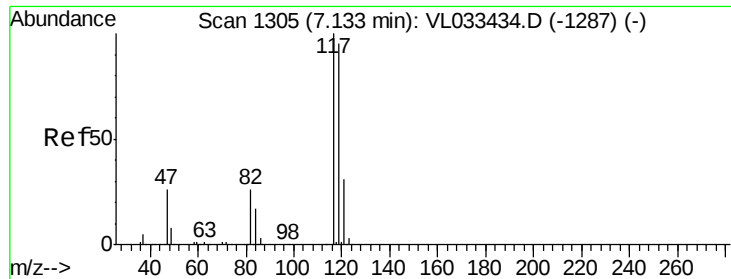
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#34  
 2-Butanone  
 Concen: 8.414 ppbv  
 RT: 5.32 min Scan# 742  
 Delta R.T. -0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 21.7  | 17.4  | 26.2  |





#35

Carbon Tetrachloride

Concen: 9.051 ppbv

RT: 7.13 min Scan# 1304

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion:117 Resp: 1677740

Ion Ratio Lower Upper

117 100

119 96.0 75.8 113.8

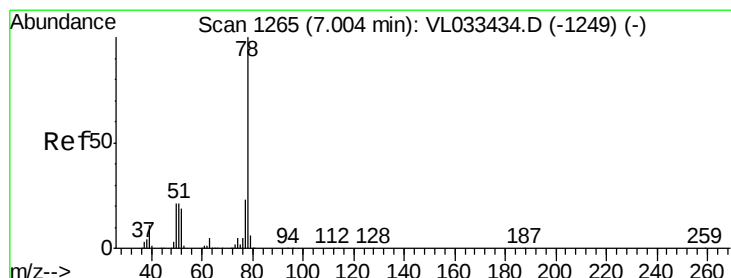
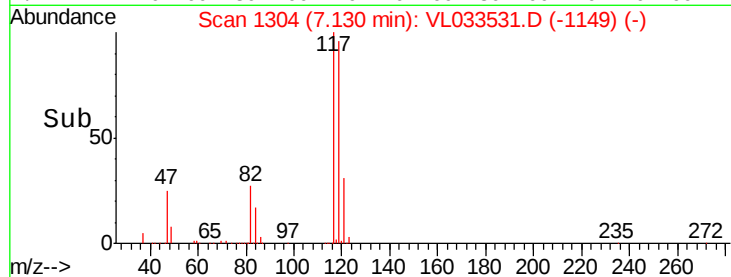
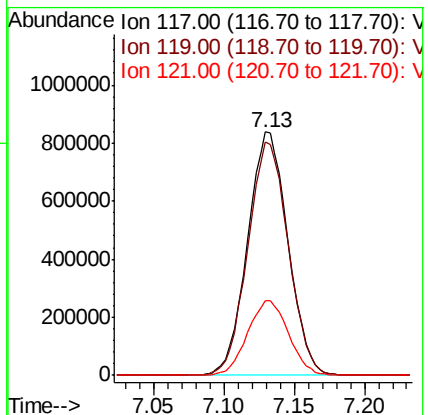
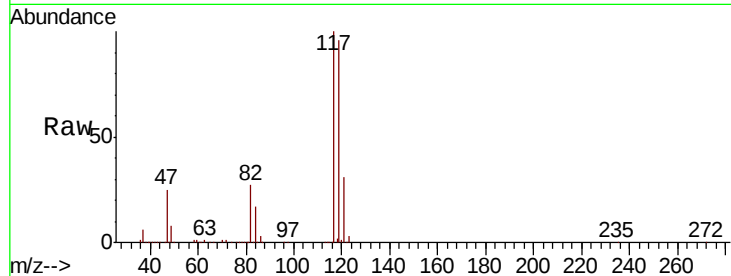
121 30.9 24.7 37.1

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#36

Benzene

Concen: 8.856 ppbv

RT: 7.00 min Scan# 1265

Delta R.T. 0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

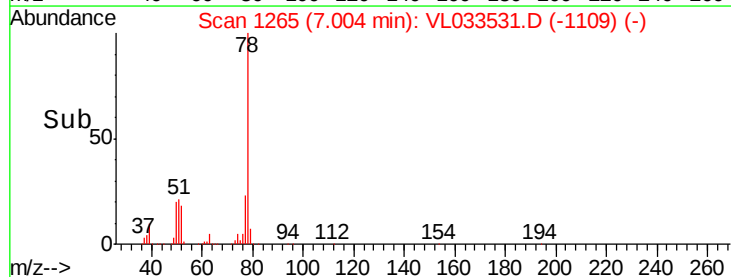
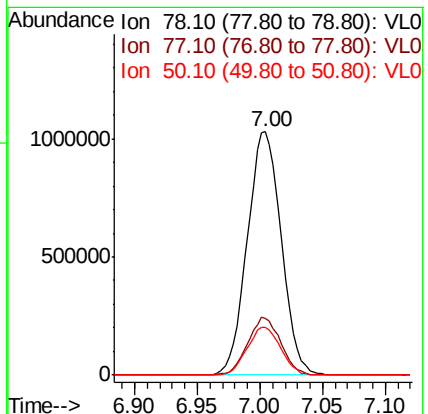
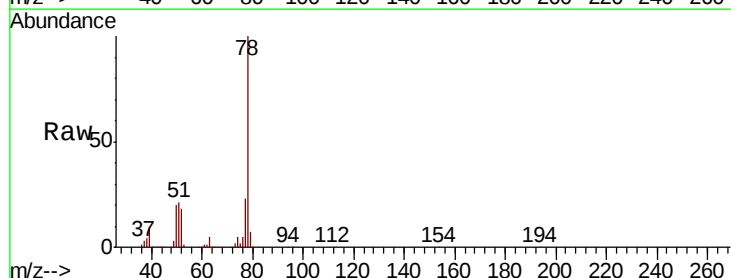
Tgt Ion: 78 Resp: 1944651

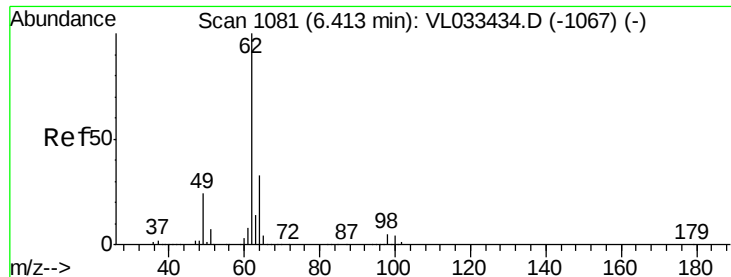
Ion Ratio Lower Upper

78 100

77 23.2 18.1 27.1

50 19.6 16.7 25.1





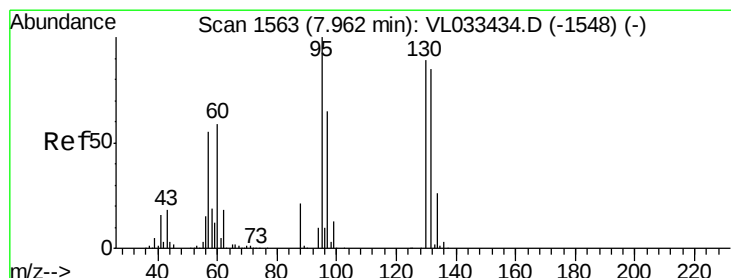
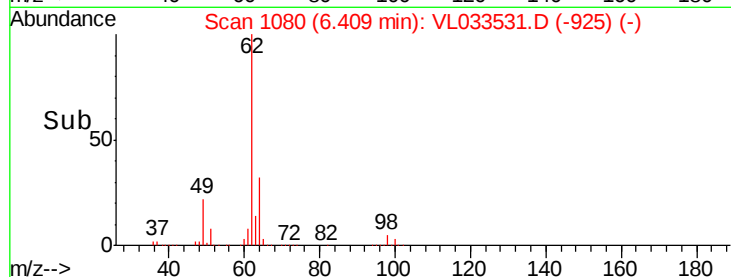
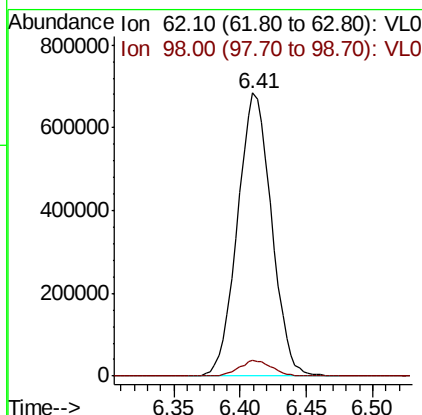
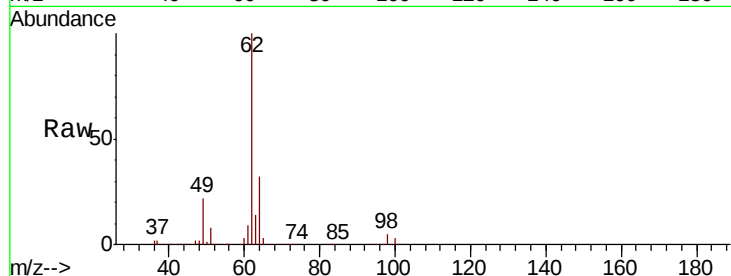
#37  
 1,2-Dichloroethane  
 Concen: 8.298 ppbv  
 RT: 6.41 min Scan# 1080  
 Delta R.T. -0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62      | 100   |       |       |
| 98      | 5.4   | 4.4   | 6.6   |

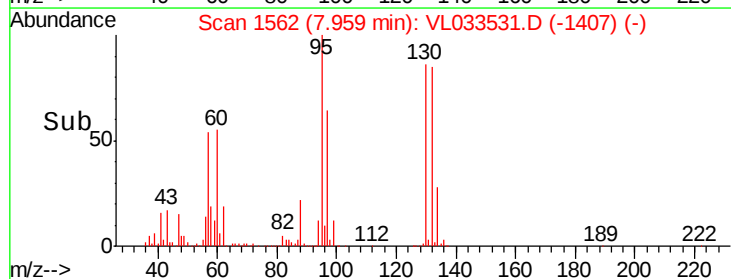
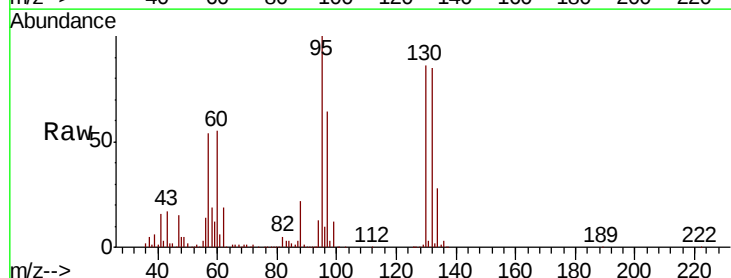
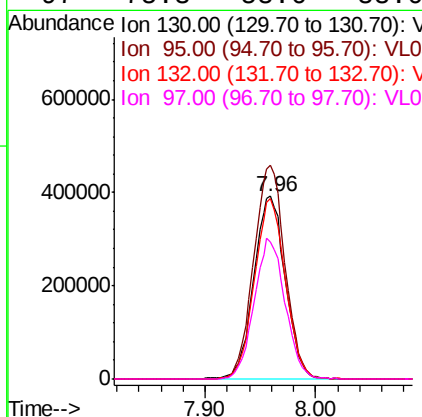
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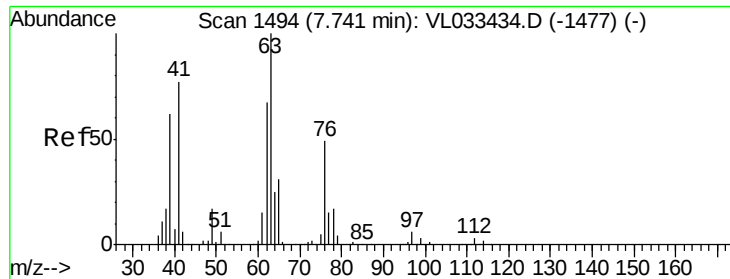
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#38  
 Trichloroethene  
 Concen: 9.325 ppbv  
 RT: 7.96 min Scan# 1562  
 Delta R.T. -0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 130     | 100   |       |       |
| 95      | 117.0 | 89.8  | 134.8 |
| 132     | 99.1  | 76.6  | 115.0 |
| 97      | 75.3  | 58.6  | 88.0  |





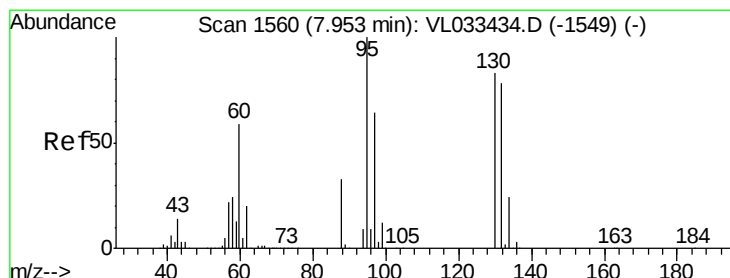
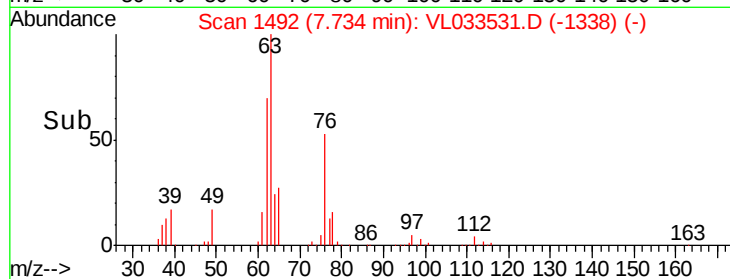
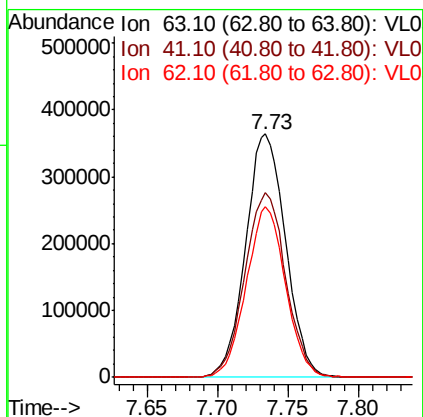
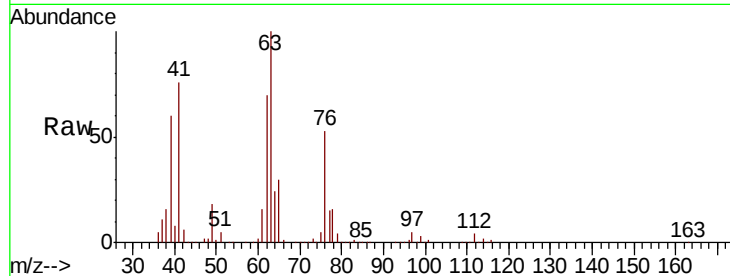
#39  
 1,2-Dichloropropane  
 Concen: 8.386 ppbv  
 RT: 7.73 min Scan# 1492  
 Delta R.T. -0.01 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 75.7  | 61.2  | 91.8  |
| 62      | 70.1  | 54.0  | 81.0  |

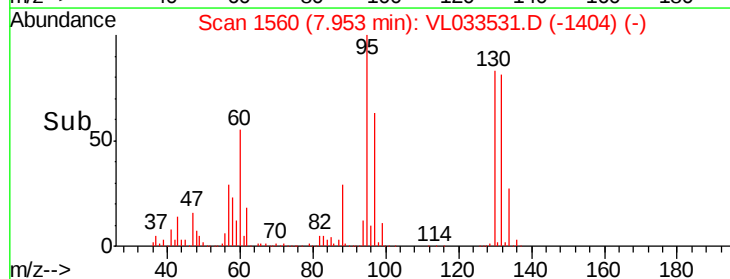
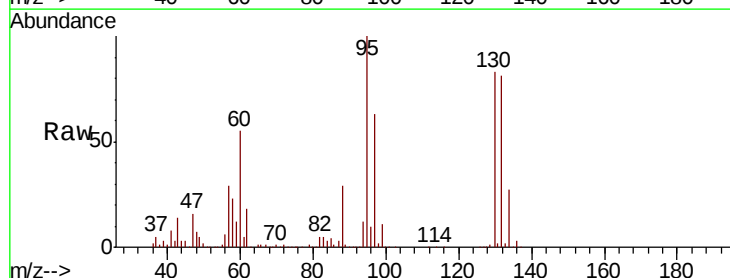
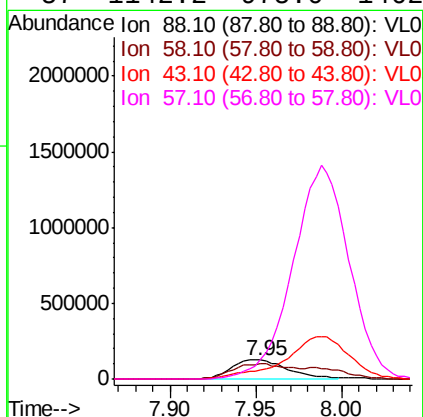
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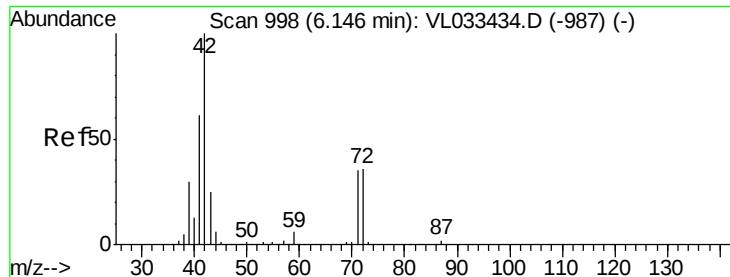
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#40  
 1,4-Dioxane  
 Concen: 9.226 ppbv  
 RT: 7.95 min Scan# 1560  
 Delta R.T. 0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

| Tgt Ion | Ratio  | Lower | Upper  |
|---------|--------|-------|--------|
| 88      | 100    |       |        |
| 58      | 127.8  | 105.6 | 158.4  |
| 43      | 257.8  | 216.7 | 325.1  |
| 57      | 1142.2 | 975.0 | 1462.4 |





#41

Tetrahydrofuran

Concen: 8.968 ppbv

RT: 6.14 min Scan# 997

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

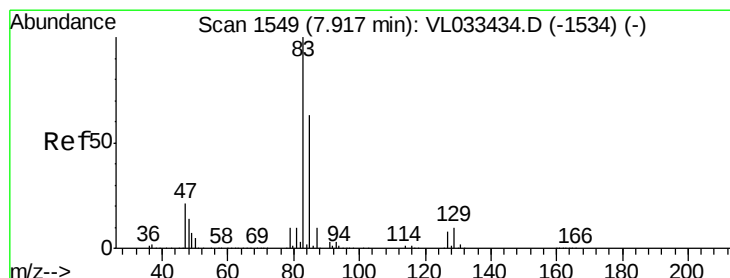
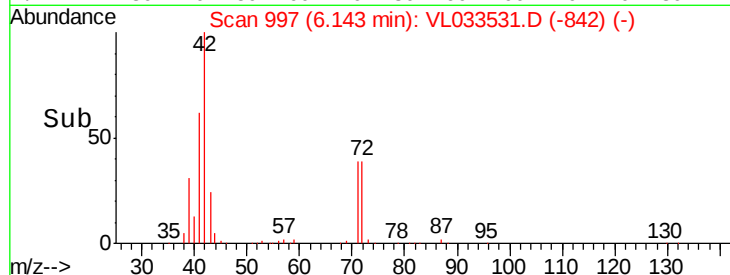
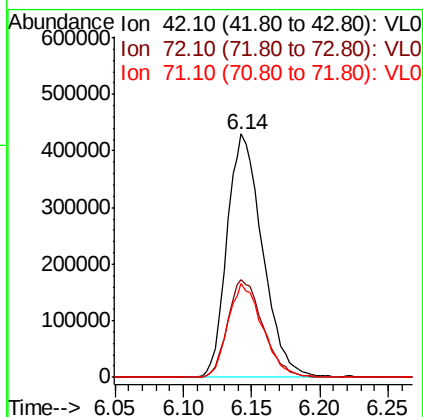
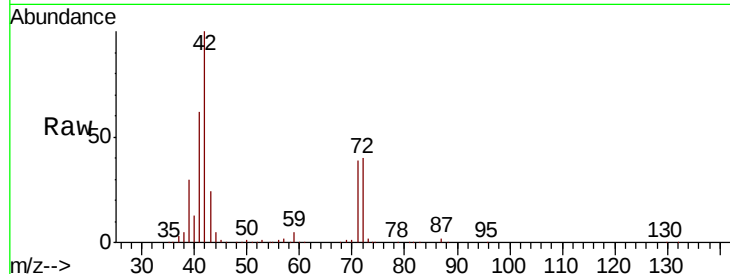
ClientSampleId :

VSTDCCC010

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 42    | Resp: | 775648 |
| Ion      | Ratio | Lower | Upper  |
| 42       | 100   |       |        |
| 72       | 39.9  | 30.2  | 45.2   |
| 71       | 37.8  | 29.4  | 44.2   |

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#42

Bromodichloromethane

Concen: 8.649 ppbv

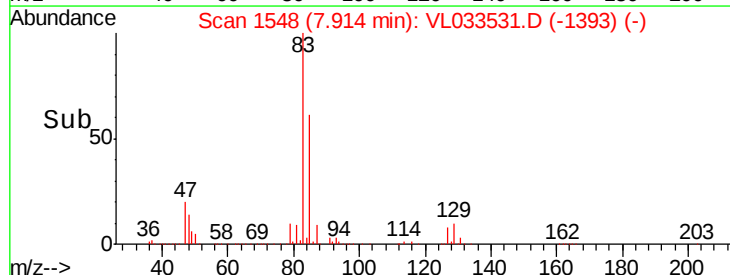
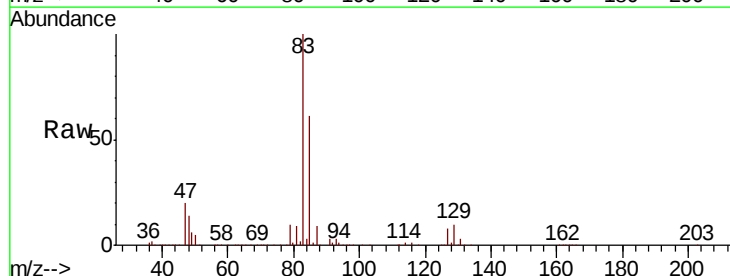
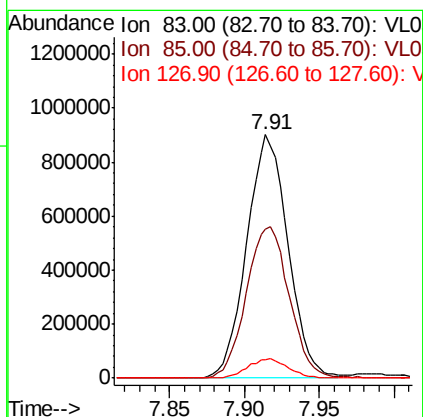
RT: 7.91 min Scan# 1548

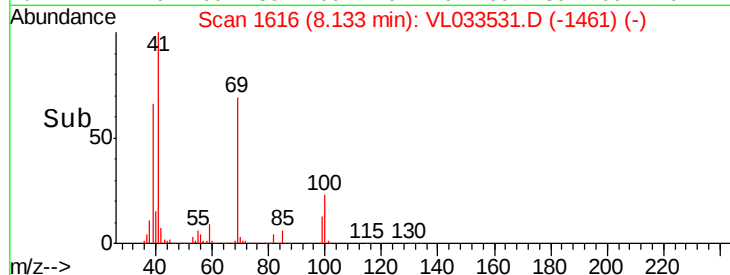
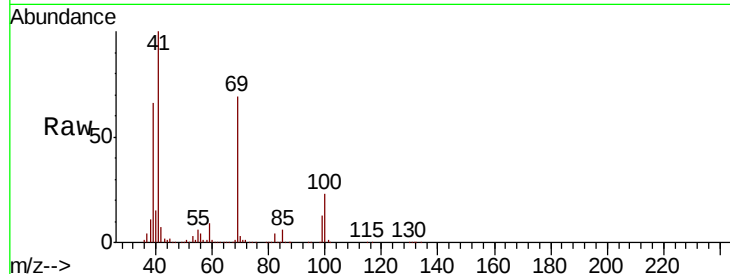
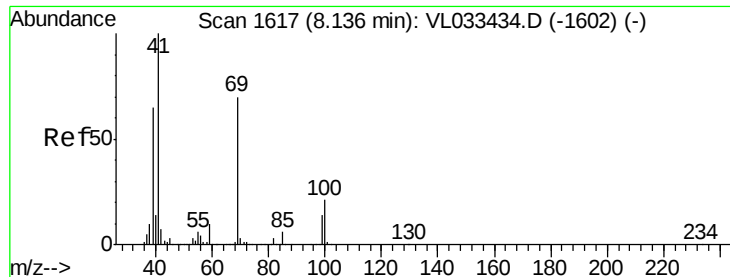
Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 83    | Resp: | 1733917 |
| Ion      | Ratio | Lower | Upper   |
| 83       | 100   |       |         |
| 85       | 60.9  | 50.7  | 76.1    |
| 127      | 7.6   | 6.6   | 9.8     |





#43

Methyl Methacrylate

Concen: 8.927 ppbv

RT: 8.13 min Scan# 1616

Delta R.T. -0.00 min

Lab File: VL033531.D

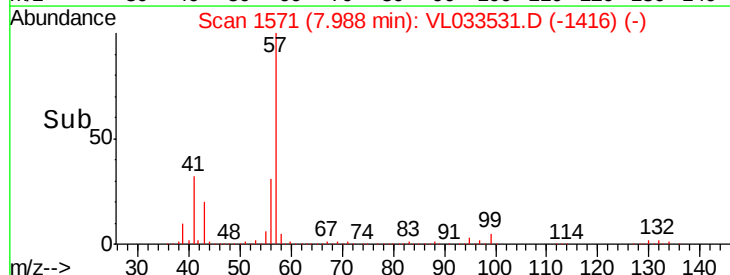
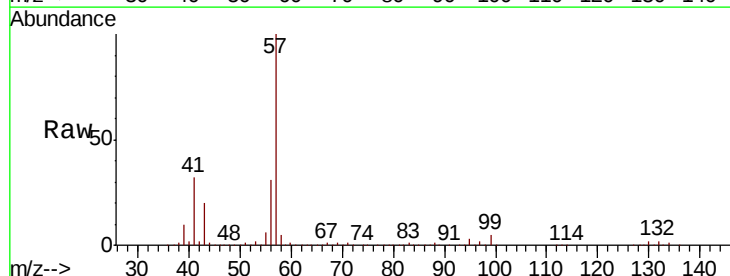
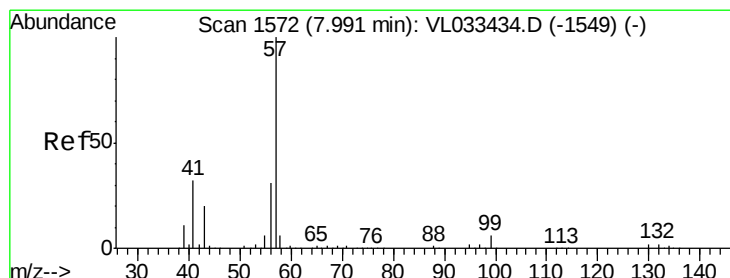
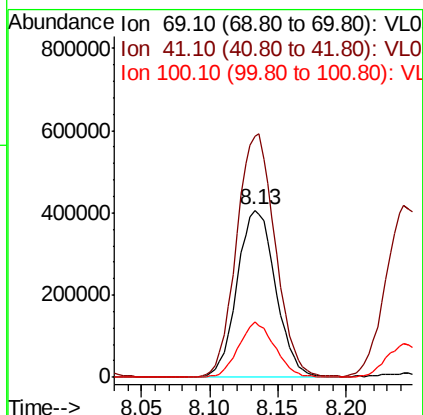
Acq: 4 Apr 2019 12:31

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 69      | 100   |       |       |
| 41      | 146.9 | 116.6 | 174.8 |
| 100     | 31.0  | 24.4  | 36.6  |

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

Manual Integrations  
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MMDadoda  
4/8/2019 3:22:12 AM



#44

2,2,4-Trimethylpentane

Concen: 8.418 ppbv

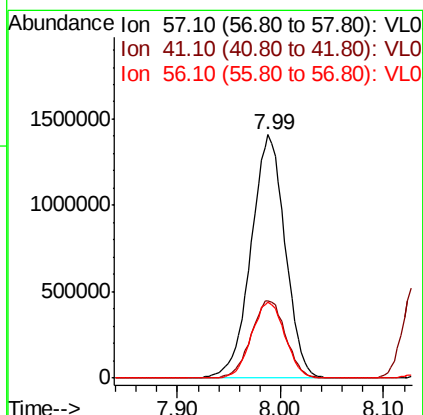
RT: 7.99 min Scan# 1571

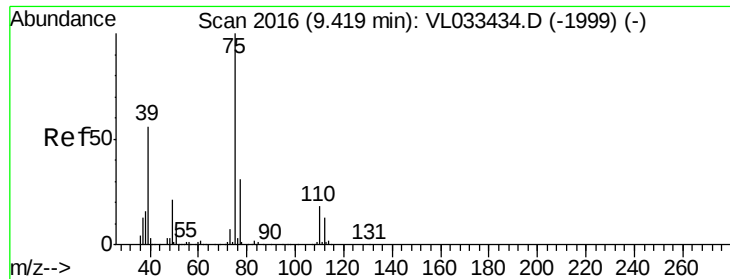
Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 32.3  | 26.0  | 39.0  |
| 56      | 30.8  | 24.6  | 37.0  |





#45

t-1,3-Dichloropropene

Concen: 10.221 ppbv

RT: 9.41 min Scan# 2014

Delta R.T. -0.01 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 75 Resp: 1118947

Ion Ratio Lower Upper

75 100

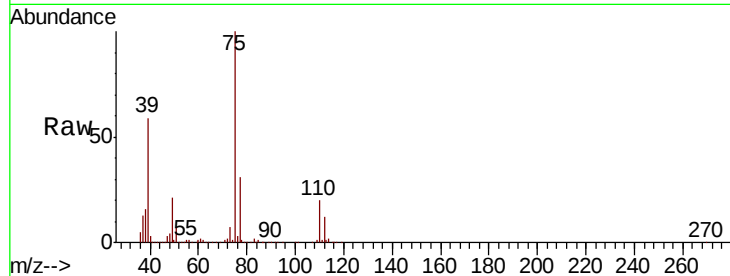
77 30.7 24.5 36.7

Manual Integrations

APPROVED

MMDadoda

4/8/2019 3:22:12 AM



Abundance Ion 75.10 (74.80 to 75.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

600000

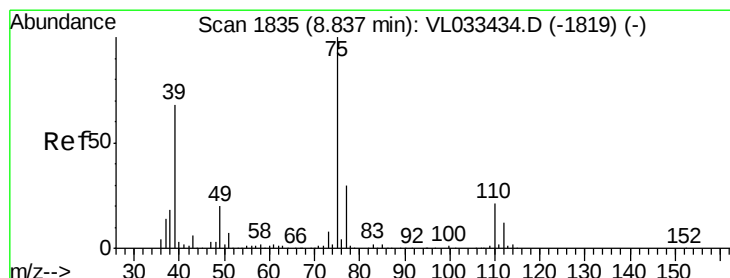
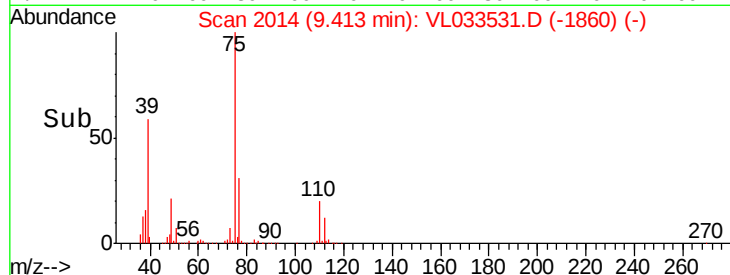
400000

200000

0

9.35 9.40 9.45 9.50

Time-->



#46

cis-1,3-Dichloropropene

Concen: 9.682 ppbv

RT: 8.83 min Scan# 1834

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

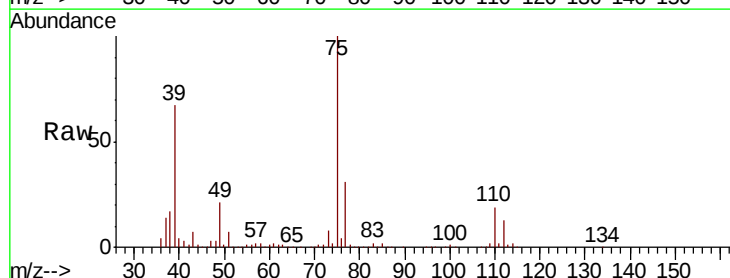
Tgt Ion: 75 Resp: 1237744

Ion Ratio Lower Upper

75 100

39 67.0 54.1 81.1

77 31.3 23.9 35.9



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

800000

600000

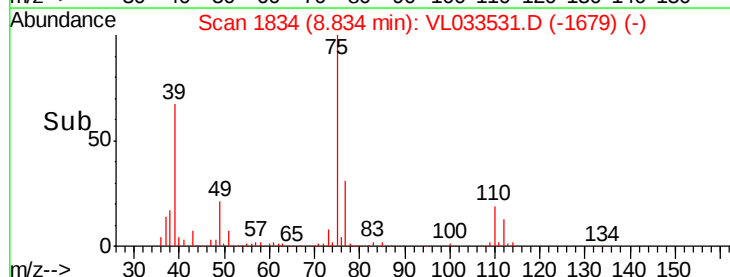
400000

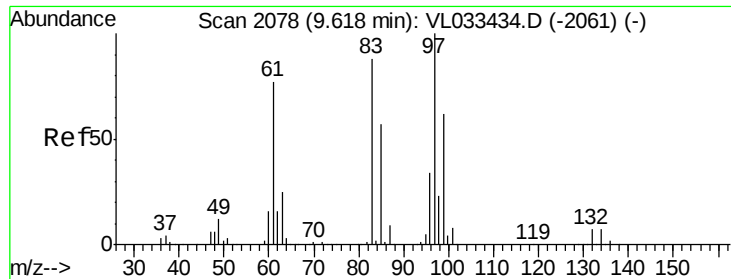
200000

0

8.75 8.80 8.85 8.90

Time-->





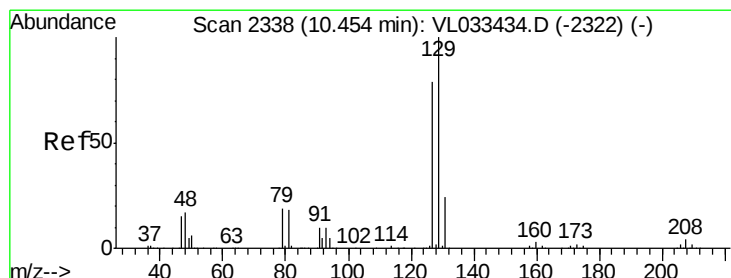
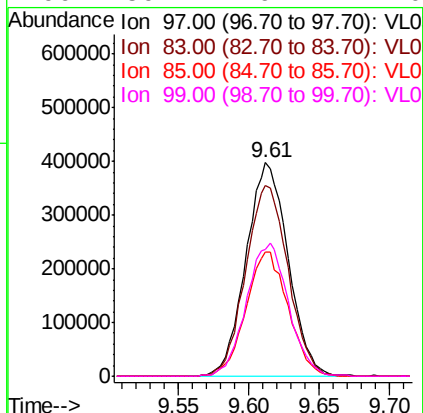
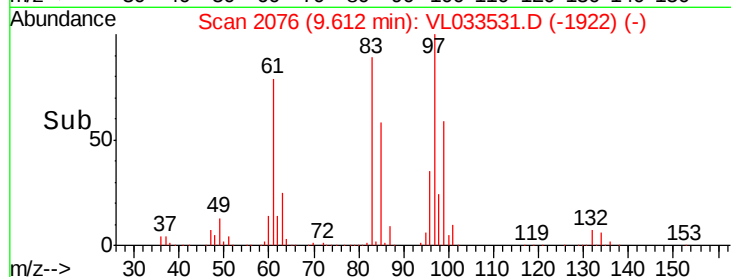
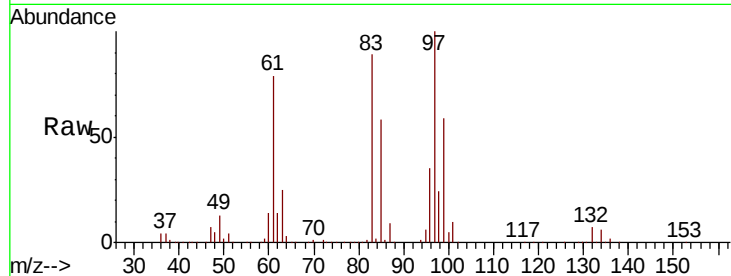
#47  
 1,1,2-Trichloroethane  
 Concen: 8.505 ppbv  
 RT: 9.61 min Scan# 2076  
 Delta R.T. -0.01 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 97    | Resp: | 830737 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 83       | 89.0  | 70.5  | 105.7  |
| 85       | 58.2  | 45.6  | 68.4   |
| 99       | 59.4  | 49.4  | 74.0   |

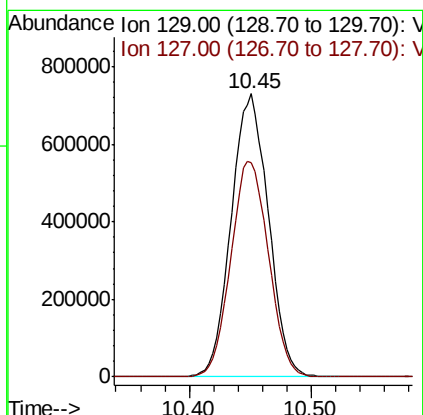
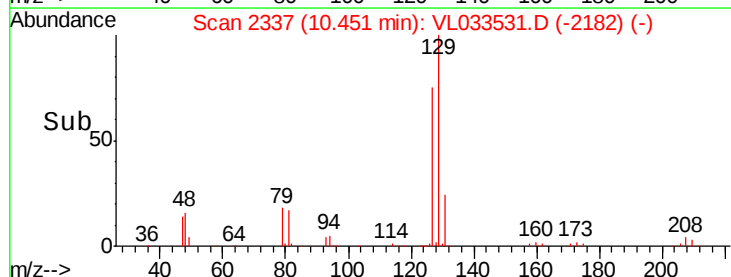
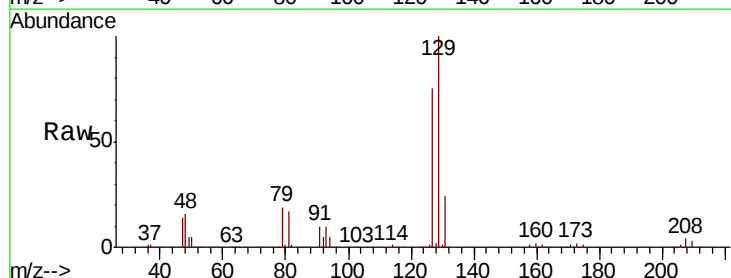
Manual Integrations  
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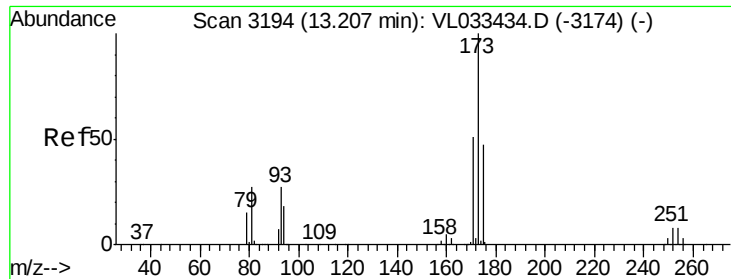
MMDadoda  
 4/8/2019 3:22:12 AM



#48  
 Dibromochloromethane  
 Concen: 9.369 ppbv  
 RT: 10.45 min Scan# 2337  
 Delta R.T. -0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 129   | Resp: | 1543635 |
| Ion      | Ratio | Lower | Upper   |
| 129      | 100   |       |         |
| 127      | 77.1  | 39.1  | 117.2   |





#49

Bromoform

Concen: 9.038 ppbv

RT: 13.20 min Scan# 3192

Delta R.T. -0.01 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion:173 Resp: 1422552

Ion Ratio Lower Upper

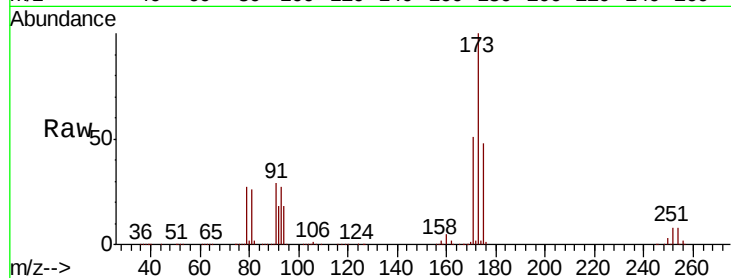
173 100

175 48.5 39.3 58.9

171 51.5 41.2 61.8

Manual Integrations  
APPROVED

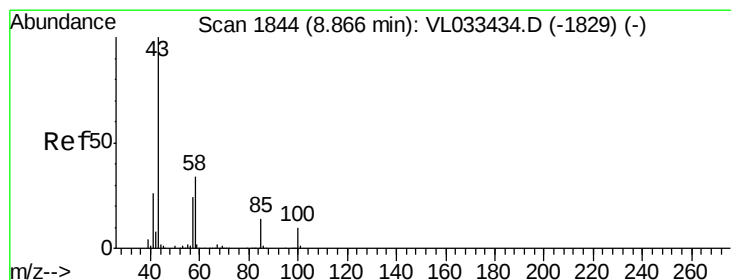
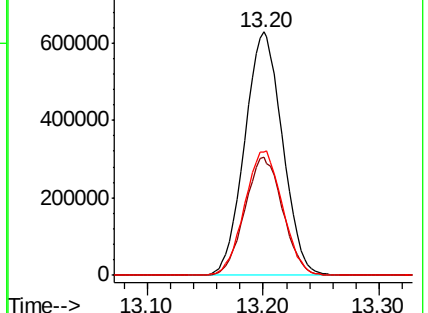
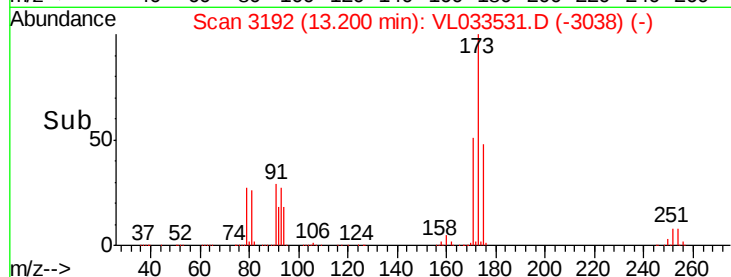
MMDadoda  
4/8/2019 3:22:12 AM



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: 8.796 ppbv

RT: 8.87 min Scan# 1844

Delta R.T. 0.00 min

Lab File: VL033531.D

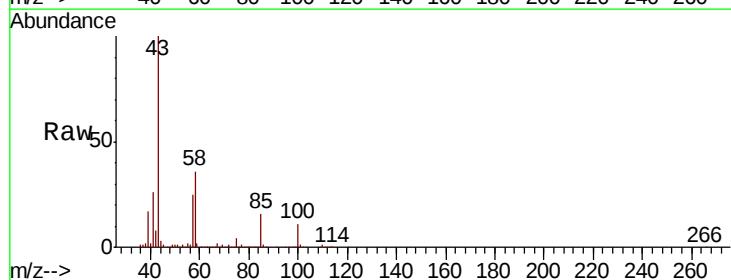
Acq: 4 Apr 2019 12:31

Tgt Ion: 43 Resp: 2025154

Ion Ratio Lower Upper

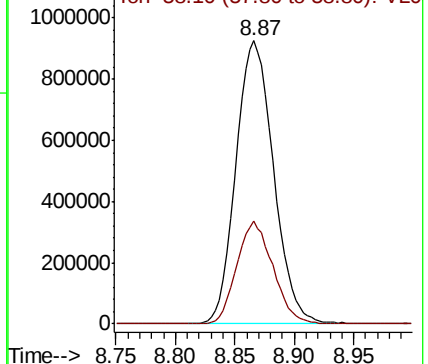
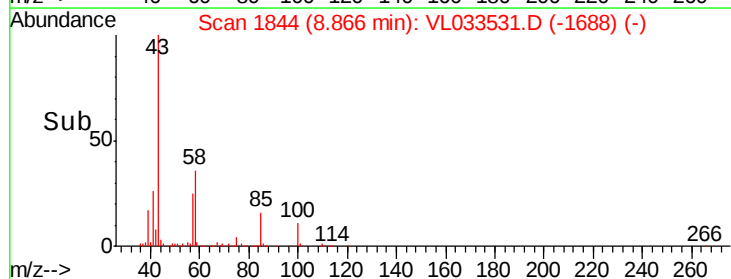
43 100

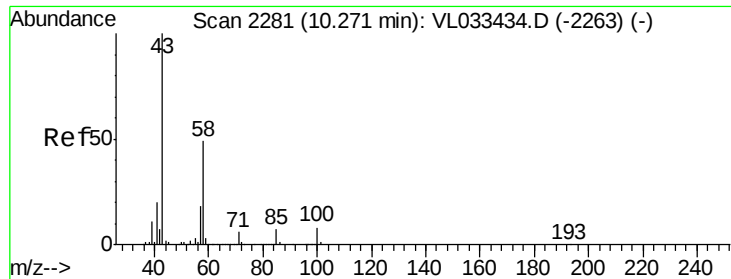
58 35.1 28.0 42.0



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





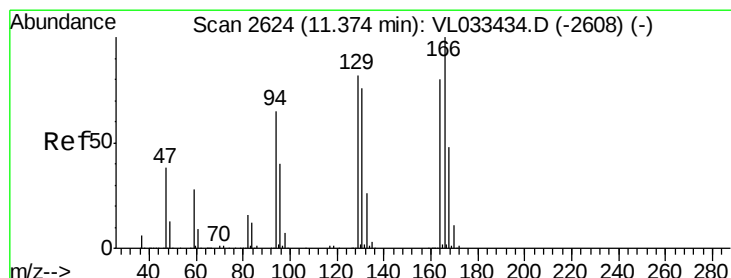
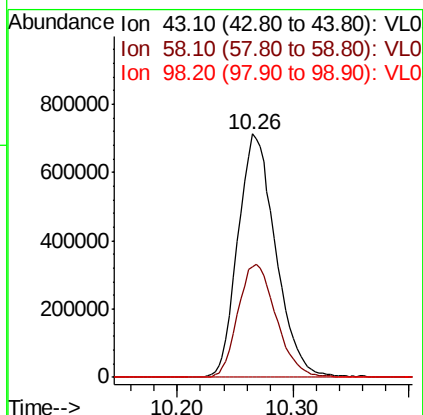
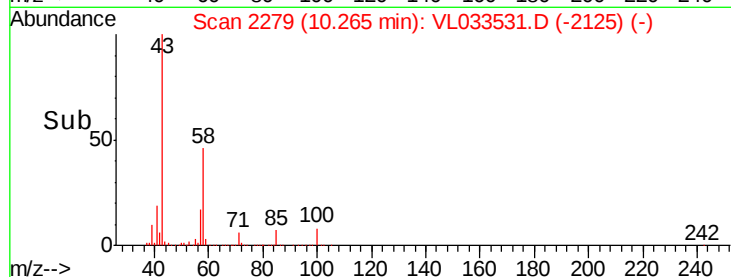
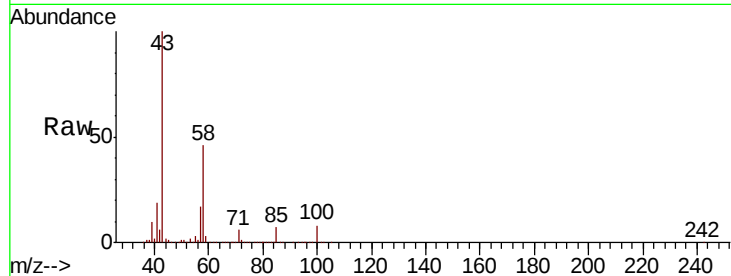
#51  
2-Hexanone  
Concen: 9.341 ppbv  
RT: 10.26 min Scan# 2279  
Delta R.T. -0.01 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 47.4  | 38.2  | 57.2  |
| 98      | 0.2   | 0.2   | 0.2   |

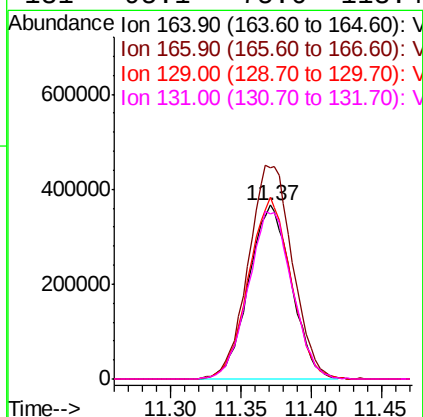
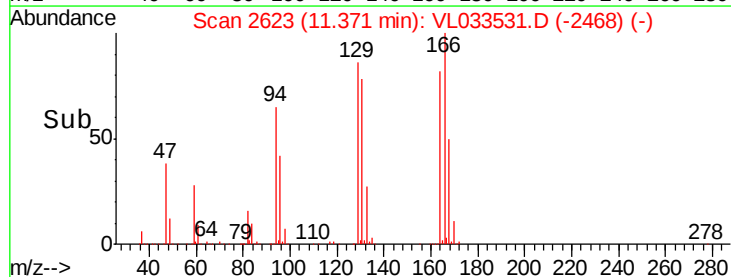
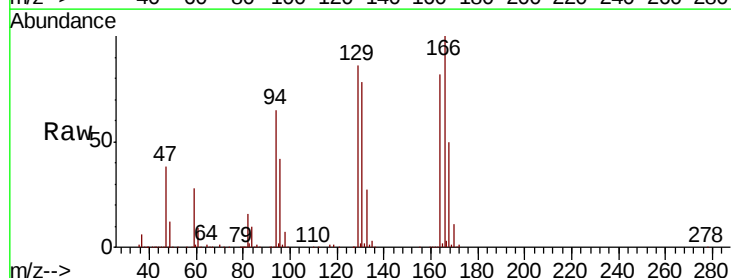
Manual Integrations  
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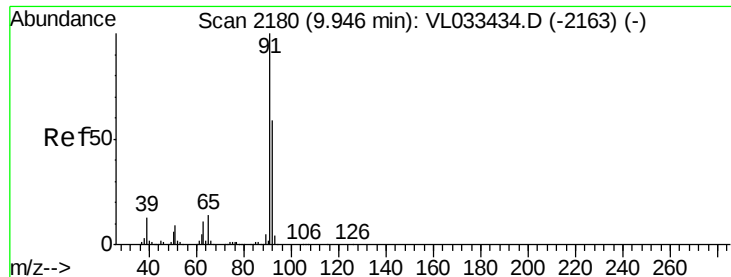
MMDadoda  
4/8/2019 3:22:12 AM



#52  
Tetrachloroethene  
Concen: 9.369 ppbv  
RT: 11.37 min Scan# 2623  
Delta R.T. -0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 121.2 | 99.5  | 149.3 |
| 129     | 104.6 | 81.4  | 122.2 |
| 131     | 95.1  | 75.6  | 113.4 |





#53

Toluene

Concen: 9.212 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 91 Resp: 2350678

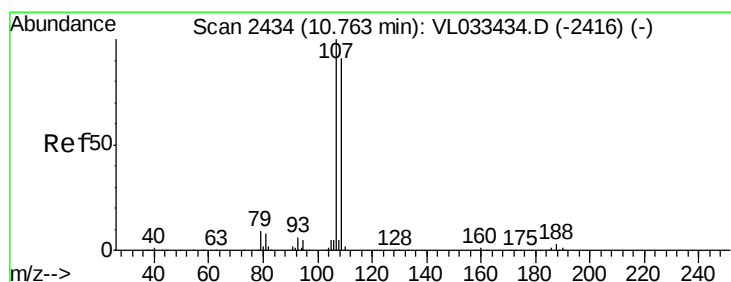
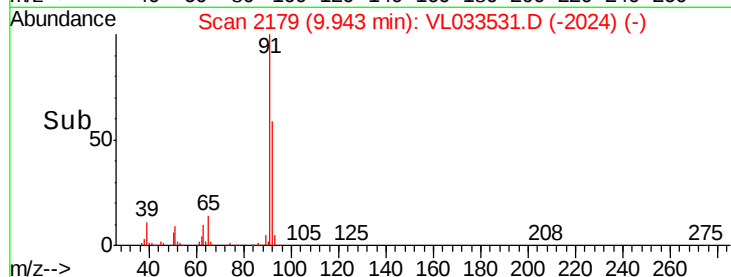
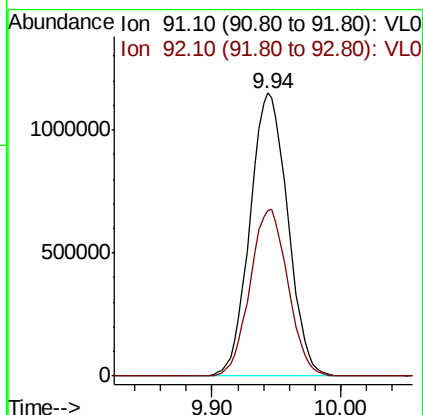
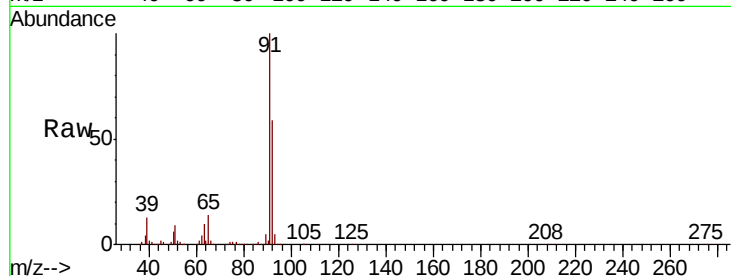
Ion Ratio Lower Upper

91 100

92 59.1 47.4 71.0

Manual Integrations  
APPROVED

MMDadoda  
4/8/2019 3:22:12 AM



#54

1,2-Dibromoethane

Concen: 8.721 ppbv

RT: 10.76 min Scan# 2433

Delta R.T. -0.00 min

Lab File: VL033531.D

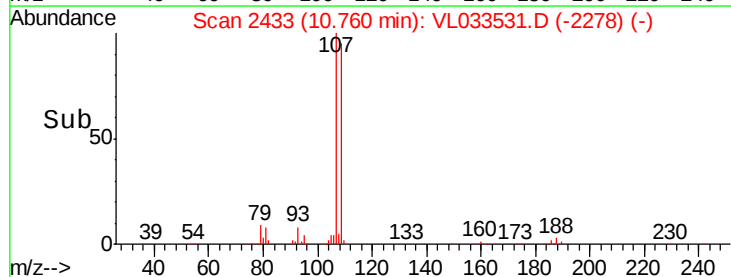
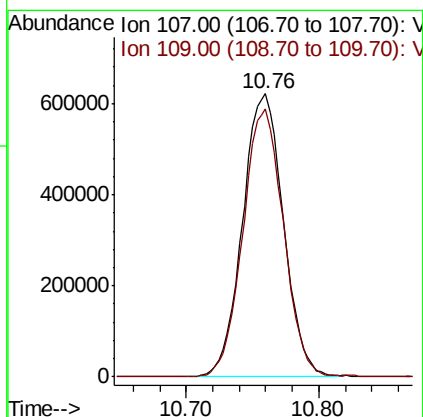
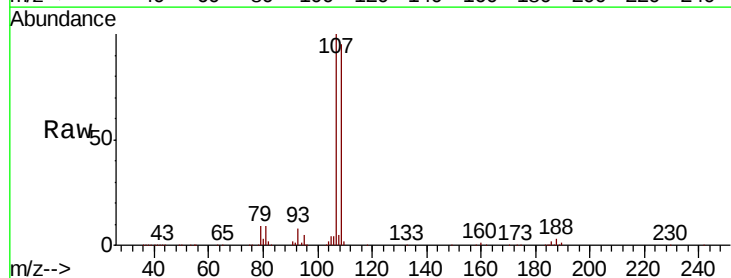
Acq: 4 Apr 2019 12:31

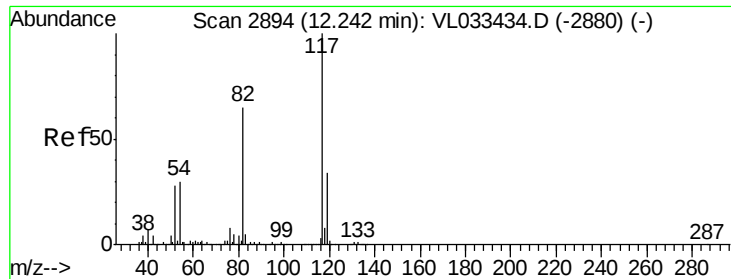
Tgt Ion:107 Resp: 1332405

Ion Ratio Lower Upper

107 100

109 94.5 72.7 109.1





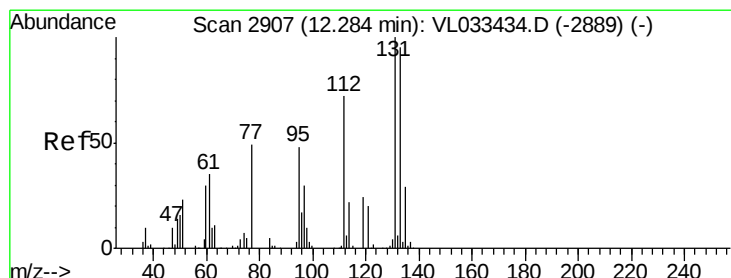
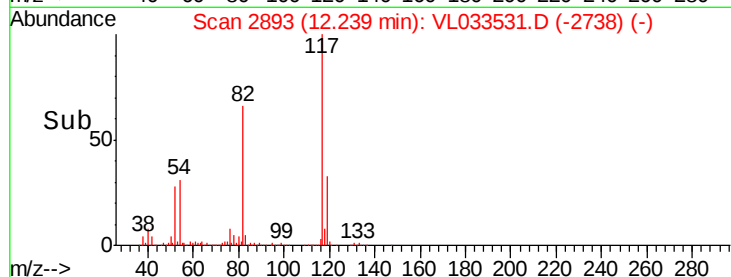
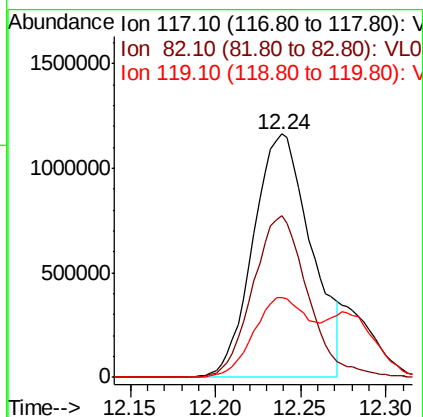
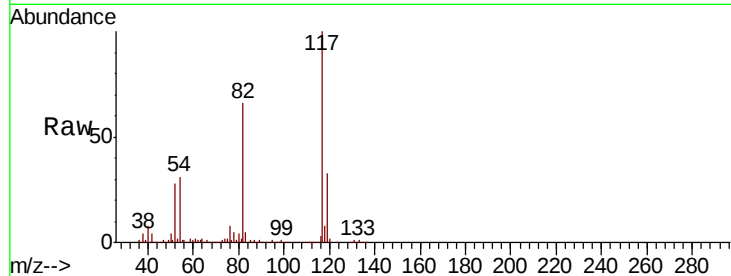
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv m  
RT: 12.24 min Scan# 2893  
Delta R.T. -0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

Tot Ion:117 Resp: 2746839  
Ion Ratio Lower Upper  
117 100  
82 63.6 51.5 77.3  
119 54.4 25.5 38.3#

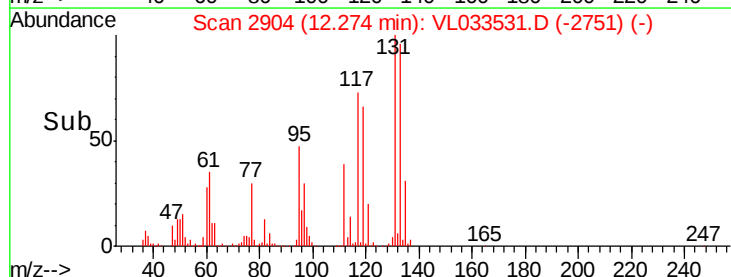
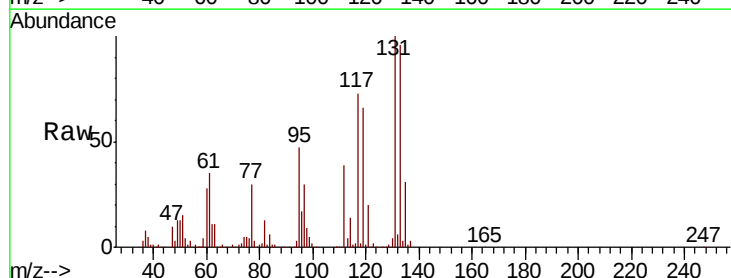
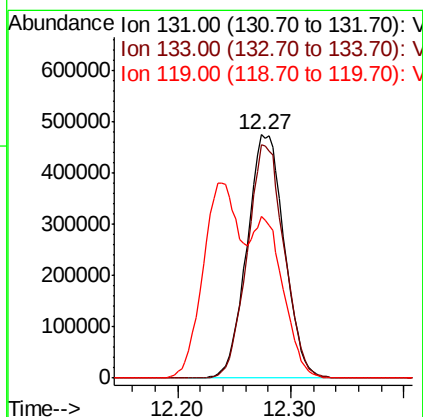
Manual Integrations  
APPROVED

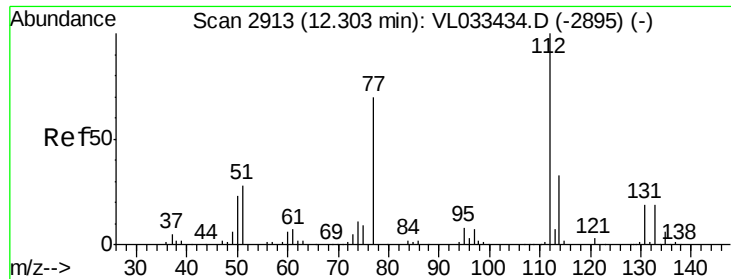
MMDadoda  
4/8/2019 3:22:12 AM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 8.642 ppbv  
RT: 12.27 min Scan# 2904  
Delta R.T. -0.01 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Tgt Ion:131 Resp: 1088007  
Ion Ratio Lower Upper  
131 100  
133 94.8 76.2 114.4  
119 86.0 45.0 67.6#





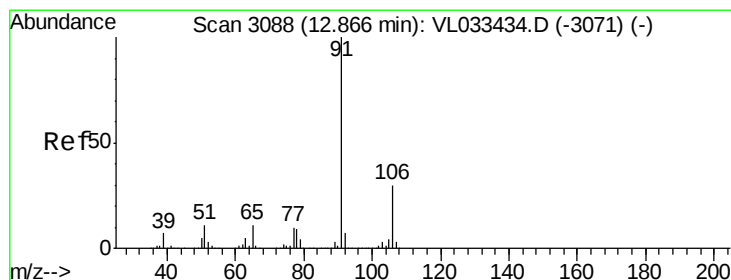
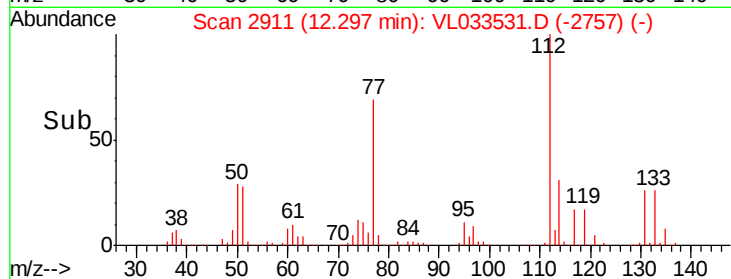
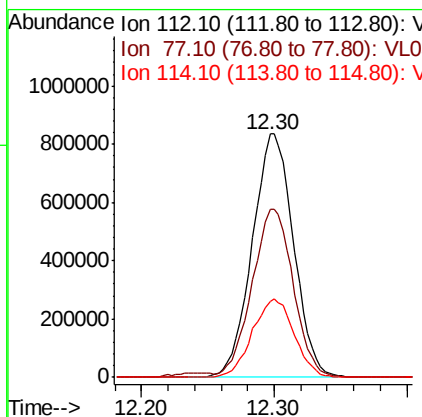
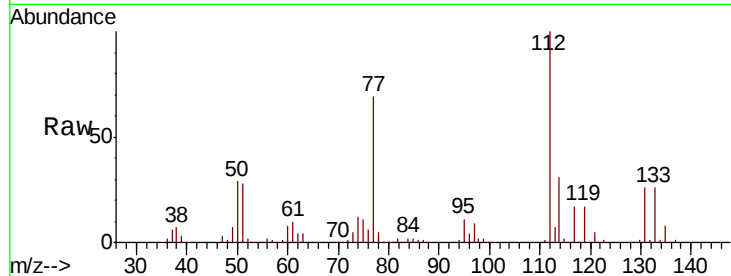
#57  
Chlorobenzene  
Concen: 8.499 ppbv  
RT: 12.30 min Scan# 2911  
Delta R.T. -0.01 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

Tot Ion:112 Resp: 1812805  
Ion Ratio Lower Upper  
112 100  
77 68.4 57.3 85.9  
114 31.3 29.8 36.4

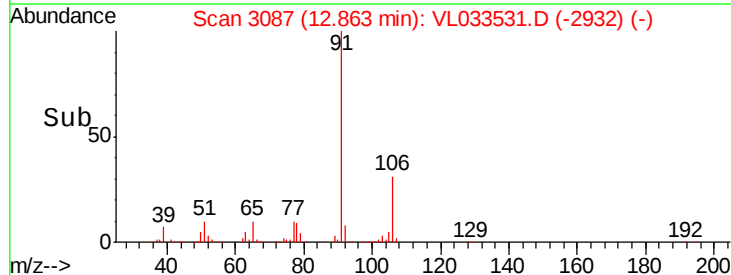
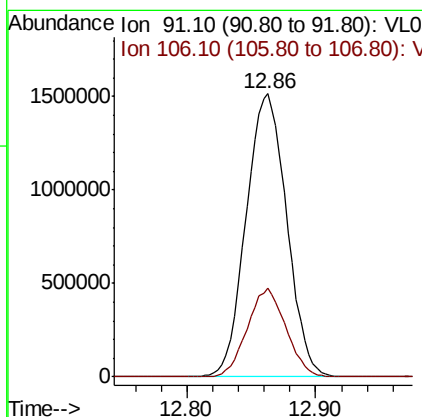
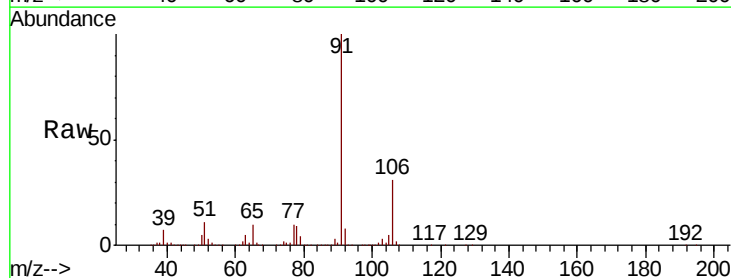
Manual Integrations  
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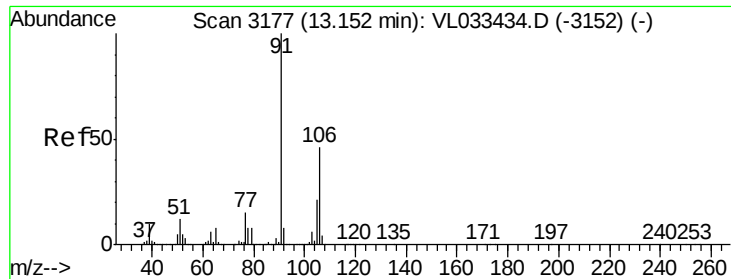
MMDadoda  
4/8/2019 3:22:12 AM



#58  
Ethyl Benzene  
Concen: 9.065 ppbv  
RT: 12.86 min Scan# 3087  
Delta R.T. -0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Tgt Ion: 91 Resp: 3325373  
Ion Ratio Lower Upper  
91 100  
106 31.4 23.8 35.6





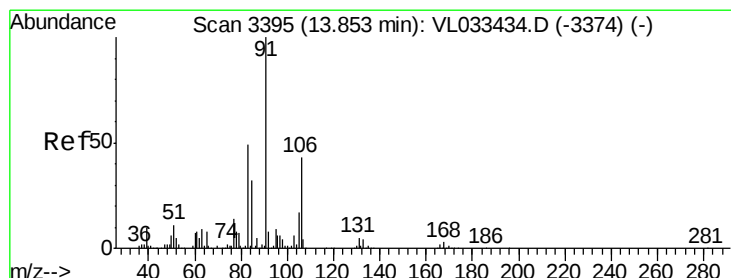
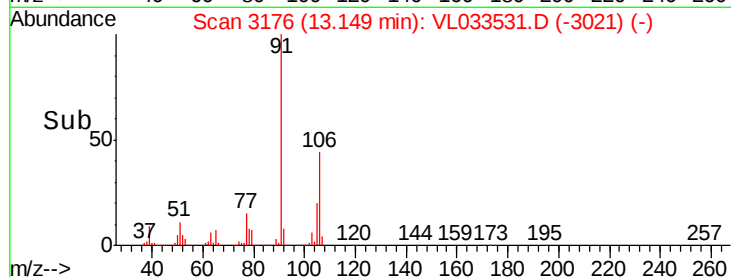
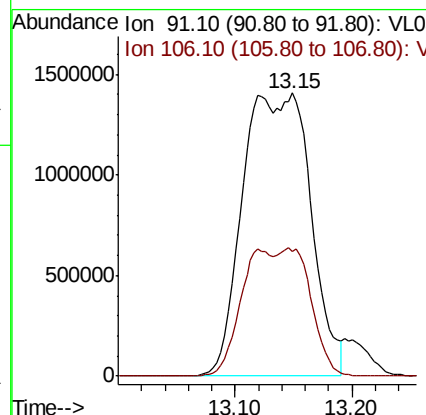
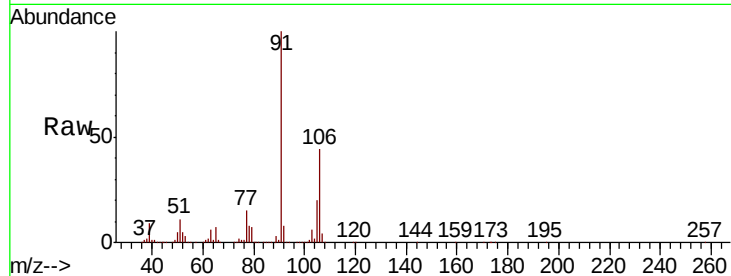
#59  
m/p-Xylene  
Concen: 17.323 ppbv m  
RT: 13.15 min Scan# 3176  
Delta R.T. -0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

Tot Ion: 91 Resp: 5675840  
Ion Ratio Lower Upper  
91 100  
106 44.8 0.0 0.0#

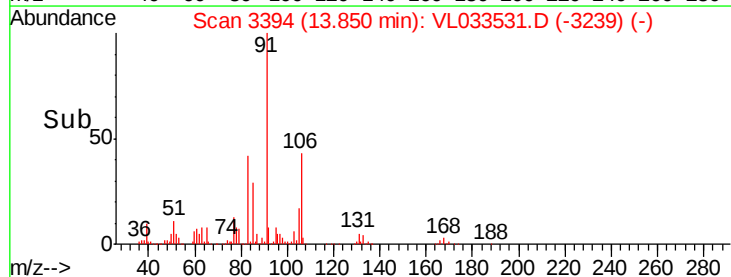
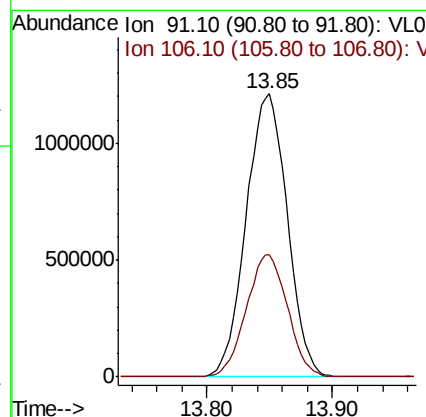
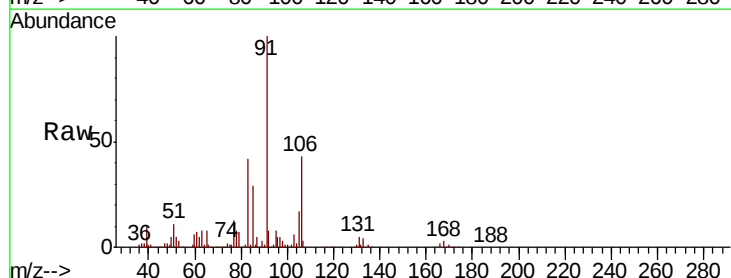
Manual Integrations  
APPROVED

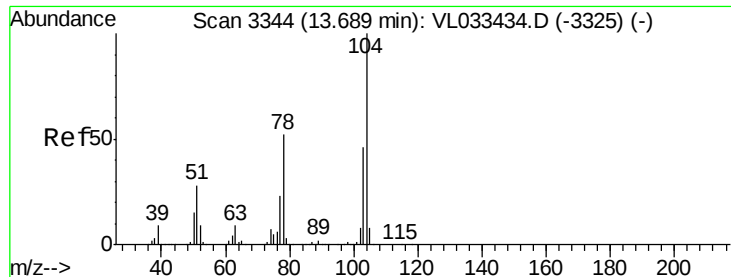
MMDadoda  
4/8/2019 3:22:12 AM



#60  
o-Xylene  
Concen: 8.711 ppbv  
RT: 13.85 min Scan# 3394  
Delta R.T. -0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Tgt Ion: 91 Resp: 2759904  
Ion Ratio Lower Upper  
91 100  
106 43.4 21.4 64.3





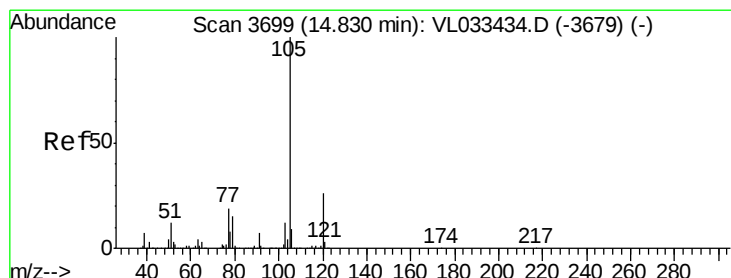
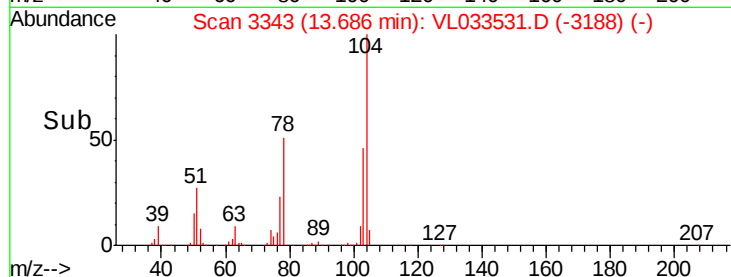
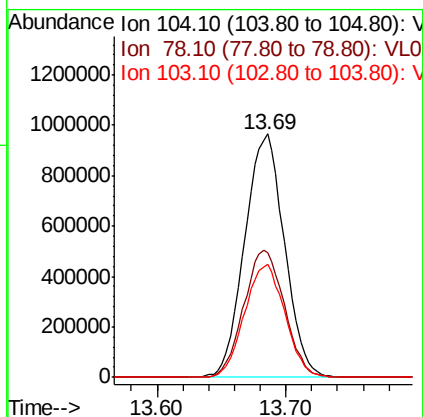
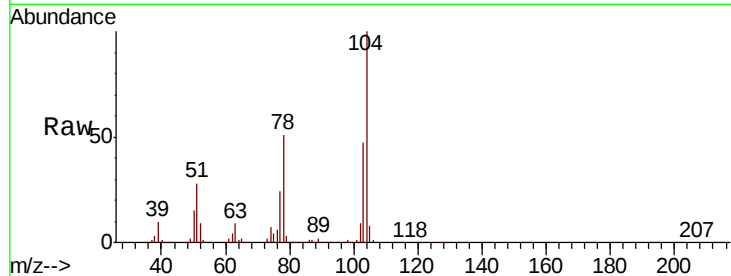
#61  
Stvrene  
Concen: 9.523 ppbv  
RT: 13.69 min Scan# 3343  
Delta R.T. -0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 53.5  | 43.2  | 64.8  |
| 103     | 47.3  | 37.8  | 56.8  |

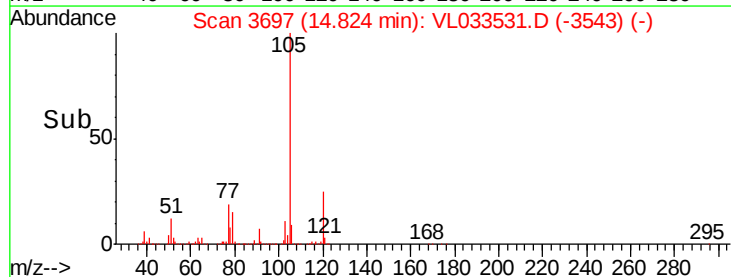
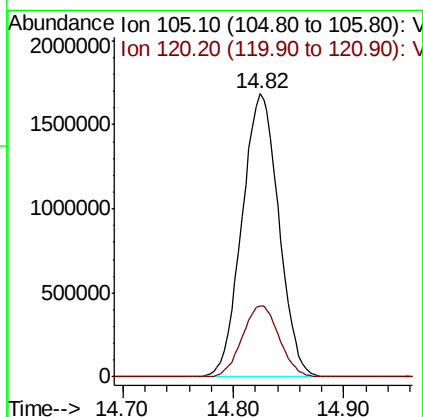
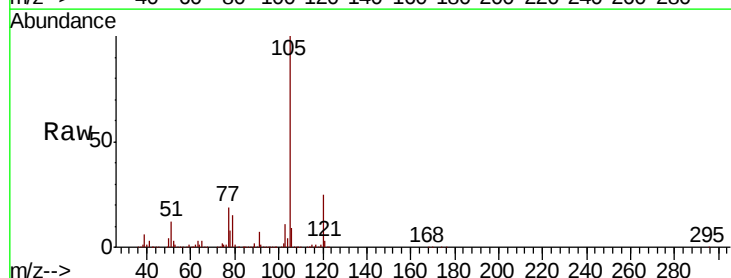
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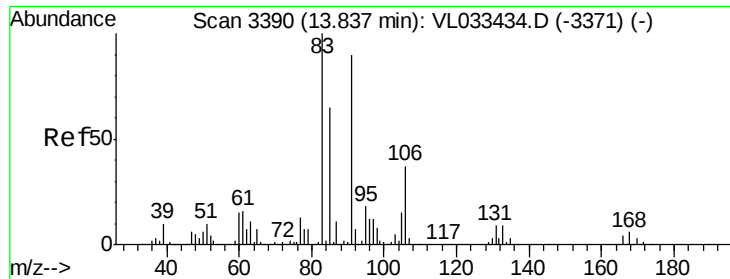
MMDadoda  
4/8/2019 3:22:12 AM



#62  
Isopropylbenzene  
Concen: 8.664 ppbv  
RT: 14.82 min Scan# 3697  
Delta R.T. -0.01 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 25.3  | 20.2  | 30.2  |





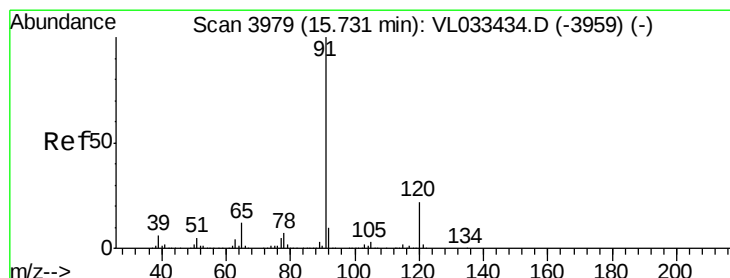
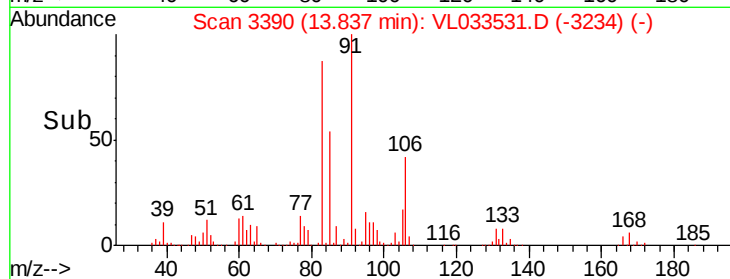
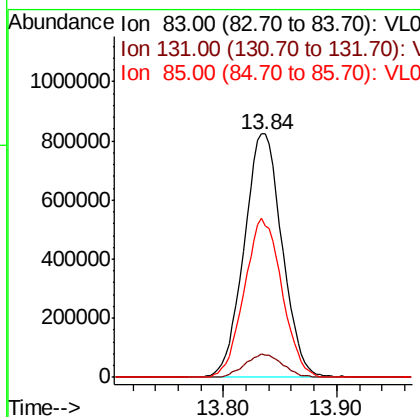
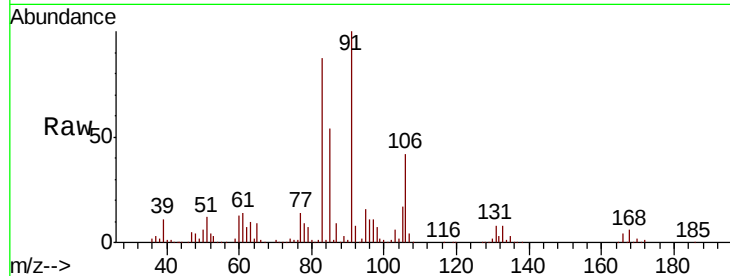
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 8.248 ppbv  
 RT: 13.84 min Scan# 3390  
 Delta R.T. 0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

| Tot Ion   | 83   | Resp  | 1924221 |
|-----------|------|-------|---------|
| Ion Ratio | 100  | Lower | Upper   |
| 83        | 100  |       |         |
| 131       | 9.5  | 4.7   | 14.0    |
| 85        | 64.8 | 32.7  | 98.1    |

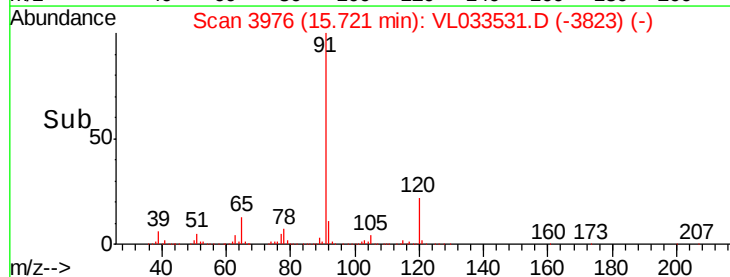
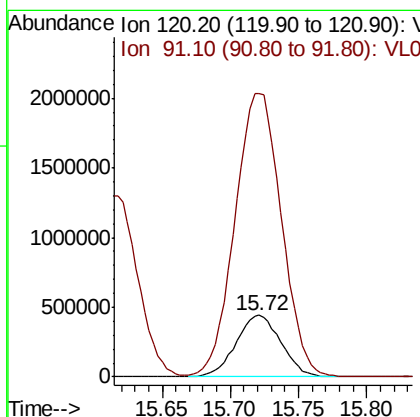
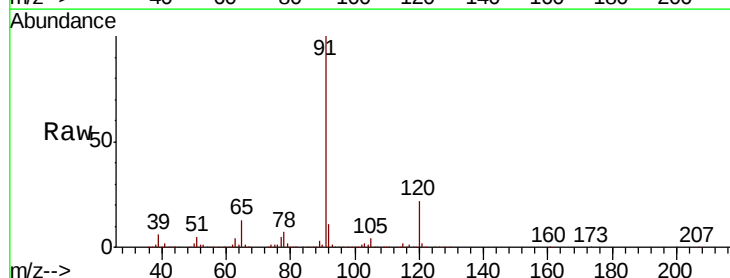
Manual Integrations  
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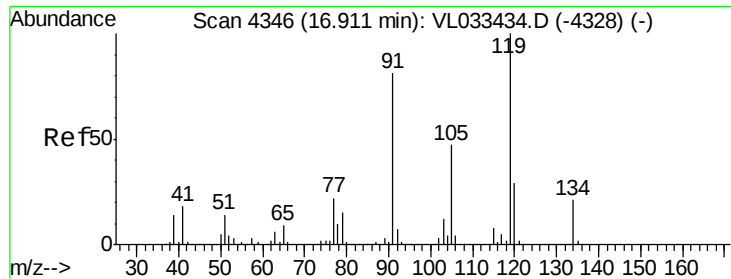
MMDadoda  
 4/8/2019 3:22:12 AM



#64  
 n-propylbenzene  
 Concen: 8.913 ppbv  
 RT: 15.72 min Scan# 3976  
 Delta R.T. -0.01 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

| Tgt Ion   | 120   | Resp  | 1014742 |
|-----------|-------|-------|---------|
| Ion Ratio | 100   | Lower | Upper   |
| 120       | 100   |       |         |
| 91        | 475.4 | 387.4 | 581.2   |





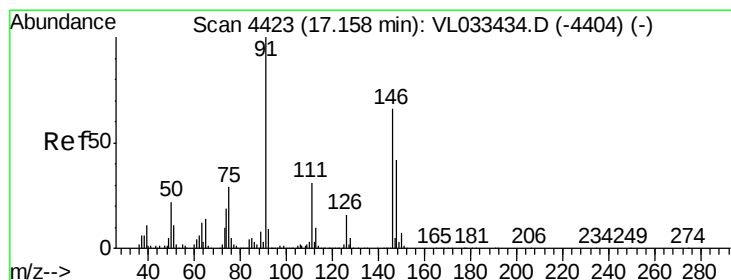
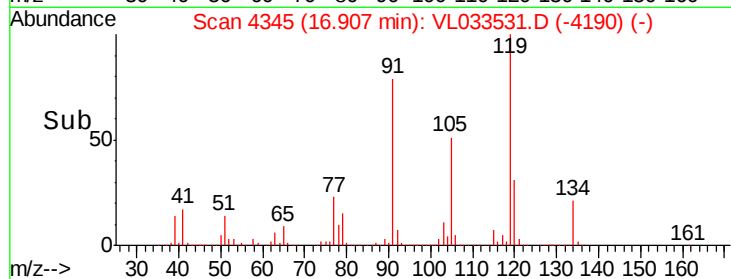
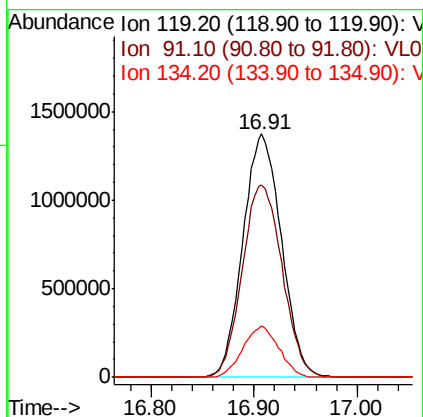
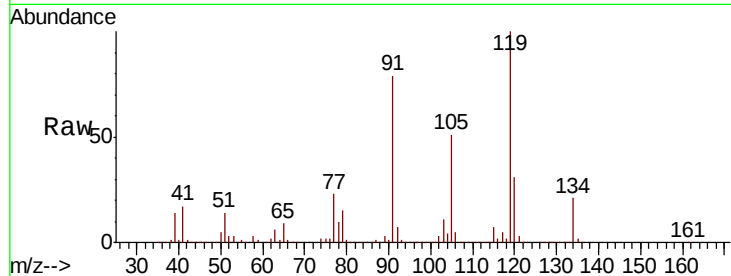
#65  
tert-Butylbenzene  
Concen: 9.018 ppbv  
RT: 16.91 min Scan# 4345  
Delta R.T. -0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

Tot Ion: 119 Resp: 3565536  
Ion Ratio Lower Upper  
119 100  
91 82.0 66.4 99.6  
134 19.7 15.5 23.3

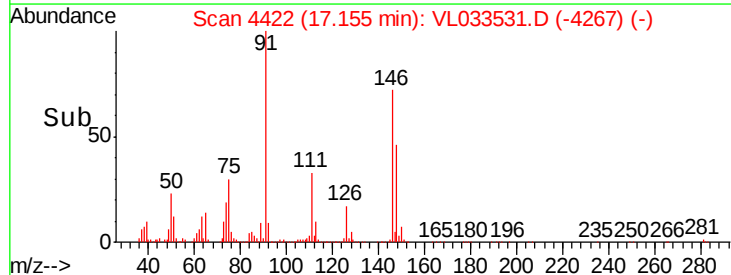
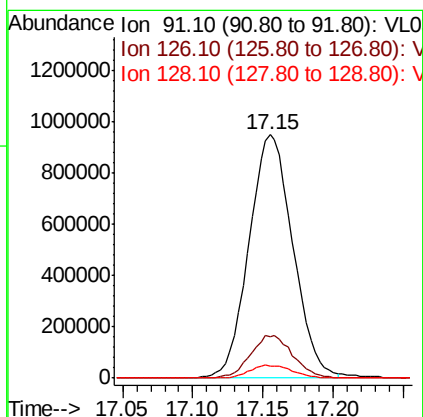
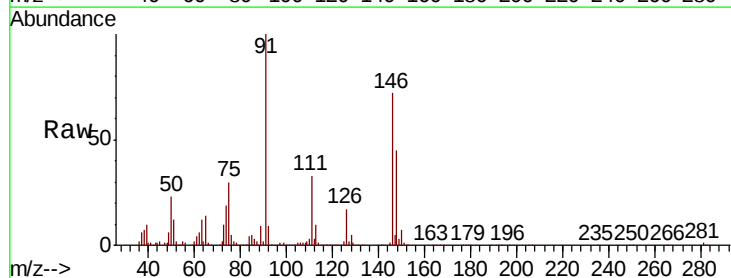
Manual Integrations  
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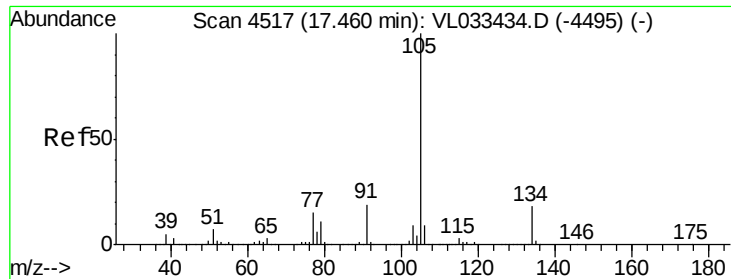
MMDadoda  
4/8/2019 3:22:12 AM



#66  
Benzyl Chloride  
Concen: 11.158 ppbv  
RT: 17.15 min Scan# 4422  
Delta R.T. -0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Tgt Ion: 91 Resp: 2051397  
Ion Ratio Lower Upper  
91 100  
126 17.2 13.0 19.6  
128 5.4 4.2 6.2





#67

sec-Butylbenzene

Concen: 8.920 ppbv

RT: 17.46 min Scan# 4516

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion:105 Resp: 5015383

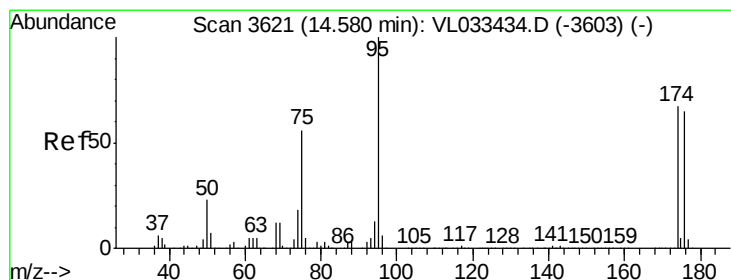
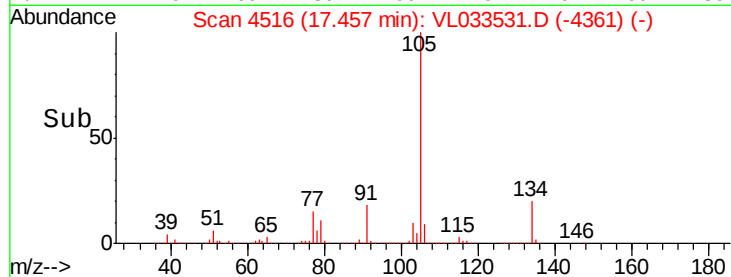
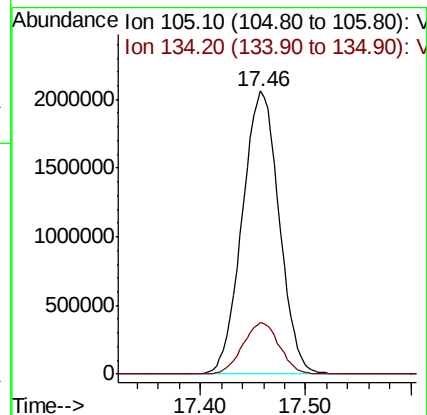
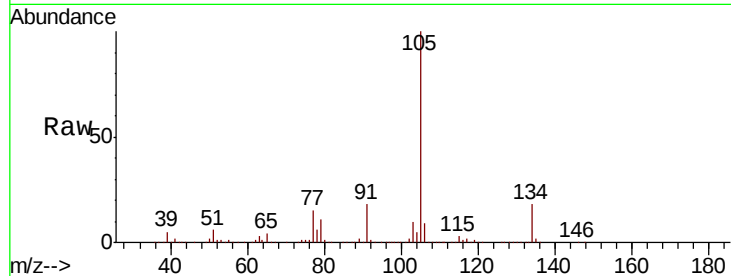
Ion Ratio Lower Upper

105 100

134 18.2 14.6 21.8

Manual Integrations  
APPROVED

MMDadoda  
4/8/2019 3:22:12 AM



#68

1-Bromo-4-Fluorobenzene

Concen: 10.003 ppbv

RT: 14.57 min Scan# 3619

Delta R.T. -0.01 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

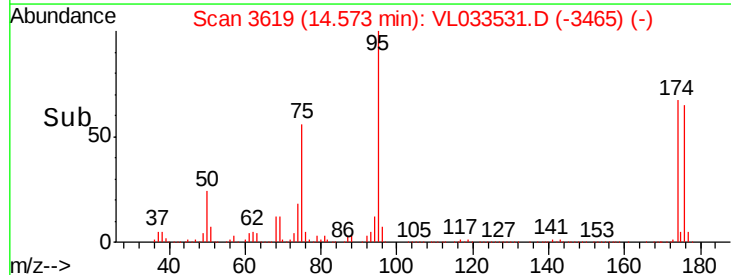
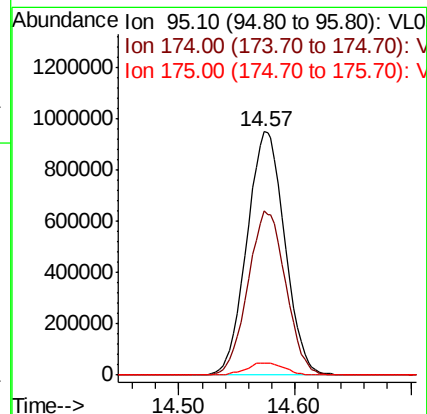
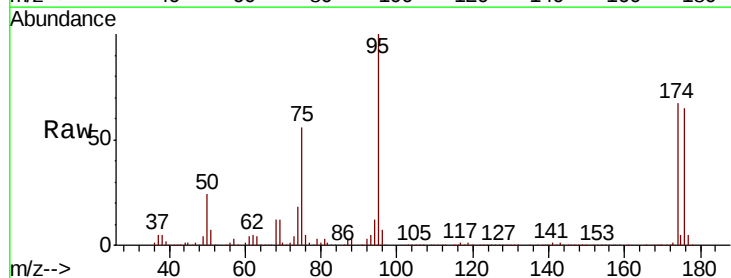
Tgt Ion: 95 Resp: 2154088

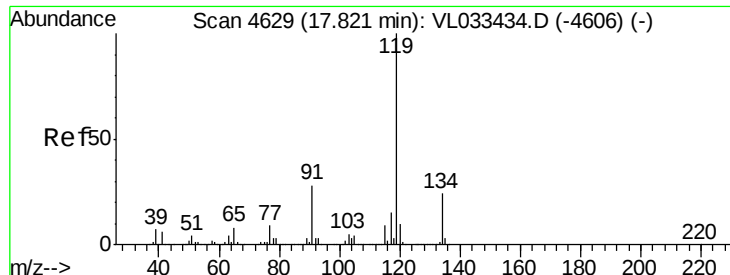
Ion Ratio Lower Upper

95 100

174 67.3 52.9 79.3

175 5.0 3.8 5.6





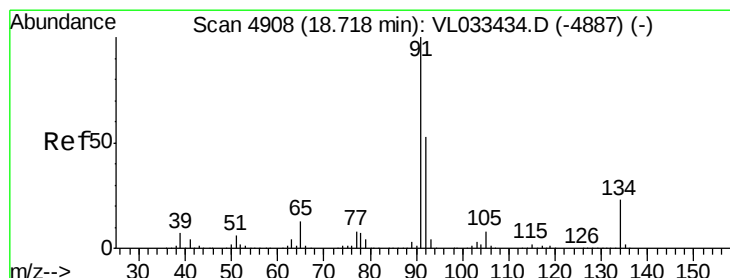
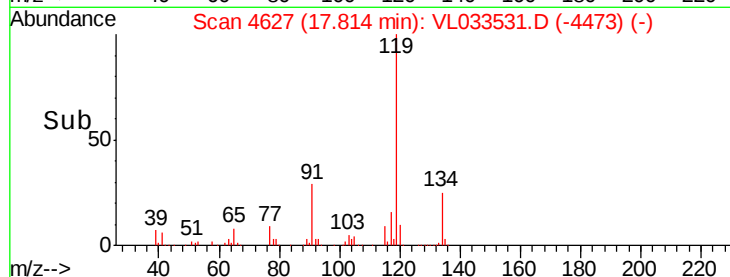
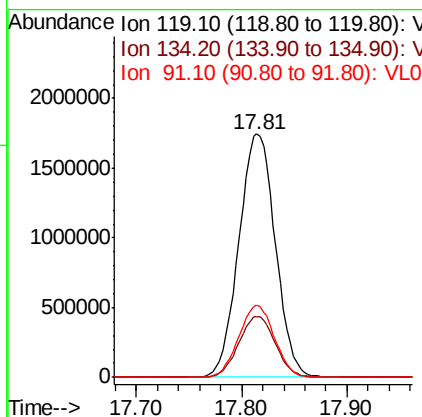
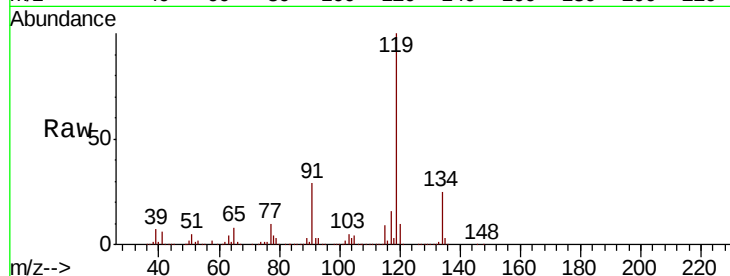
#69  
 p-Isopropyltoluene  
 Concen: 9.167 ppbv  
 RT: 17.81 min Scan# 4627  
 Delta R.T. -0.01 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 25.0  | 19.9  | 29.9  |
| 91      | 29.1  | 23.4  | 35.0  |

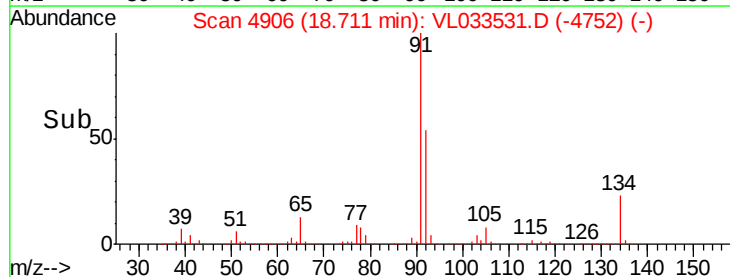
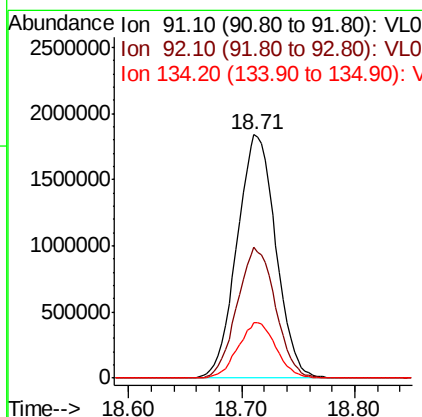
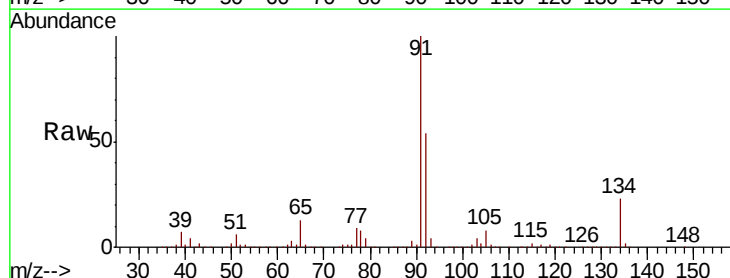
Manual Integrations  
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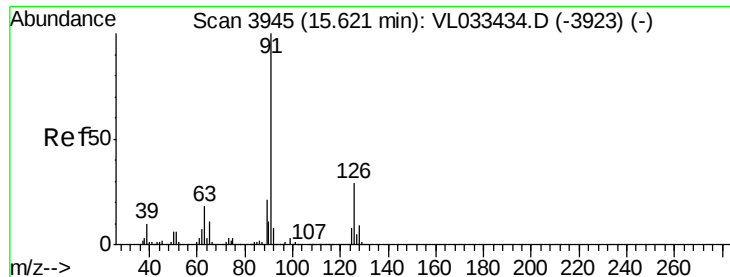
MMDadoda  
 4/8/2019 3:22:12 AM



#70  
 n-Butylbenzene  
 Concen: 9.002 ppbv  
 RT: 18.71 min Scan# 4906  
 Delta R.T. -0.01 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 53.5  | 42.6  | 64.0  |
| 134     | 22.4  | 17.5  | 26.3  |





#71

2-Chlorotoluene

Concen: 8.839 ppbv

RT: 15.61 min Scan# 3943

Delta R.T. -0.01 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 91 Resp: 3015392

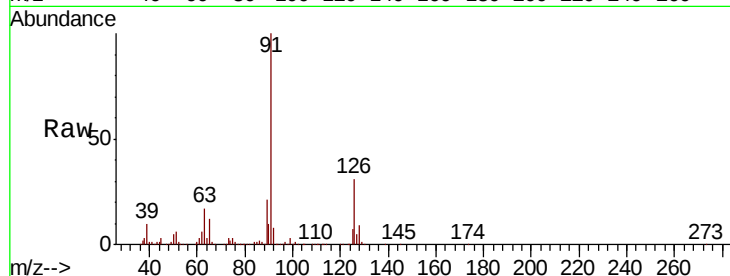
Ion Ratio Lower Upper

91 100

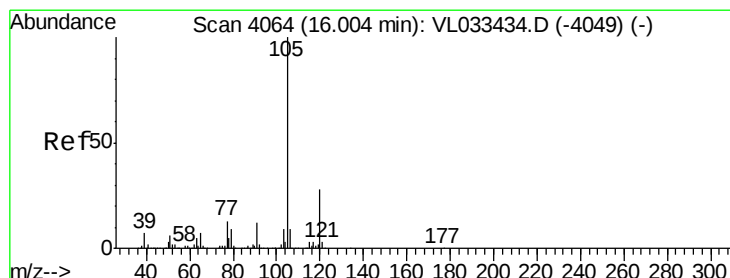
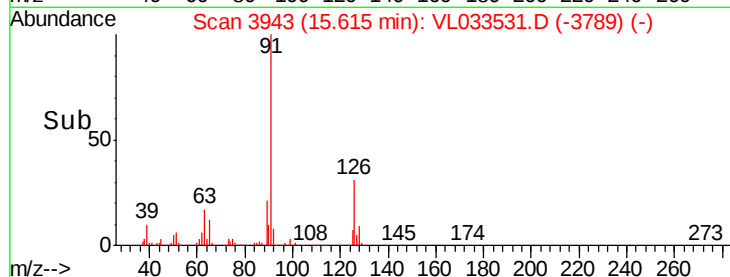
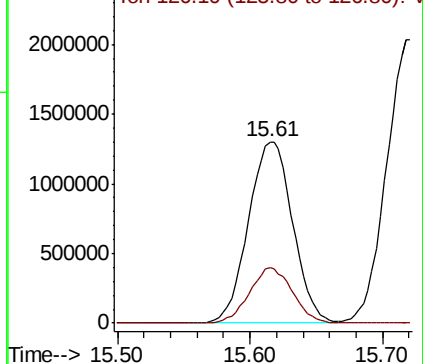
126 29.7 11.7 46.9

Manual Integrations  
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MMDadoda  
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Abundance Ion 91.10 (90.80 to 91.80): VL0  
Ion 126.10 (125.80 to 126.80): V



#72

4-Ethyltoluene

Concen: 9.202 ppbv

RT: 16.00 min Scan# 4063

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Tgt Ion:105 Resp: 3277365

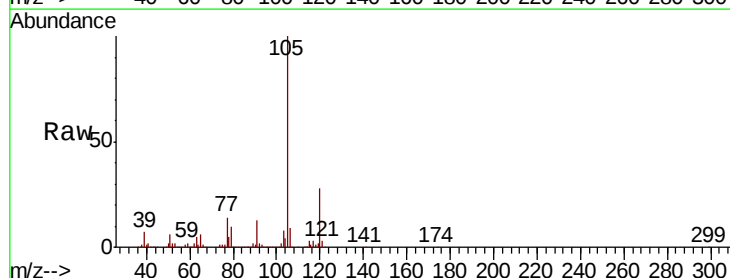
Ion Ratio Lower Upper

105 100

120 29.8 23.2 34.8

91 12.9 10.4 15.6

77 13.8 11.3 16.9

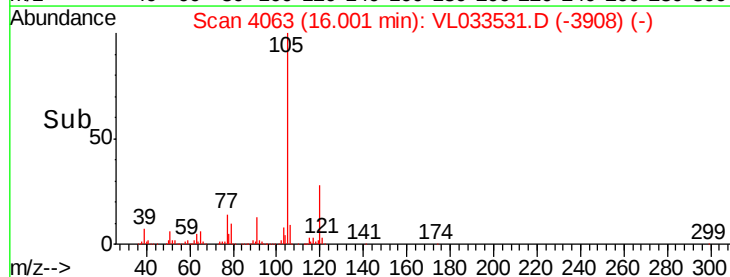
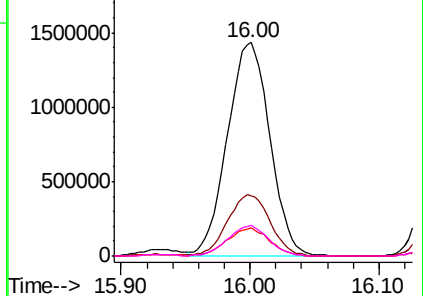


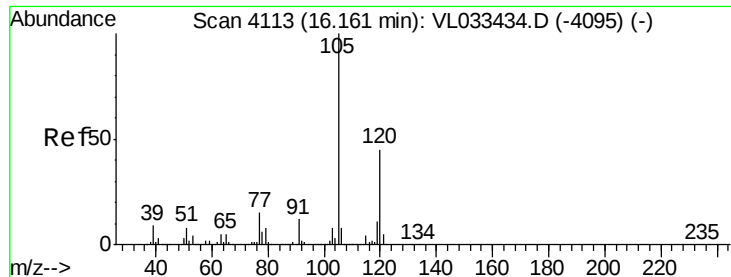
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





#73

1,3,5-Trimethylbenzene

Concen: 9.221 ppbv

RT: 16.16 min Scan# 4111

Delta R.T. -0.01 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion:105 Resp: 3142515

Ion Ratio Lower Upper

105 100

120 46.2

35.7

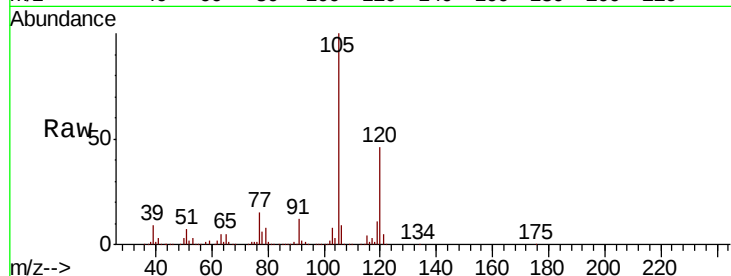
53.5

Manual Integrations

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MMDadoda

4/8/2019 3:22:12 AM



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

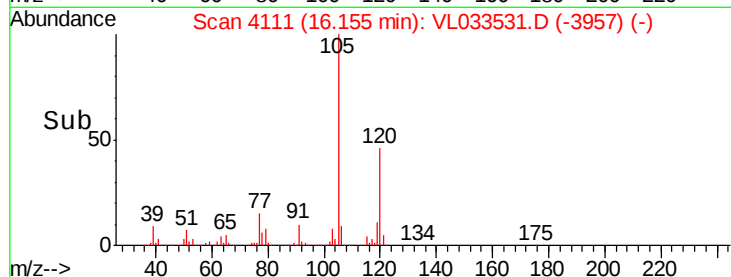
1500000

1000000

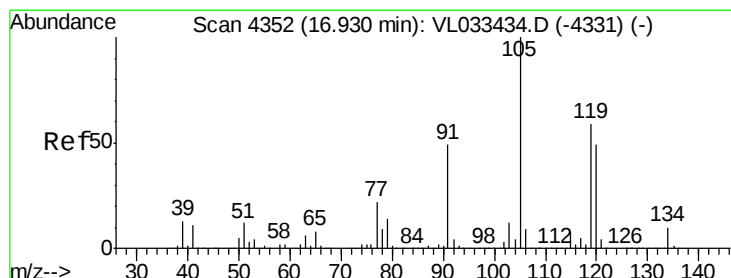
500000

0

16.10 16.20



Time-->



#74

1,2,4-Trimethylbenzene

Concen: 8.979 ppbv

RT: 16.93 min Scan# 4351

Delta R.T. -0.00 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Tgt Ion:105 Resp: 3279922

Ion Ratio Lower Upper

105 100

120 47.0

39.0

58.6

91 44.6

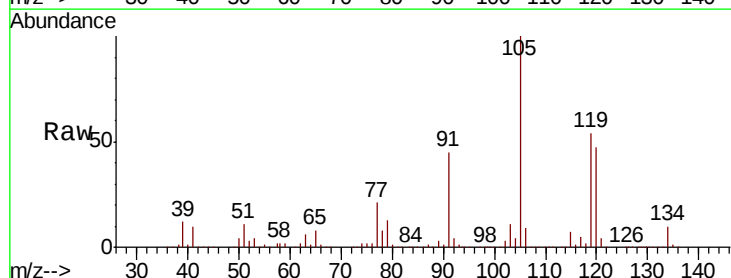
40.0

60.0

77 20.9

17.5

26.3



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

2000000

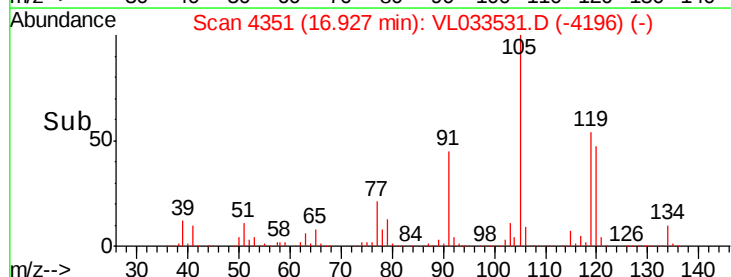
1500000

1000000

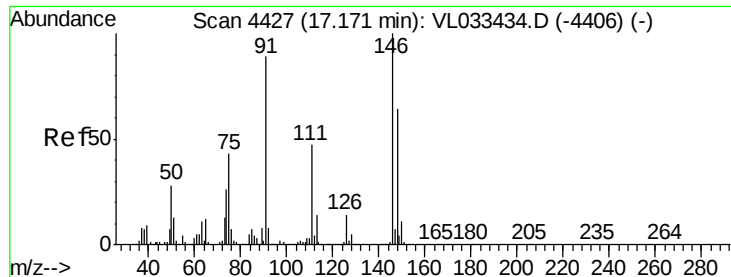
500000

0

16.90 17.00



Time-->



#75

1,3-Dichlorobenzene

Concen: 8.613 ppbv

RT: 17.16 min Scan# 4425

Delta R.T. -0.01 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion:146 Resp: 1944515

Ion Ratio Lower Upper

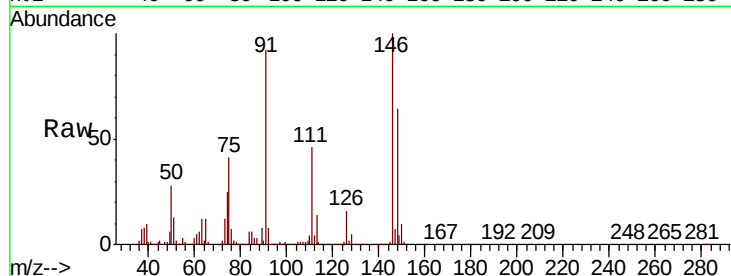
146 100

111 45.0 22.9 68.8

148 63.9 32.0 96.2

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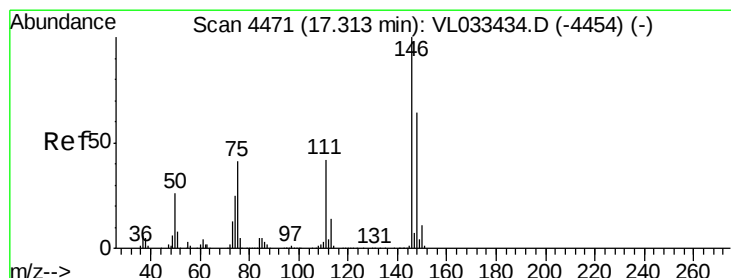
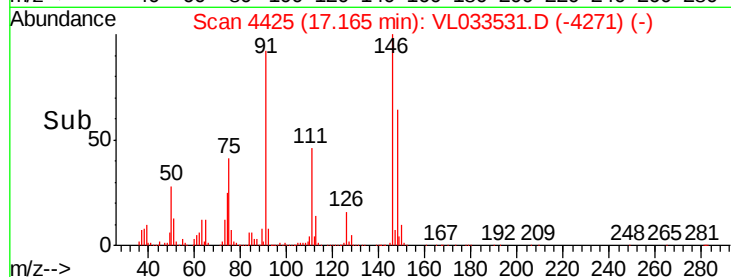
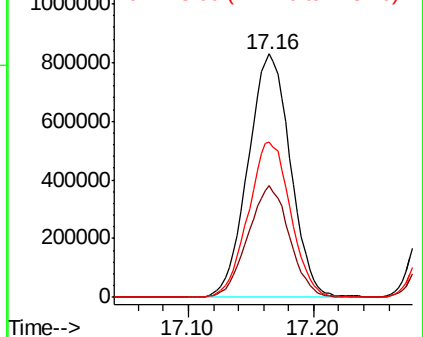


Abundance

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: 8.809 ppbv

RT: 17.31 min Scan# 4469

Delta R.T. -0.01 min

Lab File: VL033531.D

Acq: 4 Apr 2019 12:31

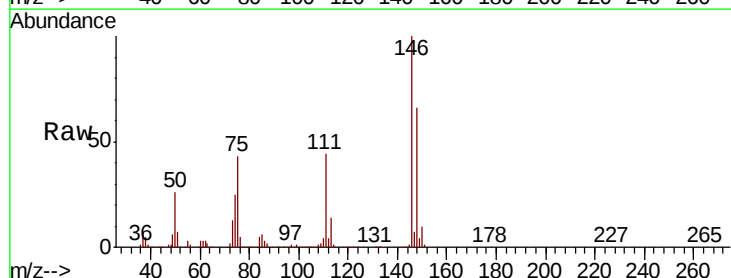
Tgt Ion:146 Resp: 1937858

Ion Ratio Lower Upper

146 100

111 43.7 21.7 65.1

148 64.3 32.0 96.2

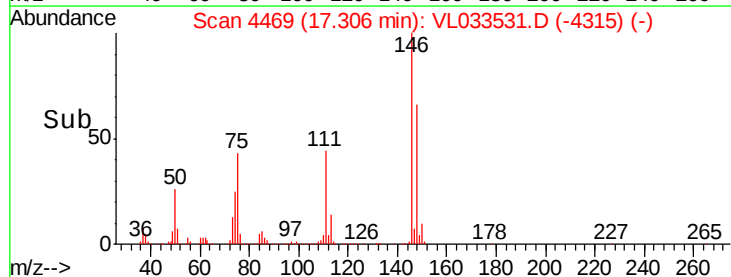
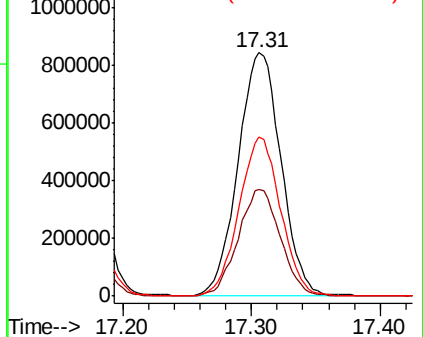


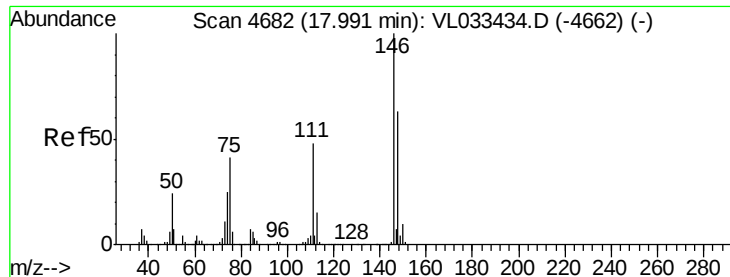
Abundance

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





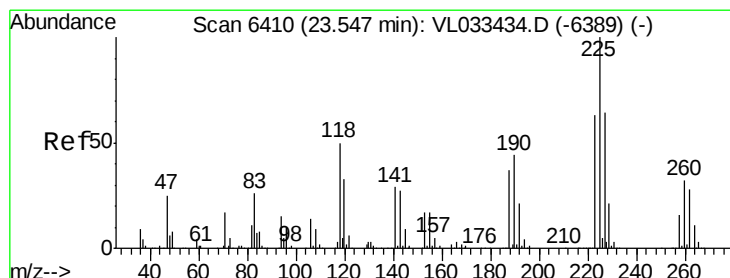
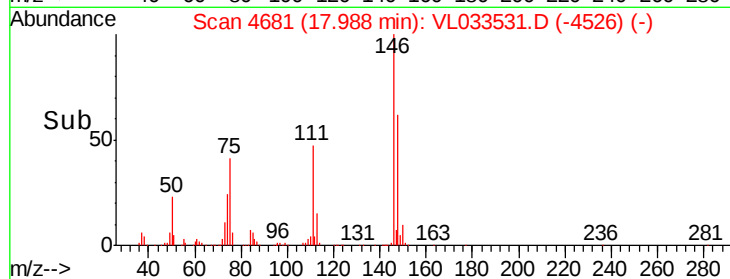
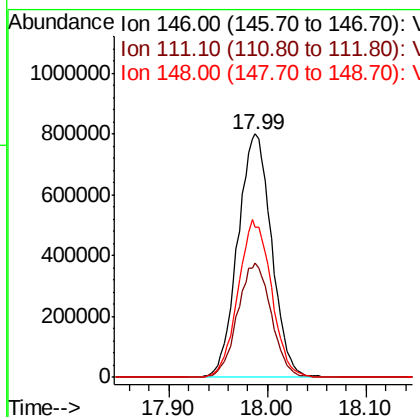
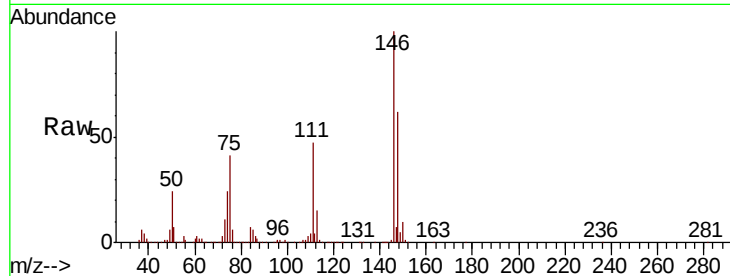
#77  
 1,2-Dichlorobenzene  
 Concen: 8.851 ppbv  
 RT: 17.99 min Scan# 4681  
 Delta R.T. -0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 VSTDCCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 46.8  | 23.5  | 70.5  |
| 148     | 63.9  | 32.0  | 96.0  |

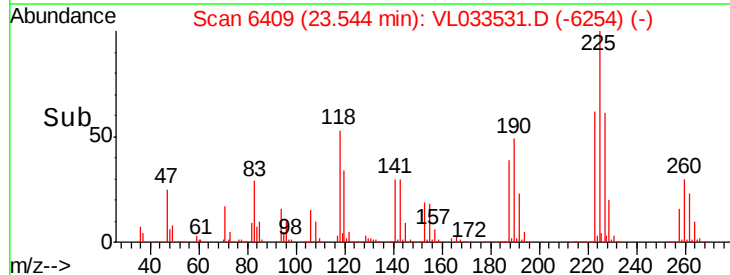
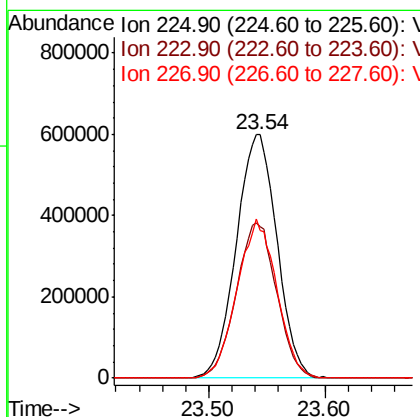
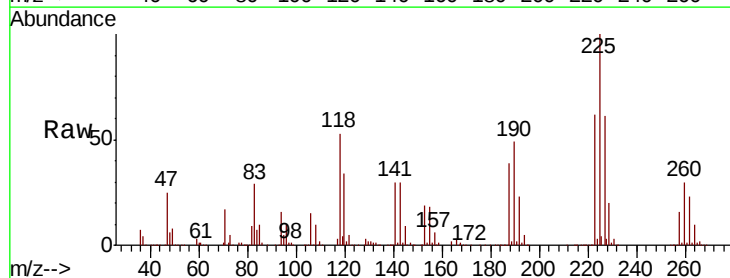
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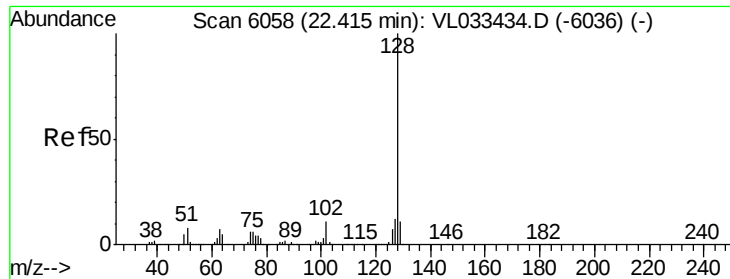
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#78  
 Hexachloro-1,3-Butadiene  
 Concen: 10.302 ppbv  
 RT: 23.54 min Scan# 6409  
 Delta R.T. -0.00 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 63.4  | 50.0  | 75.0  |
| 227     | 63.8  | 51.1  | 76.7  |





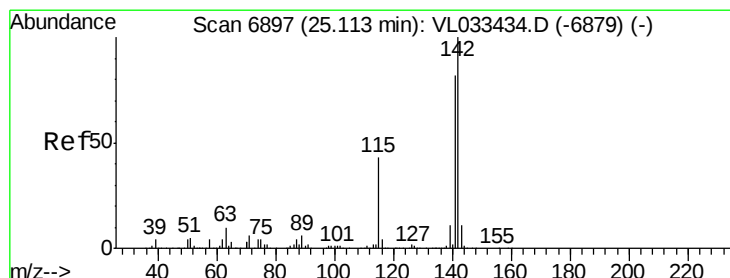
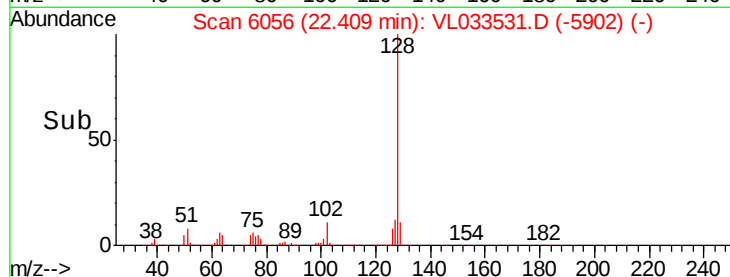
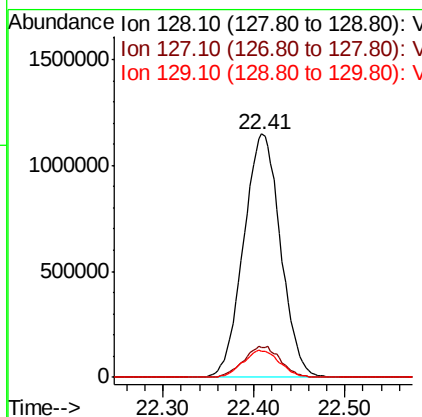
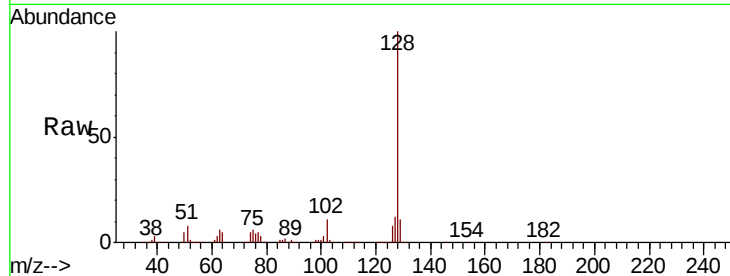
#79  
Naphthalene  
Concen: 10.339 ppbv  
RT: 22.41 min Scan# 6056  
Delta R.T. -0.01 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 12.4  | 9.8   | 14.8  |
| 129     | 10.8  | 8.6   | 12.8  |

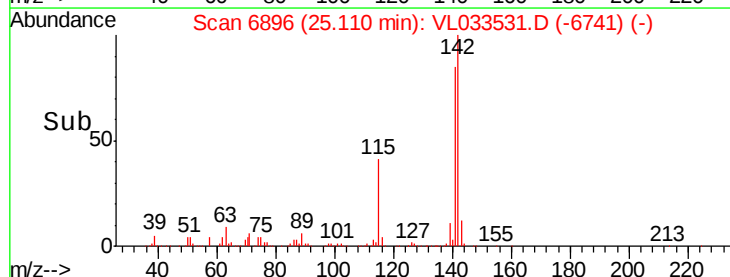
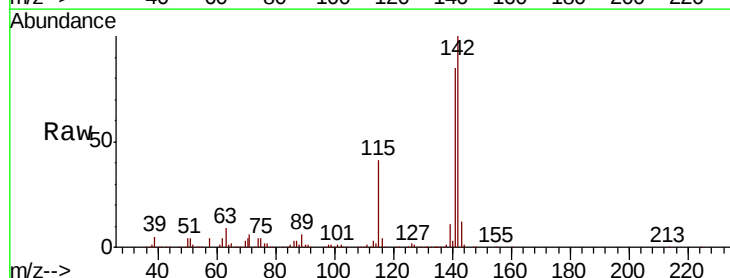
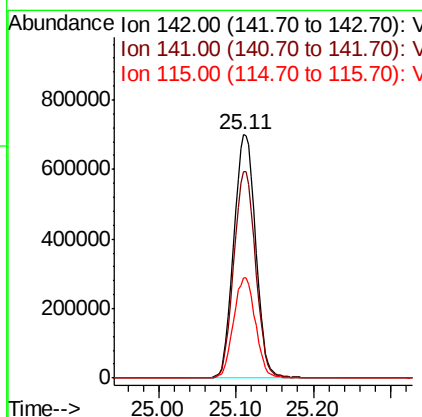
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#80  
Naphthalene, 2-methyl-  
Concen: 12.924 ppbv  
RT: 25.11 min Scan# 6896  
Delta R.T. -0.00 min  
Lab File: VL033531.D  
Acq: 4 Apr 2019 12:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 84.4  | 66.6  | 99.8  |
| 115     | 41.3  | 34.4  | 51.6  |





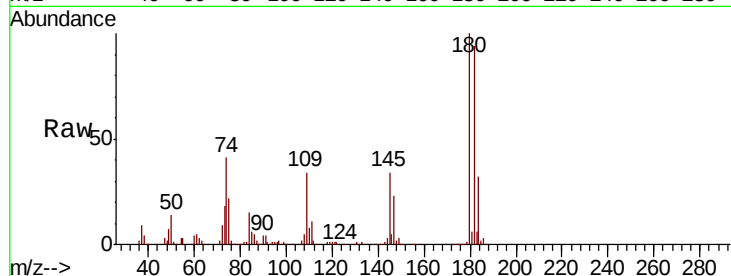
#81  
 1,2,4-Trichlorobenzene  
 Concen: 9.646 ppbv  
 RT: 22.13 min Scan# 5970  
 Delta R.T. -0.01 min  
 Lab File: VL033531.D  
 Acq: 4 Apr 2019 12:31

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.7  | 77.0  | 115.4 |
| 184     | 30.8  | 24.6  | 36.8  |

Manual Integrations  
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MMDadoda  
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Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 184.00 (183.70 to 184.70): V

