

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL030520\  
 Data File : VL034817.D  
 Acq On : 6 Mar 2020 7:12  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VSTDCCC010EC

Manual Integrations  
 APPROVED

MMDadoda  
 3/9/2020 9:20:03 AM

Quant Time: Mar 06 09:22:14 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL030420AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Mar 0  
 QLast Update : Wed Mar 04 06:36:39 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 459605   | 10.00 | ppbv  | -0.02    |
| 33) 1,4-Difluorobenzene | 7.19  | 114  | 1094520  | 10.00 | ppbv  | -0.02    |
| 55) Chlorobenzene-d5    | 12.12 | 117  | 1218870m | 10.00 | ppbv  | -0.03    |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.45  | 95    | 858684   | 8.45     | ppbv | -0.03  |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 84.50% |

| Target Compounds               | R.T. | QIon | Response | Conc   | Units | Ovalue |
|--------------------------------|------|------|----------|--------|-------|--------|
| 2) Dichlorodifluoromethane     | 3.01 | 85   | 702381   | 9.365  | ppbv  | 97     |
| 3) Chlorodifluoromethane       | 2.95 | 51   | 475257   | 9.076  | ppbv  | 95     |
| 4) Chloromethane               | 3.10 | 50   | 283624   | 10.056 | ppbv  | 96     |
| 5) Vinyl Chloride              | 3.22 | 62   | 269730   | 9.053  | ppbv  | 99     |
| 6) Bromomethane                | 3.44 | 94   | 152842   | 9.399  | ppbv  | 98     |
| 7) Chloroethane                | 3.53 | 64   | 98403    | 9.552  | ppbv  | 99     |
| 8) Dichlorotetrafluoroethane   | 3.15 | 85   | 582767   | 8.944  | ppbv  | 89     |
| 9) Propene                     | 2.97 | 41   | 246437   | 11.957 | ppbv  | 97     |
| 10) Heptane                    | 8.13 | 43   | 620804   | 11.852 | ppbv  | 95     |
| 11) Trichlorofluoromethane     | 3.92 | 101  | 604946   | 9.013  | ppbv  | 94     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.47 | 101  | 439741   | 9.496  | ppbv  | 92     |
| 13) Ethanol                    | 3.58 | 45   | 54293    | 7.688  | ppbv  | 100    |
| 14) Bromoethene                | 3.71 | 108  | 195618   | 10.295 | ppbv  | 98     |
| 15) Acetone                    | 3.82 | 43   | 532922   | 9.683  | ppbv  | 99     |
| 16) 1,3-Butadiene              | 3.29 | 39   | 258213   | 10.369 | ppbv  | 97     |
| 17) tert-Butyl alcohol         | 4.27 | 59   | 469778   | 10.825 | ppbv  | 98     |
| 18) 1,1-Dichloroethene         | 4.27 | 96   | 201380   | 9.860  | ppbv  | 99     |
| 19) Isopropyl Alcohol          | 3.95 | 45   | 309780   | 9.394  | ppbv  | # 1    |
| 20) Methylene Chloride         | 4.32 | 84   | 174481   | 8.883  | ppbv  | 99     |
| 21) Allyl Chloride             | 4.39 | 41   | 375543   | 10.775 | ppbv  | 98     |
| 22) trans-1,2-Dichloroethene   | 4.87 | 96   | 203800   | 10.222 | ppbv  | 99     |
| 23) Vinyl Acetate              | 5.06 | 43   | 892847   | 12.098 | ppbv  | 99     |
| 24) 1,1-Dichloroethane         | 5.00 | 63   | 546904   | 9.547  | ppbv  | 98     |
| 25) Ethyl Acetate              | 5.67 | 43   | 1005686  | 10.574 | ppbv  | 100    |
| 26) Hexane                     | 5.68 | 57   | 440033   | 10.591 | ppbv  | 97     |
| 27) Carbon Disulfide           | 4.53 | 76   | 554960   | 11.433 | ppbv  | 98     |
| 28) Methyl tert-Butyl Ether    | 5.02 | 73   | 732655   | 11.847 | ppbv  | 100    |
| 29) Chloroform                 | 5.75 | 83   | 622131   | 8.895  | ppbv  | 98     |
| 30) Cyclohexane                | 7.14 | 84   | 370111   | 11.644 | ppbv  | 99     |
| 31) cis-1,2-Dichloroethene     | 5.54 | 61   | 446248   | 10.471 | ppbv  | 97     |
| 32) 1,1,1-Trichloroethane      | 6.51 | 97   | 625900   | 9.056  | ppbv  | 97     |
| 34) 2-Butanone                 | 5.23 | 43   | 681808   | 9.575  | ppbv  | 97     |
| 35) Carbon Tetrachloride       | 7.02 | 117  | 652274   | 7.898  | ppbv  | 99     |
| 36) Benzene                    | 6.90 | 78   | 906521   | 9.693  | ppbv  | 97     |
| 37) 1,2-Dichloroethane         | 6.31 | 62   | 478016   | 7.483  | ppbv  | # 97   |
| 38) Trichloroethene            | 7.85 | 130  | 347006   | 9.519  | ppbv  | 92     |
| 39) 1,2-Dichloropropane        | 7.63 | 63   | 357547   | 9.473  | ppbv  | 94     |
| 40) 1,4-Dioxane                | 7.84 | 88   | 114836   | 8.796  | ppbv  | # 98   |
| 41) Tetrahydrofuran            | 6.05 | 42   | 401215   | 11.043 | ppbv  | 93     |
| 42) Bromodichloromethane       | 7.81 | 83   | 690992   | 8.549  | ppbv  | 99     |
| 43) Methyl Methacrylate        | 8.02 | 69   | 398988   | 10.067 | ppbv  | 95     |

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

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VSTDCCC010EC

Manual Integrations  
 APPROVED

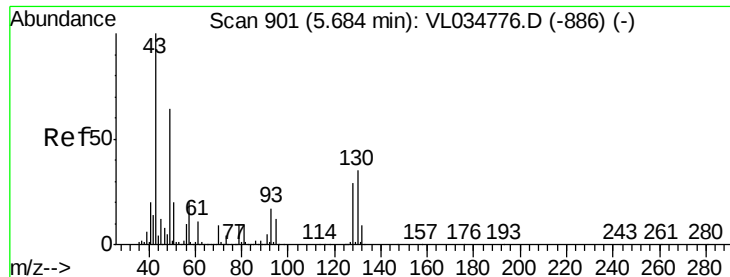
MMDadoda  
 3/9/2020 9:20:03 AM

Quant Time: Mar 06 09:22:14 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL030420AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Mar 0  
 QLast Update : Wed Mar 04 06:36:39 2020  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.88  | 57   | 1550758  | 9.488  | ppbv   | 98       |
| 45) t-1,3-Dichloropropene     | 9.30  | 75   | 497609   | 11.960 | ppbv   | 98       |
| 46) cis-1,3-Dichloropropene   | 8.72  | 75   | 581504   | 11.446 | ppbv   | 91       |
| 47) 1,1,2-Trichloroethane     | 9.49  | 97   | 350777   | 8.803  | ppbv   | 98       |
| 48) Dibromochloromethane      | 10.33 | 129  | 624729   | 10.026 | ppbv   | 99       |
| 49) Bromoform                 | 13.08 | 173  | 576169   | 10.596 | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.75  | 43   | 998122   | 9.783  | ppbv   | 98       |
| 51) 2-Hexanone                | 10.15 | 43   | 829873   | 10.369 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.25 | 164  | 343049   | 9.928  | ppbv   | 99       |
| 53) Toluene                   | 9.83  | 91   | 1043760  | 10.544 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.64 | 107  | 541044   | 9.182  | ppbv   | 97       |
| 56) 1,1,1,2-Tetrachloroethane | 12.16 | 131  | 462178   | 8.558  | ppbv # | 60       |
| 57) Chlorobenzene             | 12.18 | 112  | 767920   | 8.248  | ppbv   | 98       |
| 58) Ethyl Benzene             | 12.74 | 91   | 1391113  | 9.261  | ppbv   | 95       |
| 59) m/p-Xylene                | 13.03 | 91   | 2363594m | 18.178 | ppbv   |          |
| 60) o-Xylene                  | 13.73 | 91   | 1083289  | 8.234  | ppbv   | 98       |
| 61) Styrene                   | 13.56 | 104  | 824625   | 10.104 | ppbv   | 97       |
| 62) Isopropylbenzene          | 14.71 | 105  | 1651484  | 8.529  | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.71 | 83   | 742884   | 7.163  | ppbv   | 96       |
| 64) n-propylbenzene           | 15.60 | 120  | 430339   | 8.864  | ppbv   | 93       |
| 65) tert-Butylbenzene         | 16.79 | 119  | 1419598m | 8.676  | ppbv   |          |
| 66) Benzyl Chloride           | 17.03 | 91   | 772497   | 14.603 | ppbv # | 93       |
| 67) sec-Butylbenzene          | 17.33 | 105  | 2007782  | 8.421  | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.69 | 119  | 1728753  | 8.959  | ppbv   | 96       |
| 70) n-Butylbenzene            | 18.59 | 91   | 1731101  | 8.205  | ppbv   | 97       |
| 71) 2-Chlorotoluene           | 15.49 | 91   | 1214697  | 8.306  | ppbv   | 95       |
| 72) 4-Ethyltoluene            | 15.88 | 105  | 1299079  | 8.869  | ppbv   | 96       |
| 73) 1,3,5-Trimethylbenzene    | 16.04 | 105  | 1219870  | 8.682  | ppbv   | 96       |
| 74) 1,2,4-Trimethylbenzene    | 16.80 | 105  | 1244094  | 8.145  | ppbv   | 93       |
| 75) 1,3-Dichlorobenzene       | 17.04 | 146  | 750800   | 8.304  | ppbv   | 97       |
| 76) 1,4-Dichlorobenzene       | 17.18 | 146  | 760269   | 8.787  | ppbv   | 97       |
| 77) 1,2-Dichlorobenzene       | 17.86 | 146  | 756043   | 8.741  | ppbv   | 97       |
| 78) Hexachloro-1,3-Butadiene  | 23.42 | 225  | 691912   | 9.585  | ppbv   | 99       |
| 79) Naphthalene               | 22.26 | 128  | 1345030  | 11.718 | ppbv   | 100      |
| 80) Naphthalene, 2-methyl-    | 25.01 | 142  | 489381   | 17.851 | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 21.99 | 180  | 789436   | 10.880 | ppbv   | 99       |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 895

Delta R.T. -0.02 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

Instrument :

MSVOA\_L

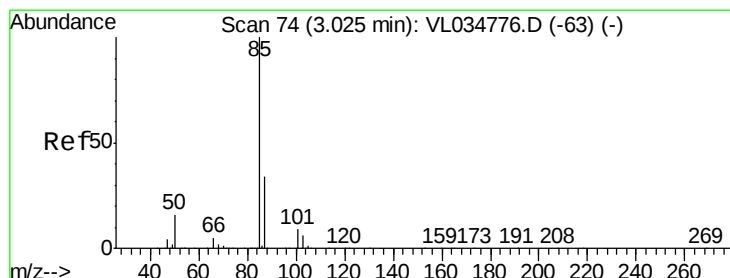
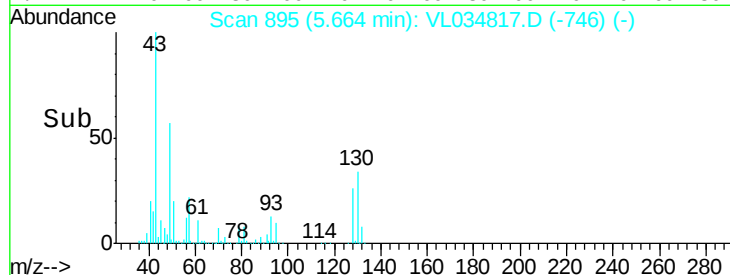
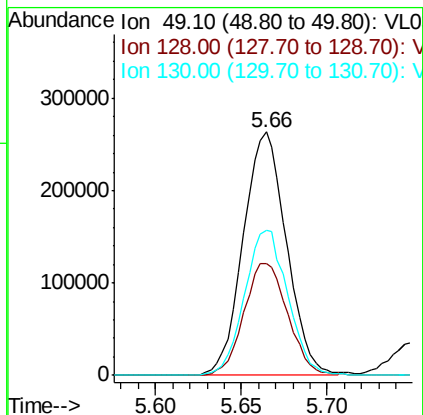
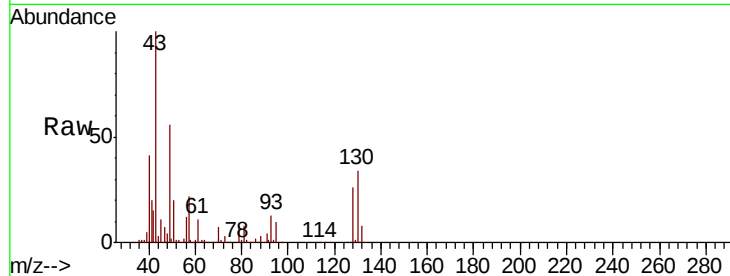
ClientSampleId :

VSTDCCC010EC

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 49    | Resp: | 459605 |
| Ion      | Ratio | Lower | Upper  |
| 49       | 100   |       |        |
| 128      | 46.9  | 21.6  | 64.6   |
| 130      | 60.3  | 27.4  | 82.2   |

Manual Integrations  
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#2

Dichlorodifluoromethane

Concen: 9.365 ppbv

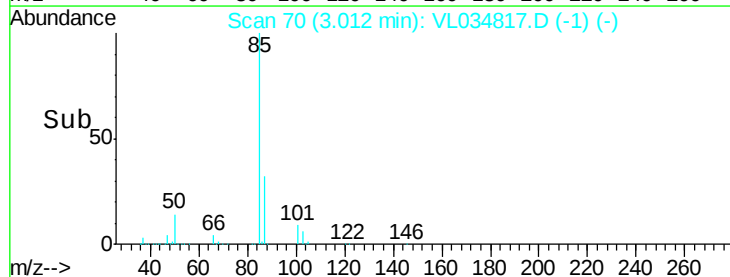
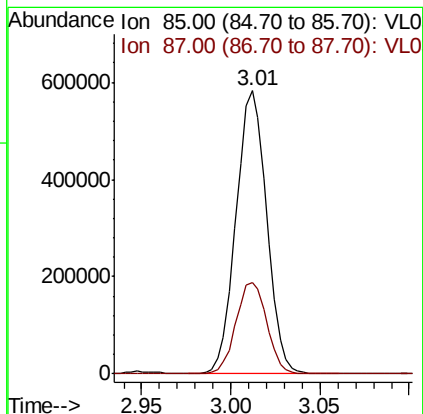
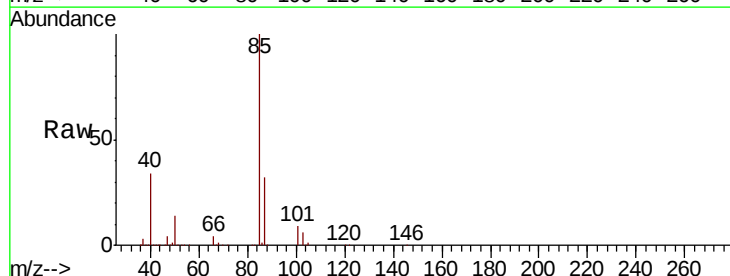
RT: 3.01 min Scan# 70

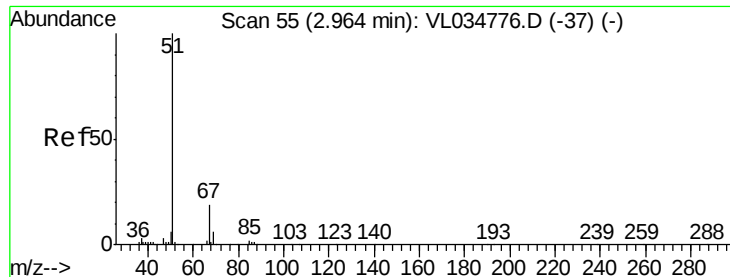
Delta R.T. -0.01 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 85    | Resp: | 702381 |
| Ion      | Ratio | Lower | Upper  |
| 85       | 100   |       |        |
| 87       | 32.4  | 27.2  | 40.8   |





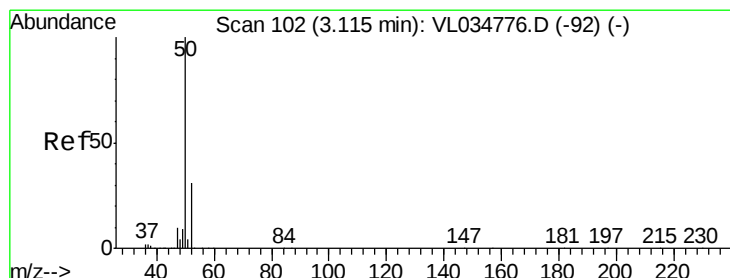
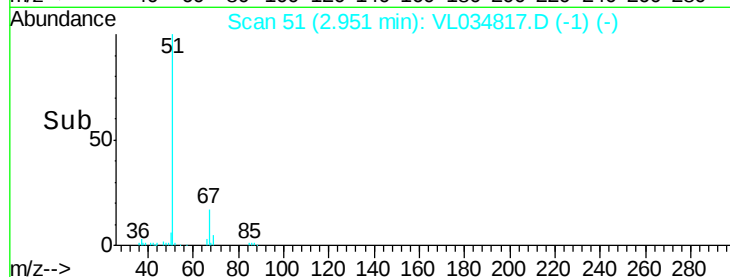
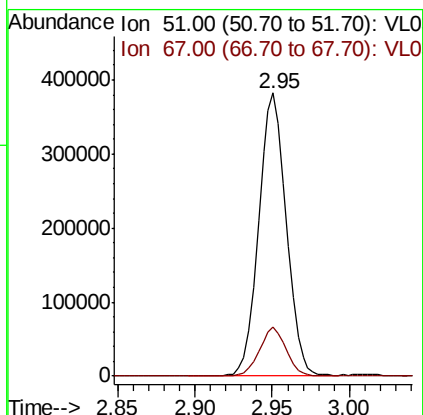
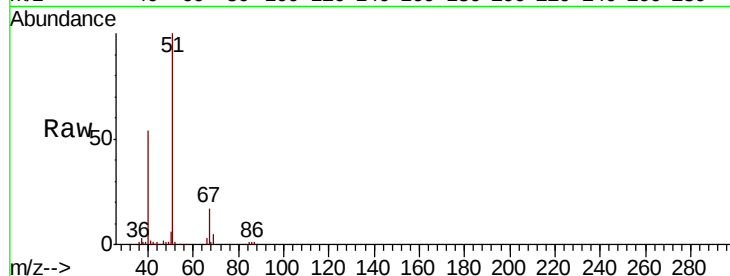
#3  
Chlorodifluoromethane  
Concen: 9.076 ppbv  
RT: 2.95 min Scan# 51  
Delta R.T. -0.01 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 51      | 100   |       |       |
| 67      | 16.8  | 15.3  | 22.9  |

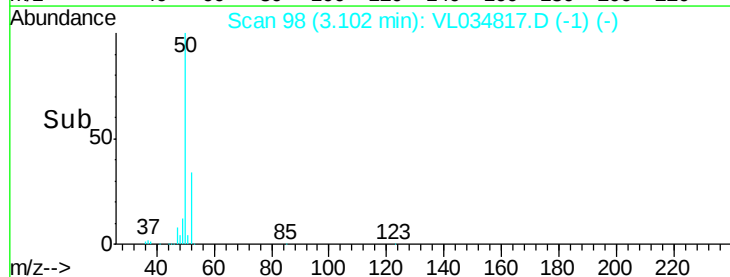
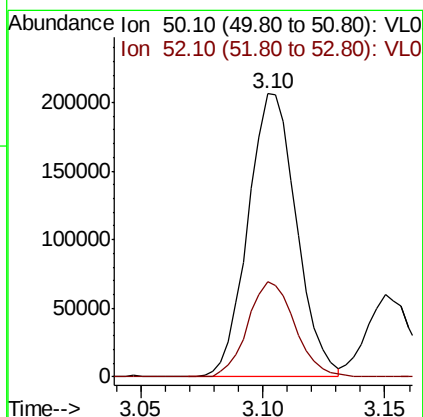
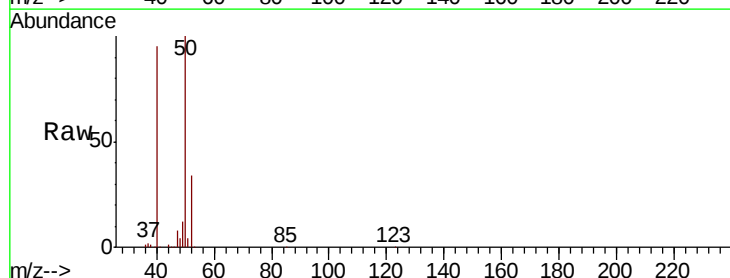
Manual Integrations  
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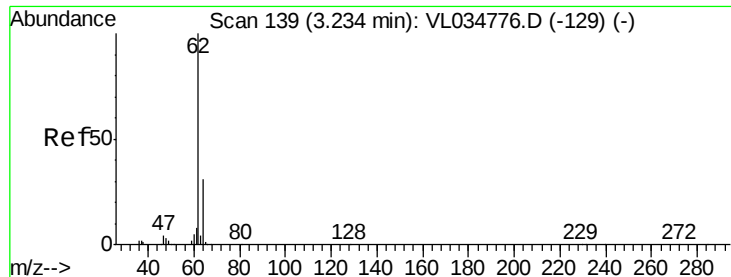
MMDadoda  
3/9/2020 9:20:03 AM



#4  
Chloromethane  
Concen: 10.056 ppbv  
RT: 3.10 min Scan# 98  
Delta R.T. -0.01 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50      | 100   |       |       |
| 52      | 33.6  | 25.0  | 37.4  |





#5

Vinyl Chloride

Concen: 9.053 ppbv

RT: 3.22 min Scan# 135

Delta R.T. -0.01 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 62 Resp: 269730

Ion Ratio Lower Upper

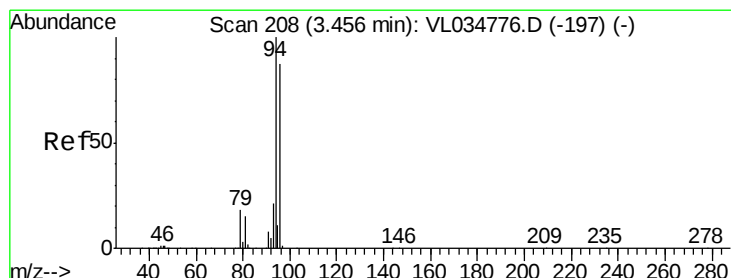
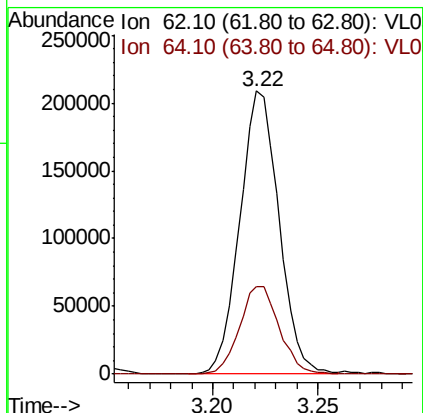
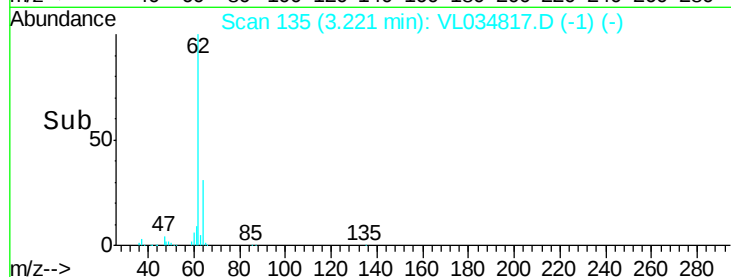
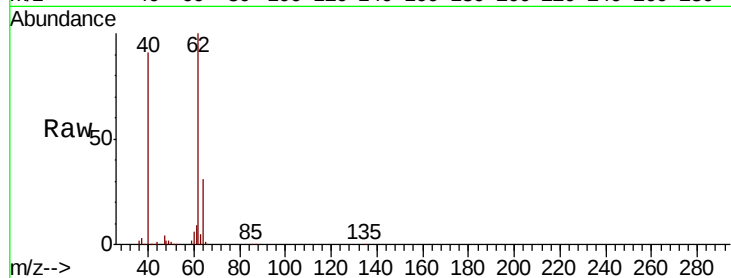
62 100

64 30.8 25.1 37.7

Manual Integrations  
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3/9/2020 9:20:03 AM



#6

Bromomethane

Concen: 9.399 ppbv

RT: 3.44 min Scan# 203

Delta R.T. -0.02 min

Lab File: VL034817.D

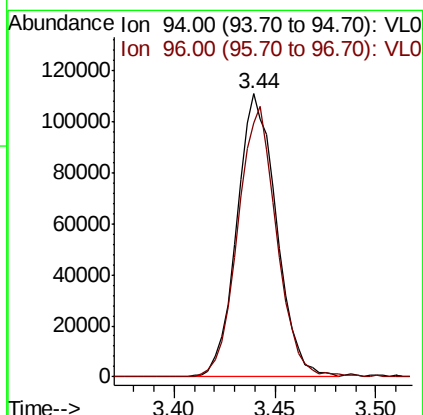
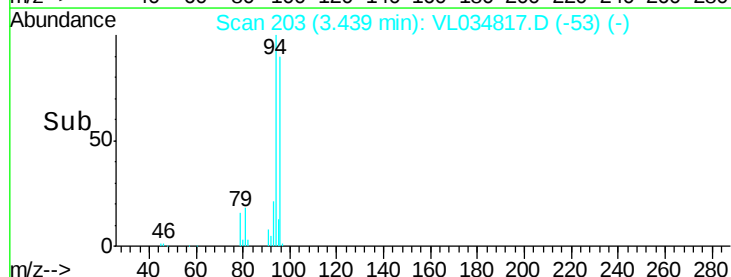
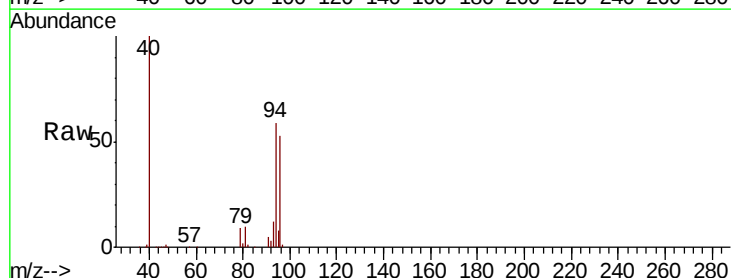
Acq: 6 Mar 2020 7:12

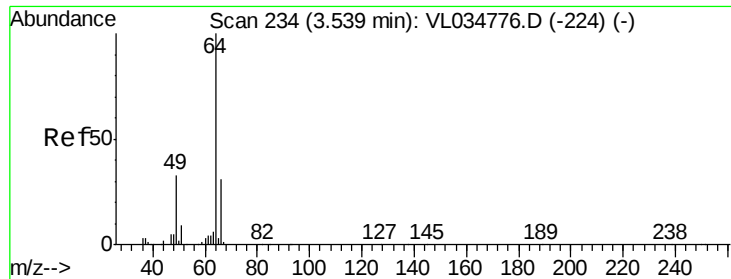
Tgt Ion: 94 Resp: 152842

Ion Ratio Lower Upper

94 100

96 89.6 70.0 105.0





#7

Chloroethane

Concen: 9.552 ppbv

RT: 3.53 min Scan# 230

Delta R.T. -0.01 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 64 Resp: 98403

Ion Ratio Lower Upper

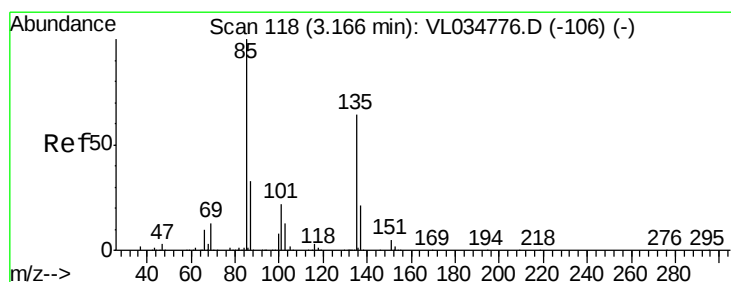
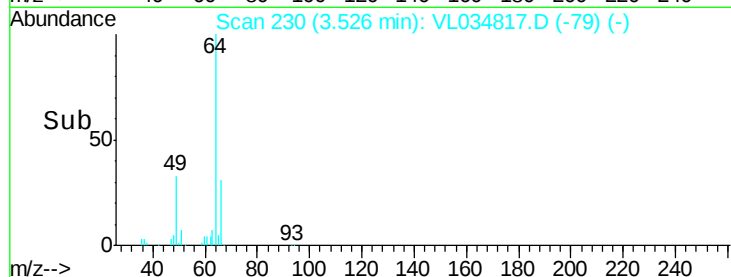
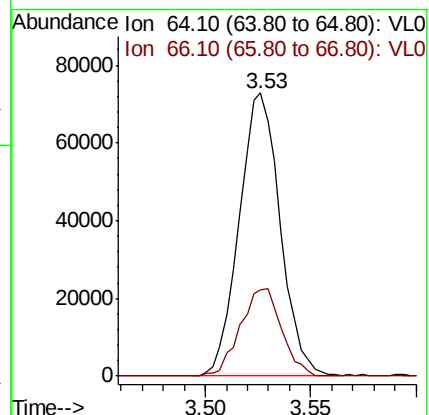
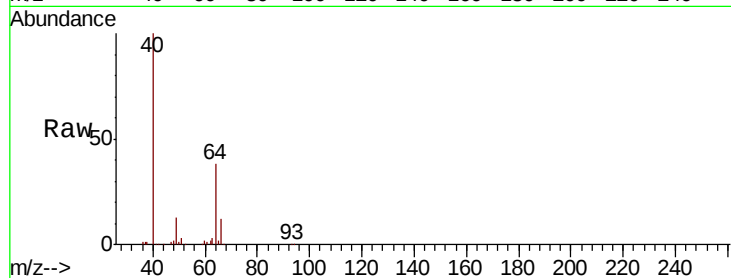
64 100

66 30.7 24.8 37.2

Manual Integrations  
APPROVED

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3/9/2020 9:20:03 AM



#8

Dichlorotetrafluoroethane

Concen: 8.944 ppbv

RT: 3.15 min Scan# 113

Delta R.T. -0.02 min

Lab File: VL034817.D

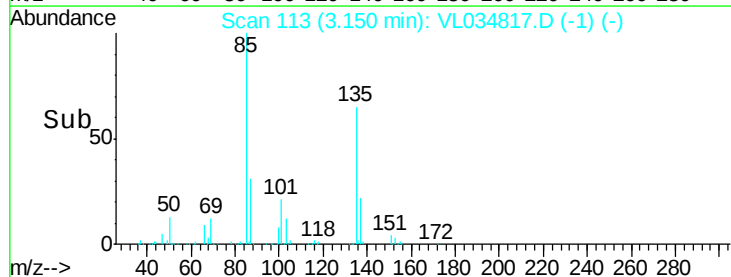
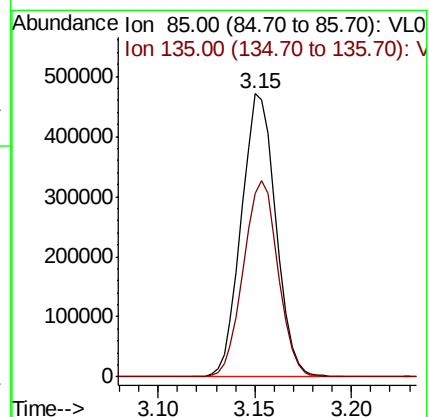
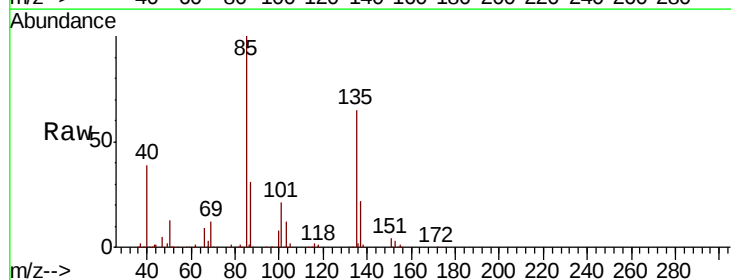
Acq: 6 Mar 2020 7:12

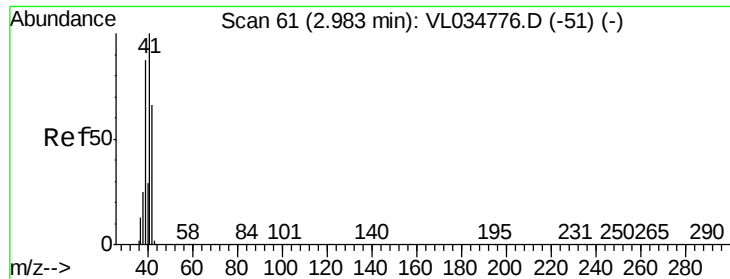
Tgt Ion: 85 Resp: 582767

Ion Ratio Lower Upper

85 100

135 70.2 49.4 74.2





#9

Propene

Concen: 11.957 ppbv

RT: 2.97 min Scan# 58

Delta R.T. -0.01 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 41 Resp: 246437

Ion Ratio Lower Upper

41 100

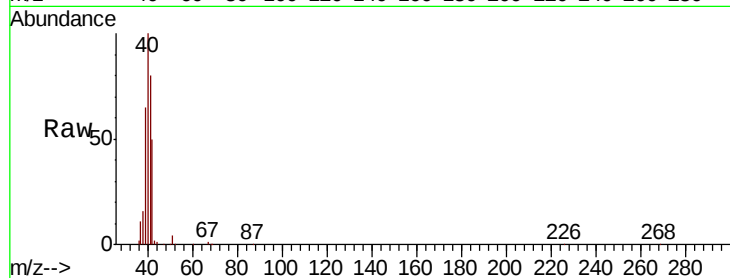
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Manual Integrations

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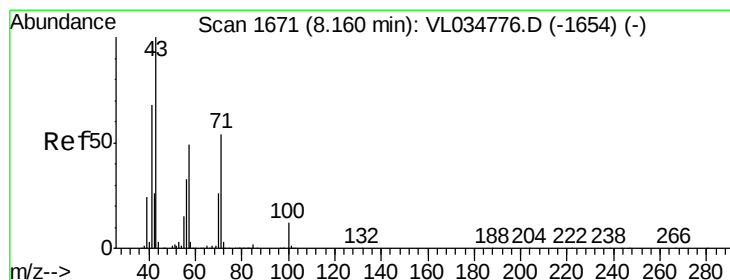
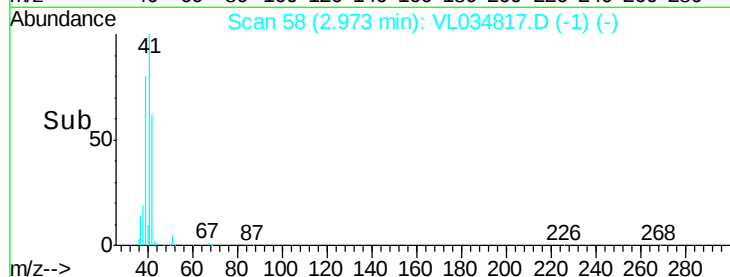
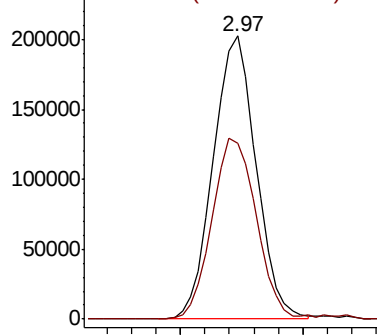
MMDadoda

3/9/2020 9:20:03 AM



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 11.852 ppbv

RT: 8.13 min Scan# 1663

Delta R.T. -0.03 min

Lab File: VL034817.D

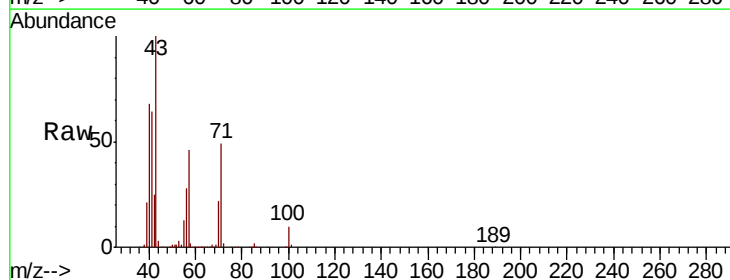
Acq: 6 Mar 2020 7:12

Tgt Ion: 43 Resp: 620804

Ion Ratio Lower Upper

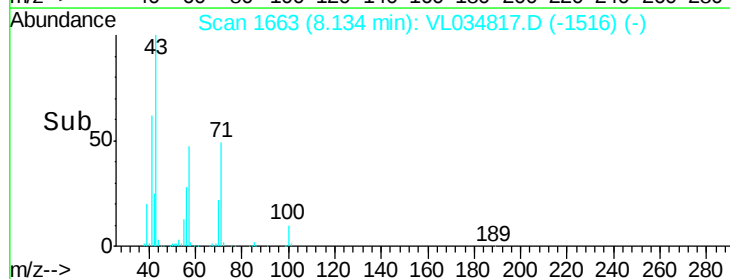
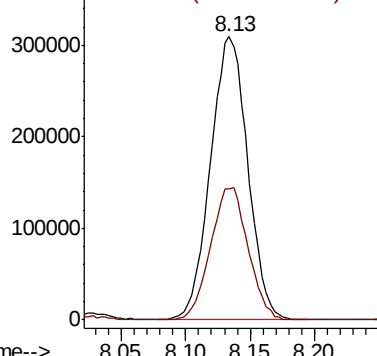
43 100

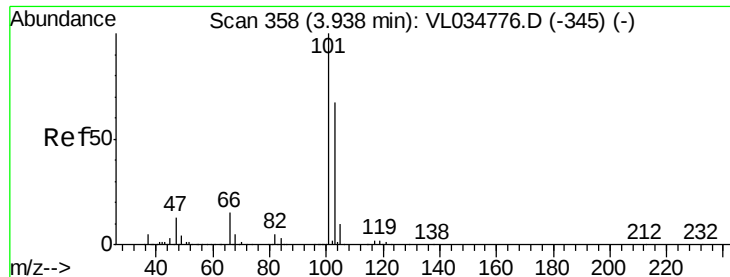
57 47.4 40.5 60.7



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





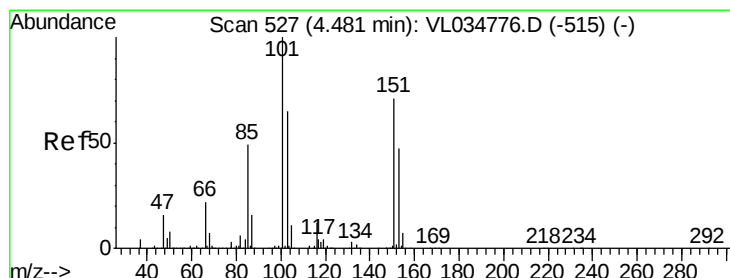
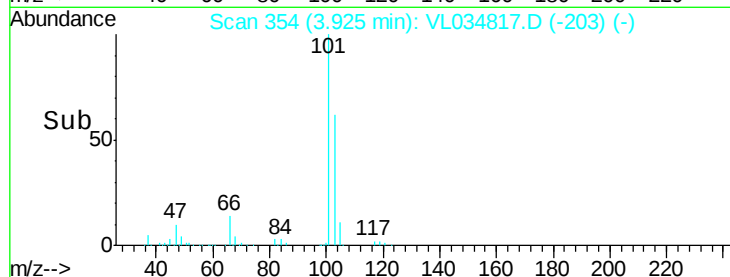
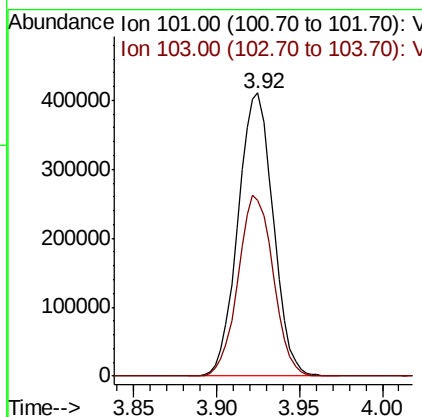
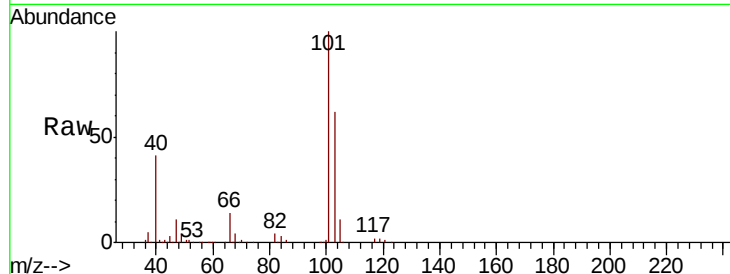
#11  
 Trichlorofluoromethane  
 Concen: 9.013 ppbv  
 RT: 3.92 min Scan# 354  
 Delta R.T. -0.01 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 101     | 100   |       |       |
| 103     | 62.1  | 53.6  | 80.4  |

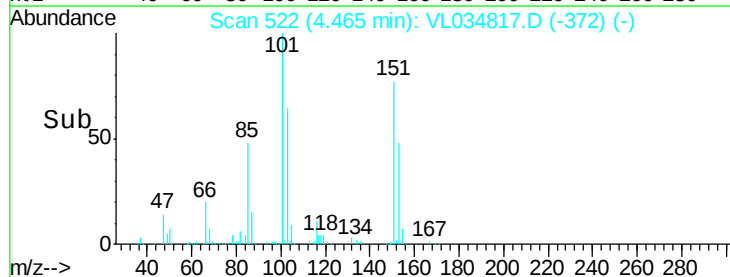
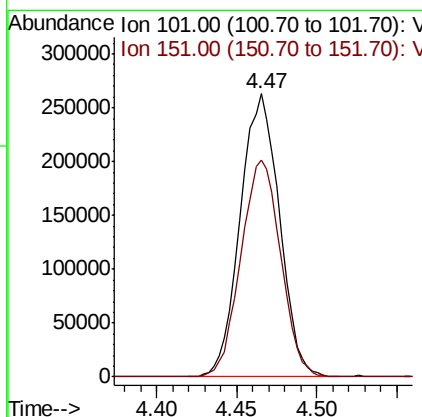
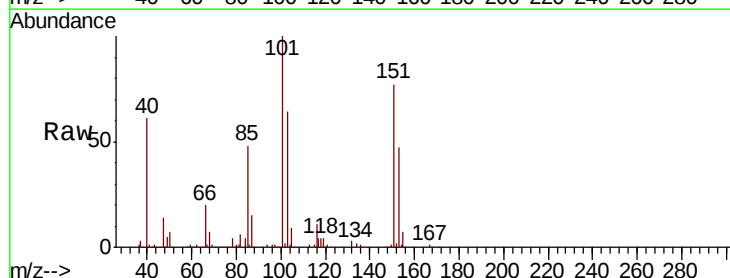
Manual Integrations  
 APPROVED

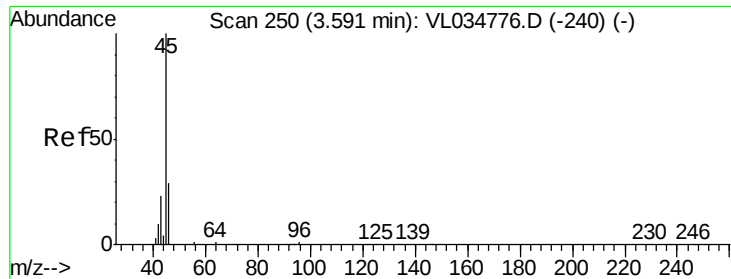
MMDadoda  
 3/9/2020 9:20:03 AM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 9.496 ppbv  
 RT: 4.47 min Scan# 522  
 Delta R.T. -0.02 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 101     | 100   |       |       |
| 151     | 77.8  | 56.6  | 85.0  |





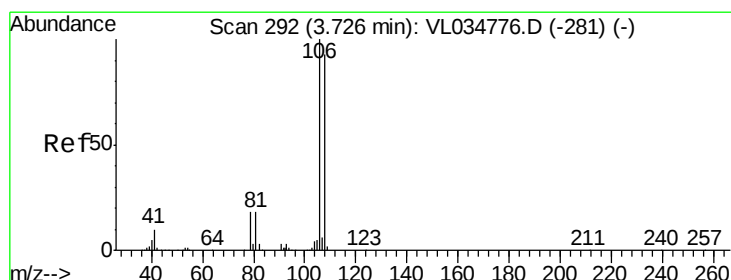
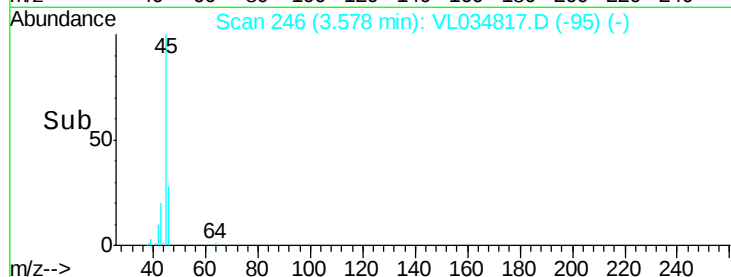
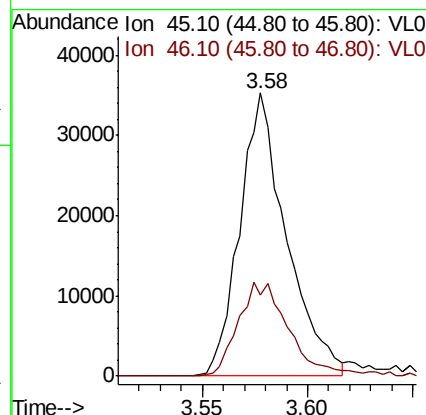
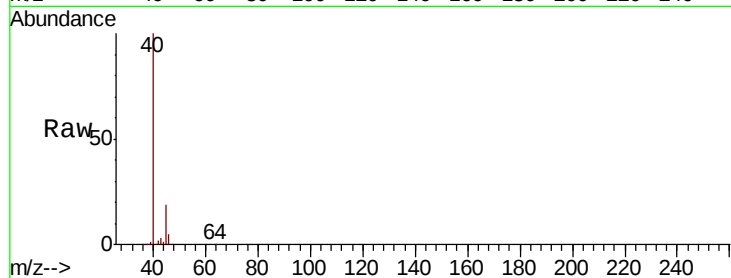
#13  
Ethanol  
Concen: 7.688 ppbv  
RT: 3.58 min Scan# 246  
Delta R.T. -0.01 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion   | 45   | Resp  | 54293 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 46        | 36.9 | 14.7  | 58.9  |

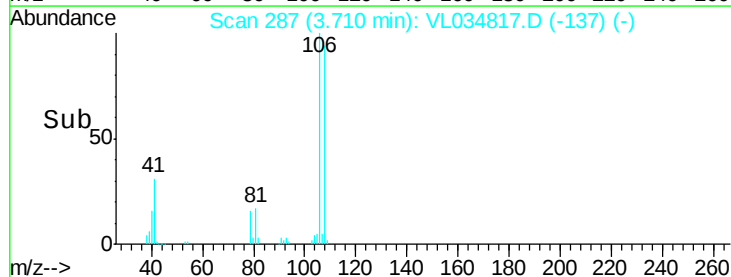
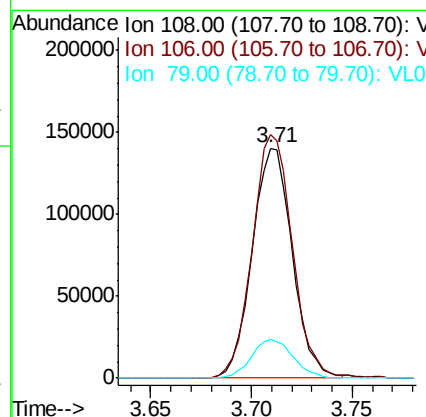
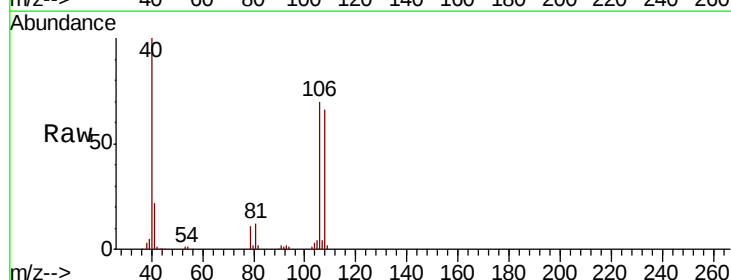
Manual Integrations  
APPROVED

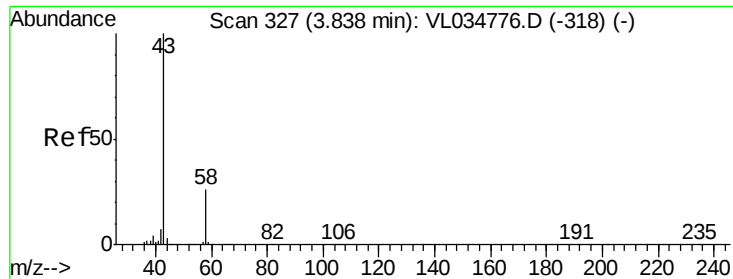
MMDadoda  
3/9/2020 9:20:03 AM



#14  
Bromoethene  
Concen: 10.295 ppbv  
RT: 3.71 min Scan# 287  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion   | 108   | Resp  | 195618 |
|-----------|-------|-------|--------|
| Ion Ratio | 100   | Lower | Upper  |
| 106       | 106.5 | 83.5  | 125.3  |
| 79        | 17.7  | 15.6  | 23.4   |





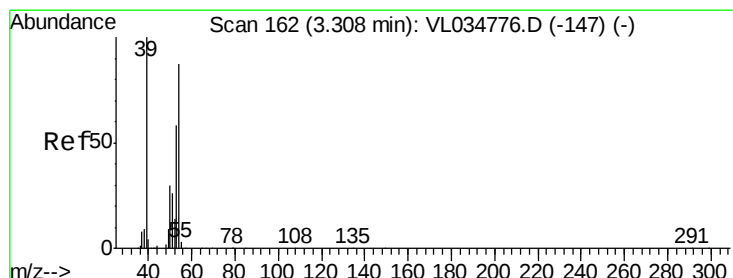
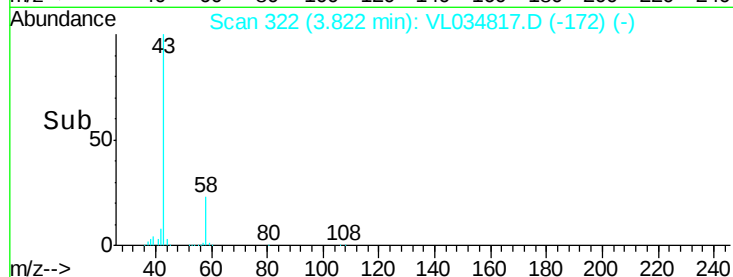
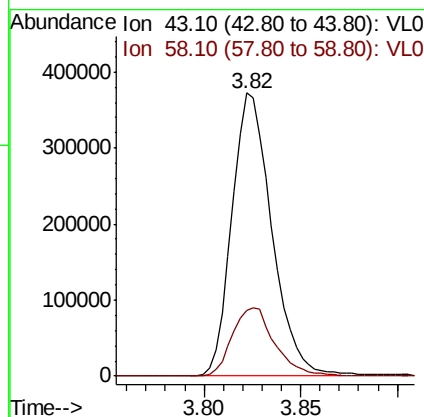
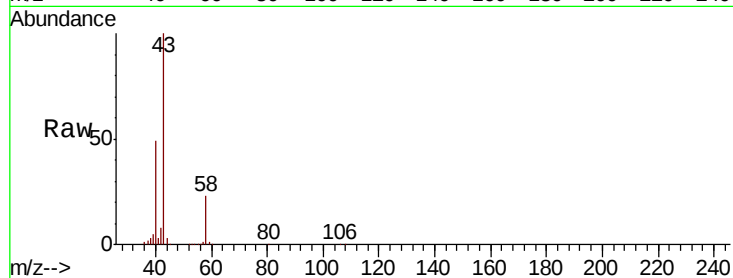
#15  
Acetone  
Concen: 9.683 ppbv  
RT: 3.82 min Scan# 322  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion   | 43   | Resp  | 532922 |
|-----------|------|-------|--------|
| Ion Ratio | 100  | Lower | Upper  |
| 43        | 100  |       |        |
| 58        | 25.8 | 21.0  | 31.6   |

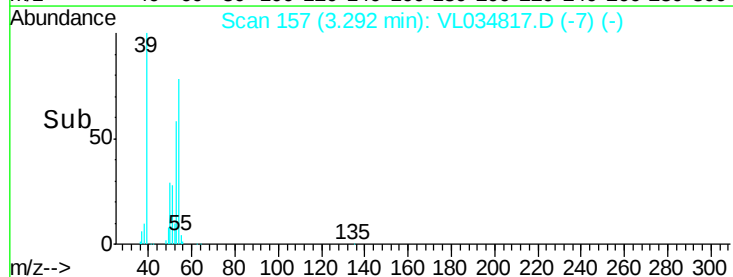
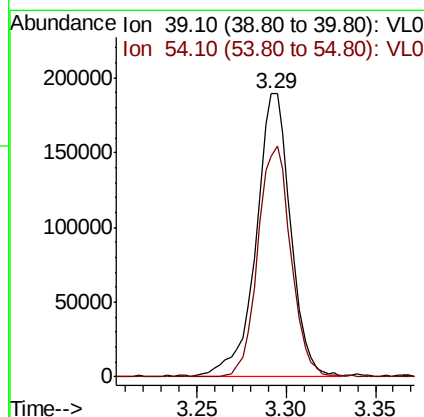
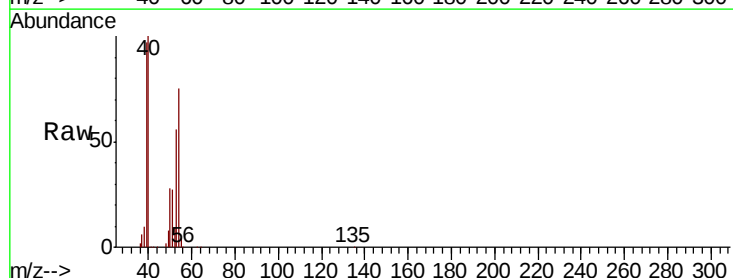
Manual Integrations  
APPROVED

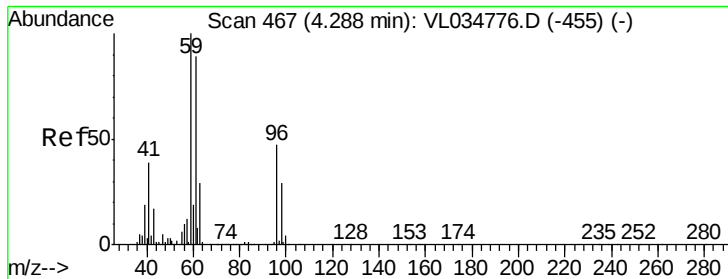
MMDadoda  
3/9/2020 9:20:03 AM



#16  
1,3-Butadiene  
Concen: 10.369 ppbv  
RT: 3.29 min Scan# 157  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion                                              | 39   | Resp  | 258213 |
|------------------------------------------------------|------|-------|--------|
| Ion Ratio <td>100</td> <td>Lower</td> <td>Upper</td> | 100  | Lower | Upper  |
| 39                                                   | 100  |       |        |
| 54                                                   | 77.8 | 64.2  | 96.2   |





#17

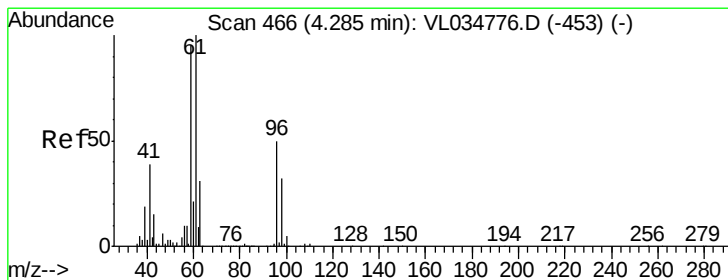
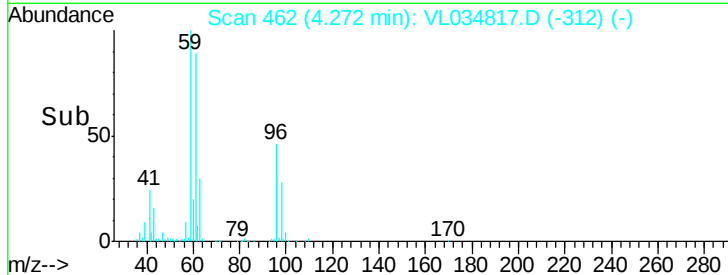
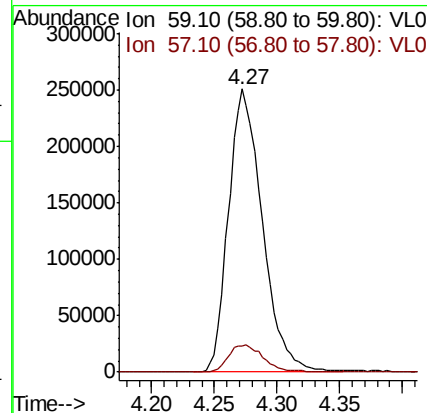
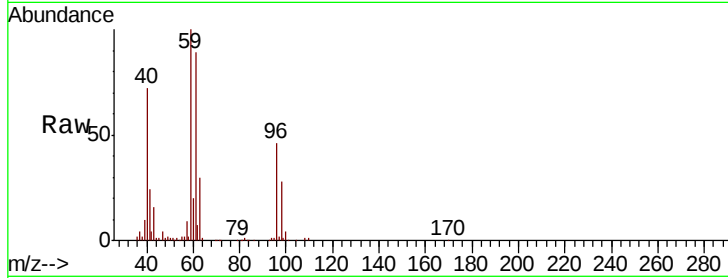
tert-Butyl alcohol  
Concen: 10.825 ppbv  
RT: 4.27 min Scan# 462  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 59      | 100   |       |       |
| 57      | 10.1  | 8.6   | 13.0  |

Manual Integrations  
APPROVED

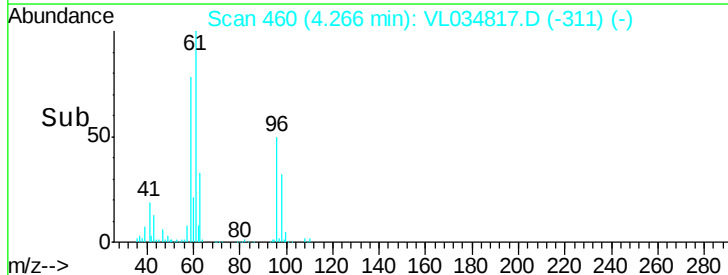
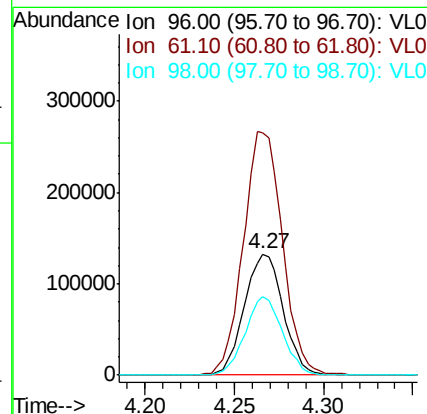
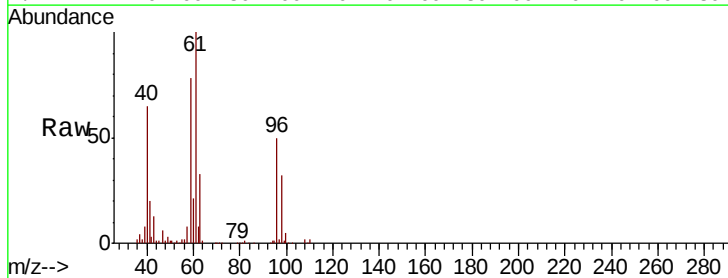
MMDadoda  
3/9/2020 9:20:03 AM

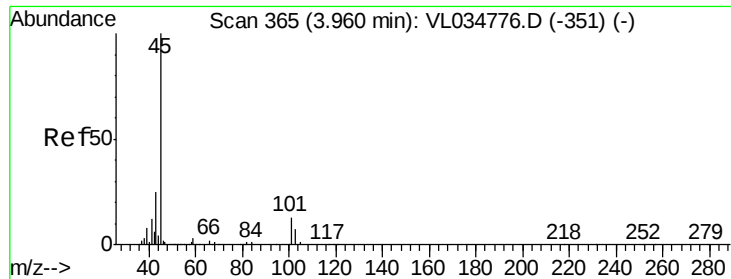


#18

1,1-Dichloroethene  
Concen: 9.860 ppbv  
RT: 4.27 min Scan# 460  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 200.2 | 159.5 | 239.3 |
| 98      | 64.9  | 51.1  | 76.7  |





#19

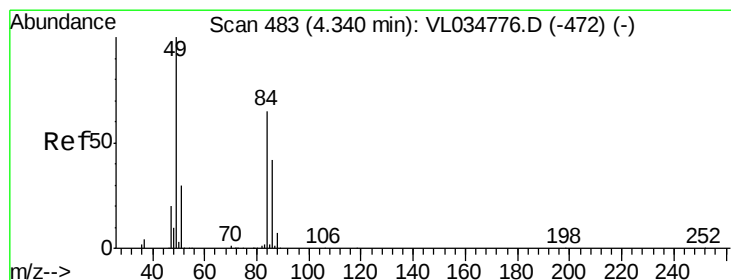
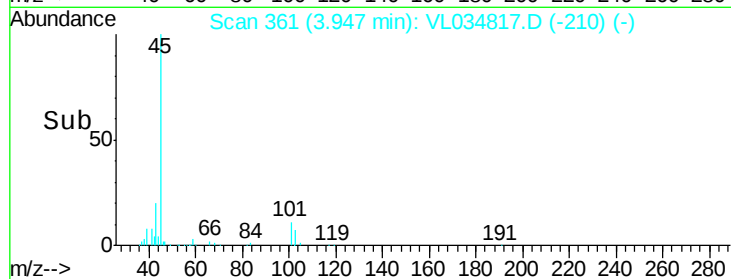
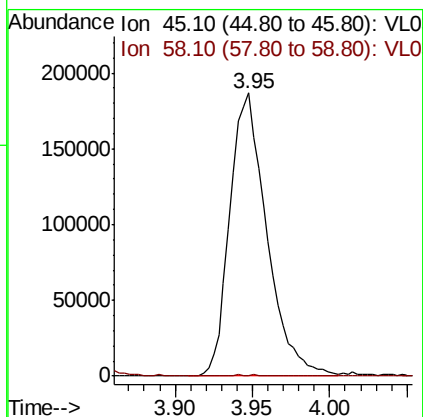
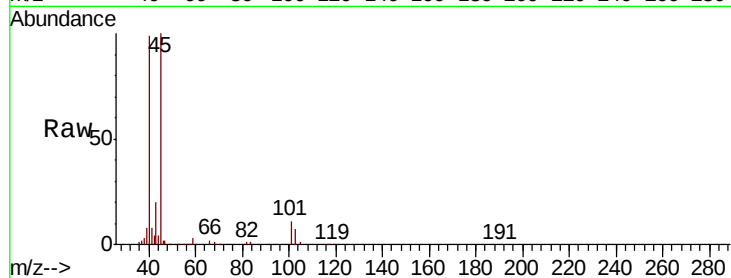
Isopropyl Alcohol  
 Concen: 9.394 ppbv  
 RT: 3.95 min Scan# 361  
 Delta R.T. -0.01 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | 45 | 58 | Ratio | 100 | 44.4 | Resp | 309780 | Lower | 1.8 | Upper | 2.8# |
|---------|----|----|-------|-----|------|------|--------|-------|-----|-------|------|
| Ion     | 45 | 58 | Ratio | 100 | 44.4 | Resp | 309780 | Lower | 1.8 | Upper | 2.8# |

Manual Integrations  
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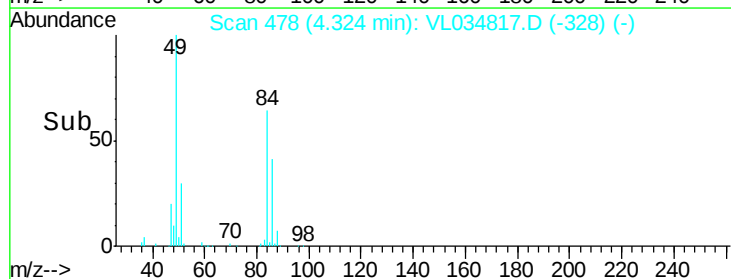
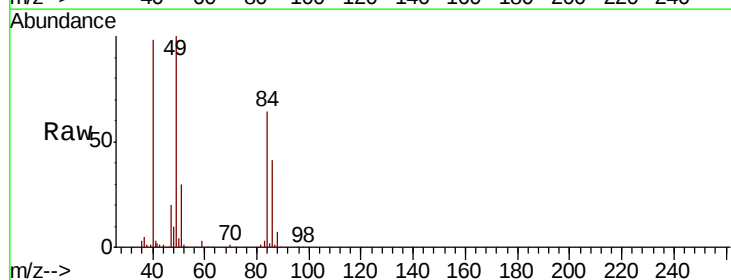
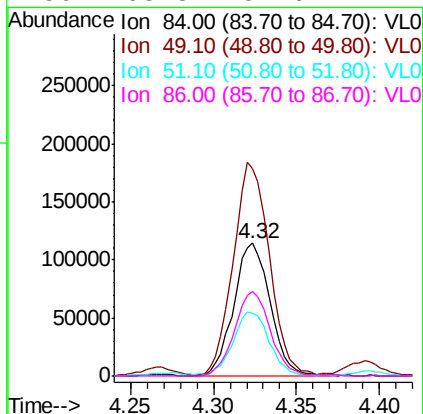
MMDadoda  
 3/9/2020 9:20:03 AM

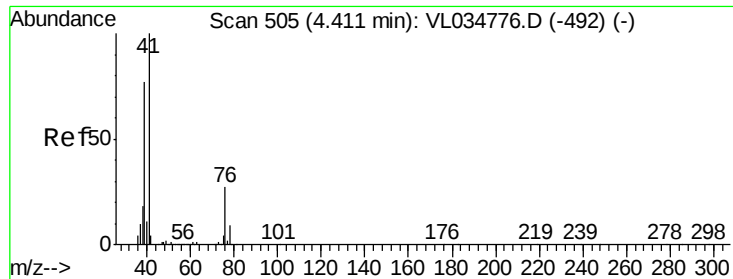


#20

Methylene Chloride  
 Concen: 8.883 ppbv  
 RT: 4.32 min Scan# 478  
 Delta R.T. -0.02 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

| Tgt Ion | 84 | 49 | 51 | 86 | Ratio | 100 | 155.5 | 46.4 | 63.8 | Resp | 174481 | Lower | 123.2 | Upper | 184.8 | 56.2 | 77.4 |
|---------|----|----|----|----|-------|-----|-------|------|------|------|--------|-------|-------|-------|-------|------|------|
| Ion     | 84 | 49 | 51 | 86 | Ratio | 100 | 155.5 | 46.4 | 63.8 | Resp | 174481 | Lower | 123.2 | Upper | 184.8 | 56.2 | 77.4 |





#21

Allvl Chloride

Concen: 10.775 ppbv

RT: 4.39 min Scan# 499

Delta R.T. -0.02 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

Instrument :

MSVOA\_L

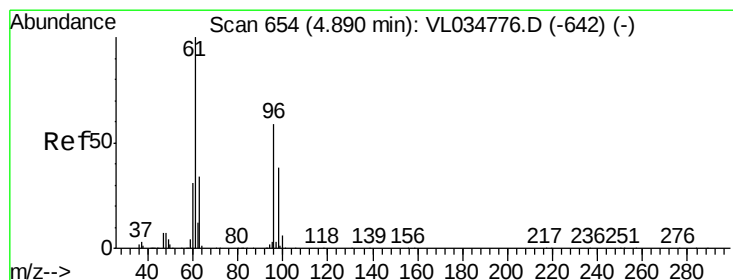
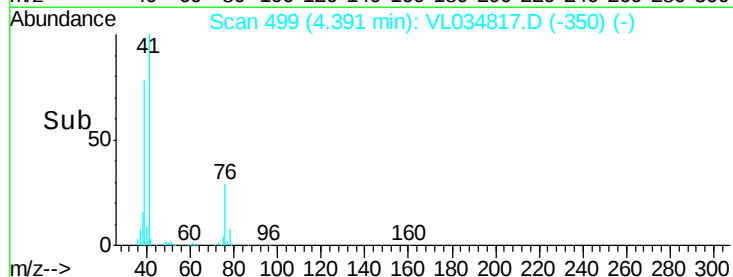
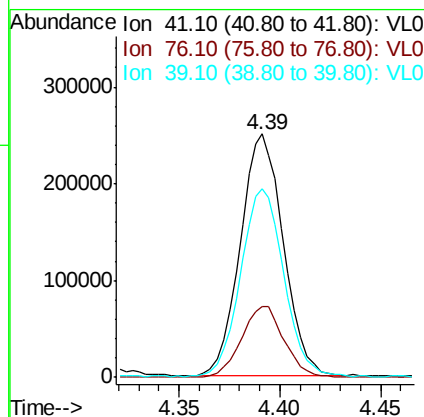
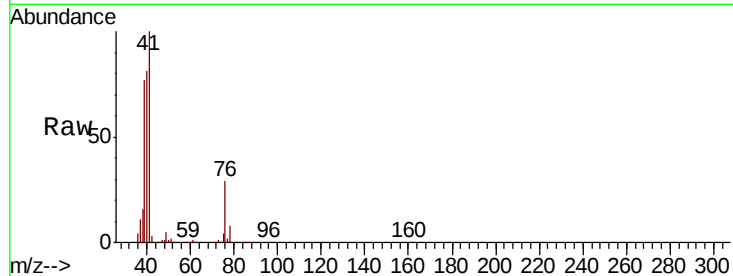
ClientSampleId :

VSTDCCC010EC

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 41    | Resp: | 375543 |
| Ion Ratio | Lower | Upper |        |
| 41        | 100   |       |        |
| 76        | 28.8  | 22.5  | 33.7   |
| 39        | 78.8  | 65.0  | 97.6   |

Manual Integrations  
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MMDadoda  
3/9/2020 9:20:03 AM



#22

trans-1,2-Dichloroethene

Concen: 10.222 ppbv

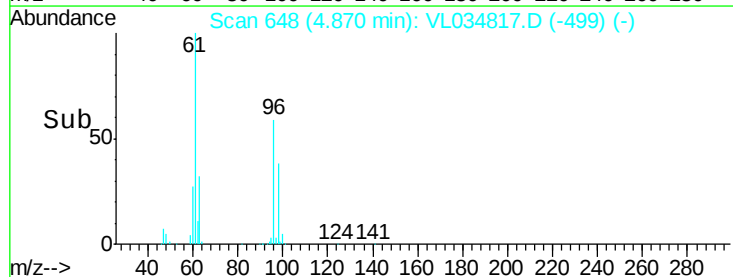
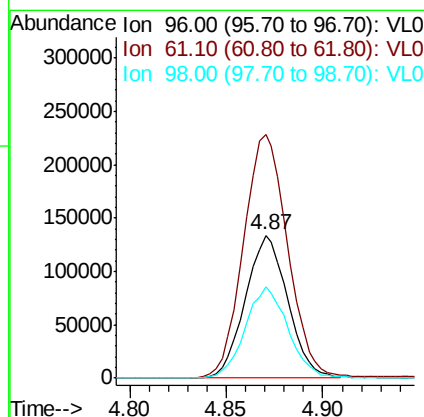
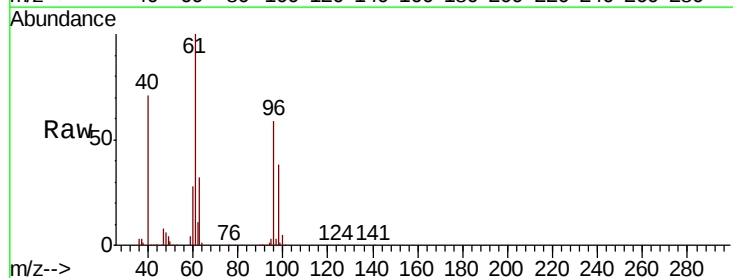
RT: 4.87 min Scan# 648

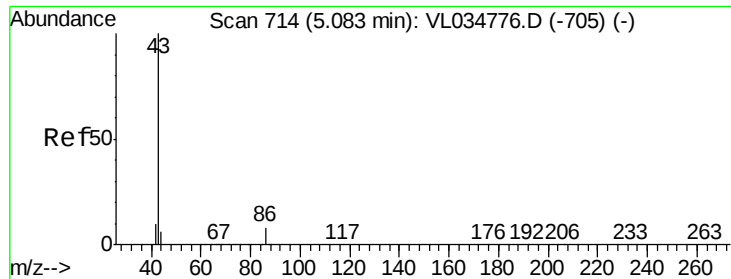
Delta R.T. -0.02 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 96    | Resp: | 203800 |
| Ion Ratio | Lower | Upper |        |
| 96        | 100   |       |        |
| 61        | 170.2 | 135.2 | 202.8  |
| 98        | 63.9  | 50.8  | 76.2   |





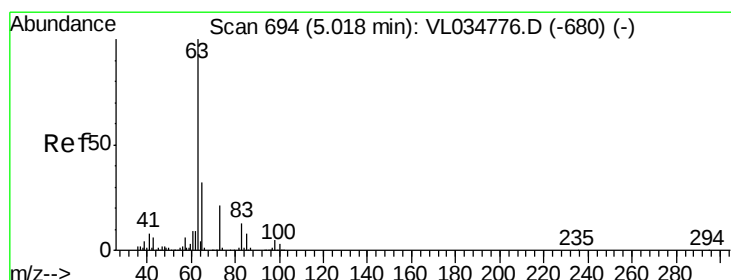
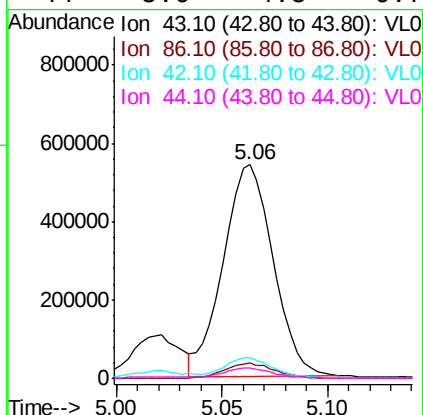
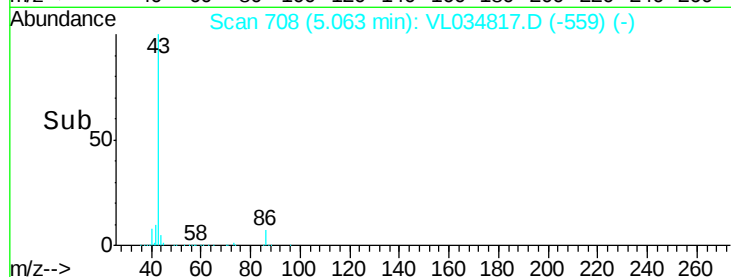
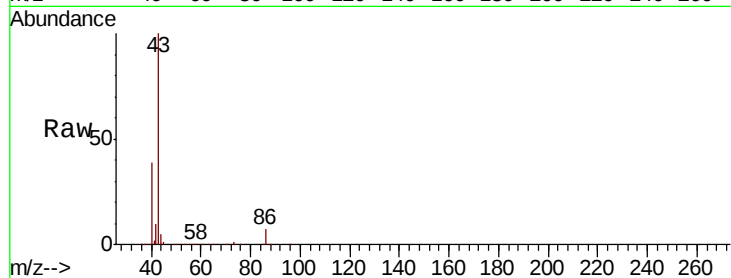
#23  
 Vinyl Acetate  
 Concen: 12.098 ppbv  
 RT: 5.06 min Scan# 708  
 Delta R.T. -0.02 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ion | Ratio | Resp   | Lower | Upper |
|---------|-----|-------|--------|-------|-------|
| 43      | 100 |       | 892847 |       |       |
| 86      | 7.3 |       | 5.9    | 8.9   |       |
| 42      | 9.6 |       | 8.2    | 12.2  |       |
| 44      | 5.0 |       | 4.5    | 6.7   |       |

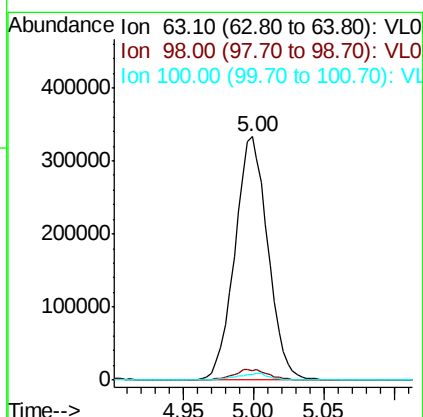
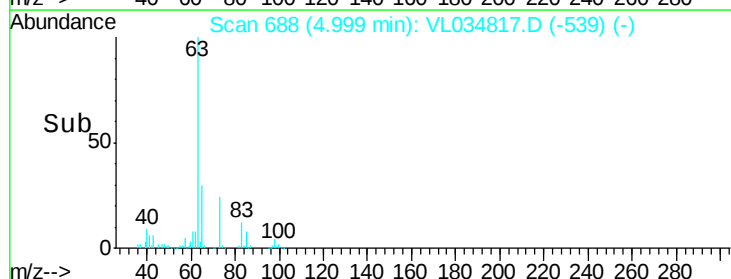
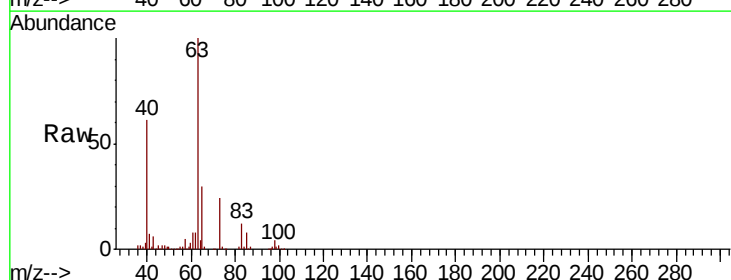
Manual Integrations  
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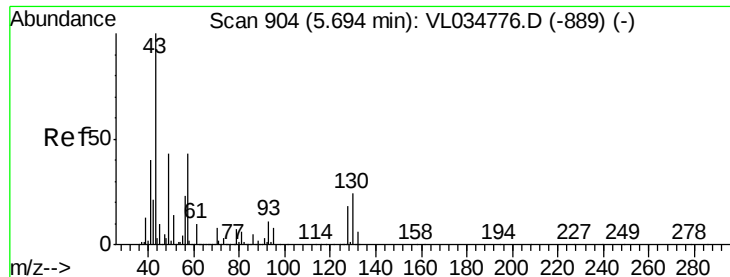
MMDadoda  
 3/9/2020 9:20:03 AM



#24  
 1,1-Dichloroethane  
 Concen: 9.547 ppbv  
 RT: 5.00 min Scan# 688  
 Delta R.T. -0.02 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

| Tgt Ion | Ion | Ratio | Resp   | Lower | Upper |
|---------|-----|-------|--------|-------|-------|
| 63      | 100 |       | 546904 |       |       |
| 98      | 3.9 |       | 2.3    | 6.8   |       |
| 100     | 2.5 |       | 1.5    | 4.4   |       |





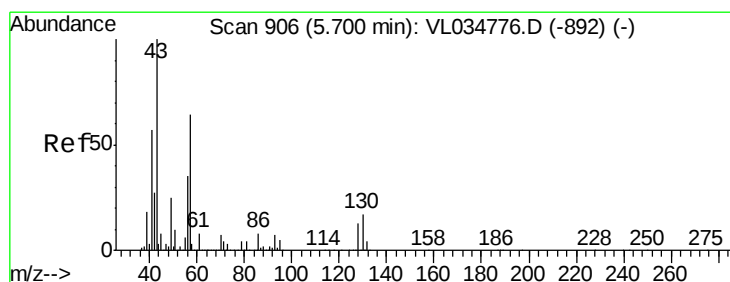
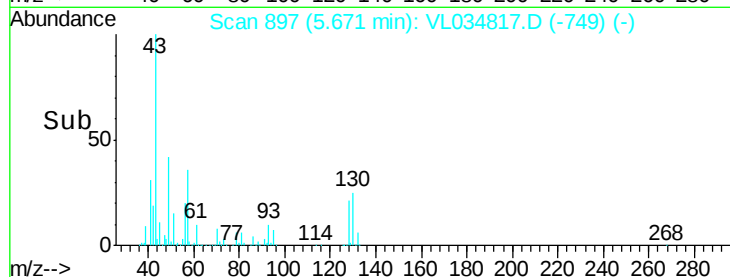
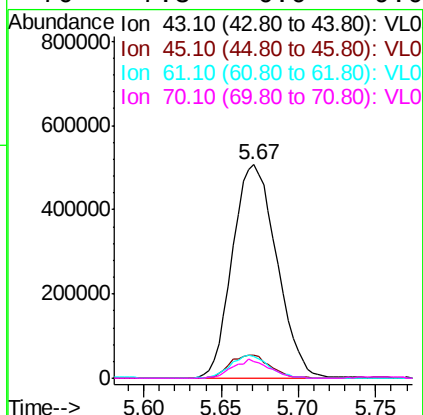
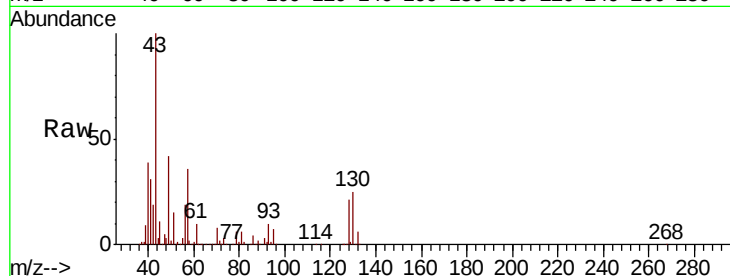
#25  
Ethyl Acetate  
Concen: 10.574 ppbv  
RT: 5.67 min Scan# 897  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 45      | 10.0  | 8.2   | 12.4  |
| 61      | 9.4   | 7.5   | 11.3  |
| 70      | 7.3   | 6.0   | 9.0   |

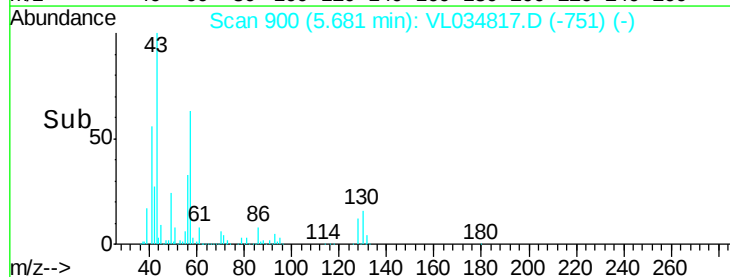
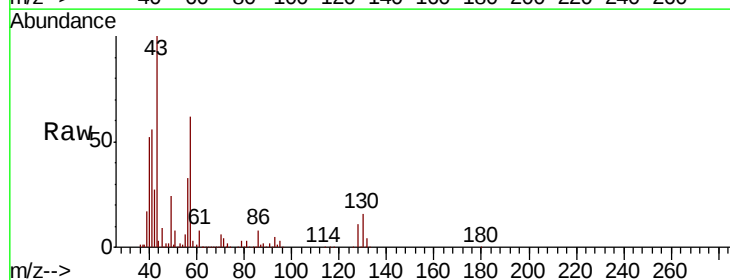
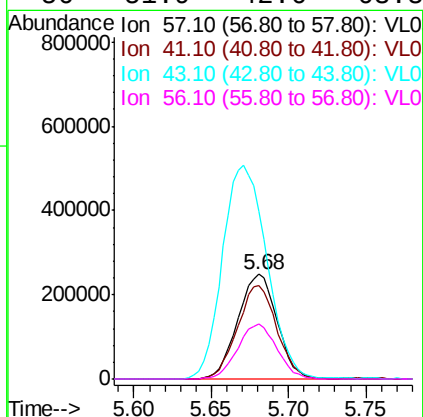
Manual Integrations  
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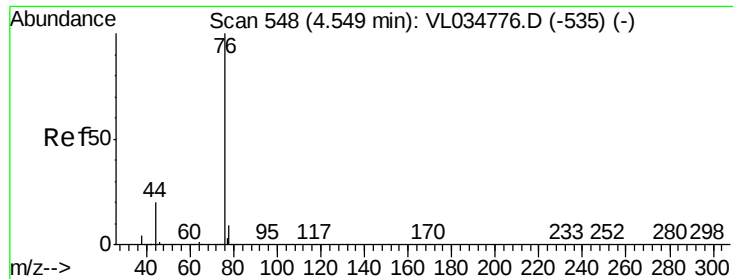
MMDadoda  
3/9/2020 9:20:03 AM



#26  
Hexane  
Concen: 10.591 ppbv  
RT: 5.68 min Scan# 900  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 89.5  | 72.0  | 108.0 |
| 43      | 230.8 | 179.1 | 268.7 |
| 56      | 51.9  | 42.6  | 63.8  |





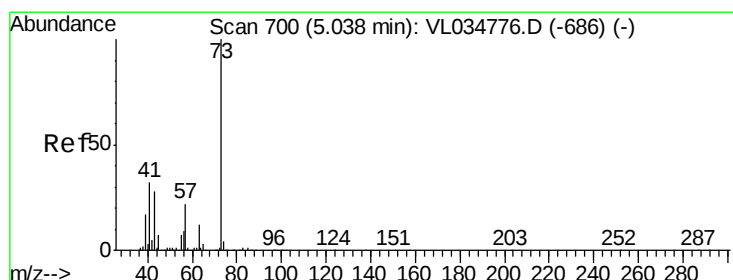
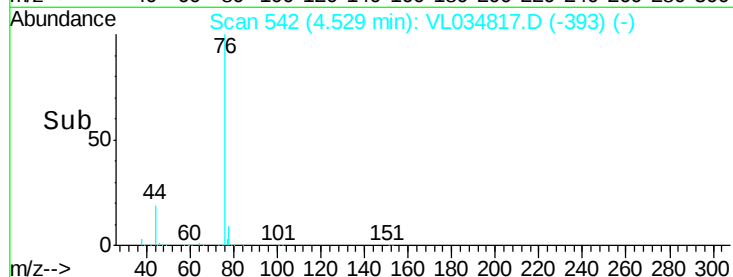
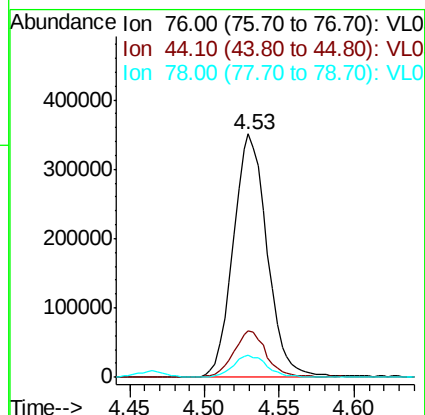
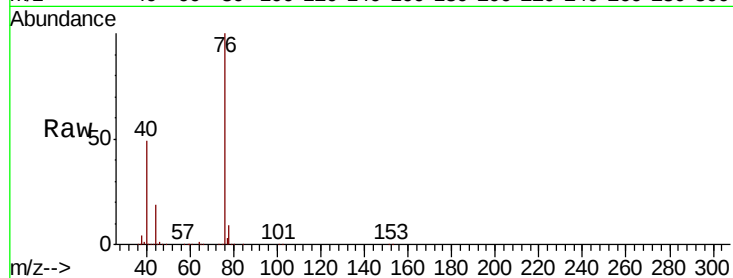
#27  
Carbon Disulfide  
Concen: 11.433 ppbv  
RT: 4.53 min Scan# 542  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76      | 100   |       |       |
| 44      | 18.8  | 16.1  | 24.1  |
| 78      | 9.0   | 7.5   | 11.3  |

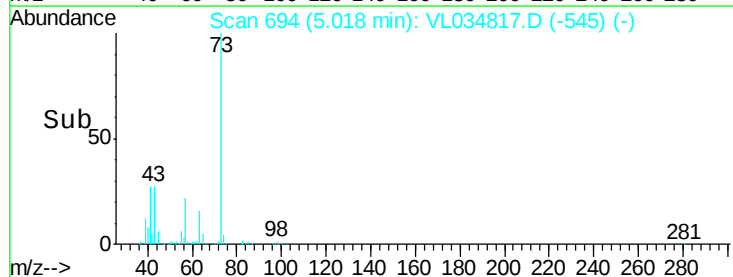
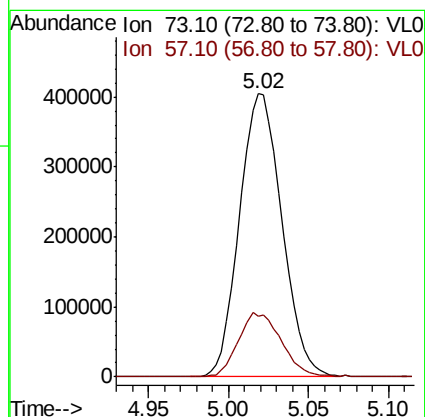
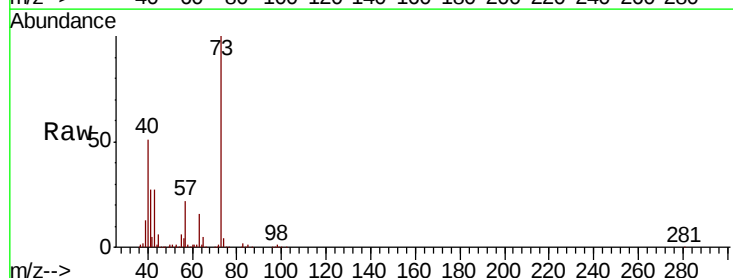
Manual Integrations  
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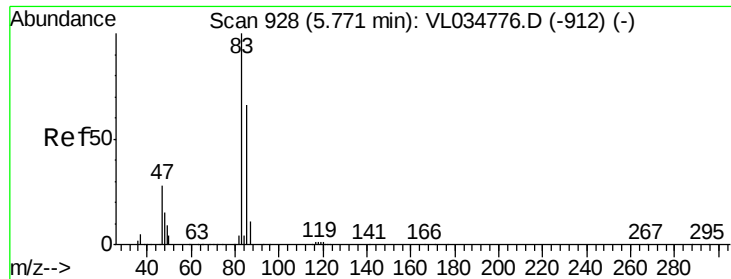
MMDadoda  
3/9/2020 9:20:03 AM



#28  
Methyl tert-Butyl Ether  
Concen: 11.847 ppbv  
RT: 5.02 min Scan# 694  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 73      | 100   |       |       |
| 57      | 23.1  | 18.5  | 27.7  |





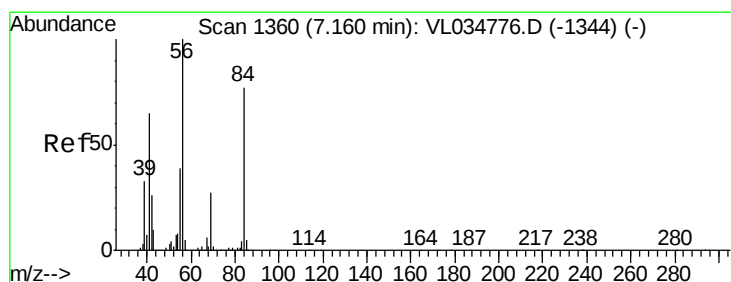
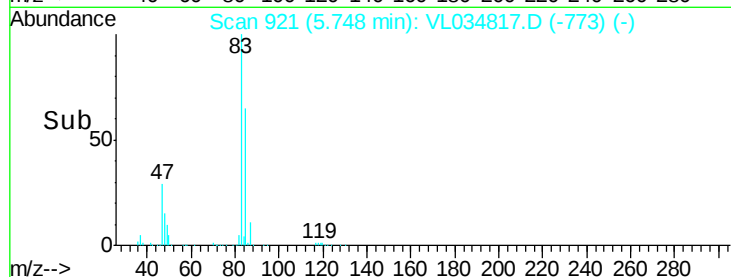
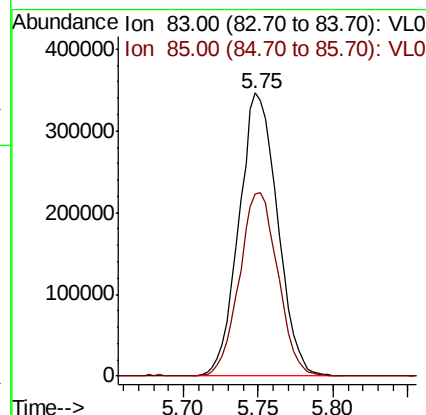
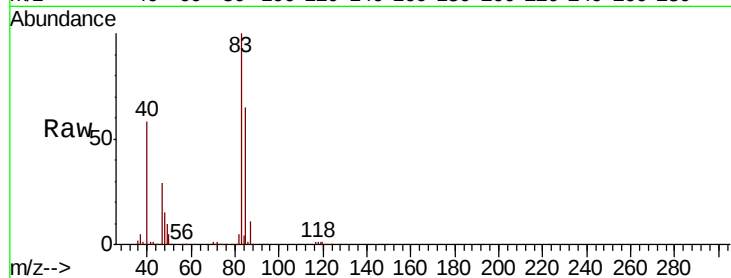
#29  
Chloroform  
Concen: 8.895 ppbv  
RT: 5.75 min Scan# 921  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 64.5  | 53.0  | 79.4  |

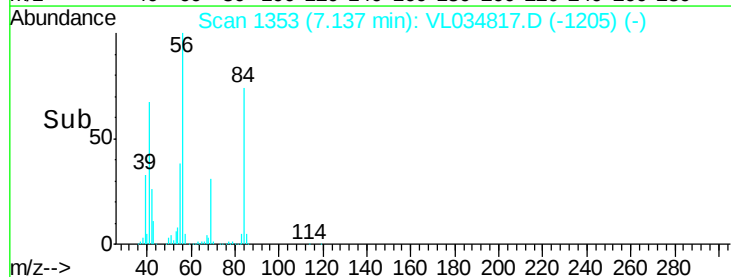
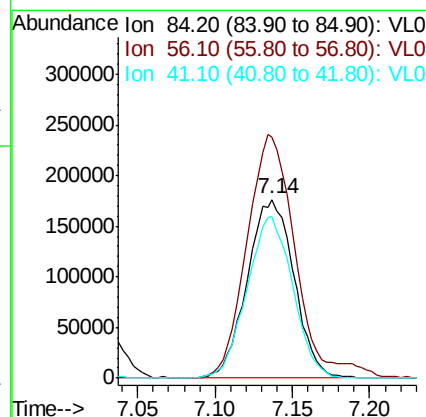
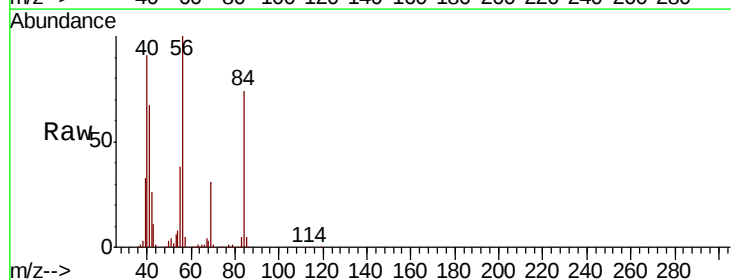
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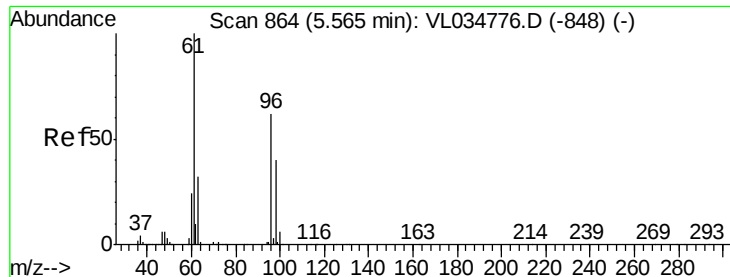
MMDadoda  
3/9/2020 9:20:03 AM



#30  
Cyclohexane  
Concen: 11.644 ppbv  
RT: 7.14 min Scan# 1353  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 56      | 142.6 | 113.2 | 169.8 |
| 41      | 88.9  | 70.2  | 105.4 |





#31

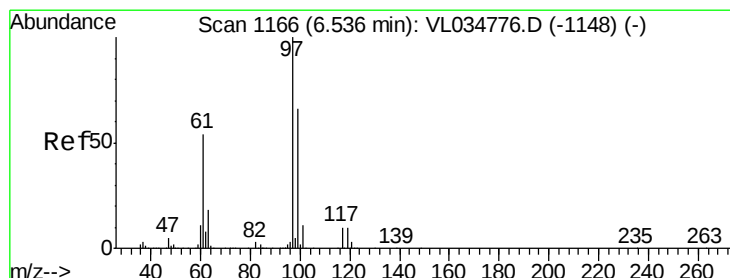
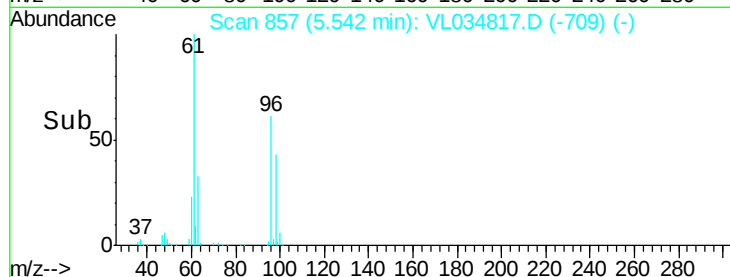
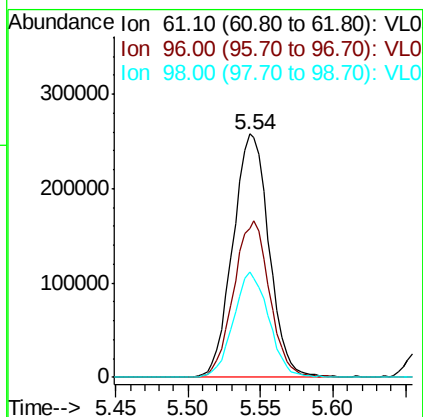
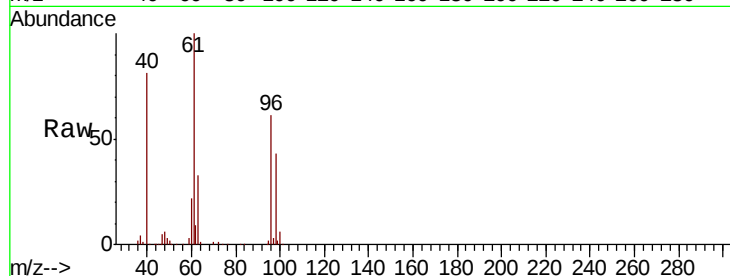
cis-1,2-Dichloroethene  
 Concen: 10.471 ppbv  
 RT: 5.54 min Scan# 857  
 Delta R.T. -0.02 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61      | 100   |       |       |
| 96      | 61.3  | 49.7  | 74.5  |
| 98      | 43.1  | 31.9  | 47.9  |

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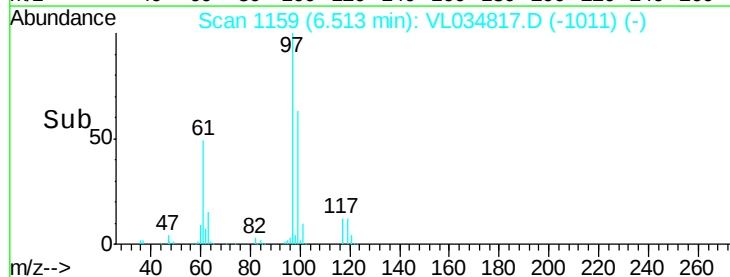
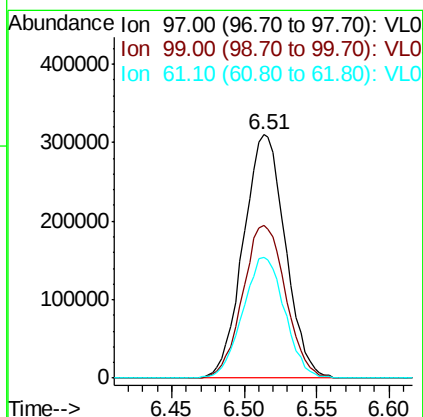
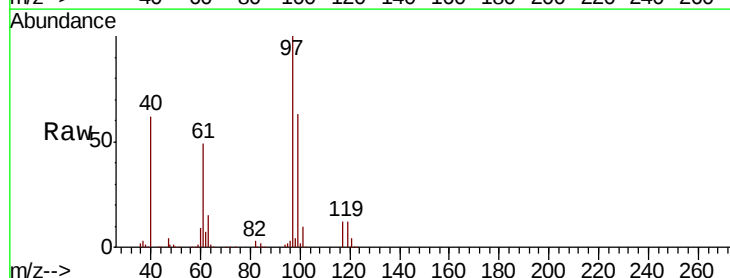
MMDadoda  
 3/9/2020 9:20:03 AM

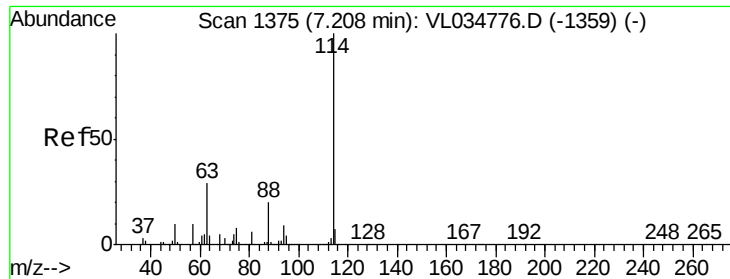


#32

1,1,1-Trichloroethane  
 Concen: 9.056 ppbv  
 RT: 6.51 min Scan# 1159  
 Delta R.T. -0.02 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 64.2  | 51.7  | 77.5  |
| 61      | 49.6  | 43.4  | 65.0  |





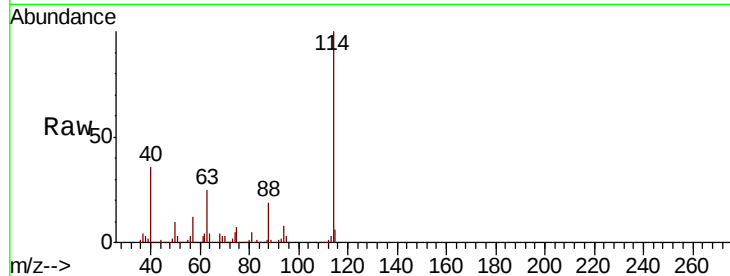
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.19 min Scan# 1368  
 Delta R.T. -0.02 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

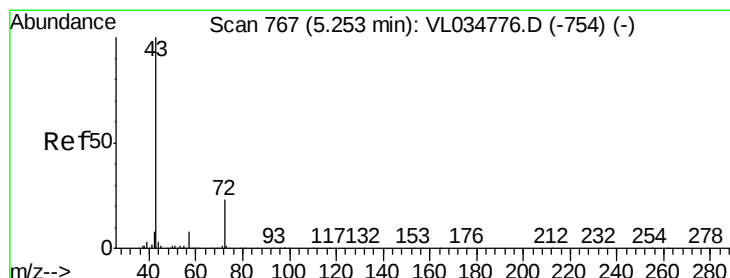
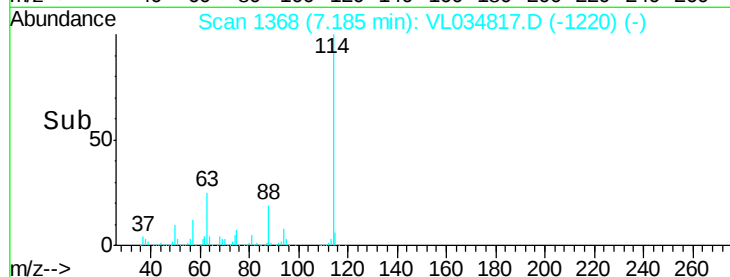
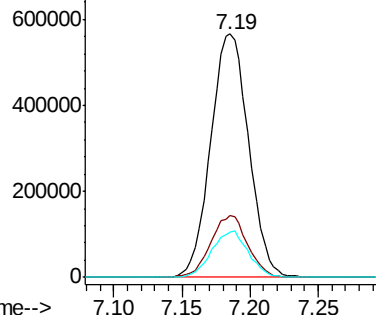
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 25.0  | 23.6  | 35.4  |
| 88      | 18.3  | 15.8  | 23.8  |

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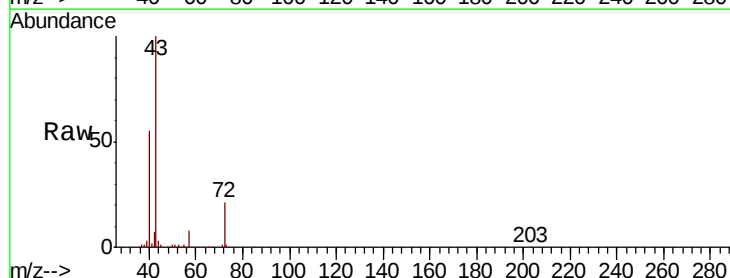


Abundance Ion 114.10 (113.80 to 114.80): VL0  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

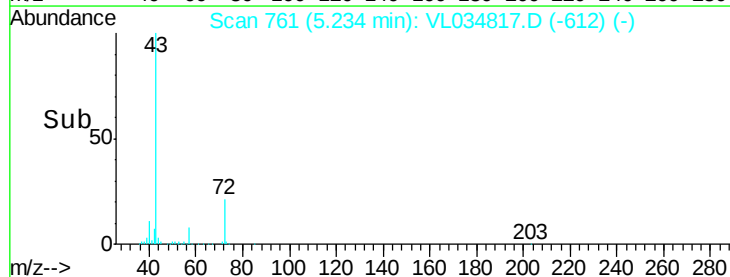
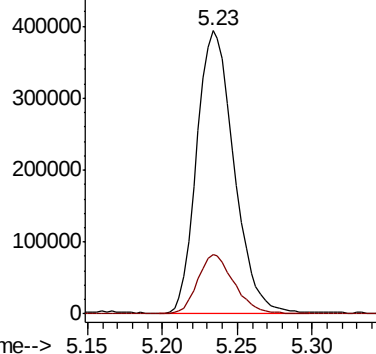


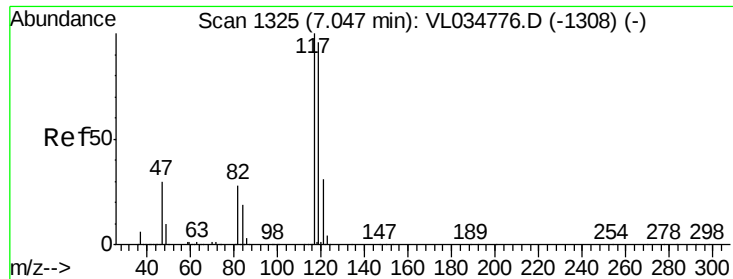
#34  
 2-Butanone  
 Concen: 9.575 ppbv  
 RT: 5.23 min Scan# 761  
 Delta R.T. -0.02 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 20.7  | 17.5  | 26.3  |



Abundance Ion 43.10 (42.80 to 43.80): VL0  
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 7.898 ppbv

RT: 7.02 min Scan# 1318

Delta R.T. -0.02 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

Instrument :

MSVOA\_L

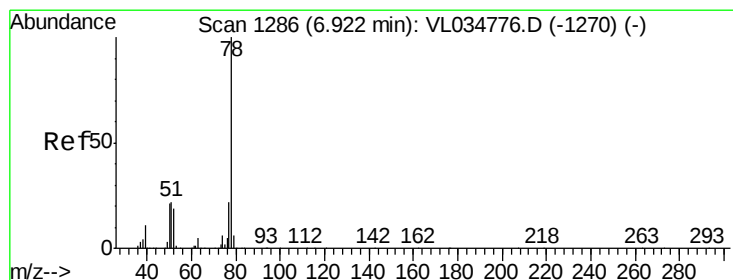
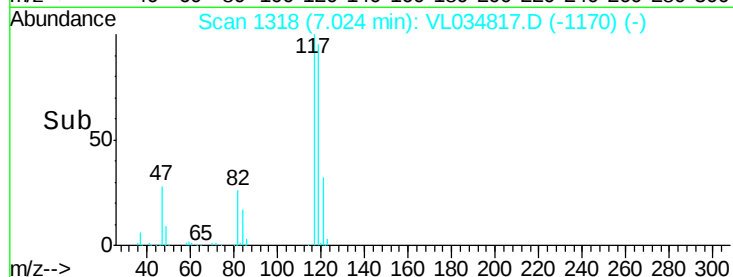
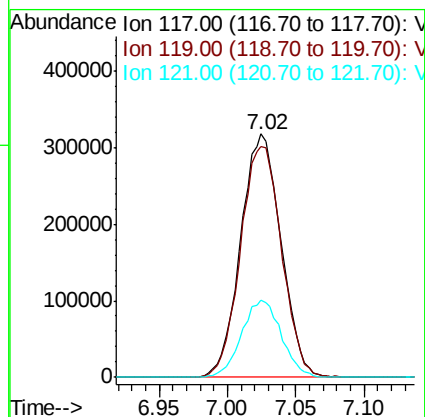
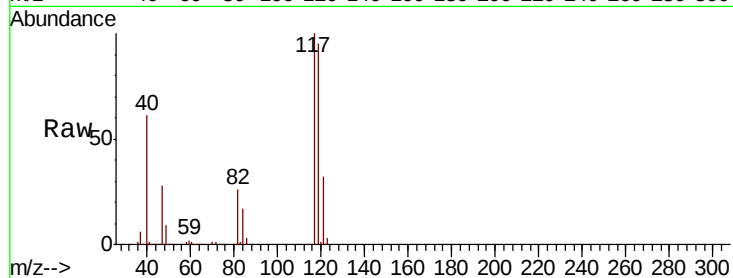
ClientSampleId :

VSTDCCC010EC

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 117   | Resp: | 652274 |
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 119       | 94.8  | 76.8  | 115.2  |
| 121       | 31.7  | 24.6  | 37.0   |

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3/9/2020 9:20:03 AM



#36

Benzene

Concen: 9.693 ppbv

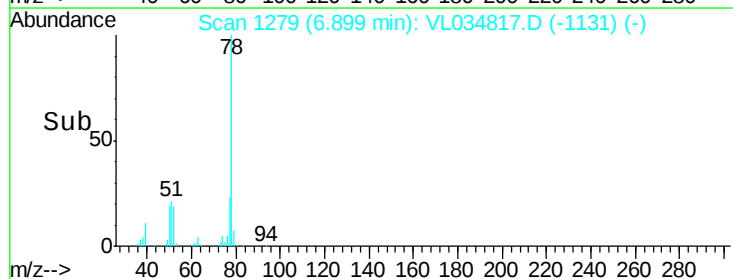
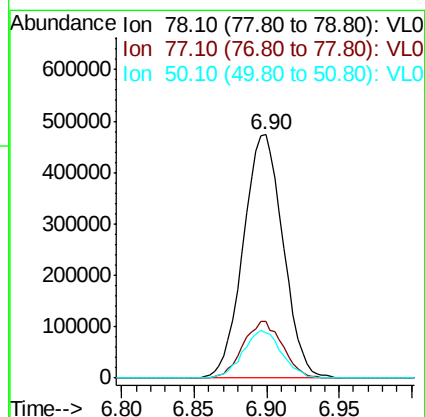
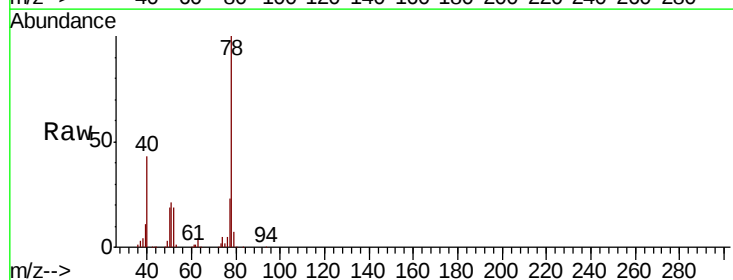
RT: 6.90 min Scan# 1279

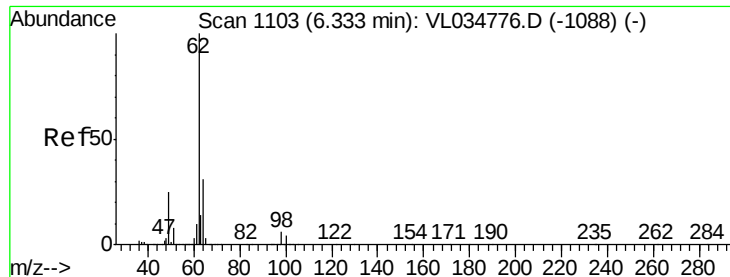
Delta R.T. -0.02 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 78    | Resp: | 906521 |
| Ion Ratio | Lower | Upper |        |
| 78        | 100   |       |        |
| 77        | 23.4  | 18.0  | 27.0   |
| 50        | 18.7  | 16.9  | 25.3   |





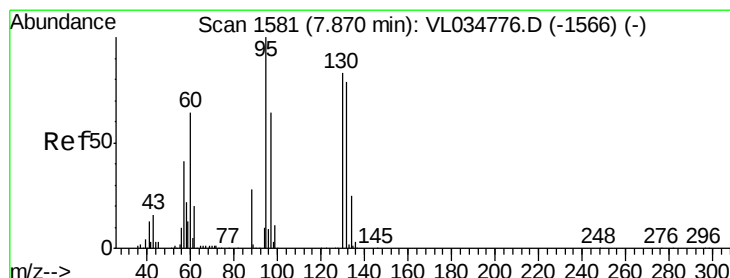
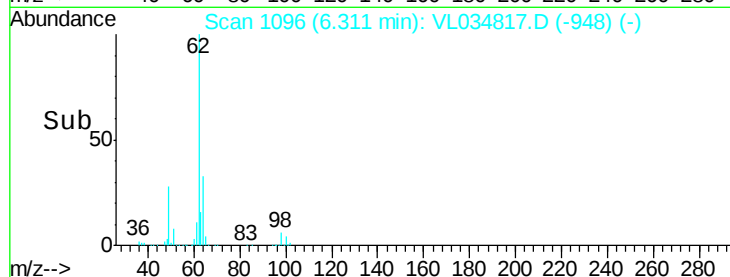
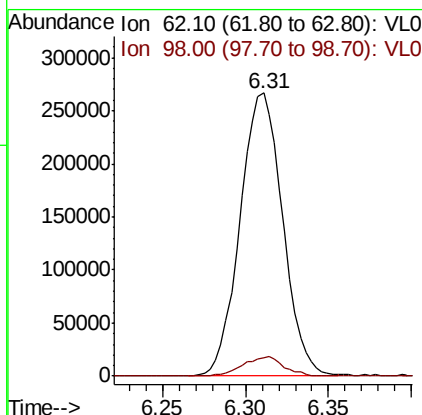
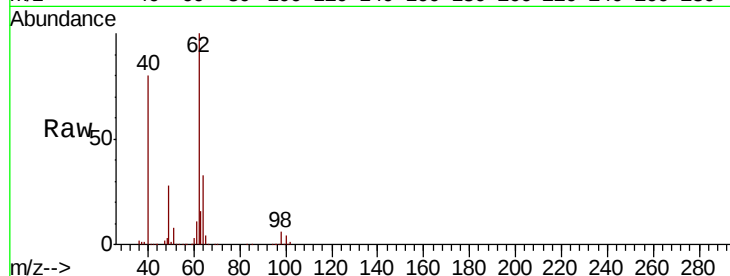
#37  
 1,2-Dichloroethane  
 Concen: 7.483 ppbv  
 RT: 6.31 min Scan# 1096  
 Delta R.T. -0.02 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62      | 100   |       |       |
| 98      | 6.7   | 4.4   | 6.6#  |

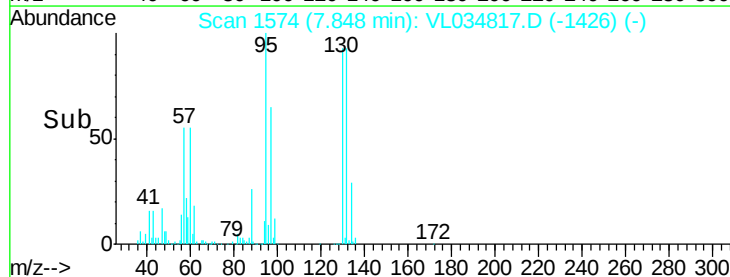
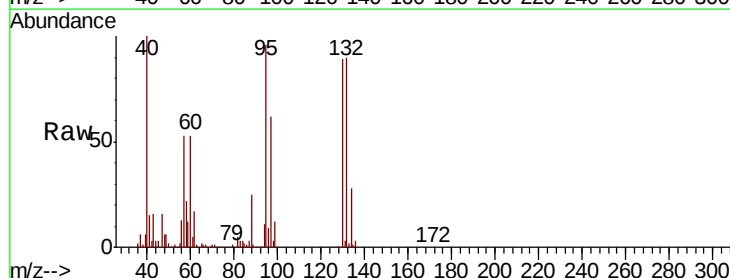
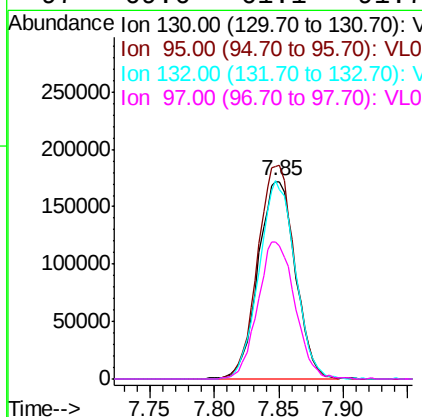
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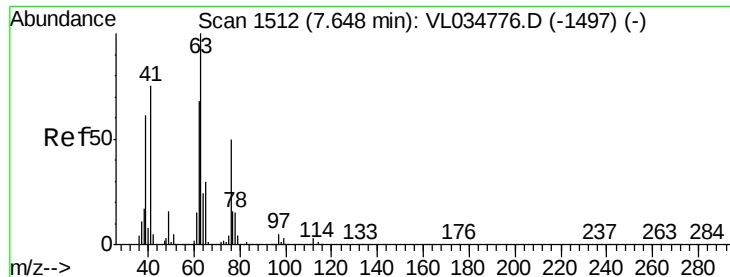
MMDadoda  
 3/9/2020 9:20:03 AM



#38  
 Trichloroethene  
 Concen: 9.519 ppbv  
 RT: 7.85 min Scan# 1574  
 Delta R.T. -0.02 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 130     | 100   |       |       |
| 95      | 107.9 | 95.8  | 143.8 |
| 132     | 100.5 | 76.1  | 114.1 |
| 97      | 69.6  | 61.1  | 91.7  |





#39

1,2-Dichloropropane

Concen: 9.473 ppbv

RT: 7.63 min Scan# 1505

Delta R.T. -0.02 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

Instrument :

MSVOA\_L

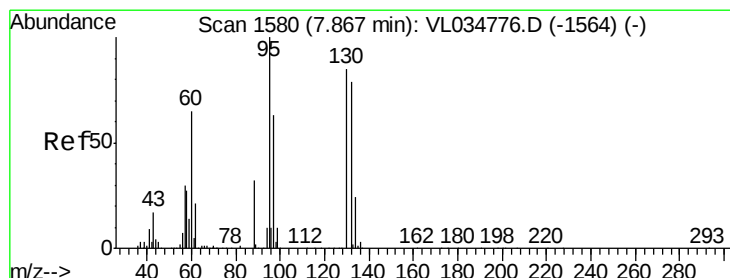
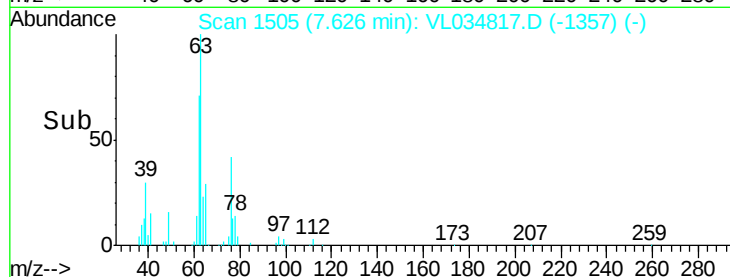
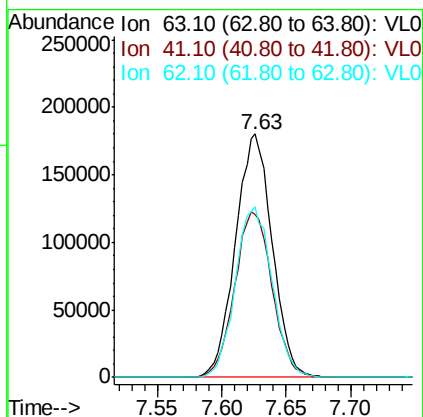
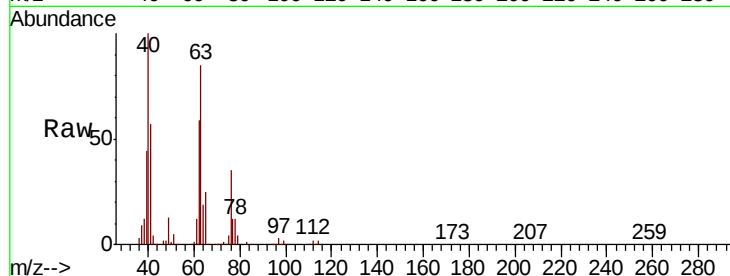
ClientSampleId :

VSTDCCC010EC

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 63    | Resp: | 357547 |
| Ion Ratio | Lower | Upper |        |
| 63        | 100   |       |        |
| 41        | 66.7  | 60.3  | 90.5   |
| 62        | 70.0  | 54.5  | 81.7   |

Manual Integrations  
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#40

1,4-Dioxane

Concen: 8.796 ppbv

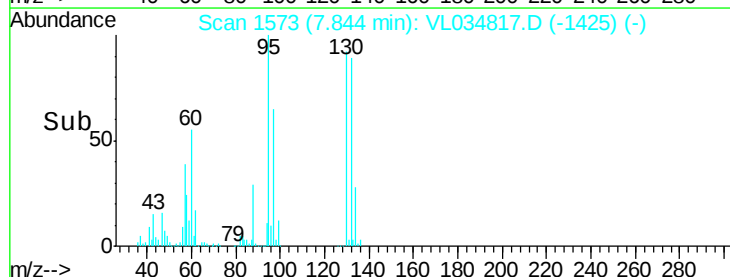
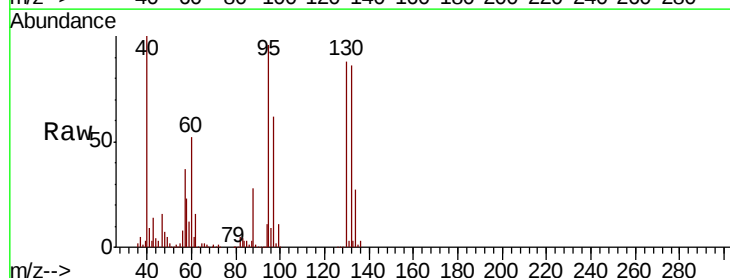
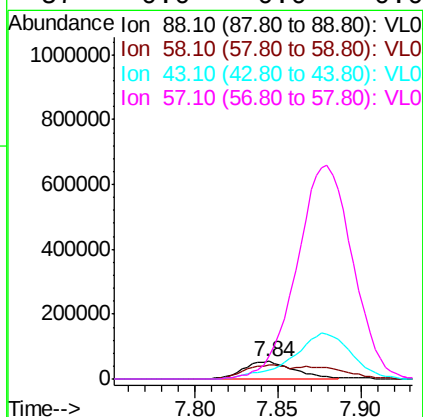
RT: 7.84 min Scan# 1573

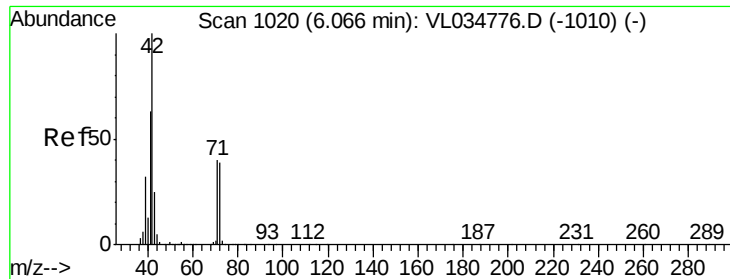
Delta R.T. -0.02 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 88    | Resp: | 114836 |
| Ion Ratio | Lower | Upper |        |
| 88        | 100   |       |        |
| 58        | 140.7 | 110.6 | 166.0  |
| 43        | 0.0   | 0.0   | 0.0    |
| 57        | 0.0   | 0.0   | 0.0    |





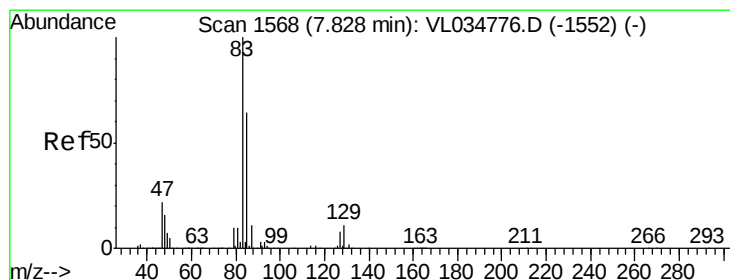
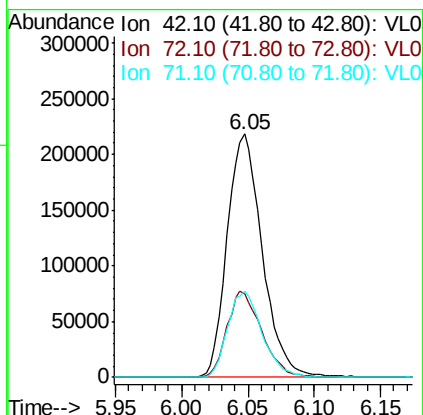
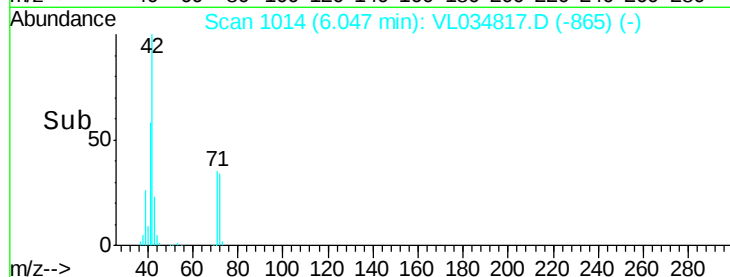
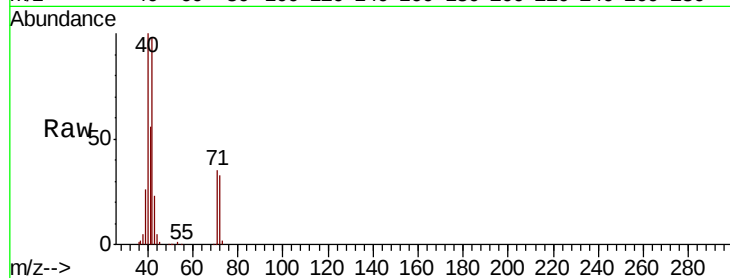
#41  
Tetrahydrofuran  
Concen: 11.043 ppbv  
RT: 6.05 min Scan# 1014  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 35.3  | 32.0  | 48.0  |
| 71      | 35.1  | 31.3  | 46.9  |

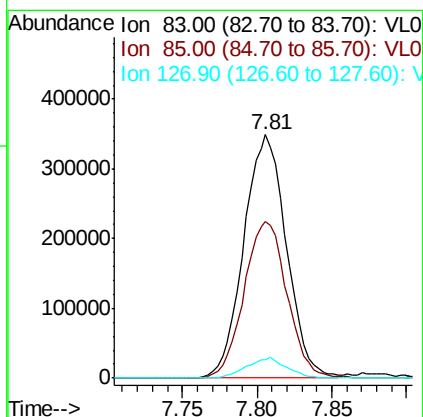
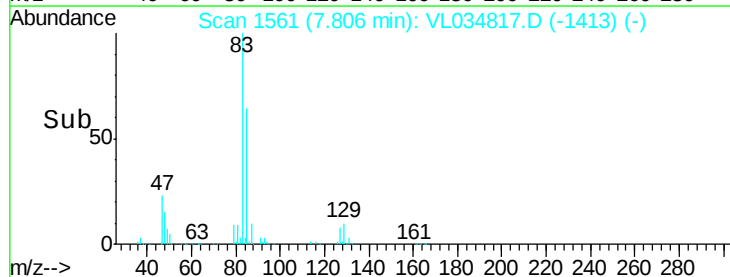
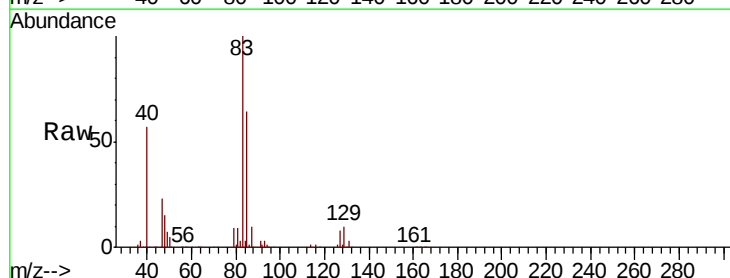
Manual Integrations  
APPROVED

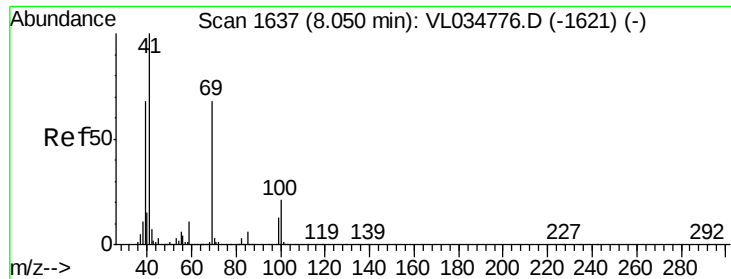
MMDadoda  
3/9/2020 9:20:03 AM



#42  
Bromodichloromethane  
Concen: 8.549 ppbv  
RT: 7.81 min Scan# 1561  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 64.2  | 50.8  | 76.2  |
| 127     | 7.6   | 6.5   | 9.7   |





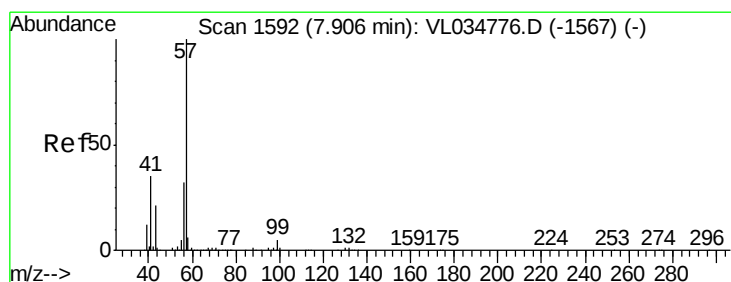
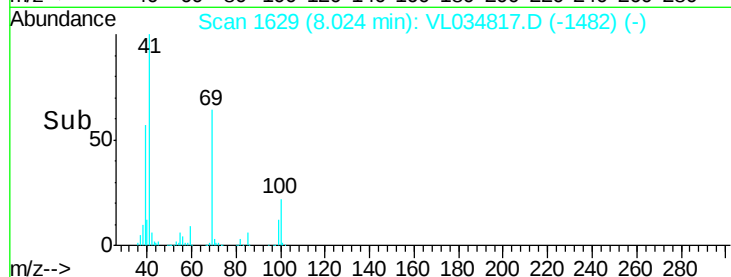
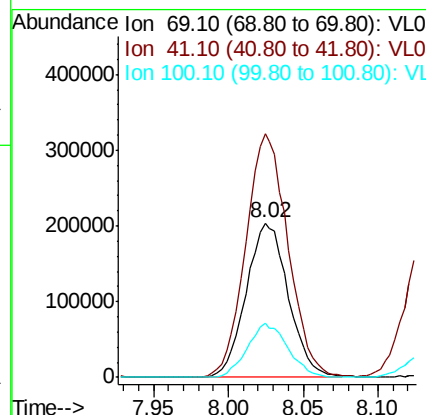
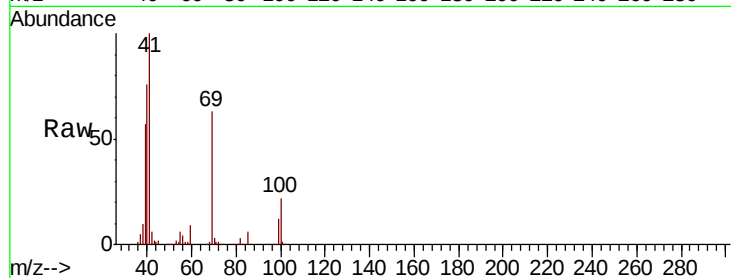
#43  
Methvl Methacrilate  
Concen: 10.067 ppbv  
RT: 8.02 min Scan# 1629  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ion   | Ratio | Lower | Upper |
|---------|-------|-------|-------|-------|
| 69      | 100   |       |       |       |
| 41      | 158.1 | 121.6 | 182.4 |       |
| 100     | 34.0  | 23.8  | 35.8  |       |

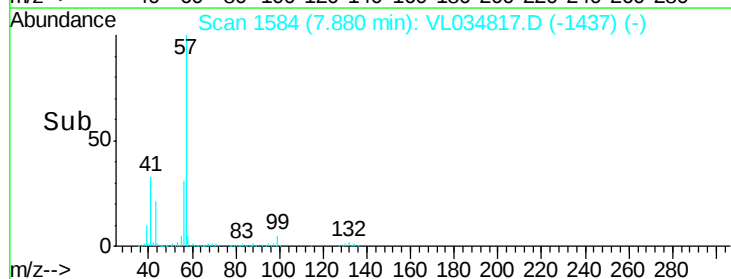
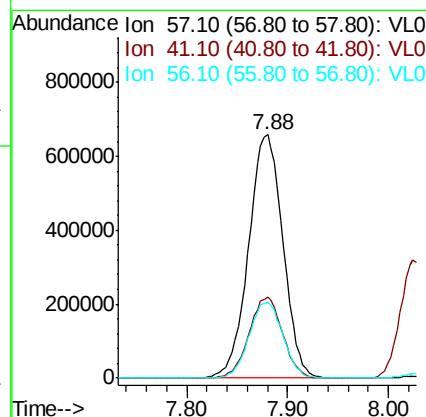
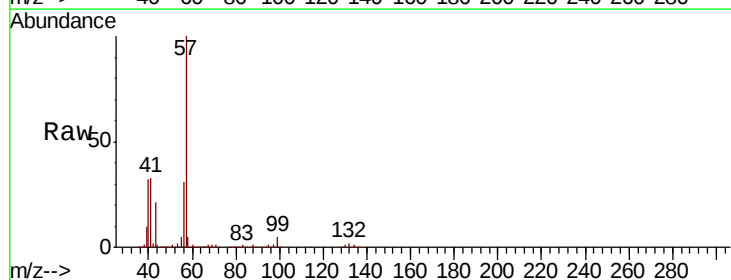
Manual Integrations  
APPROVED

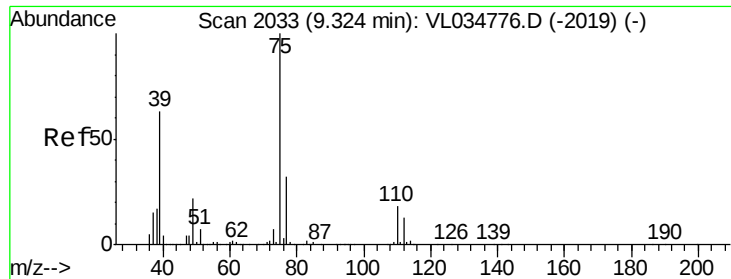
MMDadoda  
3/9/2020 9:20:03 AM



#44  
2,2,4-Trimethylpentane  
Concen: 9.488 ppbv  
RT: 7.88 min Scan# 1584  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 57      | 100  |       |       |       |
| 41      | 32.4 | 27.4  | 41.0  |       |
| 56      | 30.7 | 25.0  | 37.6  |       |





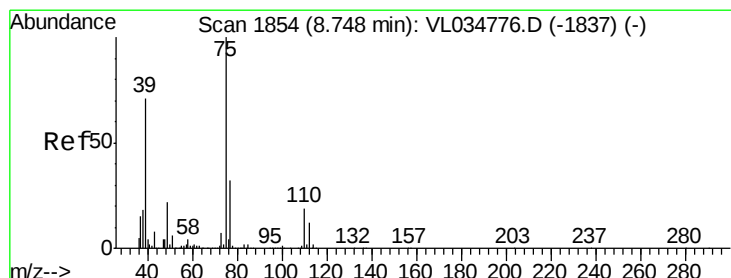
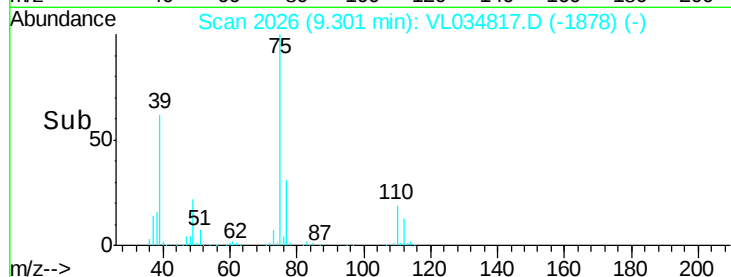
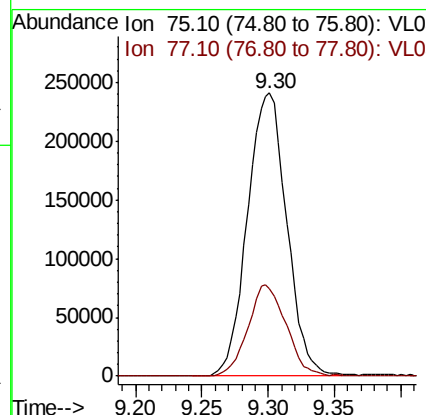
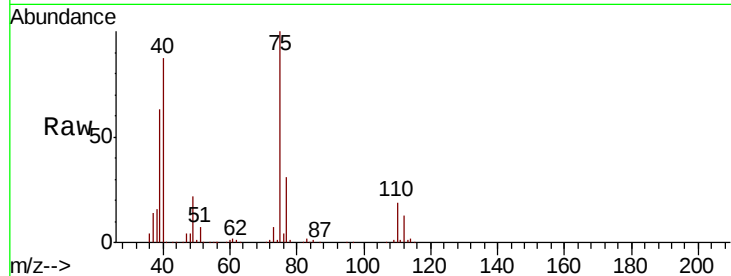
#45  
t-1,3-Dichloropropene  
Concen: 11.960 ppbv  
RT: 9.30 min Scan# 2026  
Delta R.T. -0.02 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

Tot Ion: 75 Resp: 497609  
Ion Ratio Lower Upper  
75 100  
77 30.8 25.6 38.4

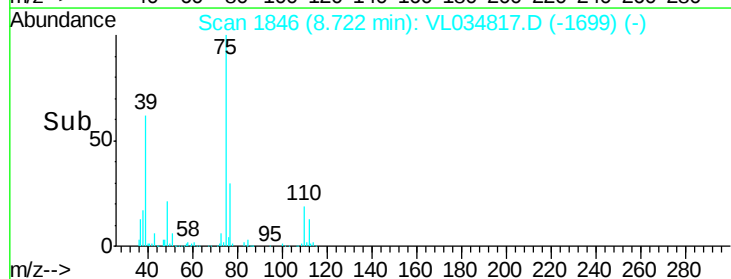
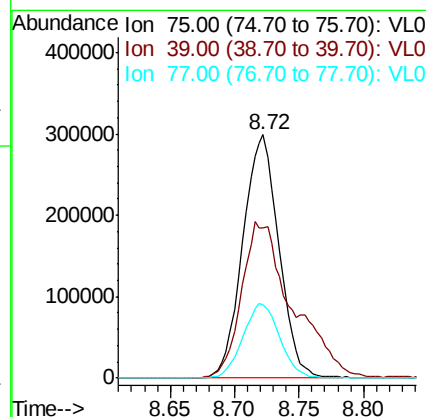
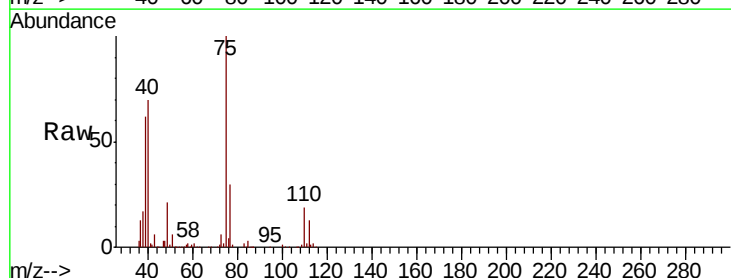
Manual Integrations  
APPROVED

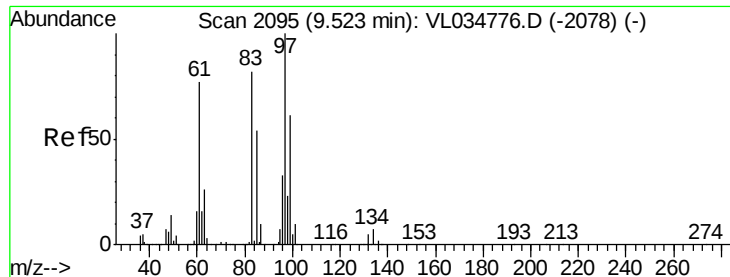
MMDadoda  
3/9/2020 9:20:03 AM



#46  
cis-1,3-Dichloropropene  
Concen: 11.446 ppbv  
RT: 8.72 min Scan# 1846  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Tgt Ion: 75 Resp: 581504  
Ion Ratio Lower Upper  
75 100  
39 61.7 56.9 85.3  
77 30.0 25.7 38.5





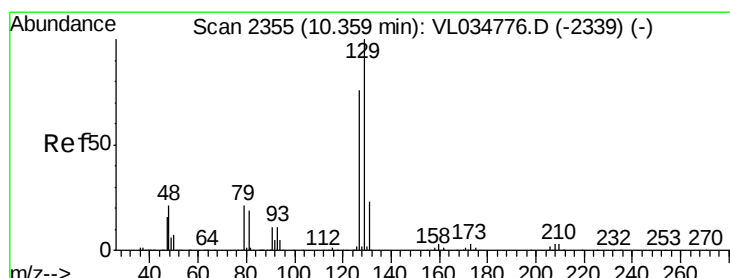
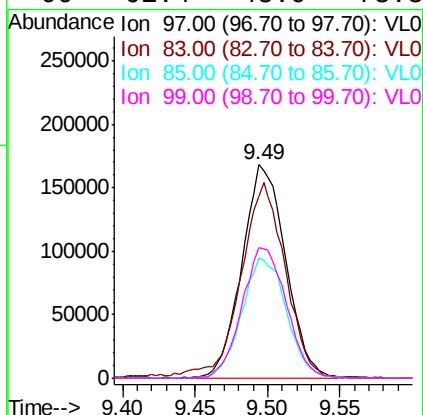
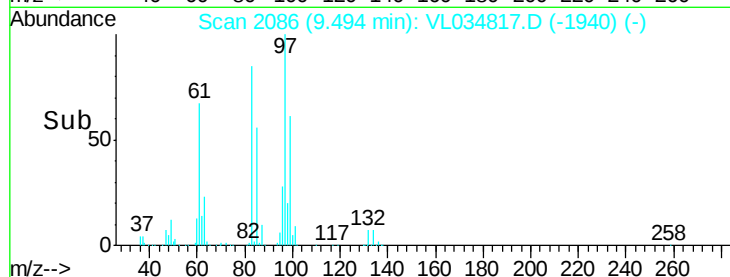
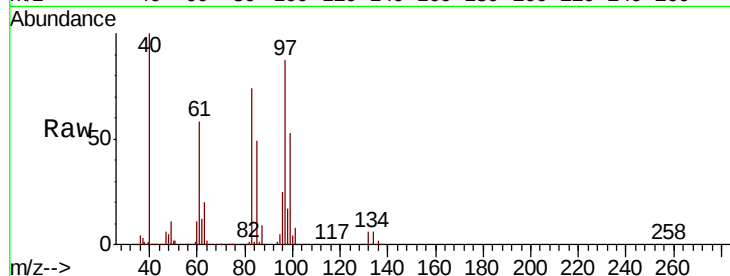
#47  
 1,1,2-Trichloroethane  
 Concen: 8.803 ppbv  
 RT: 9.49 min Scan# 2086  
 Delta R.T. -0.03 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 97      | 100  |       |       |       |
| 83      | 84.8 | 65.2  | 97.8  |       |
| 85      | 56.5 | 43.6  | 65.4  |       |
| 99      | 61.4 | 48.9  | 73.3  |       |

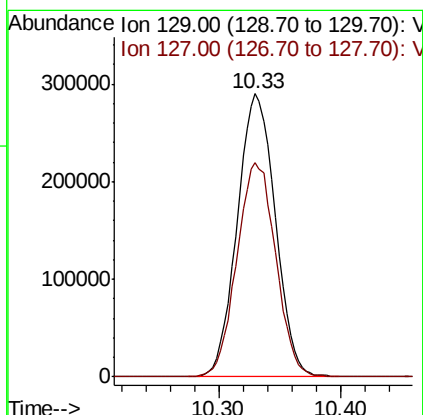
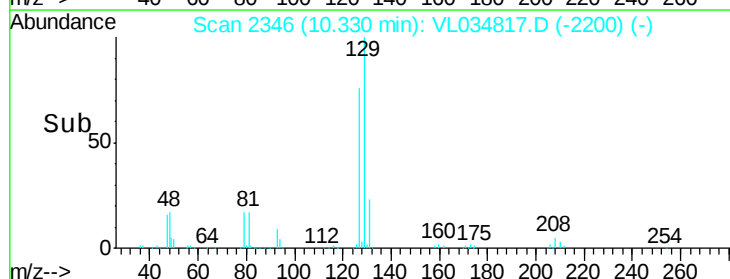
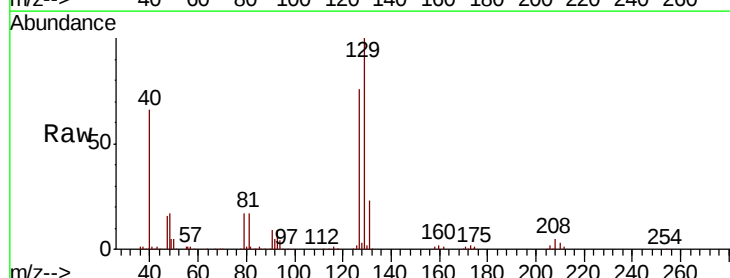
Manual Integrations  
 APPROVED

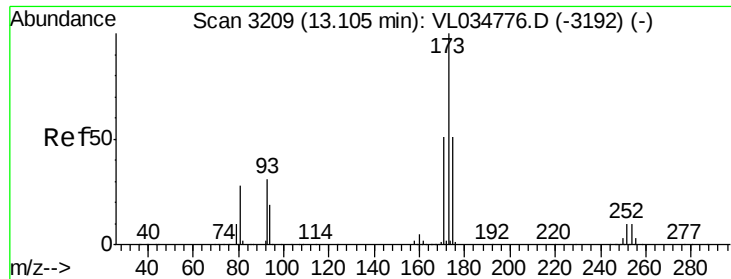
MMDadoda  
 3/9/2020 9:20:03 AM



#48  
 Dibromochloromethane  
 Concen: 10.026 ppbv  
 RT: 10.33 min Scan# 2346  
 Delta R.T. -0.03 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 129     | 100  |       |       |       |
| 127     | 77.2 | 39.0  | 117.0 |       |





#49

Bromoform

Concen: 10.596 ppbv

RT: 13.08 min Scan# 3201

Delta R.T. -0.03 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion:173 Resp: 576169

Ion Ratio Lower Upper

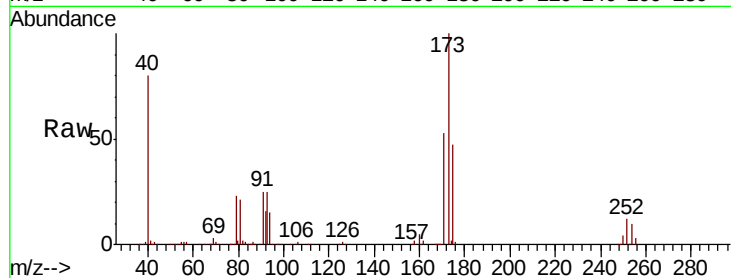
173 100

175 49.1 39.8 59.6

171 52.0 41.0 61.4

Manual Integrations  
APPROVED

MMDadoda  
3/9/2020 9:20:03 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

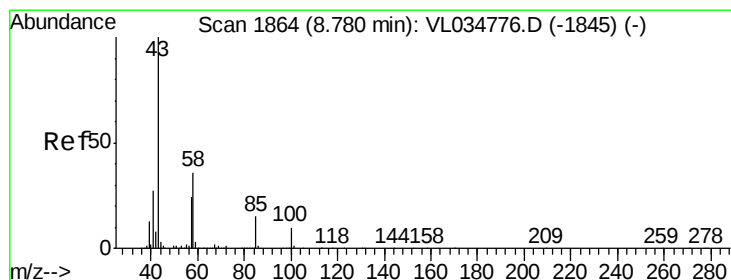
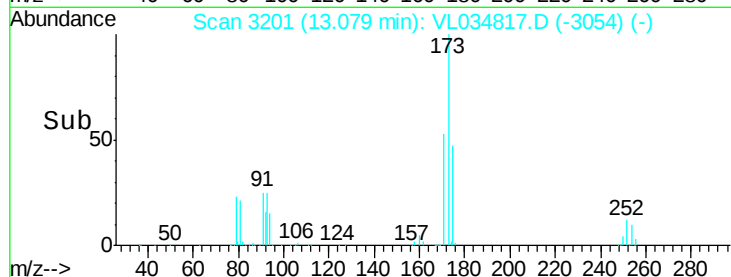
13.08

200000

100000

0

Time-->



#50

4-Methyl-2-Pentanone

Concen: 9.783 ppbv

RT: 8.75 min Scan# 1856

Delta R.T. -0.03 min

Lab File: VL034817.D

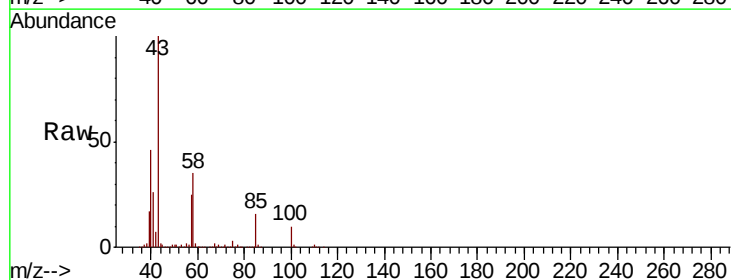
Acq: 6 Mar 2020 7:12

Tgt Ion: 43 Resp: 998122

Ion Ratio Lower Upper

43 100

58 34.8 28.7 43.1



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

8.75

500000

400000

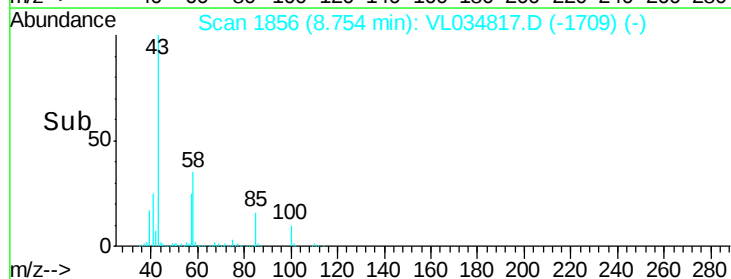
300000

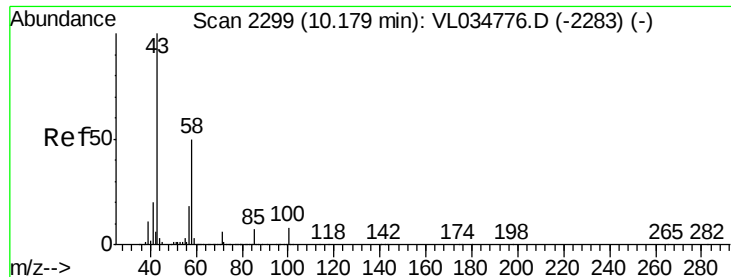
200000

100000

0

Time-->





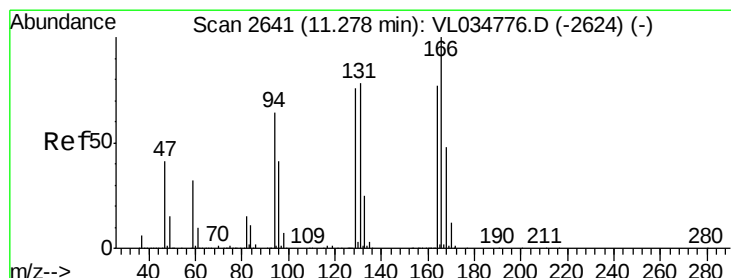
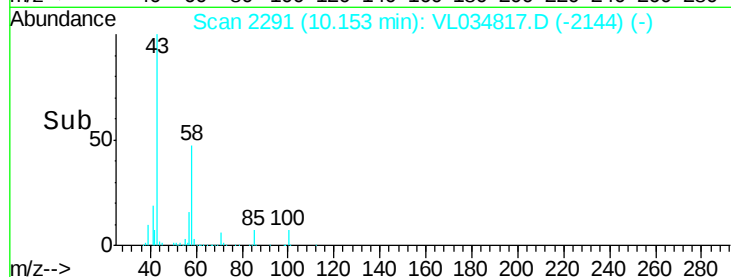
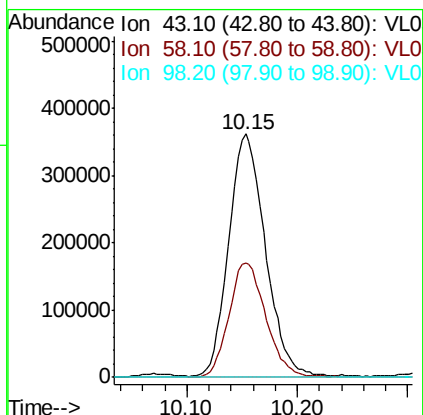
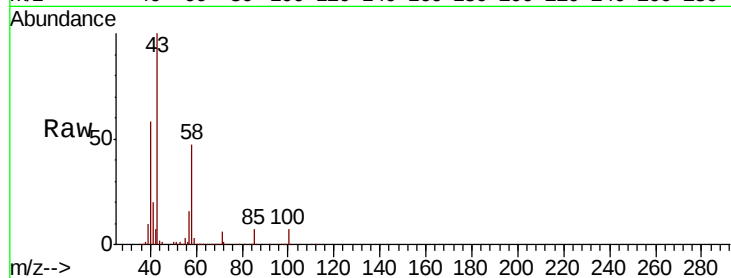
#51  
2-Hexanone  
Concen: 10.369 ppbv  
RT: 10.15 min Scan# 2291  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 47.8  | 38.6  | 58.0  |
| 98      | 0.0   | 0.2   | 0.4   |

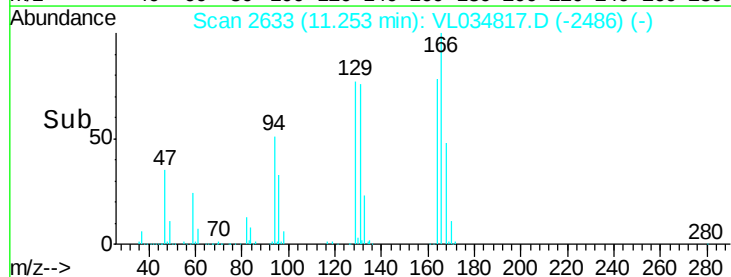
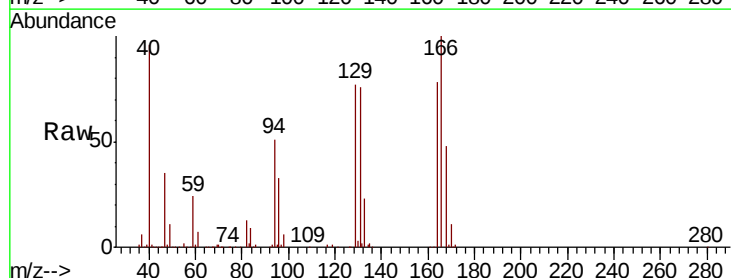
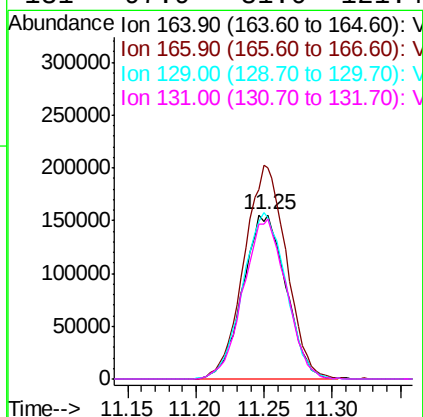
Manual Integrations  
APPROVED

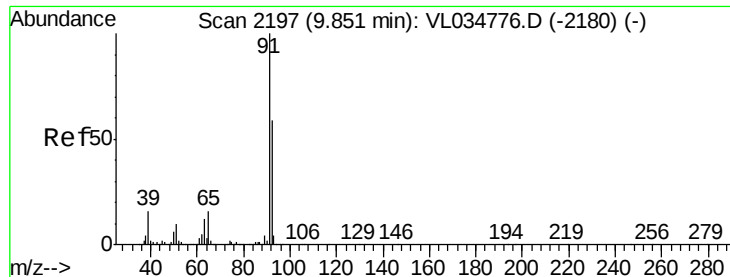
MMDadoda  
3/9/2020 9:20:03 AM



#52  
Tetrachloroethene  
Concen: 9.928 ppbv  
RT: 11.25 min Scan# 2633  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 128.6 | 103.3 | 154.9 |
| 129     | 98.6  | 79.0  | 118.4 |
| 131     | 97.9  | 81.0  | 121.4 |





#53

Toluene

Concen: 10.544 ppbv

RT: 9.83 min Scan# 2190

Delta R.T. -0.02 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 91 Resp: 1043760

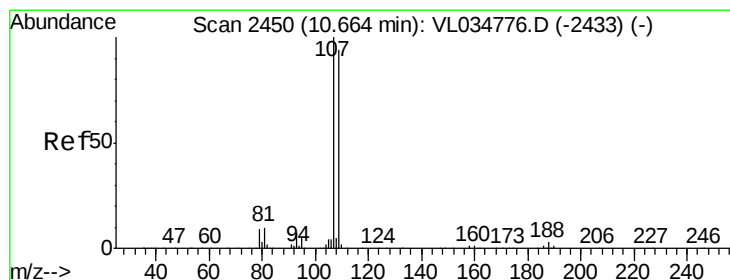
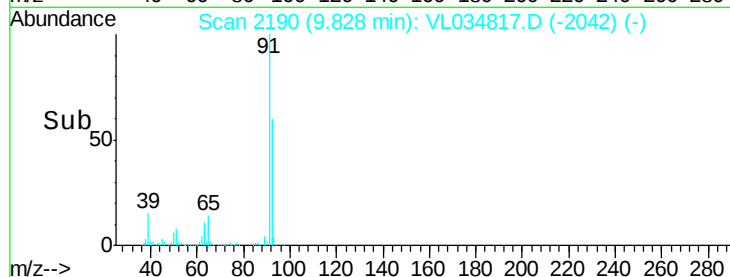
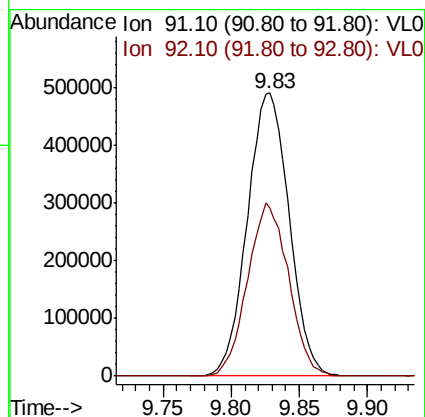
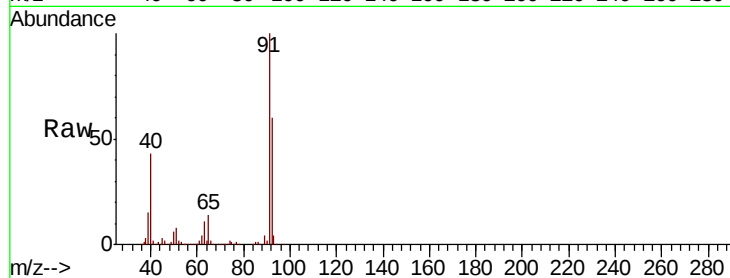
Ion Ratio Lower Upper

91 100

92 60.2 48.2 72.2

Manual Integrations  
APPROVED

MMDadoda  
3/9/2020 9:20:03 AM



#54

1,2-Dibromoethane

Concen: 9.182 ppbv

RT: 10.64 min Scan# 2441

Delta R.T. -0.03 min

Lab File: VL034817.D

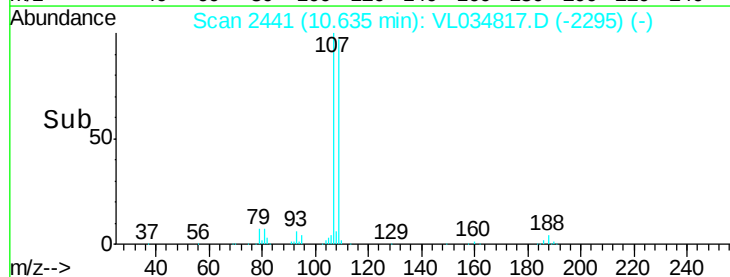
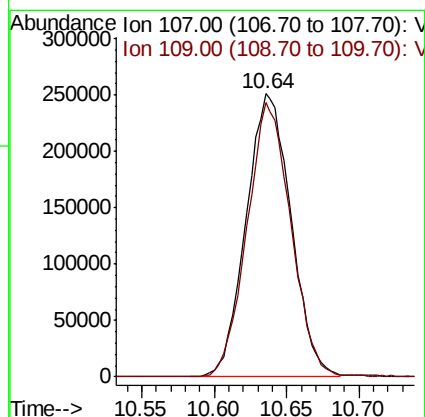
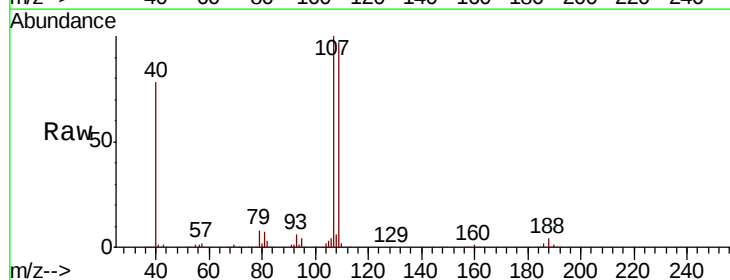
Acq: 6 Mar 2020 7:12

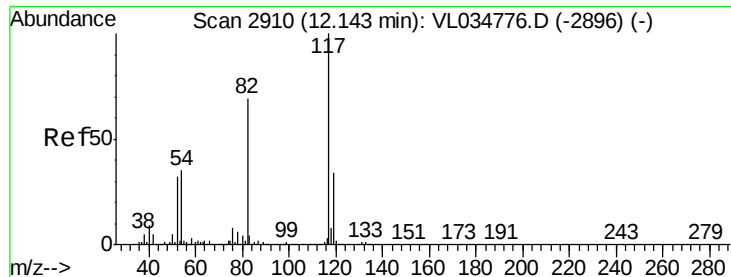
Tgt Ion: 107 Resp: 541044

Ion Ratio Lower Upper

107 100

109 97.1 75.0 112.6





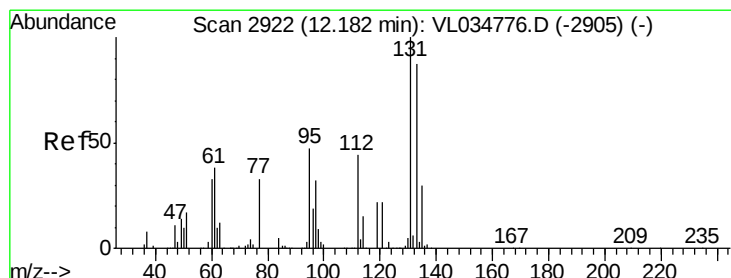
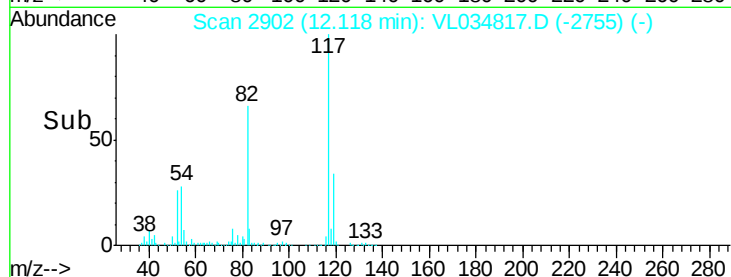
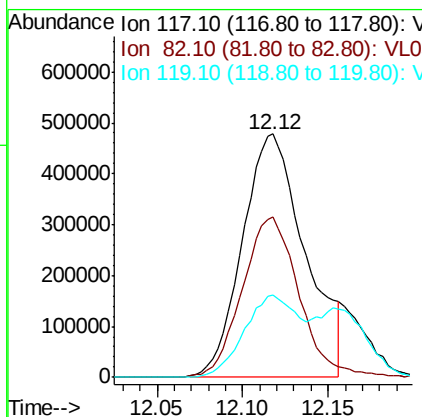
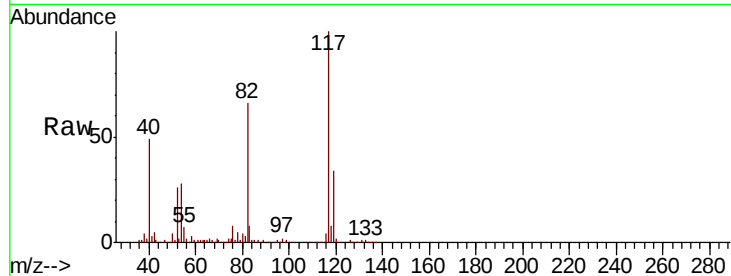
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv m  
RT: 12.12 min Scan# 2902  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

Tot Ion:117 Resp: 1218870  
Ion Ratio Lower Upper  
117 100  
82 60.2 53.9 80.9  
119 29.1 25.0 37.4

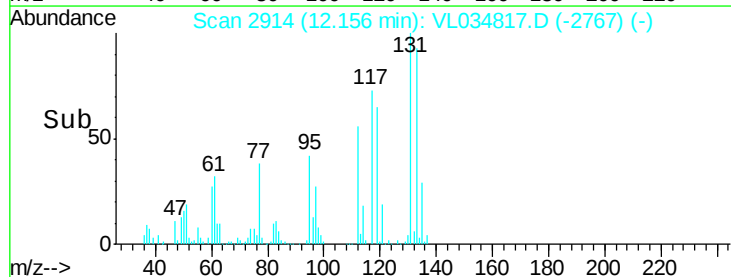
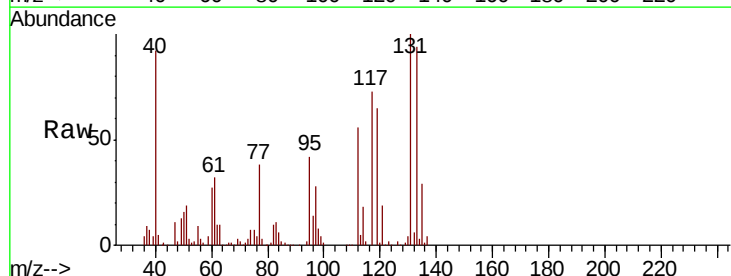
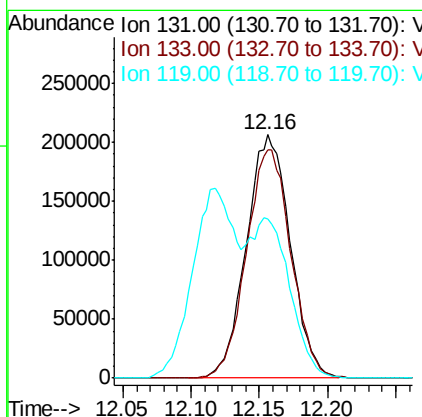
Manual Integrations  
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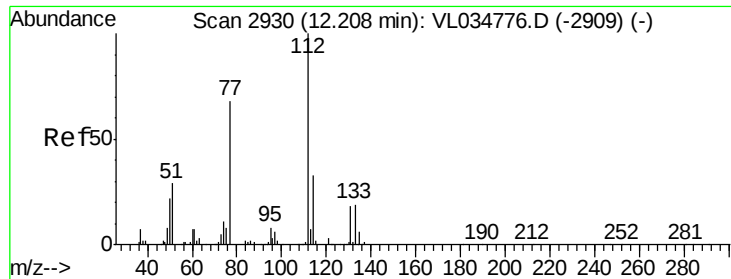
MMDadoda  
3/9/2020 9:20:03 AM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 8.558 ppbv  
RT: 12.16 min Scan# 2914  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Tgt Ion:131 Resp: 462178  
Ion Ratio Lower Upper  
131 100  
133 95.0 75.4 113.0  
119 57.9 110.5 165.7#





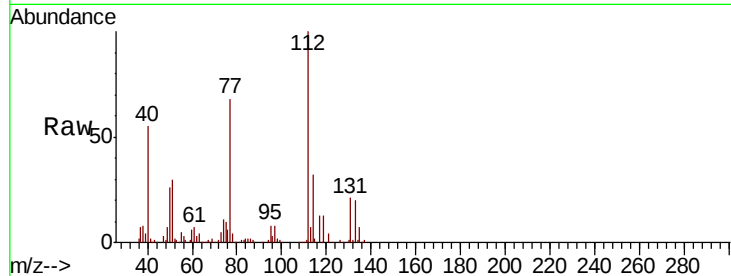
#57  
Chlorobenzene  
Concen: 8.248 ppbv  
RT: 12.18 min Scan# 2921  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

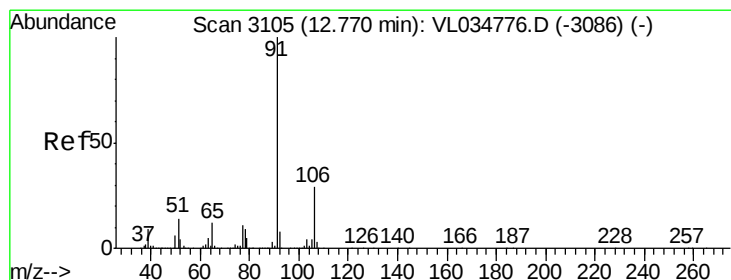
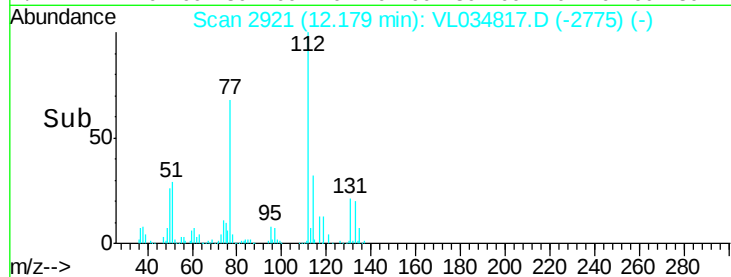
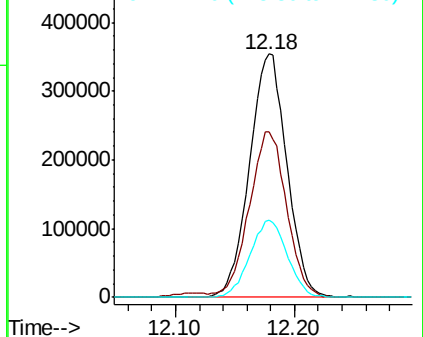
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 77      | 67.8  | 55.6  | 83.4  |
| 114     | 31.9  | 29.4  | 36.0  |

Manual Integrations  
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3/9/2020 9:20:03 AM

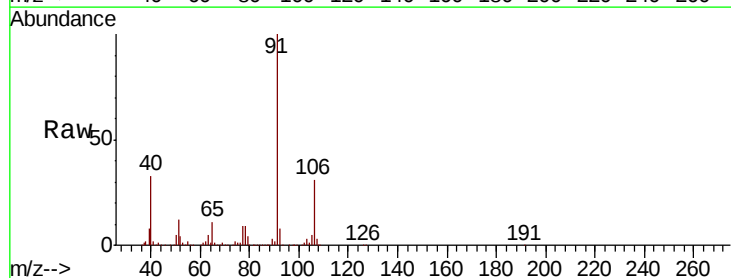


Abundance Ion 112.10 (111.80 to 112.80): V  
Ion 77.10 (76.80 to 77.80): VL0  
Ion 114.10 (113.80 to 114.80): V

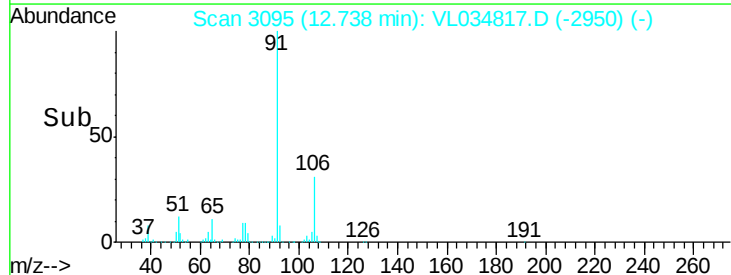
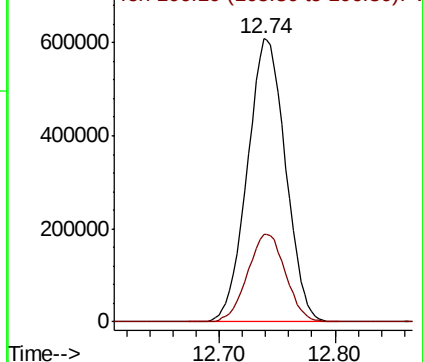


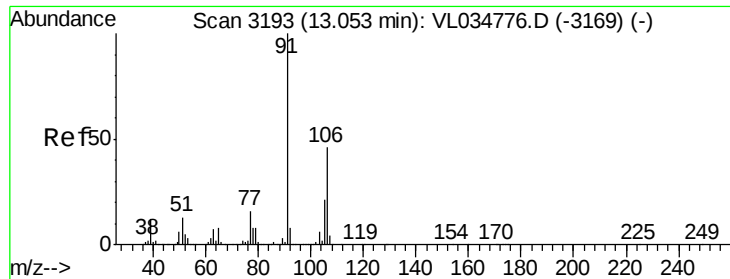
#58  
Ethyl Benzene  
Concen: 9.261 ppbv  
RT: 12.74 min Scan# 3095  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 31.1  | 22.8  | 34.2  |



Abundance Ion 91.10 (90.80 to 91.80): VL0  
Ion 106.10 (105.80 to 106.80): V





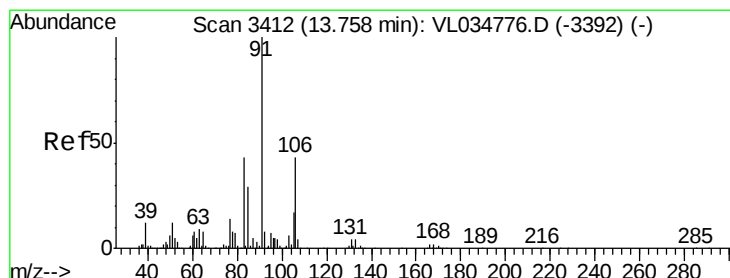
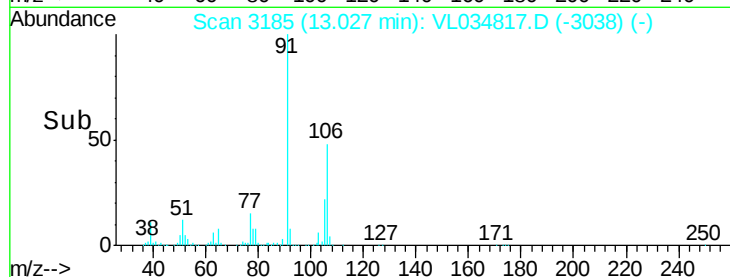
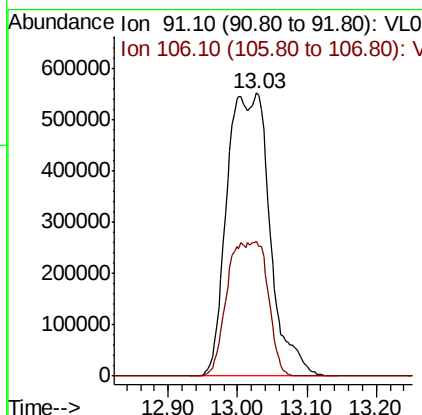
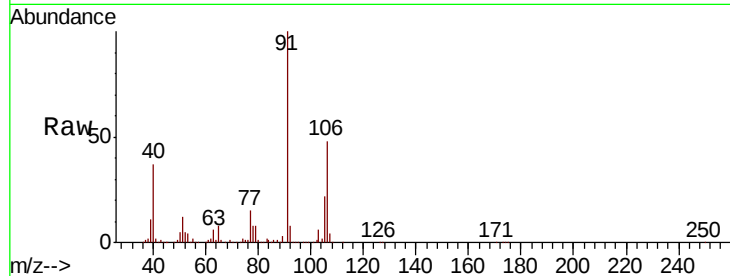
#59  
m/p-Xylene  
Concen: 18.178 ppbv m  
RT: 13.03 min Scan# 3185  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

Tot Ion: 91 Resp: 2363594  
Ion Ratio Lower Upper  
91 100  
106 44.9 35.8 53.8

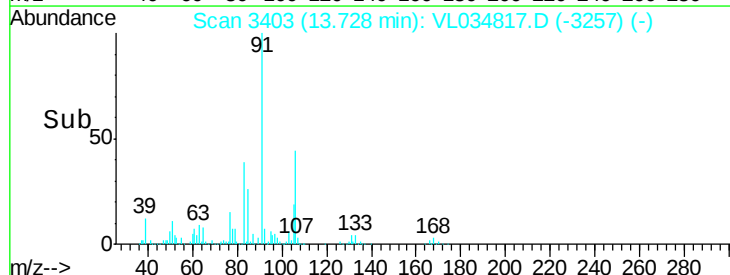
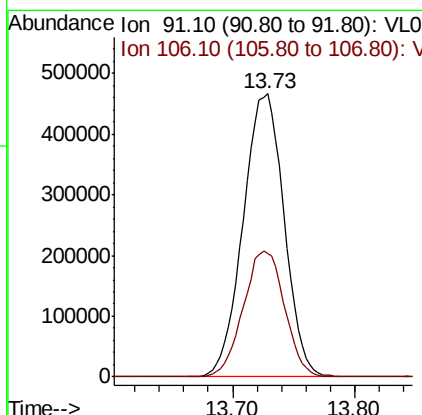
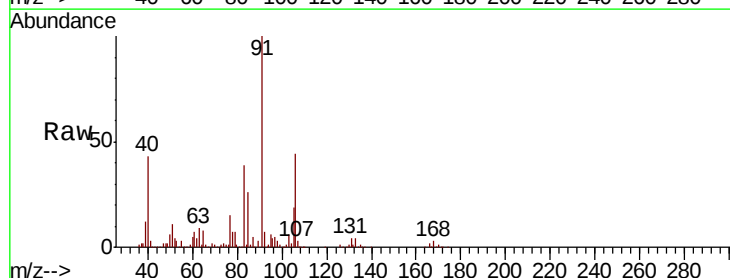
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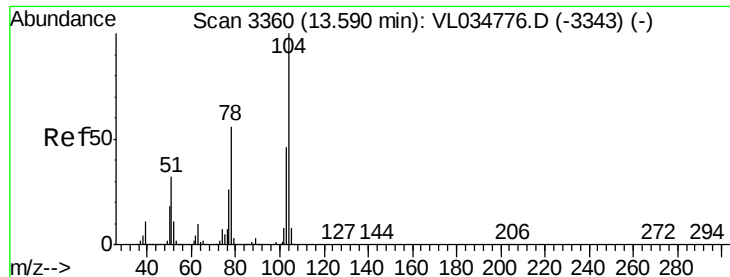
MMDadoda  
3/9/2020 9:20:03 AM



#60  
o-Xylene  
Concen: 8.234 ppbv  
RT: 13.73 min Scan# 3403  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Tgt Ion: 91 Resp: 1083289  
Ion Ratio Lower Upper  
91 100  
106 44.8 21.7 65.1





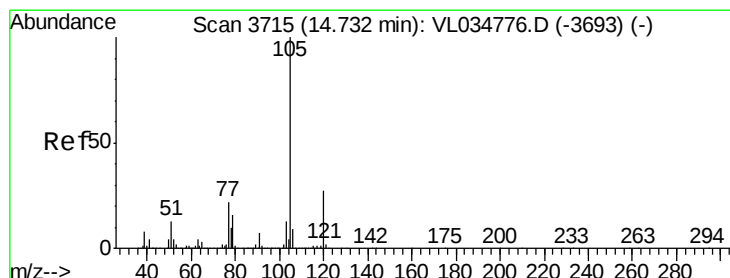
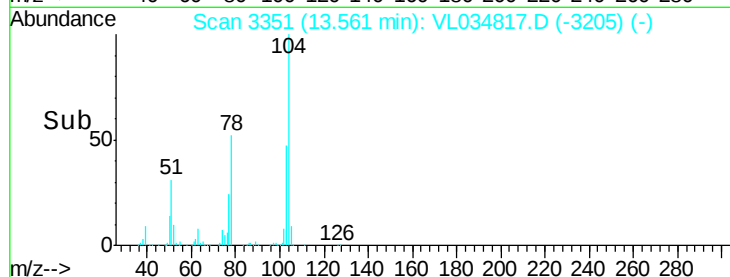
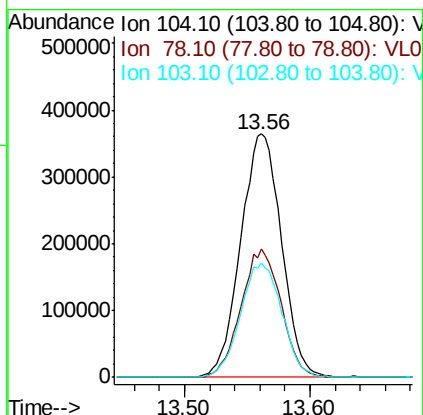
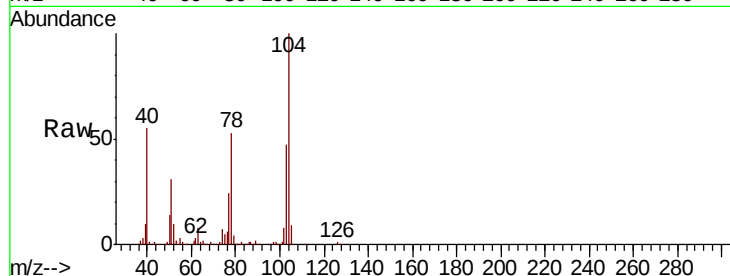
#61  
Stvrene  
Concen: 10.104 ppbv  
RT: 13.56 min Scan# 3351  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 51.8  | 44.7  | 67.1  |
| 103     | 47.7  | 38.2  | 57.2  |

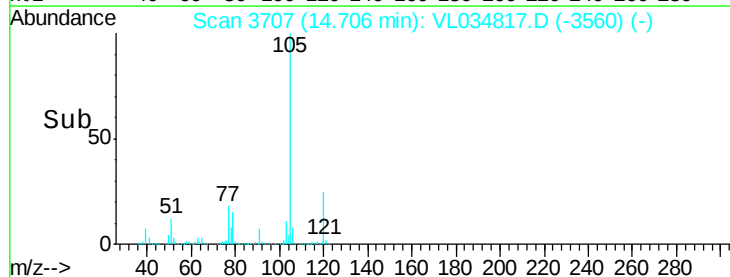
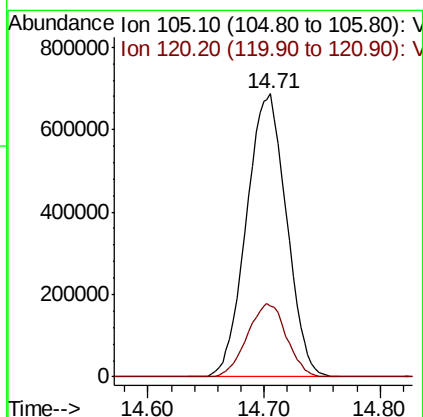
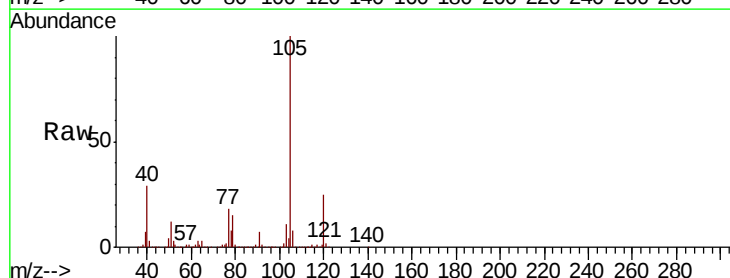
Manual Integrations  
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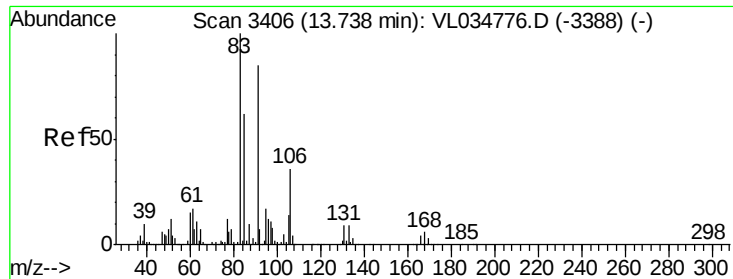
MMDadoda  
3/9/2020 9:20:03 AM



#62  
Isopropylbenzene  
Concen: 8.529 ppbv  
RT: 14.71 min Scan# 3707  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 25.4  | 20.5  | 30.7  |





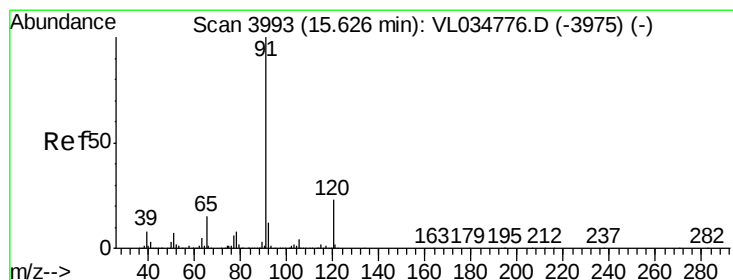
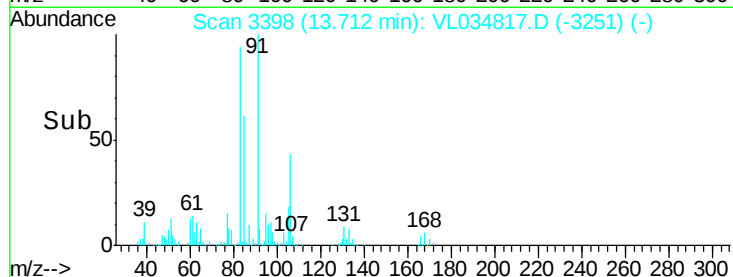
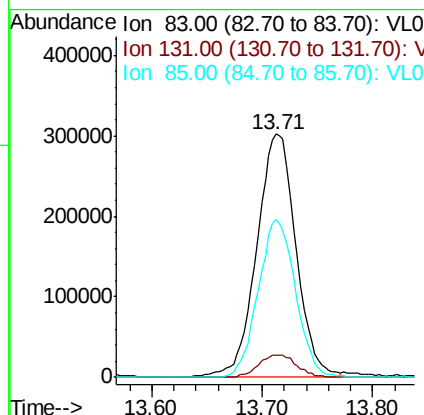
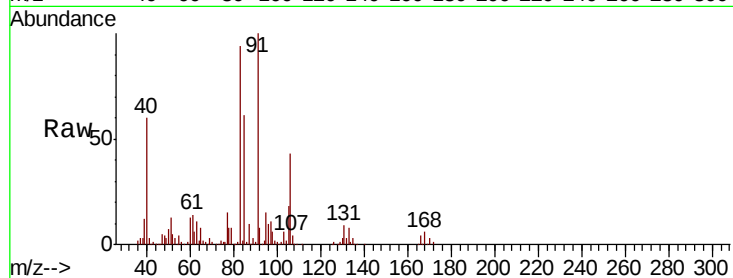
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 7.163 ppbv  
 RT: 13.71 min Scan# 3398  
 Delta R.T. -0.03 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion   | 83   | Resp  | 742884 |
|-----------|------|-------|--------|
| Ion Ratio | 100  | Lower | Upper  |
| 83        | 100  |       |        |
| 131       | 9.0  | 4.7   | 14.0   |
| 85        | 62.3 | 32.9  | 98.7   |

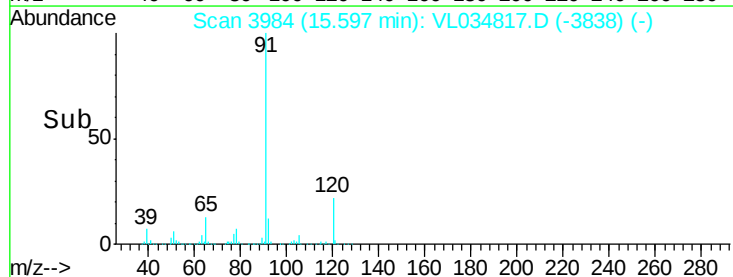
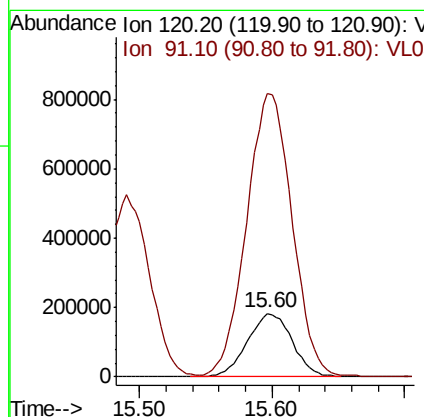
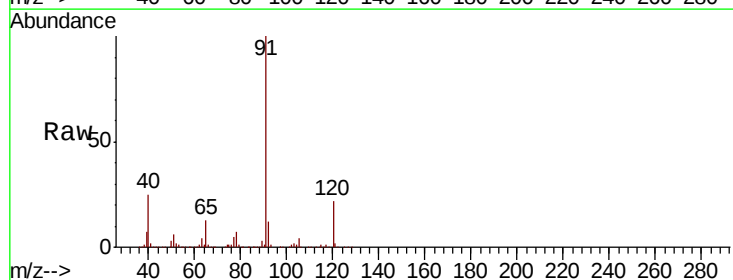
Manual Integrations  
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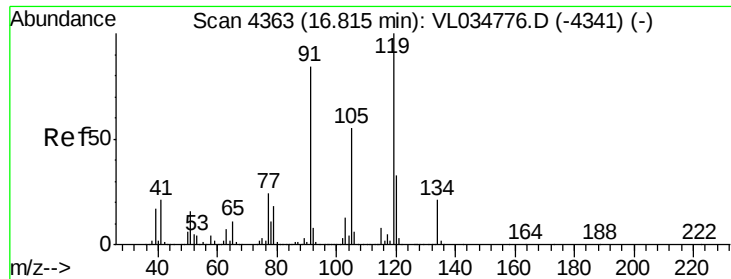
MMDadoda  
 3/9/2020 9:20:03 AM



#64  
 n-propylbenzene  
 Concen: 8.864 ppbv  
 RT: 15.60 min Scan# 3984  
 Delta R.T. -0.03 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

| Tgt Ion   | 120   | Resp  | 430339 |
|-----------|-------|-------|--------|
| Ion Ratio | 100   | Lower | Upper  |
| 120       | 100   |       |        |
| 91        | 455.4 | 379.4 | 569.2  |





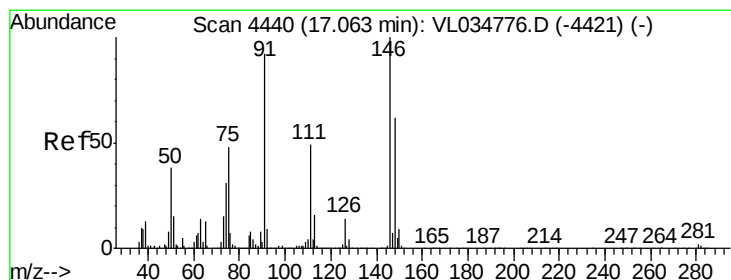
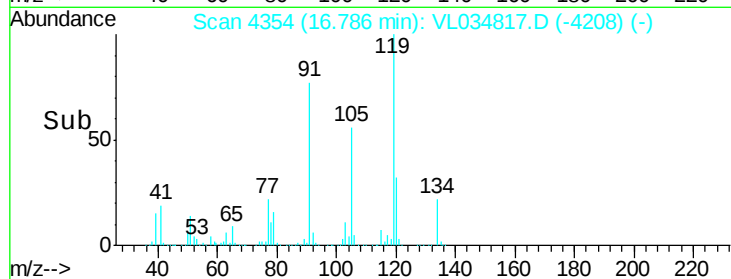
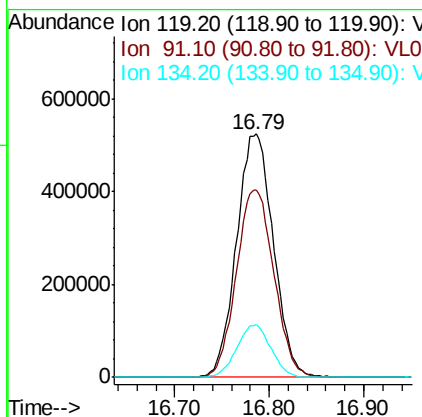
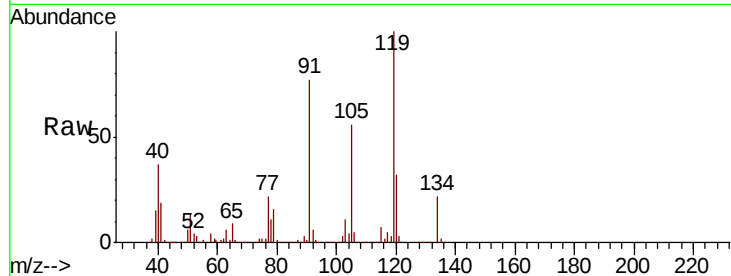
#65  
tert-Butylbenzene  
Concen: 8.676 ppbv  
RT: 16.79 min Scan# 4354  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 91      | 78.6  | 69.8  | 104.6 |
| 134     | 20.1  | 15.9  | 23.9  |

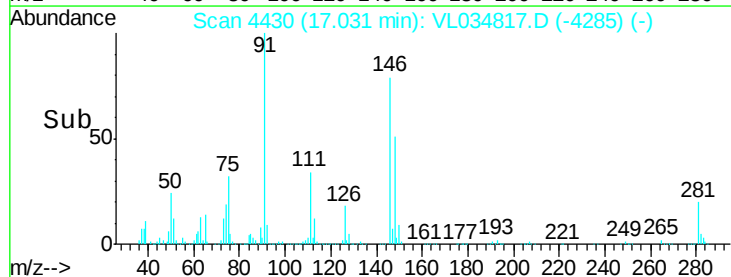
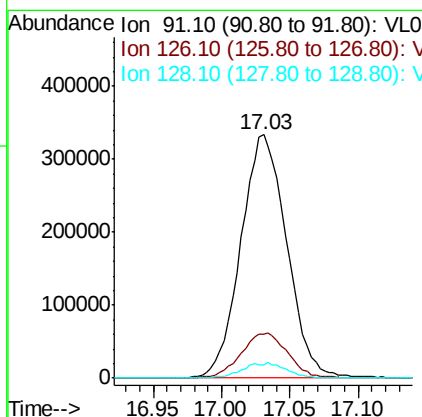
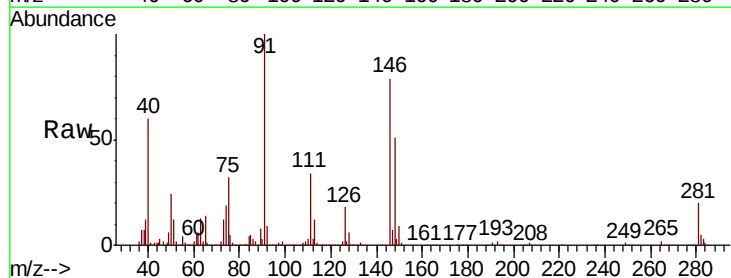
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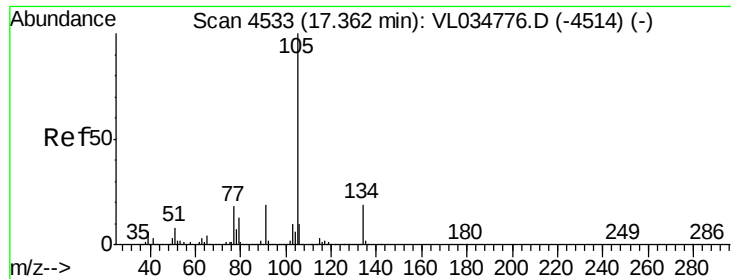
MMDadoda  
3/9/2020 9:20:03 AM



#66  
Benzyl Chloride  
Concen: 14.603 ppbv  
RT: 17.03 min Scan# 4430  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 126     | 19.2  | 12.6  | 18.8# |
| 128     | 6.2   | 4.3   | 6.5   |





#67

sec-Butylbenzene

Concen: 8.421 ppbv

RT: 17.33 min Scan# 4524

Delta R.T. -0.03 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion: 105 Resp: 2007782

Ion Ratio Lower Upper

105 100

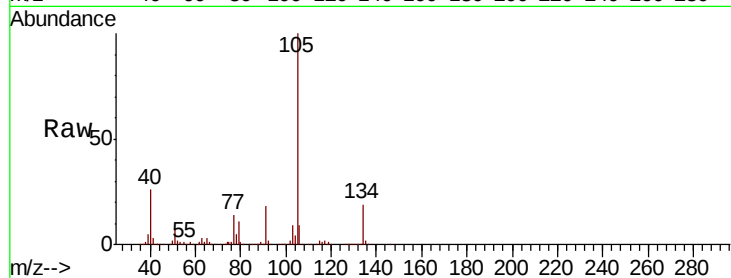
134 18.7 14.7 22.1

Manual Integrations

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MMDadoda

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V

17.33

800000

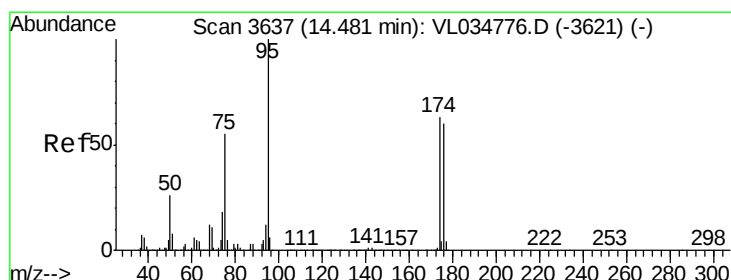
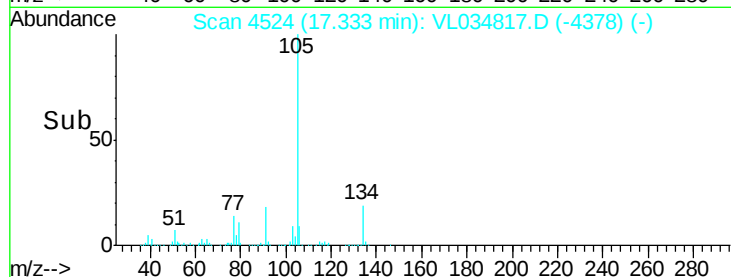
600000

400000

200000

0

Time-->



#68

1-Bromo-4-Fluorobenzene

Concen: 8.449 ppbv

RT: 14.45 min Scan# 3628

Delta R.T. -0.03 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

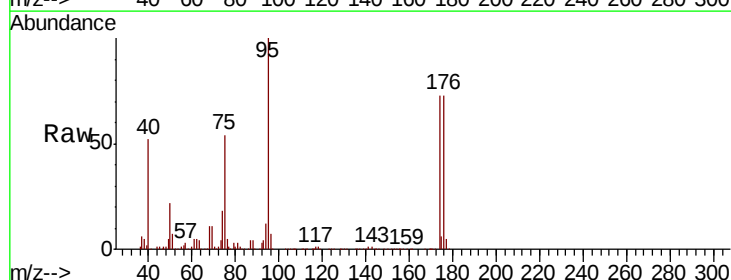
Tgt Ion: 95 Resp: 858684

Ion Ratio Lower Upper

95 100

174 72.5 50.6 76.0

175 5.7 3.8 5.6#



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

14.45

500000

400000

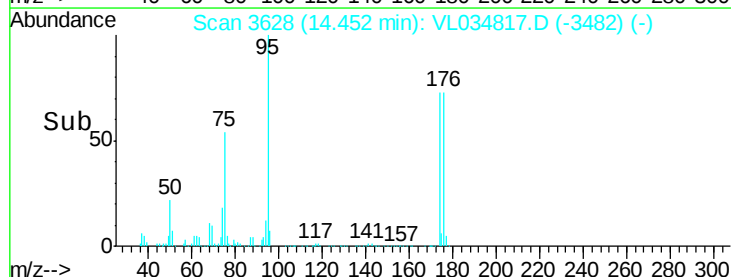
300000

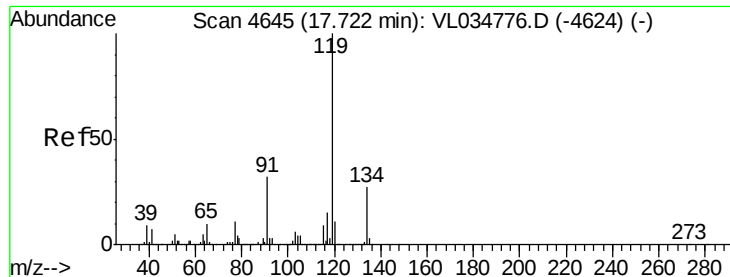
200000

100000

0

Time-->





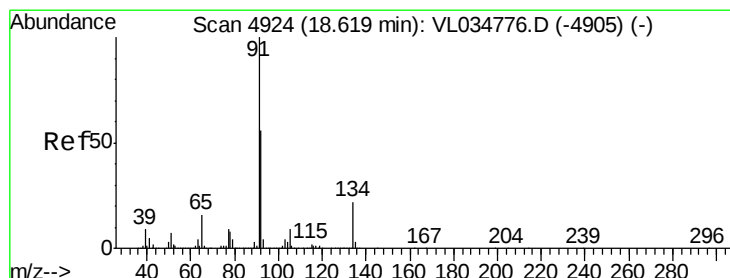
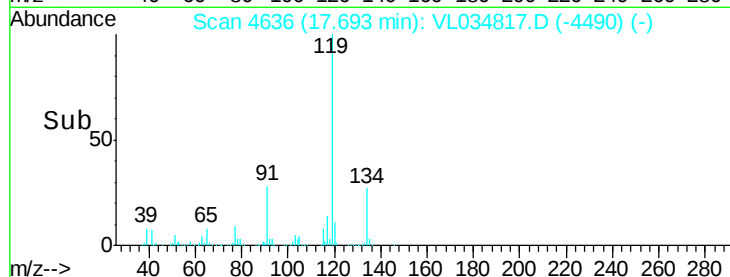
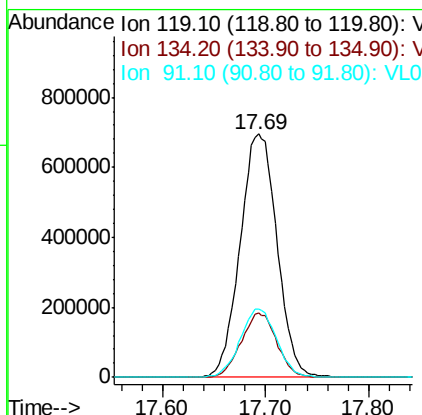
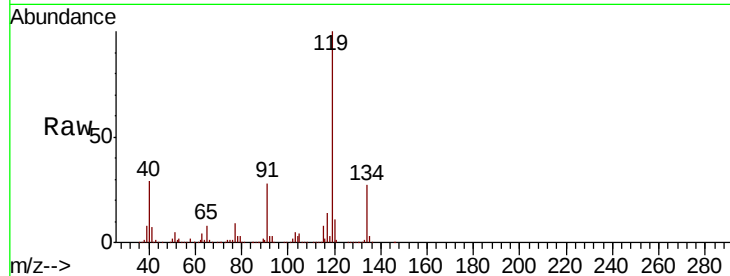
#69  
 p-Isopropyltoluene  
 Concen: 8.959 ppbv  
 RT: 17.69 min Scan# 4636  
 Delta R.T. -0.03 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 25.5  | 20.6  | 30.8  |
| 91      | 27.8  | 25.3  | 37.9  |

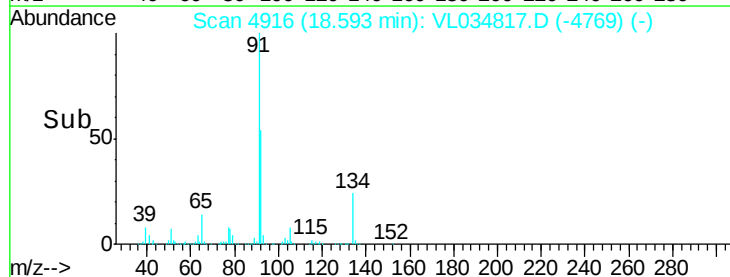
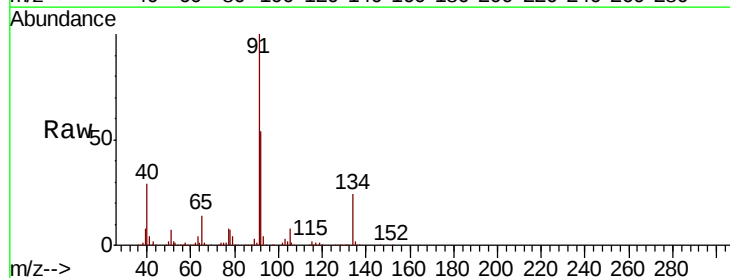
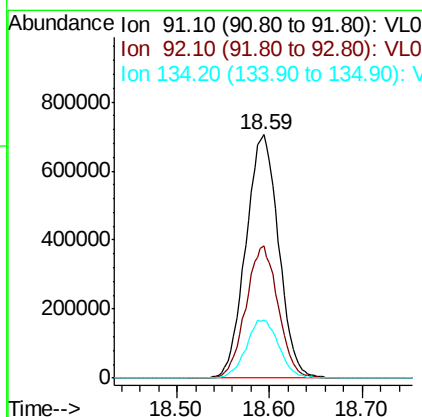
Manual Integrations  
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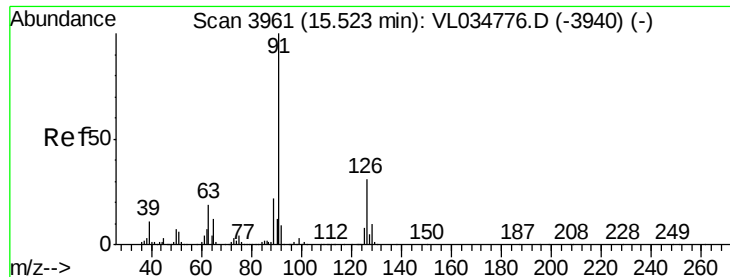
MMDadoda  
 3/9/2020 9:20:03 AM



#70  
 n-Butylbenzene  
 Concen: 8.205 ppbv  
 RT: 18.59 min Scan# 4916  
 Delta R.T. -0.03 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 53.3  | 44.0  | 66.0  |
| 134     | 23.8  | 17.7  | 26.5  |





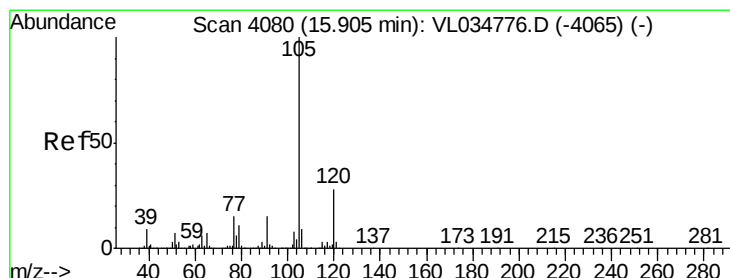
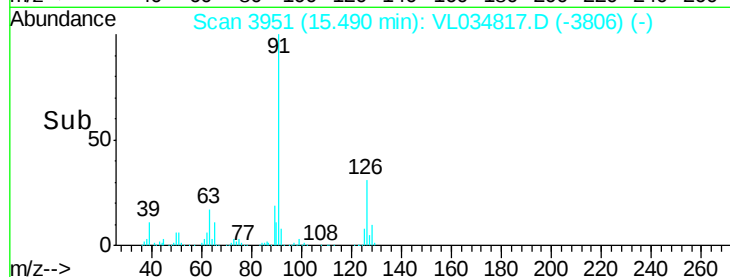
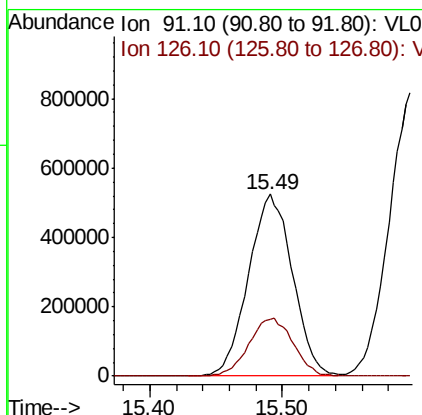
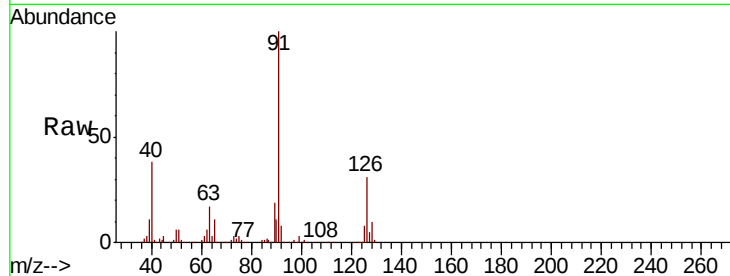
#71  
 2-Chlorotoluene  
 Concen: 8.306 ppbv  
 RT: 15.49 min Scan# 3951  
 Delta R.T. -0.03 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

Tot Ion: 91 Resp: 1214697  
 Ion Ratio Lower Upper  
 91 100  
 126 31.9 11.7 46.7

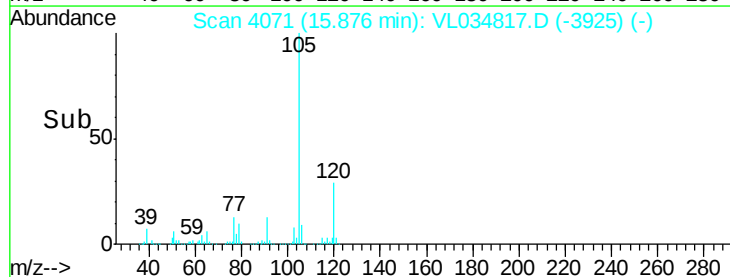
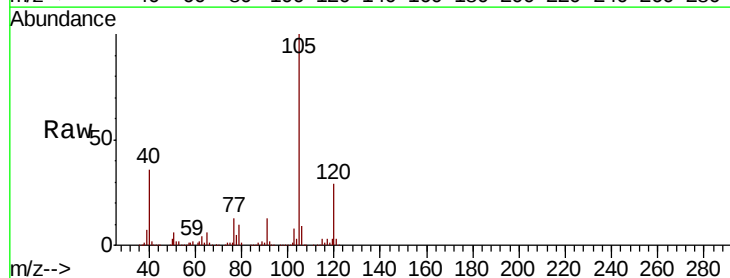
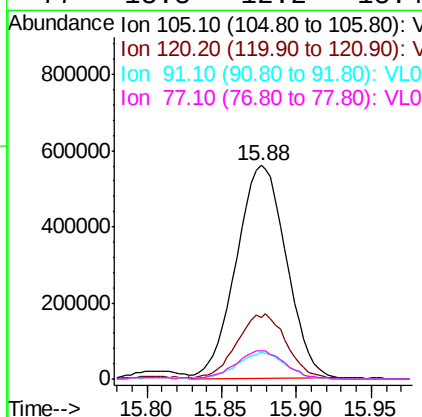
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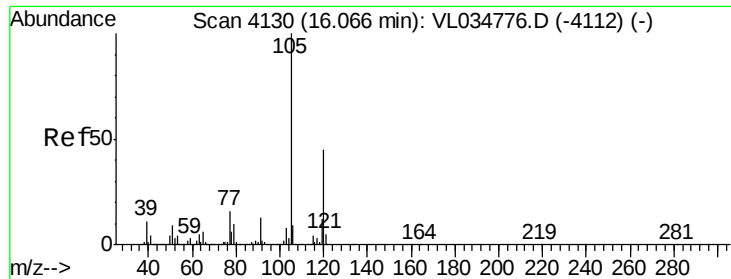
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#72  
 4-Ethyltoluene  
 Concen: 8.869 ppbv  
 RT: 15.88 min Scan# 4071  
 Delta R.T. -0.03 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Tgt Ion: 105 Resp: 1299079  
 Ion Ratio Lower Upper  
 105 100  
 120 30.4 23.0 34.6  
 91 12.1 11.1 16.7  
 77 13.3 12.2 18.4





#73

1,3,5-Trimethylbenzene

Concen: 8.682 ppbv

RT: 16.04 min Scan# 4121

Delta R.T. -0.03 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010EC

Tot Ion:105 Resp: 1219870

Ion Ratio Lower Upper

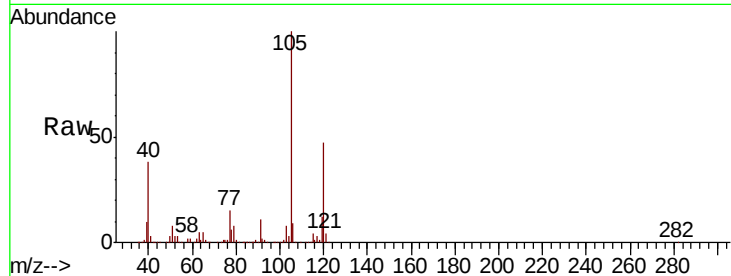
105 100

120 47.3 35.6 53.4

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

16.04

600000

500000

400000

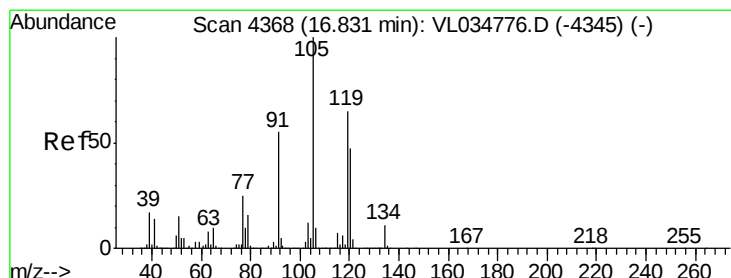
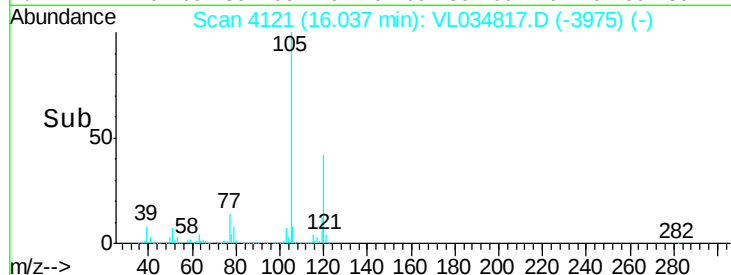
300000

200000

100000

0

Time-->



#74

1,2,4-Trimethylbenzene

Concen: 8.145 ppbv

RT: 16.80 min Scan# 4359

Delta R.T. -0.03 min

Lab File: VL034817.D

Acq: 6 Mar 2020 7:12

Tgt Ion:105 Resp: 1244094

Ion Ratio Lower Upper

105 100

120 48.2 37.8 56.6

91 47.2 43.8 65.8

77 21.3 19.9 29.9

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

800000

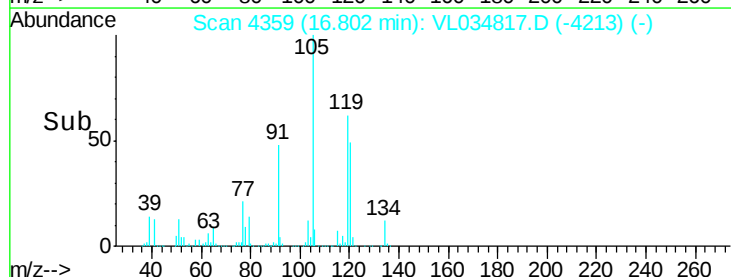
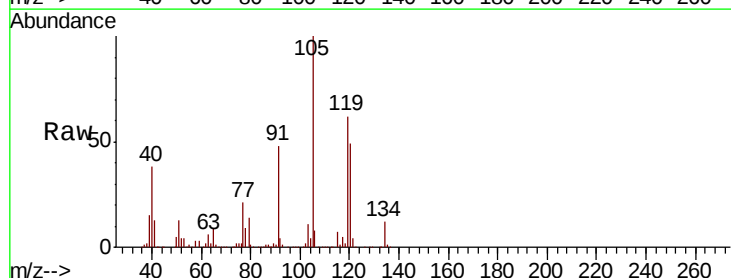
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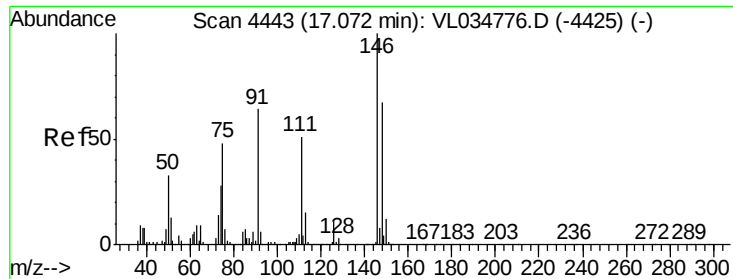
400000

200000

0

Time-->





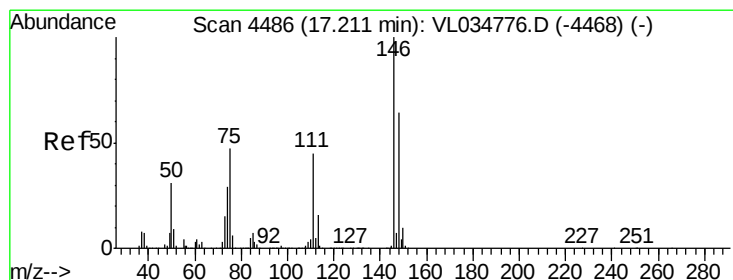
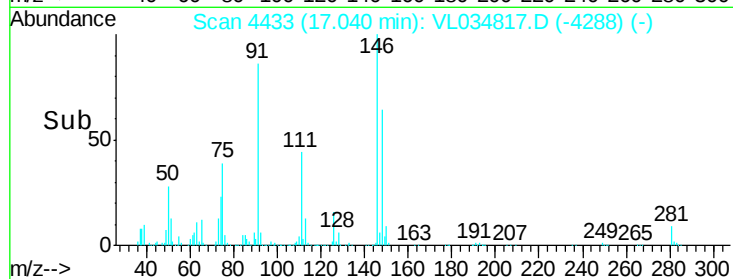
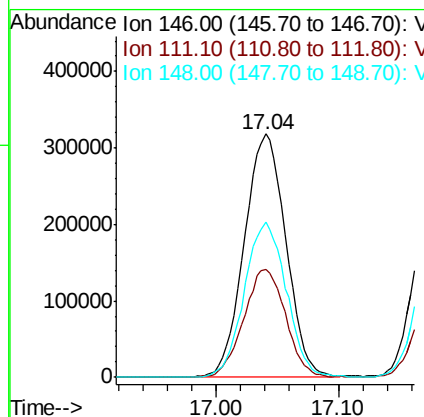
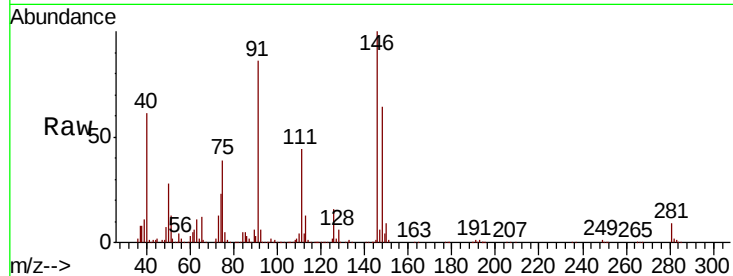
#75  
 1,3-Dichlorobenzene  
 Concen: 8.304 ppbv  
 RT: 17.04 min Scan# 4433  
 Delta R.T. -0.03 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 44.9  | 24.7  | 74.1  |
| 148     | 64.3  | 31.8  | 95.4  |

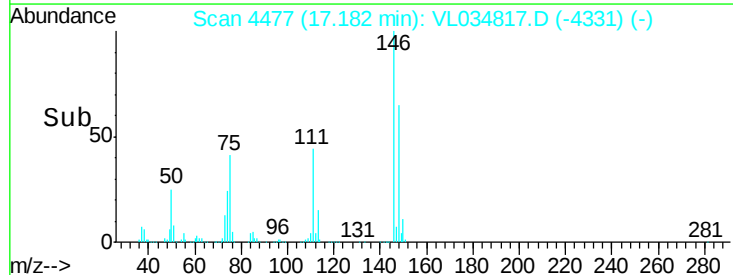
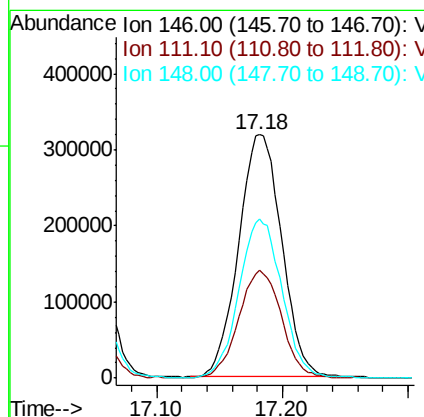
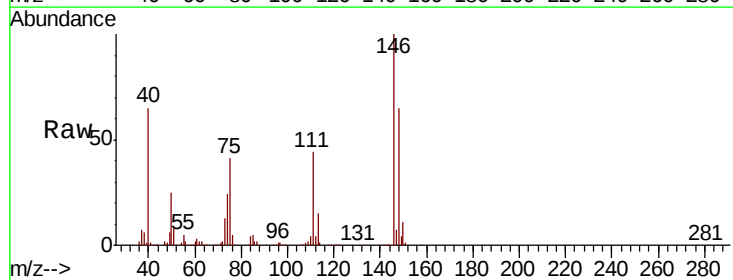
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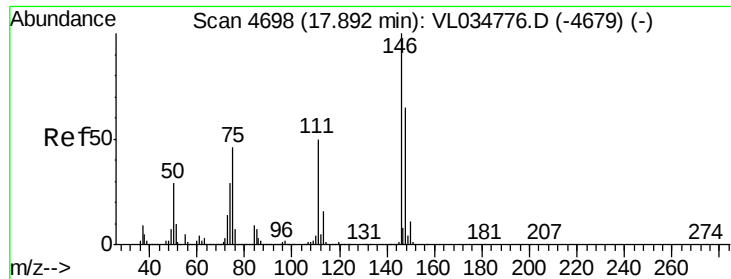
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#76  
 1,4-Dichlorobenzene  
 Concen: 8.787 ppbv  
 RT: 17.18 min Scan# 4477  
 Delta R.T. -0.03 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 44.3  | 23.5  | 70.5  |
| 148     | 65.8  | 32.2  | 96.6  |





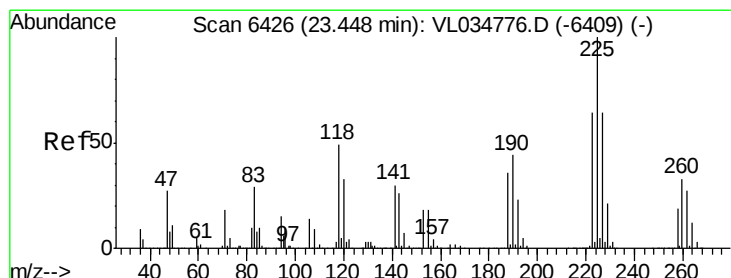
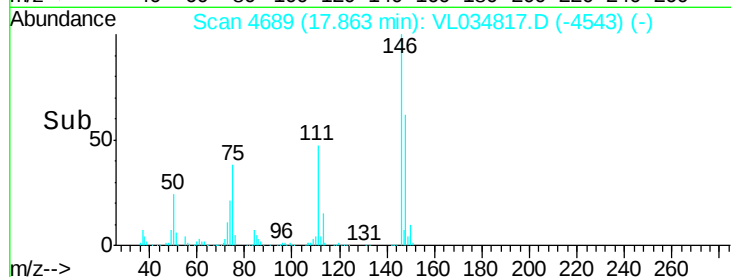
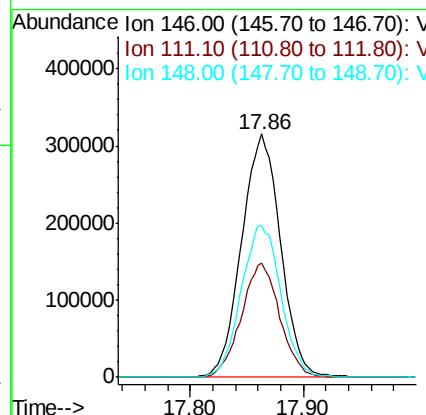
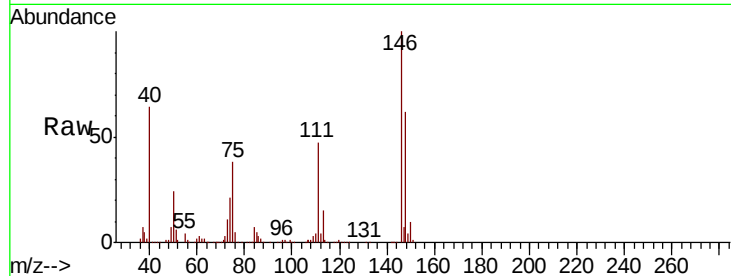
#77  
 1,2-Dichlorobenzene  
 Concen: 8.741 ppbv  
 RT: 17.86 min Scan# 4689  
 Delta R.T. -0.03 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 46.4  | 25.3  | 75.8  |
| 148     | 63.9  | 32.3  | 96.9  |

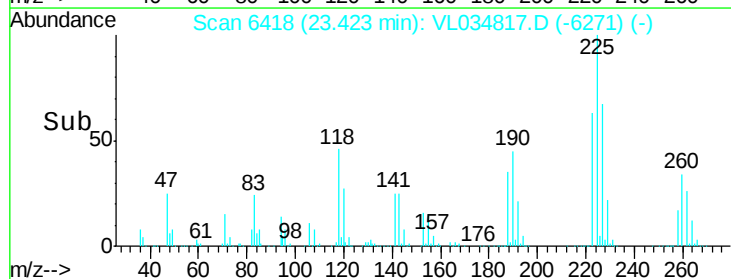
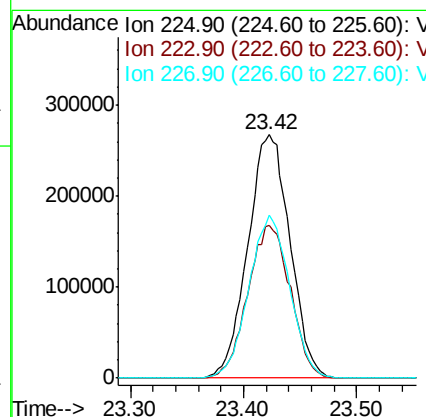
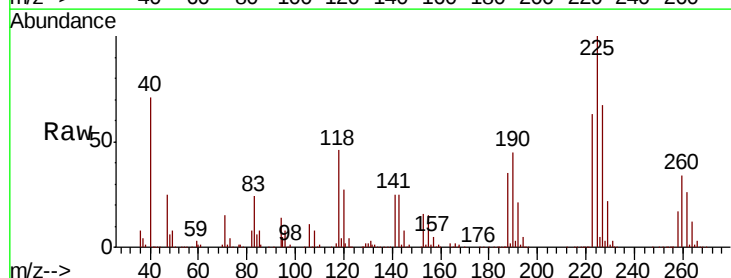
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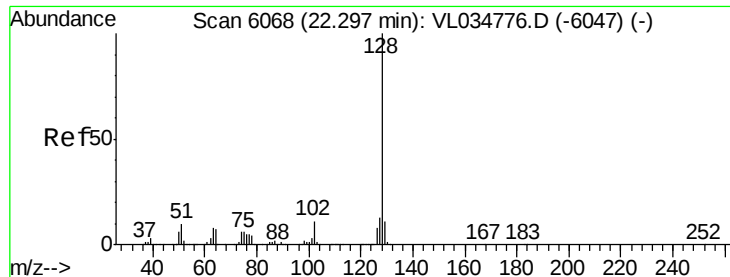
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#78  
 Hexachloro-1,3-Butadiene  
 Concen: 9.585 ppbv  
 RT: 23.42 min Scan# 6418  
 Delta R.T. -0.03 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 63.2  | 51.3  | 76.9  |
| 227     | 65.0  | 51.9  | 77.9  |





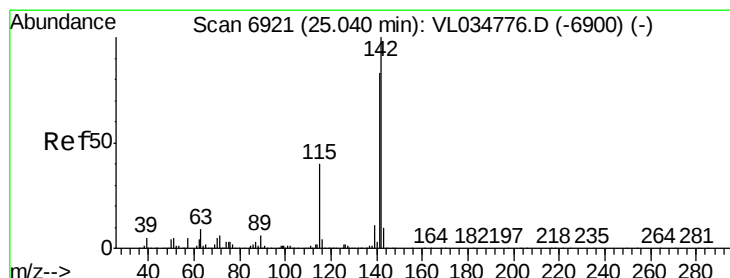
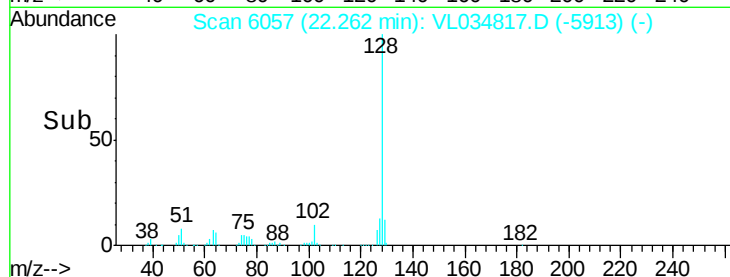
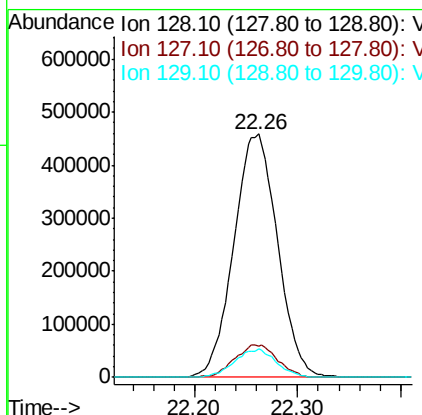
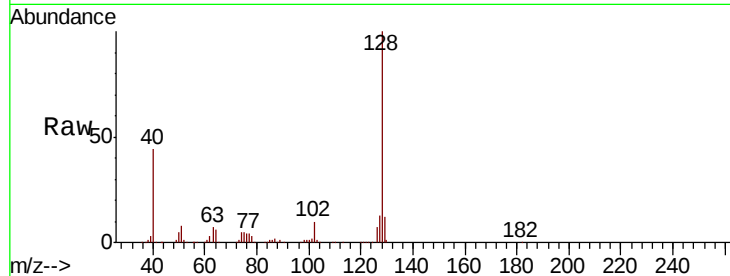
#79  
Naphthalene  
Concen: 11.718 ppbv  
RT: 22.26 min Scan# 6057  
Delta R.T. -0.04 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010EC

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 12.7  | 10.2  | 15.4  |
| 129     | 11.6  | 9.0   | 13.6  |

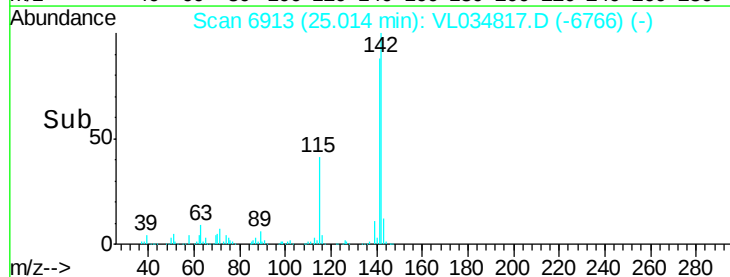
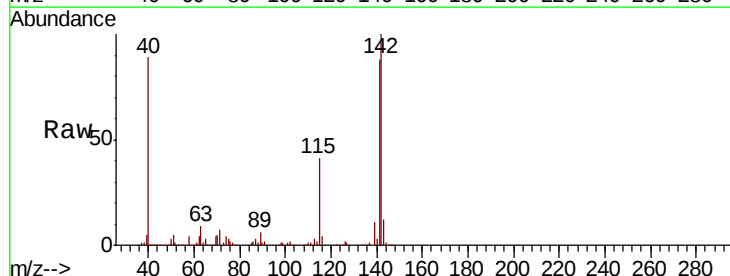
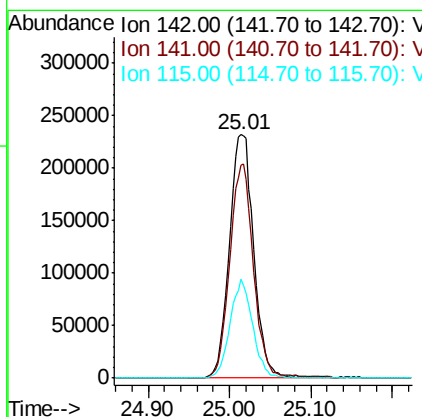
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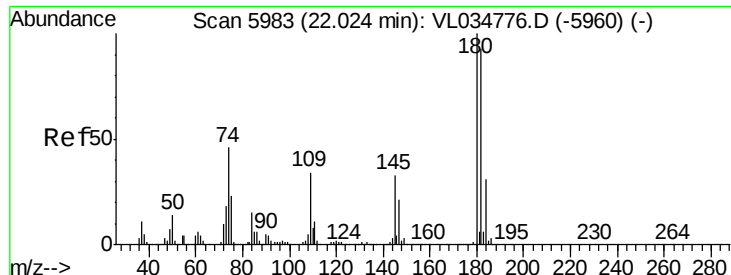
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#80  
Naphthalene, 2-methyl-  
Concen: 17.851 ppbv  
RT: 25.01 min Scan# 6913  
Delta R.T. -0.03 min  
Lab File: VL034817.D  
Acq: 6 Mar 2020 7:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 85.5  | 67.7  | 101.5 |
| 115     | 37.5  | 30.7  | 46.1  |





#81  
 1,2,4-Trichlorobenzene  
 Concen: 10.880 ppbv  
 RT: 21.99 min Scan# 5972  
 Delta R.T. -0.04 min  
 Lab File: VL034817.D  
 Acq: 6 Mar 2020 7:12

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010EC

| Tot Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 180     | 100   |            |            |
| 182     | 96.7  | 76.8       | 115.2      |
| 184     | 30.9  | 24.8       | 37.2       |

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