

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL041218\  
 Data File : VL031852.D  
 Acq On : 12 Apr 2018 00:59  
 Operator : SY/AP  
 Sample : VSTDICC002  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICC002

Manual Integrations  
 APPROVED

MMDadoda  
 4/15/2018 3:05:56 PM

Quant Time: Apr 12 04:26:50 2018  
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL041218AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Apr 12 04:26:50 2018  
 QLast Update : Thu Apr 12 04:17:02 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.89  | 49   | 1292141  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.43  | 114  | 2992757  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.39 | 117  | 2993412  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.72  | 95    | 2346406  | 10.43    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 104.30% |

| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.16 | 85   | 598994   | 2.482 | ppbv   | 97     |
| 3) Chlorodifluoromethane       | 3.10 | 51   | 347820   | 2.098 | ppbv   | 100    |
| 4) Chloromethane               | 3.26 | 50   | 174522   | 2.105 | ppbv   | 93     |
| 5) Vinyl Chloride              | 3.38 | 62   | 183896   | 2.204 | ppbv   | 99     |
| 6) Bromomethane                | 3.61 | 94   | 131271   | 2.299 | ppbv   | 99     |
| 7) Chloroethane                | 3.70 | 64   | 78008    | 2.261 | ppbv # | 85     |
| 8) Dichlorotetrafluoroethane   | 3.31 | 85   | 484870   | 2.182 | ppbv   | 99     |
| 9) Propene                     | 3.13 | 41   | 120050   | 1.824 | ppbv   | 99     |
| 10) Heptane                    | 8.38 | 43   | 379849   | 1.934 | ppbv   | 99     |
| 11) Trichlorofluoromethane     | 4.11 | 101  | 564239   | 2.334 | ppbv   | 97     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.67 | 101  | 361572   | 2.260 | ppbv   | 99     |
| 13) Ethanol                    | 3.76 | 45   | 42215m   | 2.023 | ppbv   |        |
| 14) Bromoethene                | 3.89 | 108  | 141722   | 2.174 | ppbv   | 99     |
| 15) Acetone                    | 4.01 | 43   | 455382   | 2.096 | ppbv   | 99     |
| 16) 1,3-Butadiene              | 3.46 | 39   | 156463   | 1.992 | ppbv   | 91     |
| 17) tert-Butyl alcohol         | 4.48 | 59   | 180251   | 1.828 | ppbv   | 100    |
| 18) 1,1-Dichloroethene         | 4.46 | 96   | 156368   | 2.164 | ppbv   | 99     |
| 19) Isopropyl Alcohol          | 4.13 | 45   | 241064   | 2.035 | ppbv # | 97     |
| 20) Methylene Chloride         | 4.52 | 84   | 153091   | 2.115 | ppbv   | 96     |
| 21) Allyl Chloride             | 4.59 | 41   | 246795   | 2.130 | ppbv   | 97     |
| 22) trans-1,2-Dichloroethene   | 5.08 | 96   | 165583   | 2.144 | ppbv   | 98     |
| 23) Vinyl Acetate              | 5.27 | 43   | 446869   | 1.885 | ppbv   | 99     |
| 24) 1,1-Dichloroethane         | 5.21 | 63   | 449029   | 2.236 | ppbv   | 99     |
| 25) Ethyl Acetate              | 5.89 | 43   | 681533   | 2.036 | ppbv   | 99     |
| 26) Hexane                     | 5.91 | 57   | 315857   | 2.052 | ppbv   | 97     |
| 27) Carbon Disulfide           | 4.74 | 76   | 400401   | 2.381 | ppbv   | 99     |
| 28) Methyl tert-Butyl Ether    | 5.23 | 73   | 406989   | 1.953 | ppbv   | 100    |
| 29) Chloroform                 | 5.97 | 83   | 519359   | 2.118 | ppbv   | 97     |
| 30) Cyclohexane                | 7.39 | 84   | 239828m  | 1.951 | ppbv   |        |
| 31) cis-1,2-Dichloroethene     | 5.76 | 61   | 275675   | 1.925 | ppbv   | 95     |
| 32) 1,1,1-Trichloroethane      | 6.75 | 97   | 504331   | 1.961 | ppbv   | 99     |
| 34) 2-Butanone                 | 5.45 | 43   | 454638   | 2.211 | ppbv   | 98     |
| 35) Carbon Tetrachloride       | 7.27 | 117  | 516142   | 2.304 | ppbv   | 96     |
| 36) Benzene                    | 7.14 | 78   | 588306   | 2.088 | ppbv # | 95     |
| 37) 1,2-Dichloroethane         | 6.54 | 62   | 427255   | 2.275 | ppbv   | 98     |
| 38) Trichloroethene            | 8.10 | 130  | 235627   | 2.066 | ppbv   | 92     |
| 39) 1,2-Dichloropropane        | 7.87 | 63   | 217334   | 2.134 | ppbv   | 95     |
| 40) 1,4-Dioxane                | 8.11 | 88   | 89670m   | 2.192 | ppbv   |        |
| 41) Tetrahydrofuran            | 6.29 | 42   | 211666   | 2.052 | ppbv   | 99     |
| 42) Bromodichloromethane       | 8.05 | 83   | 519581   | 2.333 | ppbv   | 96     |
| 43) Methyl Methacrylate        | 8.28 | 69   | 206748   | 2.079 | ppbv   | 100    |

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL041218\  
 Data File : VL031852.D  
 Acq On : 12 Apr 2018 00:59  
 Operator : SY/AP  
 Sample : VSTDIC002  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

Manual Integrations  
 APPROVED

MMDadoda  
 4/15/2018 3:05:56 PM

Quant Time: Apr 12 04:26:50 2018  
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL041218AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Apr 12 2018  
 QLast Update : Thu Apr 12 04:17:02 2018  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| -----                         |       |      |          |       |        |          |
| 44) 2,2,4-Trimethylpentane    | 8.13  | 57   | 1036823  | 2.261 | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.56  | 75   | 265338   | 1.968 | ppbv   | 98       |
| 46) cis-1,3-Dichloropropene   | 8.98  | 75   | 342294   | 2.032 | ppbv   | 98       |
| 47) 1,1,2-Trichloroethane     | 9.76  | 97   | 242971   | 2.091 | ppbv   | 97       |
| 48) Dibromochloromethane      | 10.60 | 129  | 408736   | 2.259 | ppbv   | 100      |
| 49) Bromoform                 | 13.35 | 173  | 313430   | 2.358 | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 9.02  | 43   | 527459   | 2.221 | ppbv   | 99       |
| 51) 2-Hexanone                | 10.42 | 43   | 480087   | 2.185 | ppbv # | 98       |
| 52) Tetrachloroethene         | 11.52 | 164  | 215154   | 1.893 | ppbv   | 96       |
| 53) Toluene                   | 10.09 | 91   | 663783   | 2.041 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.91 | 107  | 372028   | 2.118 | ppbv   | 98       |
| 56) 1,1,1,2-Tetrachloroethane | 12.43 | 131  | 299783   | 2.174 | ppbv # | 1        |
| 57) Chlorobenzene             | 12.45 | 112  | 546779   | 2.033 | ppbv   | 95       |
| 58) Ethyl Benzene             | 13.01 | 91   | 944053   | 1.980 | ppbv   | 96       |
| 59) m/p-Xylene                | 13.30 | 91   | 1613760m | 4.102 | ppbv   |          |
| 60) o-Xylene                  | 14.00 | 91   | 820644   | 2.066 | ppbv   | 99       |
| 61) Styrene                   | 13.83 | 104  | 151570   | 1.724 | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.97 | 105  | 1035418  | 2.057 | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.98 | 83   | 574016   | 2.211 | ppbv   | 98       |
| 64) n-propylbenzene           | 15.87 | 120  | 250964   | 2.072 | ppbv   | 94       |
| 65) tert-Butylbenzene         | 17.06 | 119  | 913006   | 2.118 | ppbv   | 98       |
| 66) Benzyl Chloride           | 17.31 | 91   | 72963m   | 1.984 | ppbv   |          |
| 67) sec-Butylbenzene          | 17.60 | 105  | 1306404  | 2.173 | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.96 | 119  | 1031411  | 2.135 | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.86 | 91   | 1078180  | 2.259 | ppbv   | 98       |
| 71) 2-Chlorotoluene           | 15.76 | 91   | 747833   | 1.982 | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 16.15 | 105  | 833347   | 2.092 | ppbv   | 100      |
| 73) 1,3,5-Trimethylbenzene    | 16.30 | 105  | 761080   | 2.104 | ppbv   | 98       |
| 74) 1,2,4-Trimethylbenzene    | 17.07 | 105  | 839693   | 2.157 | ppbv   | 96       |
| 75) 1,3-Dichlorobenzene       | 17.31 | 146  | 508666   | 2.138 | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.46 | 146  | 493339   | 2.038 | ppbv   | 98       |
| 77) 1,2-Dichlorobenzene       | 18.14 | 146  | 503999   | 2.189 | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.68 | 225  | 194029   | 2.033 | ppbv   | 98       |
| 79) Naphthalene               | 22.59 | 128  | 499644   | 2.034 | ppbv   | 95       |
| 80) Naphthalene, 2-methyl-    | 25.24 | 142  | 84195    | 1.385 | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.31 | 180  | 266986   | 1.988 | ppbv   | 97       |
| -----                         |       |      |          |       |        |          |

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

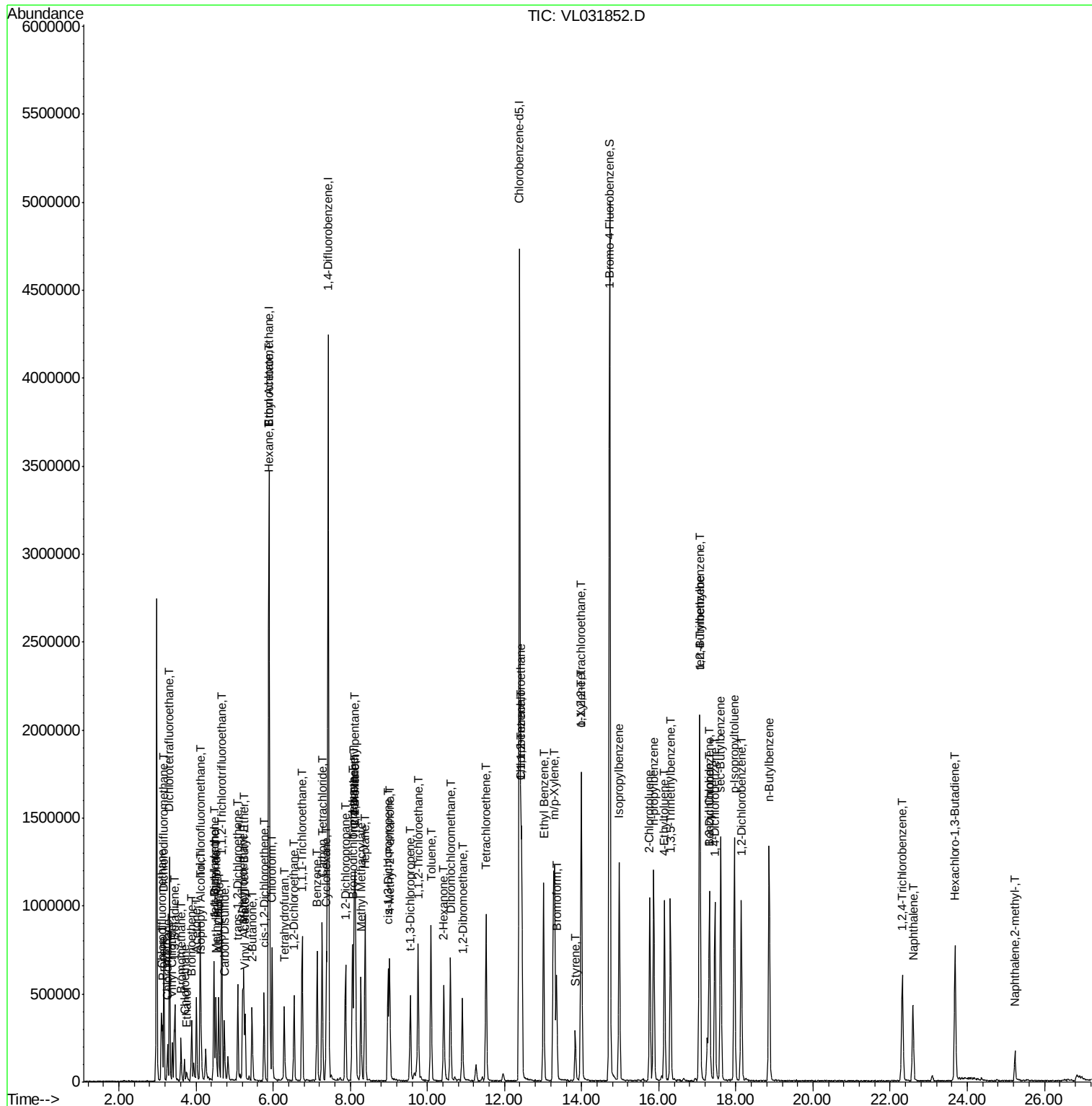
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Data Path : W:\HPCHEM1\MSVOA L\DATA\VL041218\  
Data File : VL031852.D  
Acq On    : 12 Apr 2018  00:59  
Operator  : SY/AP  
Sample    : VSTDICC002  
Misc      : 400ml/MSVOA L  
ALS Vial  : 1      Sample Multiplier: 1
```

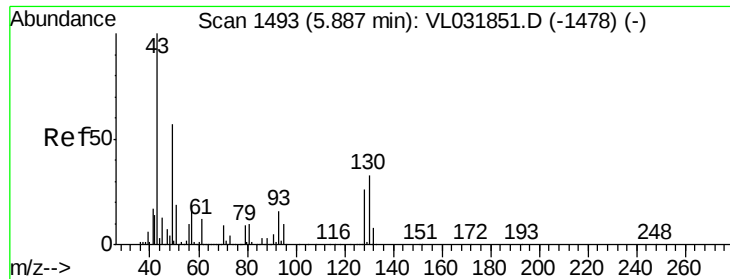
**Instrument :**  
MSVOA\_L  
**ClientSampleId :**  
VSTDICC002

## Manual Integrations

MMDadoda  
4/15/2018 3:05:56 PM

Quant Time: Apr 12 04:26:50 2018  
Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL041218AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LThu Apr  
QLast Update : Thu Apr 12 04:17:02 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.89 min Scan# 1493

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

Tot Ion: 49 Resp: 1292141

Ion Ratio Lower Upper

49 100

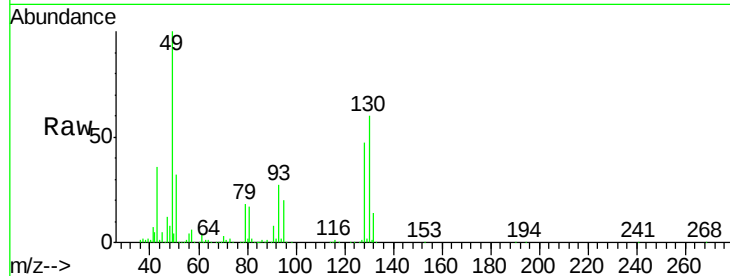
128 48.3 23.9 71.8

130 62.0 31.1 93.2

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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0

5.89

800000

600000

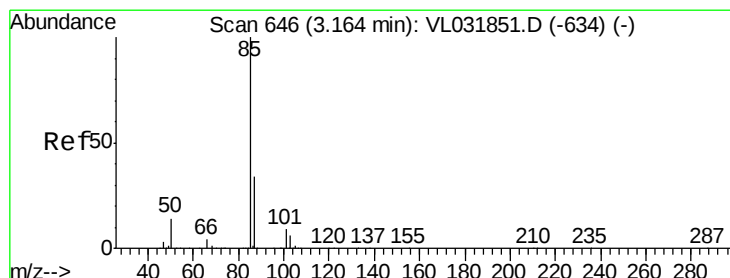
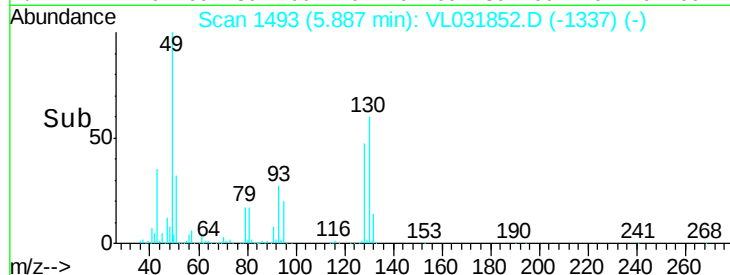
400000

200000

0

5.80 5.85 5.90 5.95

Time-->



#2

Dichlorodifluoromethane

Concen: 2.482 ppbv

RT: 3.16 min Scan# 646

Delta R.T. 0.00 min

Lab File: VL031852.D

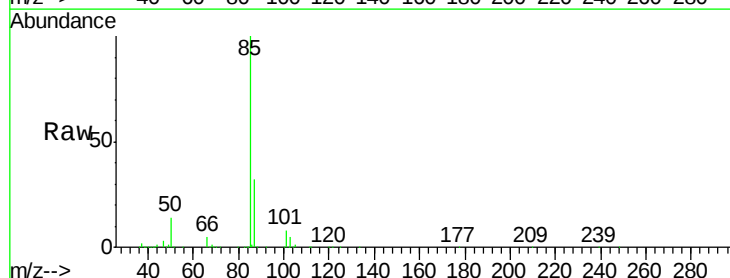
Acq: 12 Apr 2018 00:59

Tgt Ion: 85 Resp: 598994

Ion Ratio Lower Upper

85 100

87 32.1 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.16

500000

400000

300000

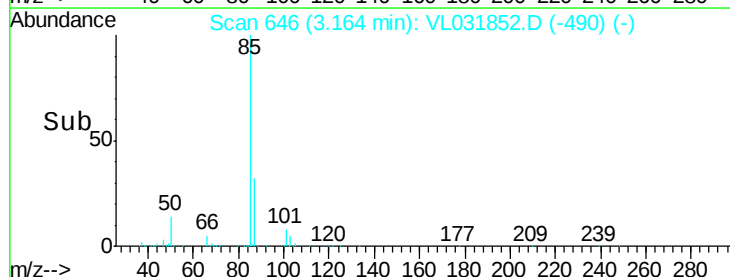
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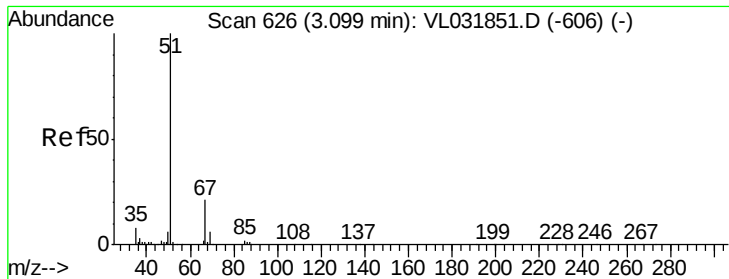
100000

0

3.10 3.15 3.20

Time-->





#3

Chlorodifluoromethane

Concen: 2.098 ppbv

RT: 3.10 min Scan# 626

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Tot Ion: 51 Resp: 347820

Ion Ratio Lower Upper

51 100

67 20.7 16.7 25.1

Instrument :

MSVOA\_L

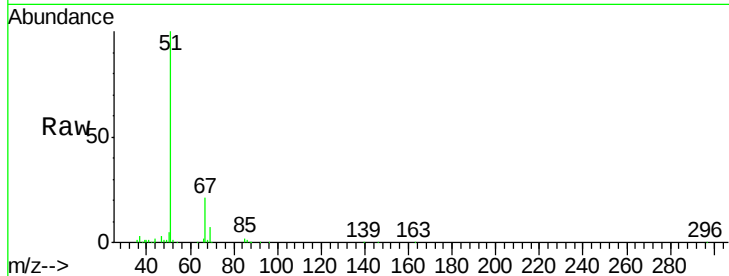
ClientSampleId :

VSTDIC002

Manual Integrations  
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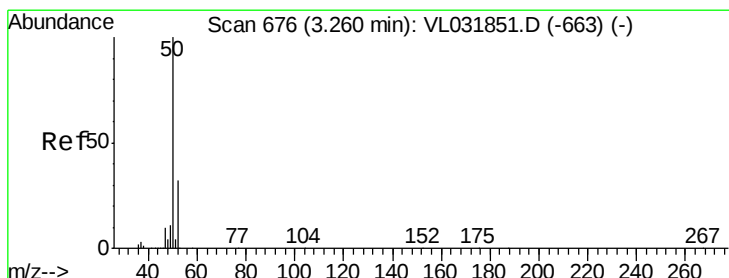
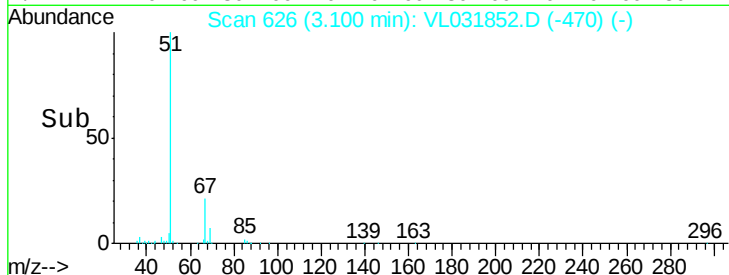
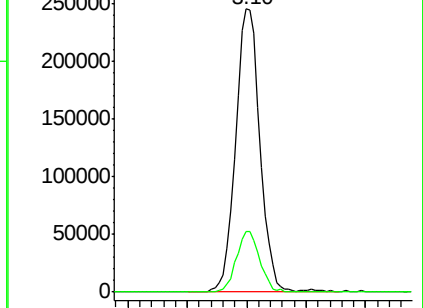
MMDadoda

4/15/2018 3:05:56 PM



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 2.105 ppbv

RT: 3.26 min Scan# 676

Delta R.T. 0.00 min

Lab File: VL031852.D

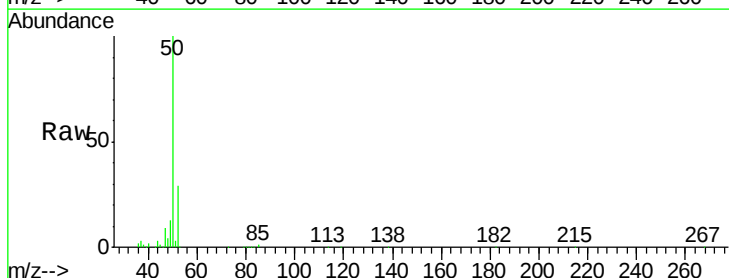
Acq: 12 Apr 2018 00:59

Tgt Ion: 50 Resp: 174522

Ion Ratio Lower Upper

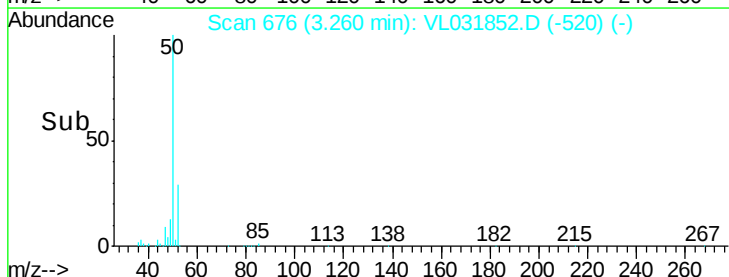
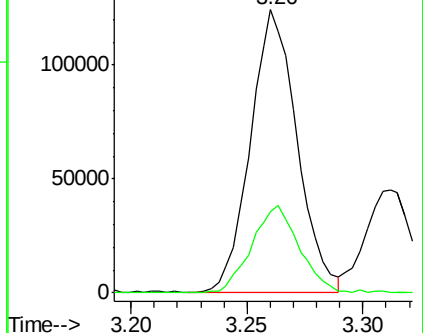
50 100

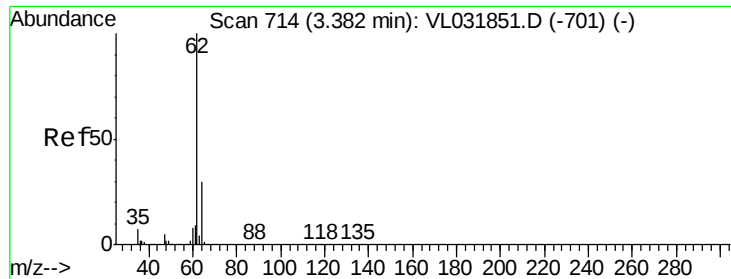
52 28.7 26.0 39.0



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 2.204 ppbv

RT: 3.38 min Scan# 714

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleID :

VSTDIC002

Tot Ion: 62 Resp: 183896

Ion Ratio Lower Upper

62 100

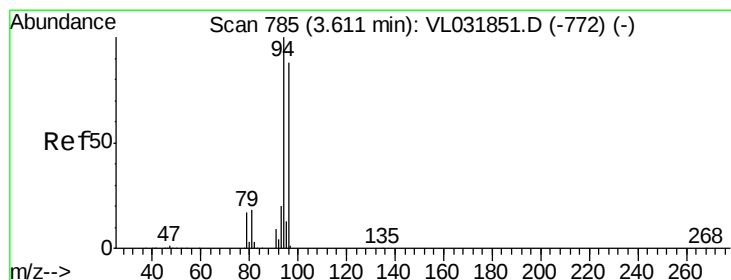
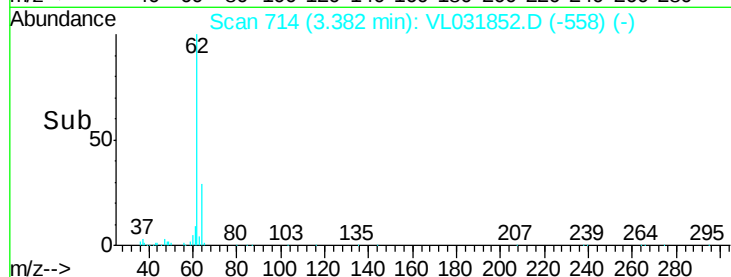
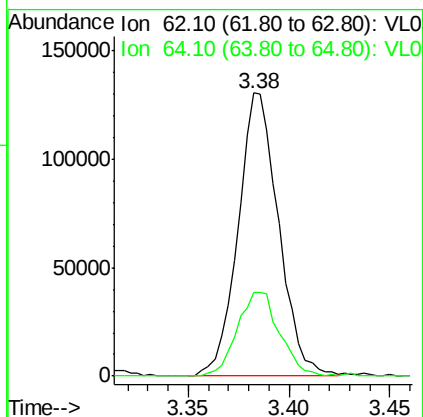
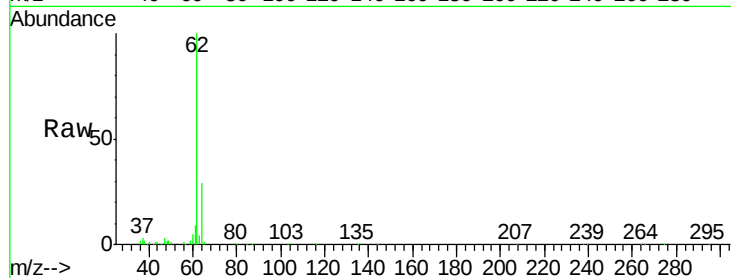
64 29.5 23.8 35.8

Manual Integrations

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#6

Bromomethane

Concen: 2.299 ppbv

RT: 3.61 min Scan# 786

Delta R.T. 0.00 min

Lab File: VL031852.D

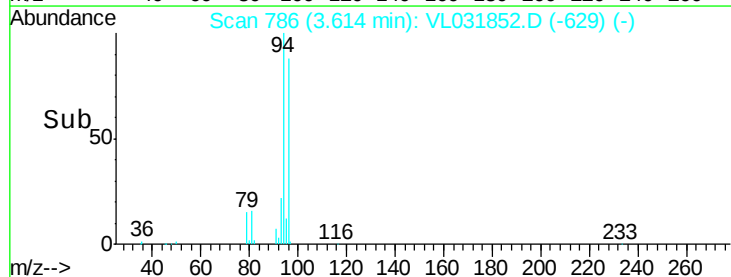
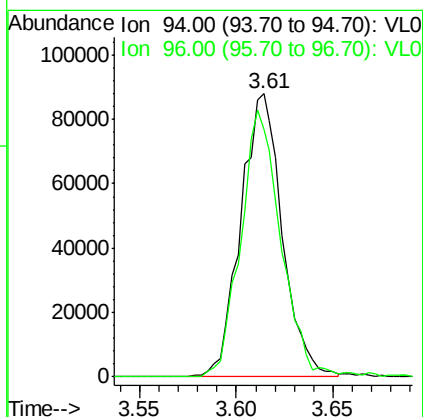
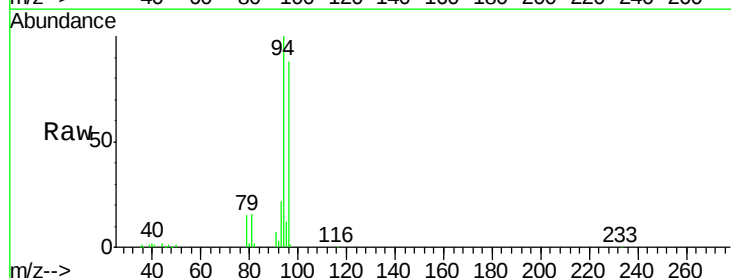
Acq: 12 Apr 2018 00:59

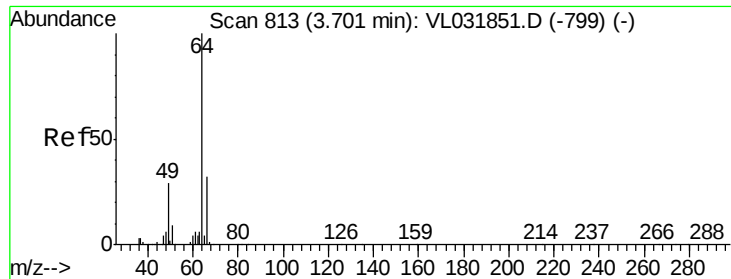
Tgt Ion: 94 Resp: 131271

Ion Ratio Lower Upper

94 100

96 87.5 70.6 105.8





#7

Chloroethane

Concen: 2.261 ppbv

RT: 3.70 min Scan# 813

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

Tot Ion: 64 Resp: 78008

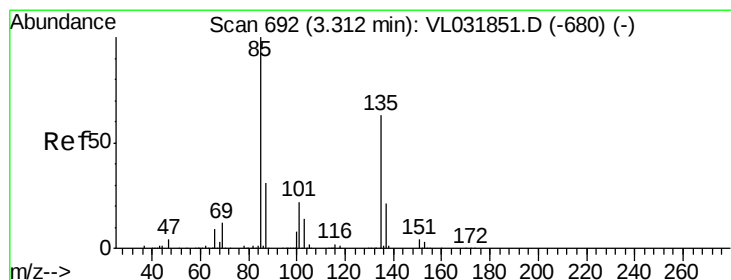
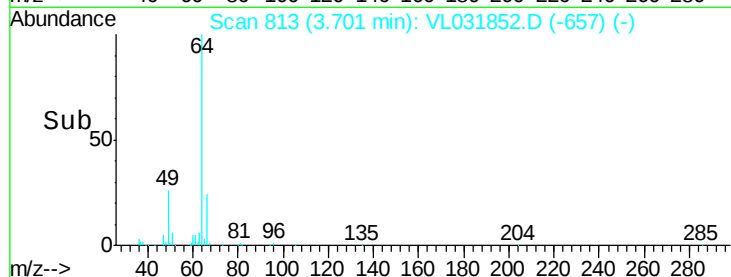
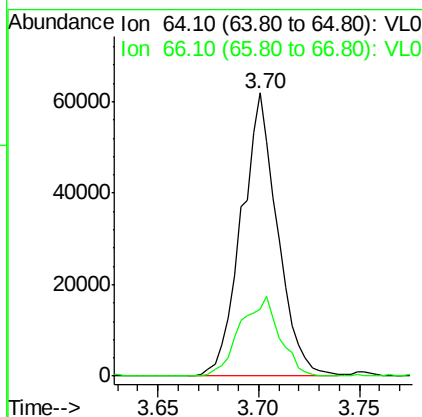
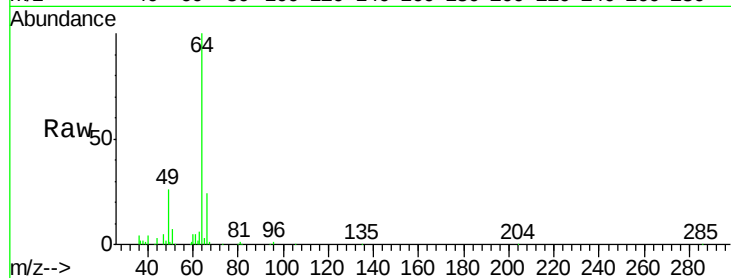
Ion Ratio Lower Upper

64 100

66 23.6 25.5 38.3#

Manual Integrations  
APPROVED

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4/15/2018 3:05:56 PM



#8

Dichlorotetrafluoroethane

Concen: 2.182 ppbv

RT: 3.31 min Scan# 692

Delta R.T. 0.00 min

Lab File: VL031852.D

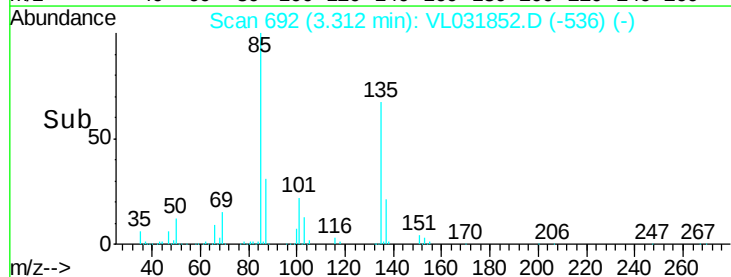
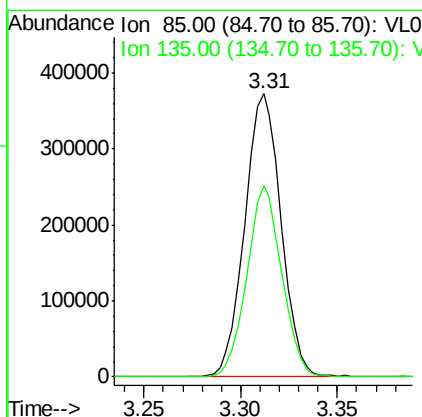
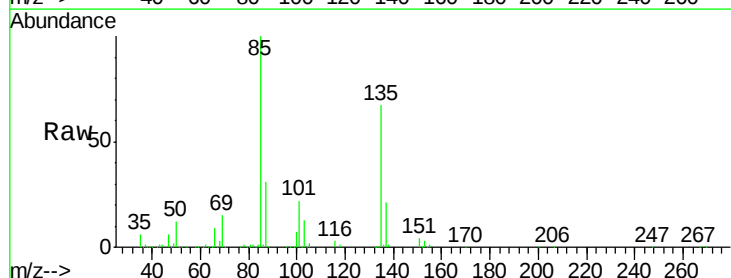
Acq: 12 Apr 2018 00:59

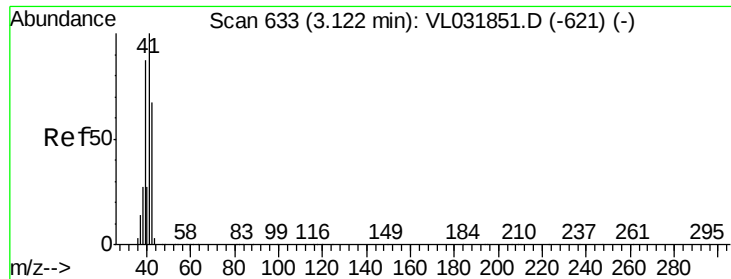
Tgt Ion: 85 Resp: 484870

Ion Ratio Lower Upper

85 100

135 65.4 52.6 79.0





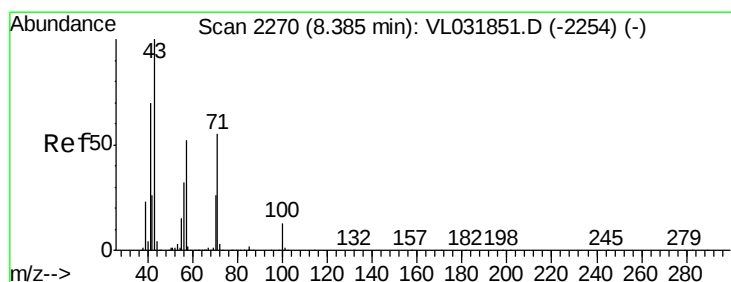
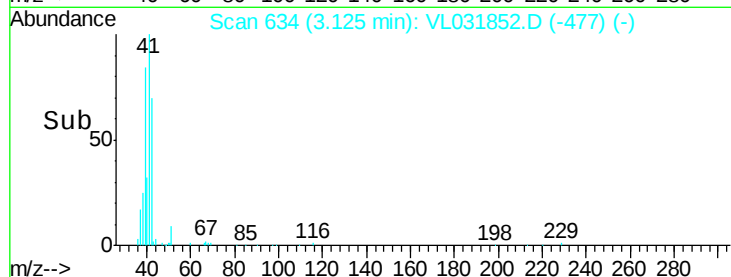
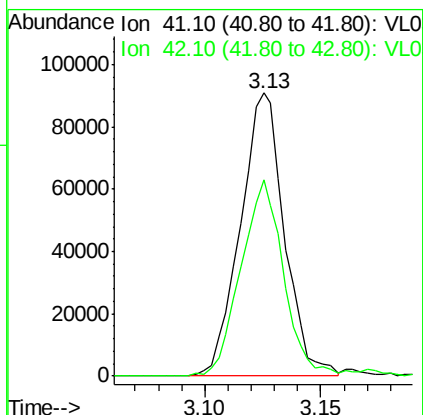
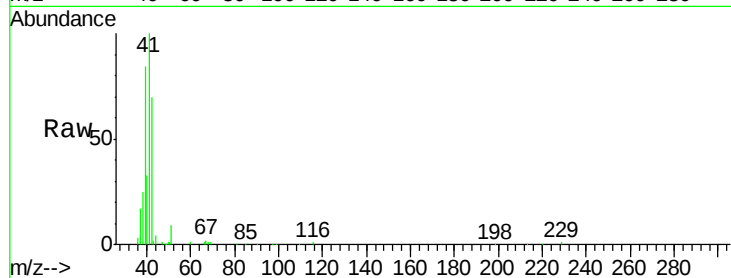
#9  
 Propene  
 Concen: 1.824 ppbv  
 RT: 3.13 min Scan# 634  
 Delta R.T. 0.00 min  
 Lab File: VL031852.D  
 Acq: 12 Apr 2018 00:59

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

| Tot Ion   | 41    | Resp  | 120050 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 41        | 100   |       |        |
| 42        | 68.9  | 54.3  | 81.5   |

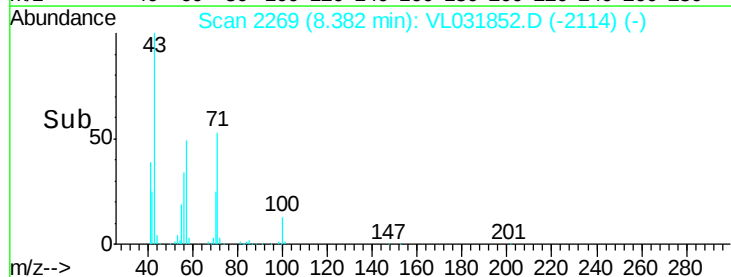
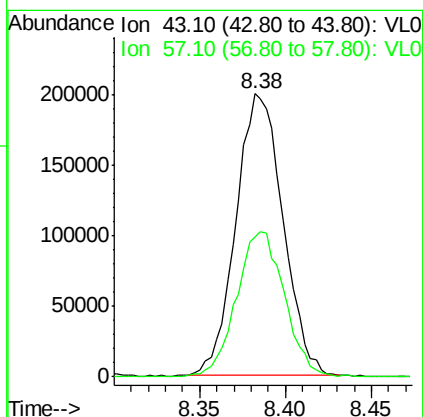
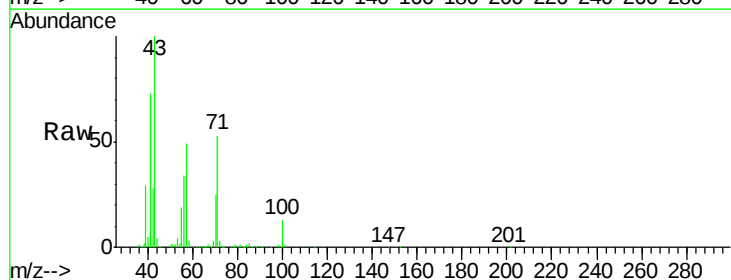
Manual Integrations  
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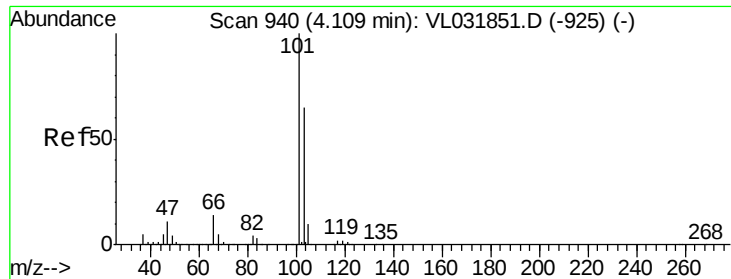
MMDadoda  
 4/15/2018 3:05:56 PM



#10  
 Heptane  
 Concen: 1.934 ppbv  
 RT: 8.38 min Scan# 2269  
 Delta R.T. -0.00 min  
 Lab File: VL031852.D  
 Acq: 12 Apr 2018 00:59

| Tgt Ion   | 43    | Resp  | 379849 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 43        | 100   |       |        |
| 57        | 52.8  | 41.4  | 62.2   |





#11

Trichlorofluoromethane

Concen: 2.334 ppbv

RT: 4.11 min Scan# 940

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

Tot Ion:101 Resp: 564239

Ion Ratio Lower Upper

101 100

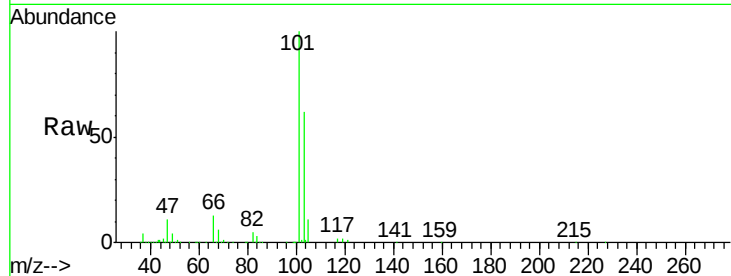
103 62.0 51.8 77.6

Manual Integrations

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Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V

4.11

400000

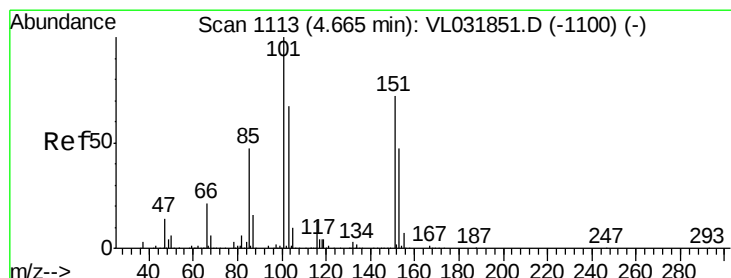
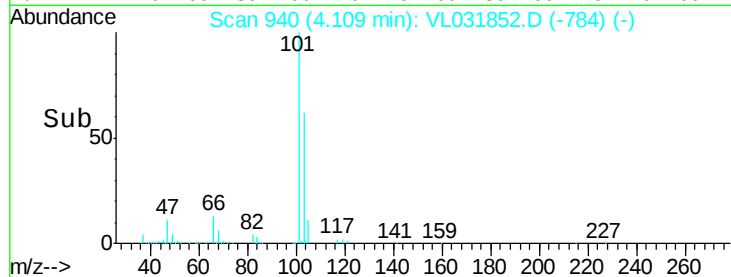
300000

200000

100000

0

Time-->



#12

1,1,2-Trichlorotrifluoroethane

Concen: 2.260 ppbv

RT: 4.67 min Scan# 1113

Delta R.T. 0.00 min

Lab File: VL031852.D

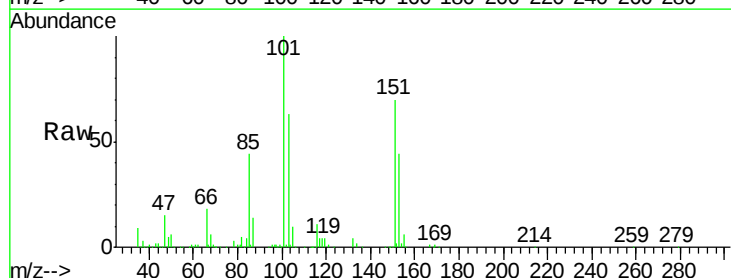
Acq: 12 Apr 2018 00:59

Tgt Ion:101 Resp: 361572

Ion Ratio Lower Upper

101 100

151 71.6 57.7 86.5



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

4.67

250000

200000

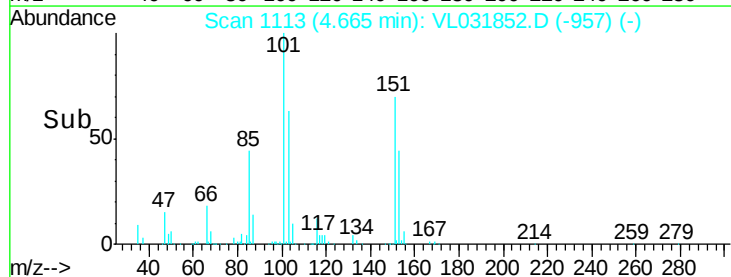
150000

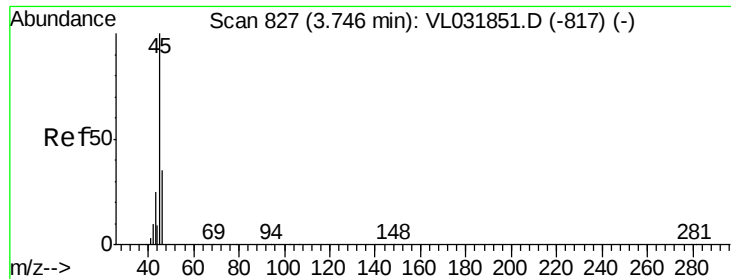
100000

50000

0

Time-->





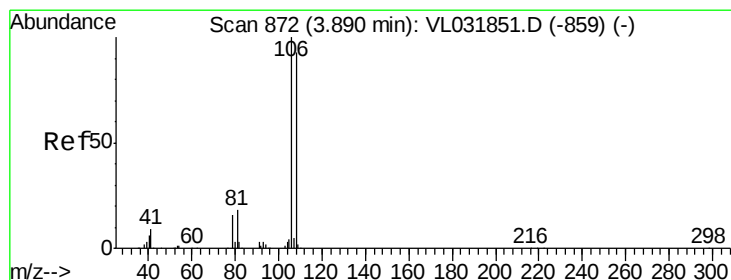
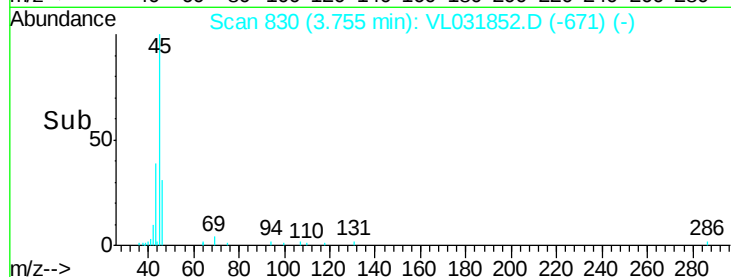
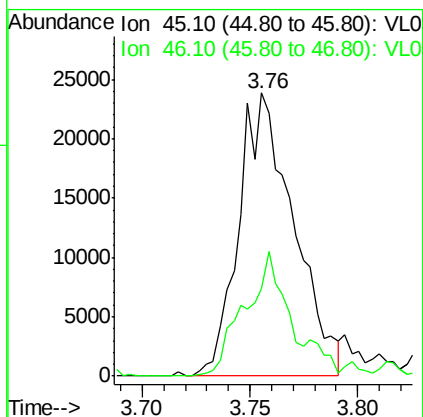
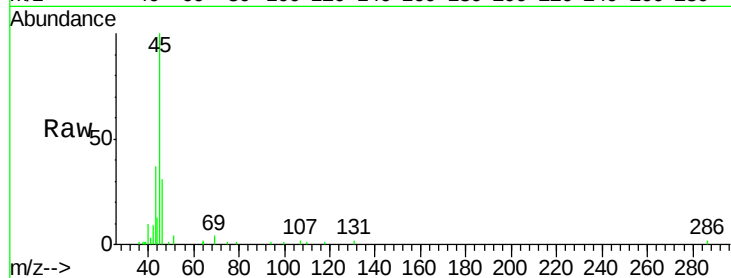
#13  
Ethanol  
Concen: 2.023 ppbv m  
RT: 3.76 min Scan# 830  
Delta R.T. 0.01 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45      | 100   |       |       |
| 46      | 41.2  | 14.6  | 58.4  |

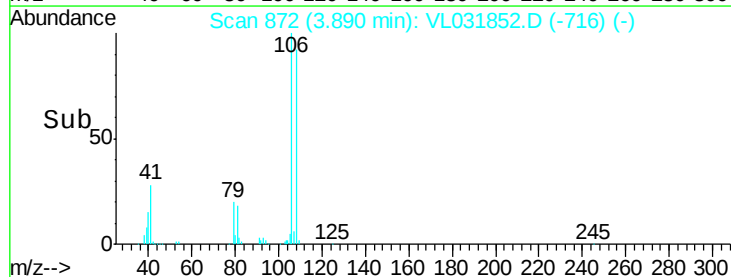
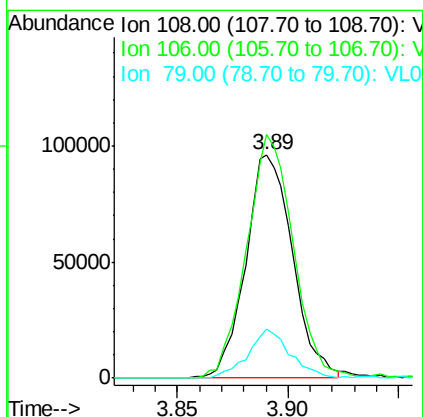
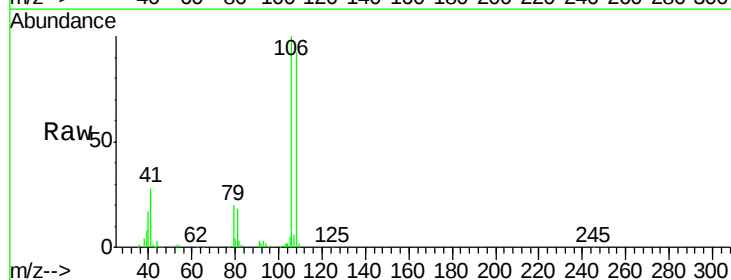
Manual Integrations  
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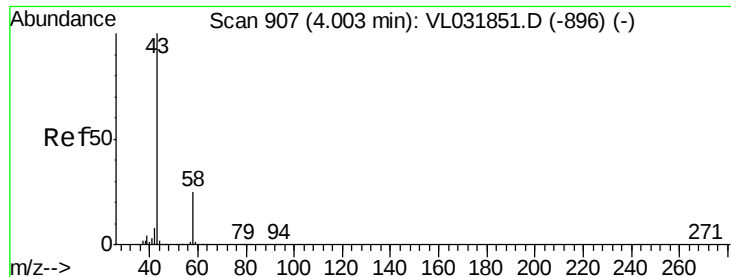
MMDadoda  
4/15/2018 3:05:56 PM



#14  
Bromoethene  
Concen: 2.174 ppbv  
RT: 3.89 min Scan# 872  
Delta R.T. 0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 108     | 100   |       |       |
| 106     | 109.3 | 86.9  | 130.3 |
| 79      | 20.6  | 15.5  | 23.3  |





#15

Acetone

Concen: 2.096 ppbv

RT: 4.01 min Scan# 909

Delta R.T. 0.01 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

Tot Ion: 43 Resp: 455382

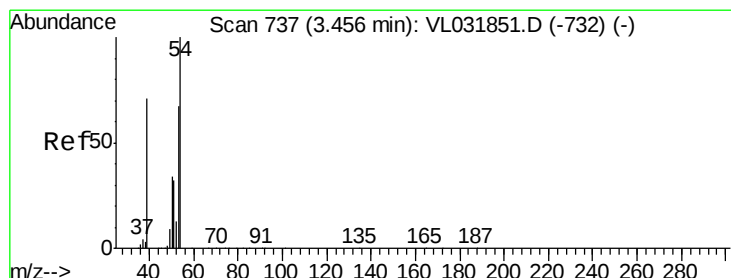
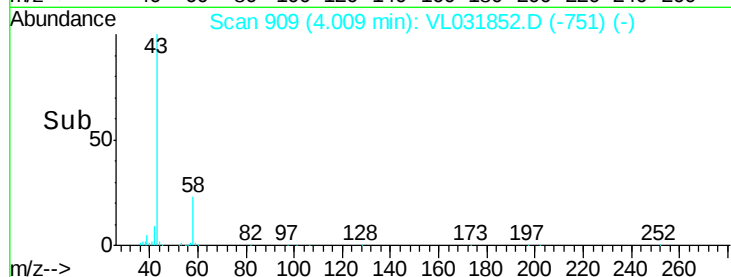
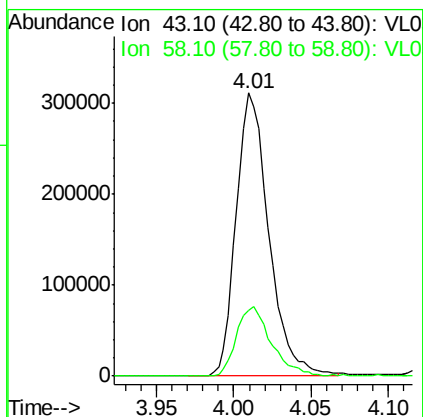
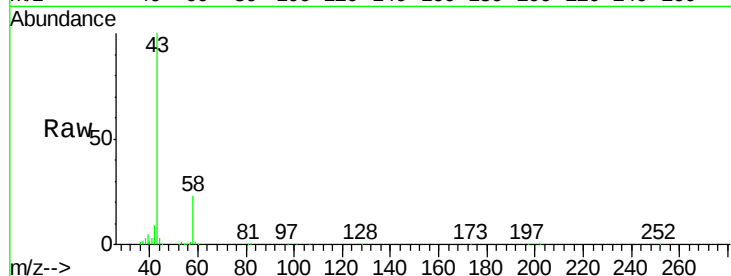
Ion Ratio Lower Upper

43 100

58 26.6 20.7 31.1

Manual Integrations  
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#16

1,3-Butadiene

Concen: 1.992 ppbv

RT: 3.46 min Scan# 737

Delta R.T. 0.00 min

Lab File: VL031852.D

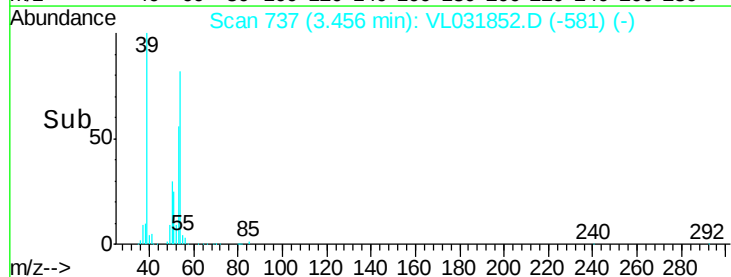
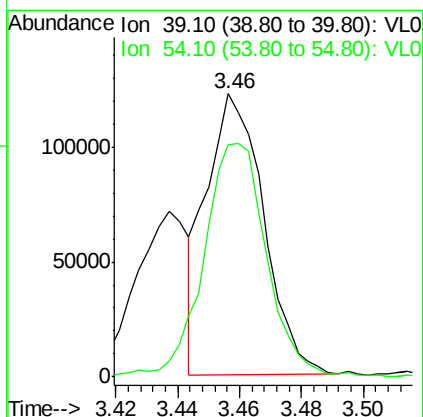
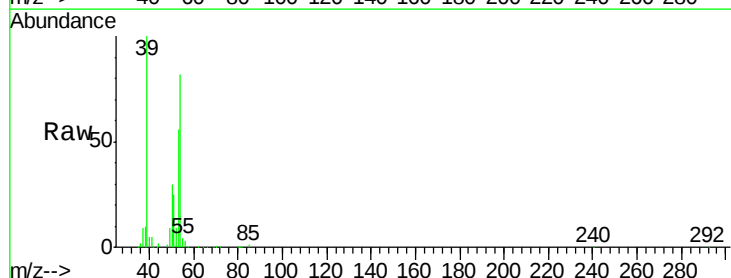
Acq: 12 Apr 2018 00:59

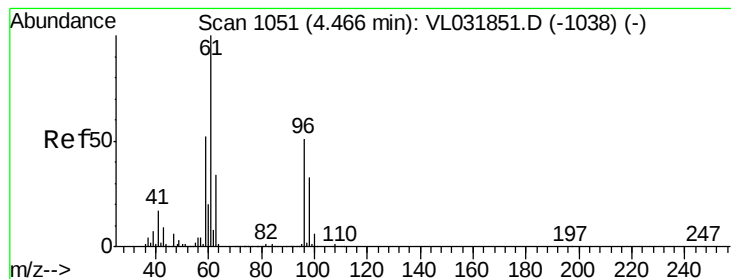
Tgt Ion: 39 Resp: 156463

Ion Ratio Lower Upper

39 100

54 92.7 67.5 101.3





#17

tert-Butyl alcohol

Concen: 1.828 ppbv

RT: 4.48 min Scan# 1054

Delta R.T. 0.01 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleID :

VSTDIC002

Tot Ion: 59 Resp: 180251

Ion Ratio Lower Upper

59 100

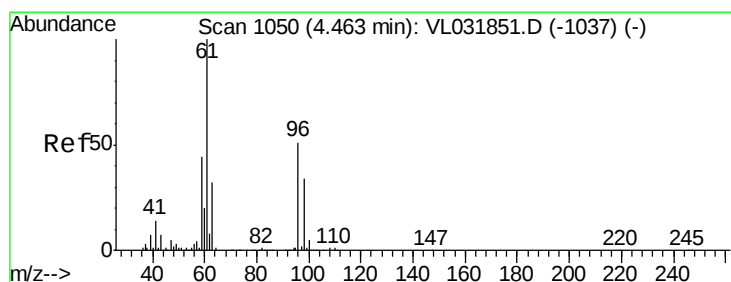
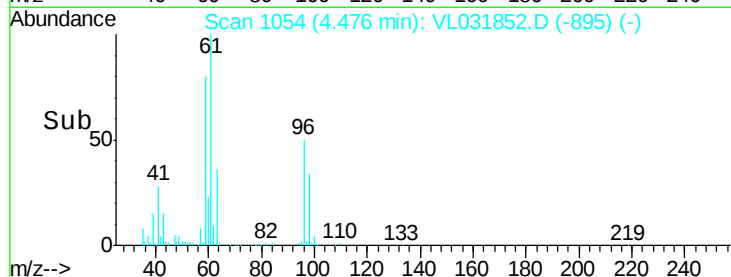
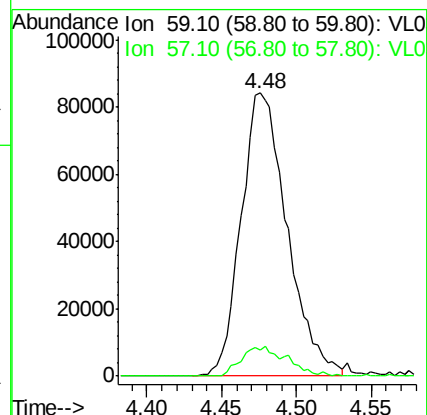
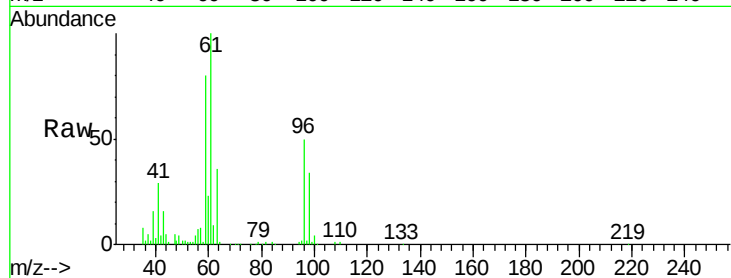
57 10.5 8.3 12.5

Manual Integrations

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#18

1,1-Dichloroethene

Concen: 2.164 ppbv

RT: 4.46 min Scan# 1050

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

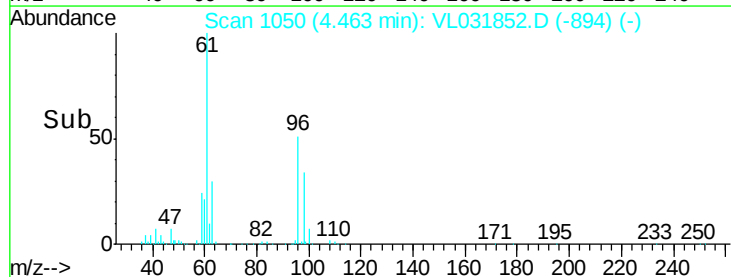
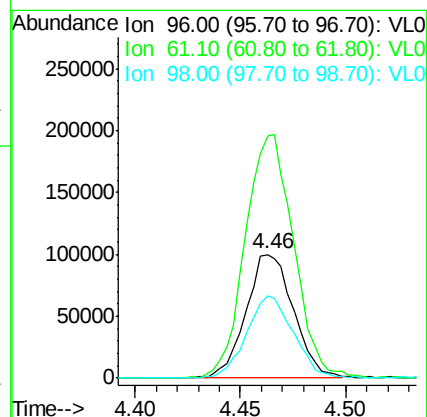
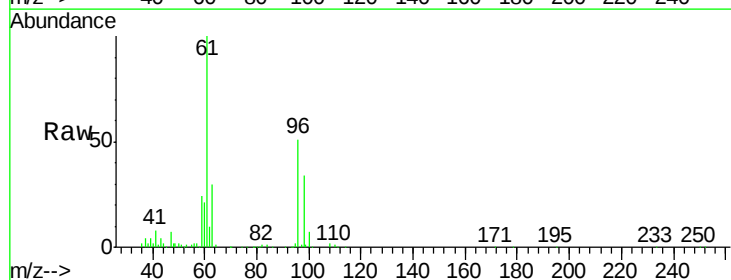
Tgt Ion: 96 Resp: 156368

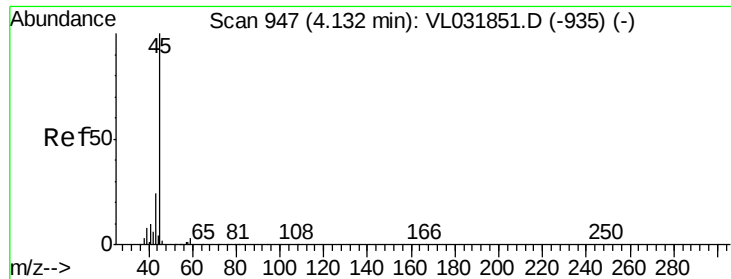
Ion Ratio Lower Upper

96 100

61 194.7 157.2 235.8

98 66.8 53.0 79.4





#19

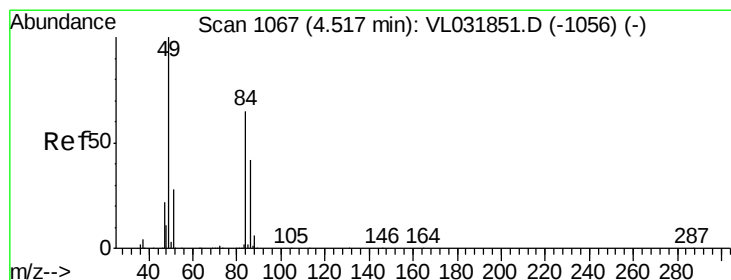
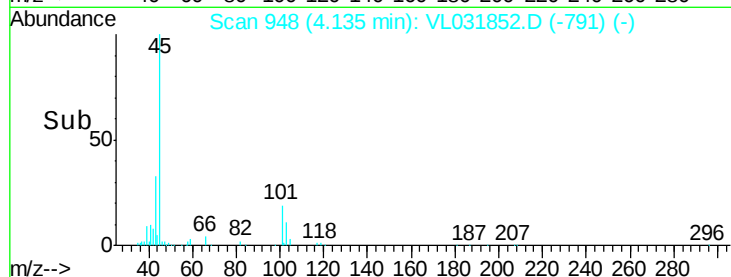
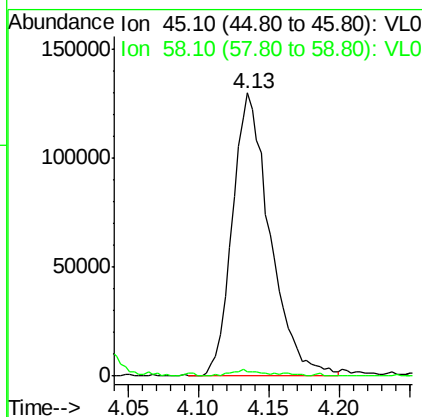
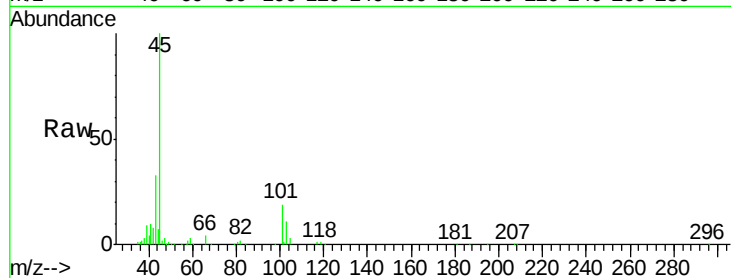
Isopropyl Alcohol  
 Concen: 2.035 ppbv  
 RT: 4.13 min Scan# 948  
 Delta R.T. 0.00 min  
 Lab File: VL031852.D  
 Acq: 12 Apr 2018 00:59

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45      | 100   |       |       |
| 58      | 2.7   | 1.4   | 2.0#  |

Manual Integrations  
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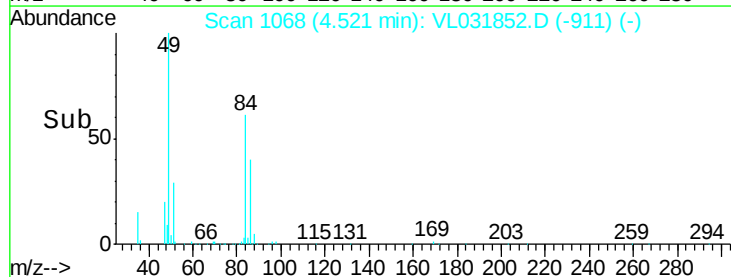
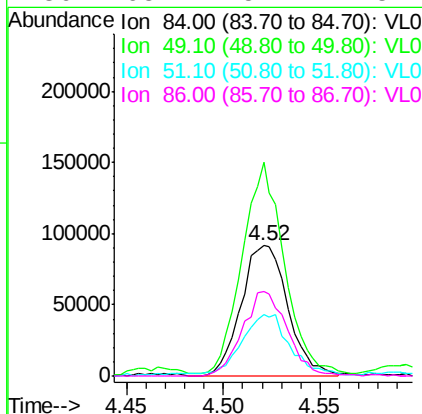
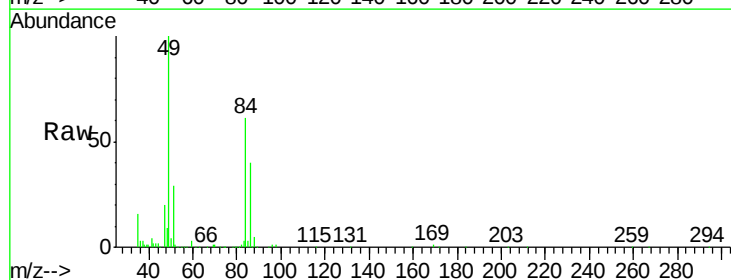
MMDadoda  
 4/15/2018 3:05:56 PM

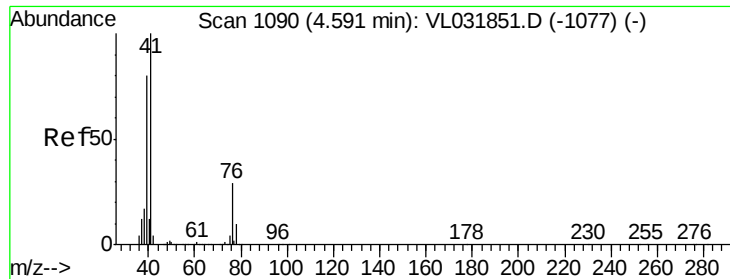


#20

Methylene Chloride  
 Concen: 2.115 ppbv  
 RT: 4.52 min Scan# 1068  
 Delta R.T. 0.00 min  
 Lab File: VL031852.D  
 Acq: 12 Apr 2018 00:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 49      | 162.4 | 123.3 | 184.9 |
| 51      | 45.2  | 35.0  | 52.6  |
| 86      | 65.1  | 52.2  | 78.2  |





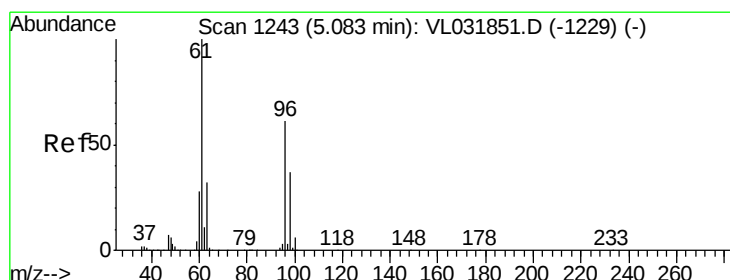
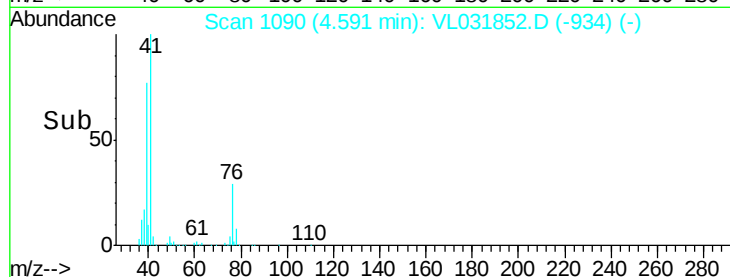
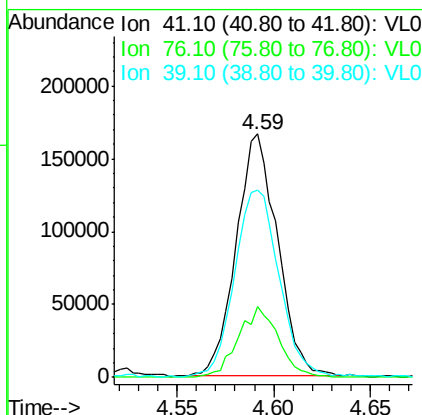
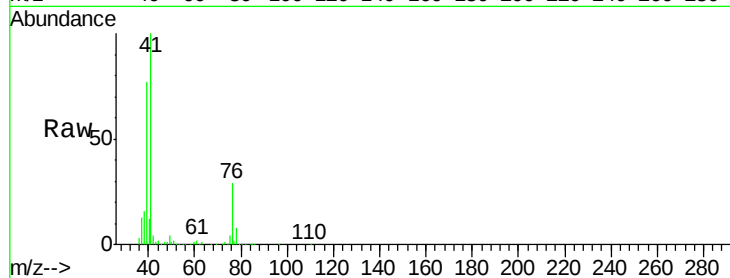
#21  
Allvl Chloride  
Concen: 2.130 ppbv  
RT: 4.59 min Scan# 1090  
Delta R.T. 0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 41      | 100   | 246795 |       |       |
| 76      | 28.8  |        | 23.4  | 35.0  |
| 39      | 84.9  |        | 65.4  | 98.2  |

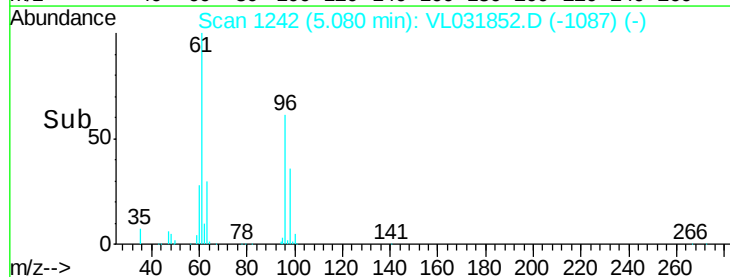
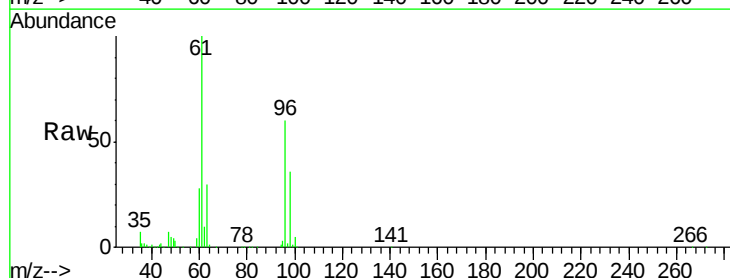
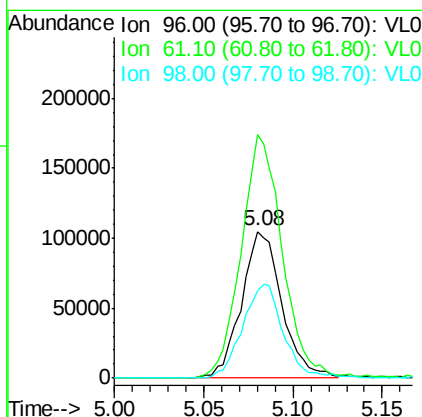
Manual Integrations  
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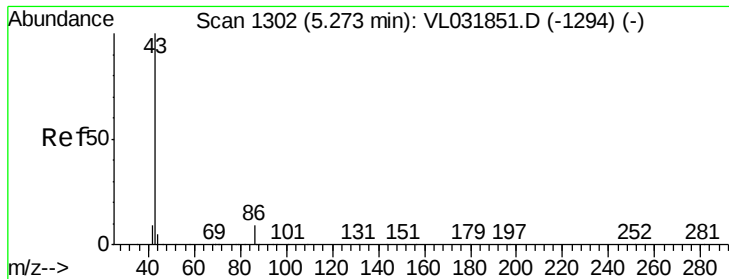
MMDadoda  
4/15/2018 3:05:56 PM



#22  
trans-1,2-Dichloroethene  
Concen: 2.144 ppbv  
RT: 5.08 min Scan# 1242  
Delta R.T. -0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 96      | 100   | 165583 |       |       |
| 61      | 165.8 |        | 130.2 | 195.2 |
| 98      | 59.6  |        | 48.2  | 72.2  |





#23

Vinyl Acetate

Concen: 1.885 ppbv

RT: 5.27 min Scan# 1302

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

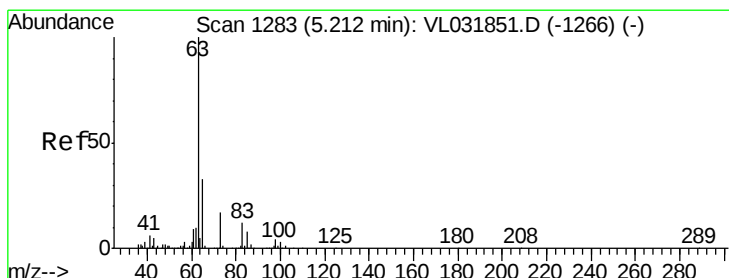
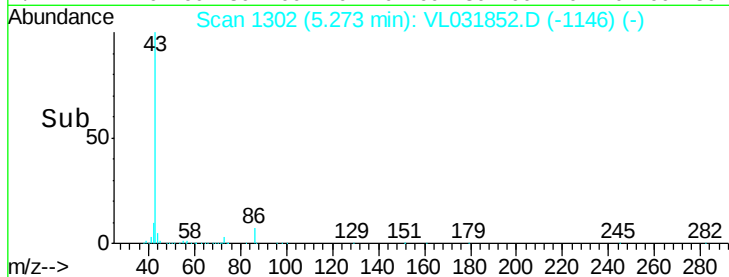
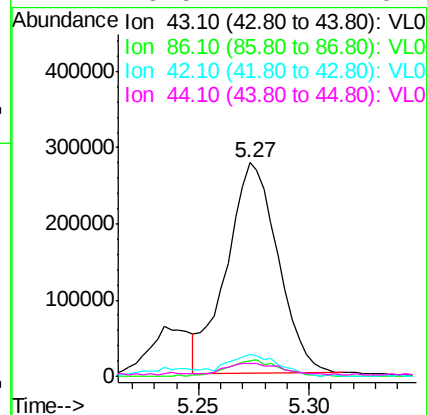
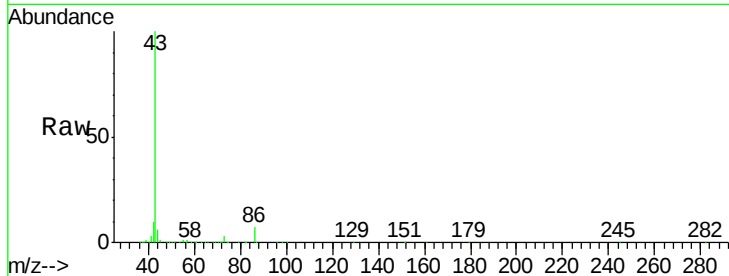
ClientSampleId :

VSTDIC002

| Tot Ion | Ion  | Ratio | Resp   | Lower | Upper |
|---------|------|-------|--------|-------|-------|
| 43      | 100  |       | 446869 |       |       |
| 86      | 7.3  | 6.4   | 9.6    |       |       |
| 42      | 10.0 | 8.2   | 12.2   |       |       |
| 44      | 5.5  | 4.1   | 6.1    |       |       |

Manual Integrations  
APPROVED

MMDadoda  
4/15/2018 3:05:56 PM



#24

1,1-Dichloroethane

Concen: 2.236 ppbv

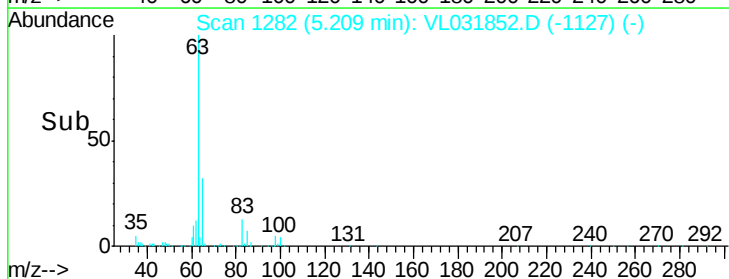
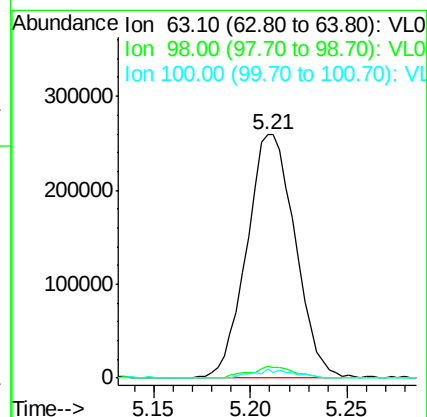
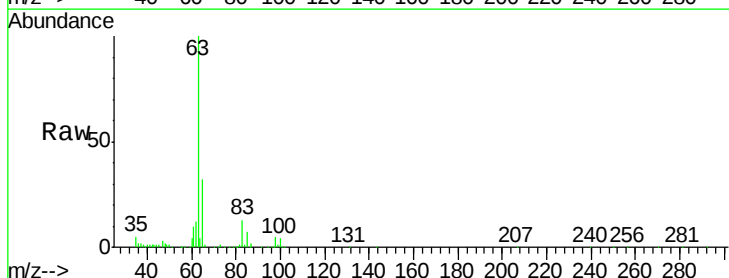
RT: 5.21 min Scan# 1282

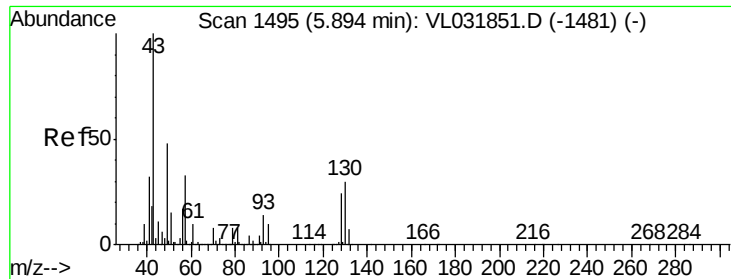
Delta R.T. -0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

| Tgt Ion | Ion | Ratio | Resp   | Lower | Upper |
|---------|-----|-------|--------|-------|-------|
| 63      | 100 |       | 449029 |       |       |
| 98      | 4.6 | 2.2   | 6.6    |       |       |
| 100     | 4.0 | 1.7   | 5.0    |       |       |





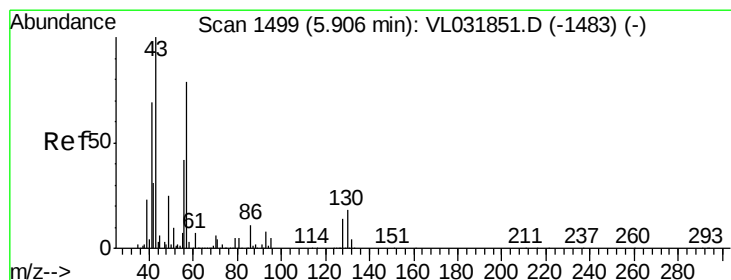
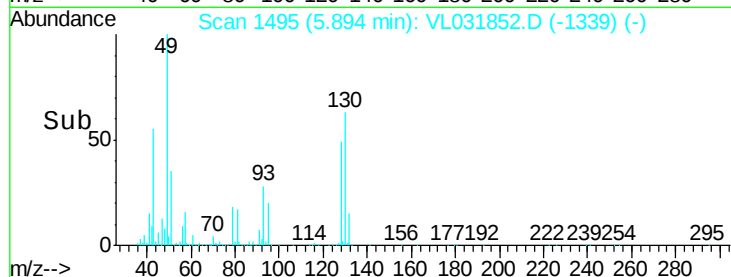
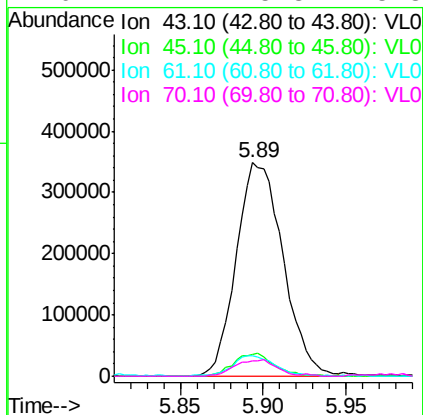
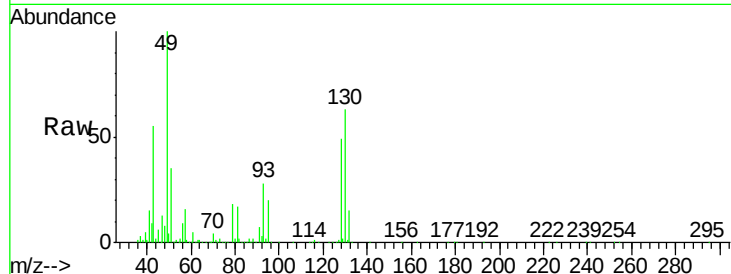
#25  
Ethyl Acetate  
Concen: 2.036 ppbv  
RT: 5.89 min Scan# 1495  
Delta R.T. 0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 45      | 9.4   | 7.8   | 11.8  |
| 61      | 9.2   | 7.5   | 11.3  |
| 70      | 7.1   | 5.8   | 8.8   |

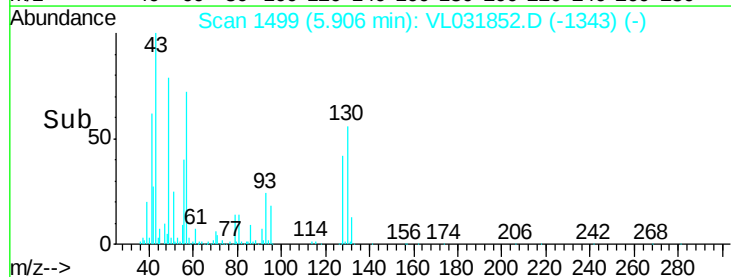
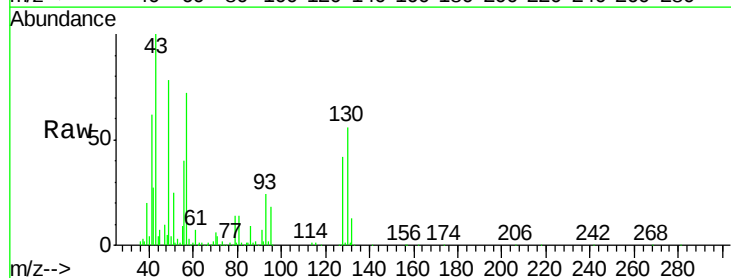
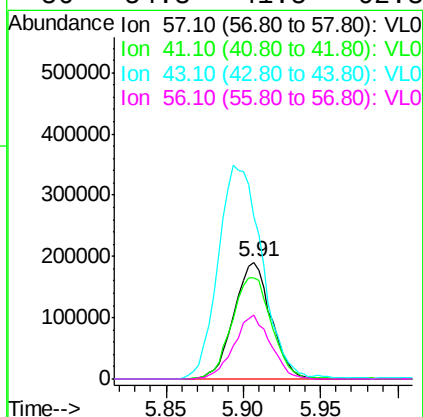
Manual Integrations  
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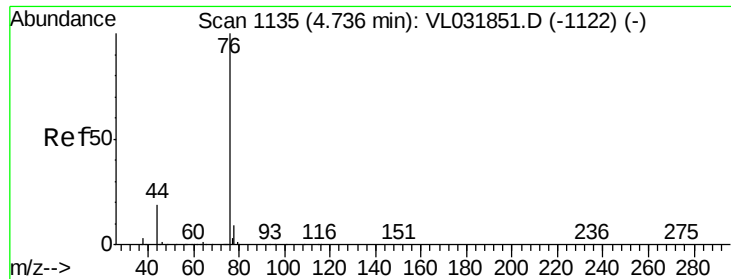
MMDadoda  
4/15/2018 3:05:56 PM



#26  
Hexane  
Concen: 2.052 ppbv  
RT: 5.91 min Scan# 1499  
Delta R.T. 0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 94.3  | 71.7  | 107.5 |
| 43      | 217.9 | 172.0 | 258.0 |
| 56      | 54.3  | 41.5  | 62.3  |





#27

Carbon Disulfide

Concen: 2.381 ppbv

RT: 4.74 min Scan# 1135

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

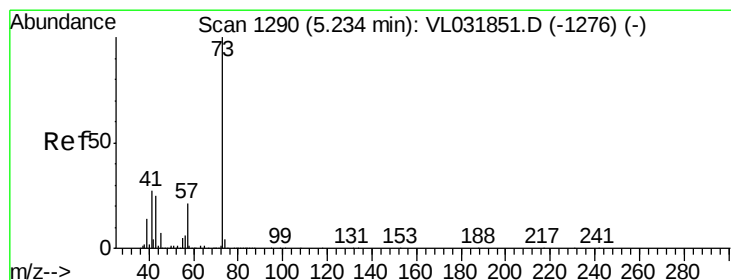
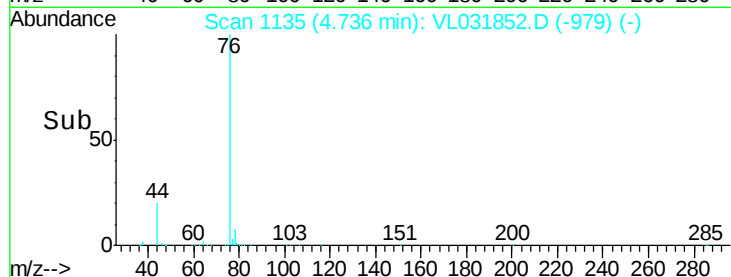
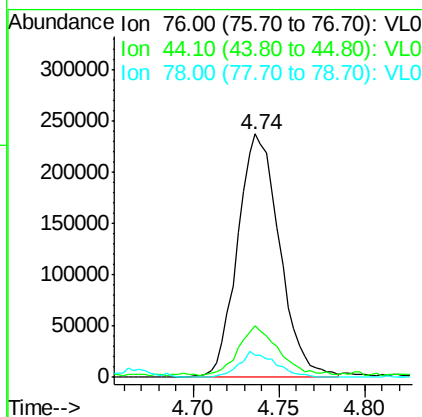
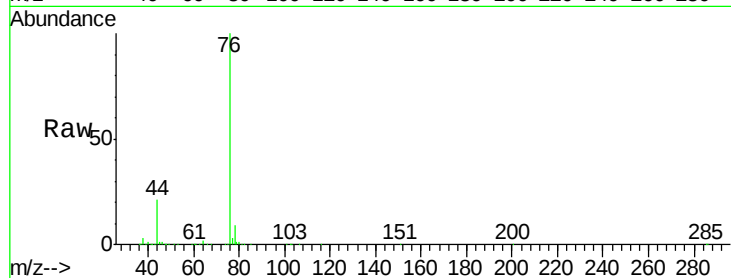
ClientSampleId :

VSTDIC002

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 76    | Resp: | 400401 |
| Ion Ratio | Lower | Upper |        |
| 76        | 100   |       |        |
| 44        | 19.3  | 14.8  | 22.2   |
| 78        | 9.4   | 7.4   | 11.2   |

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#28

Methyl tert-Butyl Ether

Concen: 1.953 ppbv

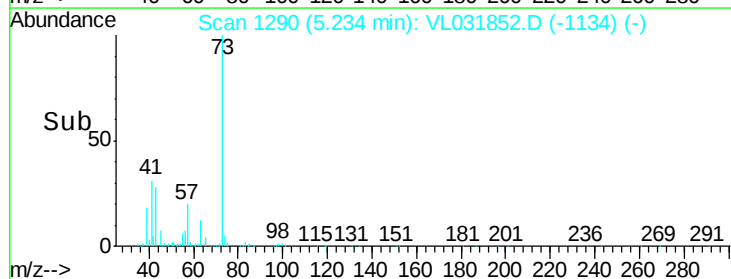
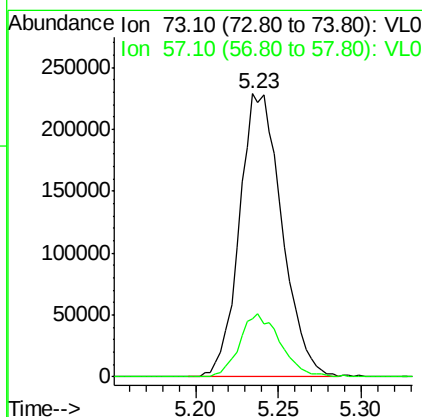
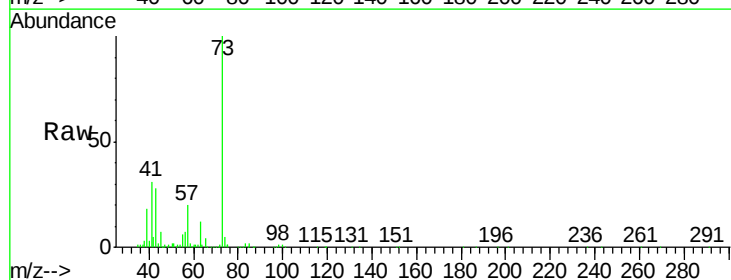
RT: 5.23 min Scan# 1290

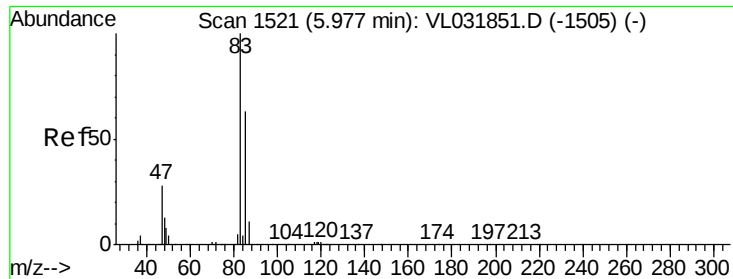
Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 73    | Resp: | 406989 |
| Ion Ratio | Lower | Upper |        |
| 73        | 100   |       |        |
| 57        | 21.5  | 17.3  | 25.9   |





#29

Chloroform

Concen: 2.118 ppbv

RT: 5.97 min Scan# 1519

Delta R.T. -0.01 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

Tot Ion: 83 Resp: 519359

Ion Ratio Lower Upper

83 100

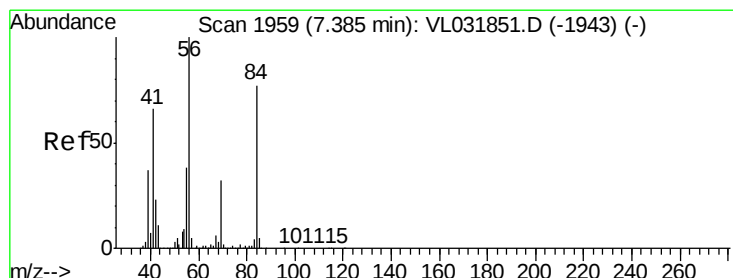
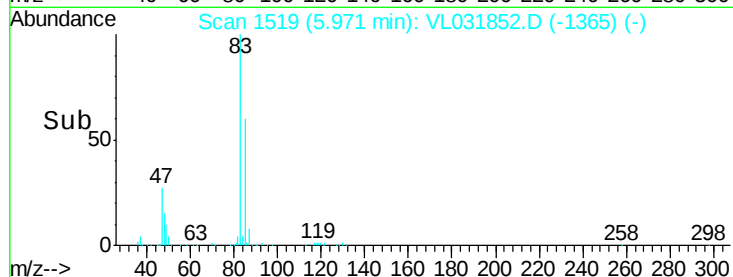
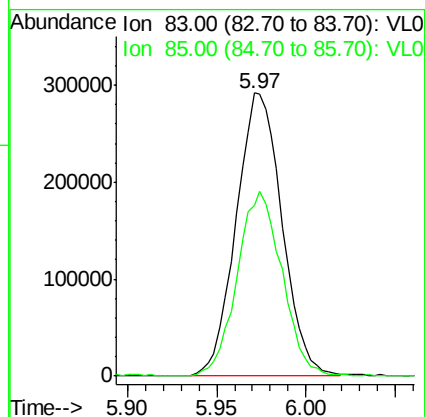
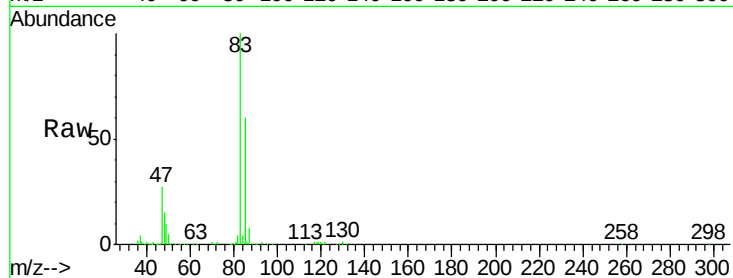
85 60.4 50.4 75.6

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#30

Cyclohexane

Concen: 1.951 ppbv m

RT: 7.39 min Scan# 1959

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

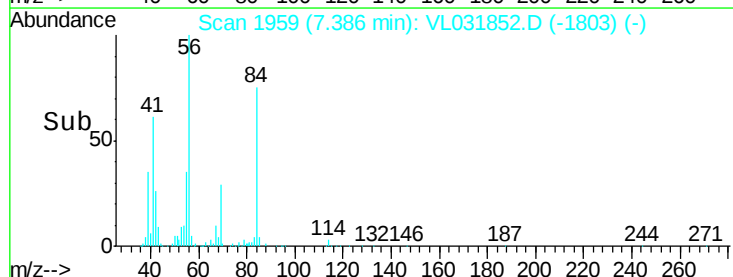
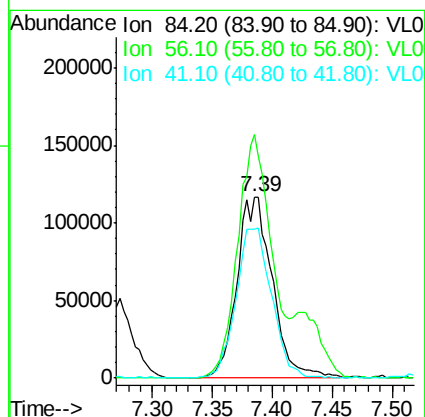
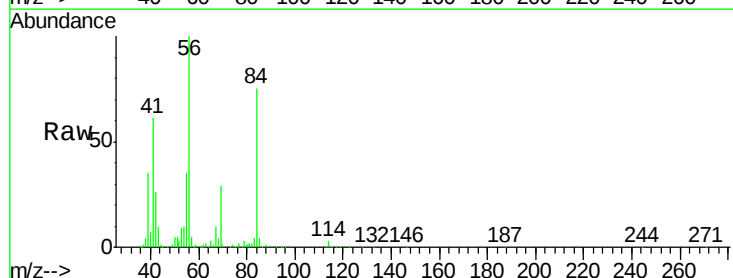
Tgt Ion: 84 Resp: 239828

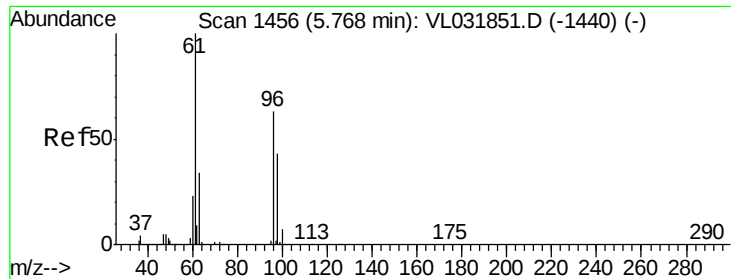
Ion Ratio Lower Upper

84 100

56 156.6 108.6 162.8

41 84.0 67.8 101.8





#31

cis-1,2-Dichloroethene

Concen: 1.925 ppbv

RT: 5.76 min Scan# 1455

Delta R.T. -0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

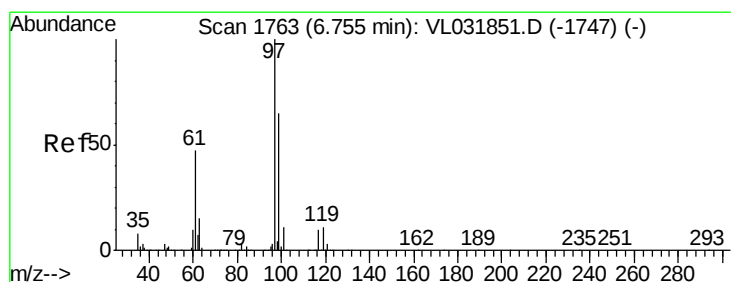
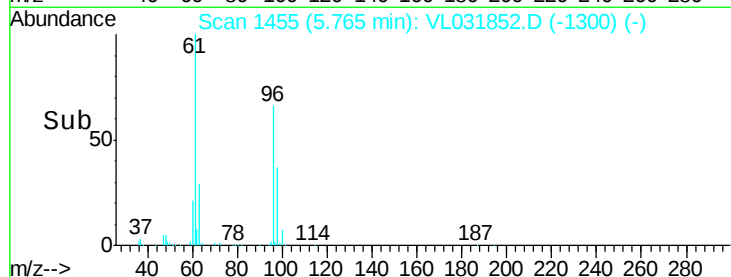
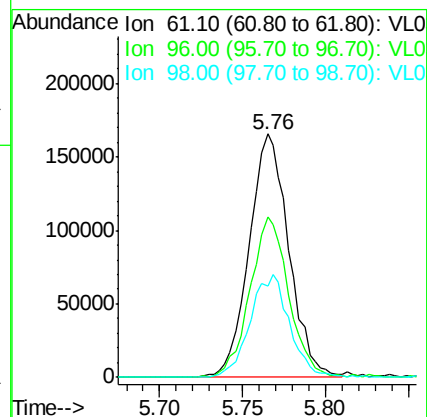
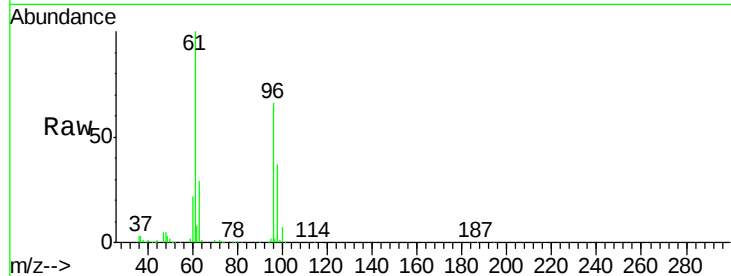
ClientSampleId :

VSTDIC002

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 61    | Resp: | 275675 |
| Ion      | Ratio | Lower | Upper  |
| 61       | 100   |       |        |
| 96       | 65.8  | 50.4  | 75.6   |
| 98       | 37.4  | 34.1  | 51.1   |

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#32

1,1,1-Trichloroethane

Concen: 1.961 ppbv

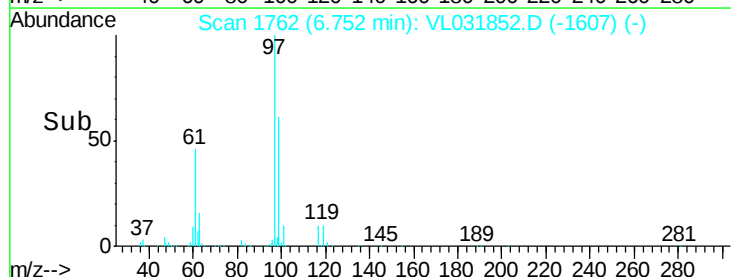
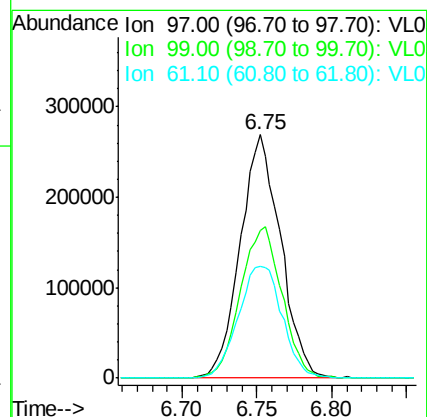
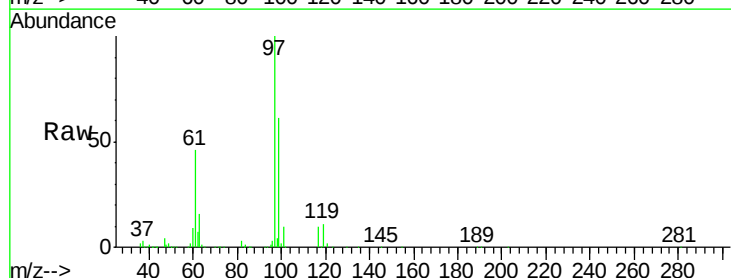
RT: 6.75 min Scan# 1762

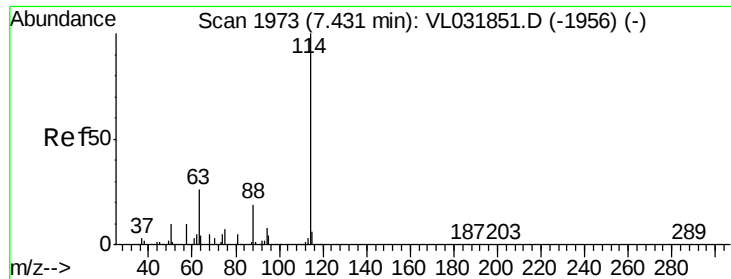
Delta R.T. -0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 97    | Resp: | 504331 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 99       | 64.3  | 51.5  | 77.3   |
| 61       | 50.3  | 39.0  | 58.4   |





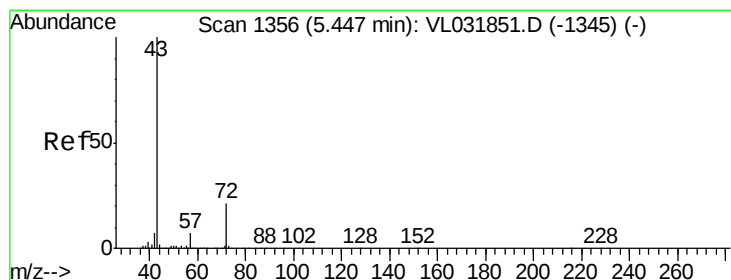
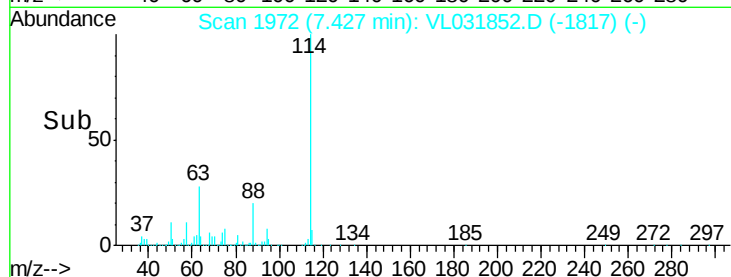
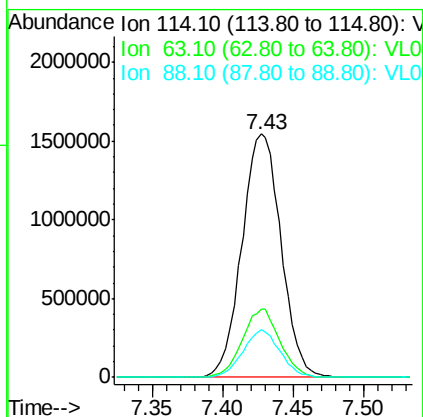
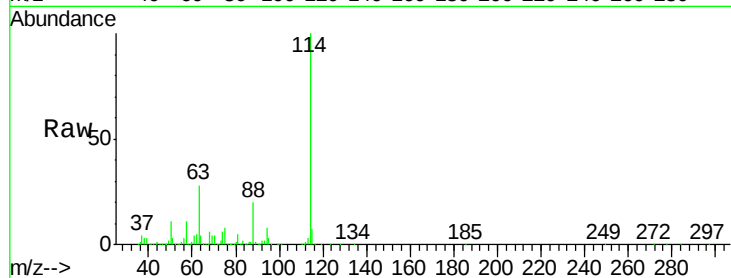
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.43 min Scan# 1972  
 Delta R.T. -0.00 min  
 Lab File: VL031852.D  
 Acq: 12 Apr 2018 00:59

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 27.0  | 21.4  | 32.2  |
| 88      | 18.6  | 14.7  | 22.1  |

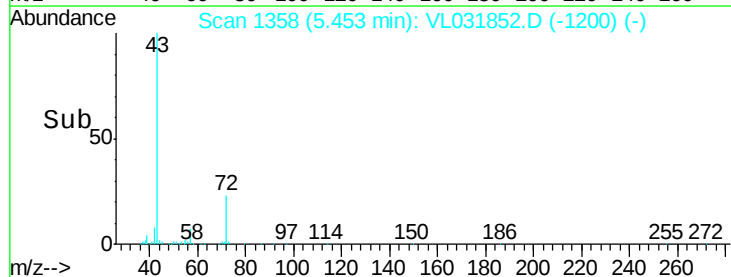
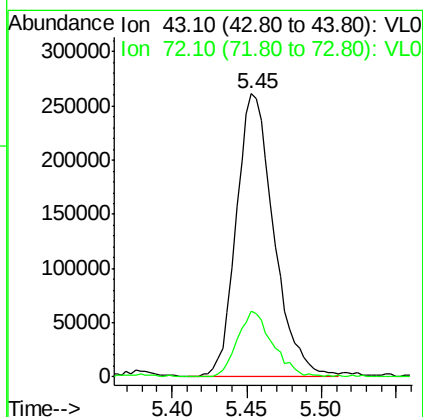
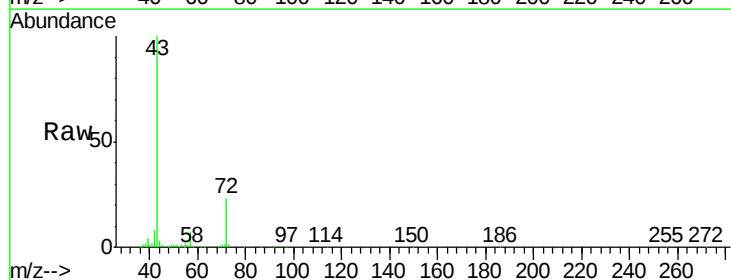
Manual Integrations  
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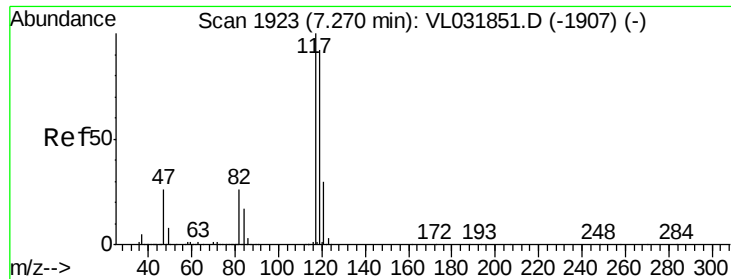
MMDadoda  
 4/15/2018 3:05:56 PM



#34  
 2-Butanone  
 Concen: 2.211 ppbv  
 RT: 5.45 min Scan# 1358  
 Delta R.T. 0.01 min  
 Lab File: VL031852.D  
 Acq: 12 Apr 2018 00:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 22.4  | 18.6  | 28.0  |





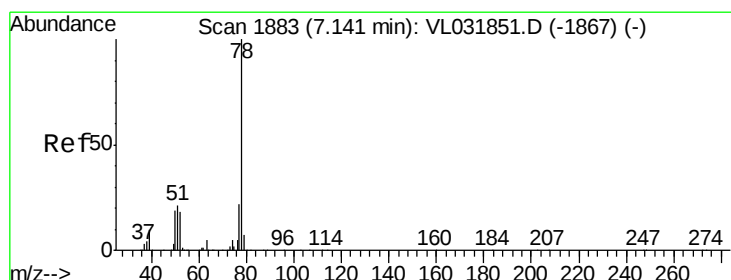
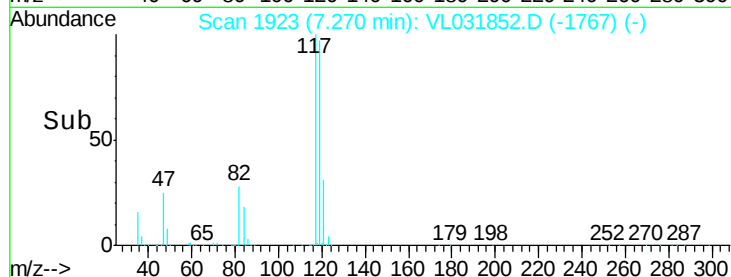
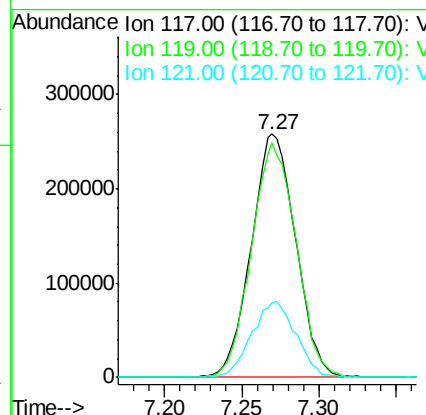
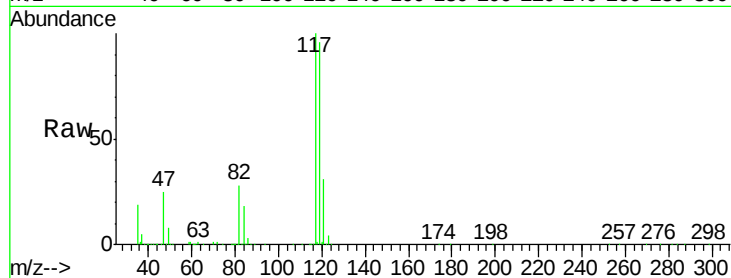
#35  
Carbon Tetrachloride  
Concen: 2.304 ppbv  
RT: 7.27 min Scan# 1923  
Delta R.T. 0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 119     | 96.2  | 73.4  | 110.0 |
| 121     | 30.8  | 24.2  | 36.4  |

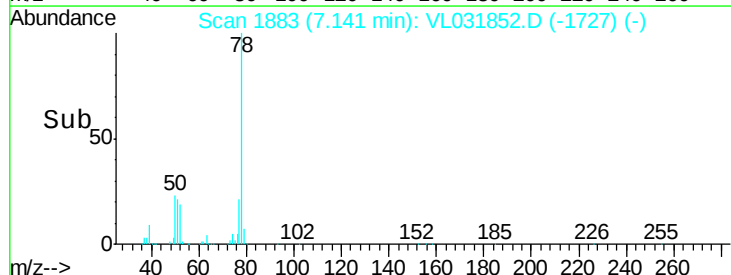
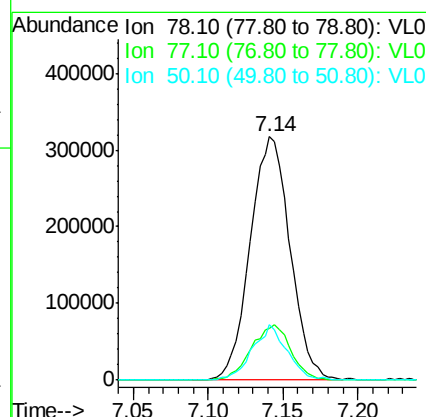
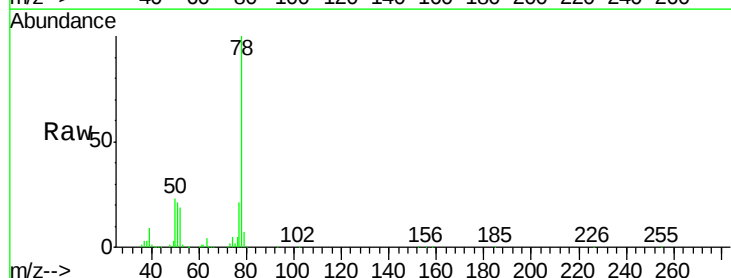
Manual Integrations  
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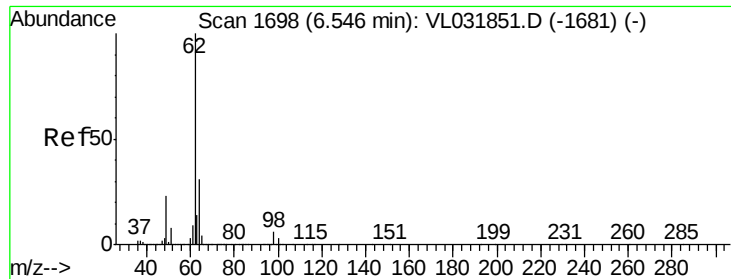
MMDadoda  
4/15/2018 3:05:56 PM



#36  
Benzene  
Concen: 2.088 ppbv  
RT: 7.14 min Scan# 1883  
Delta R.T. 0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 21.3  | 17.8  | 26.8  |
| 50      | 22.6  | 15.0  | 22.6# |





#37

1,2-Dichloroethane

Concen: 2.275 ppbv

RT: 6.54 min Scan# 1697

Delta R.T. -0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

Tot Ion: 62 Resp: 427255

Ion Ratio Lower Upper

62 100

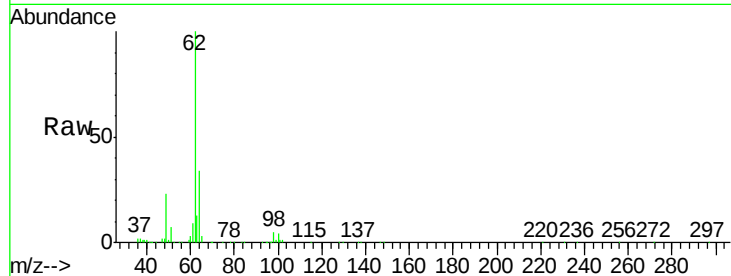
98 5.0 4.5 6.7

Manual Integrations

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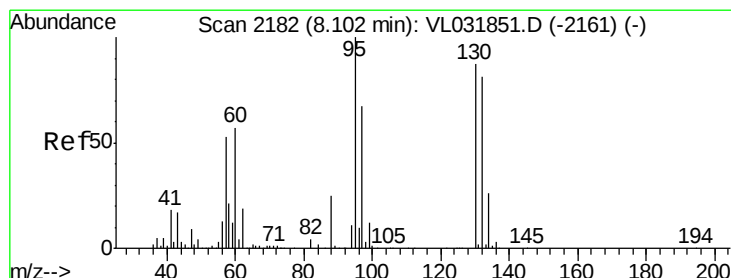
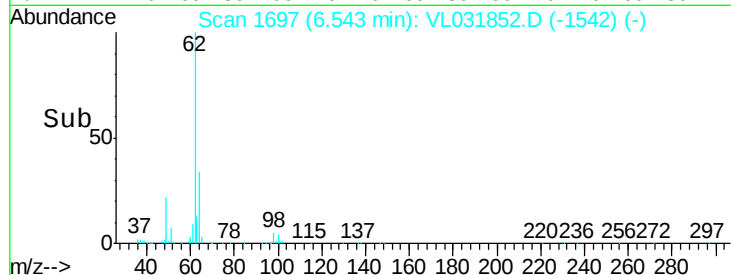
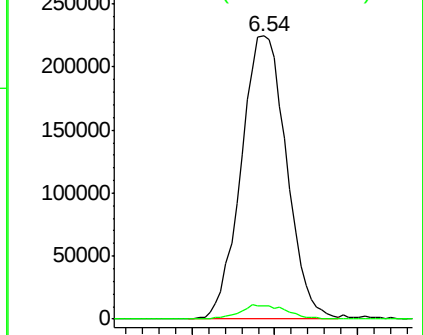
MMDadoda

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Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0



#38

Trichloroethene

Concen: 2.066 ppbv

RT: 8.10 min Scan# 2180

Delta R.T. -0.01 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Tgt Ion: 130 Resp: 235627

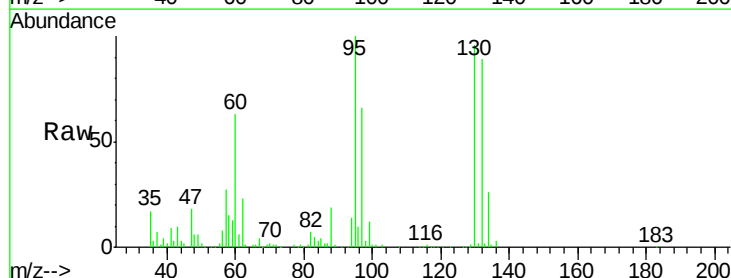
Ion Ratio Lower Upper

130 100

95 103.1 92.1 138.1

132 92.3 74.8 112.2

97 68.0 61.7 92.5

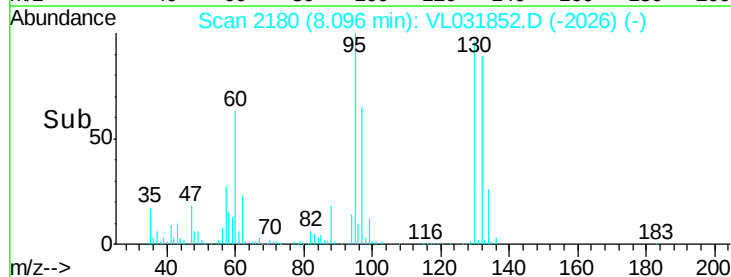
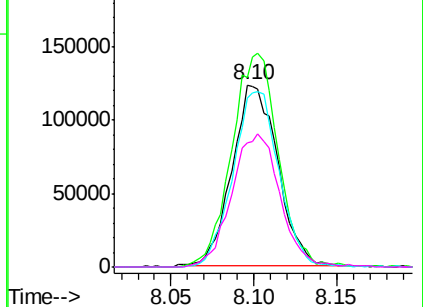


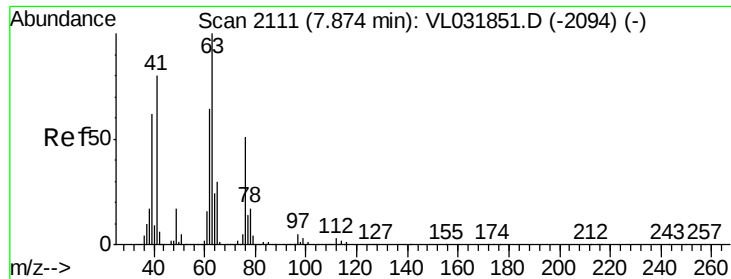
Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0





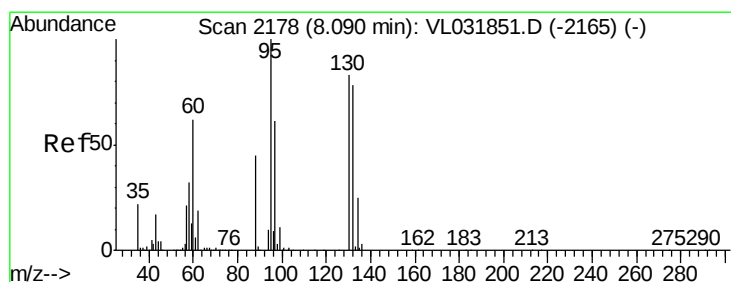
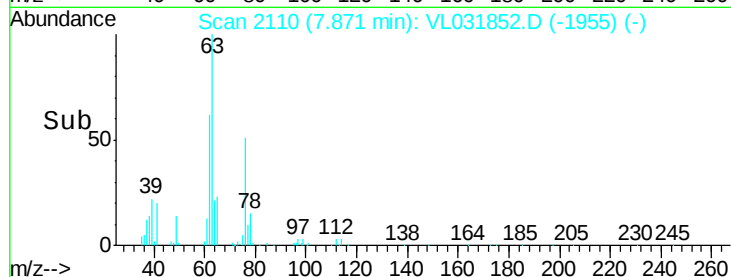
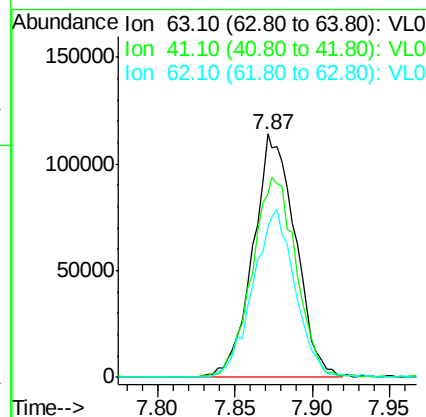
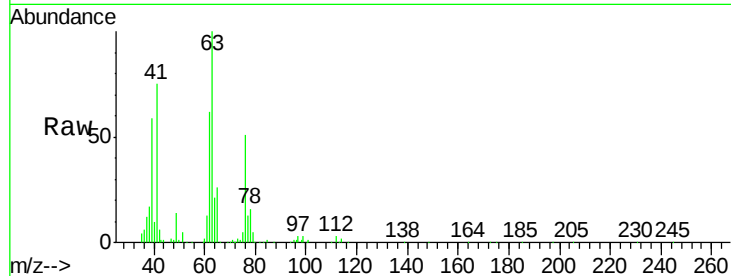
#39  
 1,2-Dichloropropane  
 Concen: 2.134 ppbv  
 RT: 7.87 min Scan# 2110  
 Delta R.T. -0.00 min  
 Lab File: VL031852.D  
 Acq: 12 Apr 2018 00:59

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 75.4  | 64.1  | 96.1  |
| 62      | 61.6  | 51.5  | 77.3  |

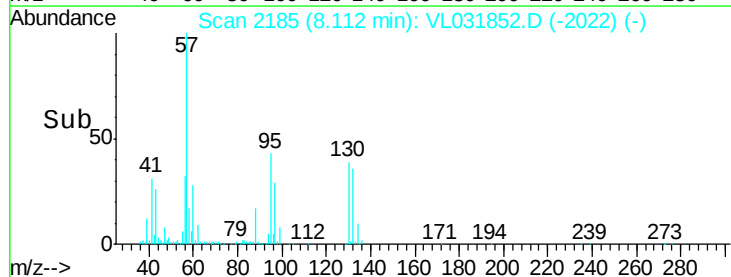
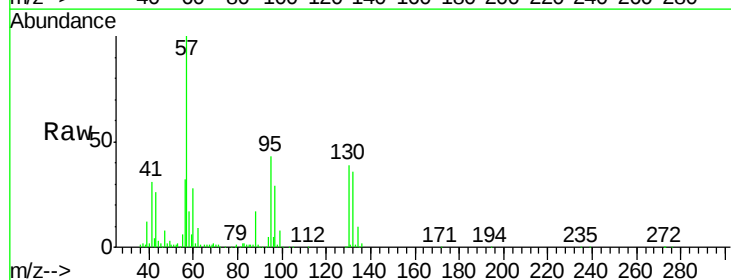
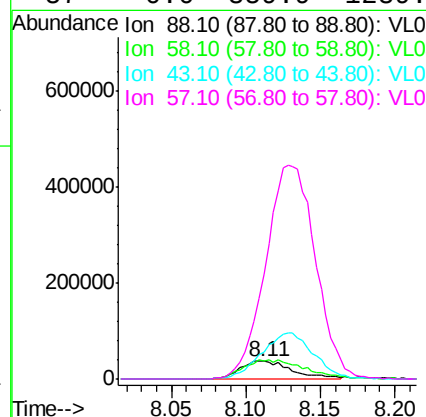
Manual Integrations  
 APPROVED

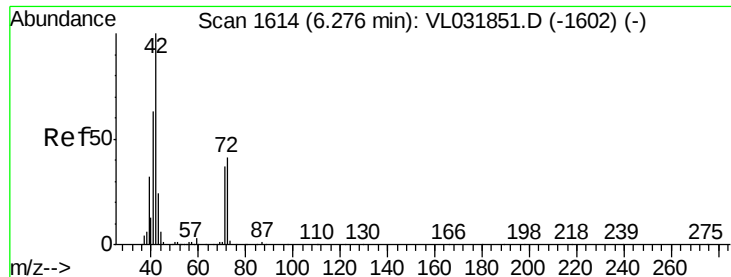
MMDadoda  
 4/15/2018 3:05:56 PM



#40  
 1,4-Dioxane  
 Concen: 2.192 ppbv m  
 RT: 8.11 min Scan# 2185  
 Delta R.T. 0.02 min  
 Lab File: VL031852.D  
 Acq: 12 Apr 2018 00:59

| Tgt Ion | Ratio | Lower | Upper   |
|---------|-------|-------|---------|
| 88      | 100   |       |         |
| 58      | 130.1 | 99.3  | 148.9   |
| 43      | 0.0   | 197.3 | 295.9#  |
| 57      | 0.0   | 859.9 | 1289.9# |





#41

Tetrahydrofuran

Concen: 2.052 ppbv

RT: 6.29 min Scan# 1617

Delta R.T. 0.01 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

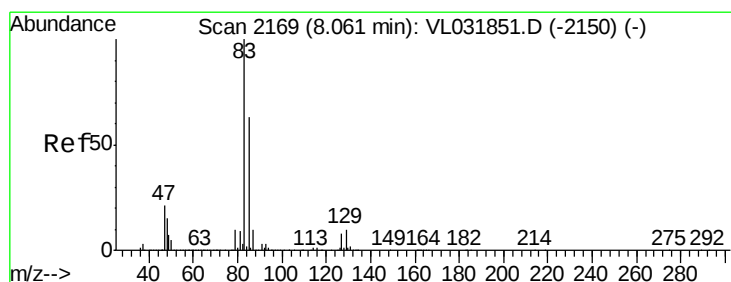
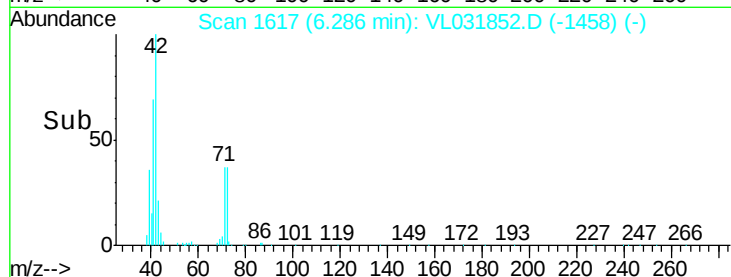
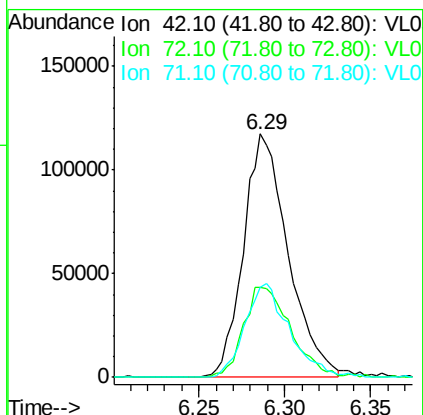
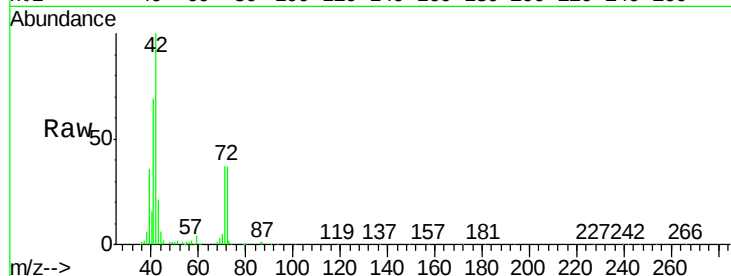
ClientSampleId :

VSTDIC002

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 39.6  | 32.5  | 48.7  |
| 71      | 39.1  | 31.3  | 46.9  |

Manual Integrations  
APPROVED

MMDadoda  
4/15/2018 3:05:56 PM



#42

Bromodichloromethane

Concen: 2.333 ppbv

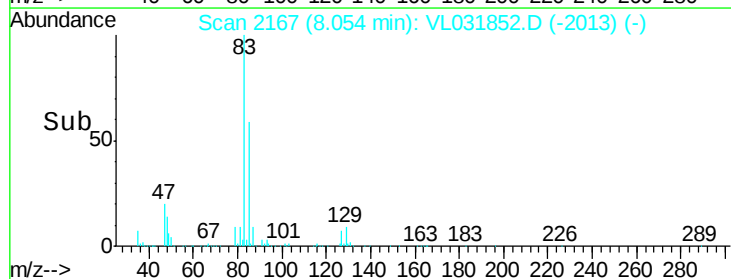
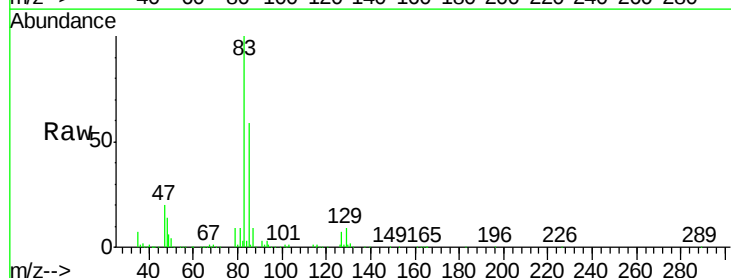
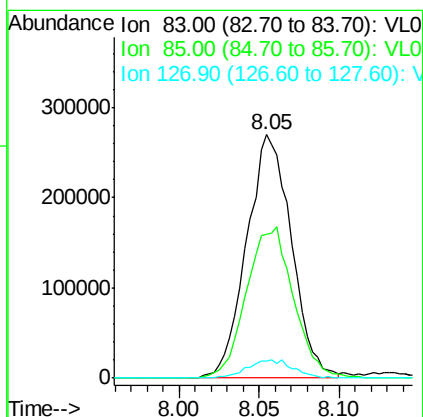
RT: 8.05 min Scan# 2167

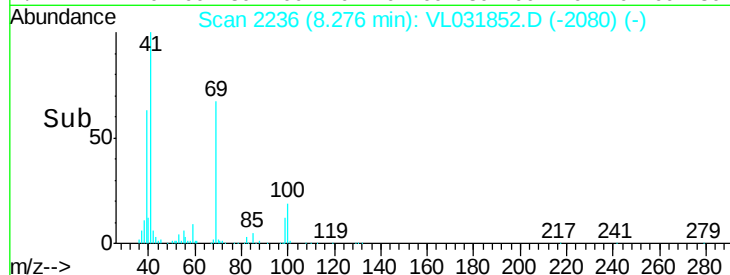
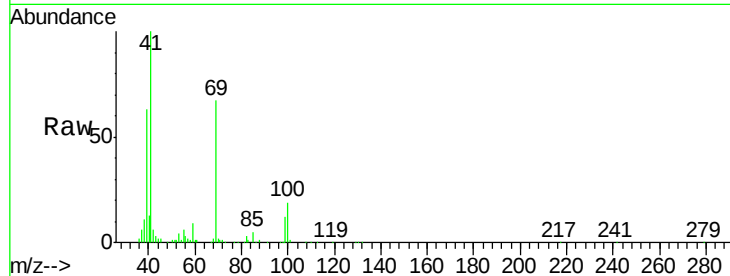
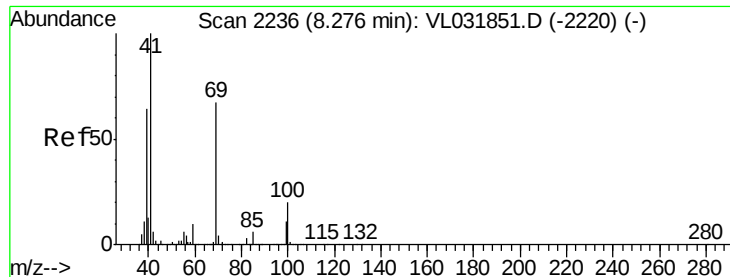
Delta R.T. -0.01 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 59.2  | 50.3  | 75.5  |
| 127     | 6.8   | 6.1   | 9.1   |





#43

Methvl Methacrvlate

Concen: 2.079 ppbv

RT: 8.28 min Scan# 2236

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

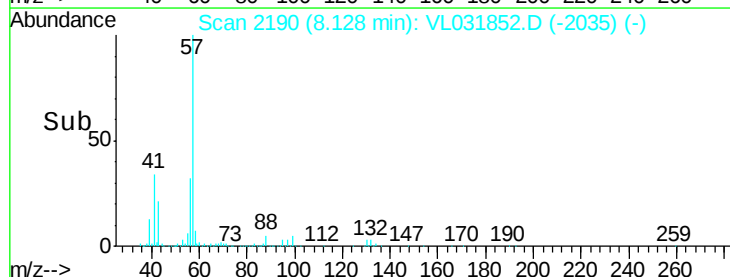
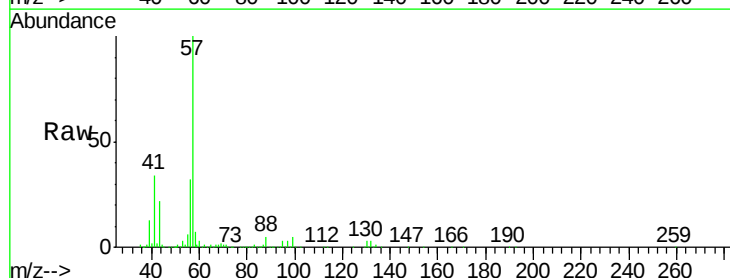
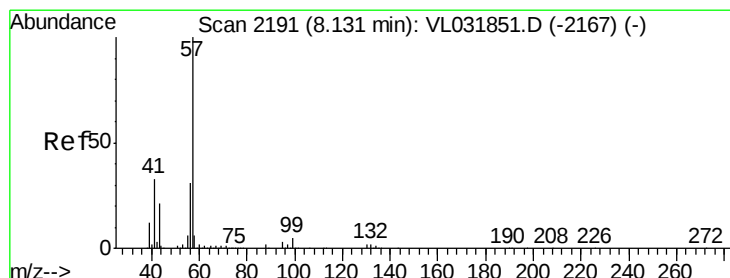
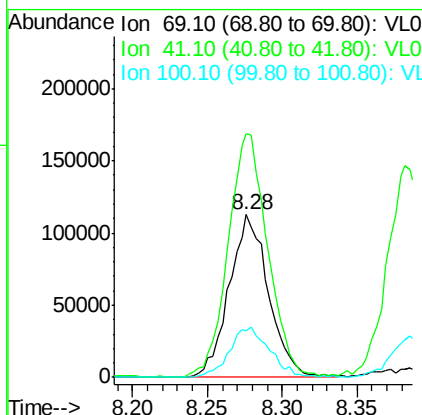
| Tot Ion | Ion   | Ratio | Lower | Upper |
|---------|-------|-------|-------|-------|
| 69      | 100   |       |       |       |
| 41      | 150.3 | 119.8 | 179.8 |       |
| 100     | 31.2  | 24.9  | 37.3  |       |

Instrument :  
MSVOA\_L

ClientSampleId :  
VSTDIC002

Manual Integrations  
APPROVED

MMDadoda  
4/15/2018 3:05:56 PM



#44

2,2,4-Trimethylpentane

Concen: 2.261 ppbv

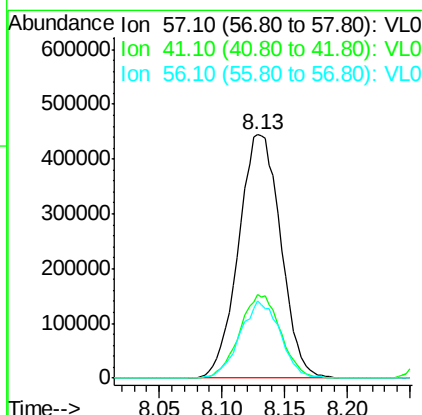
RT: 8.13 min Scan# 2190

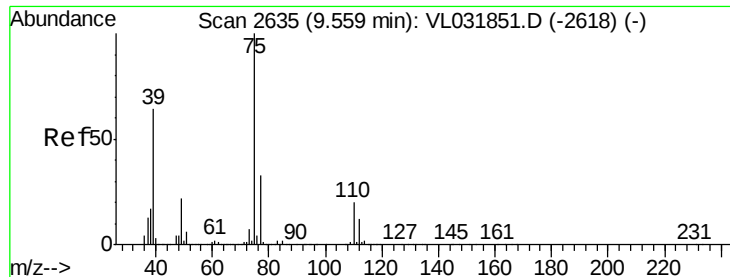
Delta R.T. -0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 57      | 100  |       |       |       |
| 41      | 33.6 | 26.5  | 39.7  |       |
| 56      | 30.4 | 24.2  | 36.4  |       |





#45

t-1,3-Dichloropropene

Concen: 1.968 ppbv

RT: 9.56 min Scan# 2635

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

Tot Ion: 75 Resp: 265338

Ion Ratio Lower Upper

75 100

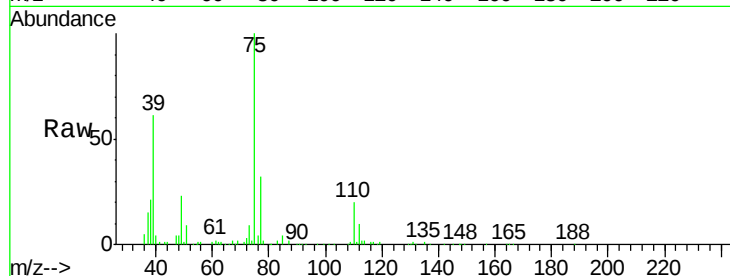
77 31.9 26.2 39.4

Manual Integrations

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MMDadoda

4/15/2018 3:05:56 PM



Abundance Ion 75.10 (74.80 to 75.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

9.56

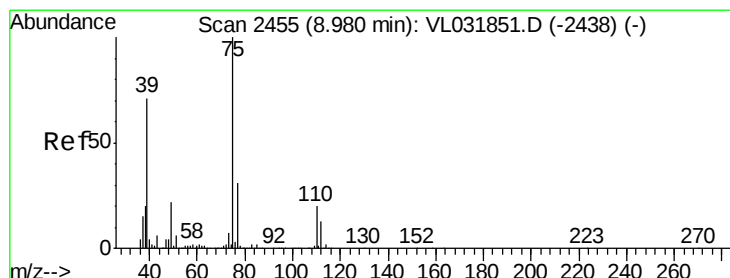
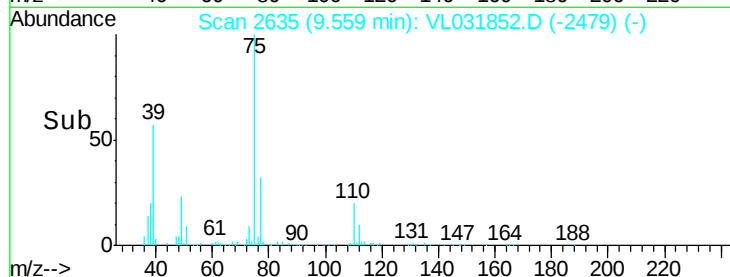
150000

100000

50000

0

Time-->



#46

cis-1,3-Dichloropropene

Concen: 2.032 ppbv

RT: 8.98 min Scan# 2454

Delta R.T. -0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

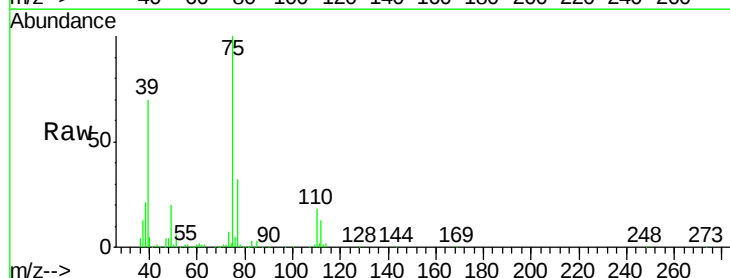
Tgt Ion: 75 Resp: 342294

Ion Ratio Lower Upper

75 100

39 70.0 56.9 85.3

77 32.5 25.1 37.7



Abundance Ion 75.00 (74.70 to 75.70): VL0

Ion 39.00 (38.70 to 39.70): VL0

Ion 77.00 (76.70 to 77.70): VL0

250000

200000

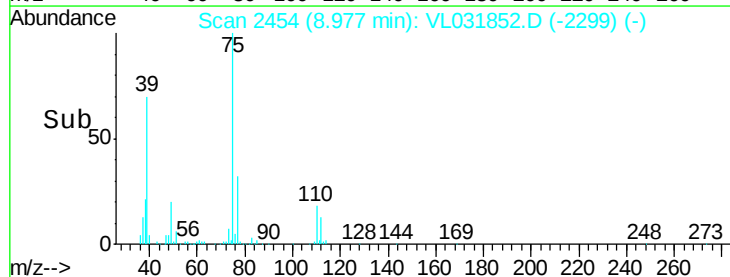
150000

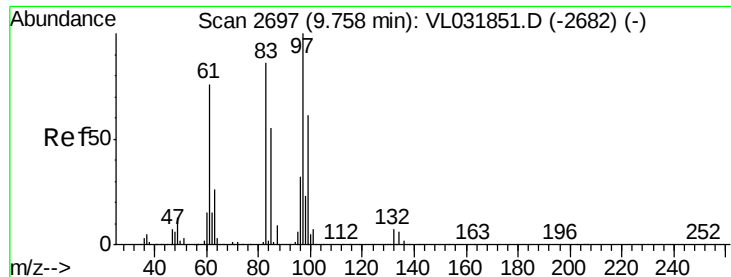
100000

50000

0

Time-->





#47

1,1,2-Trichloroethane

Concen: 2.091 ppbv

RT: 9.76 min Scan# 2697

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

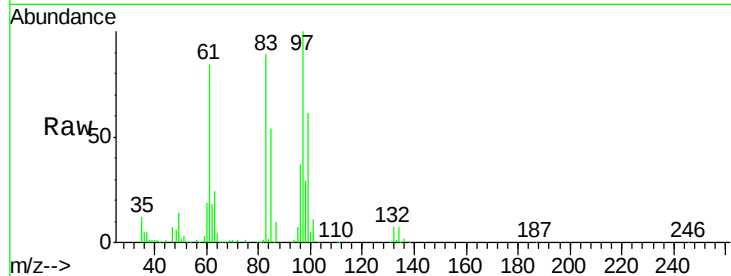
ClientSampleId :

VSTDIC002

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 97    | Resp: | 242971 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 83       | 88.8  | 68.4  | 102.6  |
| 85       | 53.9  | 44.5  | 66.7   |
| 99       | 61.8  | 48.6  | 73.0   |

Manual Integrations  
APPROVED

MMDadoda  
4/15/2018 3:05:56 PM

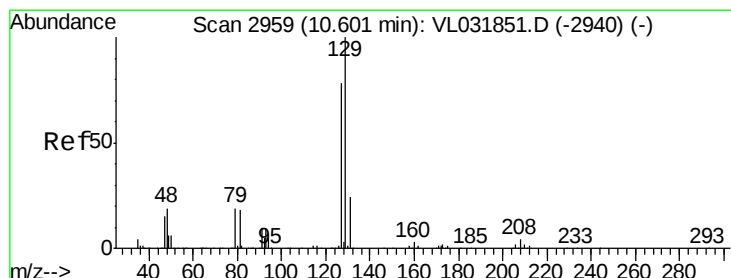
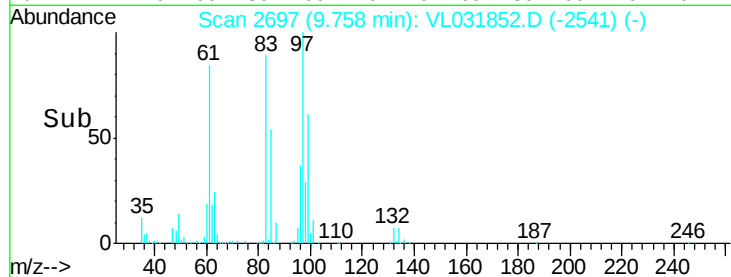
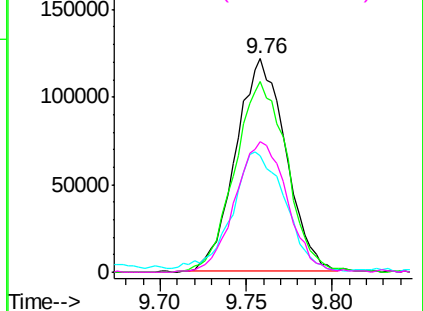


Abundance Ion 97.00 (96.70 to 97.70): VL0

Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 99.00 (98.70 to 99.70): VL0



#48

Dibromochloromethane

Concen: 2.259 ppbv

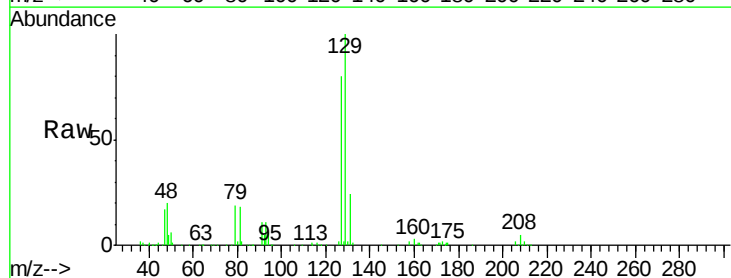
RT: 10.60 min Scan# 2958

Delta R.T. -0.00 min

Lab File: VL031852.D

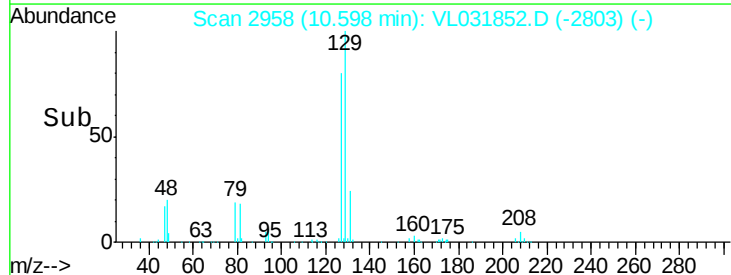
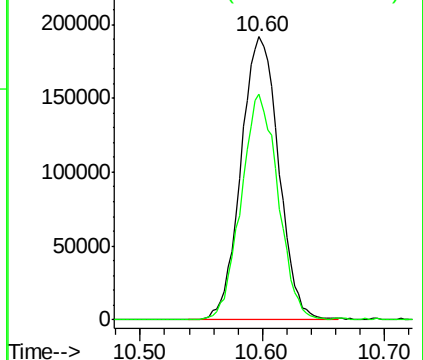
Acq: 12 Apr 2018 00:59

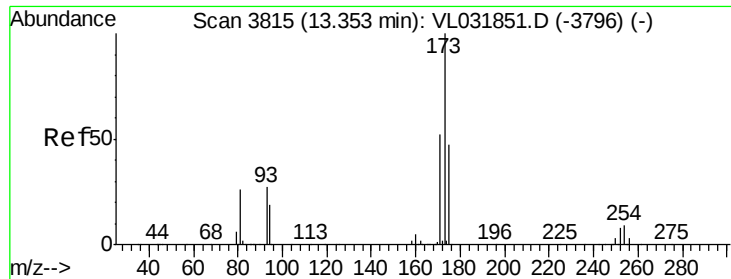
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 129   | Resp: | 408736 |
| Ion      | Ratio | Lower | Upper  |
| 129      | 100   |       |        |
| 127      | 78.0  | 39.1  | 117.2  |



Abundance Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V





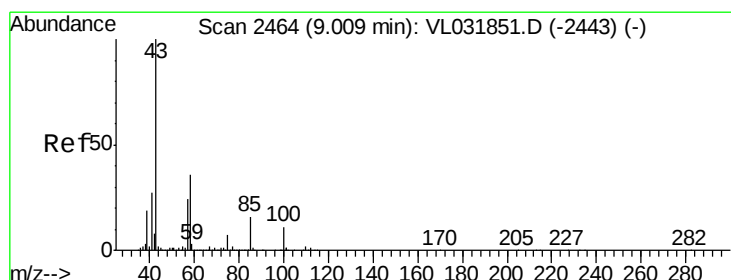
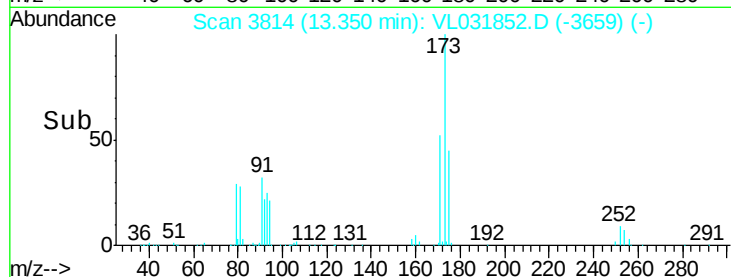
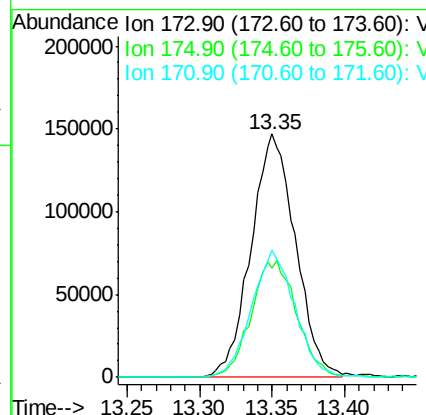
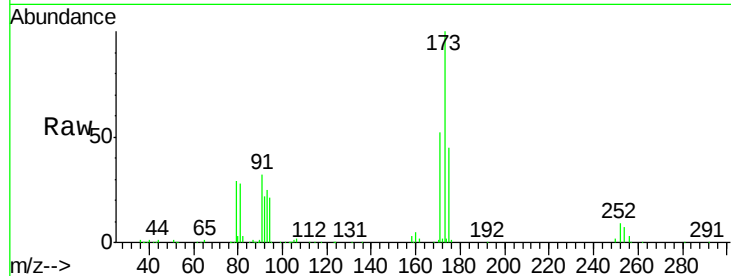
#49  
Bromoform  
Concen: 2.358 ppbv  
RT: 13.35 min Scan# 3814  
Delta R.T. -0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 173     | 100   |       |       |
| 175     | 49.6  | 39.4  | 59.0  |
| 171     | 51.4  | 42.2  | 63.2  |

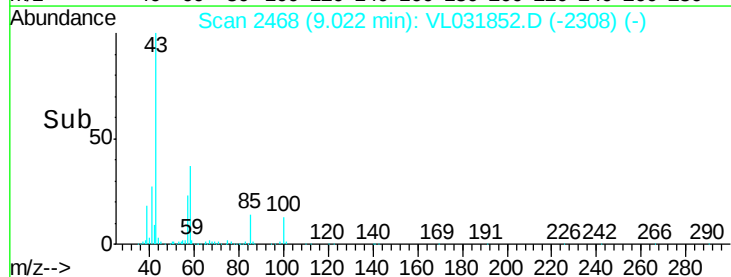
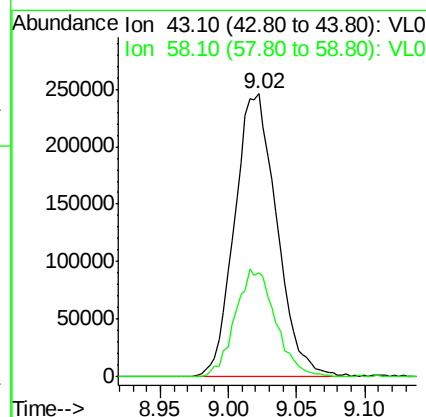
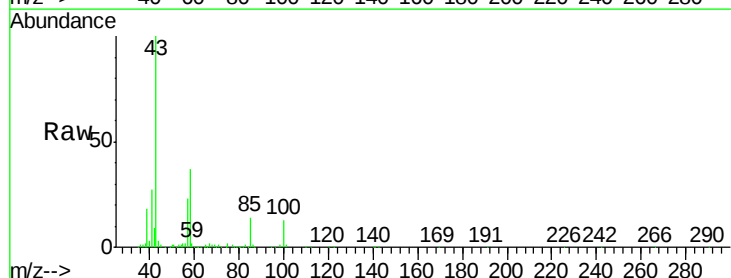
Manual Integrations  
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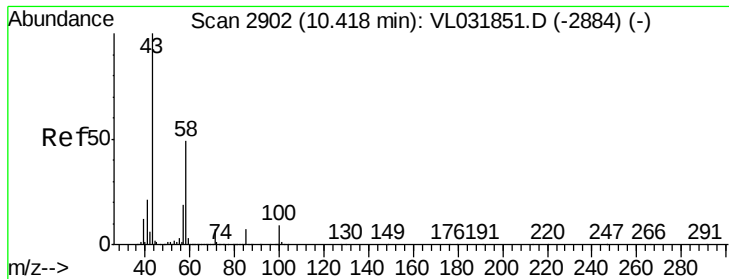
MMDadoda  
4/15/2018 3:05:56 PM



#50  
4-Methyl-2-Pentanone  
Concen: 2.221 ppbv  
RT: 9.02 min Scan# 2468  
Delta R.T. 0.01 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 36.8  | 29.1  | 43.7  |





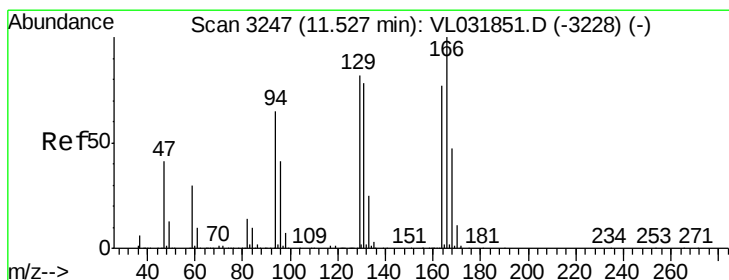
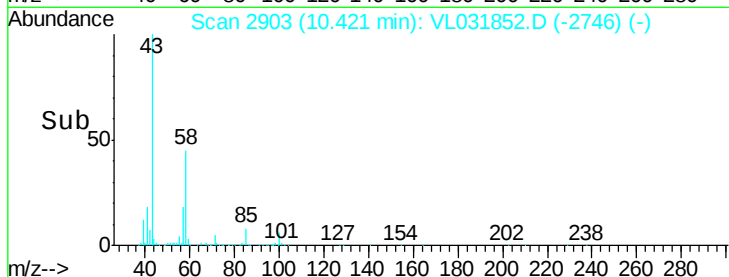
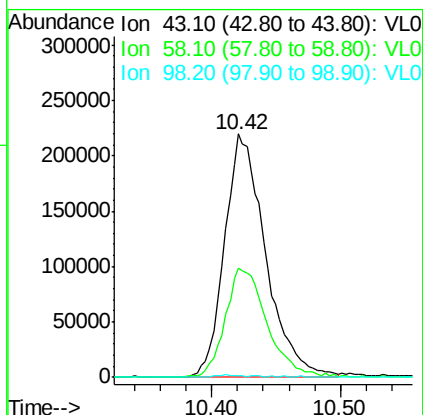
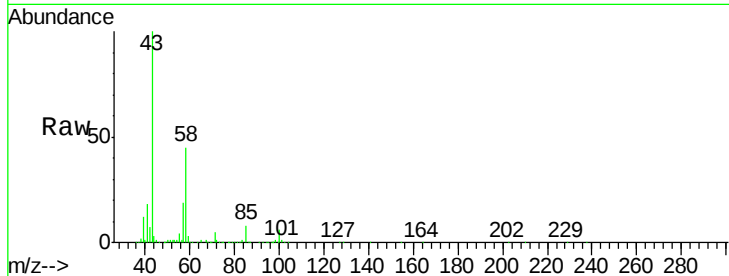
#51  
2-Hexanone  
Concen: 2.185 ppbv  
RT: 10.42 min Scan# 2903  
Delta R.T. 0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 46.7  | 38.4  | 57.6  |
| 98      | 1.0   | 0.2   | 0.4   |

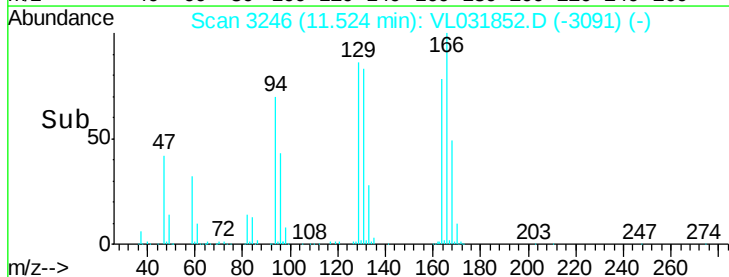
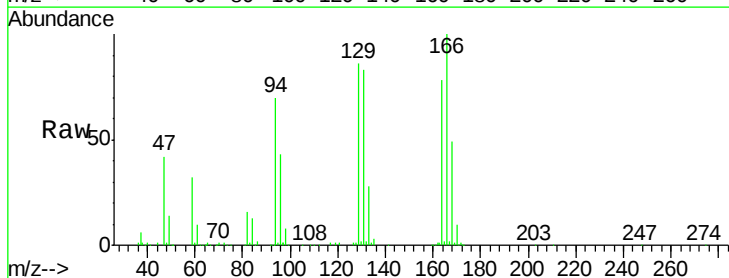
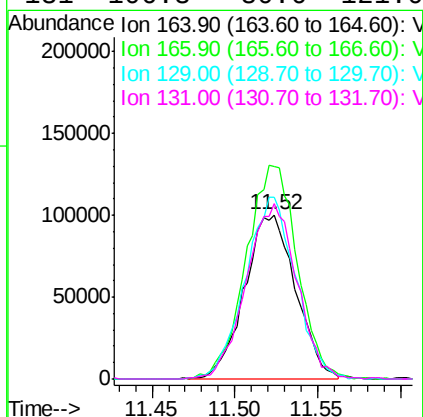
Manual Integrations  
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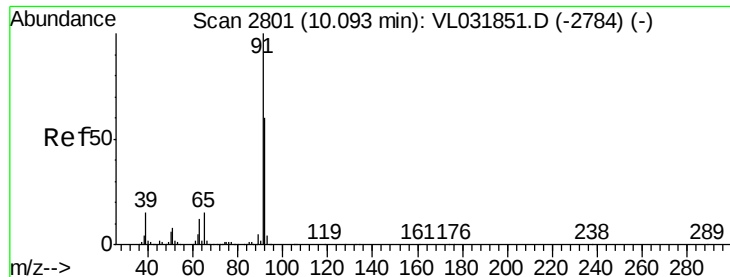
MMDadoda  
4/15/2018 3:05:56 PM



#52  
Tetrachloroethene  
Concen: 1.893 ppbv  
RT: 11.52 min Scan# 3246  
Delta R.T. -0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 127.9 | 103.3 | 154.9 |
| 129     | 110.2 | 84.2  | 126.4 |
| 131     | 106.3 | 80.6  | 121.0 |





#53

Toluene

Concen: 2.041 ppbv

RT: 10.09 min Scan# 2801

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

Tot Ion: 91 Resp: 663783

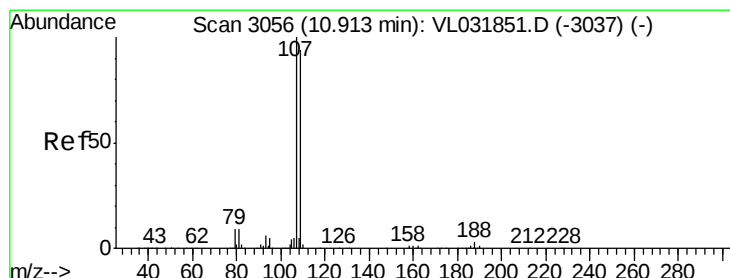
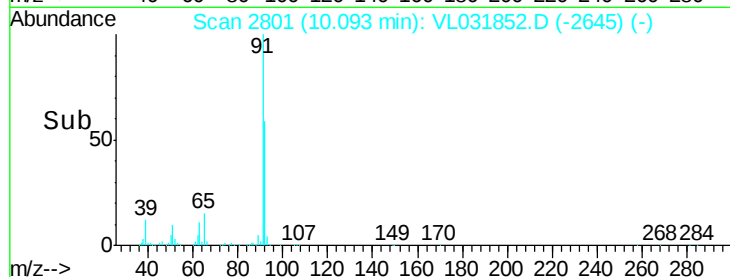
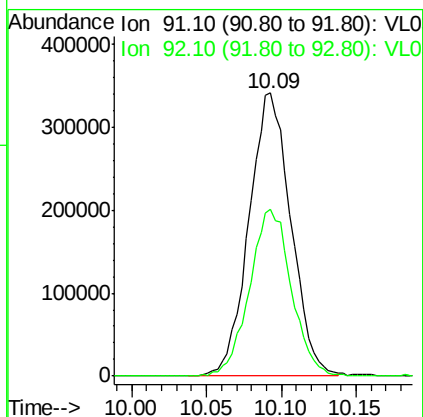
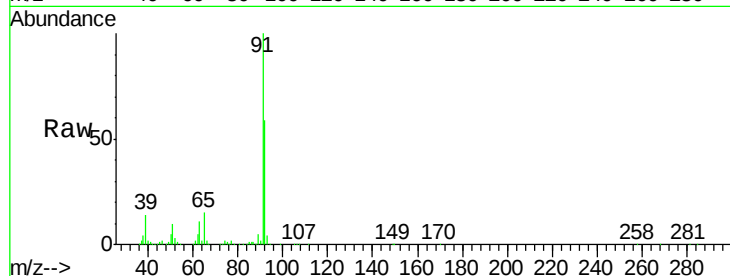
Ion Ratio Lower Upper

91 100

92 59.0 47.2 70.8

Manual Integrations  
APPROVED

MMDadoda  
4/15/2018 3:05:56 PM



#54

1,2-Dibromoethane

Concen: 2.118 ppbv

RT: 10.91 min Scan# 3055

Delta R.T. -0.00 min

Lab File: VL031852.D

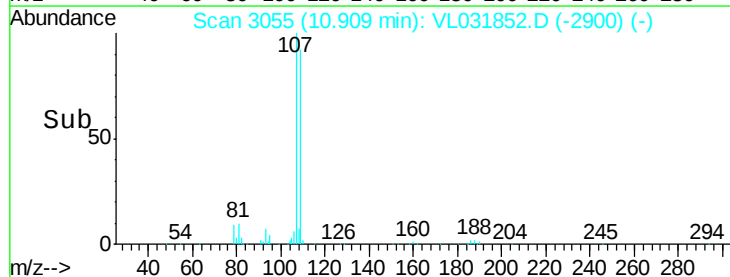
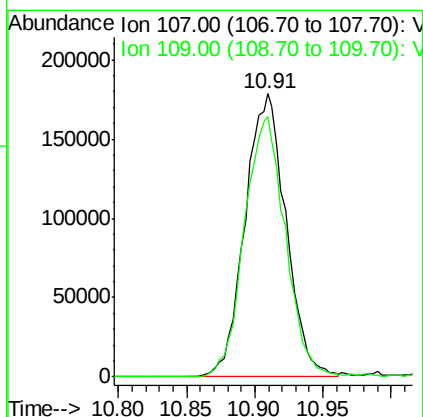
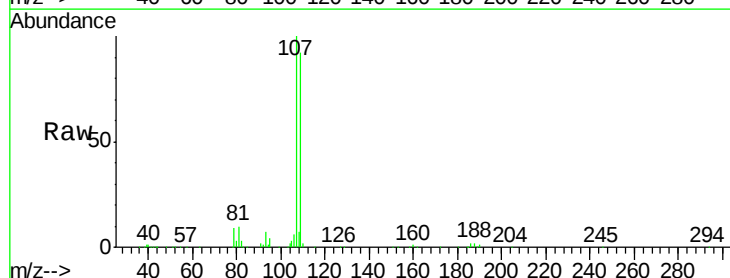
Acq: 12 Apr 2018 00:59

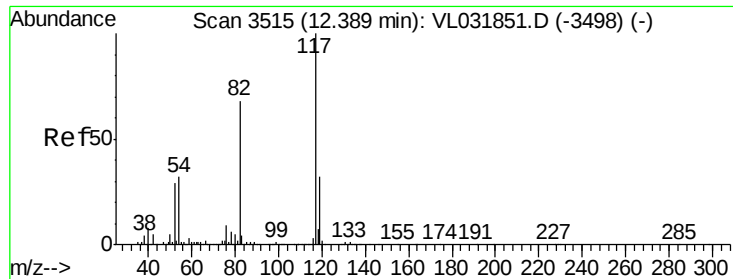
Tgt Ion: 107 Resp: 372028

Ion Ratio Lower Upper

107 100

109 91.8 75.1 112.7





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.39 min Scan# 3515

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

Tot Ion:117 Resp: 2993412

Ion Ratio Lower Upper

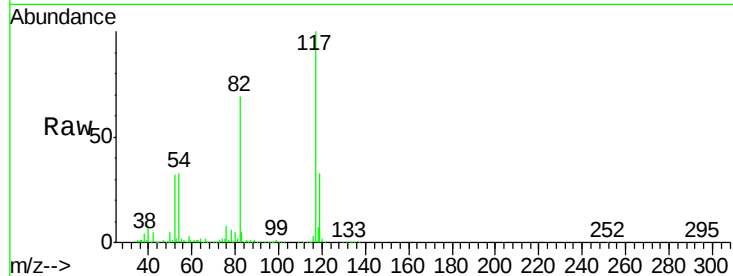
117 100

82 65.1 52.9 79.3

119 36.7 43.8 65.6#

Manual Integrations  
APPROVED

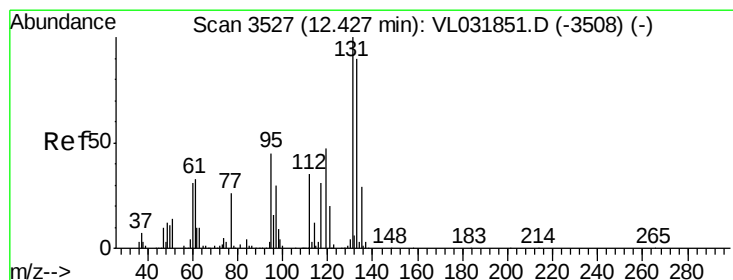
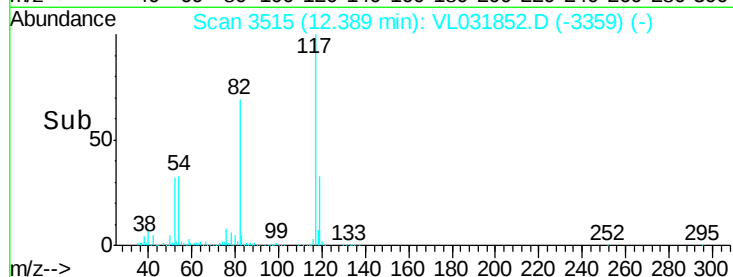
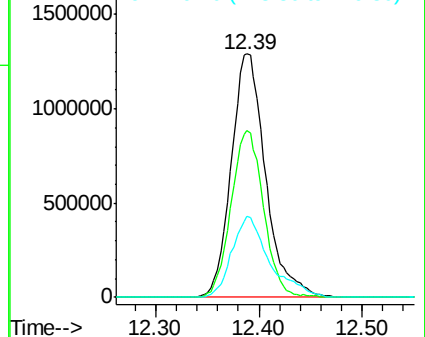
MMDadoda  
4/15/2018 3:05:56 PM



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): V

Ion 119.10 (118.80 to 119.80): V



#56

1,1,1,2-Tetrachloroethane

Concen: 2.174 ppbv

RT: 12.43 min Scan# 3528

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

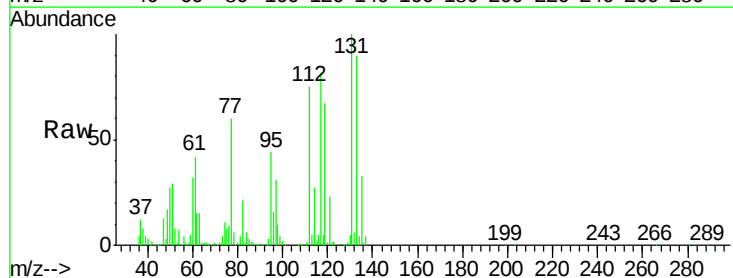
Tgt Ion:131 Resp: 299783

Ion Ratio Lower Upper

131 100

133 95.4 75.9 113.9

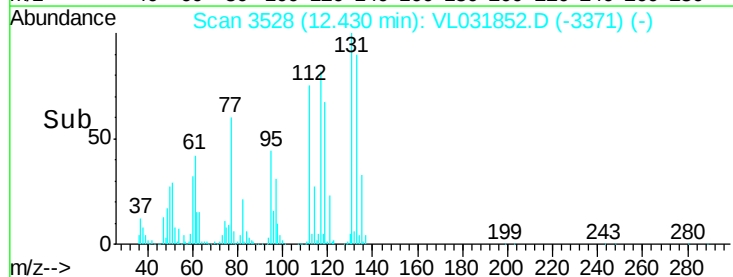
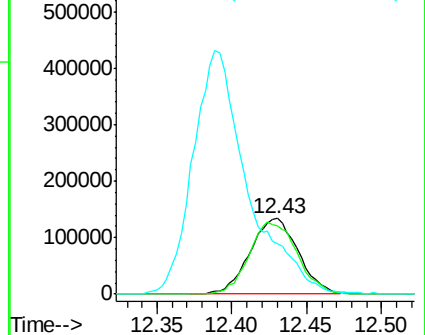
119 367.4 106.7 160.1#

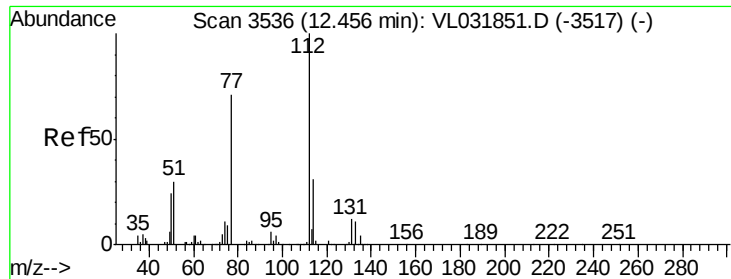


Abundance Ion 131.00 (130.70 to 131.70): V

Ion 133.00 (132.70 to 133.70): V

Ion 119.00 (118.70 to 119.70): V





#57

Chlorobenzene

Concen: 2.033 ppbv

RT: 12.45 min Scan# 3533

Delta R.T. -0.01 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

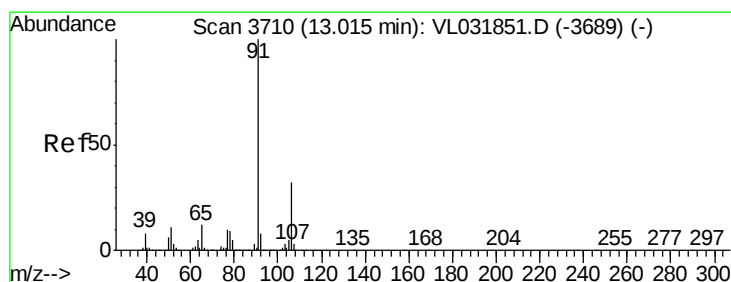
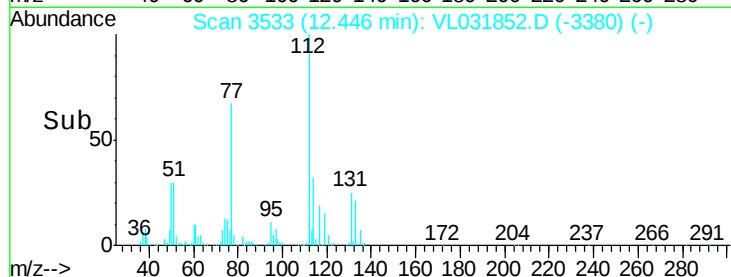
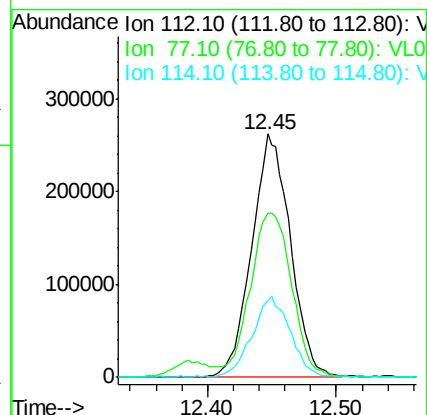
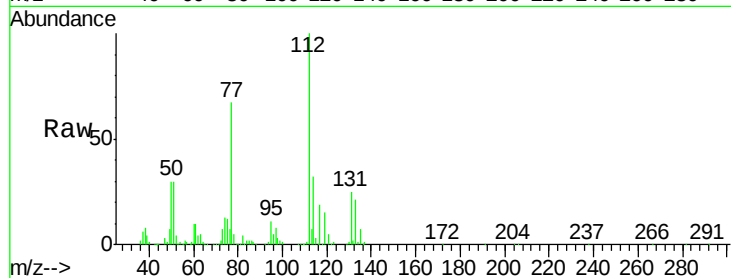
ClientSampleId :

VSTDIC002

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 112   | Resp: | 546779 |
| Ion Ratio | Lower | Upper |        |
| 112       | 100   |       |        |
| 77        | 66.5  | 58.2  | 87.2   |
| 114       | 31.7  | 28.4  | 34.7   |

Manual Integrations  
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4/15/2018 3:05:56 PM



#58

Ethyl Benzene

Concen: 1.980 ppbv

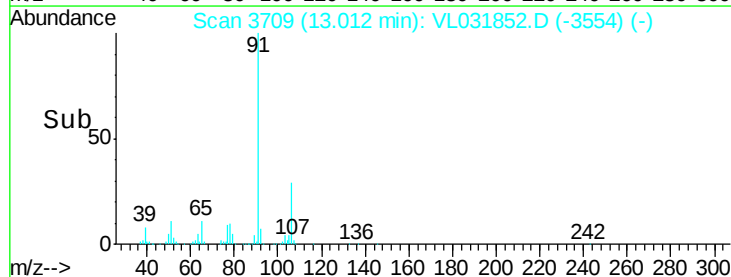
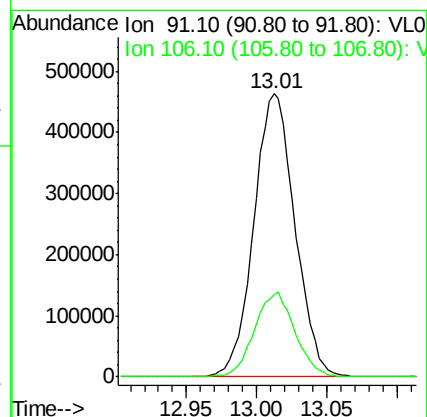
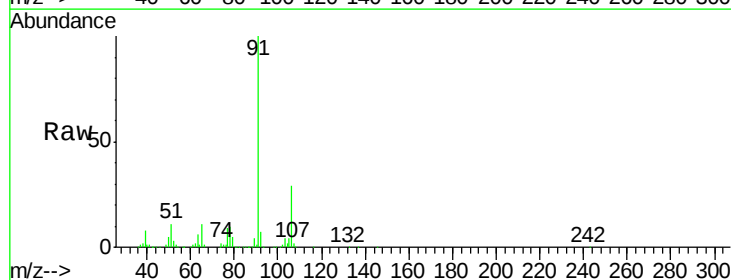
RT: 13.01 min Scan# 3709

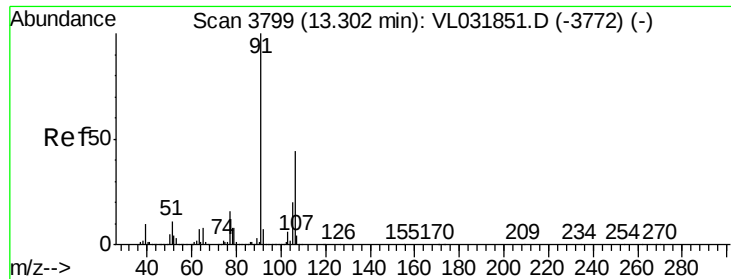
Delta R.T. -0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 91    | Resp: | 944053 |
| Ion Ratio | Lower | Upper |        |
| 91        | 100   |       |        |
| 106       | 29.3  | 25.4  | 38.0   |





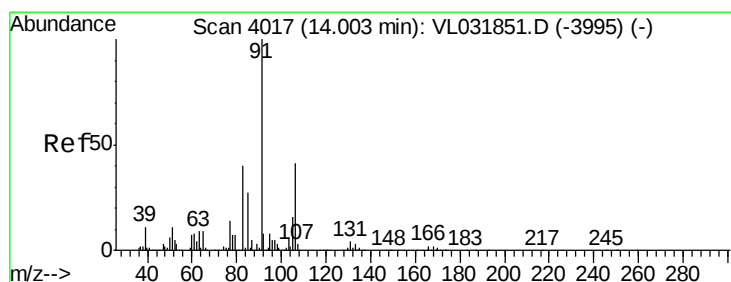
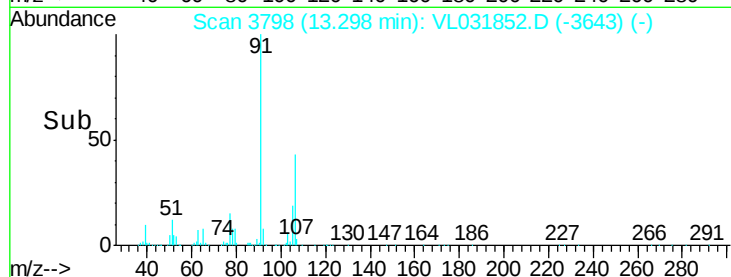
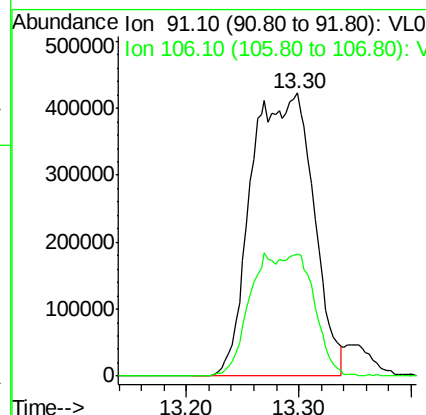
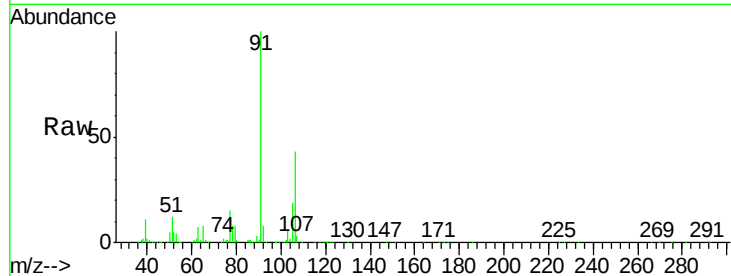
#59  
m/p-Xylene  
Concen: 4.102 ppbv m  
RT: 13.30 min Scan# 3798  
Delta R.T. -0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

Tot Ion: 91 Resp: 1613760  
Ion Ratio Lower Upper  
91 100  
106 0.0 0.0 0.0

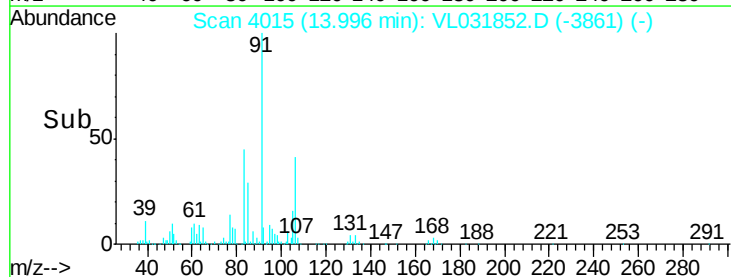
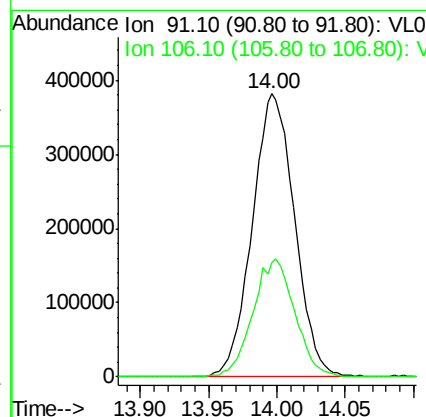
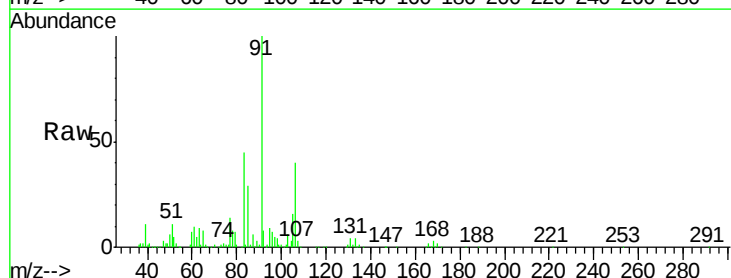
Manual Integrations  
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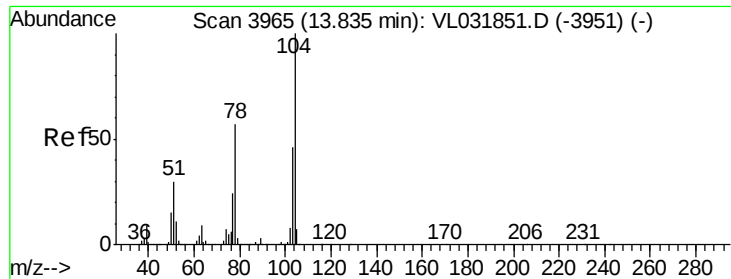
MMDadoda  
4/15/2018 3:05:56 PM



#60  
o-Xylene  
Concen: 2.066 ppbv  
RT: 14.00 min Scan# 4015  
Delta R.T. -0.01 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

Tgt Ion: 91 Resp: 820644  
Ion Ratio Lower Upper  
91 100  
106 41.4 21.0 63.0





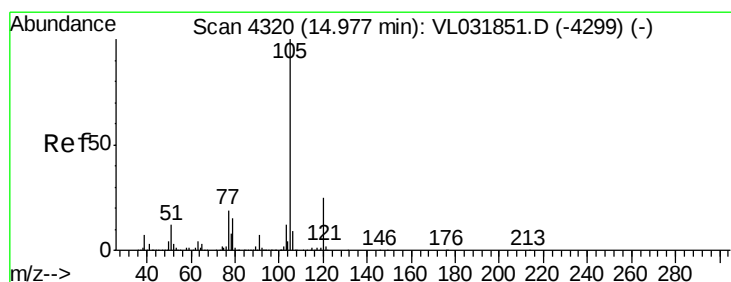
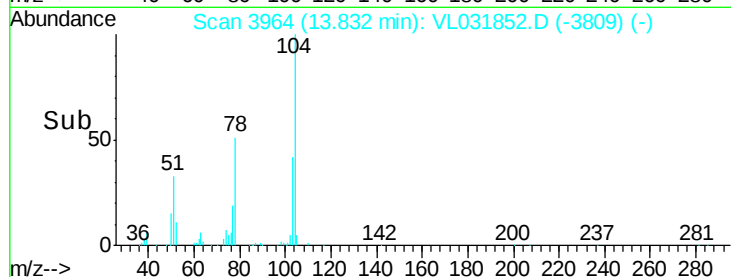
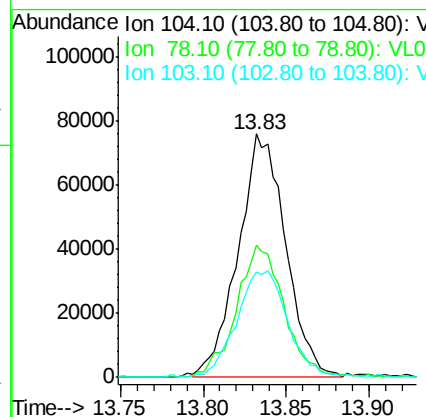
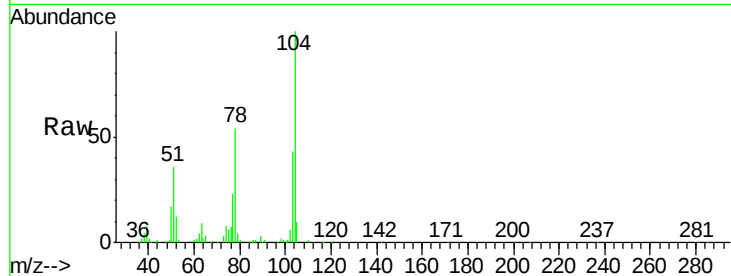
#61  
Stvrene  
Concen: 1.724 ppbv  
RT: 13.83 min Scan# 3964  
Delta R.T. -0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 54.9  | 44.6  | 66.8  |
| 103     | 47.6  | 37.9  | 56.9  |

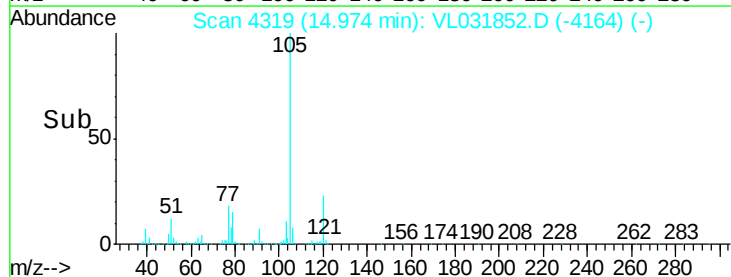
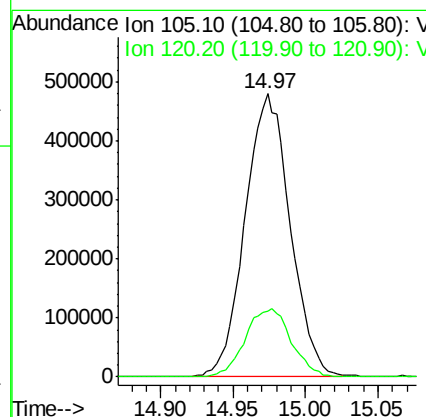
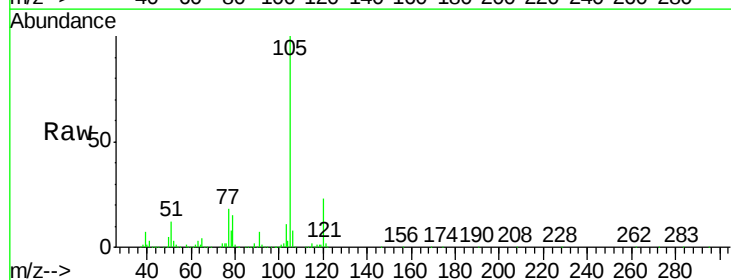
Manual Integrations  
APPROVED

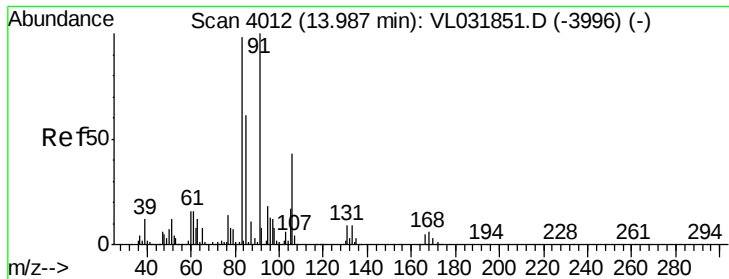
MMDadoda  
4/15/2018 3:05:56 PM



#62  
Isopropylbenzene  
Concen: 2.057 ppbv  
RT: 14.97 min Scan# 4319  
Delta R.T. -0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 24.7  | 19.8  | 29.6  |





#63

1,1,2,2-Tetrachloroethane

Concen: 2.211 ppbv

RT: 13.98 min Scan# 4011

Delta R.T. -0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

Tot Ion: 83 Resp: 574016

Ion Ratio Lower Upper

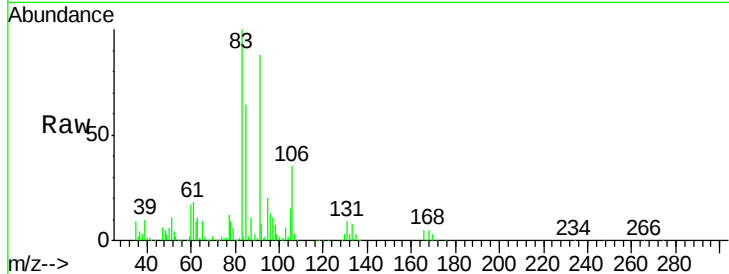
83 100

131 9.2 4.8 14.4

85 63.9 32.8 98.4

Manual Integrations  
APPROVED

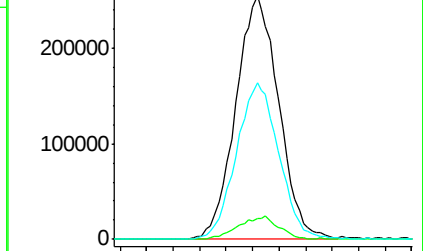
MMDadoda  
4/15/2018 3:05:56 PM



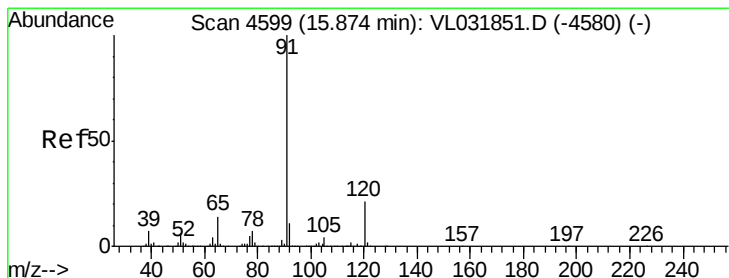
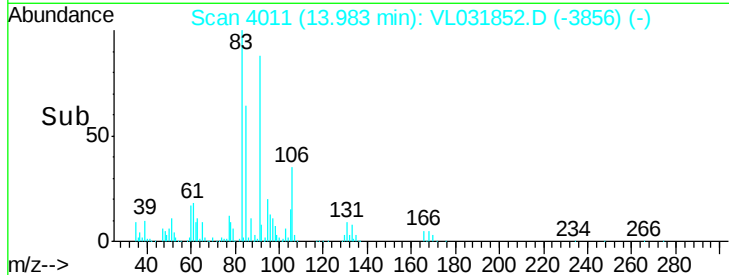
Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 131.00 (130.70 to 131.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



Time-->



#64

n-propylbenzene

Concen: 2.072 ppbv

RT: 15.87 min Scan# 4598

Delta R.T. -0.00 min

Lab File: VL031852.D

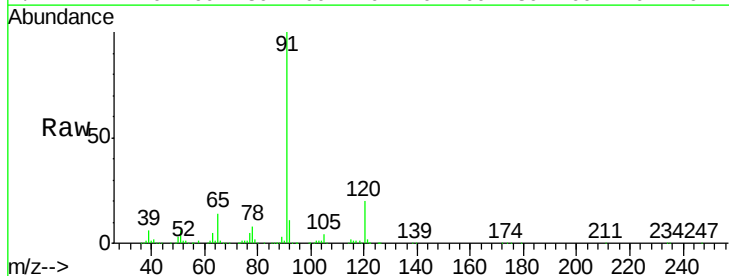
Acq: 12 Apr 2018 00:59

Tgt Ion:120 Resp: 250964

Ion Ratio Lower Upper

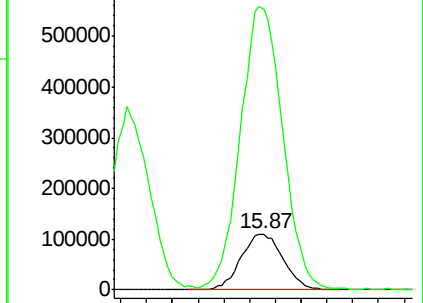
120 100

91 512.0 397.3 595.9

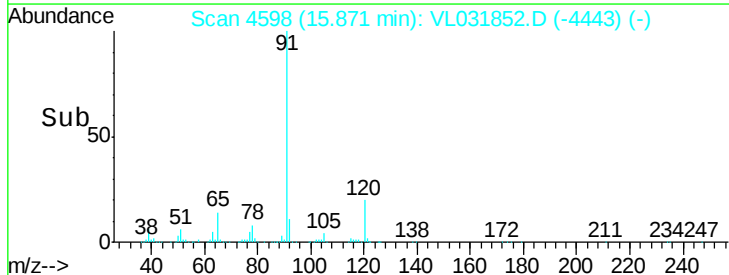


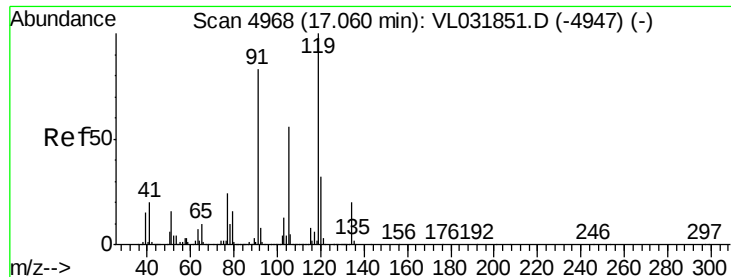
Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0



Time-->





#65

tert-Butylbenzene

Concen: 2.118 ppbv

RT: 17.06 min Scan# 4967

Delta R.T. -0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

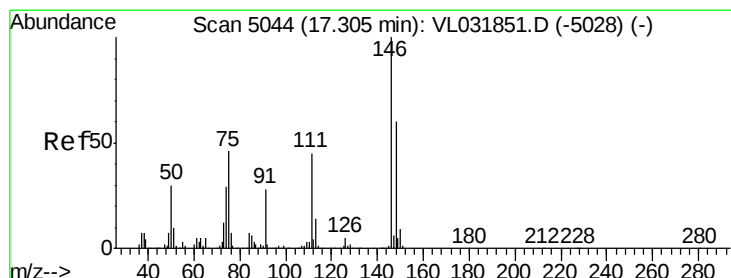
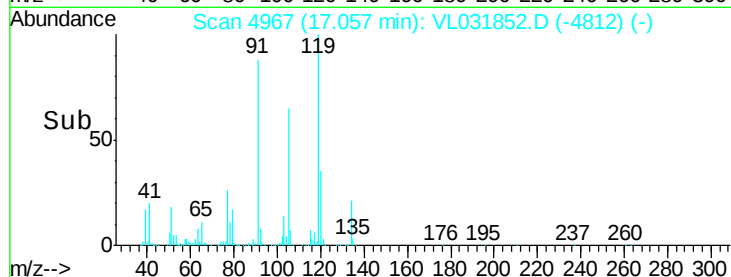
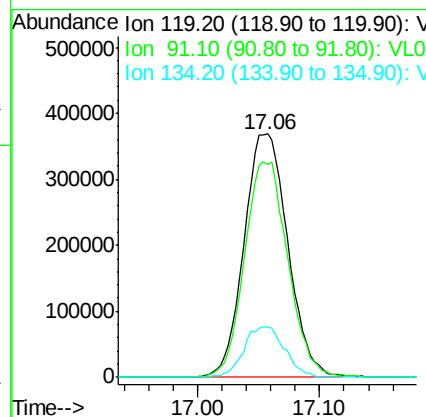
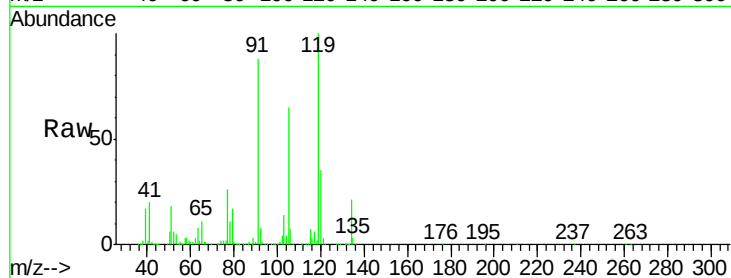
ClientSampleId :

VSTDIC002

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 119   | Resp: | 913006 |
| Ion Ratio | Lower | Upper |        |
| 119       | 100   |       |        |
| 91        | 88.6  | 69.0  | 103.6  |
| 134       | 19.6  | 15.4  | 23.0   |

Manual Integrations  
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4/15/2018 3:05:56 PM



#66

Benzyl Chloride

Concen: 1.984 ppbv m

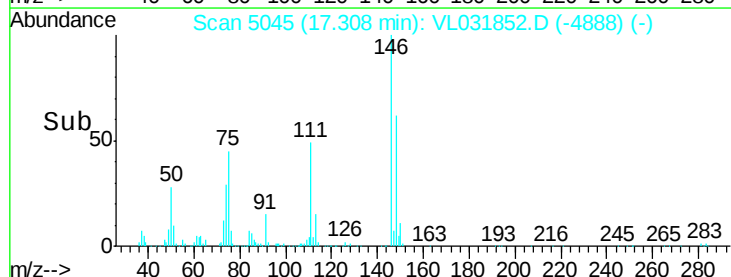
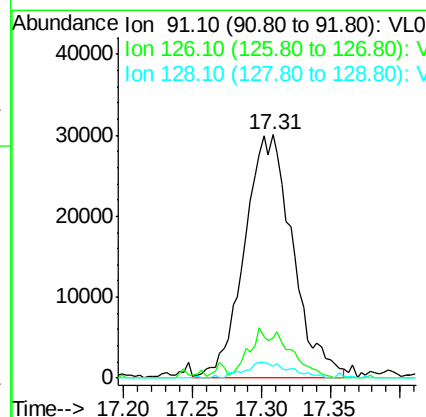
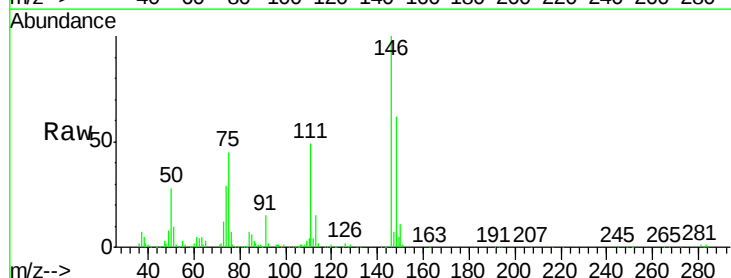
RT: 17.31 min Scan# 5045

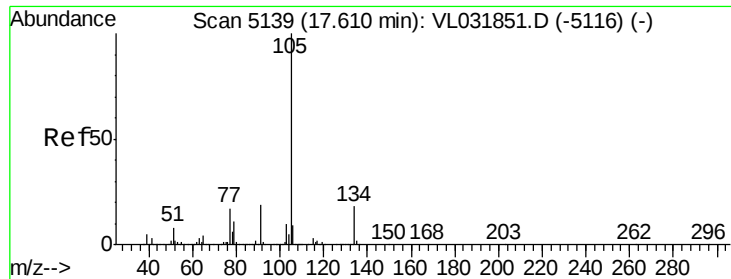
Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 91    | Resp: | 72963 |
| Ion Ratio | Lower | Upper |       |
| 91        | 100   |       |       |
| 126       | 0.0   | 12.7  | 19.1# |
| 128       | 0.0   | 4.1   | 6.1#  |





#67

sec-Butylbenzene

Concen: 2.173 ppbv

RT: 17.60 min Scan# 5137

Delta R.T. -0.01 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

Tot Ion: 105 Resp: 1306404

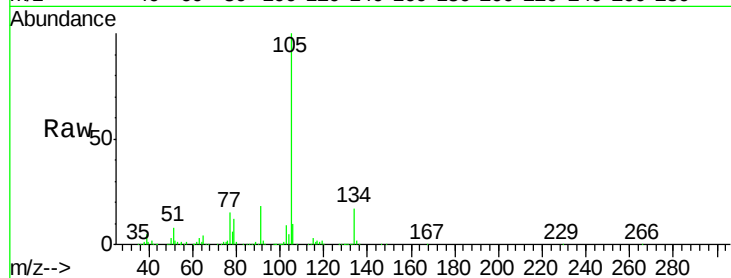
Ion Ratio Lower Upper

105 100

134 17.2 14.0 21.0

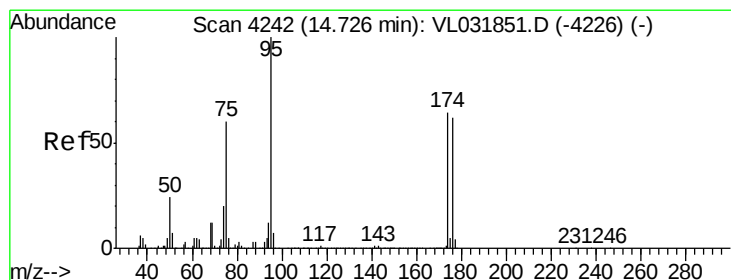
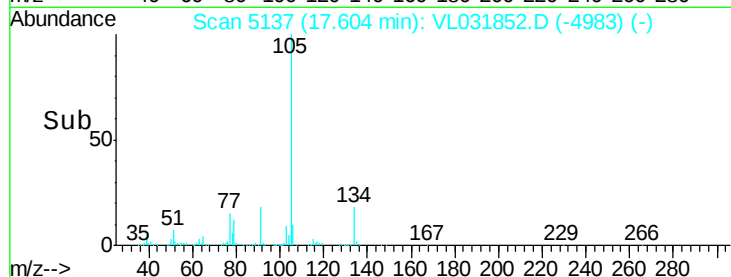
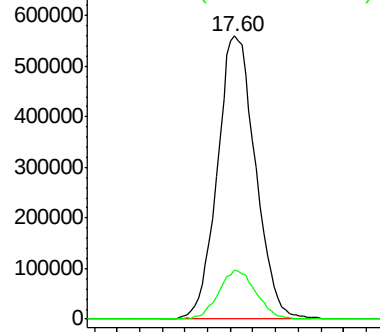
Manual Integrations  
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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.434 ppbv

RT: 14.72 min Scan# 4241

Delta R.T. -0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

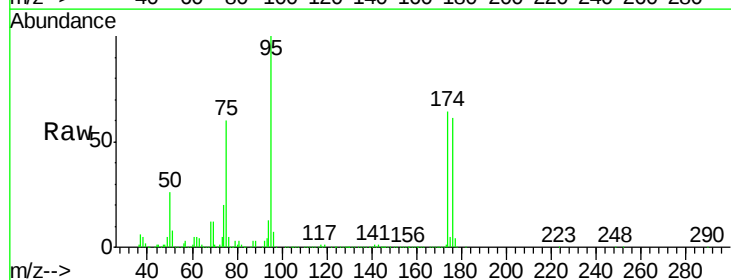
Tgt Ion: 95 Resp: 2346406

Ion Ratio Lower Upper

95 100

174 65.2 52.2 78.2

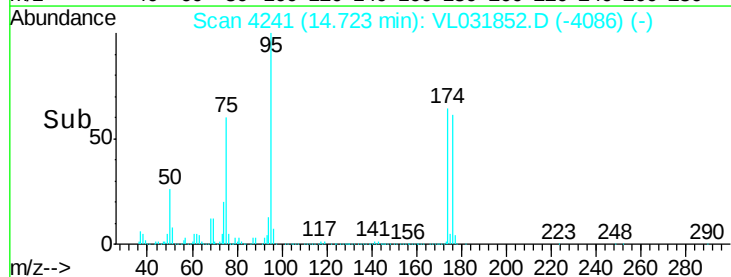
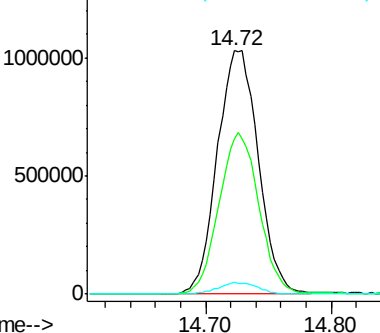
175 4.7 3.8 5.8

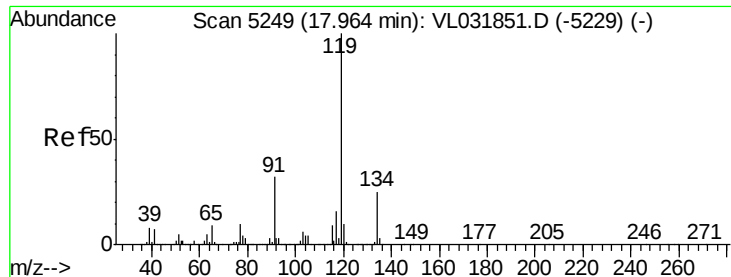


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





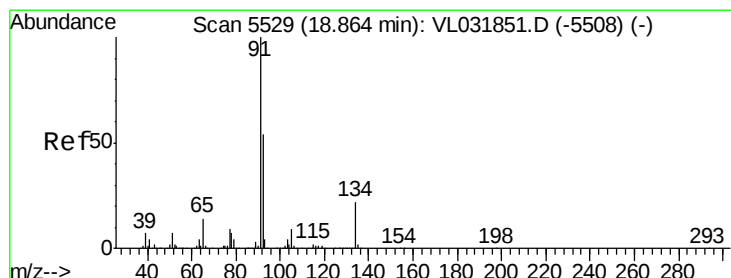
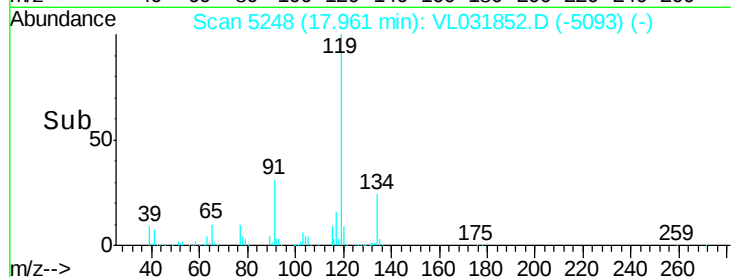
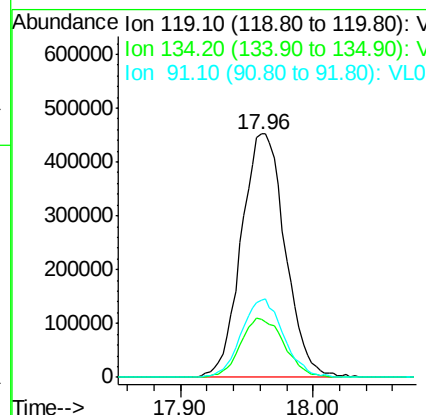
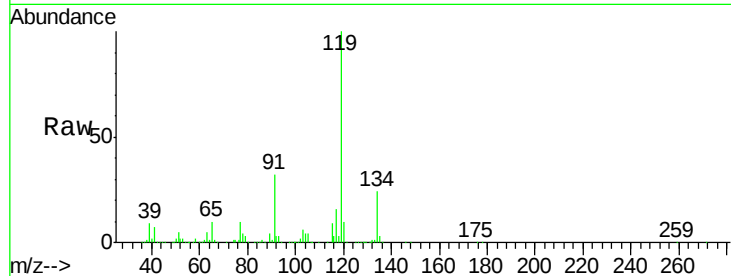
#69  
p-Isopropyltoluene  
Concen: 2.135 ppbv  
RT: 17.96 min Scan# 5248  
Delta R.T. -0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC002

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 24.6  | 19.7  | 29.5  |
| 91      | 31.5  | 24.6  | 37.0  |

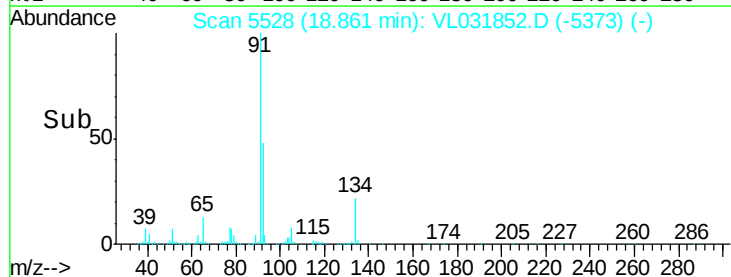
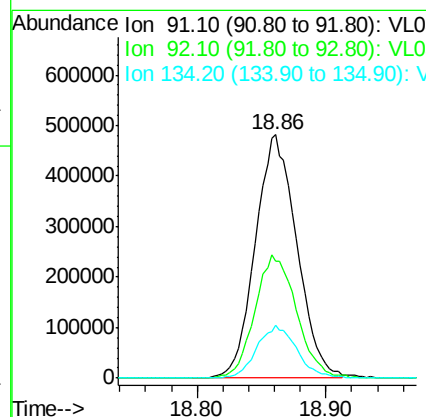
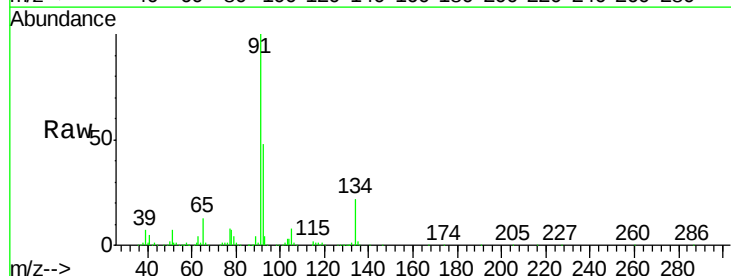
Manual Integrations  
APPROVED

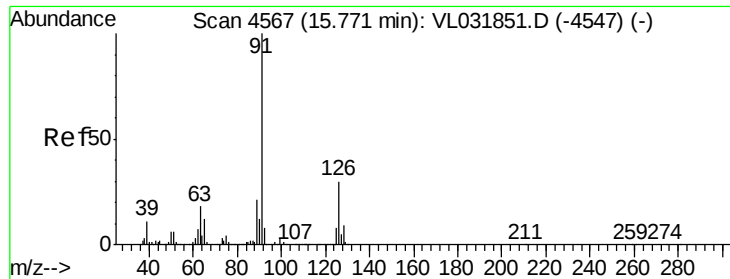
MMDadoda  
4/15/2018 3:05:56 PM



#70  
n-Butylbenzene  
Concen: 2.259 ppbv  
RT: 18.86 min Scan# 5528  
Delta R.T. -0.00 min  
Lab File: VL031852.D  
Acq: 12 Apr 2018 00:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 51.0  | 42.2  | 63.4  |
| 134     | 20.8  | 17.2  | 25.8  |





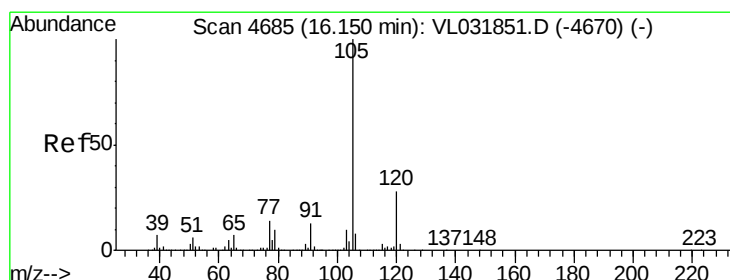
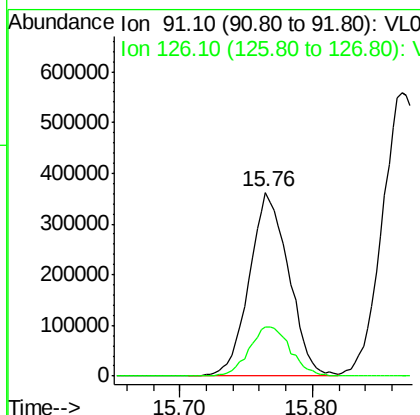
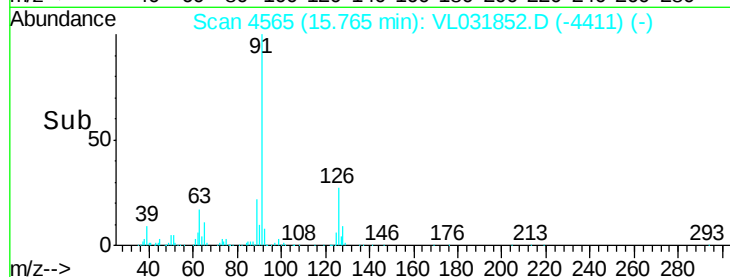
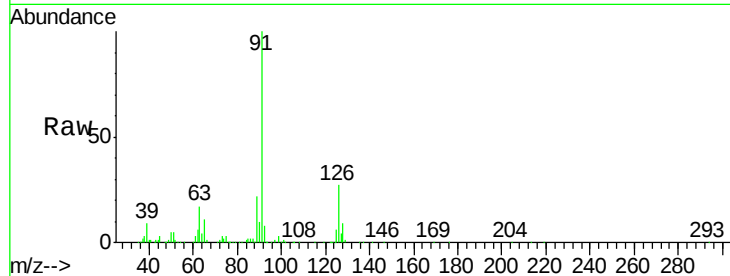
#71  
 2-Chlorotoluene  
 Concen: 1.982 ppbv  
 RT: 15.76 min Scan# 4565  
 Delta R.T. -0.01 min  
 Lab File: VL031852.D  
 Acq: 12 Apr 2018 00:59

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

Tot Ion: 91 Resp: 747833  
 Ion Ratio Lower Upper  
 91 100  
 126 28.3 11.5 45.9

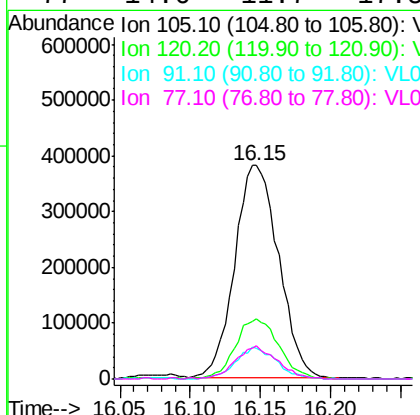
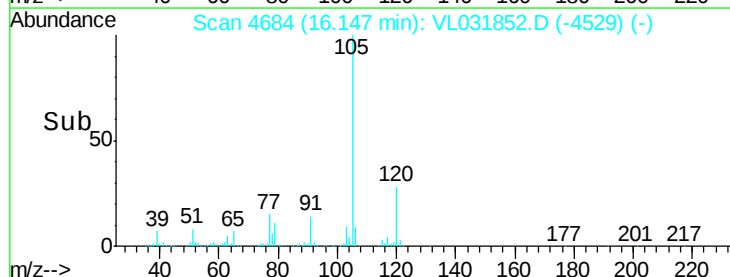
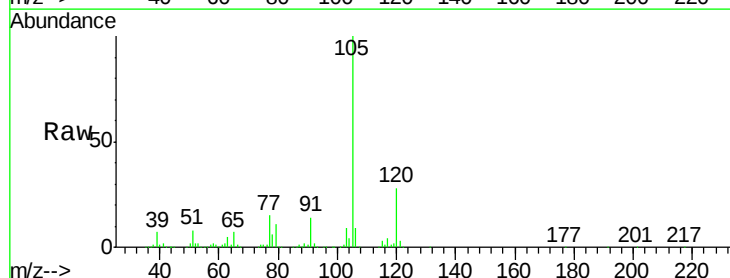
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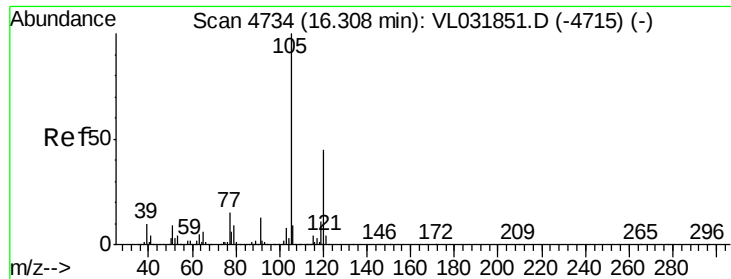
MMDadoda  
 4/15/2018 3:05:56 PM



#72  
 4-Ethyltoluene  
 Concen: 2.092 ppbv  
 RT: 16.15 min Scan# 4684  
 Delta R.T. -0.00 min  
 Lab File: VL031852.D  
 Acq: 12 Apr 2018 00:59

Tgt Ion: 105 Resp: 833347  
 Ion Ratio Lower Upper  
 105 100  
 120 28.0 22.6 33.8  
 91 13.7 10.7 16.1  
 77 14.6 11.7 17.5





#73

1,3,5-Trimethylbenzene

Concen: 2.104 ppbv

RT: 16.30 min Scan# 4733

Delta R.T. -0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC002

Tot Ion:105 Resp: 761080

Ion Ratio Lower Upper

105 100

120 44.0

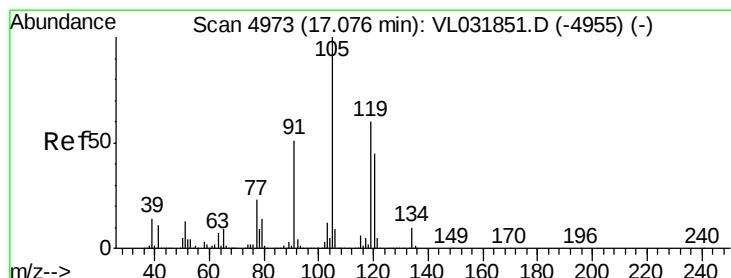
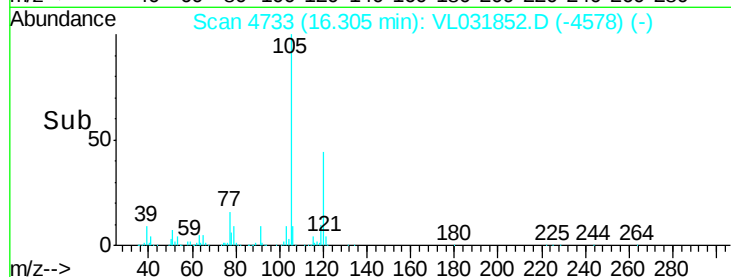
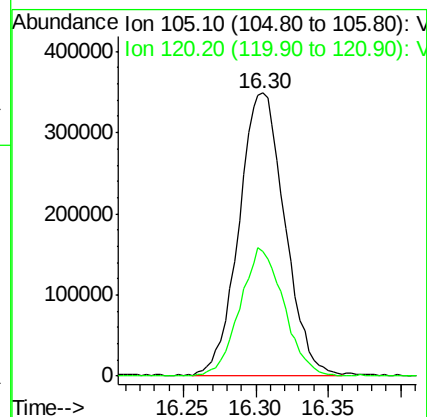
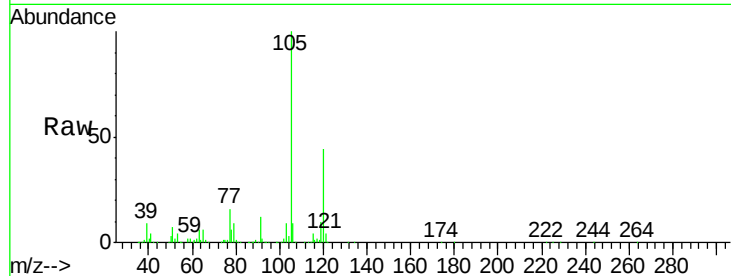
36.3

54.5

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4/15/2018 3:05:56 PM



#74

1,2,4-Trimethylbenzene

Concen: 2.157 ppbv

RT: 17.07 min Scan# 4971

Delta R.T. -0.01 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Tgt Ion:105 Resp: 839693

Ion Ratio Lower Upper

105 100

120 46.3

36.2

54.4

91 59.6

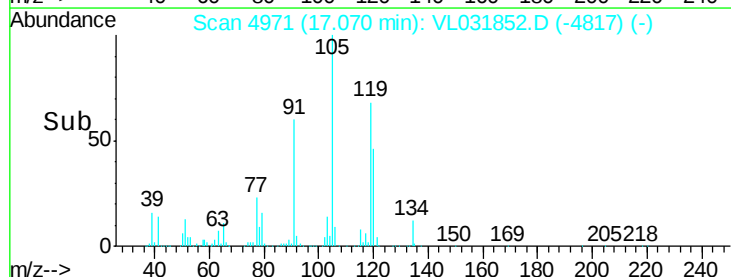
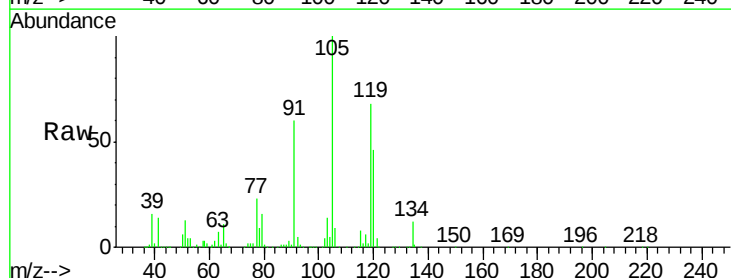
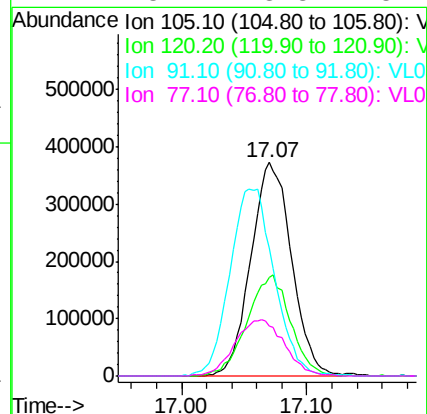
43.3

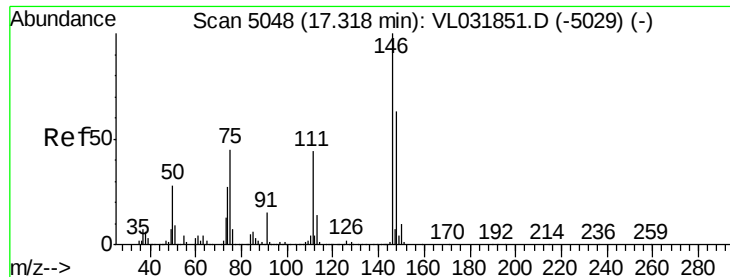
64.9

77 23.2

18.8

28.2





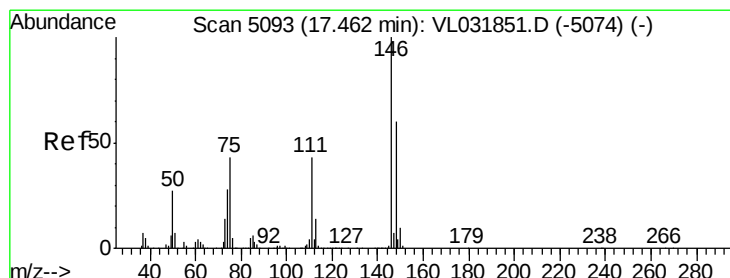
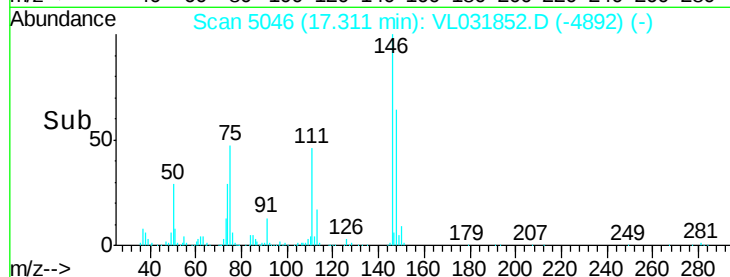
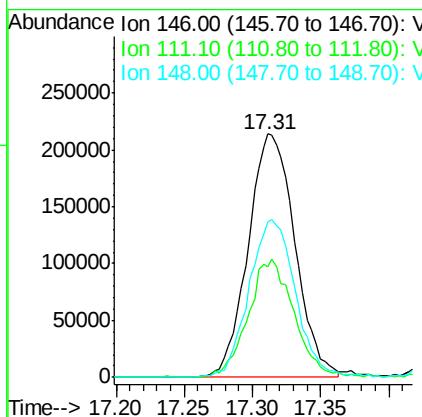
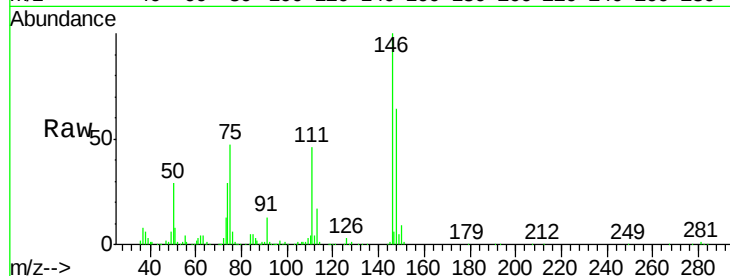
#75  
 1,3-Dichlorobenzene  
 Concen: 2.138 ppbv  
 RT: 17.31 min Scan# 5046  
 Delta R.T. -0.01 min  
 Lab File: VL031852.D  
 Acq: 12 Apr 2018 00:59

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 48.0  | 23.4  | 70.0  |
| 148     | 64.9  | 32.1  | 96.5  |

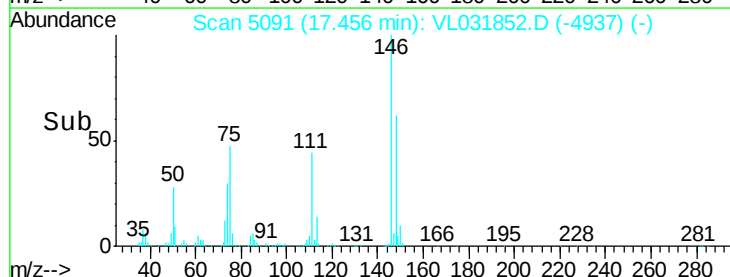
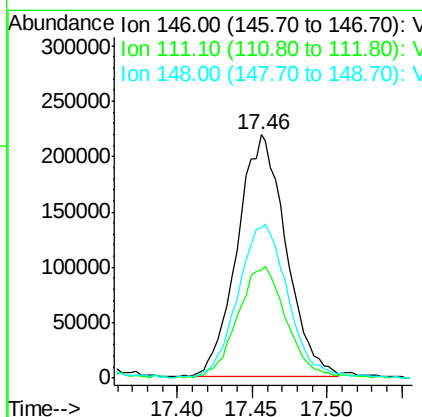
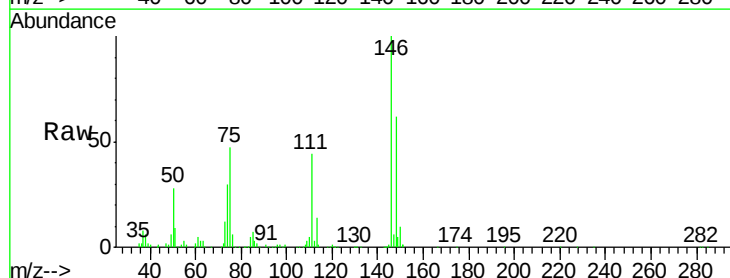
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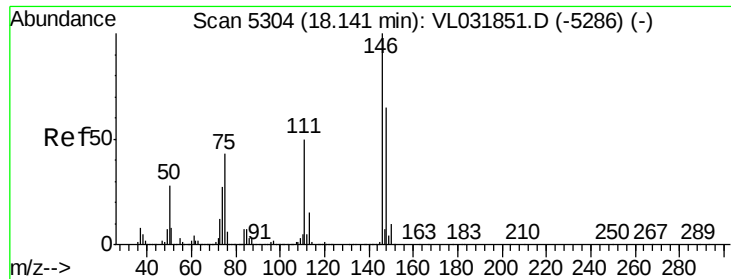
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#76  
 1,4-Dichlorobenzene  
 Concen: 2.038 ppbv  
 RT: 17.46 min Scan# 5091  
 Delta R.T. -0.01 min  
 Lab File: VL031852.D  
 Acq: 12 Apr 2018 00:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 47.0  | 22.9  | 68.7  |
| 148     | 65.9  | 32.1  | 96.5  |





#77

1,2-Dichlorobenzene

Concen: 2.189 ppbv

RT: 18.14 min Scan# 5304

Delta R.T. 0.00 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

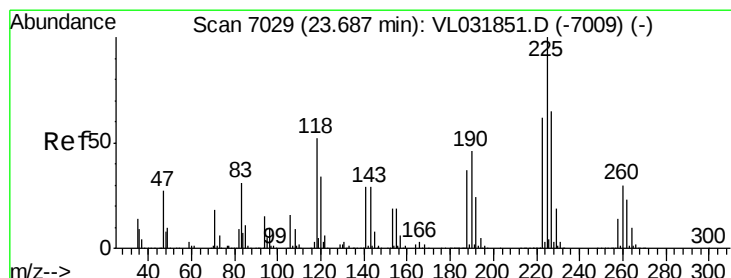
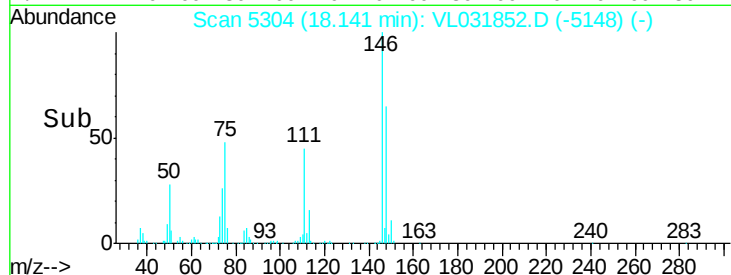
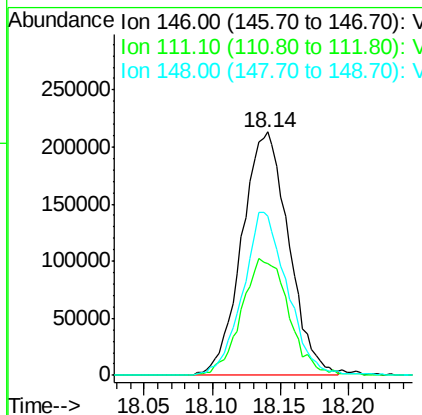
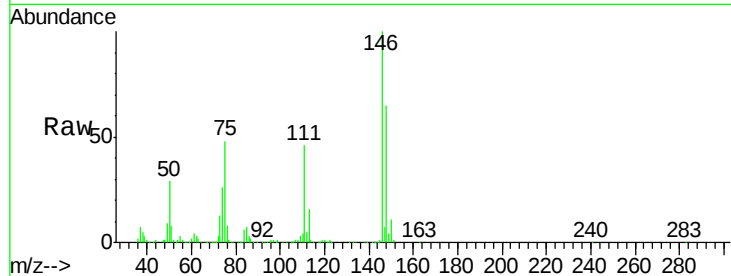
ClientSampleId :

VSTDIC002

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 146   | Resp: | 503999 |
| Ion Ratio | Lower | Upper |        |
| 146       | 100   |       |        |
| 111       | 48.8  | 24.3  | 72.8   |
| 148       | 64.5  | 31.7  | 95.1   |

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4/15/2018 3:05:56 PM



#78

Hexachloro-1,3-Butadiene

Concen: 2.033 ppbv

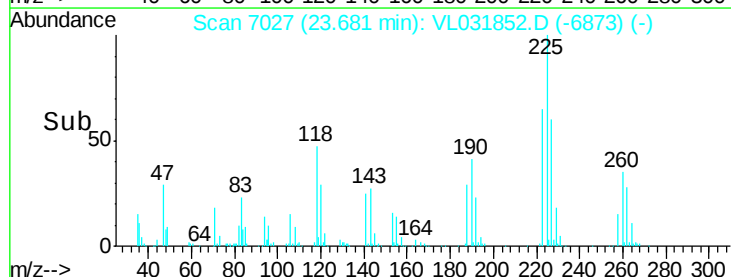
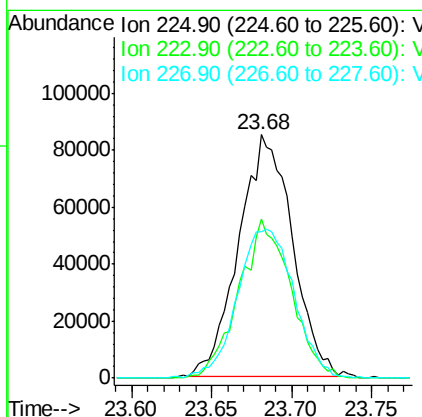
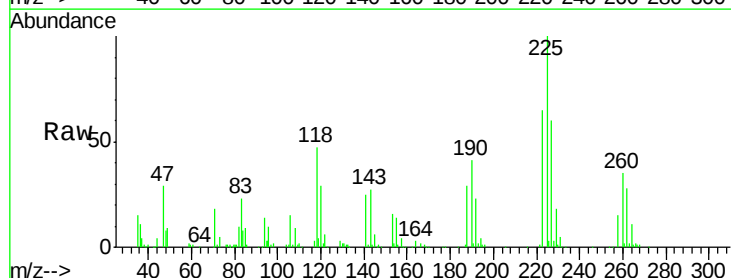
RT: 23.68 min Scan# 7027

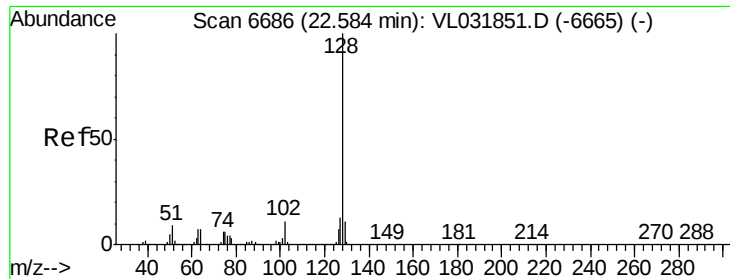
Delta R.T. -0.01 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 225   | Resp: | 194029 |
| Ion Ratio | Lower | Upper |        |
| 225       | 100   |       |        |
| 223       | 63.9  | 50.3  | 75.5   |
| 227       | 65.8  | 50.8  | 76.2   |





#79

Naphthalene

Concen: 2.034 ppbv

RT: 22.59 min Scan# 6688

Delta R.T. 0.01 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

Instrument :

MSVOA\_L

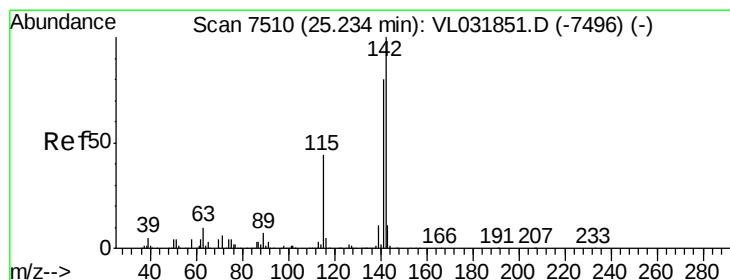
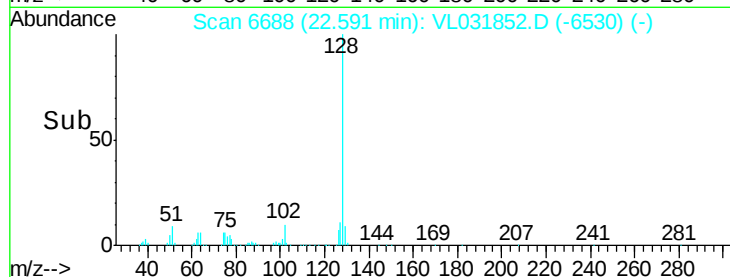
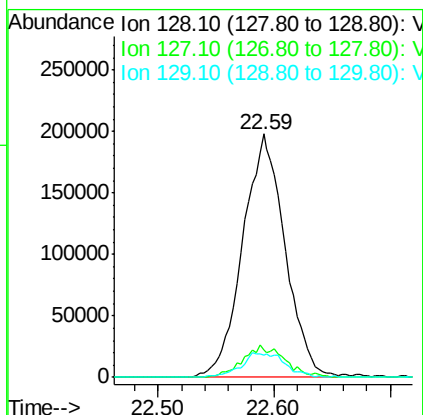
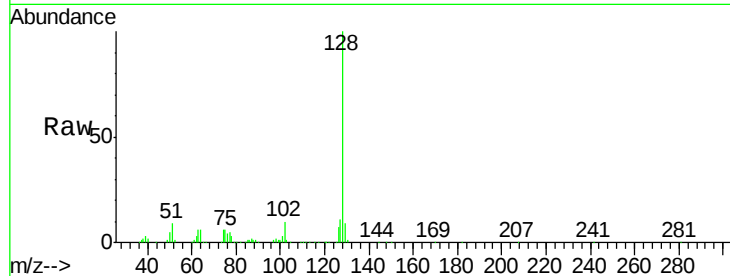
ClientSampleId :

VSTDIC002

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 128   | Resp: | 499644 |
| Ion Ratio | Lower | Upper |        |
| 128       | 100   |       |        |
| 127       | 11.3  | 10.4  | 15.6   |
| 129       | 9.4   | 9.1   | 13.7   |

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#80

Naphthalene, 2-methyl-

Concen: 1.385 ppbv

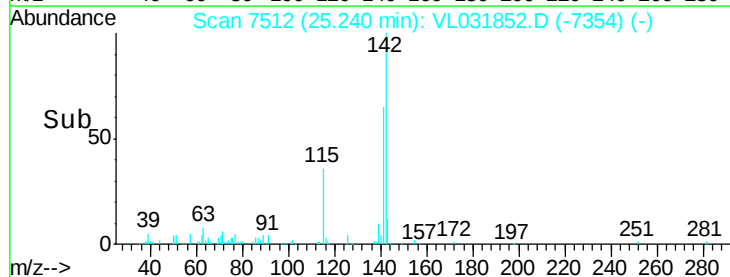
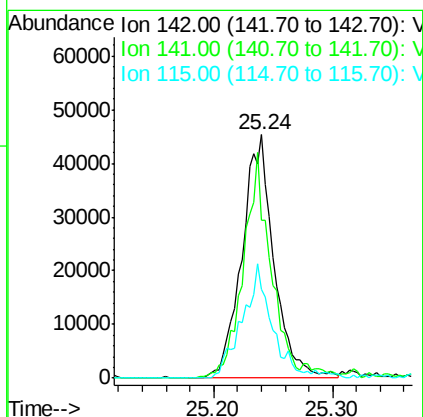
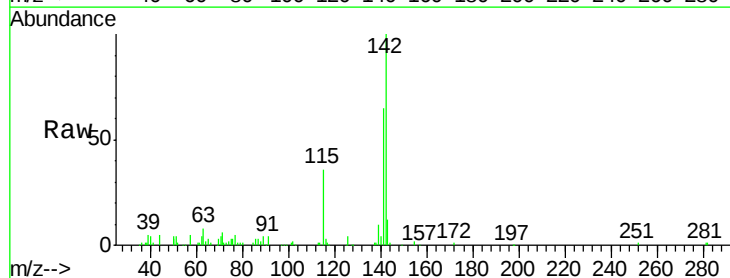
RT: 25.24 min Scan# 7512

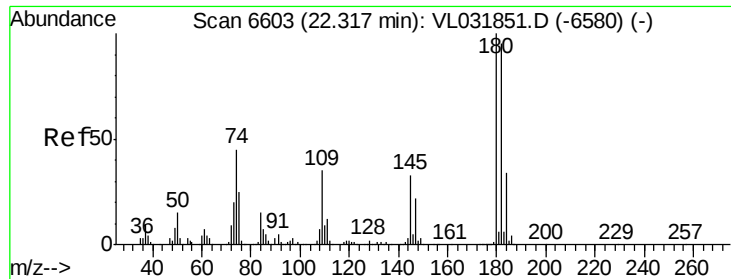
Delta R.T. 0.01 min

Lab File: VL031852.D

Acq: 12 Apr 2018 00:59

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 142   | Resp: | 84195 |
| Ion Ratio | Lower | Upper |       |
| 142       | 100   |       |       |
| 141       | 83.2  | 65.8  | 98.8  |
| 115       | 44.6  | 35.8  | 53.6  |





#81  
 1,2,4-Trichlorobenzene  
 Concen: 1.988 ppbv  
 RT: 22.31 min Scan# 6601  
 Delta R.T. -0.01 min  
 Lab File: VL031852.D  
 Acq: 12 Apr 2018 00:59

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 180   | Resp: | 266986 |
| Ion Ratio | Lower | Upper |        |
| 180       | 100   |       |        |
| 182       | 98.7  | 76.6  | 114.8  |
| 184       | 31.7  | 25.0  | 37.4   |

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