

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL111418\  
 Data File : VL032770.D  
 Acq On : 14 Nov 2018 22:23  
 Operator : SY/AP  
 Sample : VL1114ABS02  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS02

Manual Integrations  
 APPROVED

MMDadoda  
 11/16/2018 1:30:13 PM

Quant Time: Nov 15 07:08:53 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Nov 14 07:00:23 2018  
 QLast Update : Wed Nov 14 07:00:23 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1506991  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.30  | 114  | 3756850  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 3659386m | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.59  | 95    | 2761300  | 10.09    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.90% |

| Target Compounds               |      |     |         |        | Ovalue   |
|--------------------------------|------|-----|---------|--------|----------|
| 2) Dichlorodifluoromethane     | 3.08 | 85  | 1984714 | 9.162  | ppbv 99  |
| 3) Chlorodifluoromethane       | 3.02 | 51  | 1093756 | 9.155  | ppbv 98  |
| 4) Chloromethane               | 3.17 | 50  | 596862  | 9.009  | ppbv 96  |
| 5) Vinyl Chloride              | 3.30 | 62  | 613754  | 8.743  | ppbv 99  |
| 6) Bromomethane                | 3.52 | 94  | 399299  | 9.298  | ppbv 93  |
| 7) Chloroethane                | 3.61 | 64  | 234909  | 9.285  | ppbv 100 |
| 8) Dichlorotetrafluoroethane   | 3.23 | 85  | 1539141 | 9.017  | ppbv 99  |
| 9) Propene                     | 3.04 | 41  | 439832  | 9.199  | ppbv 99  |
| 10) Heptane                    | 8.26 | 43  | 1815343 | 9.945  | ppbv 99  |
| 11) Trichlorofluoromethane     | 4.01 | 101 | 1771545 | 8.678  | ppbv 100 |
| 12) 1,1,2-Trichlorotrifluoroet | 4.56 | 101 | 1449840 | 8.695  | ppbv 99  |
| 13) Ethanol                    | 3.65 | 45  | 108903  | 6.954  | ppbv 100 |
| 14) Bromoethene                | 3.80 | 108 | 523287  | 9.459  | ppbv 98  |
| 15) Acetone                    | 3.91 | 43  | 1124650 | 8.172  | ppbv 99  |
| 16) 1,3-Butadiene              | 3.37 | 39  | 542544  | 10.180 | ppbv 98  |
| 17) tert-Butyl alcohol         | 4.36 | 59  | 423204  | 9.805  | ppbv 99  |
| 18) 1,1-Dichloroethene         | 4.36 | 96  | 790406  | 9.639  | ppbv 96  |
| 19) Isopropyl Alcohol          | 4.03 | 45  | 778161  | 8.488  | ppbv 100 |
| 20) Methylene Chloride         | 4.42 | 84  | 665195  | 9.337  | ppbv 98  |
| 21) Allyl Chloride             | 4.48 | 41  | 1260106 | 10.896 | ppbv 99  |
| 22) trans-1,2-Dichloroethene   | 4.97 | 96  | 736192  | 9.195  | ppbv 98  |
| 23) Vinyl Acetate              | 5.16 | 43  | 2458028 | 9.798  | ppbv 99  |
| 24) 1,1-Dichloroethane         | 5.10 | 63  | 1844682 | 9.249  | ppbv 100 |
| 25) Ethyl Acetate              | 5.78 | 43  | 2993220 | 9.332  | ppbv 99  |
| 26) Hexane                     | 5.79 | 57  | 1361663 | 9.537  | ppbv 98  |
| 27) Carbon Disulfide           | 4.63 | 76  | 1860262 | 10.275 | ppbv 98  |
| 28) Methyl tert-Butyl Ether    | 5.12 | 73  | 2221097 | 9.755  | ppbv 99  |
| 29) Chloroform                 | 5.86 | 83  | 2315963 | 9.100  | ppbv 96  |
| 30) Cyclohexane                | 7.26 | 84  | 1220870 | 9.776  | ppbv 99  |
| 31) cis-1,2-Dichloroethene     | 5.65 | 61  | 1402032 | 9.766  | ppbv 98  |
| 32) 1,1,1-Trichloroethane      | 6.63 | 97  | 2485740 | 8.911  | ppbv 100 |
| 34) 2-Butanone                 | 5.34 | 43  | 1910816 | 9.806  | ppbv 99  |
| 35) Carbon Tetrachloride       | 7.14 | 117 | 2719199 | 9.004  | ppbv 99  |
| 36) Benzene                    | 7.01 | 78  | 2901730 | 9.699  | ppbv 100 |
| 37) 1,2-Dichloroethane         | 6.42 | 62  | 1938096 | 9.624  | ppbv 99  |
| 38) Trichloroethene            | 7.97 | 130 | 1170283 | 9.666  | ppbv 94  |
| 39) 1,2-Dichloropropane        | 7.74 | 63  | 1094557 | 9.603  | ppbv 99  |
| 40) 1,4-Dioxane                | 7.96 | 88  | 416232  | 10.224 | ppbv 87  |
| 41) Tetrahydrofuran            | 6.16 | 42  | 1136926 | 10.172 | ppbv 100 |
| 42) Bromodichloromethane       | 7.92 | 83  | 2657004 | 9.733  | ppbv 99  |
| 43) Methyl Methacrylate        | 8.14 | 69  | 1174778 | 10.518 | ppbv 97  |

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

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS02

Manual Integrations  
 APPROVED

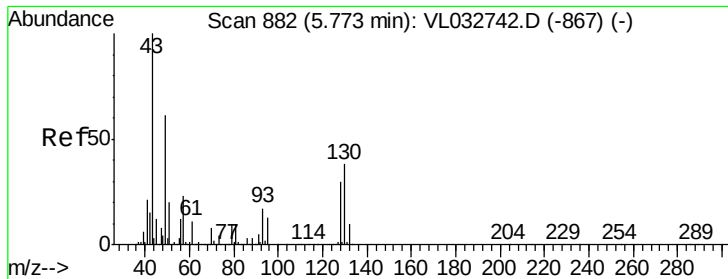
MMDadoda  
 11/16/2018 1:30:13 PM

Quant Time: Nov 15 07:08:53 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Nov 14 2018  
 QLast Update : Wed Nov 14 07:00:23 2018  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 8.00  | 57   | 4930882  | 9.863  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.43  | 75   | 1710724  | 11.415 | ppbv   | 96       |
| 46) cis-1,3-Dichloropropene   | 8.84  | 75   | 1985053  | 10.963 | ppbv   | 99       |
| 47) 1,1,2-Trichloroethane     | 9.62  | 97   | 1311770  | 9.733  | ppbv   | 98       |
| 48) Dibromochloromethane      | 10.46 | 129  | 2229563  | 9.733  | ppbv   | 99       |
| 49) Bromoform                 | 13.21 | 173  | 1804300  | 9.537  | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.88  | 43   | 3078662  | 10.116 | ppbv   | 99       |
| 51) 2-Hexanone                | 10.28 | 43   | 2190120  | 11.170 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.38 | 164  | 1037900  | 9.973  | ppbv   | 98       |
| 53) Toluene                   | 9.95  | 91   | 3391536  | 10.867 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.77 | 107  | 1888375  | 9.911  | ppbv   | 100      |
| 56) 1,1,1,2-Tetrachloroethane | 12.29 | 131  | 1569635  | 9.196  | ppbv   | 97       |
| 57) Chlorobenzene             | 12.31 | 112  | 2533191  | 9.043  | ppbv   | 97       |
| 58) Ethyl Benzene             | 12.87 | 91   | 4546438  | 10.323 | ppbv   | 98       |
| 59) m/p-Xylene                | 13.13 | 91   | 7713589m | 19.675 | ppbv   |          |
| 60) o-Xylene                  | 13.86 | 91   | 3737883  | 9.482  | ppbv   | 100      |
| 61) Styrene                   | 13.69 | 104  | 2747093  | 10.705 | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.83 | 105  | 5176610  | 9.715  | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.84 | 83   | 2499868  | 8.135  | ppbv   | 100      |
| 64) n-propylbenzene           | 15.73 | 120  | 1291291  | 9.214  | ppbv   | 97       |
| 65) tert-Butylbenzene         | 16.92 | 119  | 4456736  | 9.331  | ppbv   | 99       |
| 66) Benzyl Chloride           | 17.16 | 91   | 2574049  | 9.748  | ppbv   | 100      |
| 67) sec-Butylbenzene          | 17.46 | 105  | 6383508  | 9.273  | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.82 | 119  | 5243146  | 9.579  | ppbv   | 100      |
| 70) n-Butylbenzene            | 18.72 | 91   | 5437572  | 9.784  | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.62 | 91   | 3853065  | 9.697  | ppbv   | 100      |
| 72) 4-Ethyltoluene            | 16.01 | 105  | 4207132  | 9.737  | ppbv   | 100      |
| 73) 1,3,5-Trimethylbenzene    | 16.16 | 105  | 3972893  | 9.404  | ppbv   | 100      |
| 74) 1,2,4-Trimethylbenzene    | 16.93 | 105  | 4081279  | 9.028  | ppbv   | 98       |
| 75) 1,3-Dichlorobenzene       | 17.17 | 146  | 2296994  | 8.858  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.31 | 146  | 2236952  | 9.235  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 18.00 | 146  | 2233799  | 9.311  | ppbv   | 100      |
| 78) Hexachloro-1,3-Butadiene  | 23.55 | 225  | 1173299  | 9.062  | ppbv   | 99       |
| 79) Naphthalene               | 22.42 | 128  | 3872535  | 13.040 | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.12 | 142  | 846230   | 11.377 | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.15 | 180  | 1857803  | 12.457 | ppbv   | 98       |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 881

Delta R.T. -0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion: 49 Resp: 1506991

Ion Ratio Lower Upper

49 100

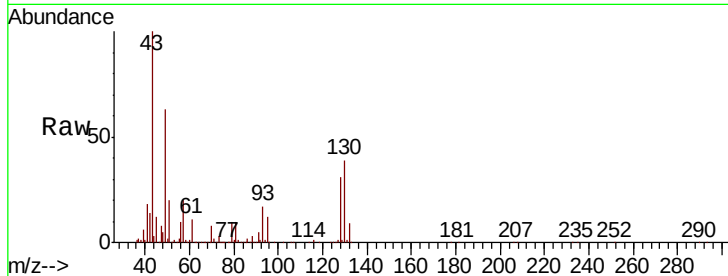
128 49.6 24.9 74.6

130 62.1 31.4 94.2

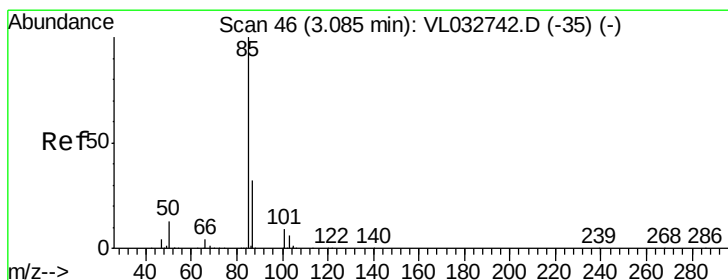
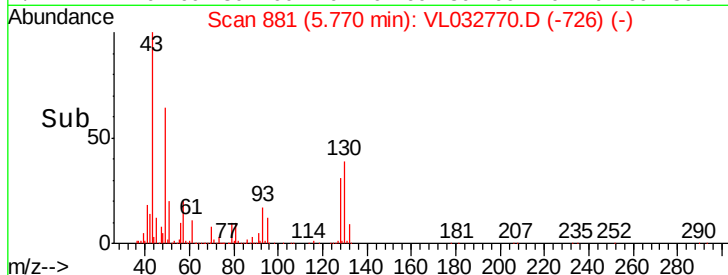
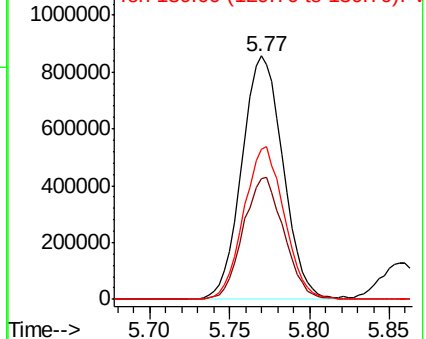
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Abundance Ion 49.10 (48.80 to 49.80): VL0  
Ion 128.00 (127.70 to 128.70): V  
Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 9.162 ppbv

RT: 3.08 min Scan# 45

Delta R.T. -0.00 min

Lab File: VL032770.D

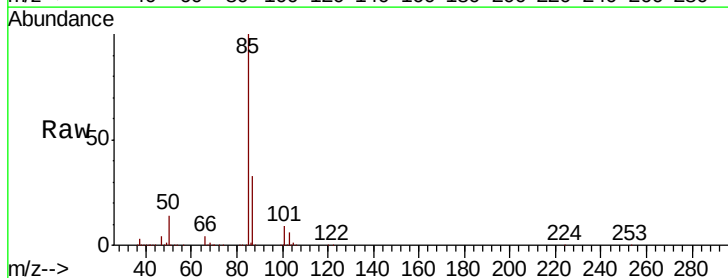
Acq: 14 Nov 2018 22:23

Tgt Ion: 85 Resp: 1984714

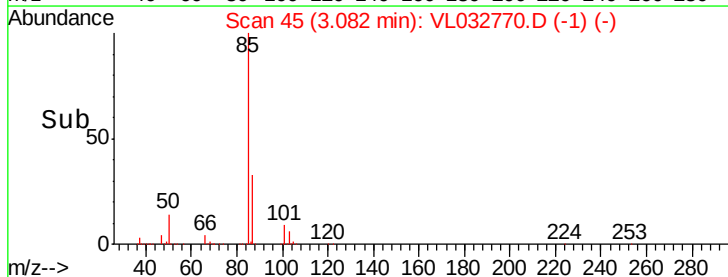
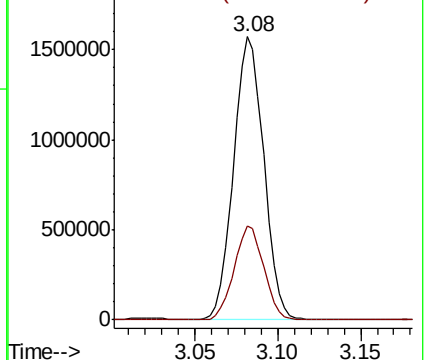
Ion Ratio Lower Upper

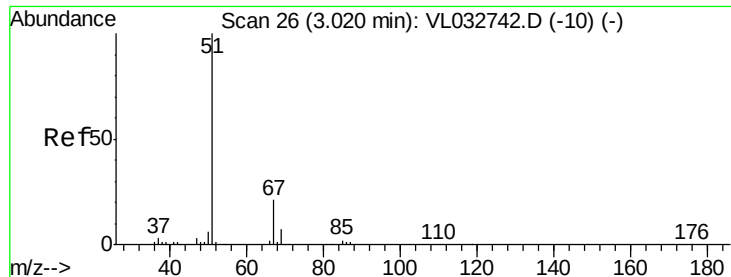
85 100

87 33.1 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0  
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 9.155 ppbv

RT: 3.02 min Scan# 26

Delta R.T. 0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Tot Ion: 51 Resp: 1093756

Ion Ratio Lower Upper

51 100

67 20.9 16.1 24.1

Instrument :

MSVOA\_L

ClientSampleId :

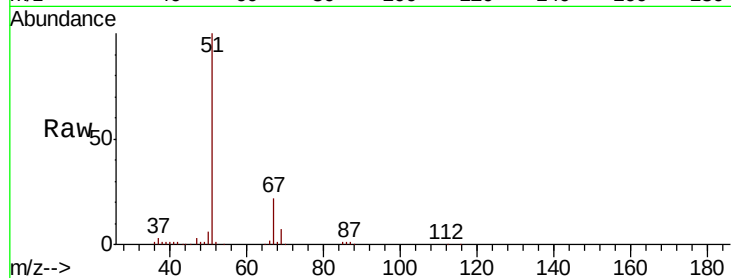
VL1114ABS02

Manual Integrations

APPROVED

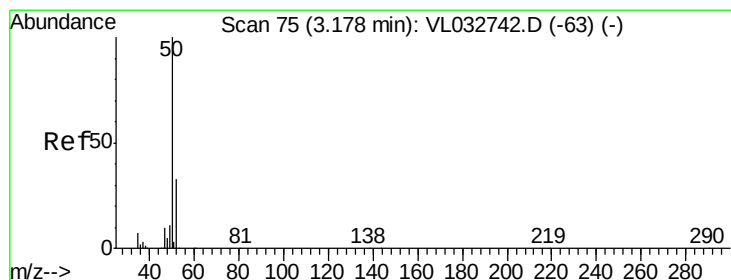
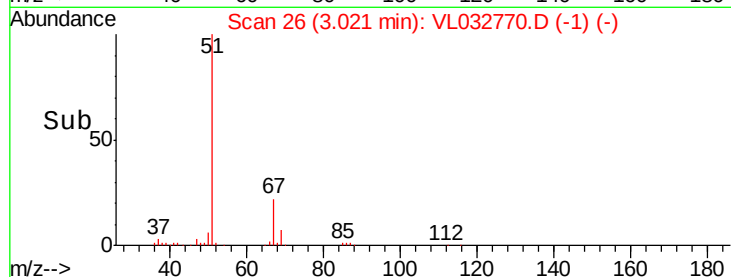
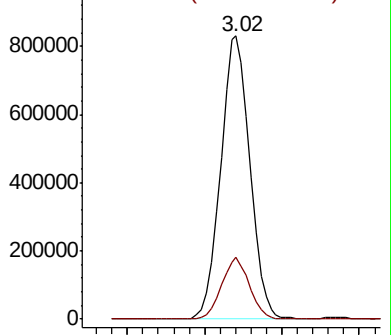
MMDadoda

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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 9.009 ppbv

RT: 3.17 min Scan# 74

Delta R.T. -0.00 min

Lab File: VL032770.D

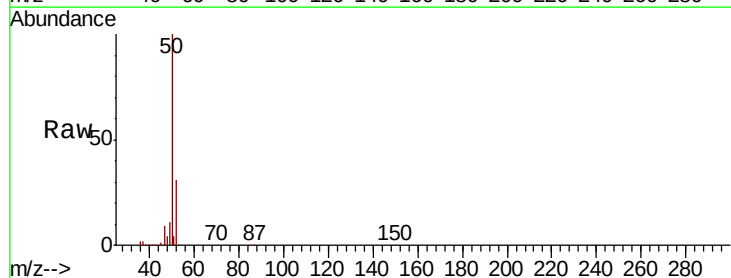
Acq: 14 Nov 2018 22:23

Tgt Ion: 50 Resp: 596862

Ion Ratio Lower Upper

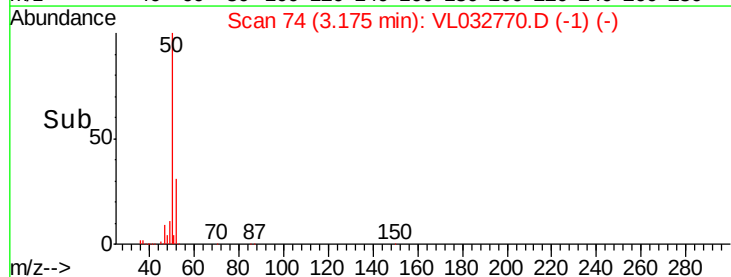
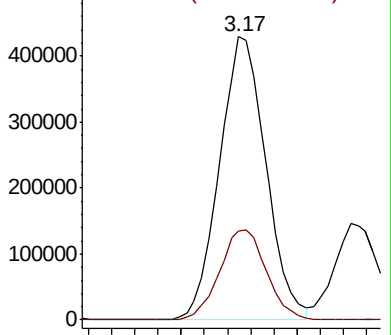
50 100

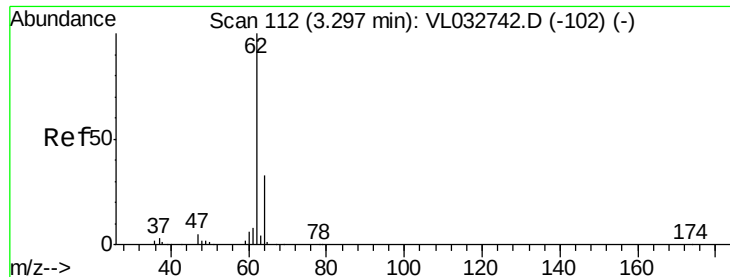
52 31.3 26.6 40.0



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 8.743 ppbv

RT: 3.30 min Scan# 112

Delta R.T. 0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion: 62 Resp: 613754

Ion Ratio Lower Upper

62 100

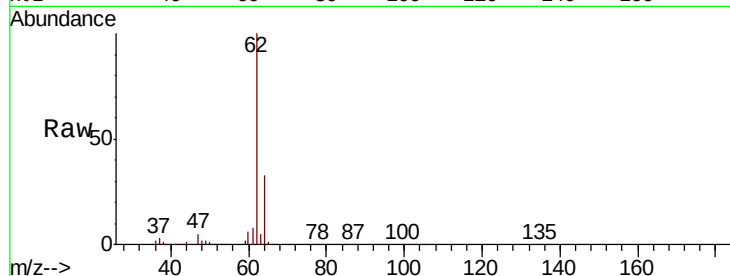
64 33.1 26.2 39.4

Manual Integrations

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Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0

3.30

400000

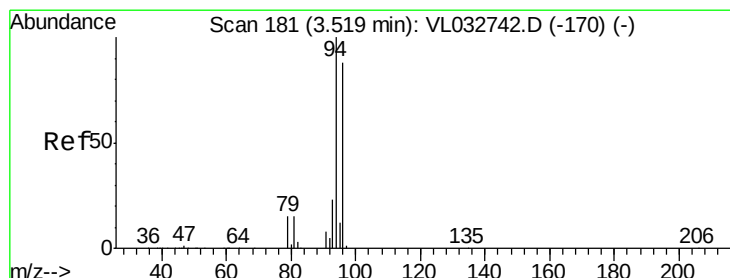
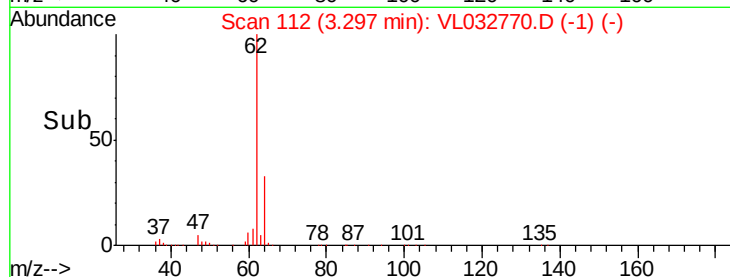
300000

200000

100000

0

Time-->



#6

Bromomethane

Concen: 9.298 ppbv

RT: 3.52 min Scan# 182

Delta R.T. 0.00 min

Lab File: VL032770.D

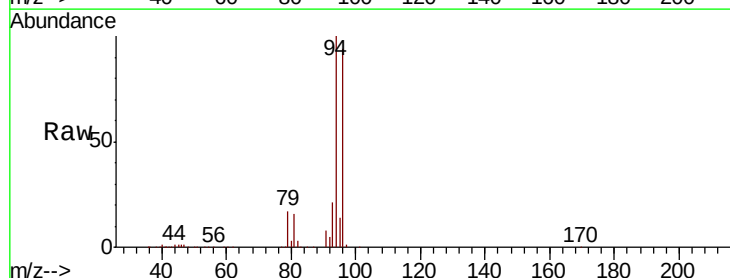
Acq: 14 Nov 2018 22:23

Tgt Ion: 94 Resp: 399299

Ion Ratio Lower Upper

94 100

96 94.4 70.2 105.2



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0

3.52

300000

250000

200000

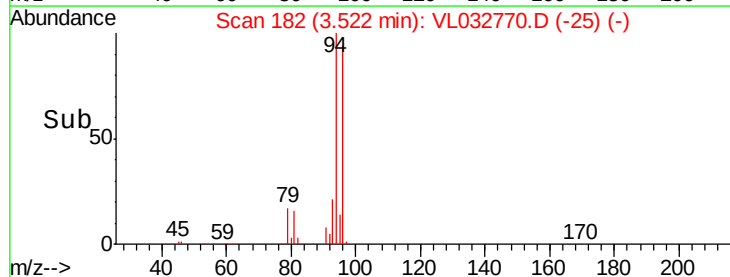
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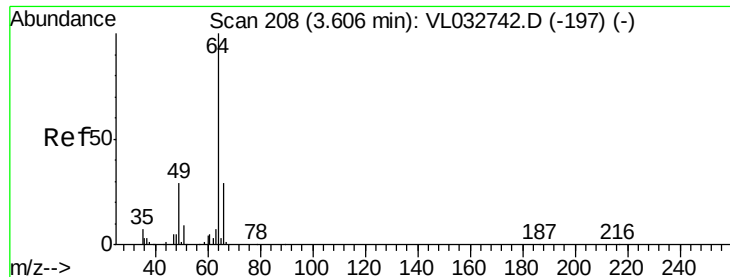
100000

50000

0

Time-->





#7

Chloroethane

Concen: 9.285 ppbv

RT: 3.61 min Scan# 208

Delta R.T. 0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion: 64 Resp: 234909

Ion Ratio Lower Upper

64 100

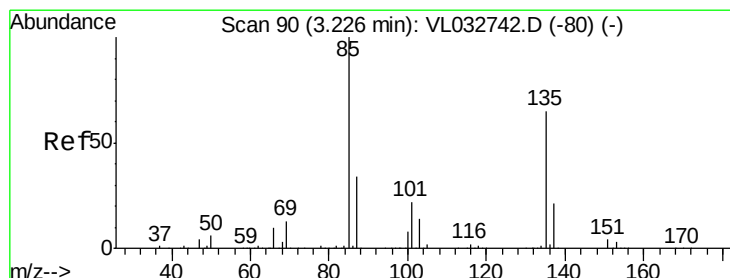
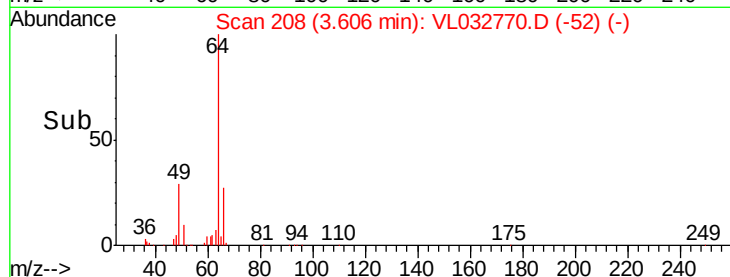
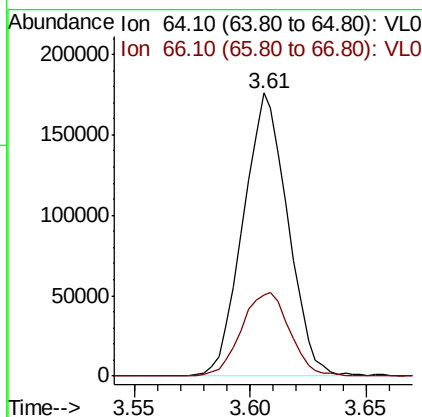
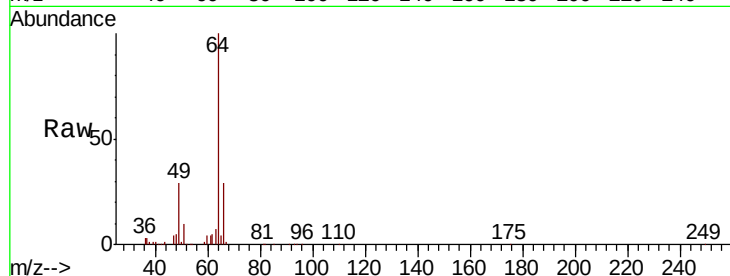
66 28.9 23.2 34.8

Manual Integrations

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#8

Dichlorotetrafluoroethane

Concen: 9.017 ppbv

RT: 3.23 min Scan# 90

Delta R.T. 0.00 min

Lab File: VL032770.D

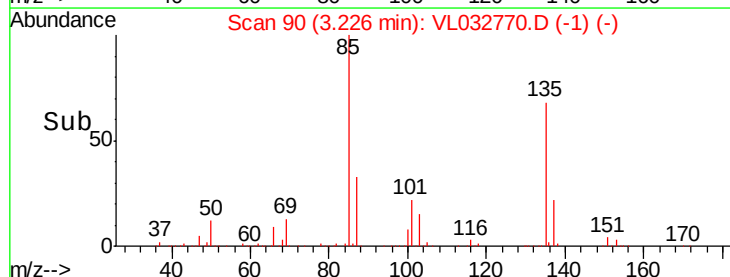
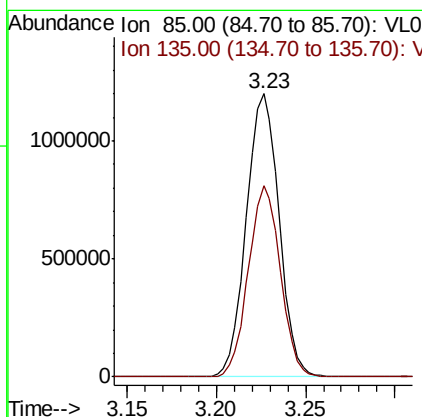
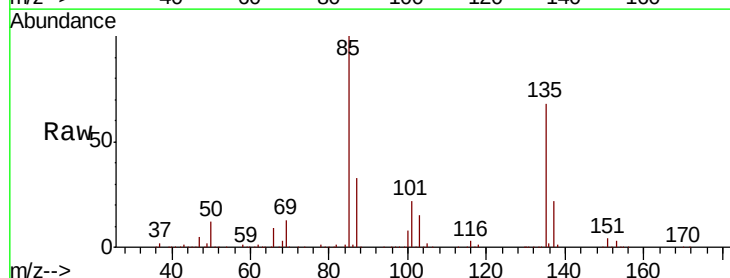
Acq: 14 Nov 2018 22:23

Tgt Ion: 85 Resp: 1539141

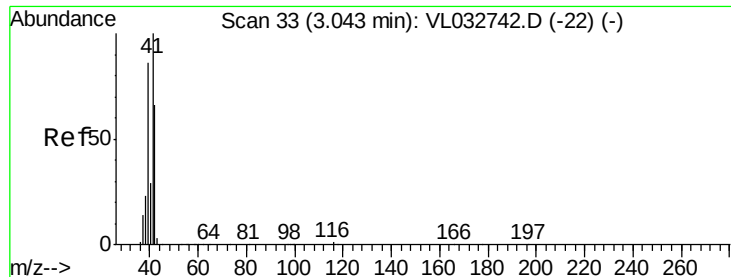
Ion Ratio Lower Upper

85 100

135 66.2 53.8 80.8







#9

Propene

Concen: 9.199 ppbv

RT: 3.04 min Scan# 33

Delta R.T. 0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion: 41 Resp: 439832

Ion Ratio Lower Upper

41 100

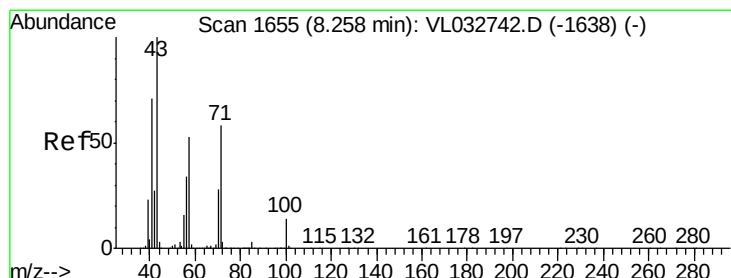
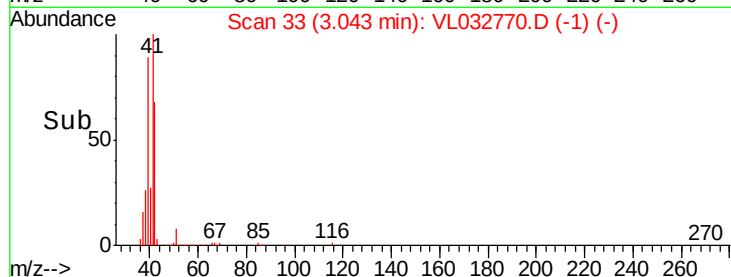
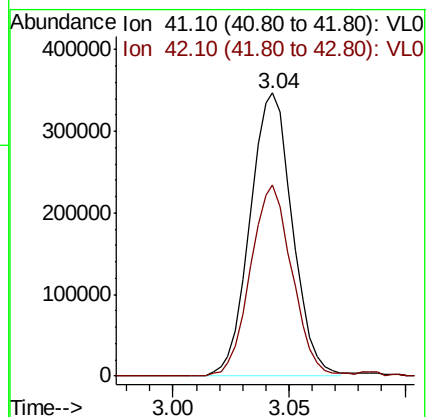
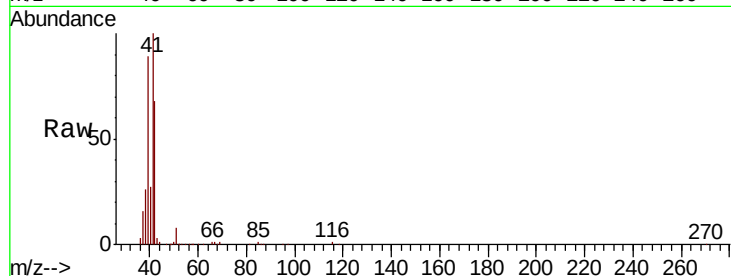
42 67.7 55.0 82.6

Manual Integrations

APPROVED

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11/16/2018 1:30:13 PM



#10

Heptane

Concen: 9.945 ppbv

RT: 8.26 min Scan# 1654

Delta R.T. -0.00 min

Lab File: VL032770.D

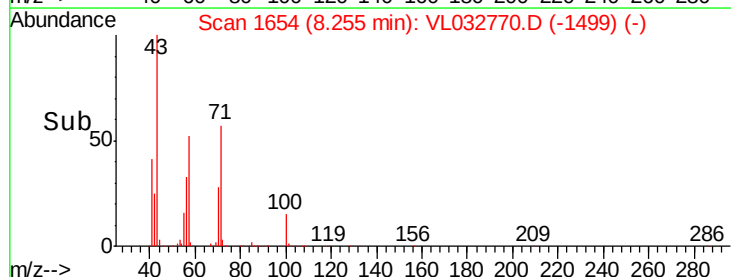
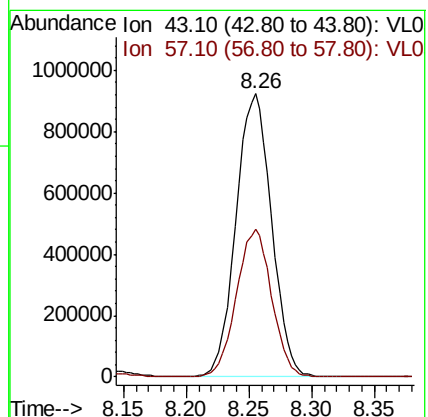
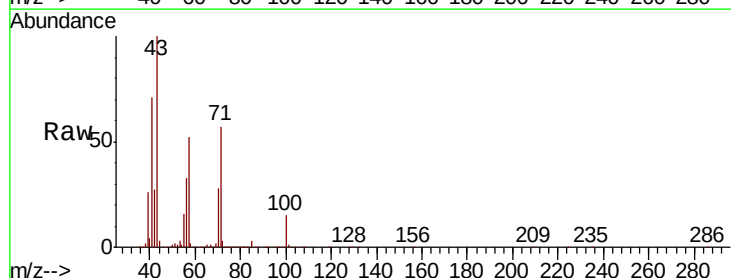
Acq: 14 Nov 2018 22:23

Tgt Ion: 43 Resp: 1815343

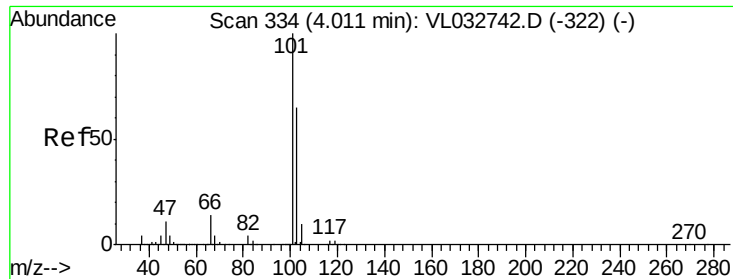
Ion Ratio Lower Upper

43 100

57 51.8 41.8 62.8







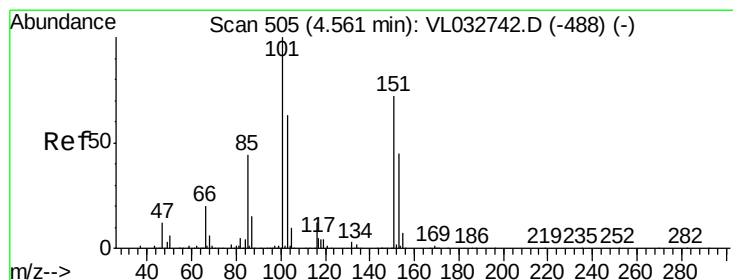
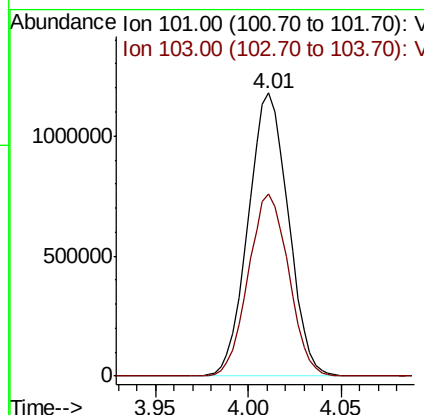
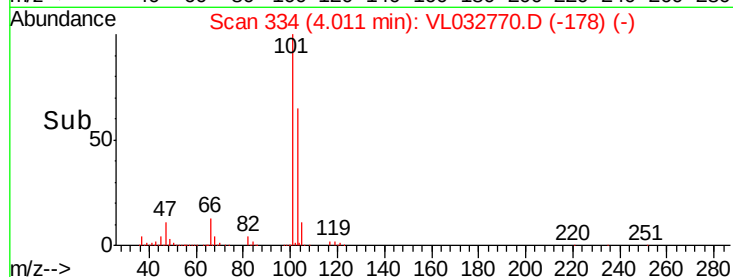
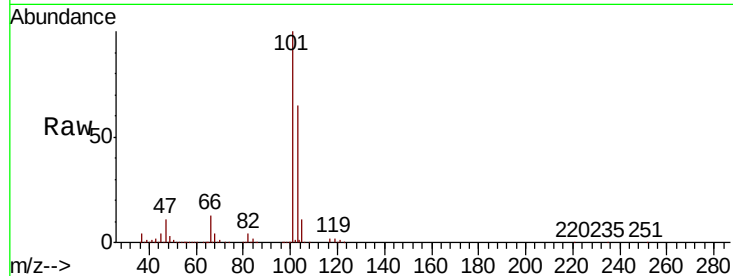
#11  
 Trichlorofluoromethane  
 Concen: 8.678 ppbv  
 RT: 4.01 min Scan# 334  
 Delta R.T. 0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS02

Tot Ion:101 Resp: 1771545  
 Ion Ratio Lower Upper  
 101 100  
 103 64.5 51.6 77.4

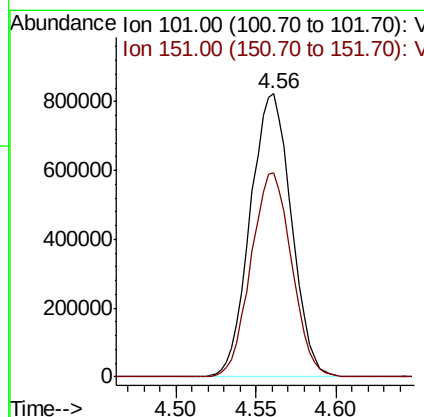
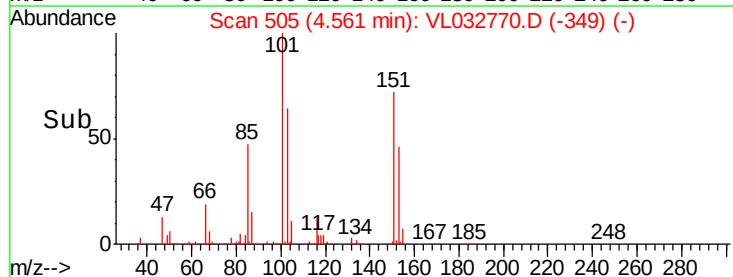
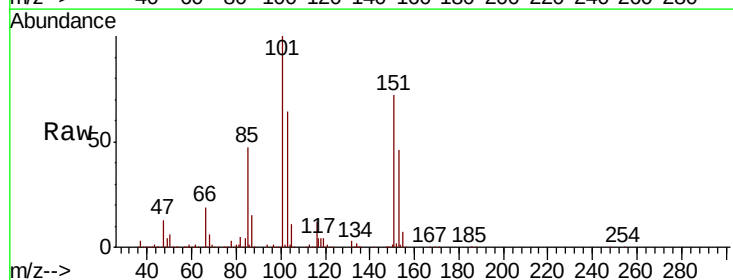
Manual Integrations  
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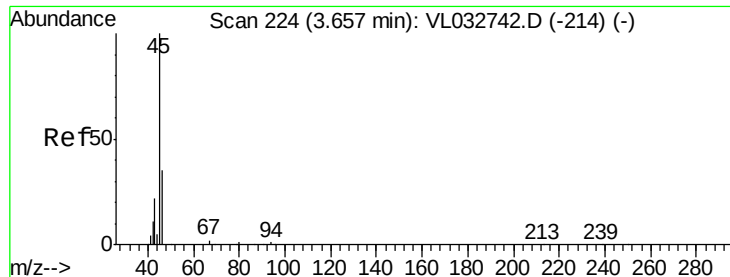
MMDadoda  
 11/16/2018 1:30:13 PM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 8.695 ppbv  
 RT: 4.56 min Scan# 505  
 Delta R.T. 0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Tgt Ion:101 Resp: 1449840  
 Ion Ratio Lower Upper  
 101 100  
 151 71.6 56.7 85.1





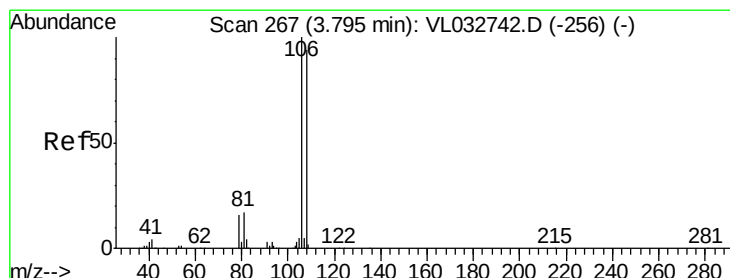
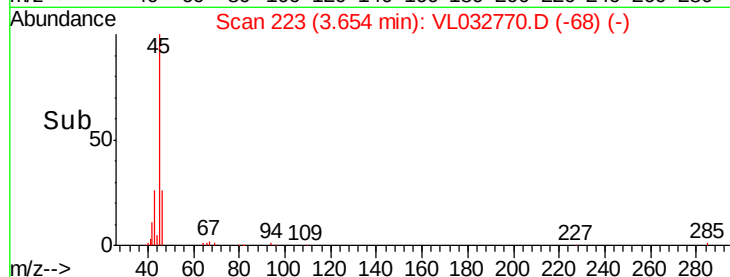
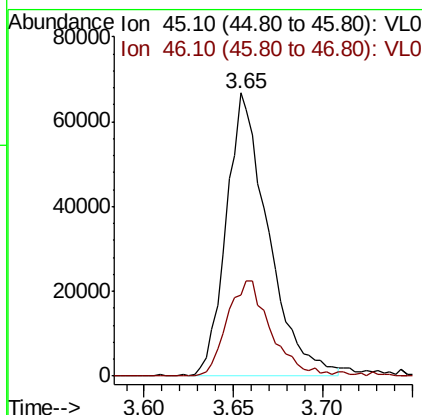
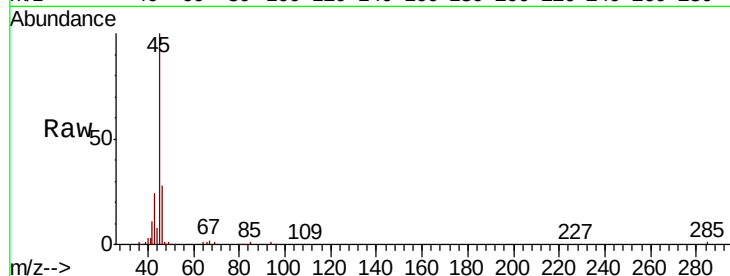
#13  
Ethanol  
Concen: 6.954 ppbv  
RT: 3.65 min Scan# 223  
Delta R.T. -0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45      | 100   |       |       |
| 46      | 36.3  | 14.5  | 57.9  |

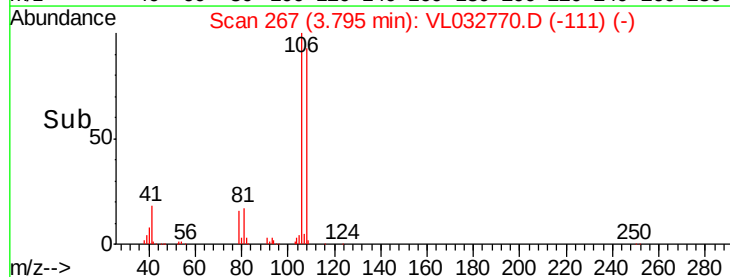
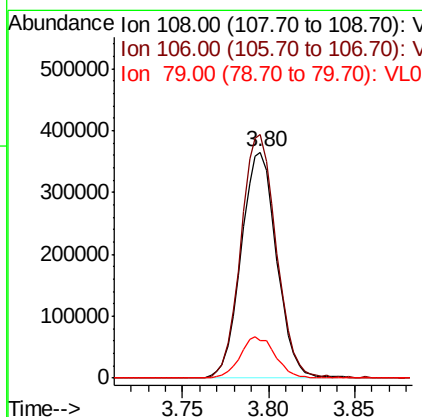
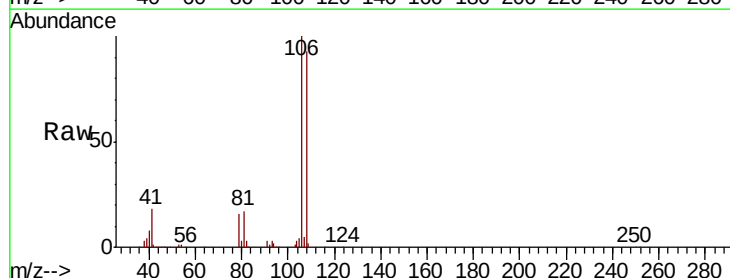
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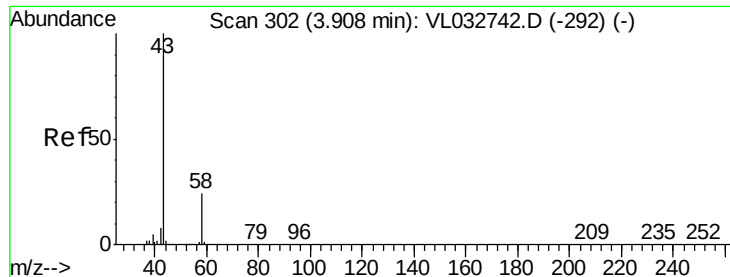
MMDadoda  
11/16/2018 1:30:13 PM



#14  
Bromoethene  
Concen: 9.459 ppbv  
RT: 3.80 min Scan# 267  
Delta R.T. 0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 108     | 100   |       |       |
| 106     | 107.9 | 84.9  | 127.3 |
| 79      | 18.2  | 14.2  | 21.4  |





#15

Acetone

Concen: 8.172 ppbv

RT: 3.91 min Scan# 302

Delta R.T. 0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion: 43 Resp: 1124650

Ion Ratio Lower Upper

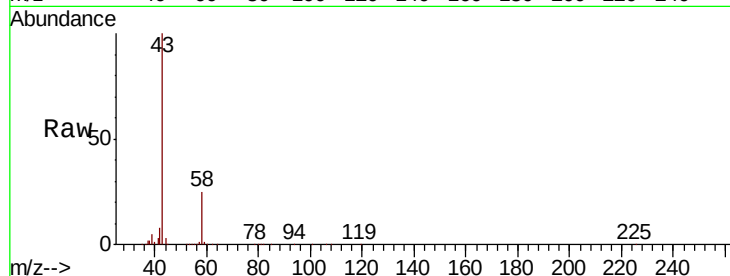
43 100

58 25.9 21.1 31.7

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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.91

800000

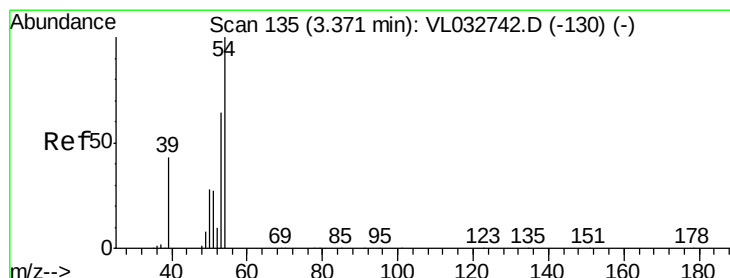
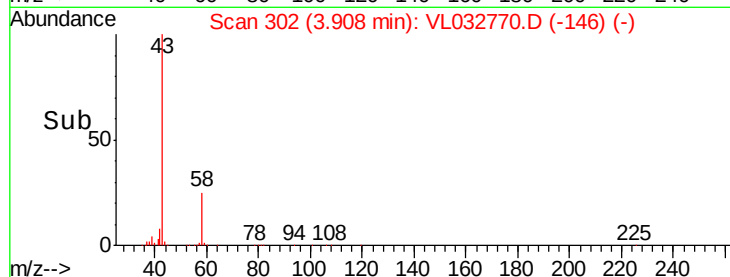
600000

400000

200000

0

Time-->



#16

1,3-Butadiene

Concen: 10.180 ppbv

RT: 3.37 min Scan# 135

Delta R.T. 0.00 min

Lab File: VL032770.D

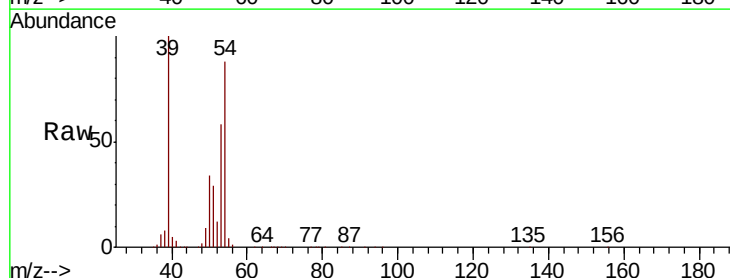
Acq: 14 Nov 2018 22:23

Tgt Ion: 39 Resp: 542544

Ion Ratio Lower Upper

39 100

54 88.1 68.9 103.3



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

3.37

400000

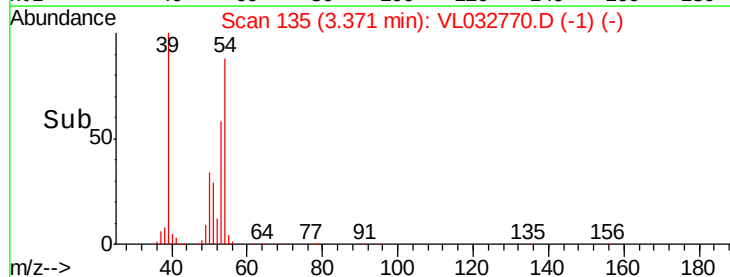
300000

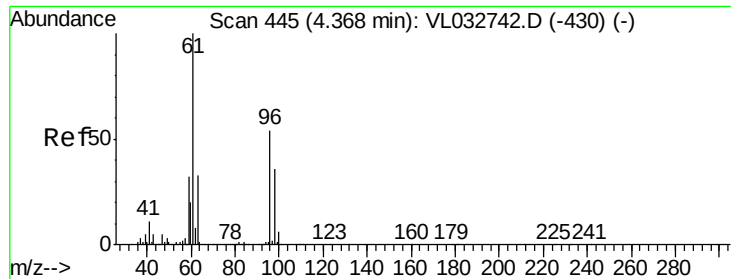
200000

100000

0

Time-->





#17

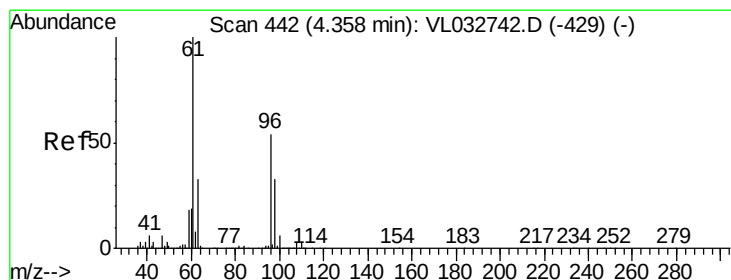
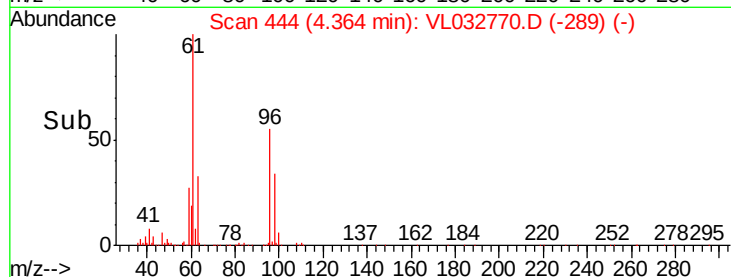
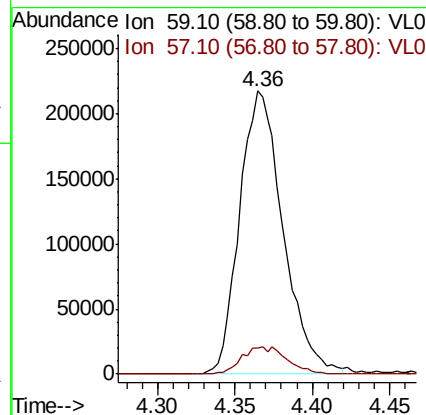
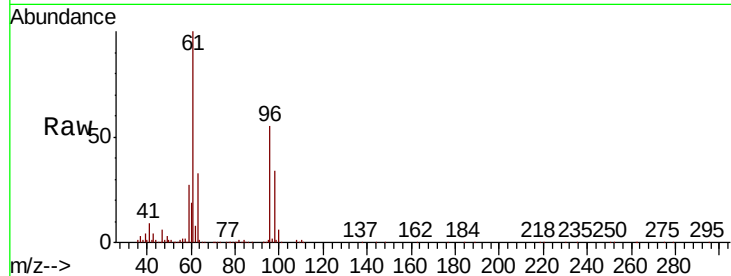
tert-Butyl alcohol  
Concen: 9.805 ppbv  
RT: 4.36 min Scan# 444  
Delta R.T. -0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 59      | 100   |       |       |
| 57      | 10.2  | 7.8   | 11.8  |

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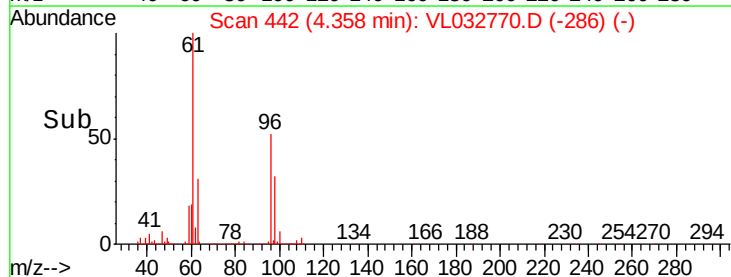
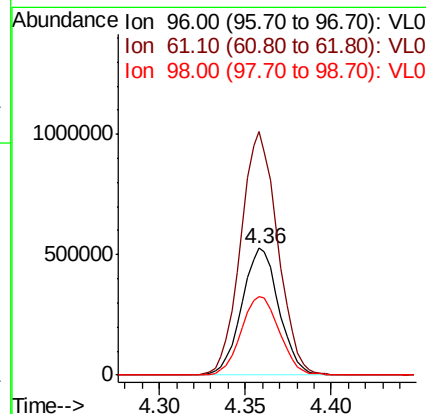
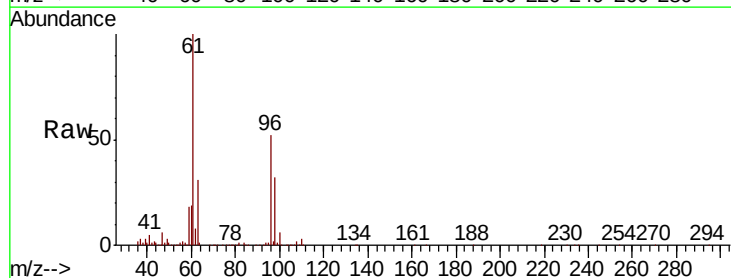
MMDadoda  
11/16/2018 1:30:13 PM

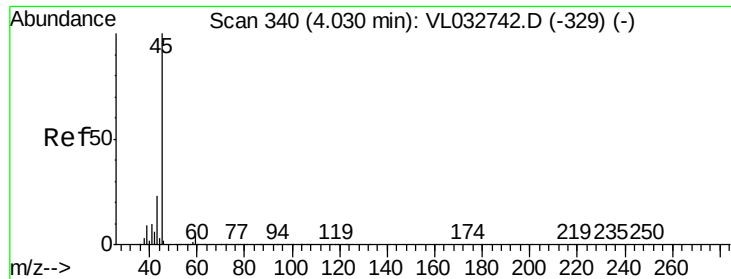


#18

1,1-Dichloroethene  
Concen: 9.639 ppbv  
RT: 4.36 min Scan# 442  
Delta R.T. 0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 192.2 | 148.5 | 222.7 |
| 98      | 62.2  | 48.6  | 72.8  |





#19

Isopropyl Alcohol

Concen: 8.488 ppbv

RT: 4.03 min Scan# 340

Delta R.T. 0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion: 45 Resp: 778161

Ion Ratio Lower Upper

45 100

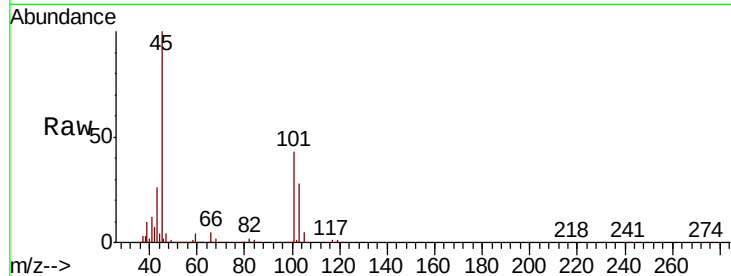
58 1.8 1.4 2.0

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Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

4.03

500000

400000

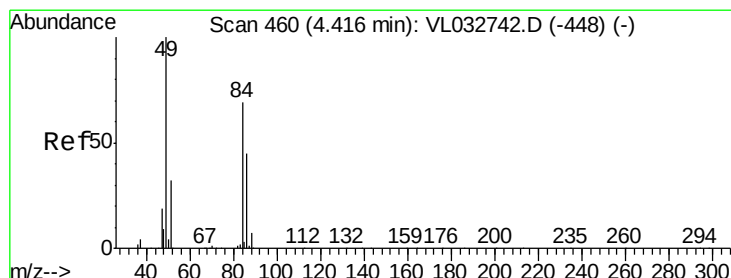
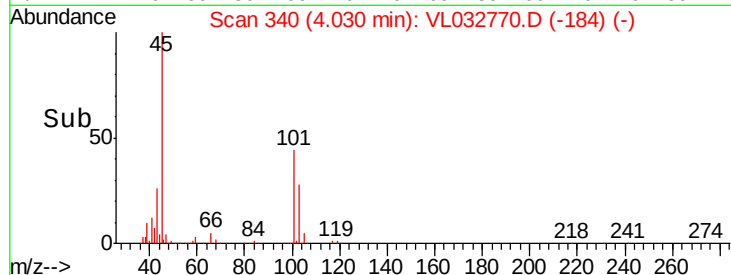
300000

200000

100000

0

Time-->



#20

Methylene Chloride

Concen: 9.337 ppbv

RT: 4.42 min Scan# 460

Delta R.T. 0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Tgt Ion: 84 Resp: 665195

Ion Ratio Lower Upper

84 100

49 147.9 115.8 173.6

51 46.8 36.9 55.3

86 65.2 52.4 78.6

Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

1000000

800000

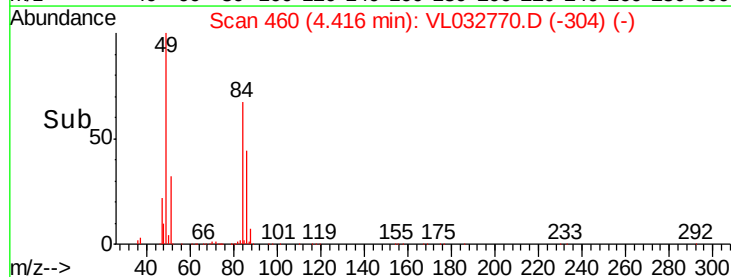
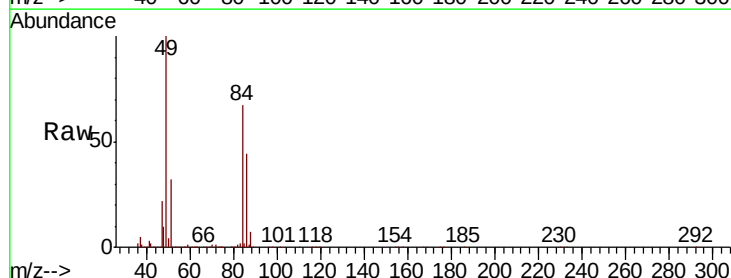
600000

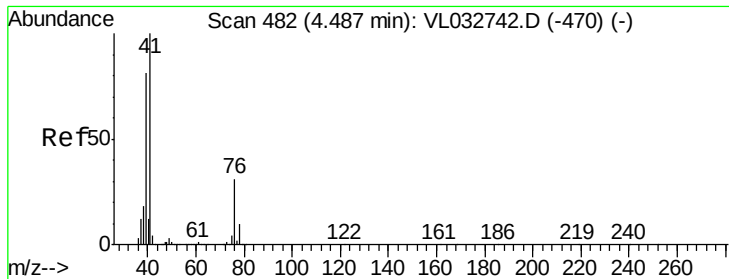
400000

200000

0

Time-->





#21

Allvl Chloride

Concen: 10.896 ppbv

RT: 4.48 min Scan# 481

Delta R.T. -0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

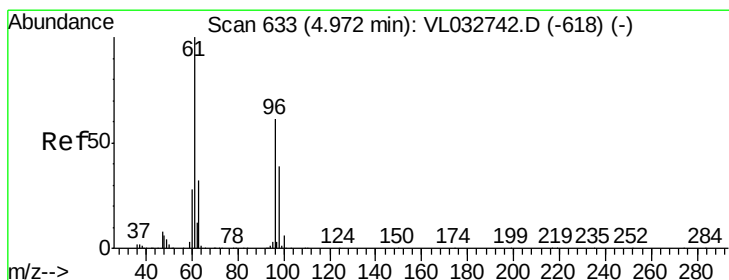
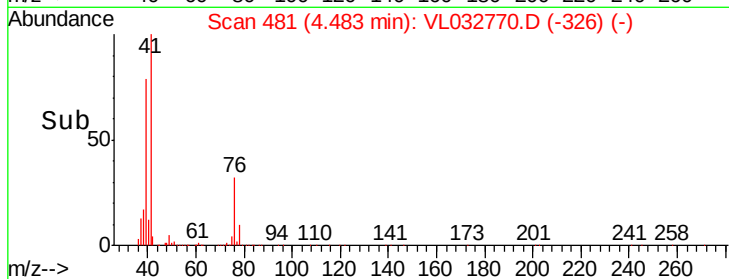
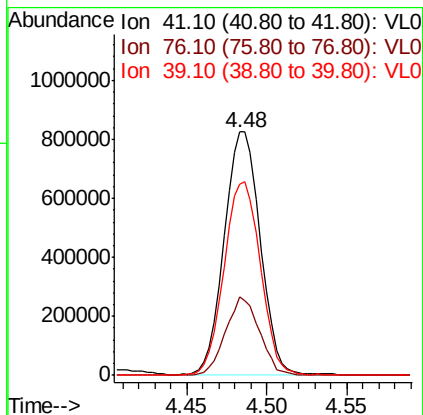
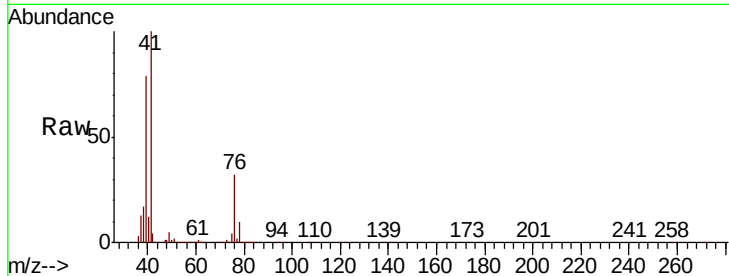
ClientSampleId :

VL1114ABS02

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 41    | Resp: | 1260106 |
| Ion      | Ratio | Lower | Upper   |
| 41       | 100   |       |         |
| 76       | 30.6  | 24.4  | 36.6    |
| 39       | 80.6  | 63.5  | 95.3    |

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#22

trans-1,2-Dichloroethene

Concen: 9.195 ppbv

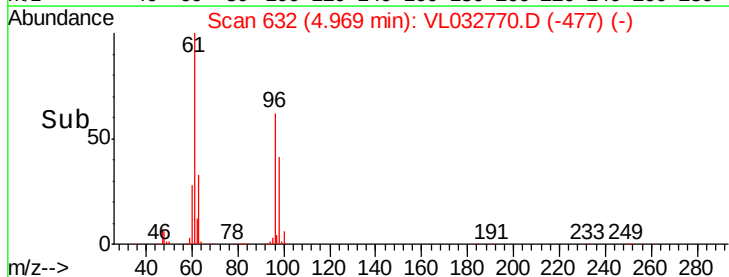
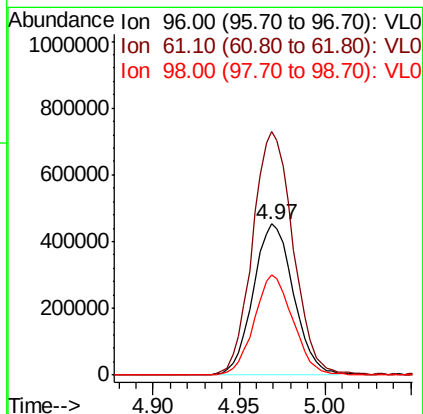
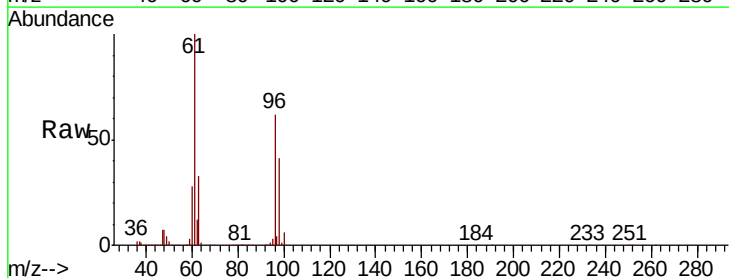
RT: 4.97 min Scan# 632

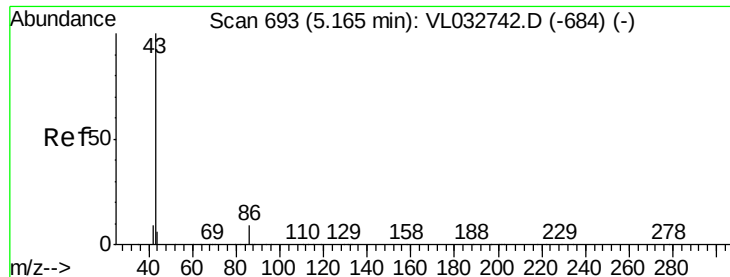
Delta R.T. -0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 96    | Resp: | 736192 |
| Ion      | Ratio | Lower | Upper  |
| 96       | 100   |       |        |
| 61       | 161.2 | 130.2 | 195.2  |
| 98       | 66.2  | 50.2  | 75.2   |





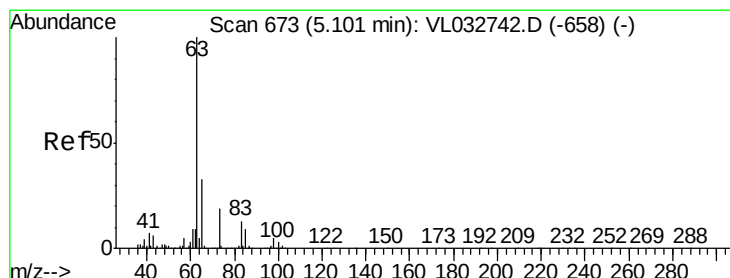
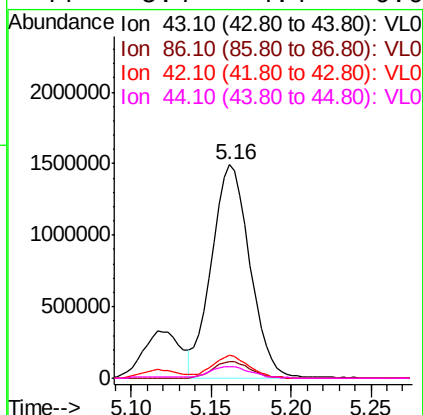
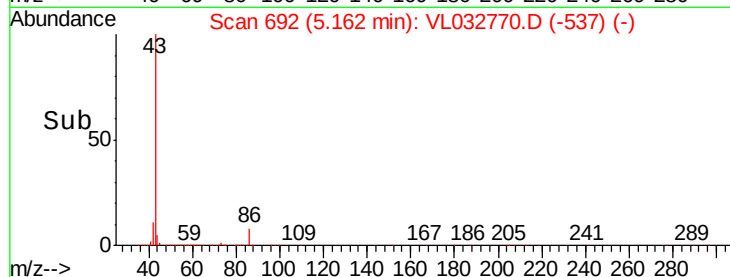
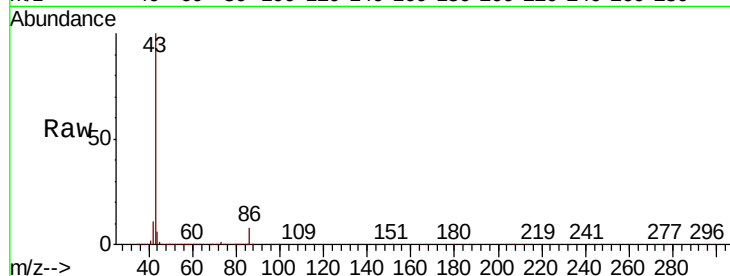
#23  
 Vinyl Acetate  
 Concen: 9.798 ppbv  
 RT: 5.16 min Scan# 692  
 Delta R.T. -0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS02

| Tot Ion | 43    | Resp  | 2458028 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 43      | 100   |       |         |
| 86      | 7.6   | 6.2   | 9.4     |
| 42      | 10.7  | 7.8   | 11.6    |
| 44      | 5.4   | 4.4   | 6.6     |

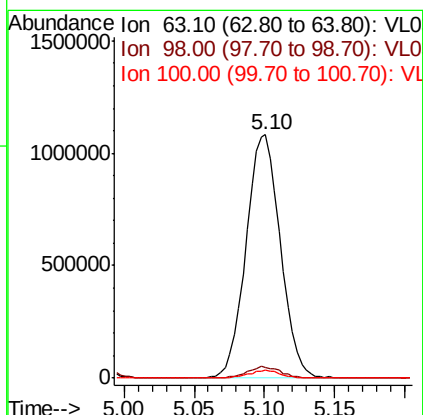
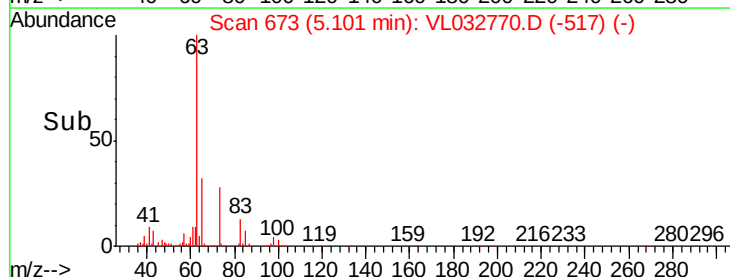
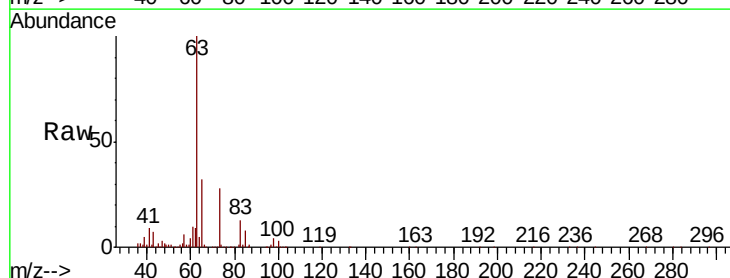
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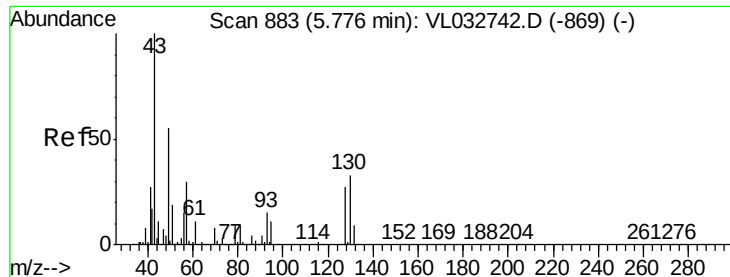


#24  
 1,1-Dichloroethane  
 Concen: 9.249 ppbv  
 RT: 5.10 min Scan# 673  
 Delta R.T. 0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

| Tgt Ion | 63    | Resp  | 1844682 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 63      | 100   |       |         |
| 98      | 4.4   | 2.3   | 6.8     |
| 100     | 3.1   | 1.4   | 4.2     |







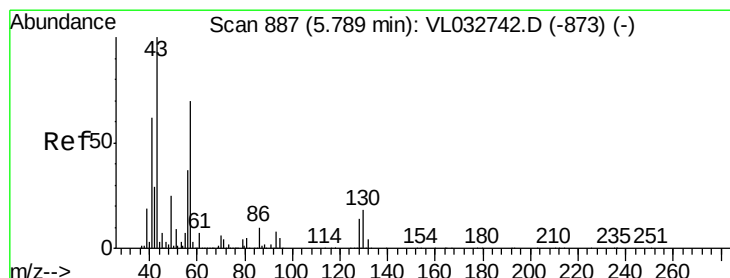
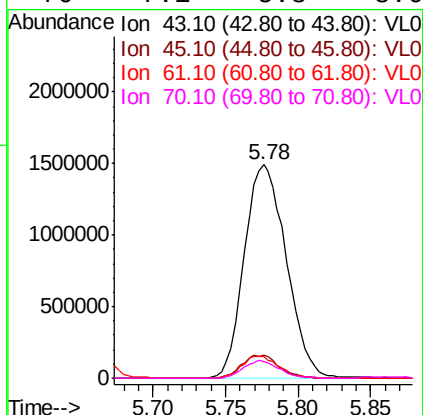
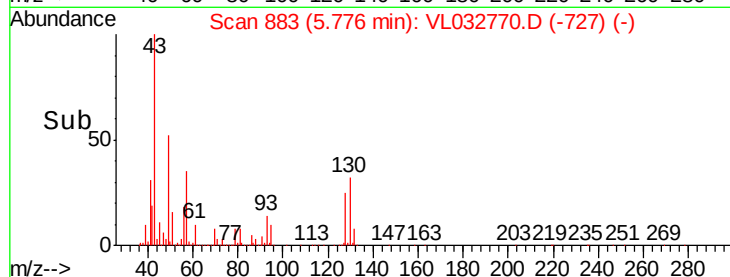
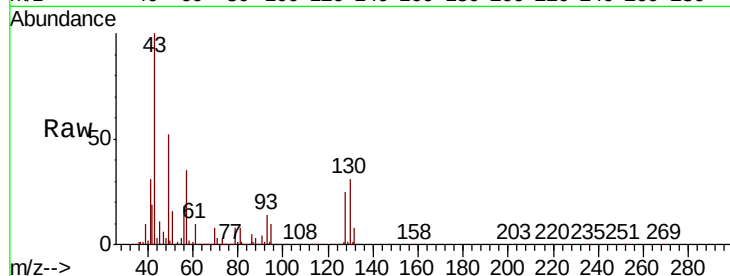
#25  
Ethyl Acetate  
Concen: 9.332 ppbv  
RT: 5.78 min Scan# 883  
Delta R.T. 0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS02

| Tot Ion | Ion | Ratio | Lower | Upper |
|---------|-----|-------|-------|-------|
| 43      | 100 |       |       |       |
| 45      | 9.8 | 7.9   | 11.9  |       |
| 61      | 9.2 | 7.8   | 11.6  |       |
| 70      | 7.1 | 5.8   | 8.6   |       |

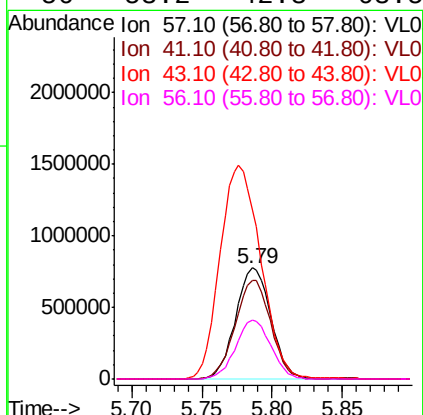
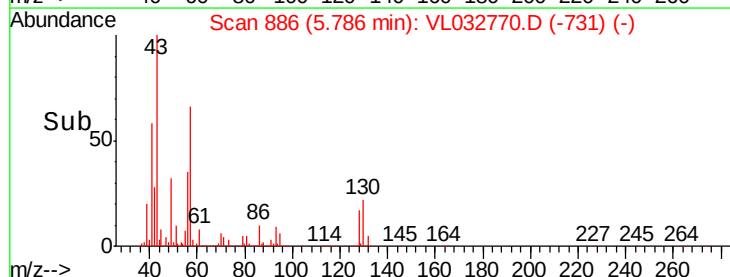
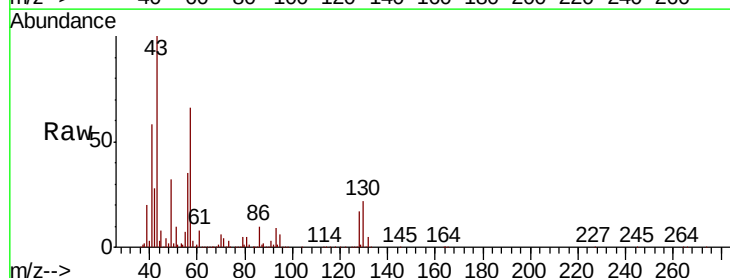
Manual Integrations  
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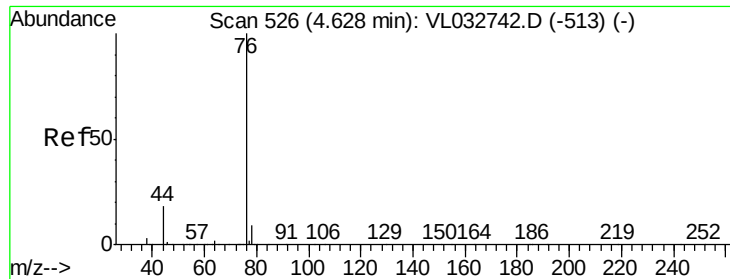
MMDadoda  
11/16/2018 1:30:13 PM



#26  
Hexane  
Concen: 9.537 ppbv  
RT: 5.79 min Scan# 886  
Delta R.T. -0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

| Tgt Ion | Ion   | Ratio | Lower | Upper |
|---------|-------|-------|-------|-------|
| 57      | 100   |       |       |       |
| 41      | 89.5  | 70.3  | 105.5 |       |
| 43      | 221.2 | 174.0 | 261.0 |       |
| 56      | 53.2  | 42.3  | 63.5  |       |





#27

Carbon Disulfide

Concen: 10.275 ppbv

RT: 4.63 min Scan# 526

Delta R.T. 0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion: 76 Resp: 1860262

Ion Ratio Lower Upper

76 100

44 18.9 14.4 21.6

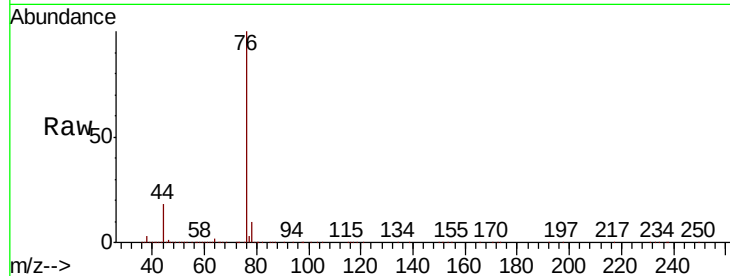
78 9.3 7.7 11.5

Manual Integrations

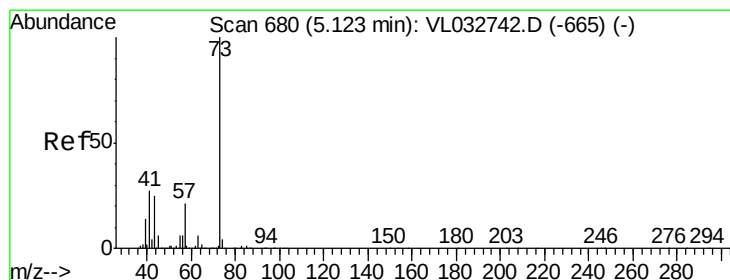
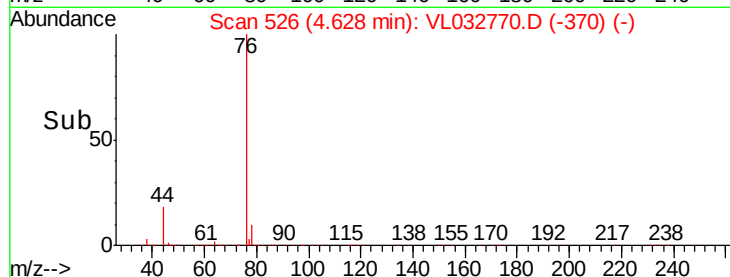
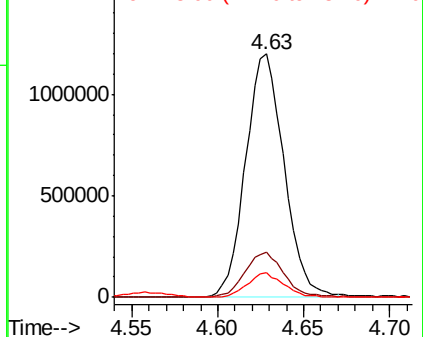
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Abundance Ion 76.00 (75.70 to 76.70): VL0  
Ion 44.10 (43.80 to 44.80): VL0  
Ion 78.00 (77.70 to 78.70): VL0



#28

Methyl tert-Butyl Ether

Concen: 9.755 ppbv

RT: 5.12 min Scan# 678

Delta R.T. -0.01 min

Lab File: VL032770.D

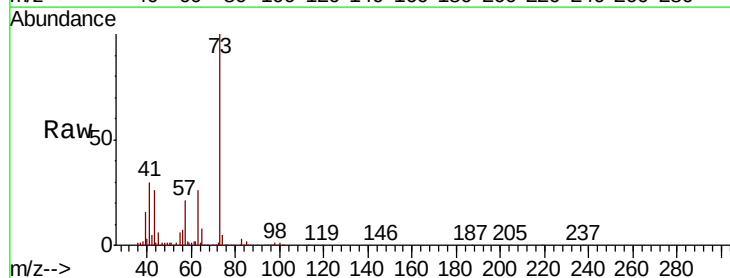
Acq: 14 Nov 2018 22:23

Tgt Ion: 73 Resp: 2221097

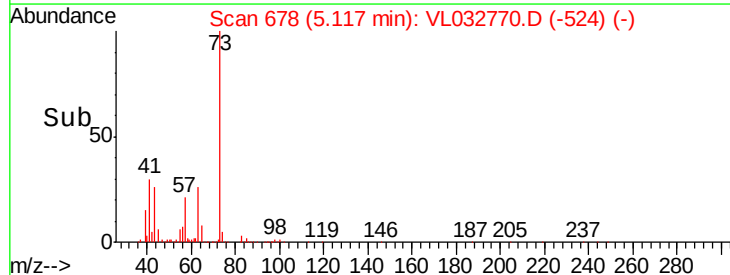
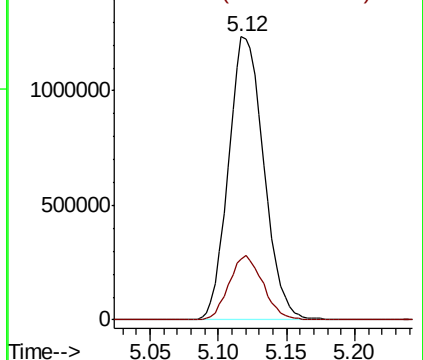
Ion Ratio Lower Upper

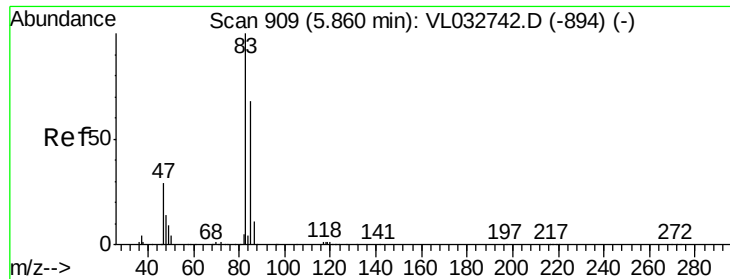
73 100

57 22.2 17.5 26.3



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





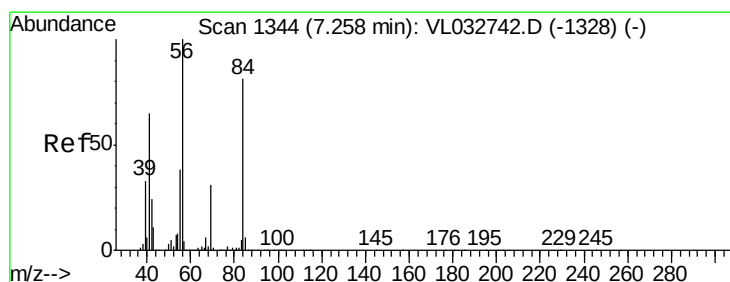
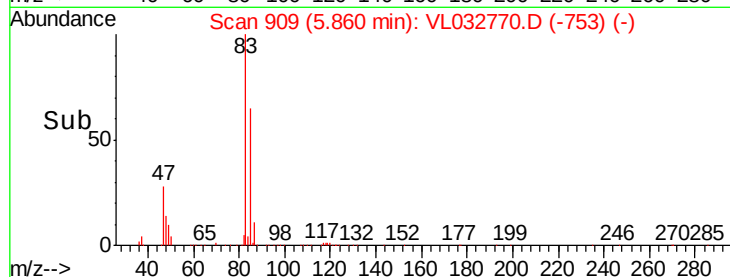
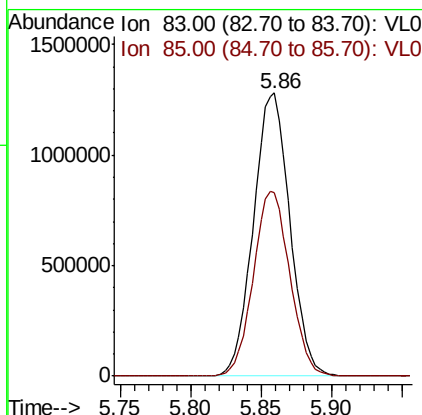
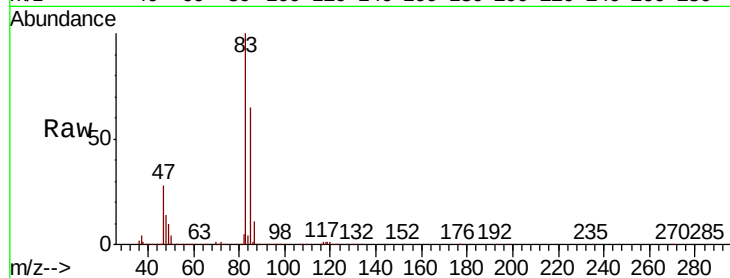
#29  
Chloroform  
Concen: 9.100 ppbv  
RT: 5.86 min Scan# 909  
Delta R.T. 0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS02

Tot Ion: 83 Resp: 2315963  
Ion Ratio Lower Upper  
83 100  
85 64.5 54.2 81.4

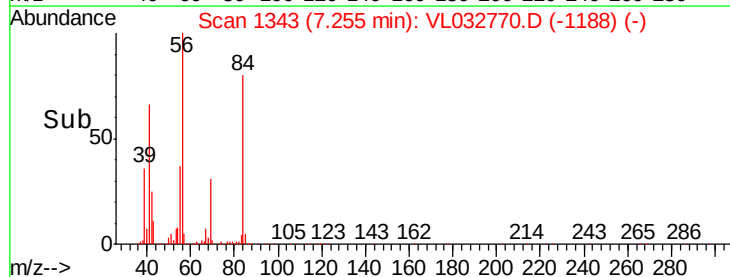
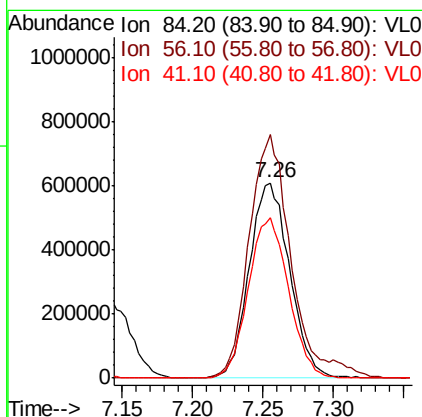
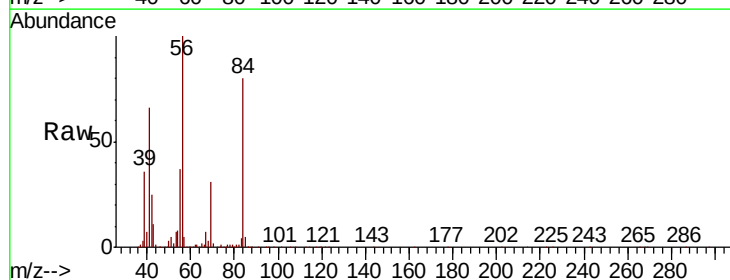
Manual Integrations  
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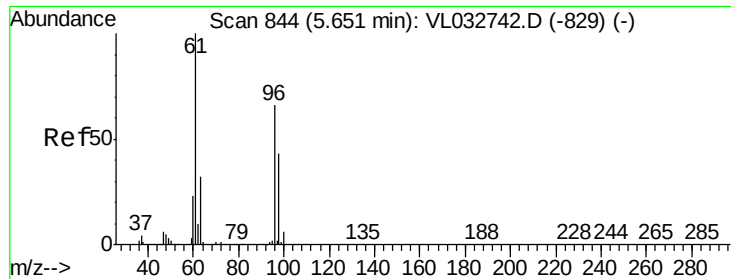
MMDadoda  
11/16/2018 1:30:13 PM



#30  
Cyclohexane  
Concen: 9.776 ppbv  
RT: 7.26 min Scan# 1343  
Delta R.T. -0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Tgt Ion: 84 Resp: 1220870  
Ion Ratio Lower Upper  
84 100  
56 130.2 105.0 157.4  
41 82.2 65.3 97.9





#31

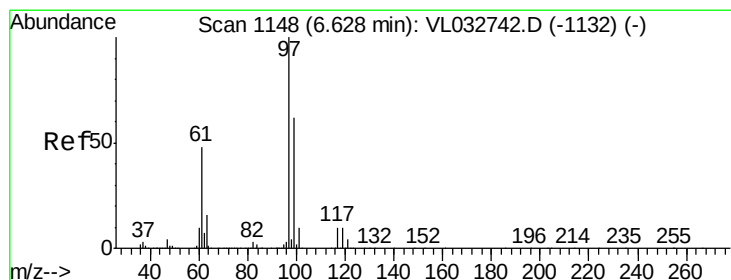
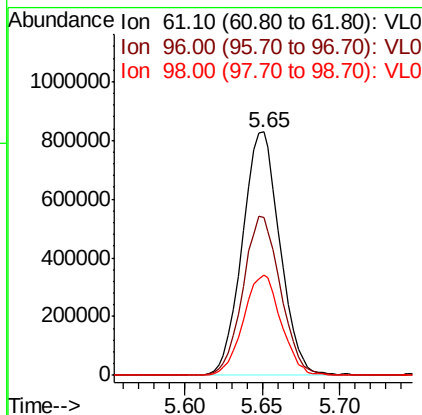
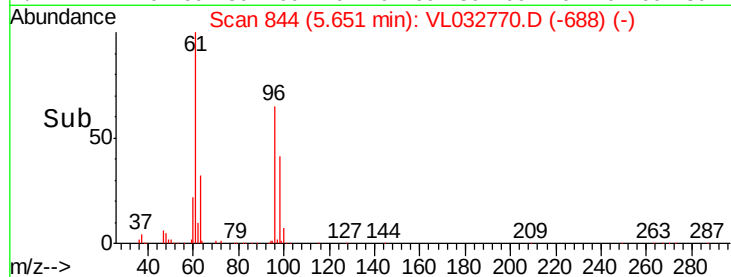
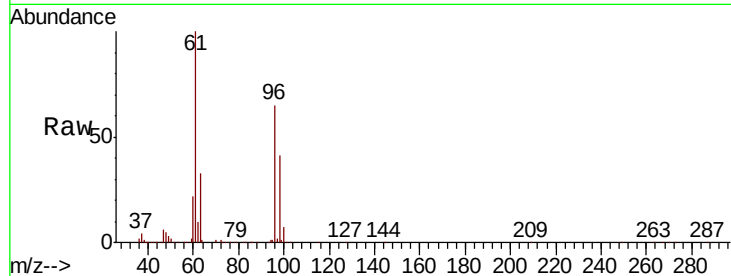
cis-1,2-Dichloroethene  
Concen: 9.766 ppbv  
RT: 5.65 min Scan# 844  
Delta R.T. 0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61      | 100   |       |       |
| 96      | 64.8  | 53.2  | 79.8  |
| 98      | 41.4  | 34.4  | 51.6  |

Manual Integrations  
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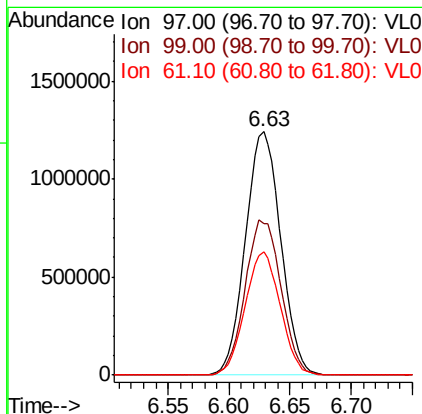
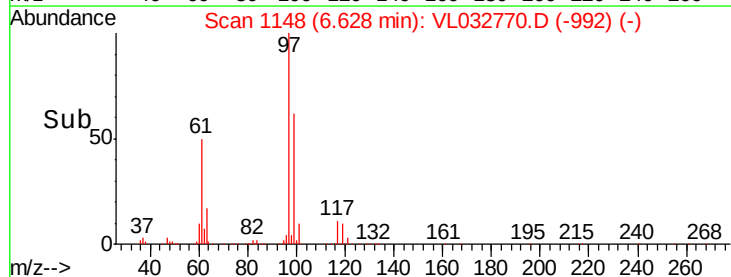
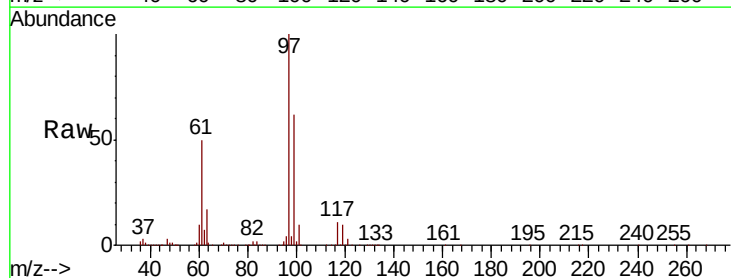
MMDadoda  
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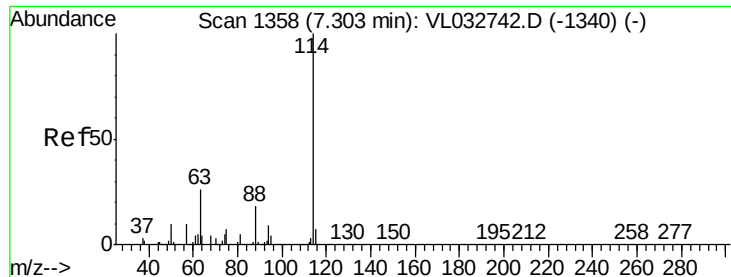


#32

1,1,1-Trichloroethane  
Concen: 8.911 ppbv  
RT: 6.63 min Scan# 1148  
Delta R.T. 0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 64.8  | 51.8  | 77.6  |
| 61      | 50.3  | 39.7  | 59.5  |





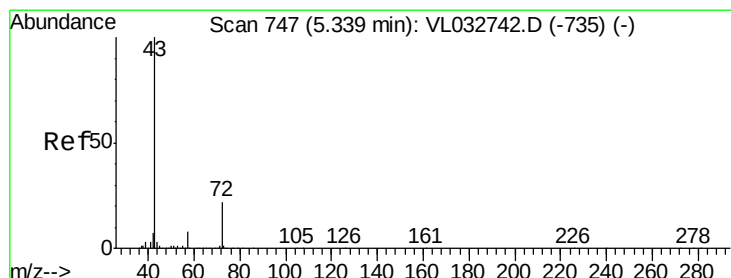
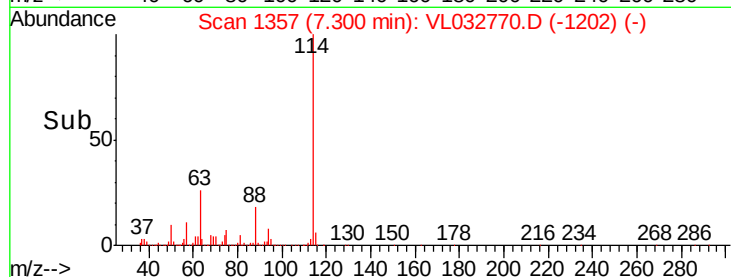
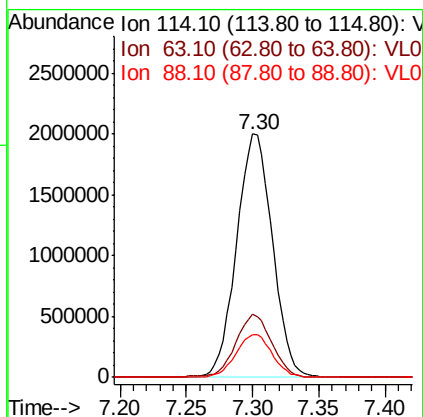
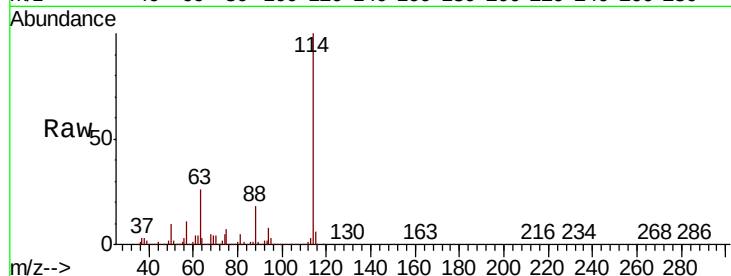
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.30 min Scan# 1357  
 Delta R.T. -0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 26.2  | 20.9  | 31.3  |
| 88      | 17.9  | 14.4  | 21.6  |

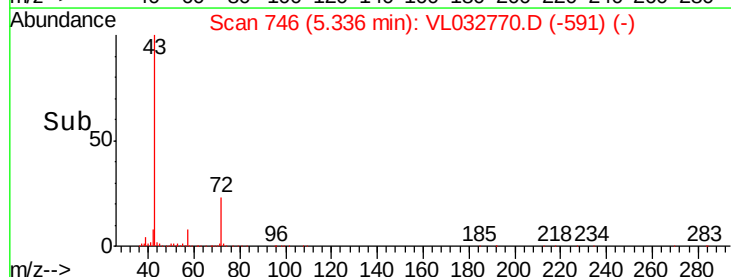
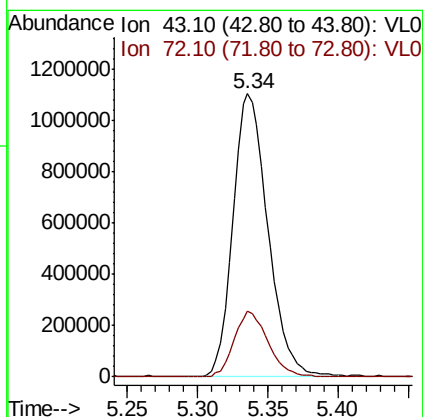
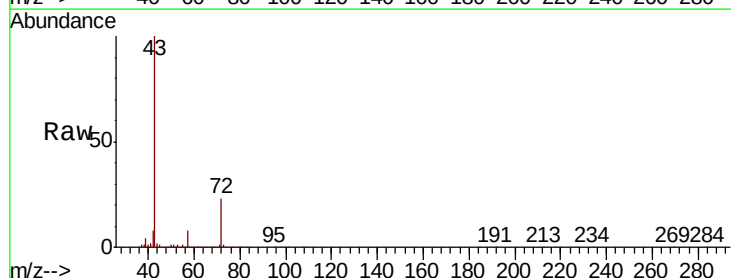
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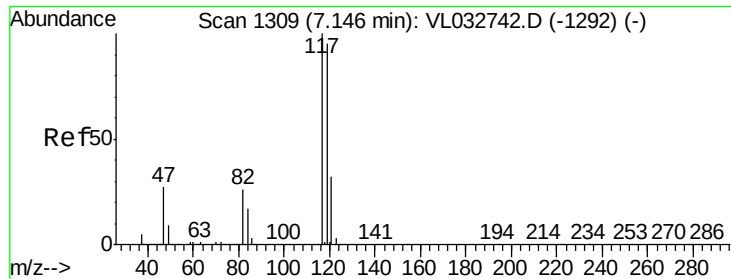
MMDadoda  
 11/16/2018 1:30:13 PM



#34  
 2-Butanone  
 Concen: 9.806 ppbv  
 RT: 5.34 min Scan# 746  
 Delta R.T. -0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 22.7  | 18.4  | 27.6  |





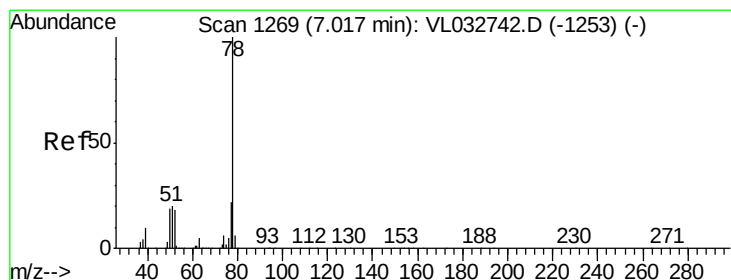
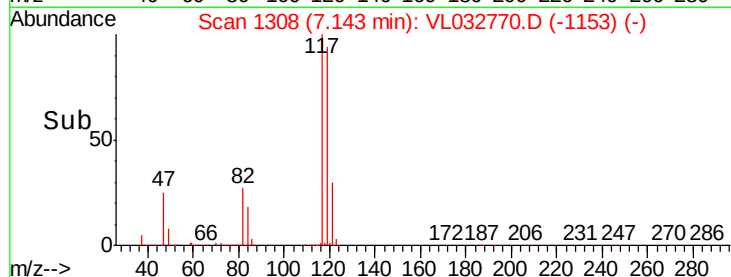
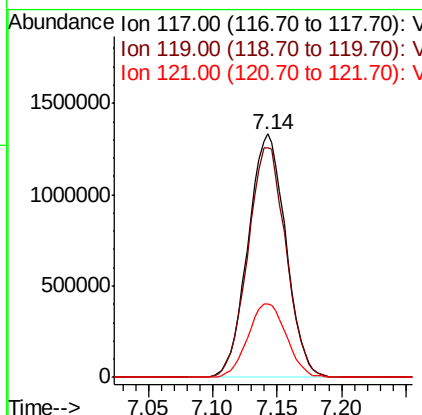
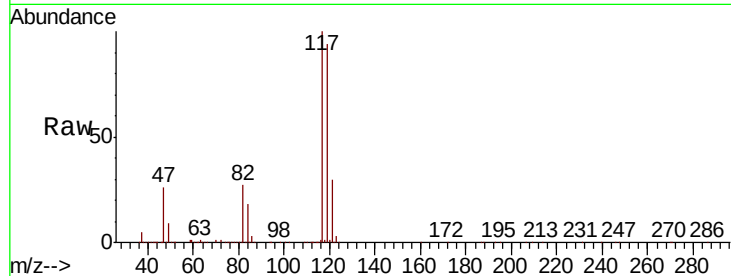
#35  
Carbon Tetrachloride  
Concen: 9.004 ppbv  
RT: 7.14 min Scan# 1308  
Delta R.T. -0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 119     | 94.4  | 76.1  | 114.1 |
| 121     | 30.4  | 25.4  | 38.0  |

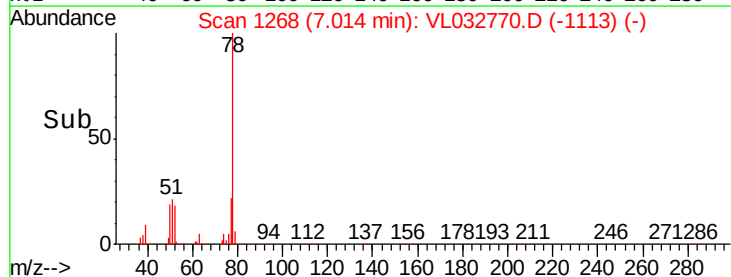
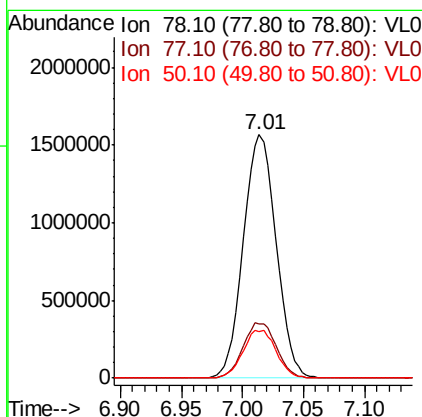
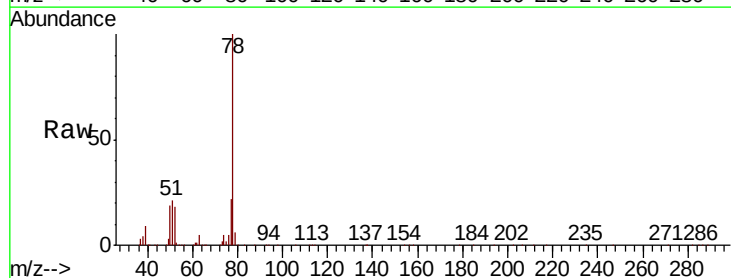
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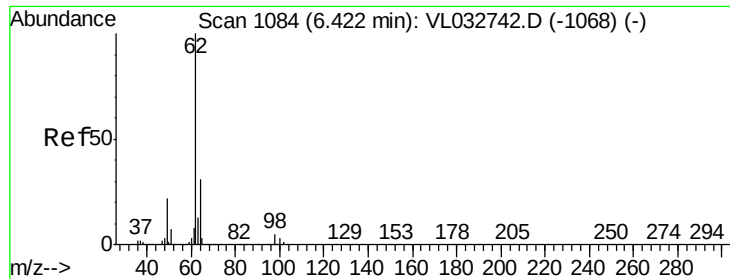
MMDadoda  
11/16/2018 1:30:13 PM



#36  
Benzene  
Concen: 9.699 ppbv  
RT: 7.01 min Scan# 1268  
Delta R.T. -0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 22.3  | 17.8  | 26.8  |
| 50      | 19.4  | 15.4  | 23.0  |





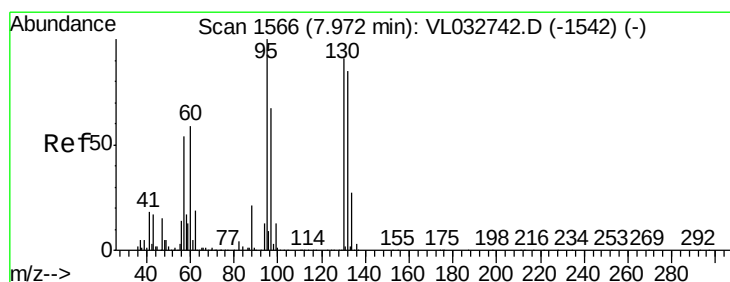
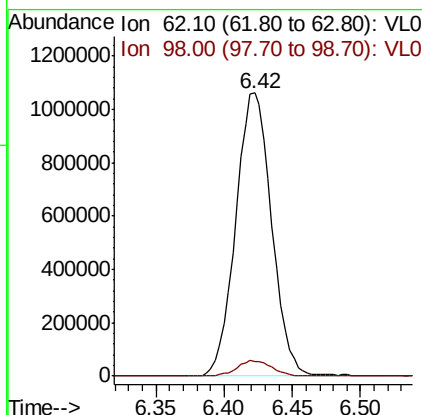
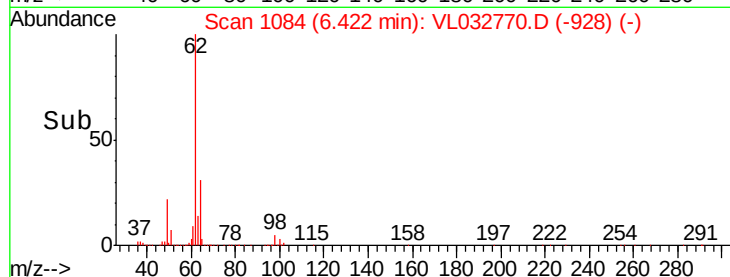
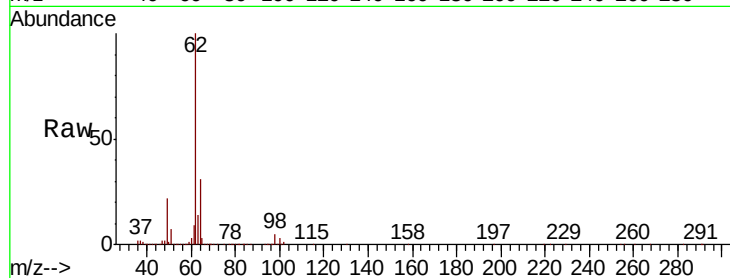
#37  
 1,2-Dichloroethane  
 Concen: 9.624 ppbv  
 RT: 6.42 min Scan# 1084  
 Delta R.T. 0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS02

Tot Ion: 62 Resp: 1938096  
 Ion Ratio Lower Upper  
 62 100  
 98 5.4 4.5 6.7

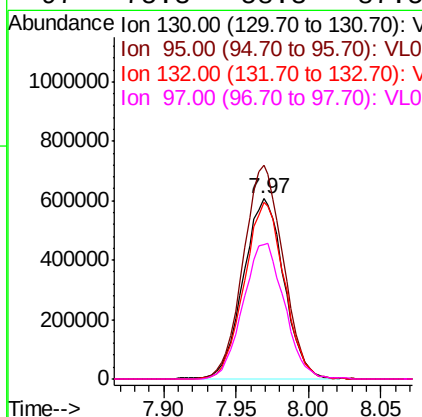
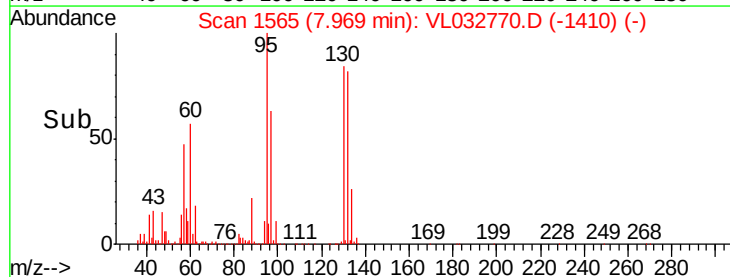
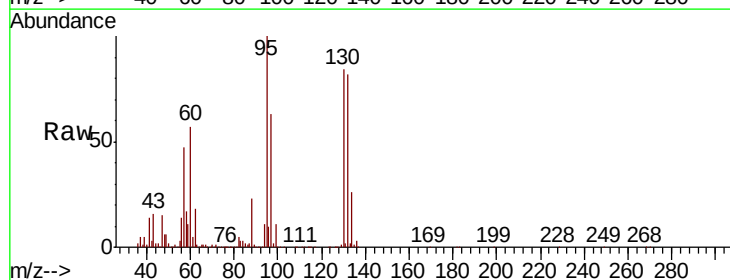
Manual Integrations  
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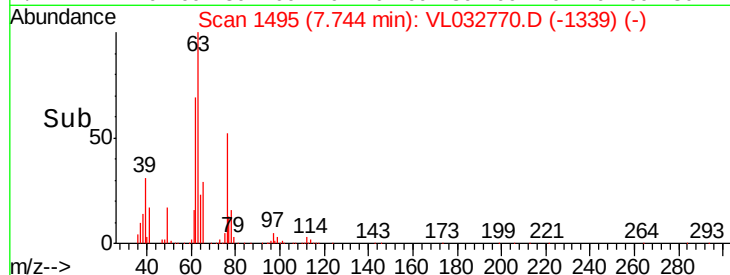
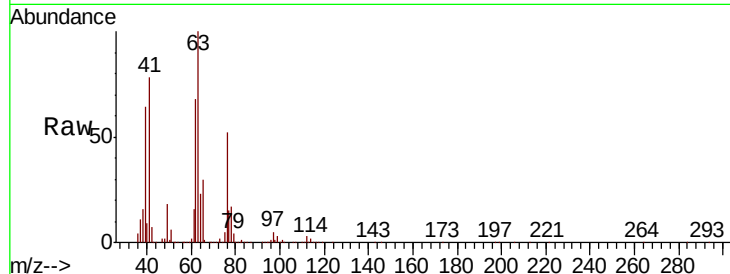
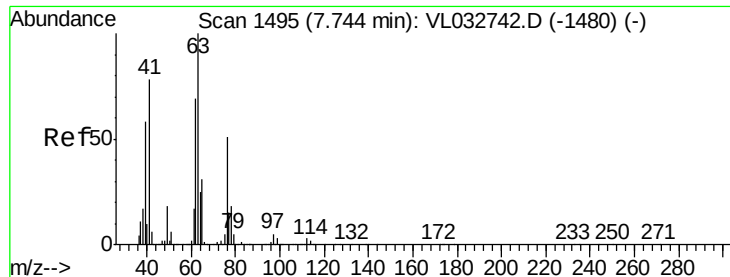
MMDadoda  
 11/16/2018 1:30:13 PM



#38  
 Trichloroethene  
 Concen: 9.666 ppbv  
 RT: 7.97 min Scan# 1565  
 Delta R.T. -0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Tgt Ion:130 Resp: 1170283  
 Ion Ratio Lower Upper  
 130 100  
 95 119.0 87.7 131.5  
 132 98.1 74.6 111.8  
 97 75.3 58.3 87.5





#39

1,2-Dichloropropane

Concen: 9.603 ppbv

RT: 7.74 min Scan# 1495

Delta R.T. 0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 63    | Resp: | 1094557 |
| Ion      | Ratio | Lower | Upper   |
| 63       | 100   |       |         |
| 41       | 78.4  | 62.0  | 93.0    |
| 62       | 68.5  | 55.4  | 83.2    |

Instrument :

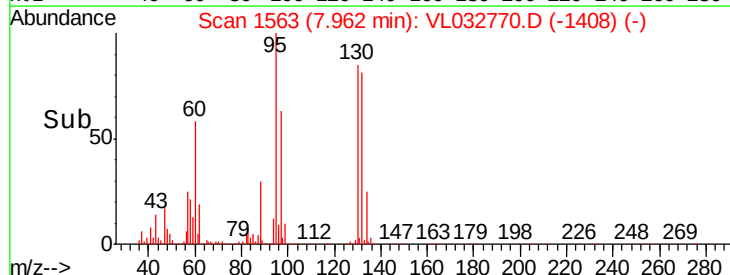
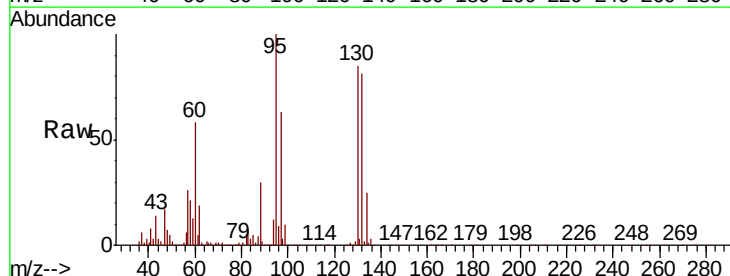
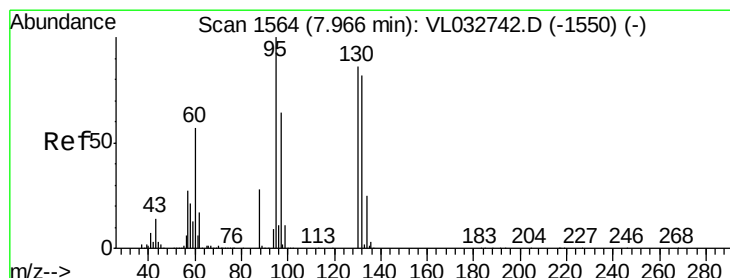
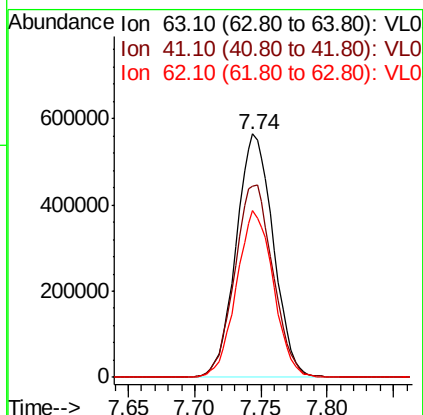
MSVOA\_L

ClientSampleId :

VL1114ABS02

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11/16/2018 1:30:13 PM



#40

1,4-Dioxane

Concen: 10.224 ppbv

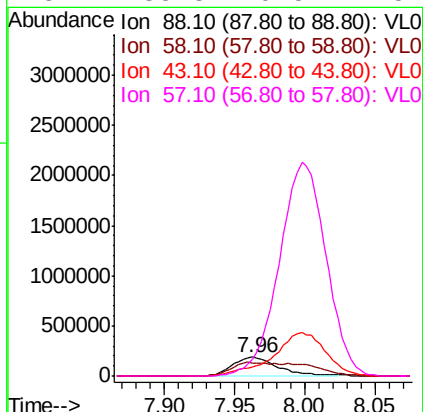
RT: 7.96 min Scan# 1563

Delta R.T. -0.00 min

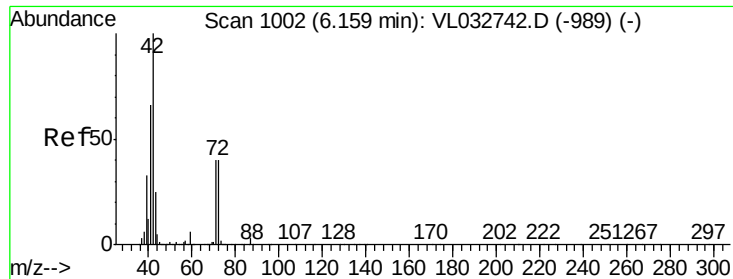
Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

|          |        |        |        |
|----------|--------|--------|--------|
| Tgt Ion: | 88     | Resp:  | 416232 |
| Ion      | Ratio  | Lower  | Upper  |
| 88       | 100    |        |        |
| 58       | 126.2  | 105.3  | 157.9  |
| 43       | 268.3  | 226.1  | 339.1  |
| 57       | 1185.8 | 1015.2 | 1522.8 |







#41

Tetrahydrofuran

Concen: 10.172 ppbv

RT: 6.16 min Scan# 1001

Delta R.T. -0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

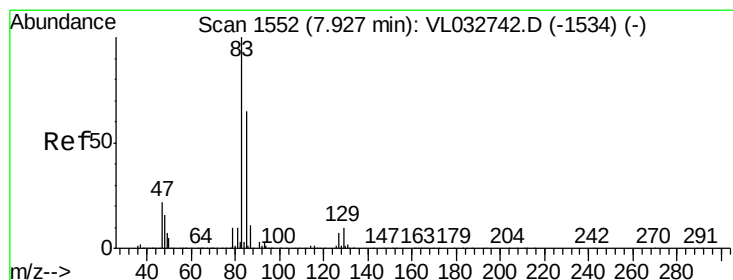
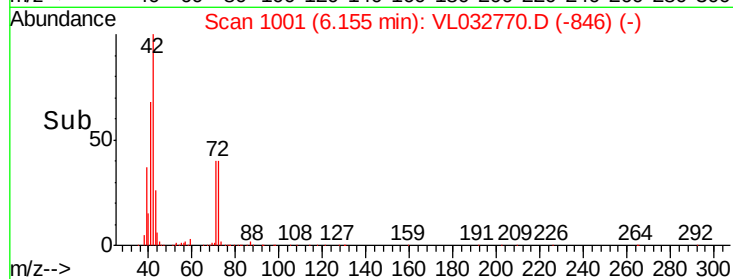
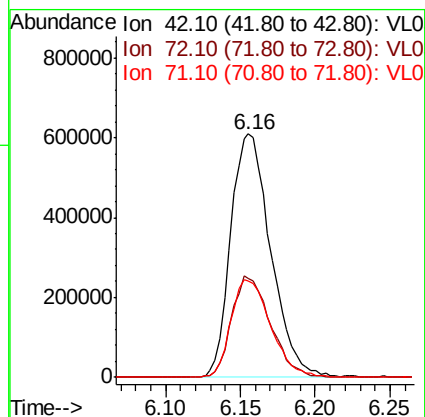
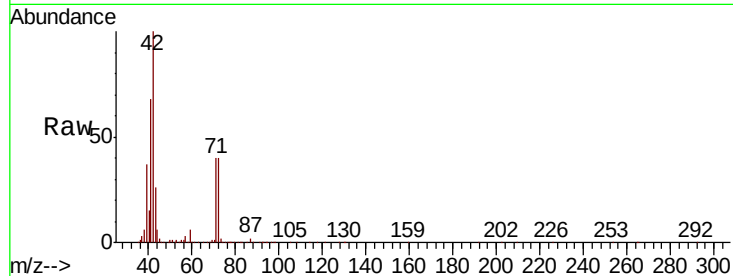
ClientSampleId :

VL1114ABS02

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 42    | Resp: | 1136926 |
| Ion      | Ratio | Lower | Upper   |
| 42       | 100   |       |         |
| 72       | 40.5  | 32.4  | 48.6    |
| 71       | 40.1  | 31.6  | 47.4    |

Manual Integrations  
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11/16/2018 1:30:13 PM



#42

Bromodichloromethane

Concen: 9.733 ppbv

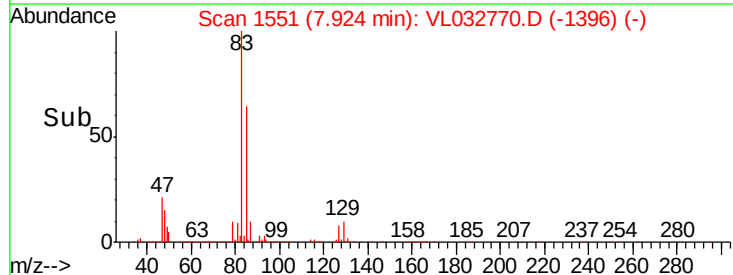
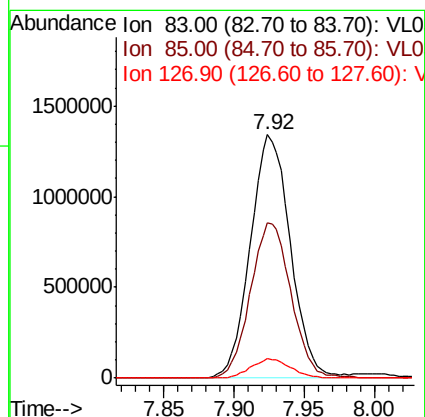
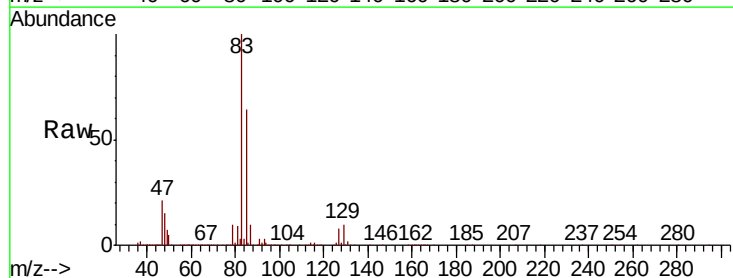
RT: 7.92 min Scan# 1551

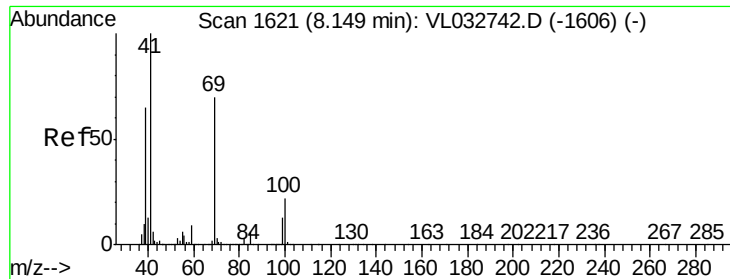
Delta R.T. -0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 83    | Resp: | 2657004 |
| Ion      | Ratio | Lower | Upper   |
| 83       | 100   |       |         |
| 85       | 64.0  | 51.8  | 77.8    |
| 127      | 8.2   | 5.9   | 8.9     |





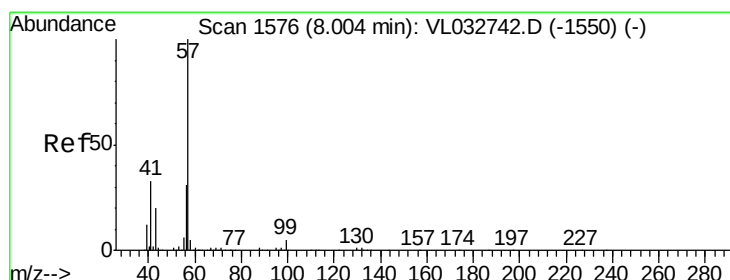
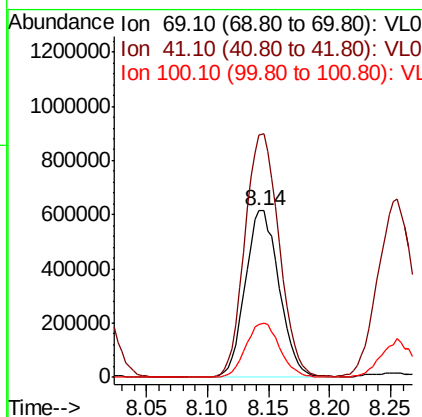
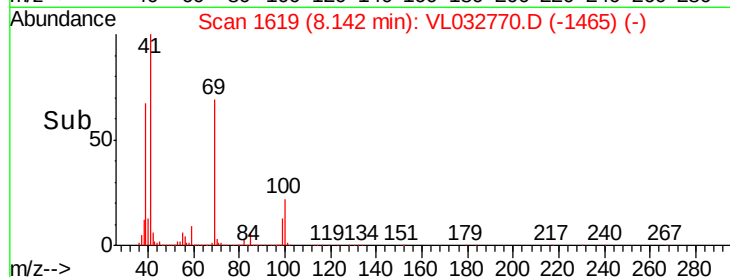
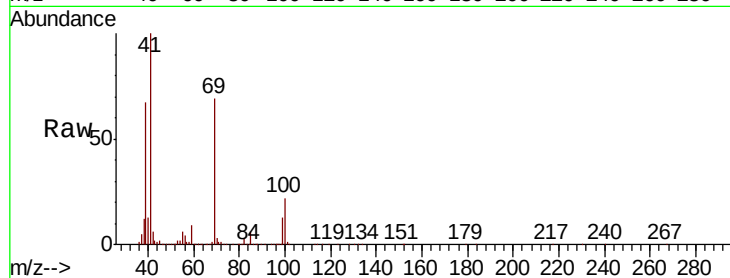
#43  
Methyl Methacrylate  
Concen: 10.518 ppbv  
RT: 8.14 min Scan# 1619  
Delta R.T. -0.01 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS02

Tot Ion: 69 Resp: 1174778  
Ion Ratio Lower Upper  
69 100  
41 147.8 115.0 172.4  
100 32.7 25.4 38.0

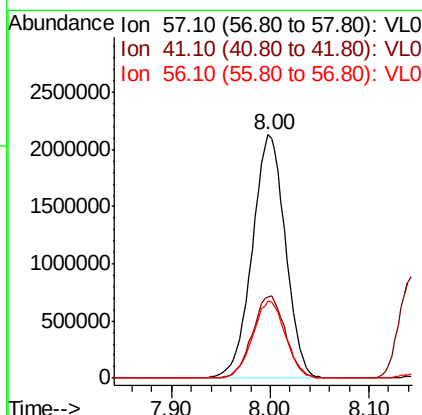
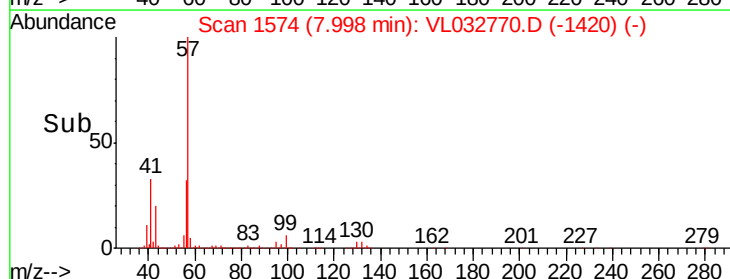
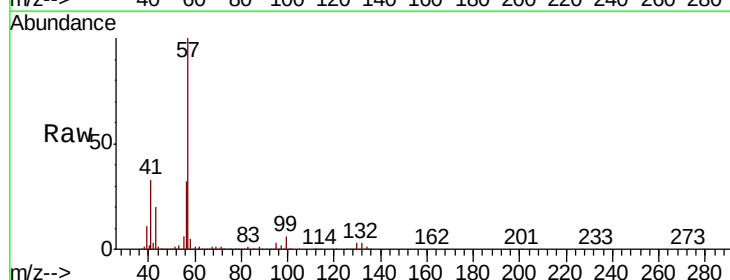
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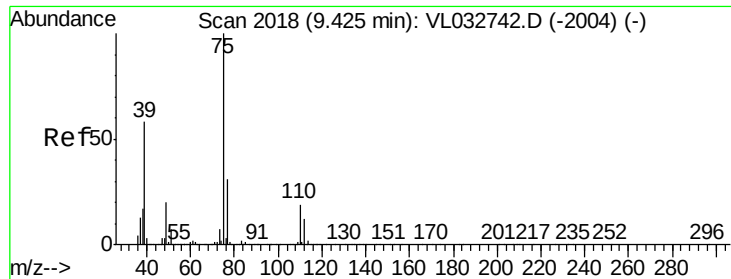
MMDadoda  
11/16/2018 1:30:13 PM



#44  
2,2,4-Trimethylpentane  
Concen: 9.863 ppbv  
RT: 8.00 min Scan# 1574  
Delta R.T. -0.01 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Tgt Ion: 57 Resp: 4930882  
Ion Ratio Lower Upper  
57 100  
41 33.7 26.6 39.8  
56 31.1 24.8 37.2





#45

t-1,3-Dichloropropene

Concen: 11.415 ppbv

RT: 9.43 min Scan# 2018

Delta R.T. 0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion: 75 Resp: 1710724

Ion Ratio Lower Upper

75 100

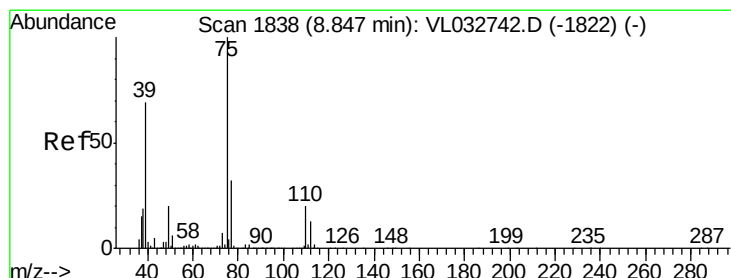
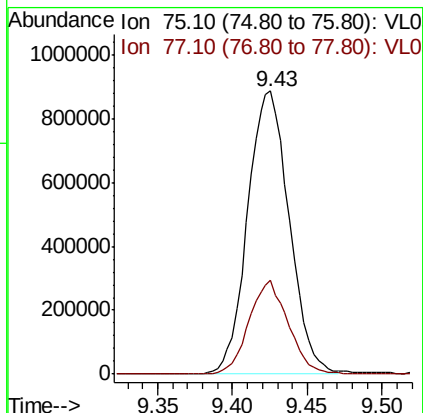
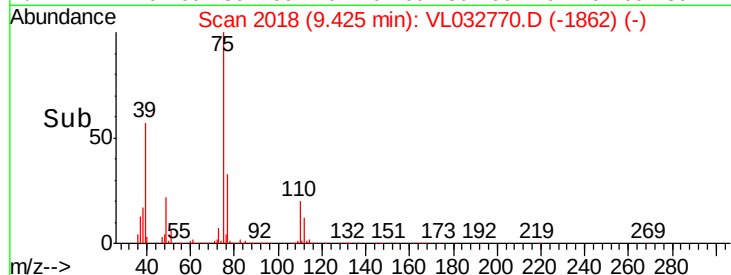
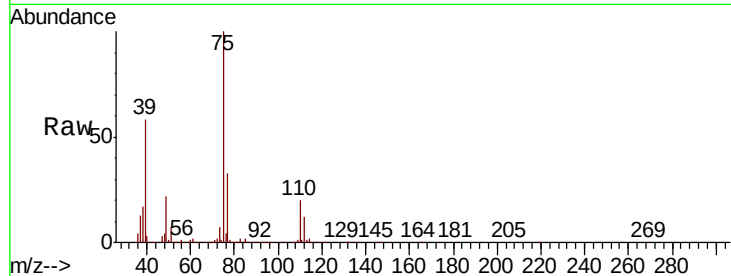
77 33.0 24.6 36.8

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11/16/2018 1:30:13 PM



#46

cis-1,3-Dichloropropene

Concen: 10.963 ppbv

RT: 8.84 min Scan# 1837

Delta R.T. -0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

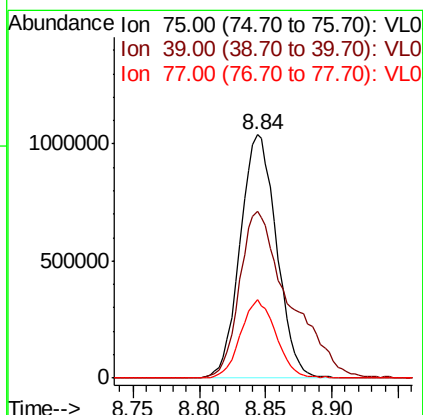
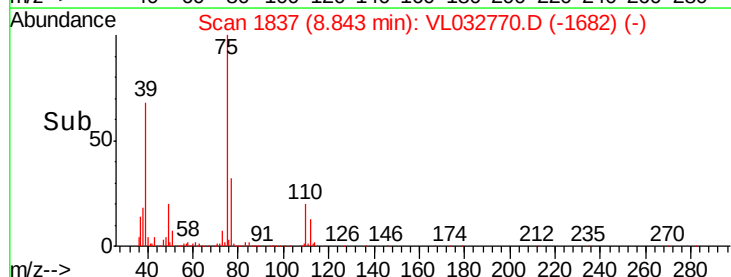
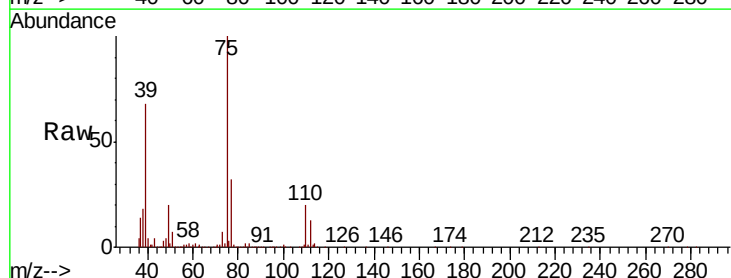
Tgt Ion: 75 Resp: 1985053

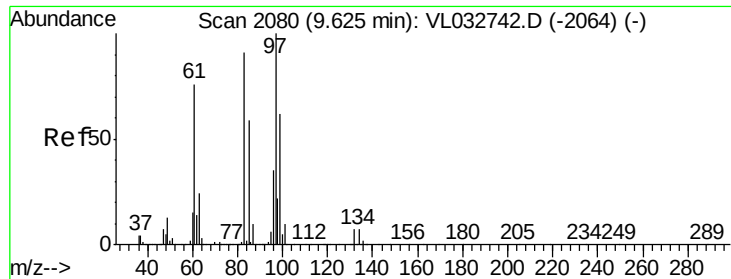
Ion Ratio Lower Upper

75 100

39 68.4 55.2 82.8

77 32.3 25.8 38.6





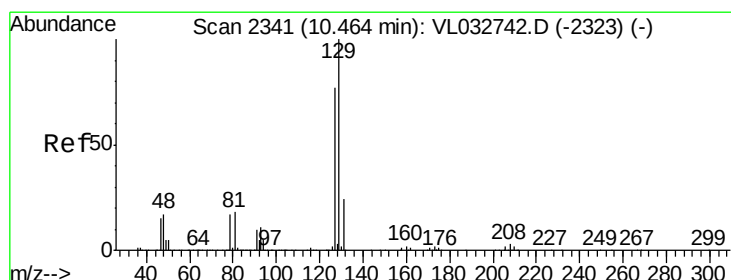
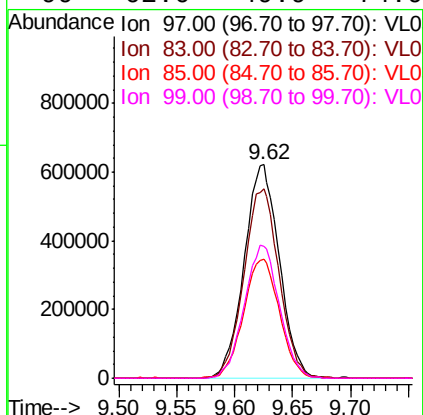
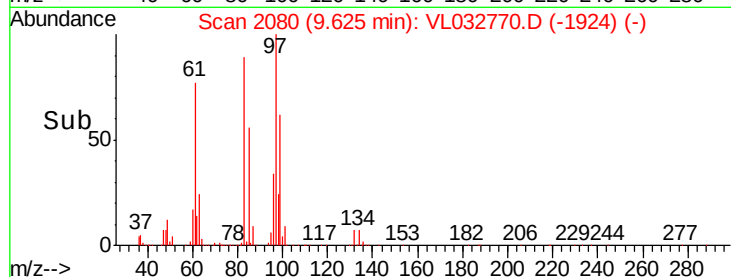
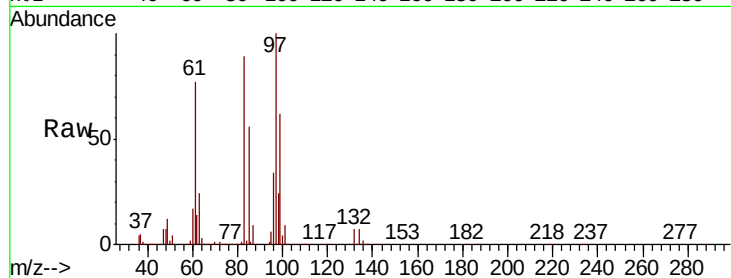
#47  
 1,1,2-Trichloroethane  
 Concen: 9.733 ppbv  
 RT: 9.62 min Scan# 2080  
 Delta R.T. 0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 83      | 88.7  | 73.0  | 109.4 |
| 85      | 55.8  | 47.0  | 70.4  |
| 99      | 62.0  | 49.9  | 74.9  |

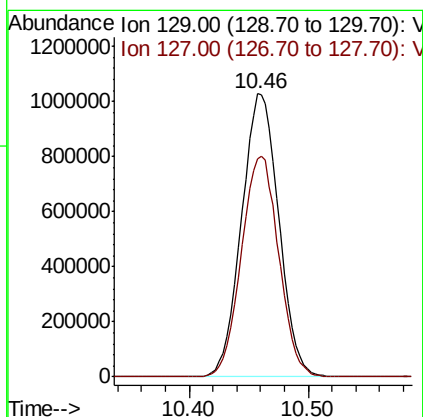
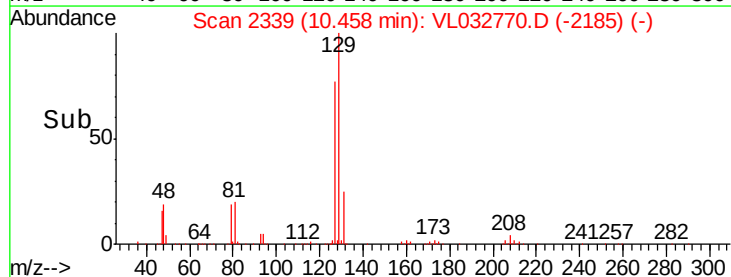
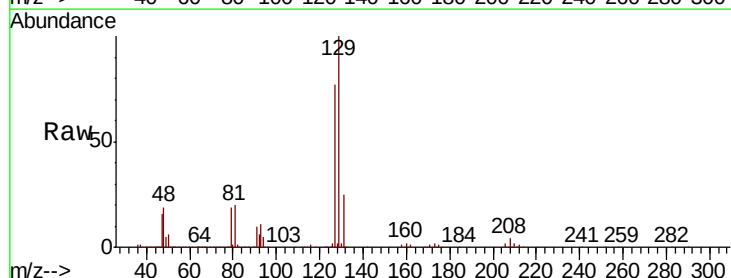
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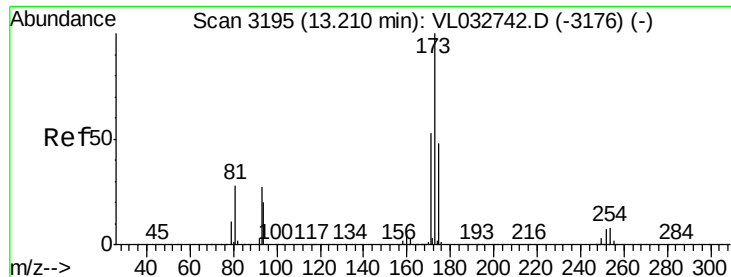
MMDadoda  
 11/16/2018 1:30:13 PM



#48  
 Dibromochloromethane  
 Concen: 9.733 ppbv  
 RT: 10.46 min Scan# 2339  
 Delta R.T. -0.01 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 129     | 100   |       |       |
| 127     | 78.5  | 39.0  | 117.0 |





#49

Bromoform

Concen: 9.537 ppbv

RT: 13.21 min Scan# 3195

Delta R.T. 0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion:173 Resp: 1804300

Ion Ratio Lower Upper

173 100

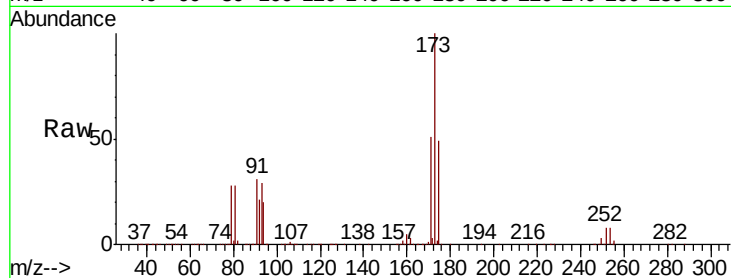
175 48.5 39.4 59.0

171 51.7 42.0 63.0

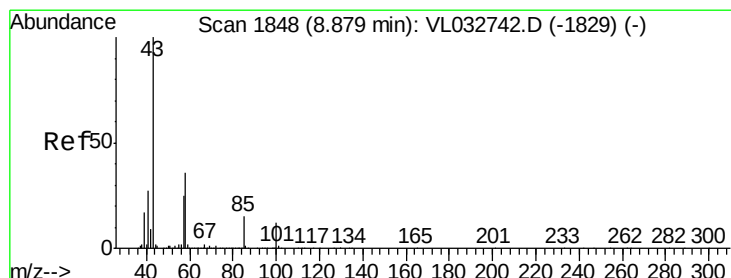
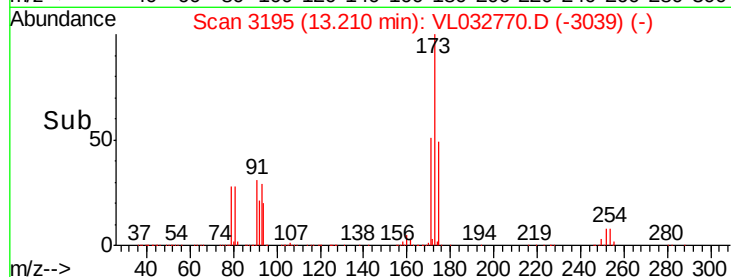
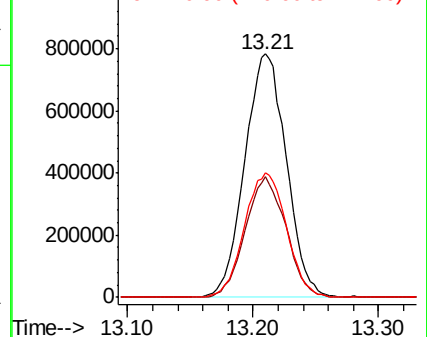
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Abundance Ion 172.90 (172.60 to 173.60): V  
Ion 174.90 (174.60 to 175.60): V  
Ion 170.90 (170.60 to 171.60): V



#50

4-Methyl-2-Pentanone

Concen: 10.116 ppbv

RT: 8.88 min Scan# 1847

Delta R.T. -0.00 min

Lab File: VL032770.D

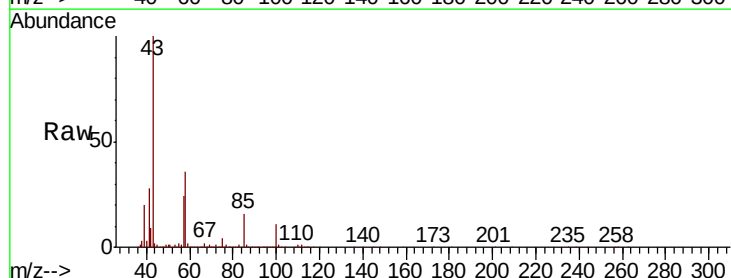
Acq: 14 Nov 2018 22:23

Tgt Ion: 43 Resp: 3078662

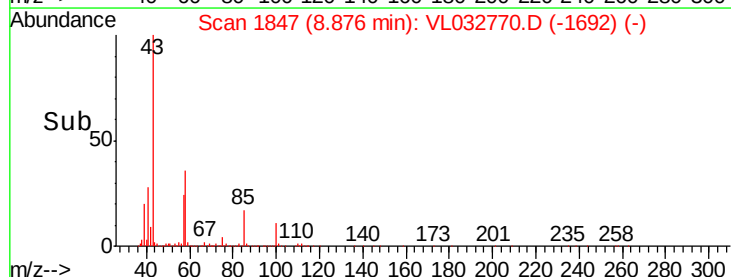
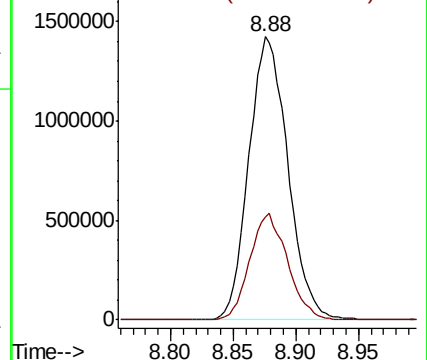
Ion Ratio Lower Upper

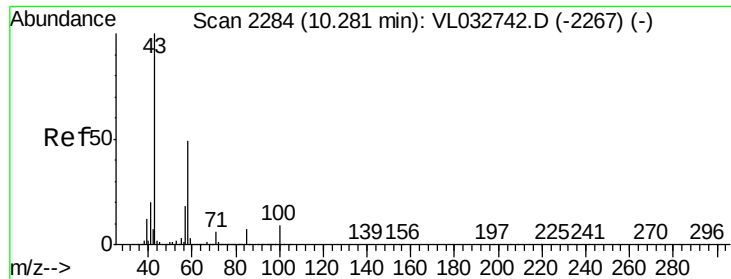
43 100

58 36.5 28.8 43.2



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





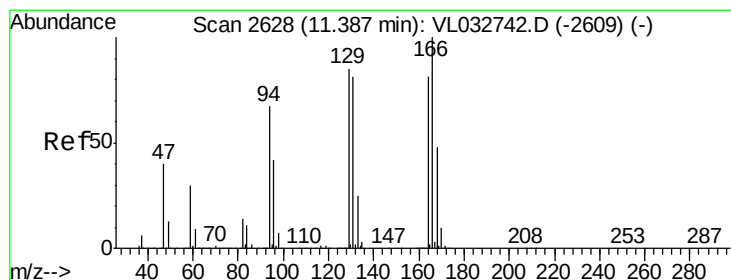
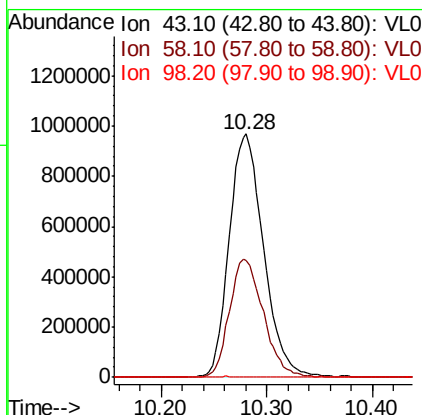
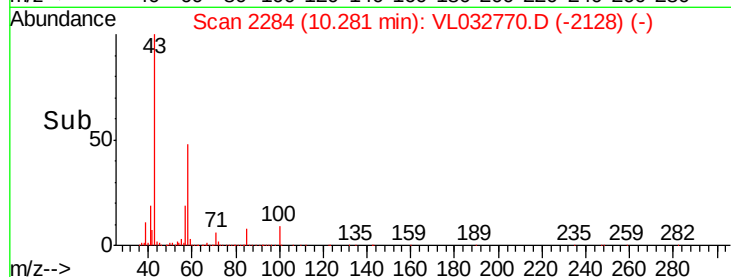
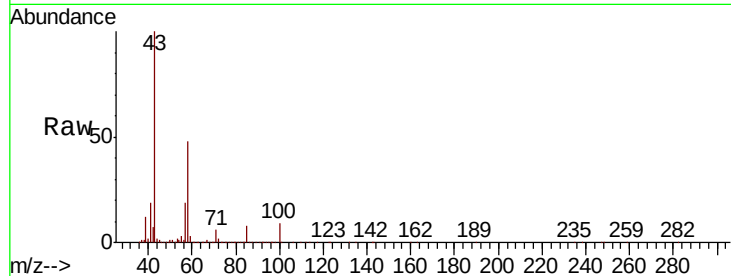
#51  
2-Hexanone  
Concen: 11.170 ppbv  
RT: 10.28 min Scan# 2284  
Delta R.T. 0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 47.9  | 38.9  | 58.3  |
| 98      | 0.2   | 0.2   | 0.4   |

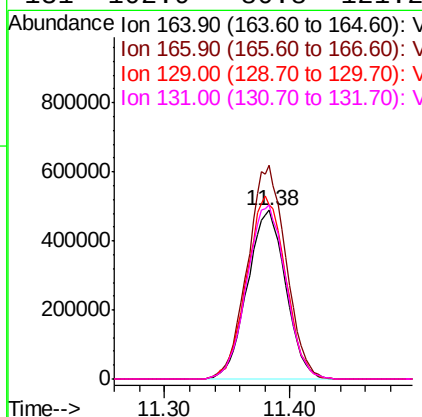
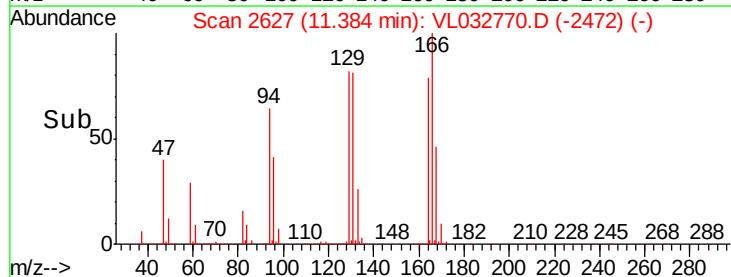
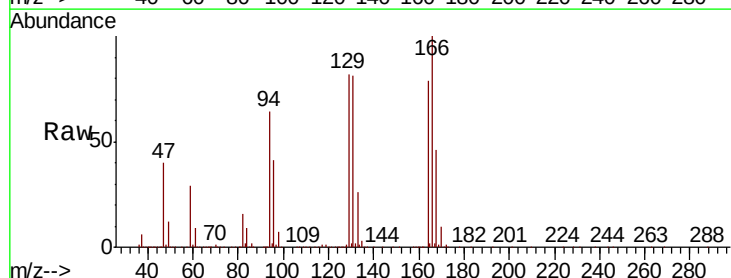
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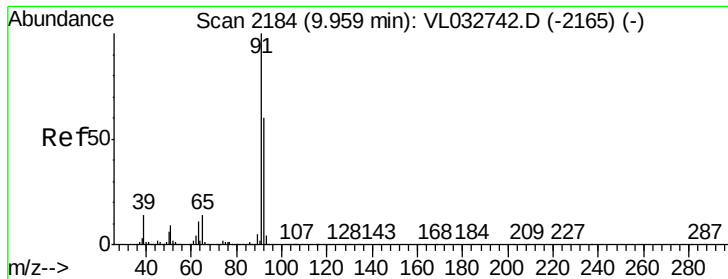
MMDadoda  
11/16/2018 1:30:13 PM



#52  
Tetrachloroethene  
Concen: 9.973 ppbv  
RT: 11.38 min Scan# 2627  
Delta R.T. -0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 126.5 | 99.3  | 148.9 |
| 129     | 103.3 | 83.9  | 125.9 |
| 131     | 102.9 | 80.8  | 121.2 |





#53

Toluene

Concen: 10.867 ppbv

RT: 9.95 min Scan# 2182

Delta R.T. -0.01 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion: 91 Resp: 3391536

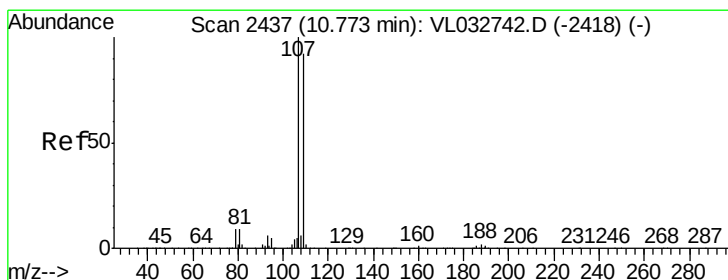
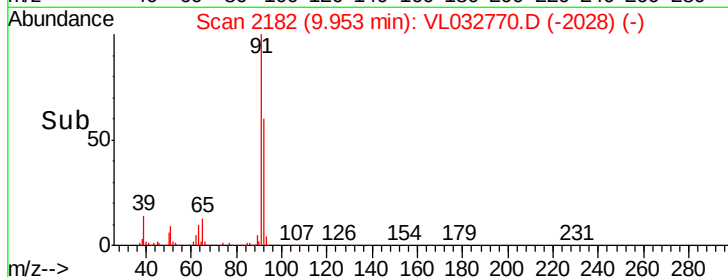
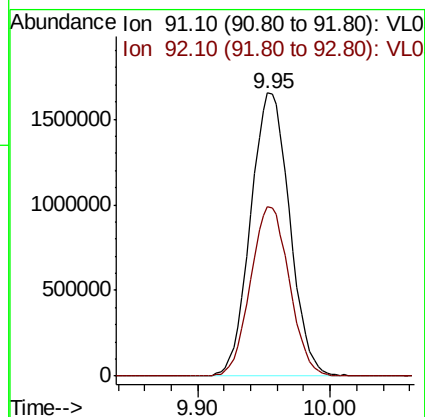
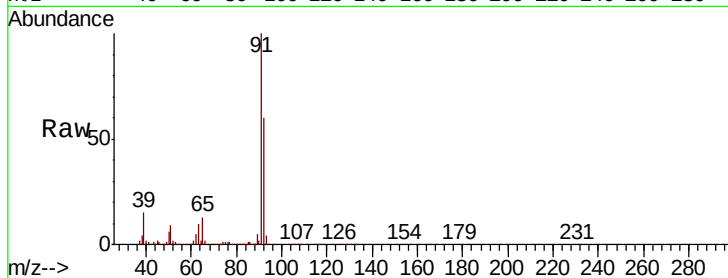
Ion Ratio Lower Upper

91 100

92 59.6 47.9 71.9

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11/16/2018 1:30:13 PM



#54

1,2-Dibromoethane

Concen: 9.911 ppbv

RT: 10.77 min Scan# 2435

Delta R.T. -0.01 min

Lab File: VL032770.D

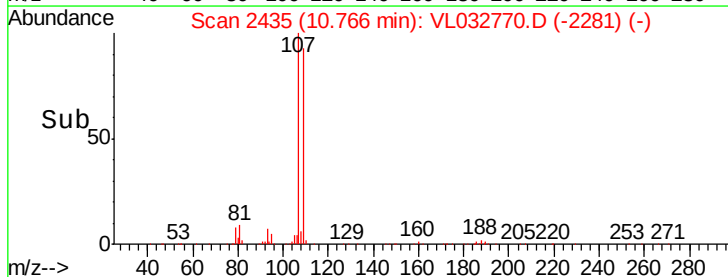
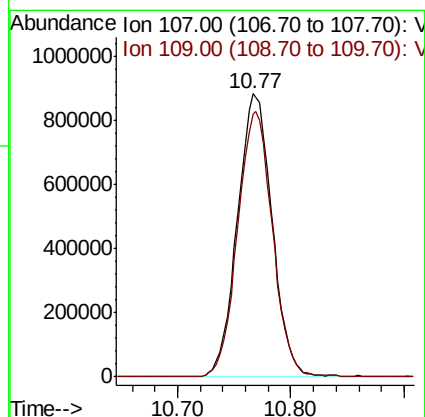
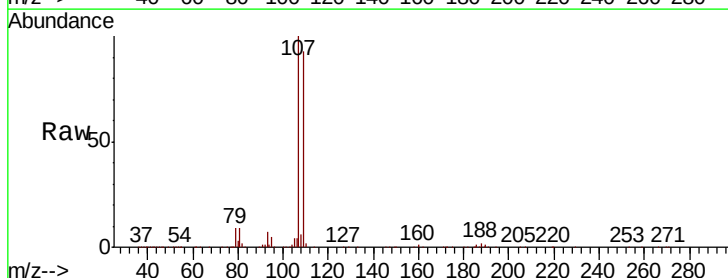
Acq: 14 Nov 2018 22:23

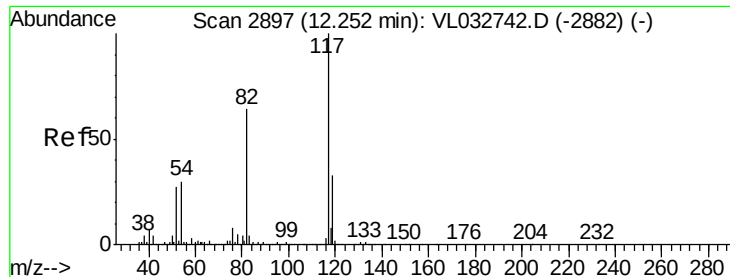
Tgt Ion: 107 Resp: 1888375

Ion Ratio Lower Upper

107 100

109 92.7 73.8 110.8





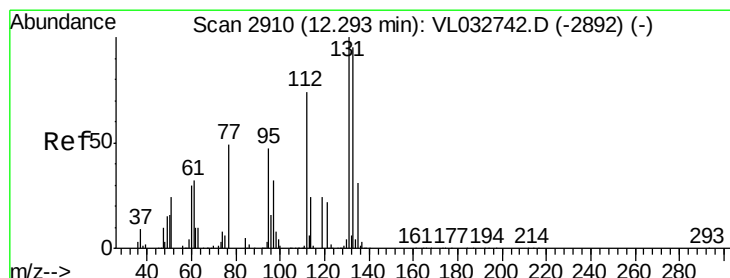
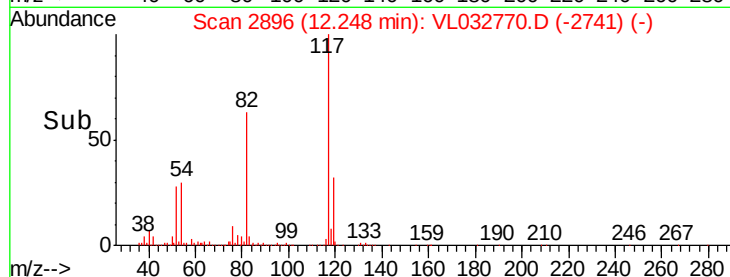
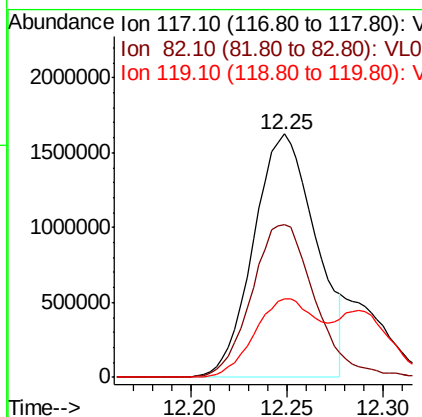
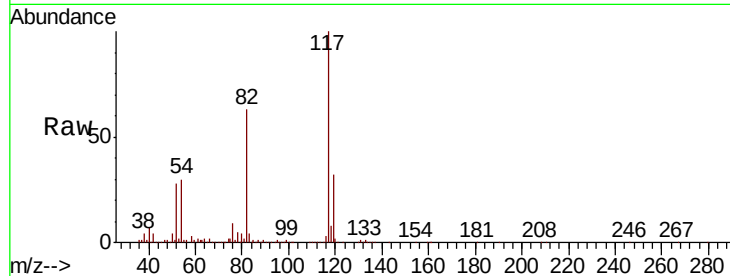
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv m  
RT: 12.25 min Scan# 2896  
Delta R.T. -0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 64.5  | 51.0  | 76.6  |
| 119     | 56.7  | 28.0  | 42.0  |

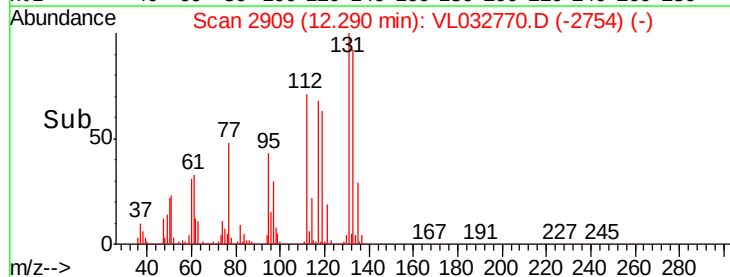
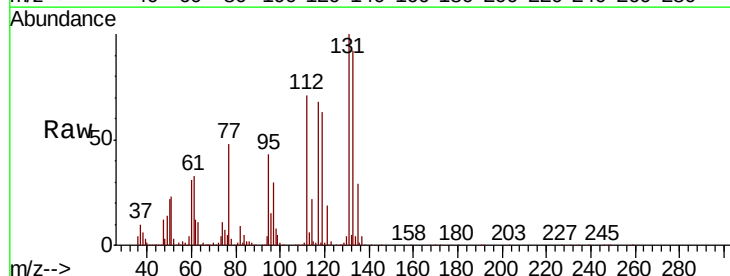
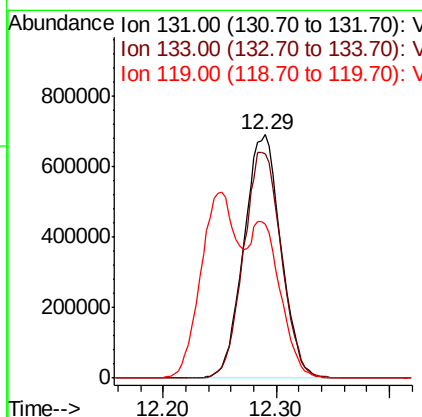
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11/16/2018 1:30:13 PM

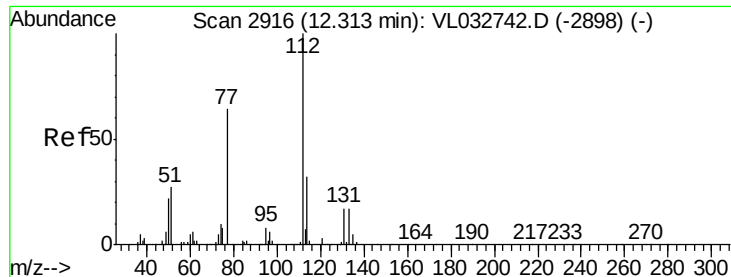


#56  
1,1,1,2-Tetrachloroethane  
Concen: 9.196 ppbv  
RT: 12.29 min Scan# 2909  
Delta R.T. -0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 131     | 100   |       |       |
| 133     | 94.7  | 75.8  | 113.6 |
| 119     | 51.2  | 45.2  | 67.8  |







#57

Chlorobenzene

Concen: 9.043 ppbv

RT: 12.31 min Scan# 2915

Delta R.T. -0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion: 112 Resp: 2533191

Ion Ratio Lower Upper

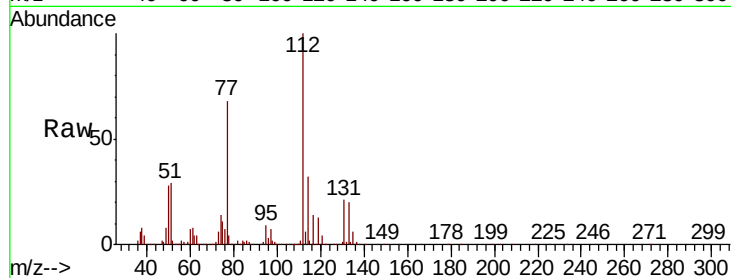
112 100

77 67.9 52.3 78.5

114 32.3 28.4 34.8

Manual Integrations  
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MMDadoda  
11/16/2018 1:30:13 PM

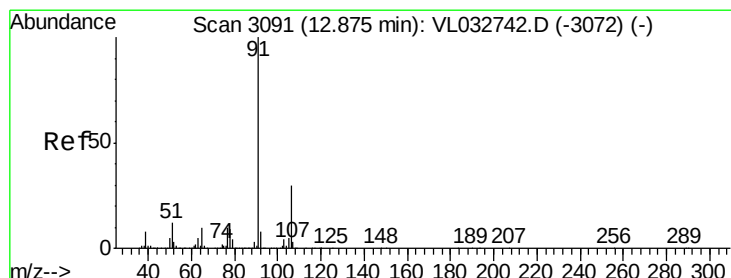
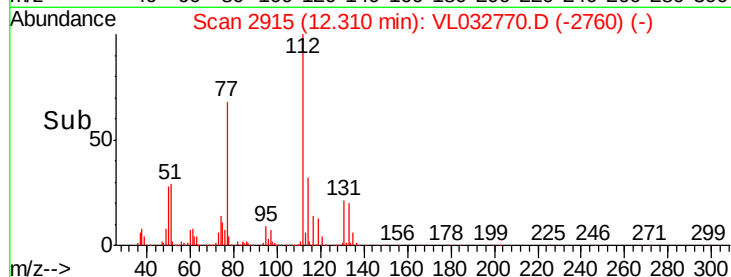
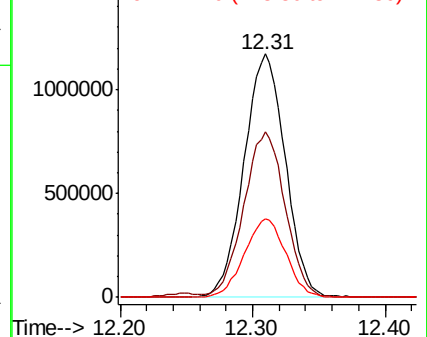


Abundance

Ion 112.10 (111.80 to 112.80): V

Ion 77.10 (76.80 to 77.80): VL0

Ion 114.10 (113.80 to 114.80): V



#58

Ethyl Benzene

Concen: 10.323 ppbv

RT: 12.87 min Scan# 3089

Delta R.T. -0.01 min

Lab File: VL032770.D

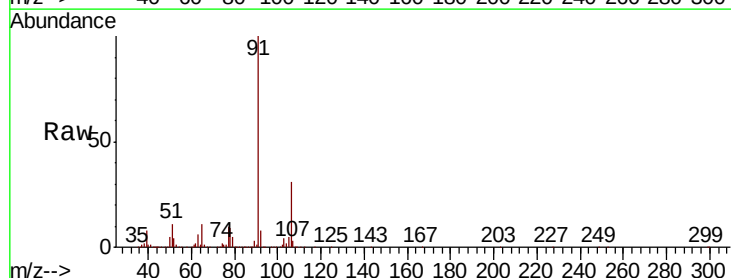
Acq: 14 Nov 2018 22:23

Tgt Ion: 91 Resp: 4546438

Ion Ratio Lower Upper

91 100

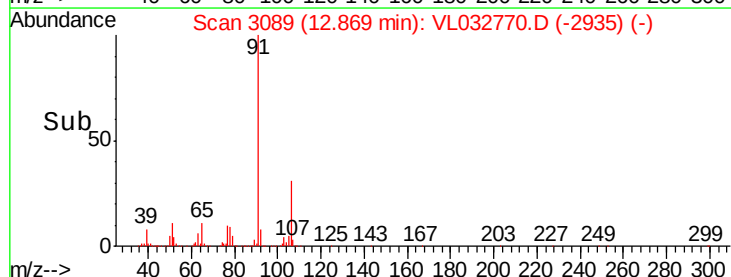
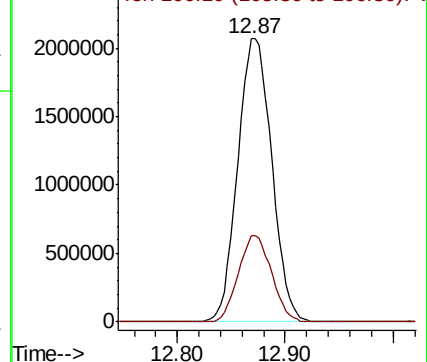
106 30.6 23.6 35.4

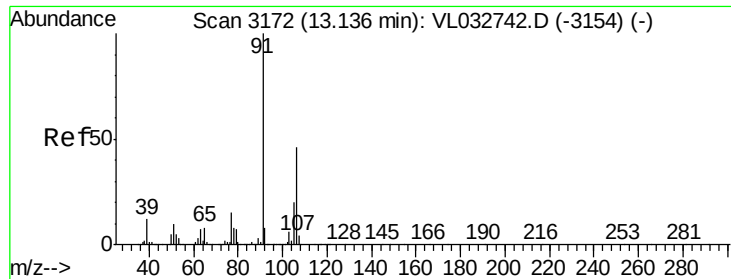


Abundance

Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





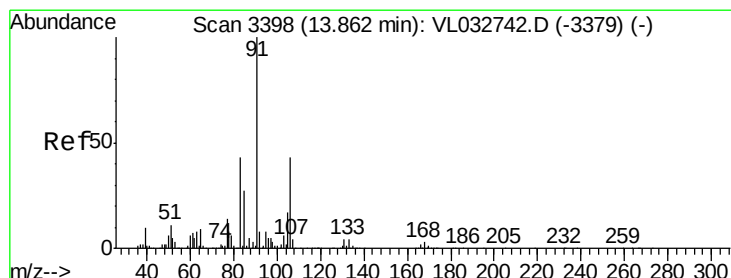
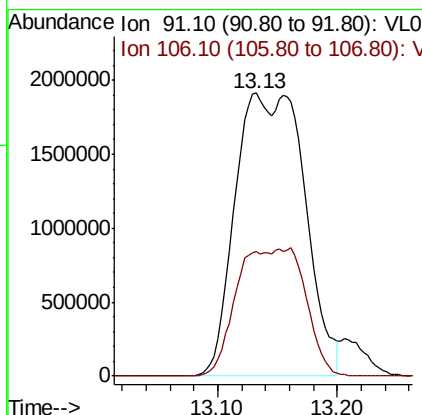
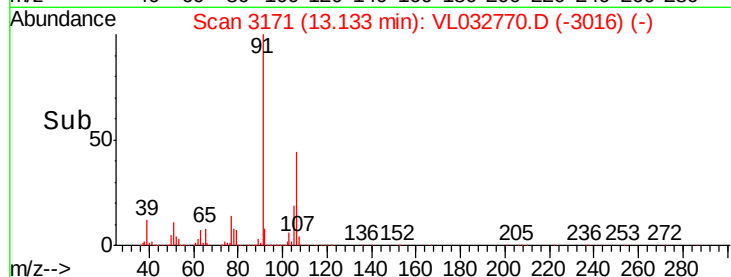
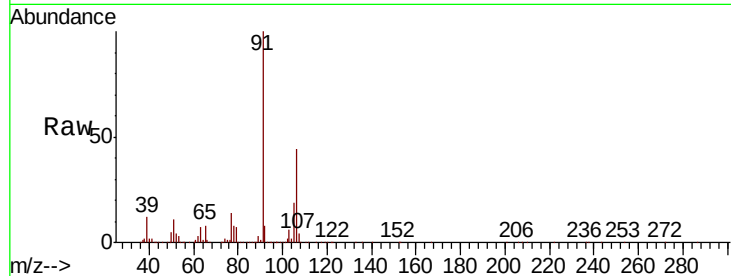
#59  
m/p-Xylene  
Concen: 19.675 ppbv m  
RT: 13.13 min Scan# 3171  
Delta R.T. -0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS02

Tot Ion: 91 Resp: 7713589  
Ion Ratio Lower Upper  
91 100  
106 0.0 36.1 54.1#

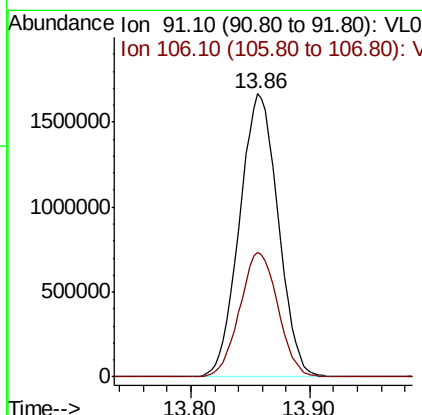
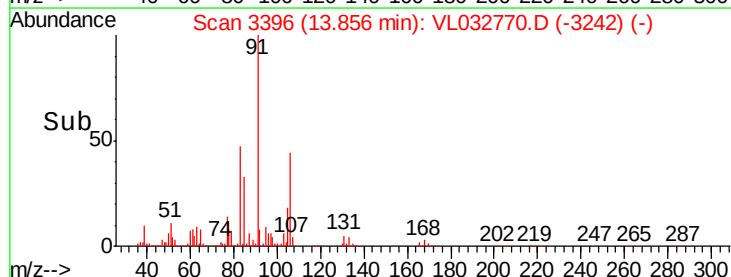
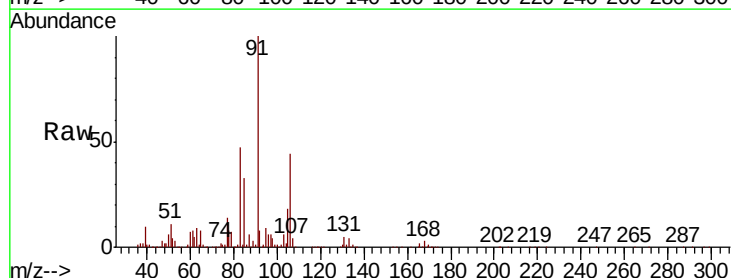
Manual Integrations  
APPROVED

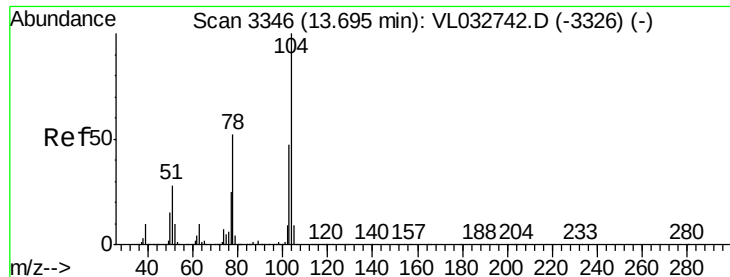
MMDadoda  
11/16/2018 1:30:13 PM



#60  
o-Xylene  
Concen: 9.482 ppbv  
RT: 13.86 min Scan# 3396  
Delta R.T. -0.01 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Tgt Ion: 91 Resp: 3737883  
Ion Ratio Lower Upper  
91 100  
106 43.8 21.9 65.7





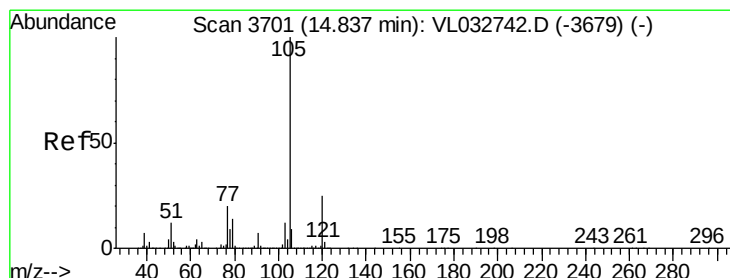
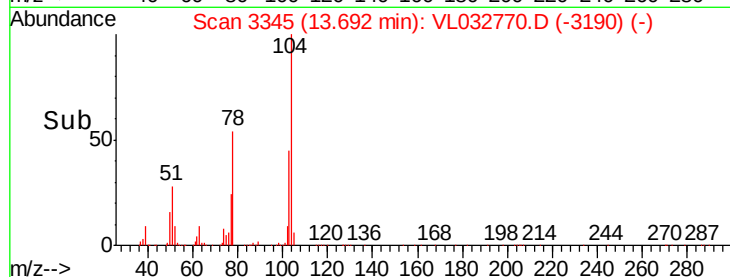
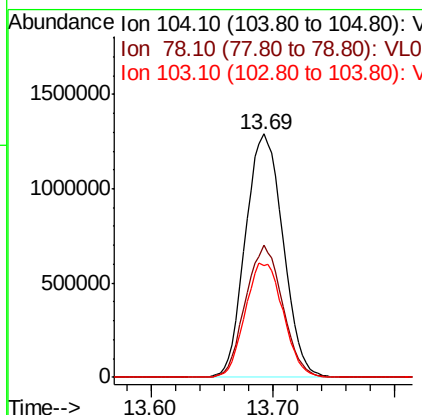
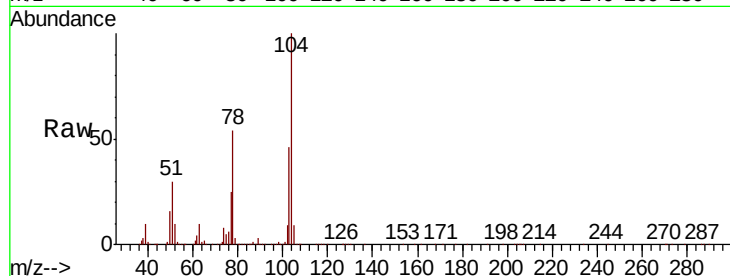
#61  
Stvrene  
Concen: 10.705 ppbv  
RT: 13.69 min Scan# 3345  
Delta R.T. -0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 53.5  | 42.2  | 63.4  |
| 103     | 47.4  | 38.2  | 57.2  |

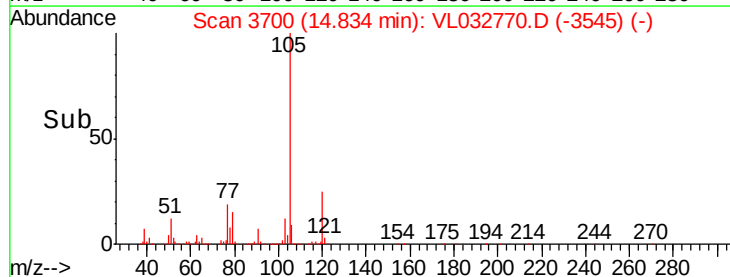
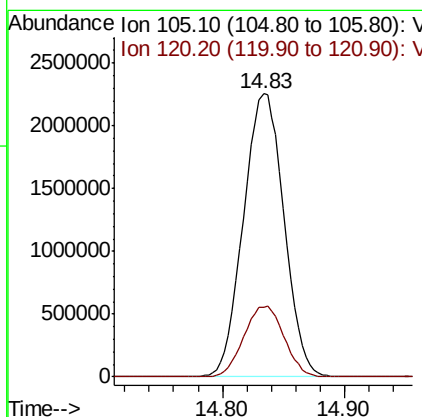
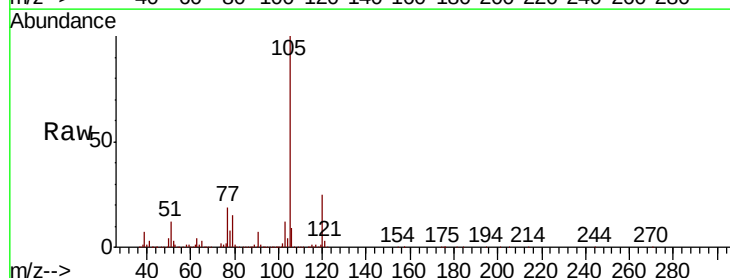
Manual Integrations  
APPROVED

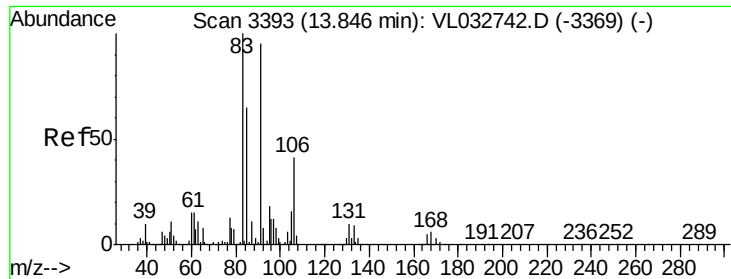
MMDadoda  
11/16/2018 1:30:13 PM



#62  
Isopropylbenzene  
Concen: 9.715 ppbv  
RT: 14.83 min Scan# 3700  
Delta R.T. -0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 24.9  | 20.1  | 30.1  |





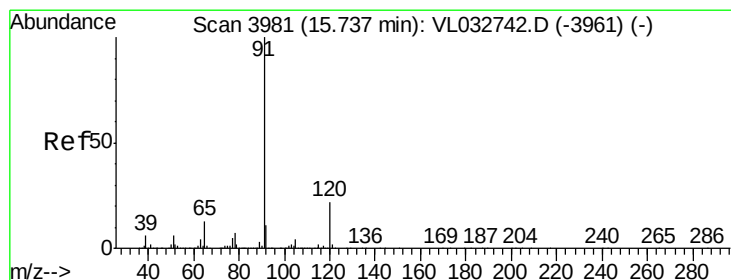
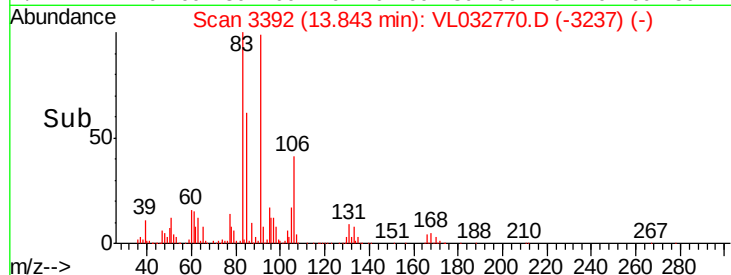
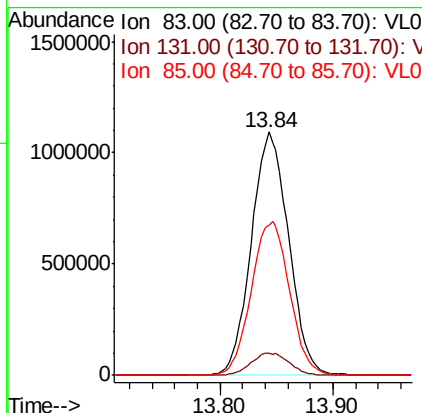
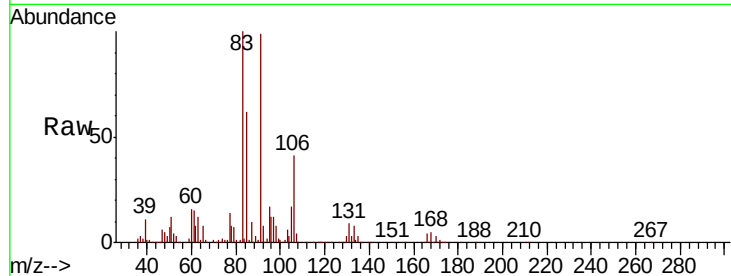
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 8.135 ppbv  
 RT: 13.84 min Scan# 3392  
 Delta R.T. -0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 131     | 9.4   | 4.7   | 14.1  |
| 85      | 65.0  | 32.5  | 97.4  |

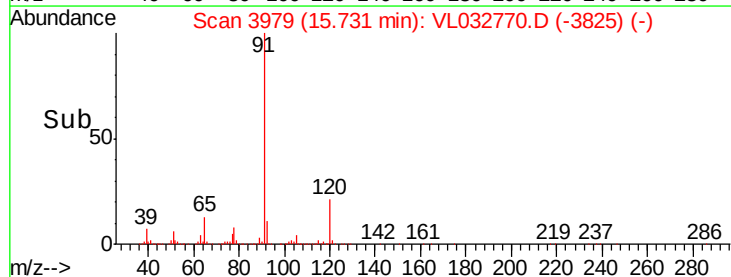
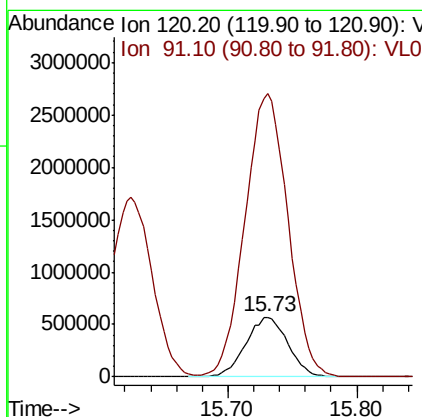
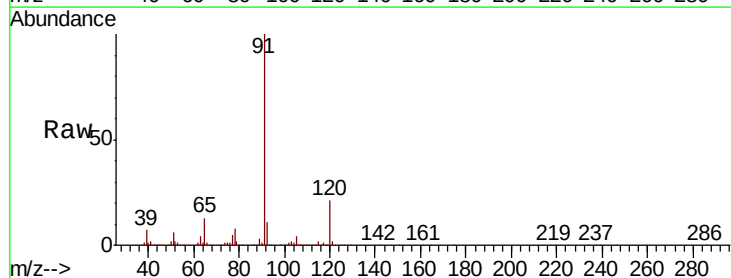
Manual Integrations  
 APPROVED

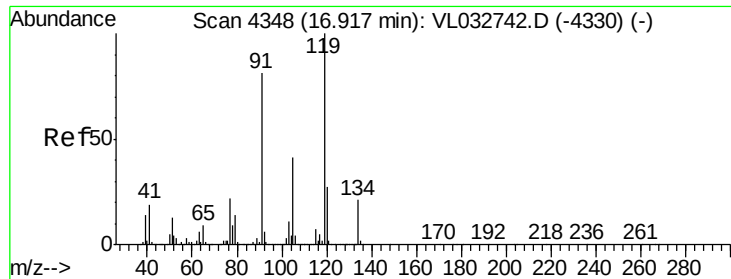
MMDadoda  
 11/16/2018 1:30:13 PM



#64  
 n-propylbenzene  
 Concen: 9.214 ppbv  
 RT: 15.73 min Scan# 3979  
 Delta R.T. -0.01 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 120     | 100   |       |       |
| 91      | 486.0 | 381.7 | 572.5 |





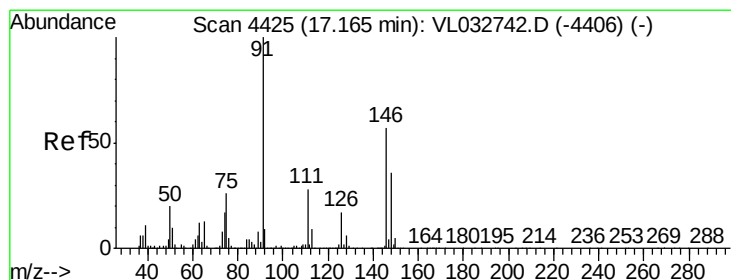
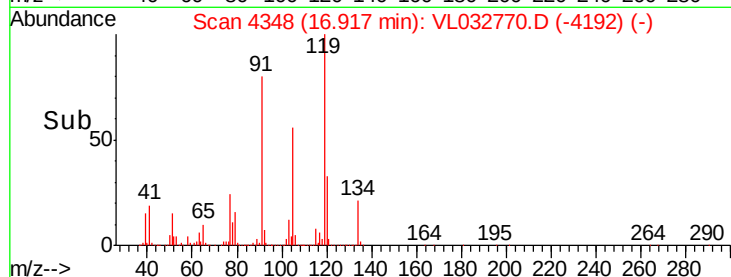
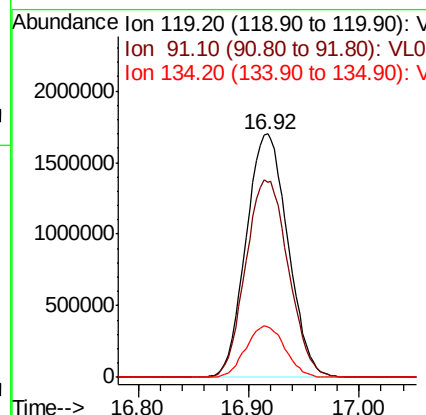
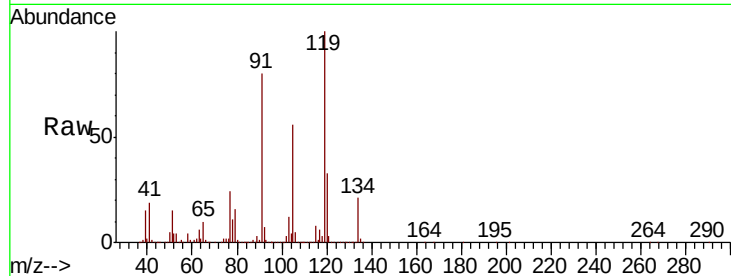
#65  
tert-Butylbenzene  
Concen: 9.331 ppbv  
RT: 16.92 min Scan# 4348  
Delta R.T. 0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 91      | 83.0  | 65.6  | 98.4  |
| 134     | 19.9  | 15.9  | 23.9  |

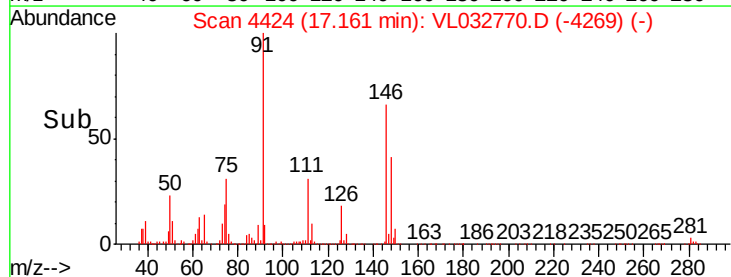
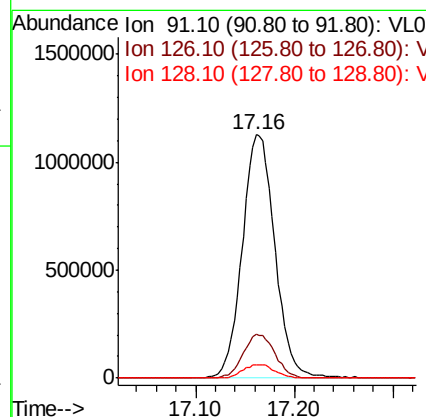
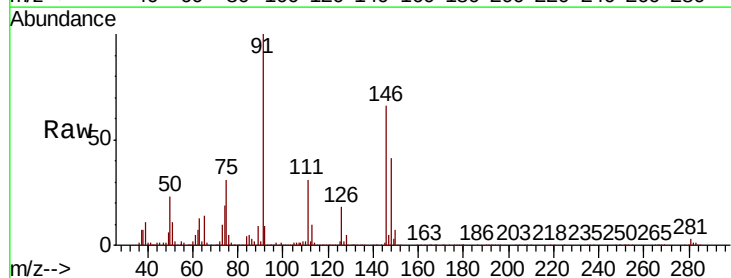
Manual Integrations  
APPROVED

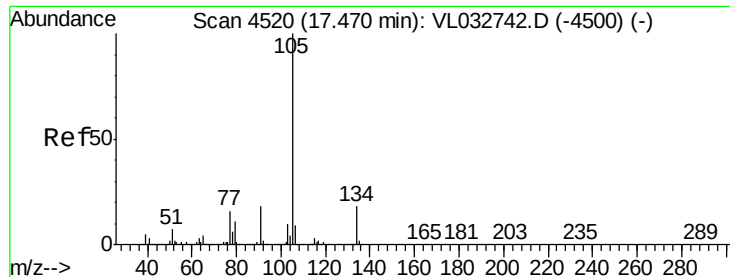
MMDadoda  
11/16/2018 1:30:13 PM



#66  
Benzyl Chloride  
Concen: 9.748 ppbv  
RT: 17.16 min Scan# 4424  
Delta R.T. -0.00 min  
Lab File: VL032770.D  
Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 126     | 17.8  | 14.2  | 21.2  |
| 128     | 5.6   | 4.5   | 6.7   |





#67

sec-Butylbenzene

Concen: 9.273 ppbv

RT: 17.46 min Scan# 4518

Delta R.T. -0.01 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion: 105 Resp: 6383508

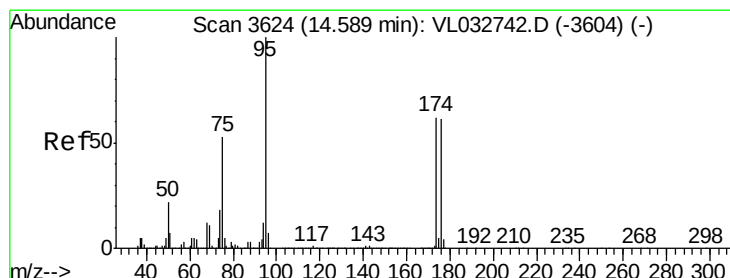
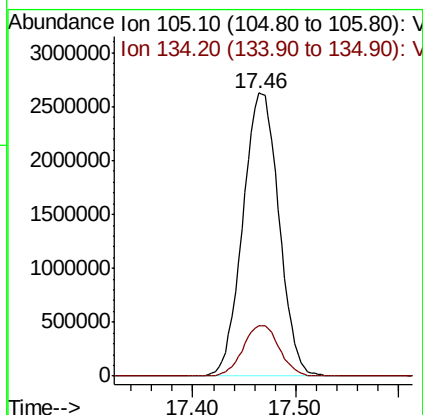
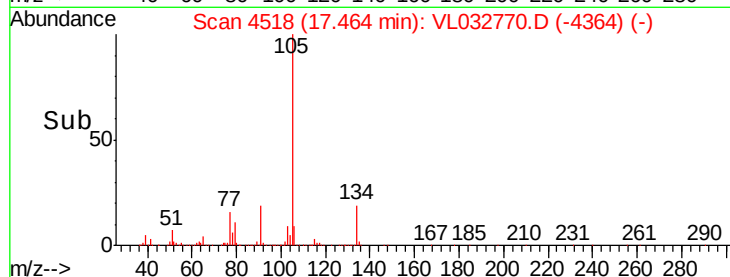
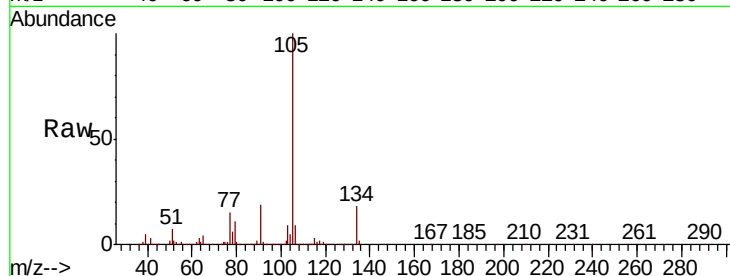
Ion Ratio Lower Upper

105 100

134 17.9 14.6 21.8

Manual Integrations  
APPROVED

MMDadoda  
11/16/2018 1:30:13 PM



#68

1-Bromo-4-Fluorobenzene

Concen: 10.089 ppbv

RT: 14.59 min Scan# 3623

Delta R.T. -0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

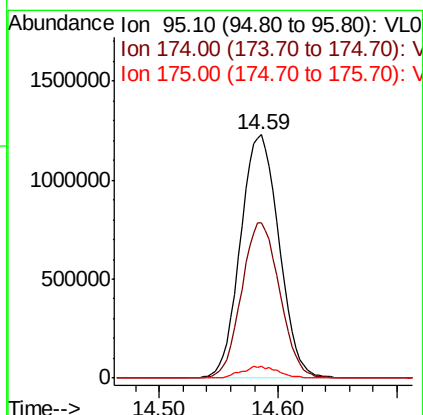
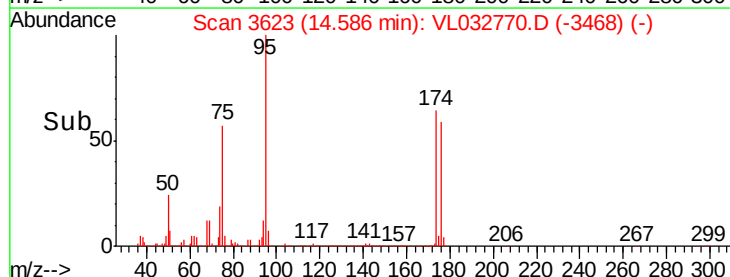
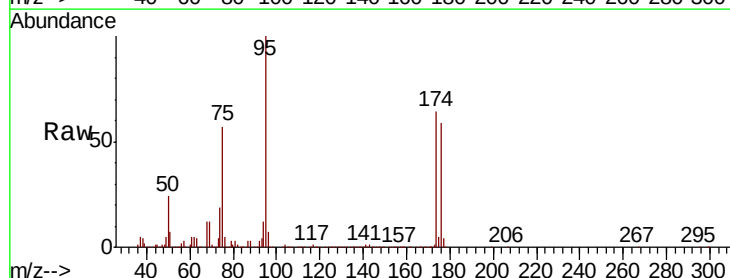
Tgt Ion: 95 Resp: 2761300

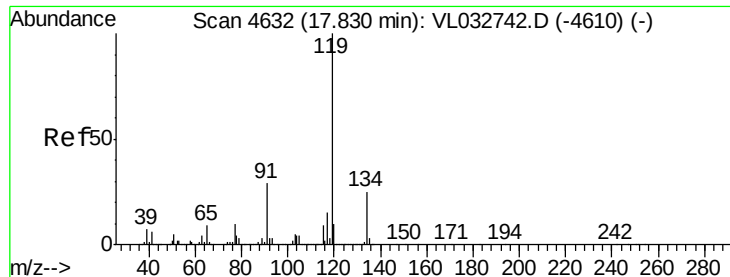
Ion Ratio Lower Upper

95 100

174 63.2 50.7 76.1

175 4.6 3.8 5.6





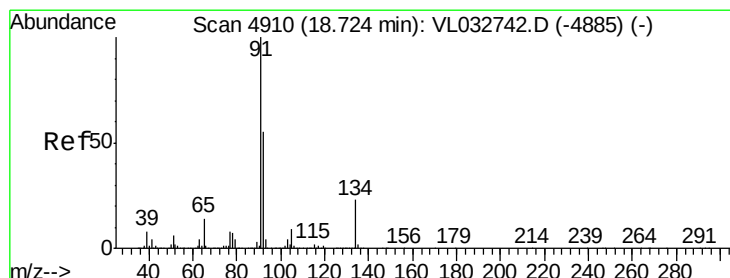
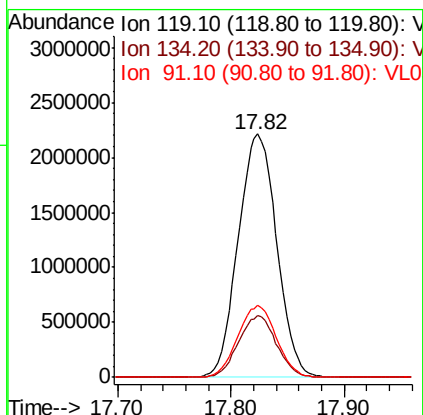
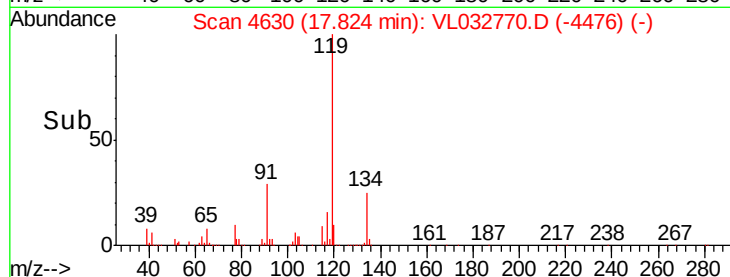
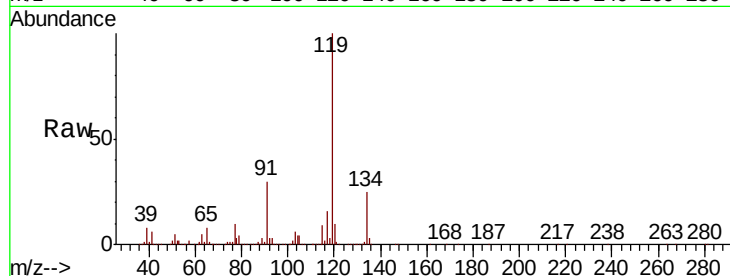
#69  
 p-Isopropyltoluene  
 Concen: 9.579 ppbv  
 RT: 17.82 min Scan# 4630  
 Delta R.T. -0.01 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 25.0  | 20.2  | 30.4  |
| 91      | 29.4  | 23.5  | 35.3  |

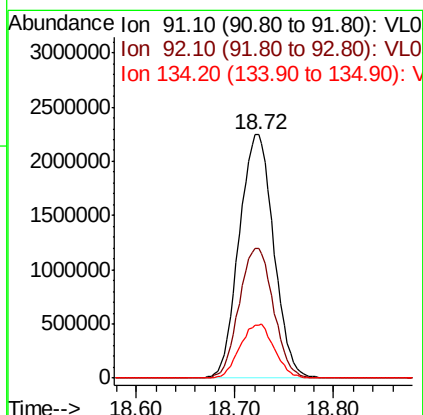
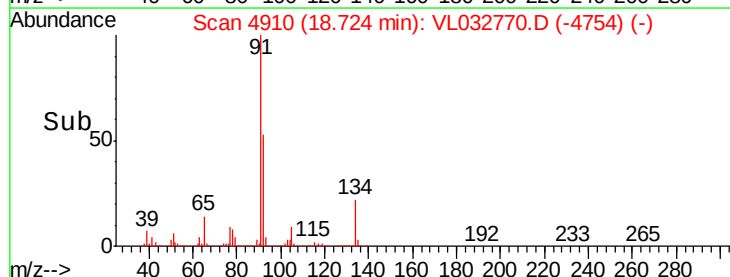
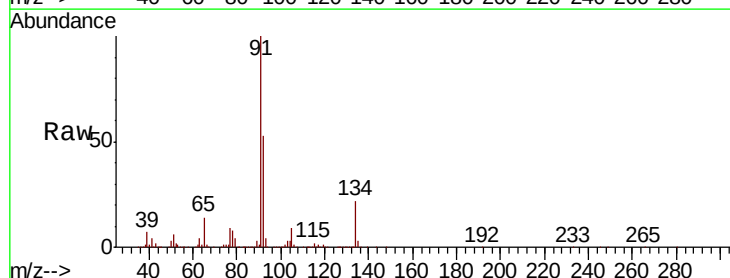
Manual Integrations  
 APPROVED

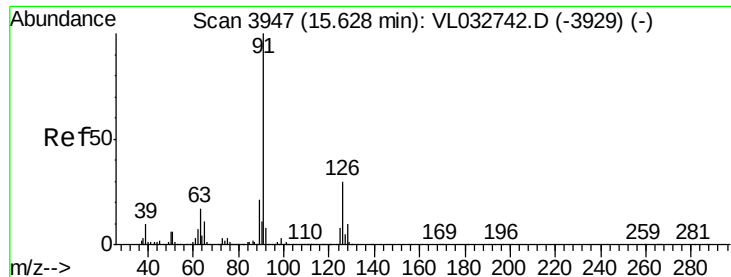
MMDadoda  
 11/16/2018 1:30:13 PM



#70  
 n-Butylbenzene  
 Concen: 9.784 ppbv  
 RT: 18.72 min Scan# 4910  
 Delta R.T. 0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 53.1  | 42.9  | 64.3  |
| 134     | 21.9  | 17.8  | 26.8  |





#71

2-Chlorotoluene

Concen: 9.697 ppbv

RT: 15.62 min Scan# 3946

Delta R.T. -0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion: 91 Resp: 3853065

Ion Ratio Lower Upper

91 100

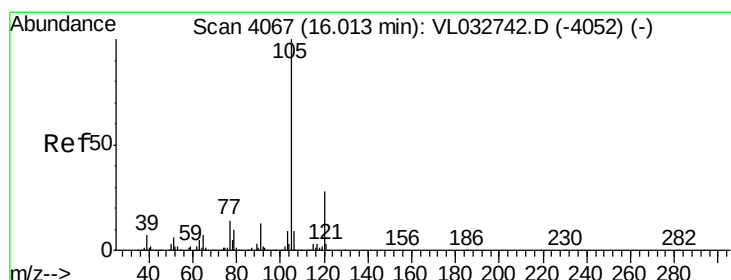
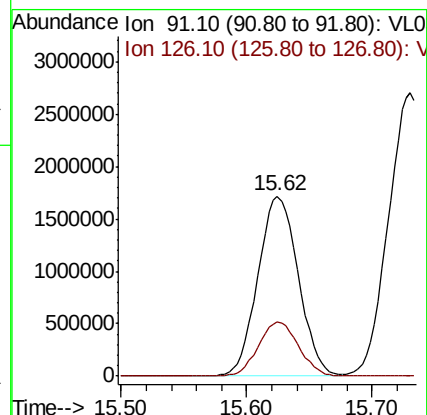
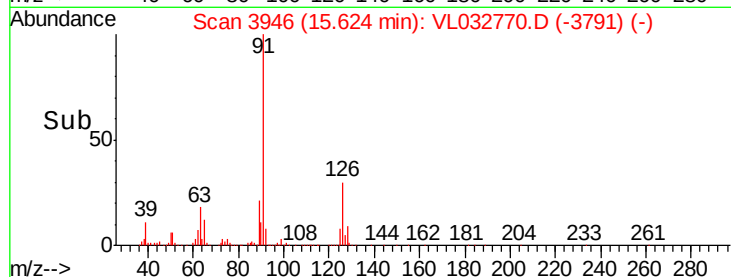
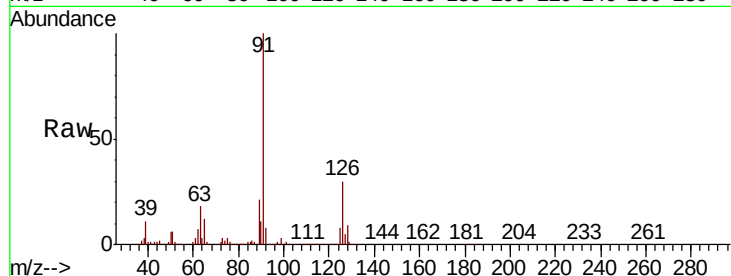
126 30.1 12.1 48.5

Manual Integrations

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11/16/2018 1:30:13 PM



#72

4-Ethyltoluene

Concen: 9.737 ppbv

RT: 16.01 min Scan# 4065

Delta R.T. -0.01 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Tgt Ion: 105 Resp: 4207132

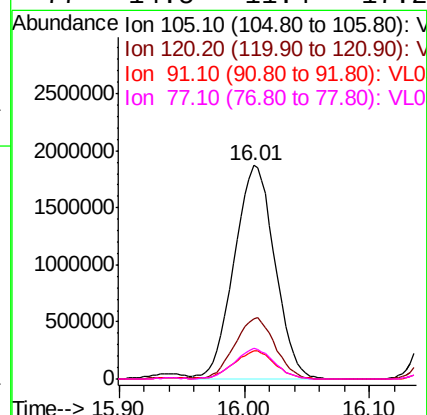
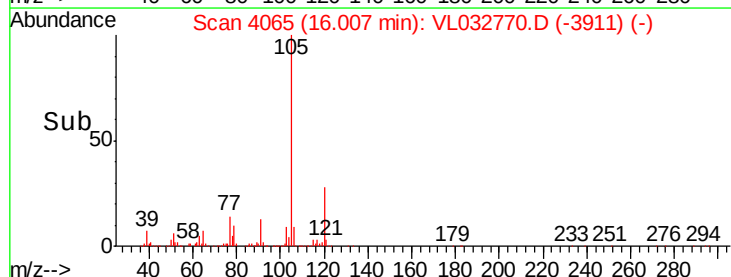
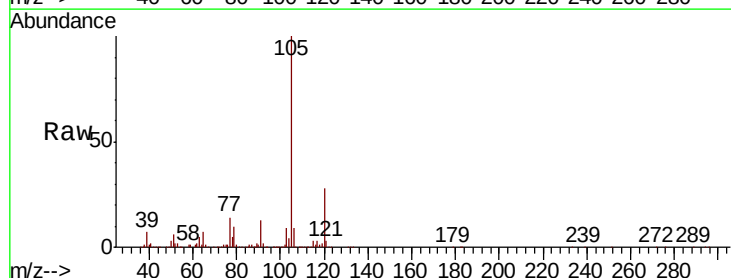
Ion Ratio Lower Upper

105 100

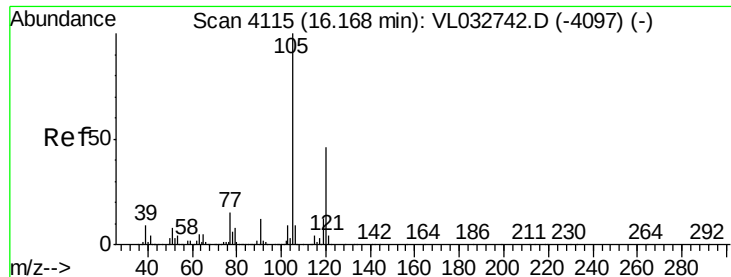
120 28.4 22.9 34.3

91 13.1 10.6 15.8

77 14.5 11.4 17.2







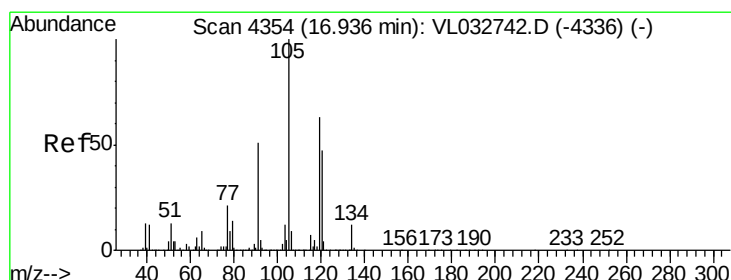
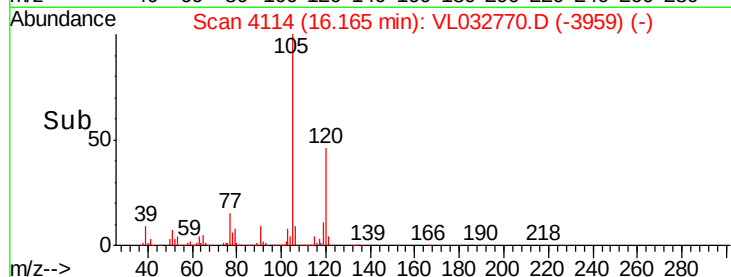
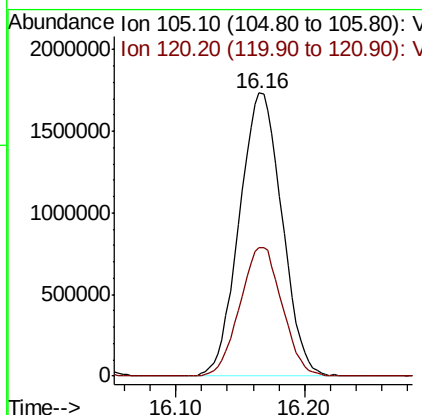
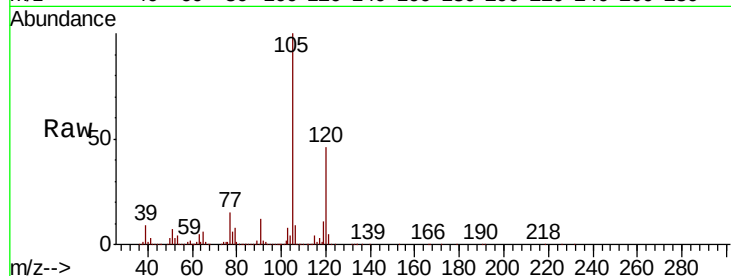
#73  
 1,3,5-Trimethylbenzene  
 Concen: 9.404 ppbv  
 RT: 16.16 min Scan# 4114  
 Delta R.T. -0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS02

Tot Ion:105 Resp: 3972893  
 Ion Ratio Lower Upper  
 105 100  
 120 45.6 36.6 55.0

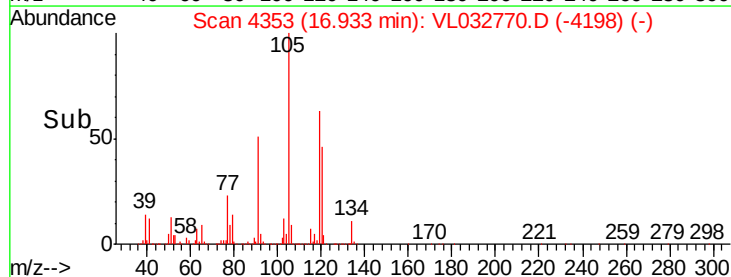
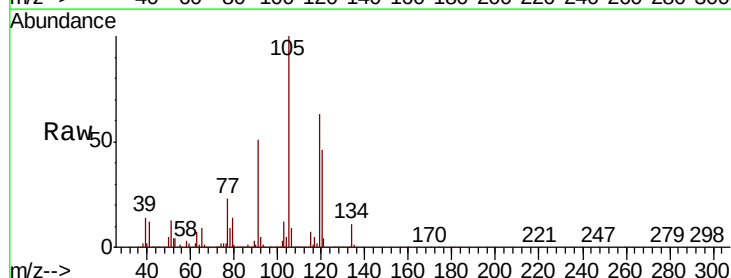
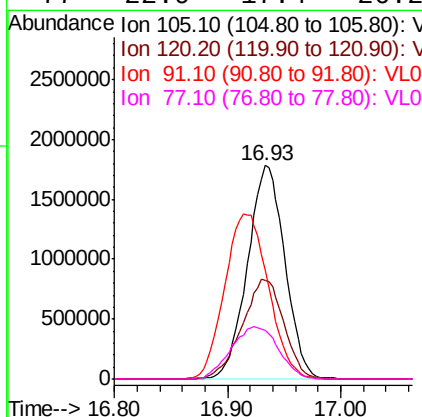
Manual Integrations  
 APPROVED

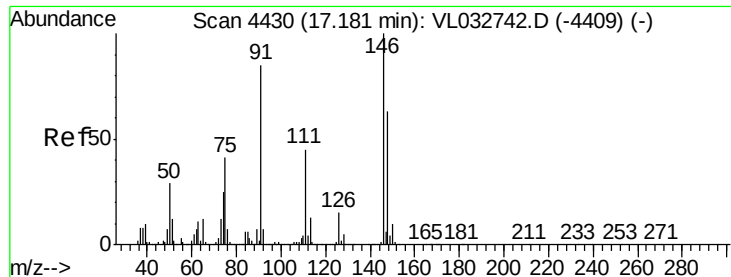
MMDadoda  
 11/16/2018 1:30:13 PM



#74  
 1,2,4-Trimethylbenzene  
 Concen: 9.028 ppbv  
 RT: 16.93 min Scan# 4353  
 Delta R.T. -0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Tgt Ion:105 Resp: 4081279  
 Ion Ratio Lower Upper  
 105 100  
 120 45.9 37.6 56.4  
 91 50.8 42.5 63.7  
 77 22.9 17.4 26.2





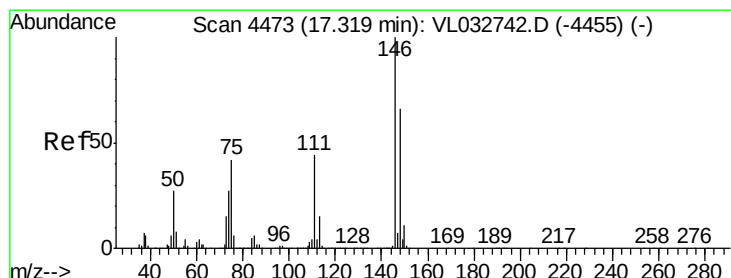
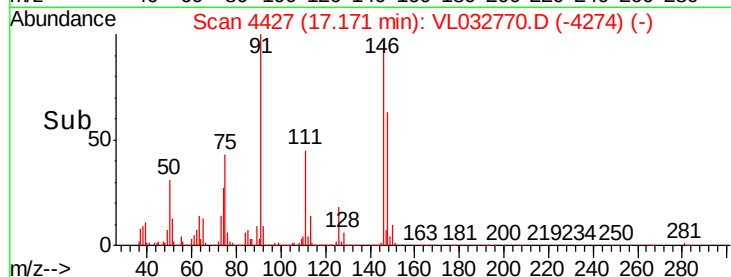
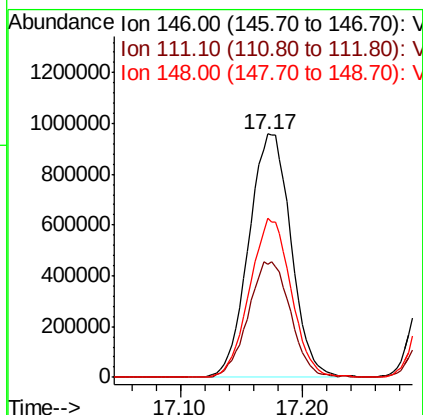
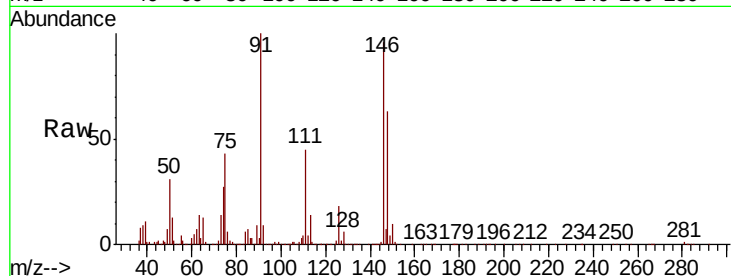
#75  
 1,3-Dichlorobenzene  
 Concen: 8.858 ppbv  
 RT: 17.17 min Scan# 4427  
 Delta R.T. -0.01 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 47.7  | 23.5  | 70.6  |
| 148     | 64.0  | 31.8  | 95.3  |

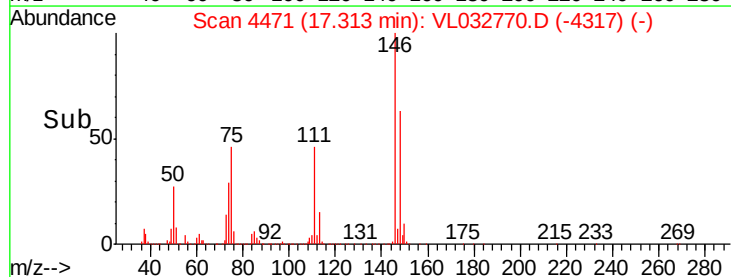
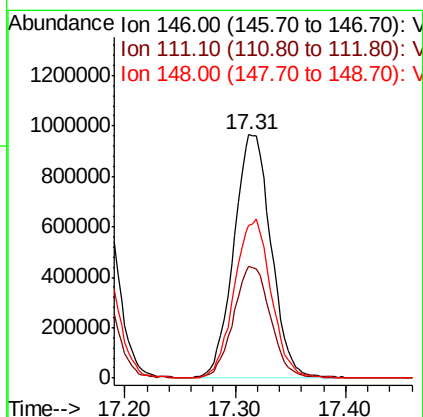
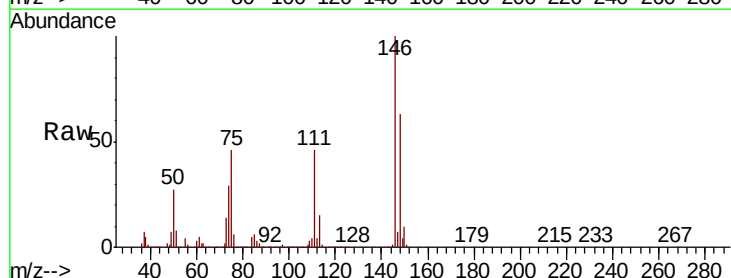
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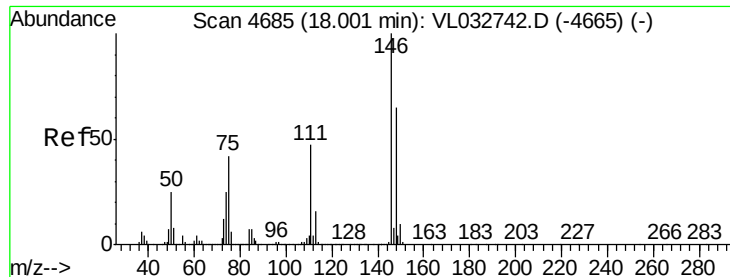
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#76  
 1,4-Dichlorobenzene  
 Concen: 9.235 ppbv  
 RT: 17.31 min Scan# 4471  
 Delta R.T. -0.01 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 46.1  | 22.5  | 67.5  |
| 148     | 65.6  | 32.5  | 97.5  |





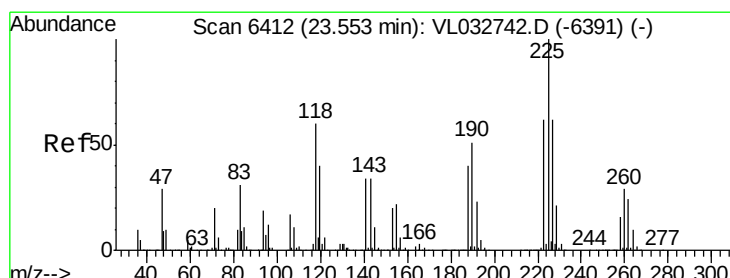
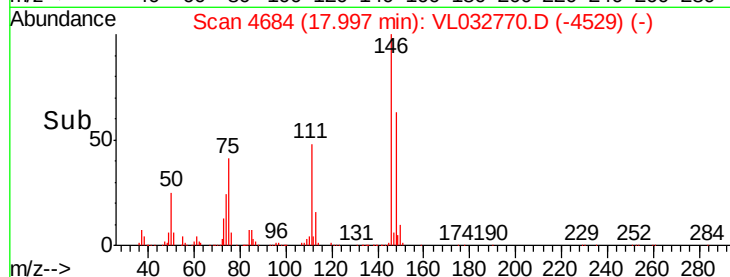
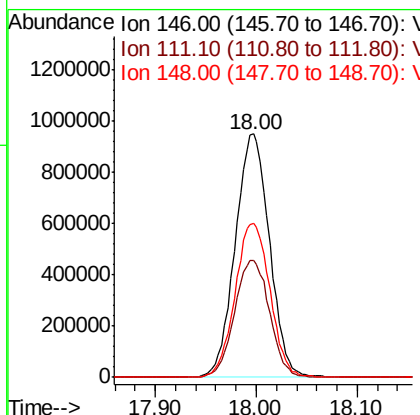
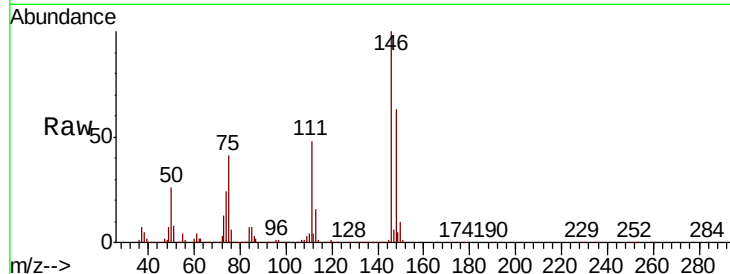
#77  
 1,2-Dichlorobenzene  
 Concen: 9.311 ppbv  
 RT: 18.00 min Scan# 4684  
 Delta R.T. -0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 49.2  | 24.4  | 73.2  |
| 148     | 64.6  | 32.2  | 96.6  |

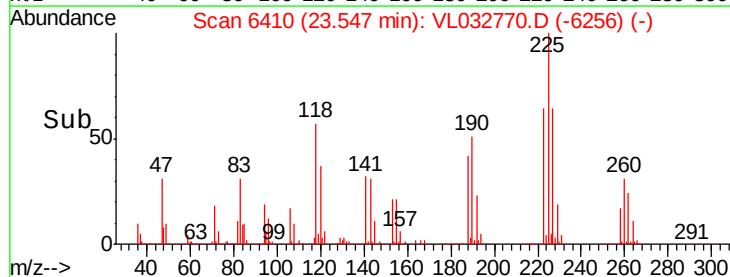
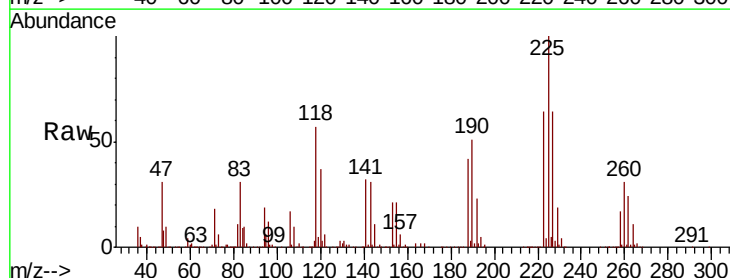
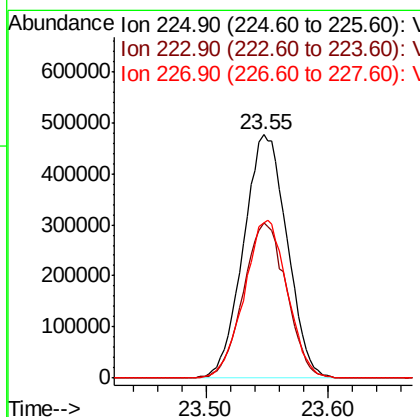
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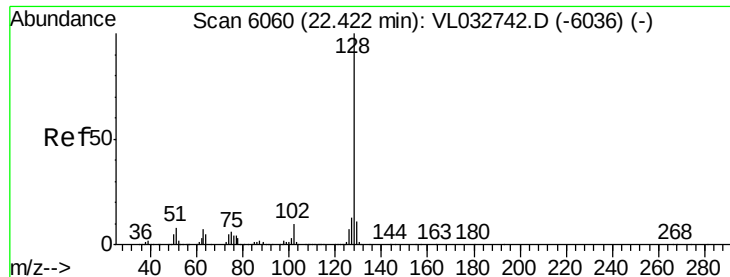
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#78  
 Hexachloro-1,3-Butadiene  
 Concen: 9.062 ppbv  
 RT: 23.55 min Scan# 6410  
 Delta R.T. -0.01 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 63.6  | 50.3  | 75.5  |
| 227     | 64.1  | 50.2  | 75.4  |





#79

Naphthalene

Concen: 13.040 ppbv

RT: 22.42 min Scan# 6060

Delta R.T. 0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS02

Tot Ion:128 Resp: 3872535

Ion Ratio Lower Upper

128 100

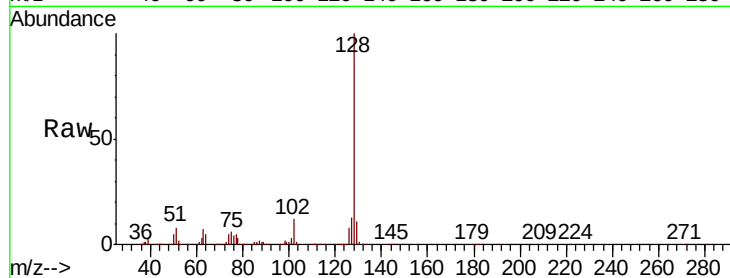
127 12.9 10.1 15.1

129 10.7 8.9 13.3

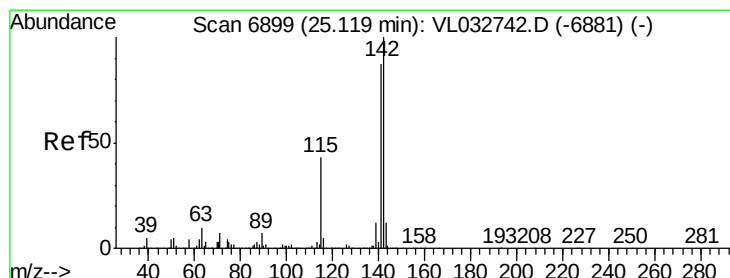
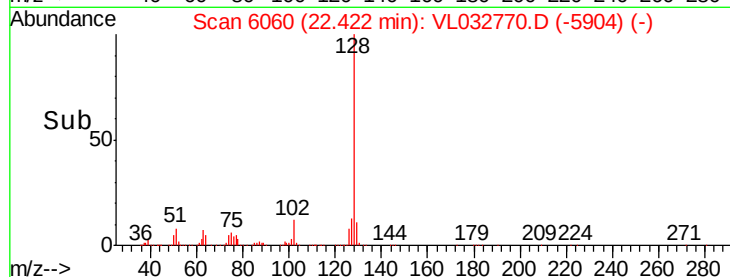
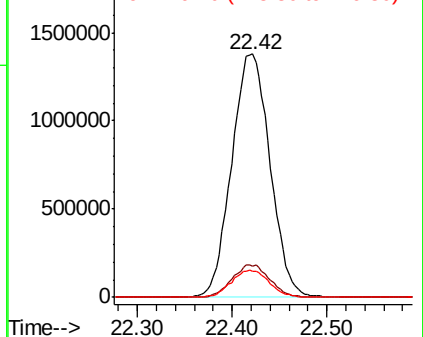
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Abundance Ion 128.10 (127.80 to 128.80): V  
Ion 127.10 (126.80 to 127.80): V  
Ion 129.10 (128.80 to 129.80): V



#80

Naphthalene, 2-methyl-

Concen: 11.377 ppbv

RT: 25.12 min Scan# 6899

Delta R.T. 0.00 min

Lab File: VL032770.D

Acq: 14 Nov 2018 22:23

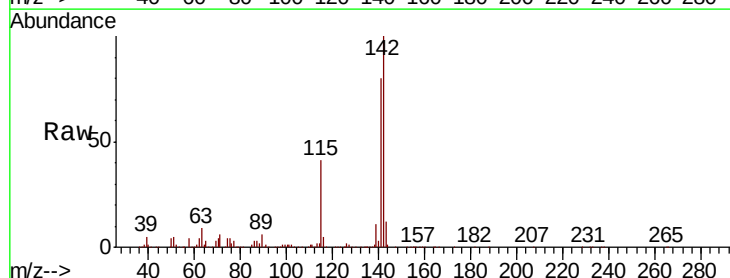
Tgt Ion:142 Resp: 846230

Ion Ratio Lower Upper

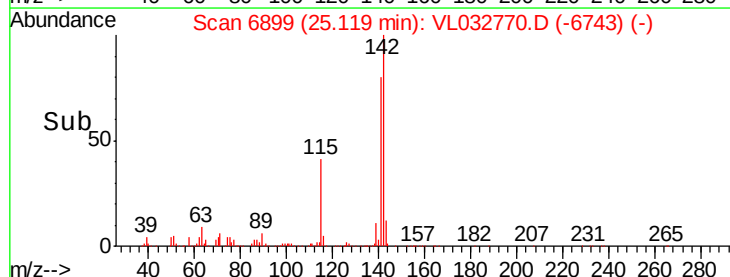
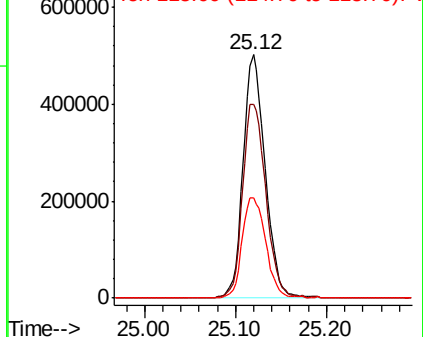
142 100

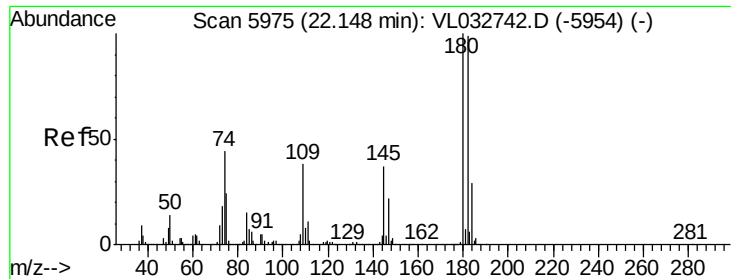
141 84.2 68.7 103.1

115 44.4 35.5 53.3



Abundance Ion 142.00 (141.70 to 142.70): V  
Ion 141.00 (140.70 to 141.70): V  
Ion 115.00 (114.70 to 115.70): V





#81  
 1,2,4-Trichlorobenzene  
 Concen: 12.457 ppbv  
 RT: 22.15 min Scan# 5974  
 Delta R.T. -0.00 min  
 Lab File: VL032770.D  
 Acq: 14 Nov 2018 22:23

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 94.2  | 77.3  | 115.9 |
| 184     | 30.5  | 24.2  | 36.4  |

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