

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL111418\  
 Data File : VL032751.D  
 Acq On : 14 Nov 2018 9:32  
 Operator : SY/AP  
 Sample : VL1114ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS01

Manual Integrations  
 APPROVED

MMDadoda  
 11/16/2018 1:29:51 PM

Quant Time: Nov 15 05:48:44 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) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1564971  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.30  | 114  | 3996105  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 3812137m | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.59  | 95    | 2882929  | 10.11    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.10% |

| Target Compounds               |      |     |         |        | Ovalue   |
|--------------------------------|------|-----|---------|--------|----------|
| 2) Dichlorodifluoromethane     | 3.08 | 85  | 1921161 | 8.540  | ppbv 99  |
| 3) Chlorodifluoromethane       | 3.02 | 51  | 1121300 | 9.038  | ppbv 99  |
| 4) Chloromethane               | 3.17 | 50  | 616095  | 8.955  | ppbv 99  |
| 5) Vinyl Chloride              | 3.30 | 62  | 631041  | 8.656  | ppbv 98  |
| 6) Bromomethane                | 3.52 | 94  | 411731  | 9.233  | ppbv 91  |
| 7) Chloroethane                | 3.61 | 64  | 235800  | 8.975  | ppbv 91  |
| 8) Dichlorotetrafluoroethane   | 3.23 | 85  | 1554218 | 8.768  | ppbv 100 |
| 9) Propene                     | 3.04 | 41  | 453722  | 9.138  | ppbv 98  |
| 10) Heptane                    | 8.25 | 43  | 1904862 | 10.049 | ppbv 99  |
| 11) Trichlorofluoromethane     | 4.01 | 101 | 2111038 | 9.958  | ppbv 100 |
| 12) 1,1,2-Trichlorotrifluoroet | 4.56 | 101 | 1777323 | 10.264 | ppbv 100 |
| 13) Ethanol                    | 3.66 | 45  | 109522  | 6.734  | ppbv 95  |
| 14) Bromoethene                | 3.80 | 108 | 522766  | 9.100  | ppbv 100 |
| 15) Acetone                    | 3.91 | 43  | 1109190 | 7.761  | ppbv 99  |
| 16) 1,3-Butadiene              | 3.37 | 39  | 556529  | 10.055 | ppbv 98  |
| 17) tert-Butyl alcohol         | 4.36 | 59  | 454121  | 10.131 | ppbv 99  |
| 18) 1,1-Dichloroethene         | 4.36 | 96  | 815091  | 9.572  | ppbv 92  |
| 19) Isopropyl Alcohol          | 4.03 | 45  | 981782  | 10.312 | ppbv 99  |
| 20) Methylene Chloride         | 4.42 | 84  | 685325  | 9.263  | ppbv 95  |
| 21) Allyl Chloride             | 4.49 | 41  | 1312458 | 10.928 | ppbv 99  |
| 22) trans-1,2-Dichloroethene   | 4.97 | 96  | 744113  | 8.949  | ppbv 99  |
| 23) Vinyl Acetate              | 5.16 | 43  | 2560492 | 9.828  | ppbv 99  |
| 24) 1,1-Dichloroethane         | 5.10 | 63  | 1935956 | 9.347  | ppbv 99  |
| 25) Ethyl Acetate              | 5.78 | 43  | 3120557 | 9.368  | ppbv 100 |
| 26) Hexane                     | 5.79 | 57  | 1431619 | 9.655  | ppbv 99  |
| 27) Carbon Disulfide           | 4.63 | 76  | 2053197 | 10.920 | ppbv 99  |
| 28) Methyl tert-Butyl Ether    | 5.12 | 73  | 2379156 | 10.062 | ppbv 100 |
| 29) Chloroform                 | 5.86 | 83  | 2408583 | 9.114  | ppbv 93  |
| 30) Cyclohexane                | 7.25 | 84  | 1297900 | 10.008 | ppbv 99  |
| 31) cis-1,2-Dichloroethene     | 5.65 | 61  | 1499432 | 10.058 | ppbv 95  |
| 32) 1,1,1-Trichloroethane      | 6.63 | 97  | 2568423 | 8.866  | ppbv 99  |
| 34) 2-Butanone                 | 5.34 | 43  | 2020997 | 9.751  | ppbv 100 |
| 35) Carbon Tetrachloride       | 7.14 | 117 | 2809194 | 8.745  | ppbv 99  |
| 36) Benzene                    | 7.01 | 78  | 3104093 | 9.755  | ppbv 98  |
| 37) 1,2-Dichloroethane         | 6.42 | 62  | 1991386 | 9.296  | ppbv 100 |
| 38) Trichloroethene            | 7.97 | 130 | 1231067 | 9.559  | ppbv 98  |
| 39) 1,2-Dichloropropane        | 7.75 | 63  | 1168060 | 9.634  | ppbv 100 |
| 40) 1,4-Dioxane                | 7.96 | 88  | 416663  | 9.622  | ppbv 96  |
| 41) Tetrahydrofuran            | 6.16 | 42  | 1209919 | 10.177 | ppbv 99  |
| 42) Bromodichloromethane       | 7.93 | 83  | 2737243 | 9.426  | ppbv 98  |
| 43) Methyl Methacrylate        | 8.15 | 69  | 1249069 | 10.514 | ppbv 99  |

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 Operator : SY/AP  
 Sample : VL1114ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS01

Manual Integrations  
 APPROVED

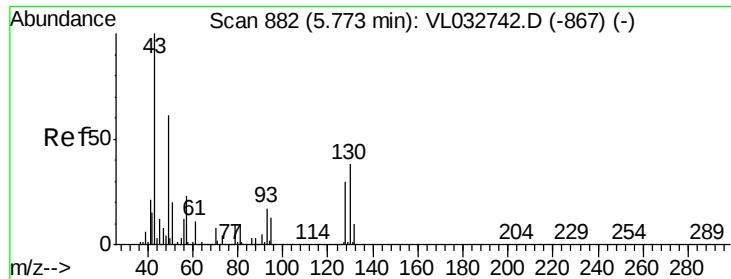
MMDadoda  
 11/16/2018 1:29:51 PM

Quant Time: Nov 15 05:48:44 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   | 5165185  | 9.713  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.43  | 75   | 1845799  | 11.579 | ppbv   | 97       |
| 46) cis-1,3-Dichloropropene   | 8.85  | 75   | 2109911  | 10.955 | ppbv   | 97       |
| 47) 1,1,2-Trichloroethane     | 9.62  | 97   | 1345254  | 9.383  | ppbv   | 96       |
| 48) Dibromochloromethane      | 10.46 | 129  | 2419834  | 9.931  | ppbv   | 99       |
| 49) Bromoform                 | 13.21 | 173  | 1856518  | 9.226  | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.88  | 43   | 3268342  | 10.096 | ppbv   | 100      |
| 51) 2-Hexanone                | 10.28 | 43   | 2264336  | 10.857 | ppbv # | 100      |
| 52) Tetrachloroethene         | 11.38 | 164  | 1085809  | 9.809  | ppbv   | 95       |
| 53) Toluene                   | 9.96  | 91   | 3561490  | 10.728 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.77 | 107  | 1965648  | 9.699  | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.29 | 131  | 1604562  | 9.024  | ppbv   | 98       |
| 57) Chlorobenzene             | 12.31 | 112  | 2670020  | 9.150  | ppbv   | 99       |
| 58) Ethyl Benzene             | 12.87 | 91   | 4724979  | 10.299 | ppbv   | 98       |
| 59) m/p-Xylene                | 13.16 | 91   | 7905726m | 19.357 | ppbv   |          |
| 60) o-Xylene                  | 13.86 | 91   | 3868306  | 9.420  | ppbv   | 100      |
| 61) Styrene                   | 13.69 | 104  | 2882012  | 10.781 | ppbv   | 100      |
| 62) Isopropylbenzene          | 14.84 | 105  | 5363841  | 9.663  | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.85 | 83   | 2558686  | 7.993  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.73 | 120  | 1409563  | 9.655  | ppbv   | 100      |
| 65) tert-Butylbenzene         | 16.92 | 119  | 4801790  | 9.650  | ppbv   | 100      |
| 66) Benzyl Chloride           | 17.16 | 91   | 2772230  | 10.078 | ppbv   | 100      |
| 67) sec-Butylbenzene          | 17.47 | 105  | 6809287  | 9.496  | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.82 | 119  | 5620311  | 9.857  | ppbv   | 100      |
| 70) n-Butylbenzene            | 18.72 | 91   | 5796865  | 10.013 | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.62 | 91   | 4003042  | 9.670  | ppbv   | 100      |
| 72) 4-Ethyltoluene            | 16.01 | 105  | 4525113  | 10.053 | ppbv   | 100      |
| 73) 1,3,5-Trimethylbenzene    | 16.17 | 105  | 4277624  | 9.720  | ppbv   | 98       |
| 74) 1,2,4-Trimethylbenzene    | 16.94 | 105  | 4405113  | 9.354  | ppbv   | 94       |
| 75) 1,3-Dichlorobenzene       | 17.17 | 146  | 2469847  | 9.143  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.32 | 146  | 2435723  | 9.653  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 18.00 | 146  | 2421411  | 9.689  | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.55 | 225  | 1722026  | 12.768 | ppbv   | 100      |
| 79) Naphthalene               | 22.42 | 128  | 4058247  | 13.118 | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.12 | 142  | 1081617  | 13.959 | ppbv   | 97       |
| 81) 1,2,4-Trichlorobenzene    | 22.14 | 180  | 1906017  | 12.268 | ppbv   | 99       |
| -----                         |       |      |          |        |        |          |

(#) = 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: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion: 49 Resp: 1564971

Ion Ratio Lower Upper

49 100

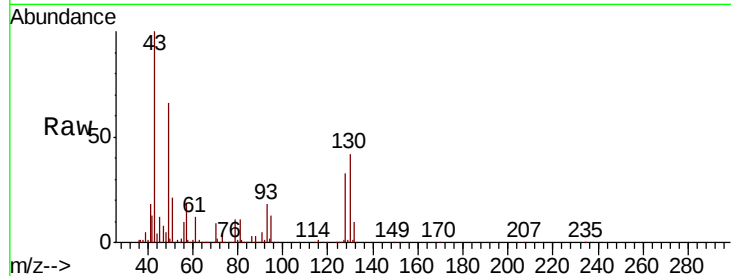
128 49.4 24.9 74.6

130 63.7 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

1200000

800000

600000

400000

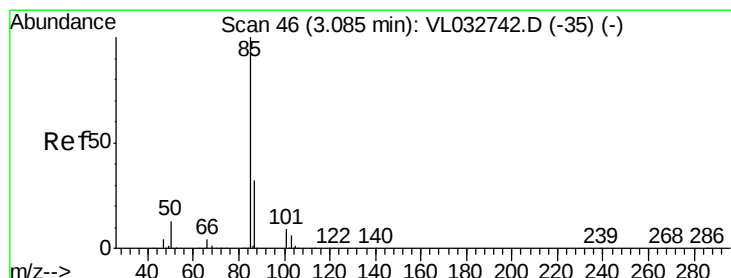
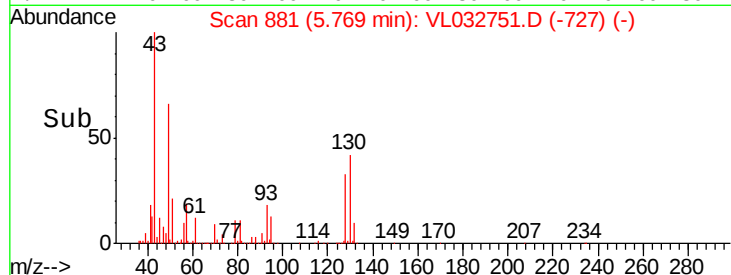
200000

0

5.77

5.70 5.75 5.80 5.85

Time-->



#2

Dichlorodifluoromethane

Concen: 8.540 ppbv

RT: 3.08 min Scan# 45

Delta R.T. -0.00 min

Lab File: VL032751.D

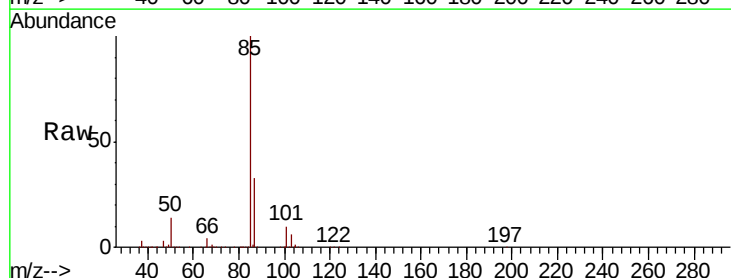
Acq: 14 Nov 2018 9:32

Tgt Ion: 85 Resp: 1921161

Ion Ratio Lower Upper

85 100

87 33.2 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

1500000

1000000

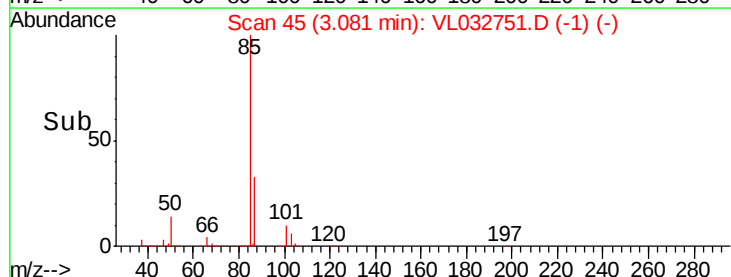
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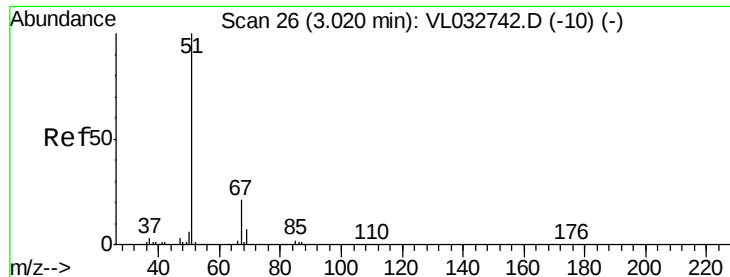
0

3.08

3.05 3.10

Time-->





#3

Chlorodifluoromethane

Concen: 9.038 ppbv

RT: 3.02 min Scan# 26

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Tot Ion: 51 Resp: 1121300

Ion Ratio Lower Upper

51 100

67 20.5 16.1 24.1

Instrument :

MSVOA\_L

ClientSampleId :

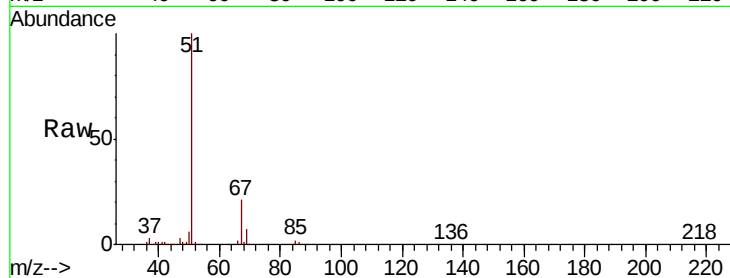
VL1114ABS01

Manual Integrations

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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

1000000

800000

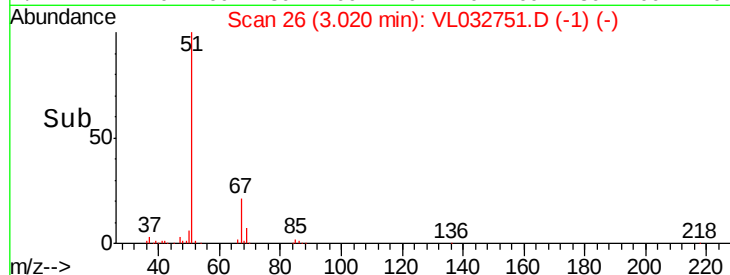
600000

400000

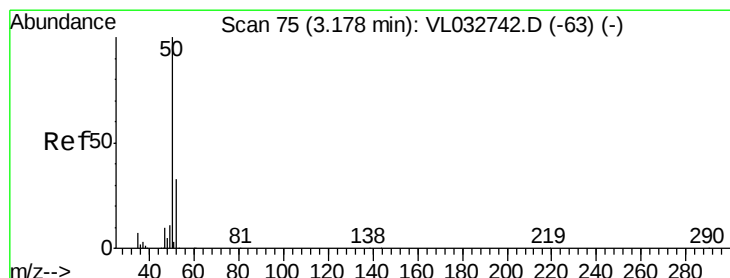
200000

0

Time-->



Time-->



#4

Chloromethane

Concen: 8.955 ppbv

RT: 3.17 min Scan# 74

Delta R.T. -0.00 min

Lab File: VL032751.D

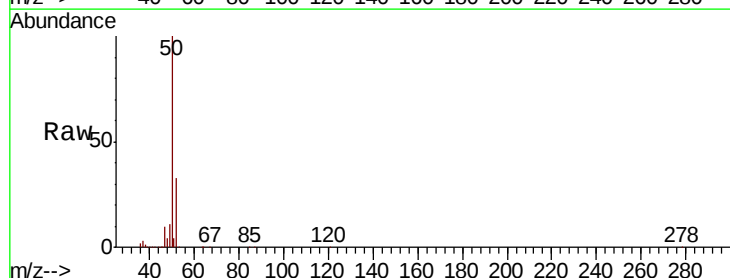
Acq: 14 Nov 2018 9:32

Tgt Ion: 50 Resp: 616095

Ion Ratio Lower Upper

50 100

52 32.6 26.6 40.0



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

500000

400000

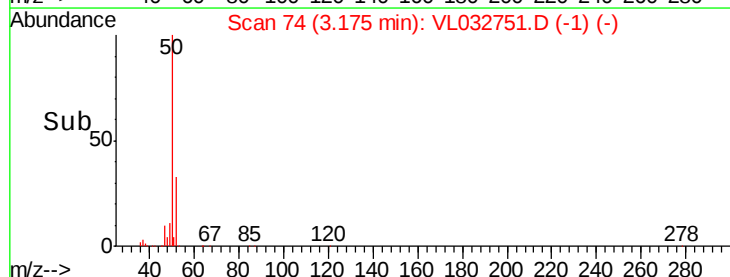
300000

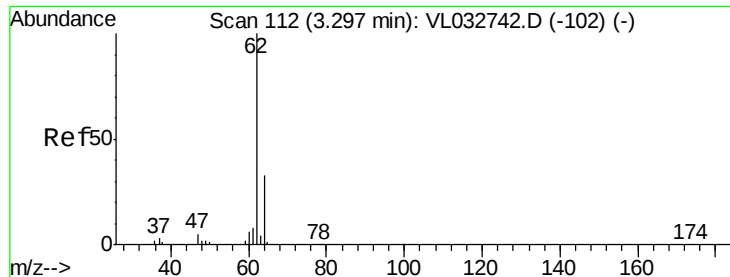
200000

100000

0

Time-->





#5

Vinyl Chloride

Concen: 8.656 ppbv

RT: 3.30 min Scan# 112

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion: 62 Resp: 631041

Ion Ratio Lower Upper

62 100

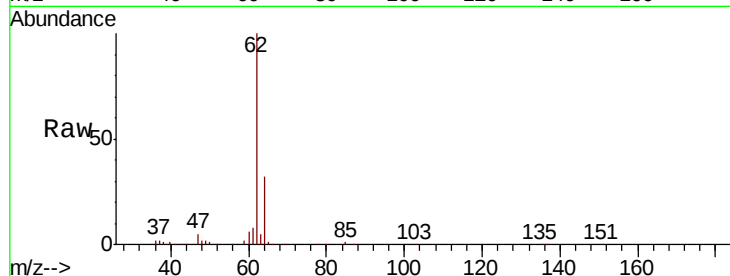
64 31.6 26.2 39.4

Manual Integrations

APPROVED

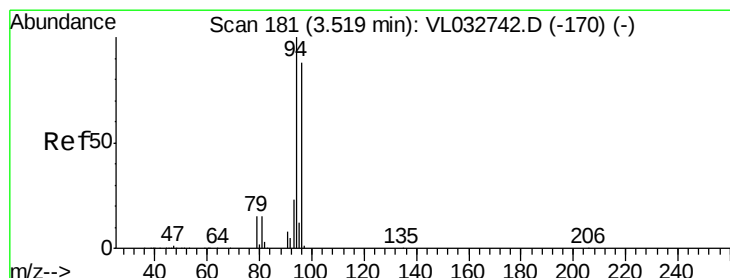
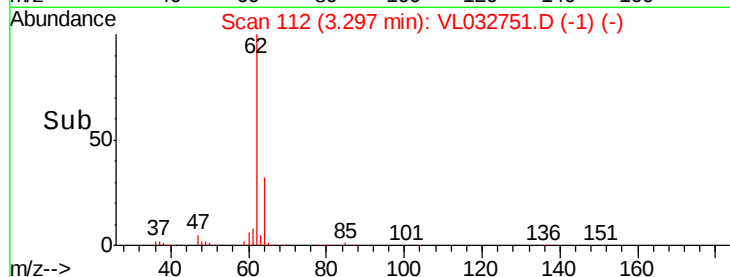
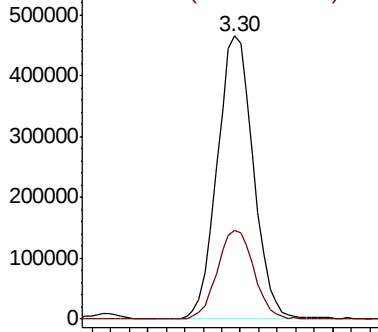
MMDadoda

11/16/2018 1:29:51 PM



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#6

Bromomethane

Concen: 9.233 ppbv

RT: 3.52 min Scan# 181

Delta R.T. -0.00 min

Lab File: VL032751.D

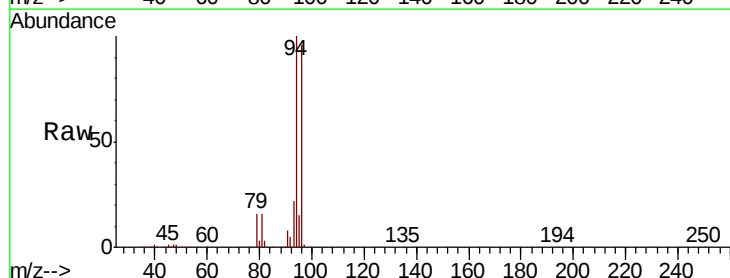
Acq: 14 Nov 2018 9:32

Tgt Ion: 94 Resp: 411731

Ion Ratio Lower Upper

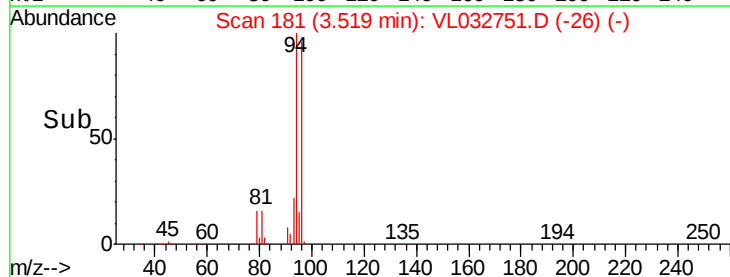
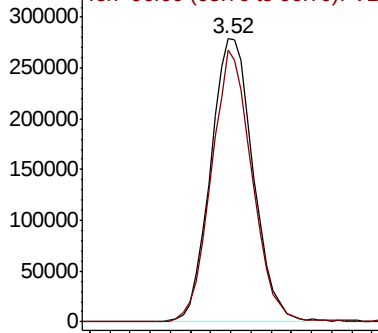
94 100

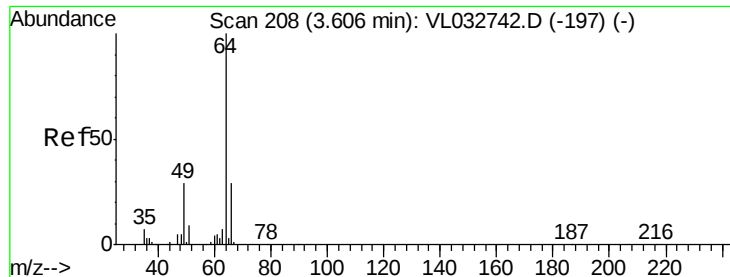
96 96.1 70.2 105.2



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0





#7

Chloroethane

Concen: 8.975 ppbv

RT: 3.61 min Scan# 208

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion: 64 Resp: 235800

Ion Ratio Lower Upper

64 100

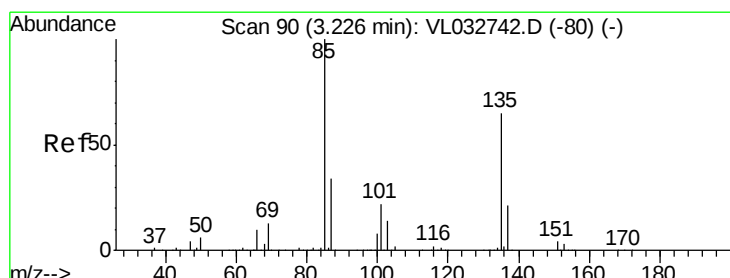
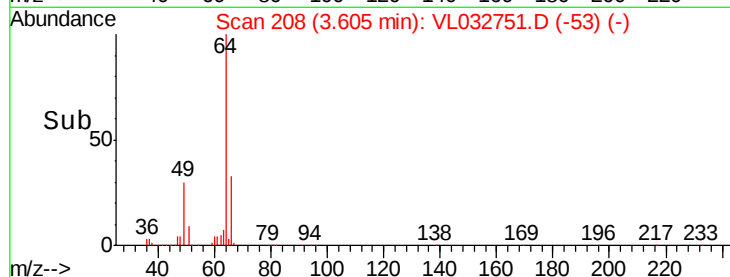
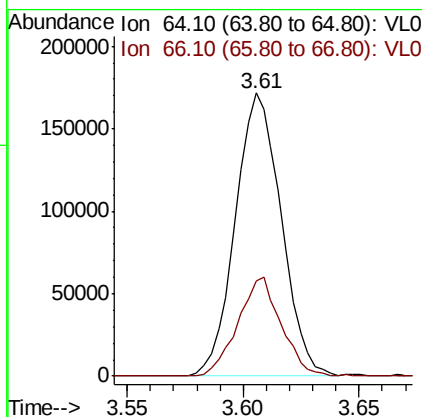
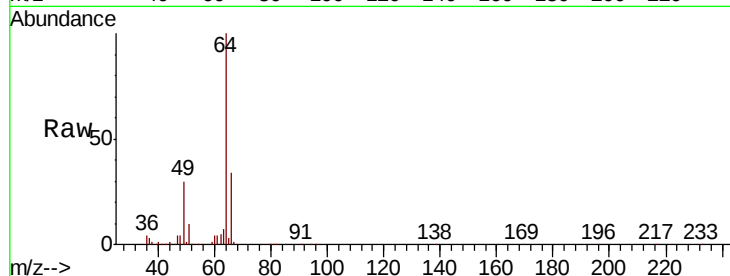
66 33.7 23.2 34.8

Manual Integrations

APPROVED

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11/16/2018 1:29:51 PM



#8

Dichlorotetrafluoroethane

Concen: 8.768 ppbv

RT: 3.23 min Scan# 90

Delta R.T. -0.00 min

Lab File: VL032751.D

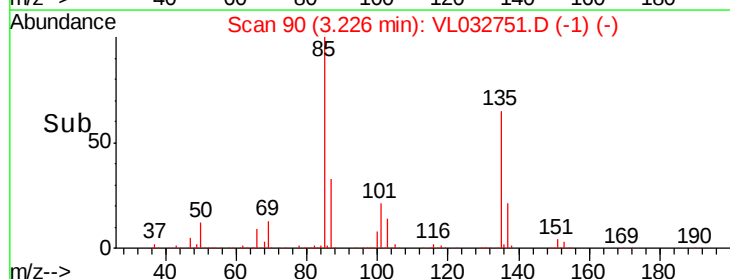
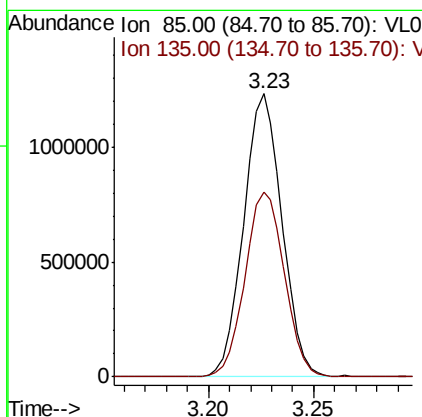
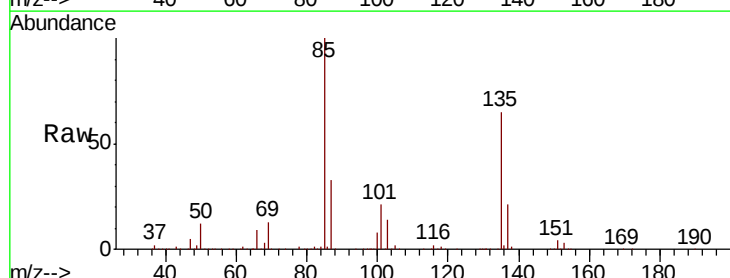
Acq: 14 Nov 2018 9:32

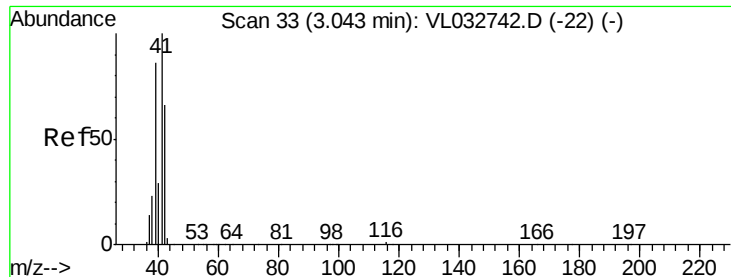
Tgt Ion: 85 Resp: 1554218

Ion Ratio Lower Upper

85 100

135 67.4 53.8 80.8





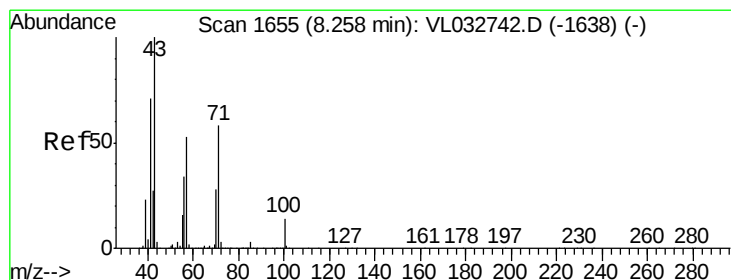
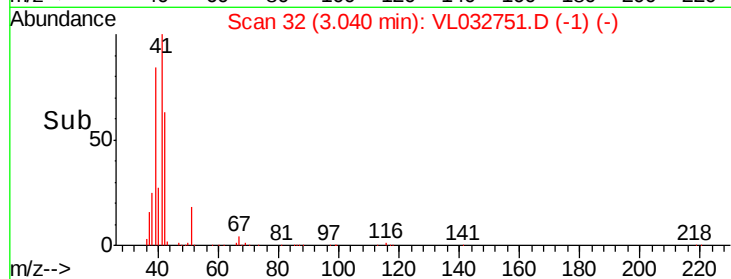
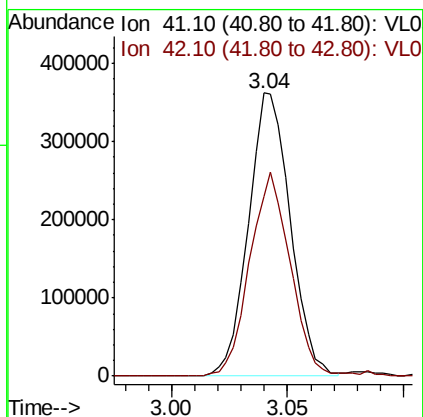
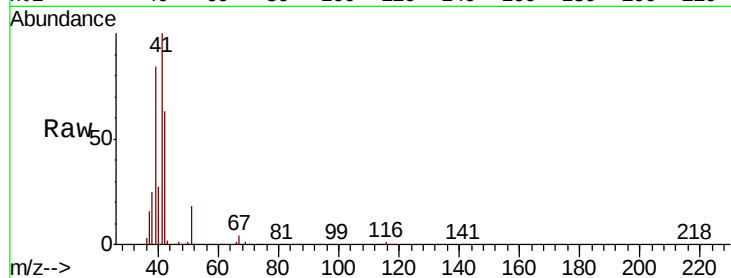
#9  
 Propene  
 Concen: 9.138 ppbv  
 RT: 3.04 min Scan# 32  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS01

Tot Ion: 41 Resp: 453722  
 Ion Ratio Lower Upper  
 41 100  
 42 70.8 55.0 82.6

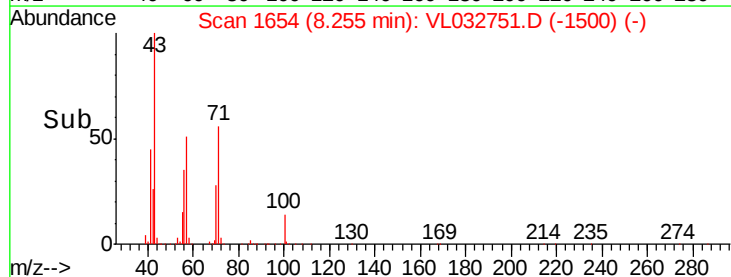
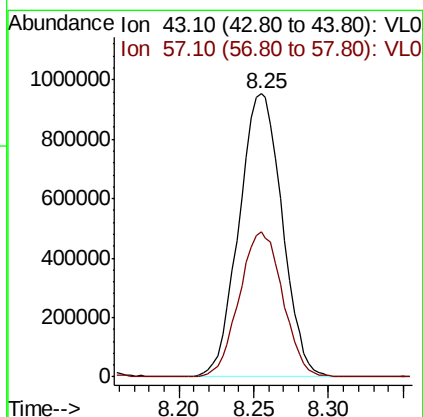
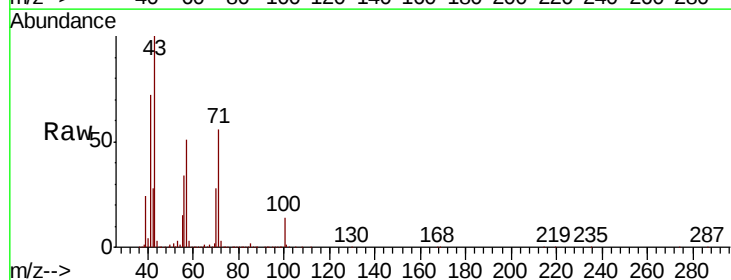
Manual Integrations  
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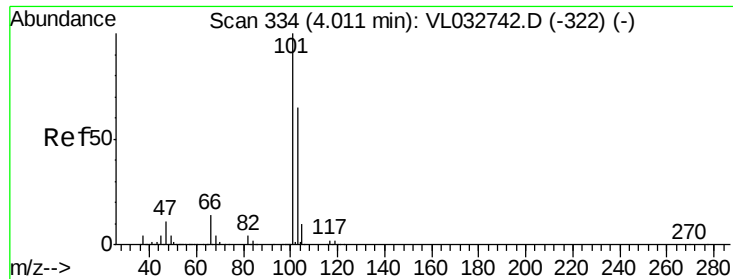
MMDadoda  
 11/16/2018 1:29:51 PM



#10  
 Heptane  
 Concen: 10.049 ppbv  
 RT: 8.25 min Scan# 1654  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Tgt Ion: 43 Resp: 1904862  
 Ion Ratio Lower Upper  
 43 100  
 57 51.9 41.8 62.8





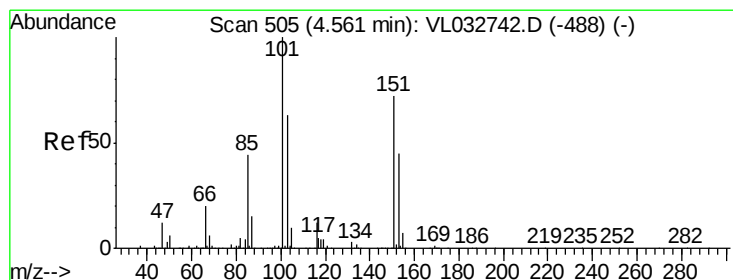
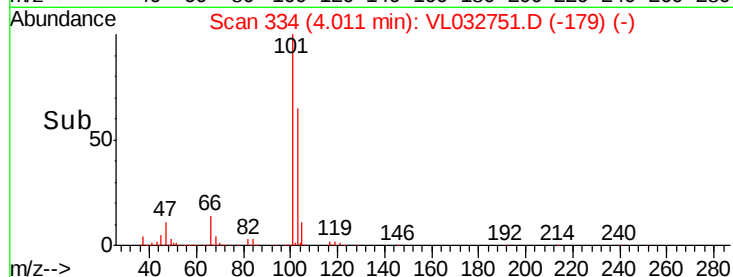
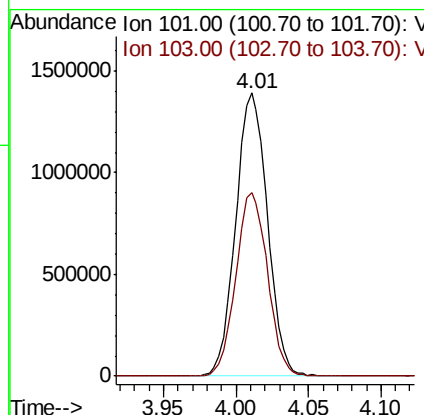
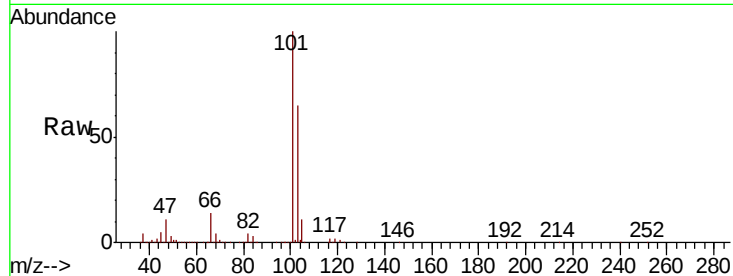
#11  
 Trichlorofluoromethane  
 Concen: 9.958 ppbv  
 RT: 4.01 min Scan# 334  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS01

Tot Ion:101 Resp: 2111038  
 Ion Ratio Lower Upper  
 101 100  
 103 64.6 51.6 77.4

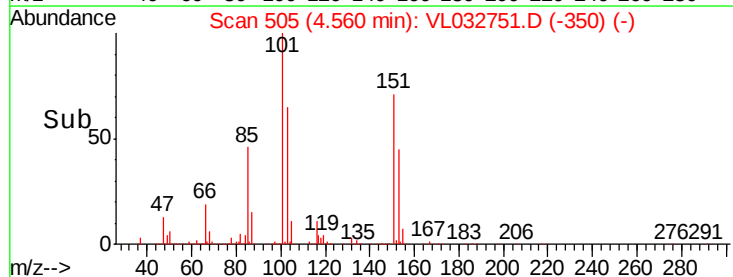
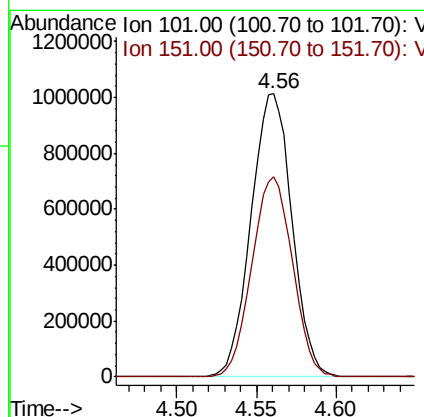
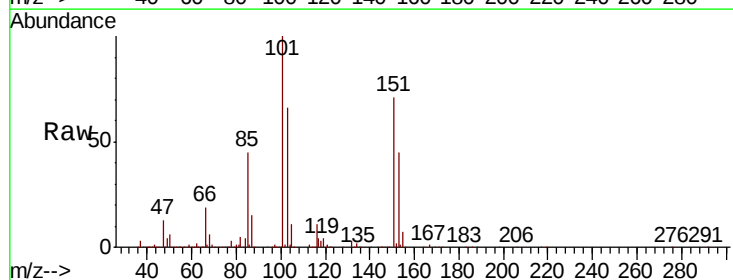
Manual Integrations  
 APPROVED

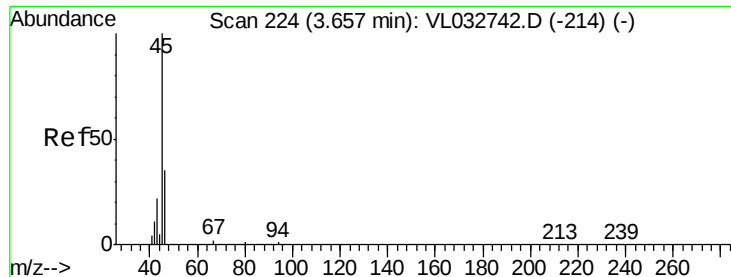
MMDadoda  
 11/16/2018 1:29:51 PM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 10.264 ppbv  
 RT: 4.56 min Scan# 505  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Tgt Ion:101 Resp: 1777323  
 Ion Ratio Lower Upper  
 101 100  
 151 70.7 56.7 85.1





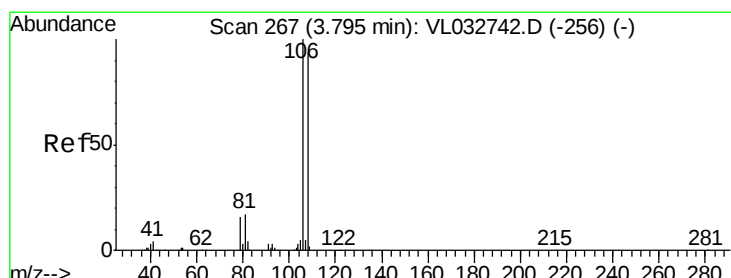
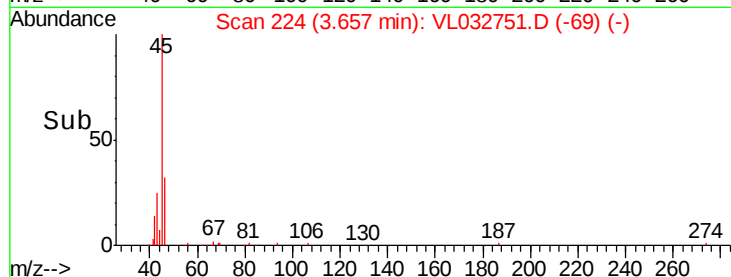
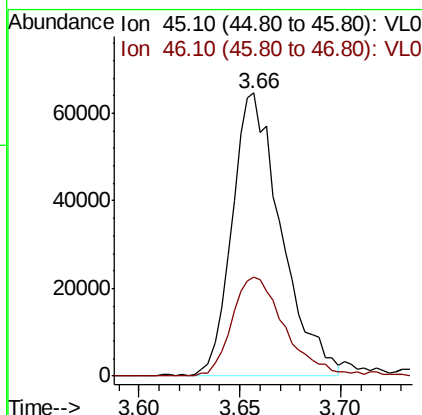
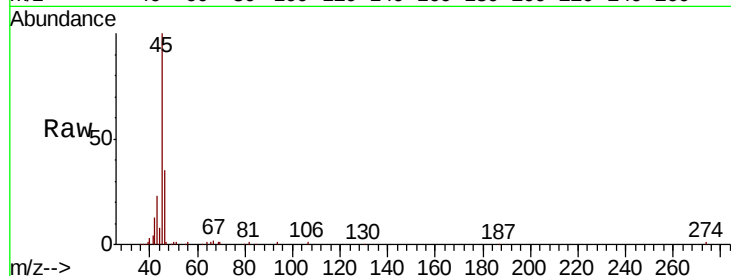
#13  
Ethanol  
Concen: 6.734 ppbv  
RT: 3.66 min Scan# 224  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS01

| Tot Ion      | 45  | 46   | Ratio | Lower | Upper |
|--------------|-----|------|-------|-------|-------|
| Resp: 109522 | 100 | 38.9 |       | 14.5  | 57.9  |

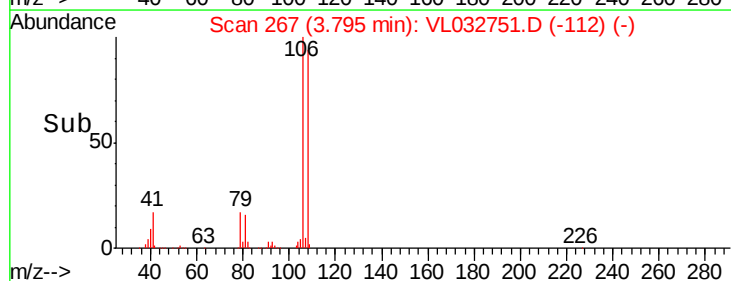
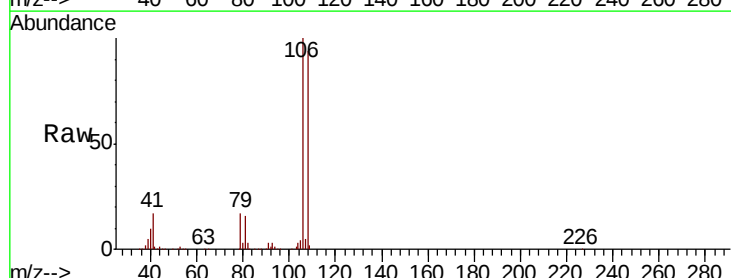
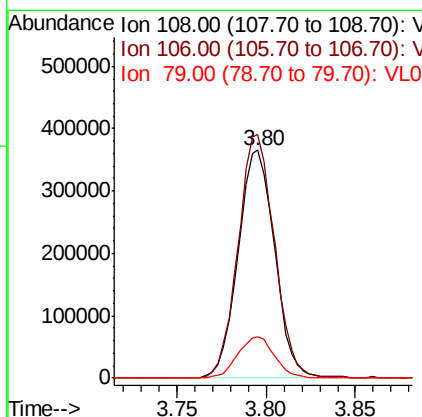
Manual Integrations  
APPROVED

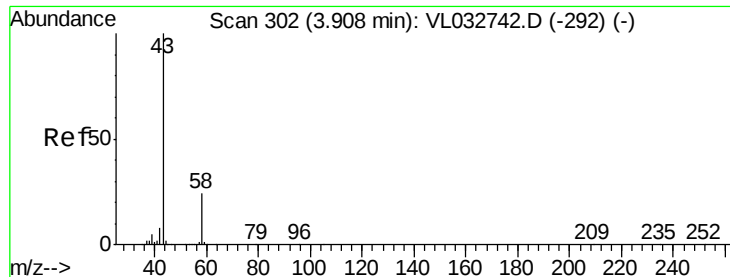
MMDadoda  
11/16/2018 1:29:51 PM



#14  
Bromoethene  
Concen: 9.100 ppbv  
RT: 3.80 min Scan# 267  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

| Tgt Ion      | 108 | 106   | 79   | Ratio | Lower | Upper |
|--------------|-----|-------|------|-------|-------|-------|
| Resp: 522766 | 100 | 106.5 | 18.3 |       | 84.9  | 127.3 |
|              |     |       |      |       | 14.2  | 21.4  |





#15

Acetone

Concen: 7.761 ppbv

RT: 3.91 min Scan# 302

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion: 43 Resp: 1109190

Ion Ratio Lower Upper

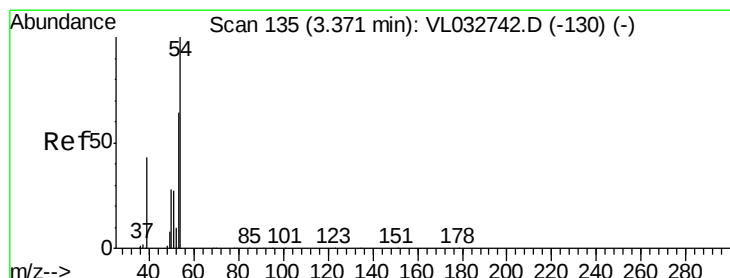
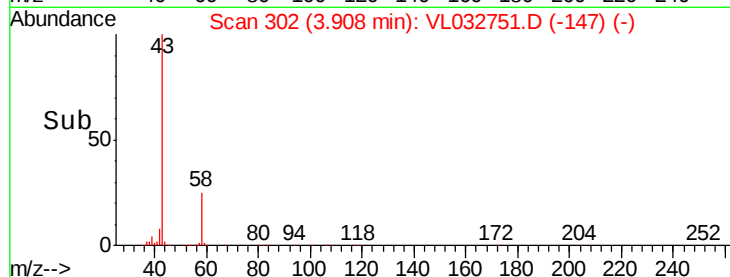
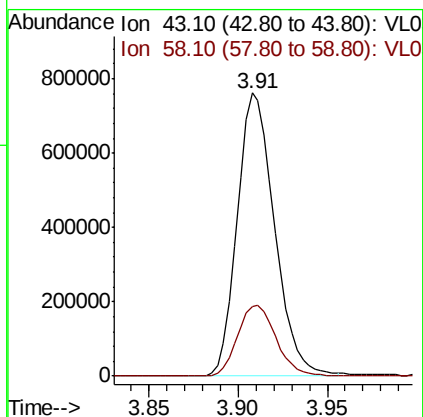
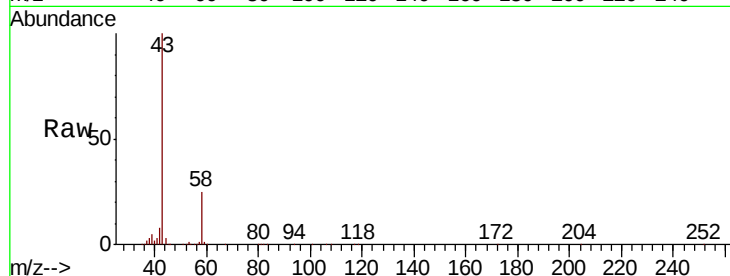
43 100

58 26.1 21.1 31.7

Manual Integrations  
APPROVED

MMDadoda

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#16

1,3-Butadiene

Concen: 10.055 ppbv

RT: 3.37 min Scan# 134

Delta R.T. -0.00 min

Lab File: VL032751.D

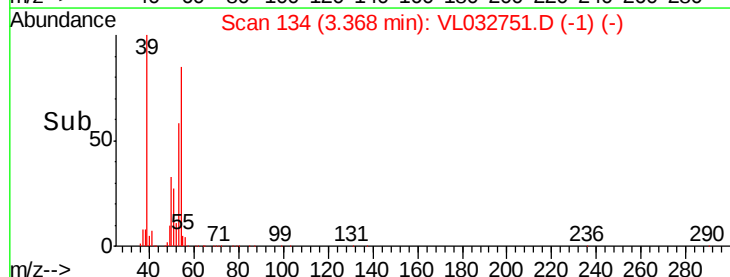
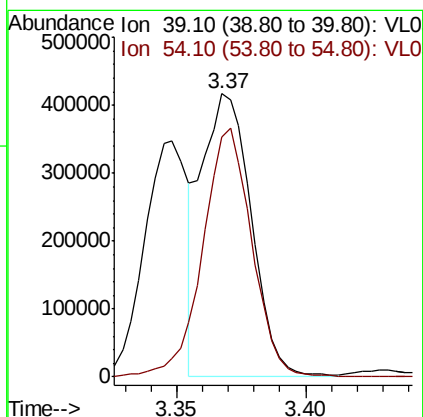
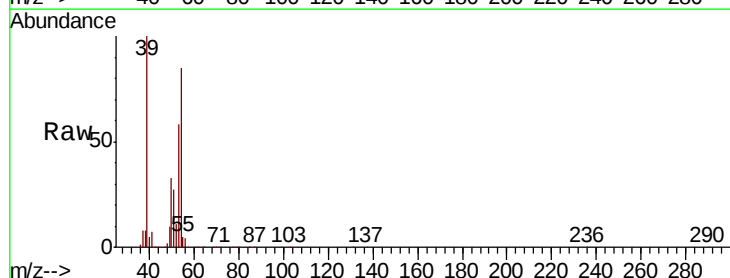
Acq: 14 Nov 2018 9:32

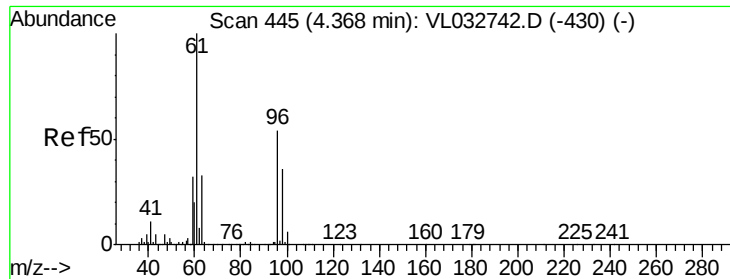
Tgt Ion: 39 Resp: 556529

Ion Ratio Lower Upper

39 100

54 87.6 68.9 103.3





#17

tert-Butyl alcohol

Concen: 10.131 ppbv

RT: 4.36 min Scan# 443

Delta R.T. -0.01 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Tot Ion: 59 Resp: 454121

Ion Ratio Lower Upper

59 100

57 9.6 7.8 11.8

Instrument :

MSVOA\_L

ClientSampleID :

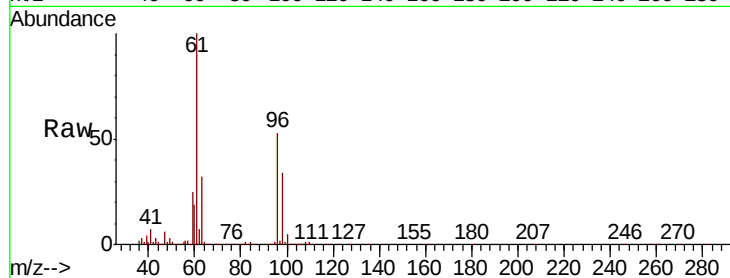
VL1114ABS01

Manual Integrations

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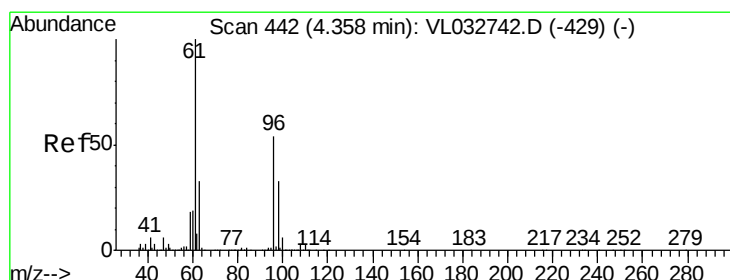
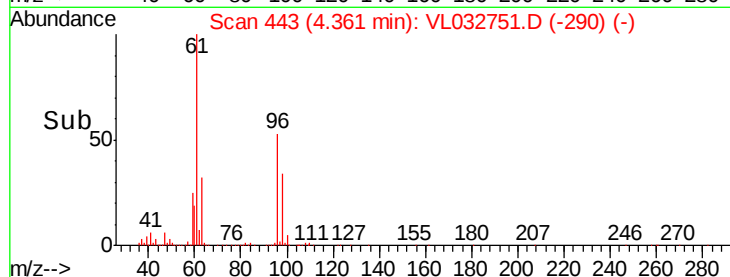
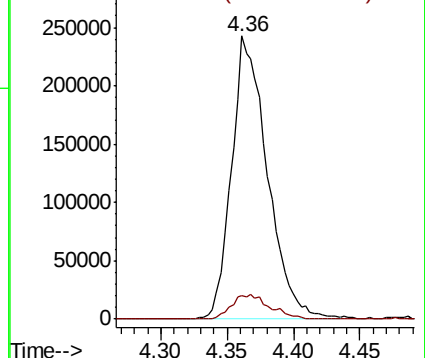
MMDadoda

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Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#18

1,1-Dichloroethene

Concen: 9.572 ppbv

RT: 4.36 min Scan# 442

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

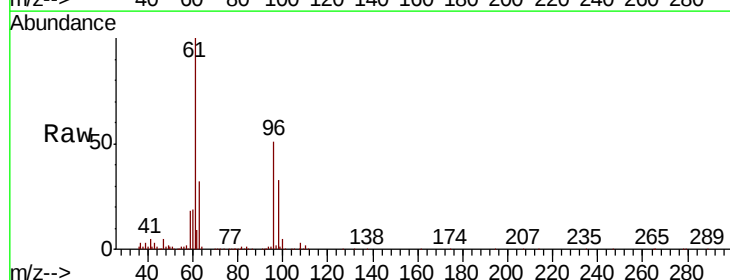
Tgt Ion: 96 Resp: 815091

Ion Ratio Lower Upper

96 100

61 198.0 148.5 222.7

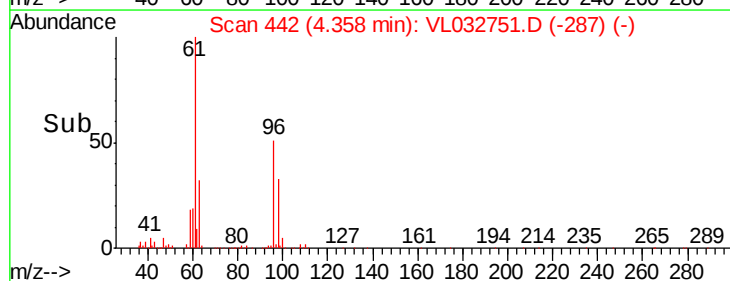
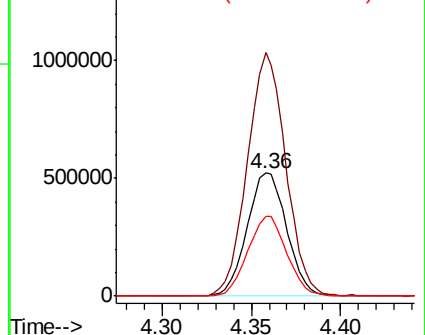
98 64.6 48.6 72.8

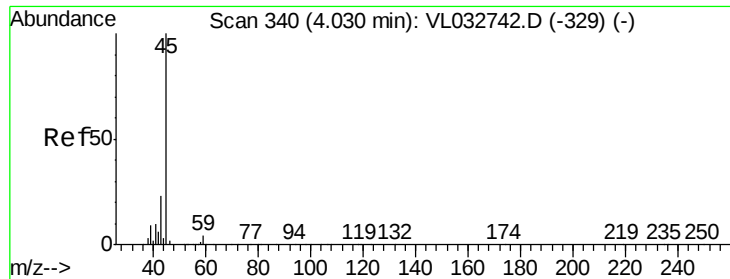


Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0





#19

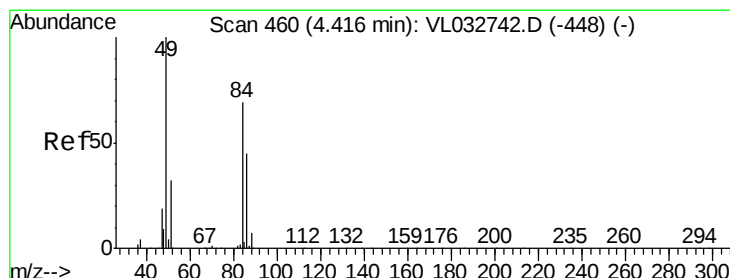
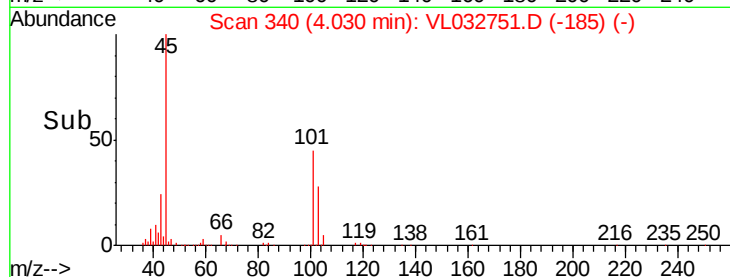
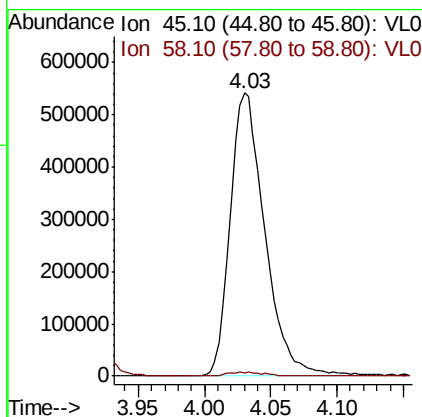
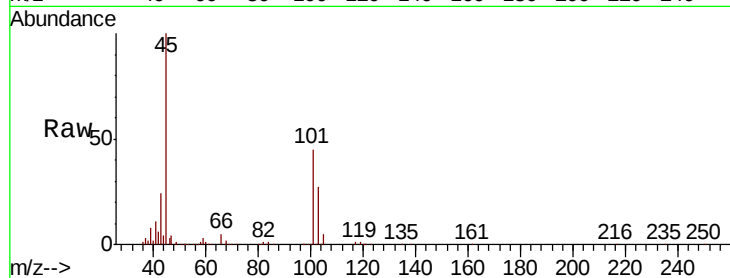
Isopropyl Alcohol  
 Concen: 10.312 ppbv  
 RT: 4.03 min Scan# 340  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS01

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

Manual Integrations  
 APPROVED

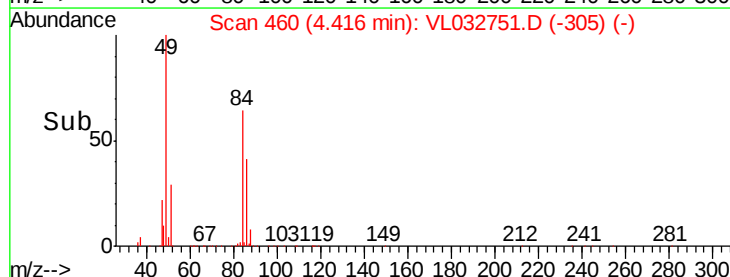
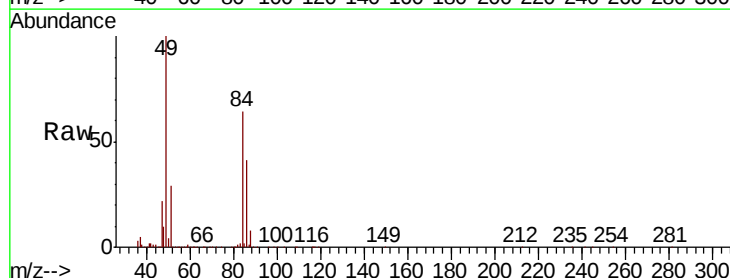
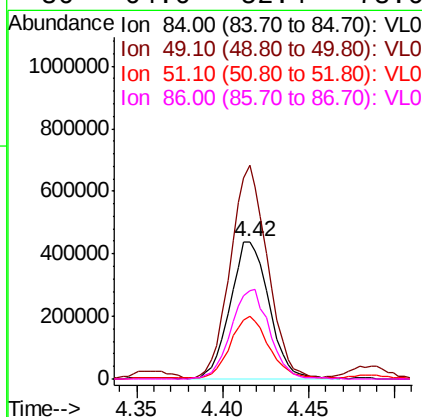
MMDadoda  
 11/16/2018 1:29:51 PM

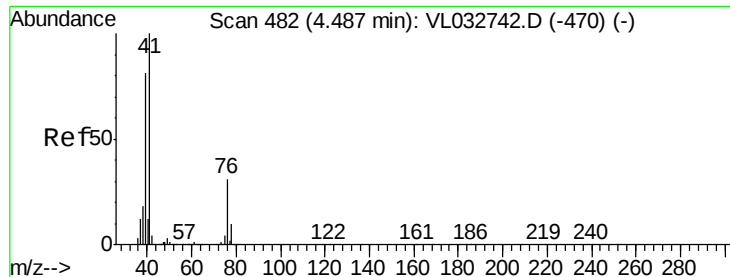


#20

Methylene Chloride  
 Concen: 9.263 ppbv  
 RT: 4.42 min Scan# 460  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 49      | 155.2 | 115.8 | 173.6 |
| 51      | 44.8  | 36.9  | 55.3  |
| 86      | 64.6  | 52.4  | 78.6  |





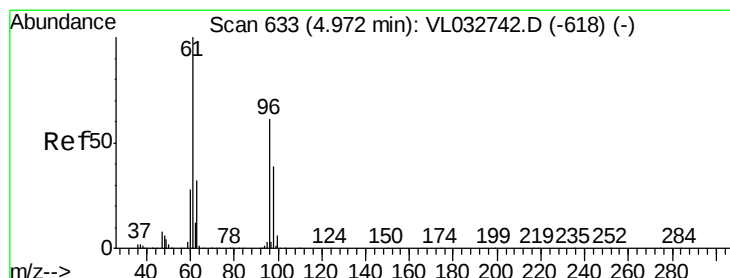
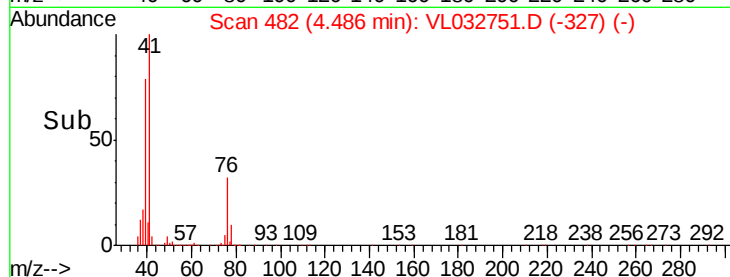
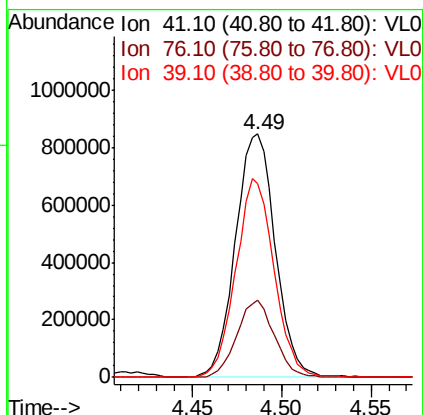
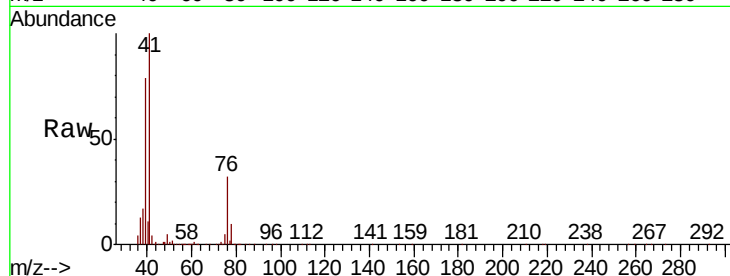
#21  
Allvl Chloride  
Concen: 10.928 ppbv  
RT: 4.49 min Scan# 482  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 41      | 100   |       |       |
| 76      | 30.3  | 24.4  | 36.6  |
| 39      | 78.7  | 63.5  | 95.3  |

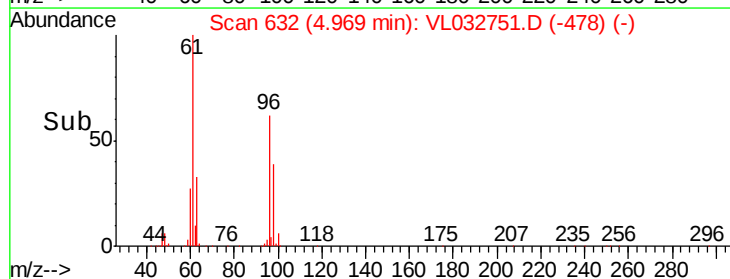
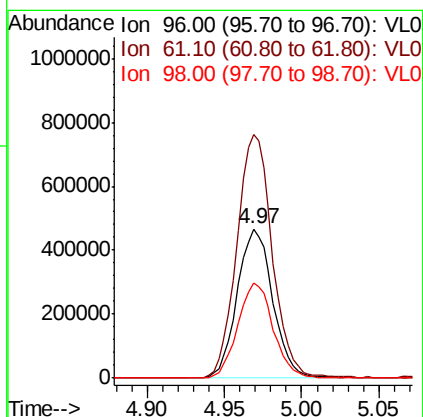
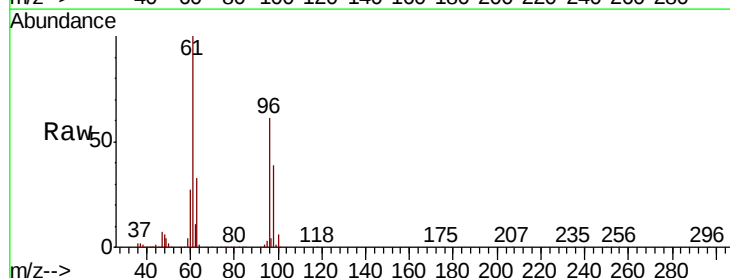
Manual Integrations  
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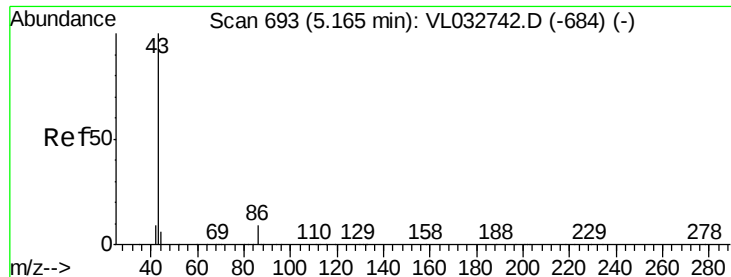
MMDadoda  
11/16/2018 1:29:51 PM



#22  
trans-1,2-Dichloroethene  
Concen: 8.949 ppbv  
RT: 4.97 min Scan# 632  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 163.1 | 130.2 | 195.2 |
| 98      | 63.7  | 50.2  | 75.2  |





#23

Vinyl Acetate

Concen: 9.828 ppbv

RT: 5.16 min Scan# 692

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion: 43 Resp: 2560492

Ion Ratio Lower Upper

43 100

86 8.6 6.2 9.4

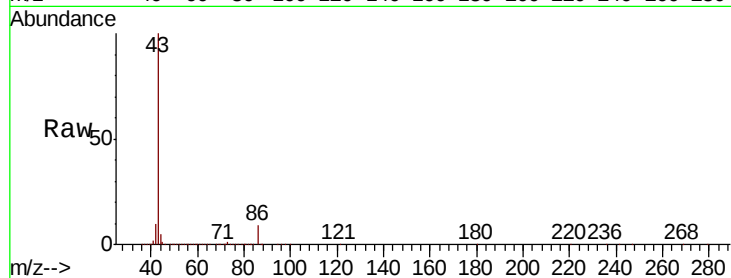
42 9.9 7.8 11.6

44 4.9 4.4 6.6

Manual Integrations  
APPROVED

MMDadoda

11/16/2018 1:29:51 PM

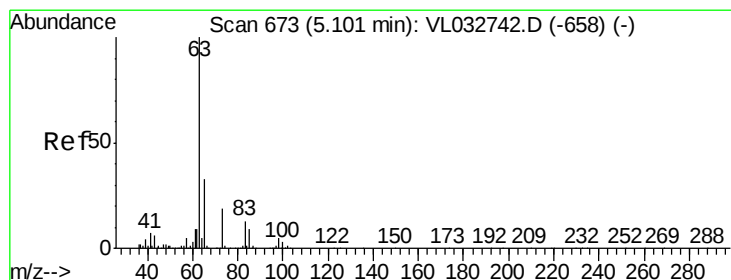
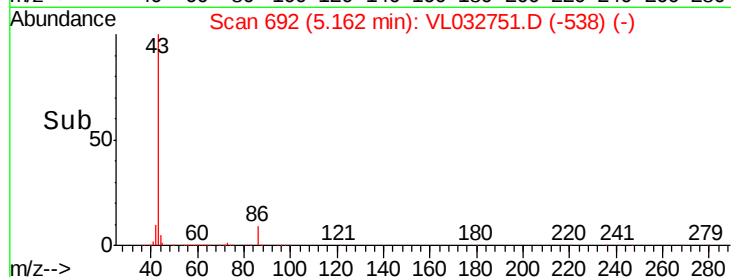
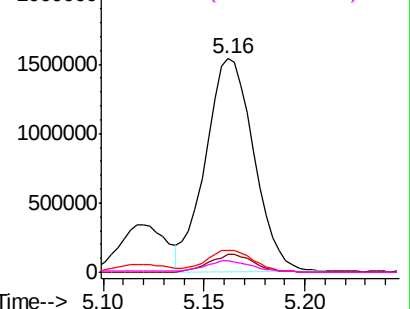


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#24

1,1-Dichloroethane

Concen: 9.347 ppbv

RT: 5.10 min Scan# 673

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

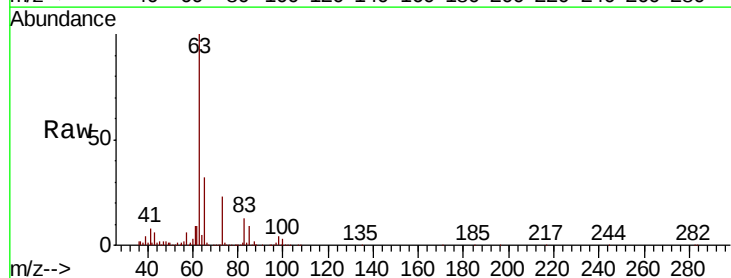
Tgt Ion: 63 Resp: 1935956

Ion Ratio Lower Upper

63 100

98 4.1 2.3 6.8

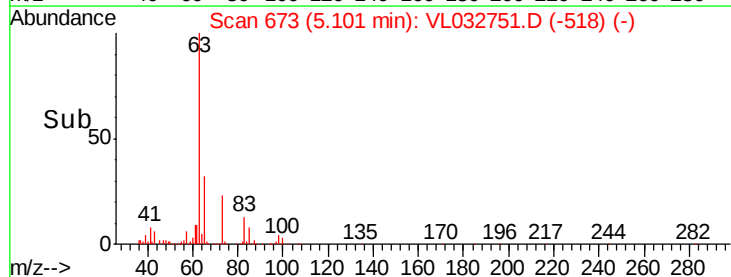
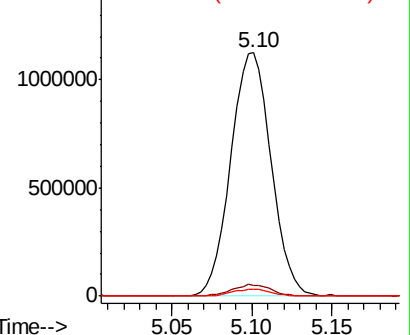
100 3.0 1.4 4.2

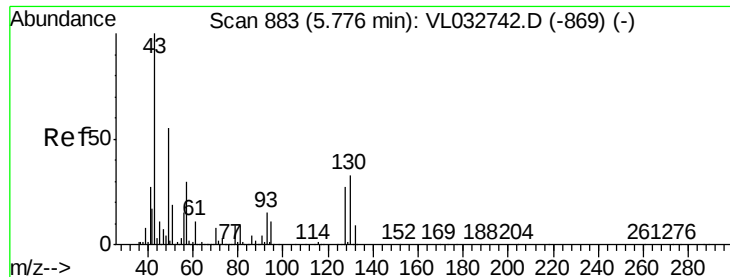


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0





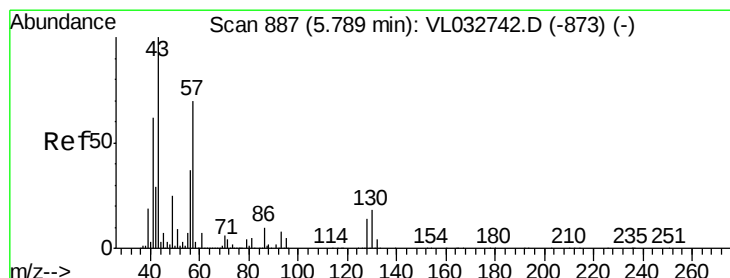
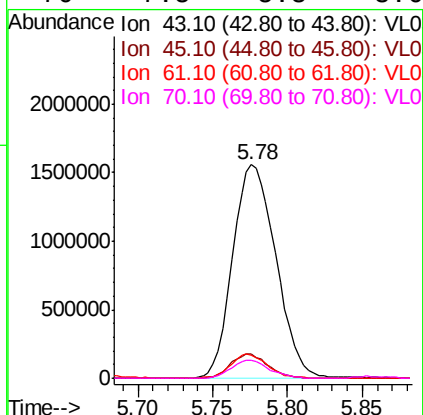
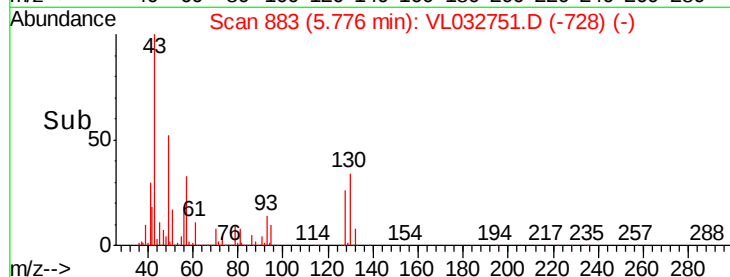
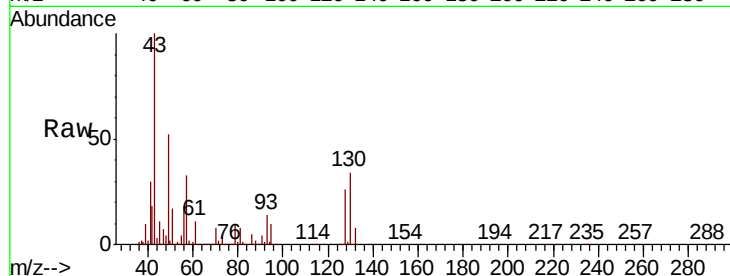
#25  
Ethyl Acetate  
Concen: 9.368 ppbv  
RT: 5.78 min Scan# 883  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 45      | 9.8   | 7.9   | 11.9  |
| 61      | 9.8   | 7.8   | 11.6  |
| 70      | 7.5   | 5.8   | 8.6   |

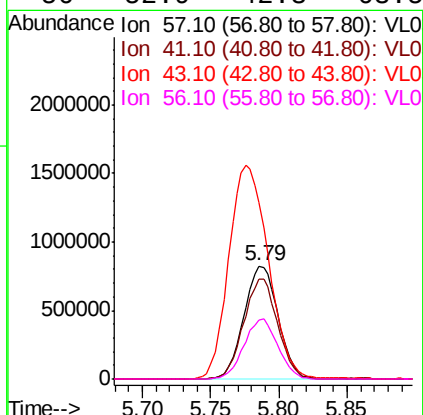
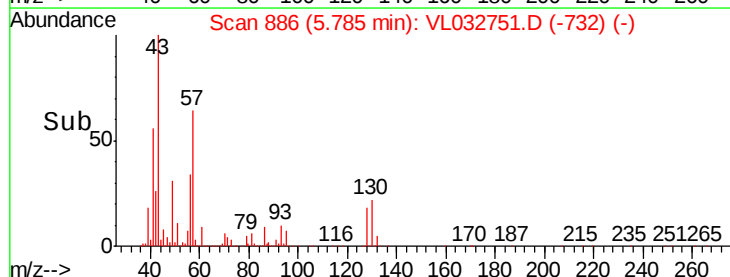
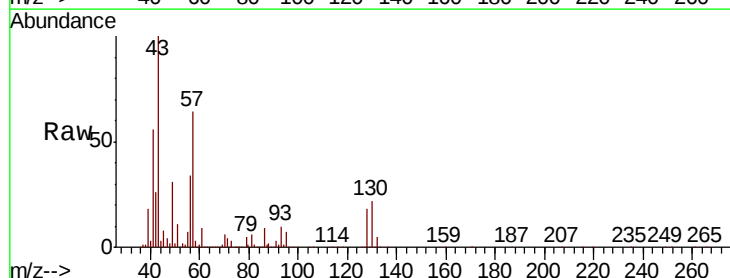
Manual Integrations  
APPROVED

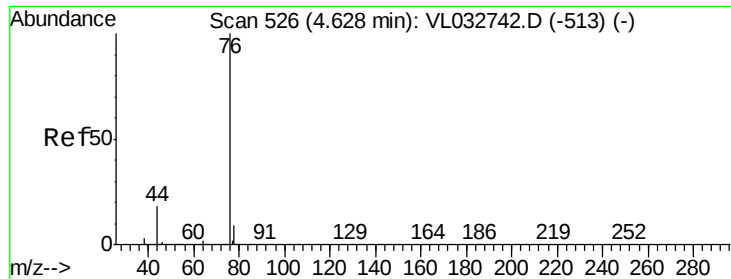
MMDadoda  
11/16/2018 1:29:51 PM



#26  
Hexane  
Concen: 9.655 ppbv  
RT: 5.79 min Scan# 886  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 88.5  | 70.3  | 105.5 |
| 43      | 219.3 | 174.0 | 261.0 |
| 56      | 52.9  | 42.3  | 63.5  |





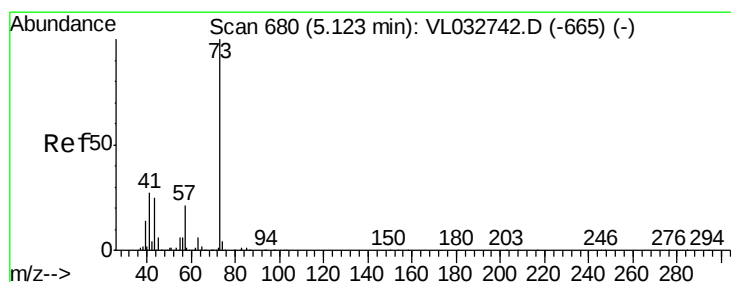
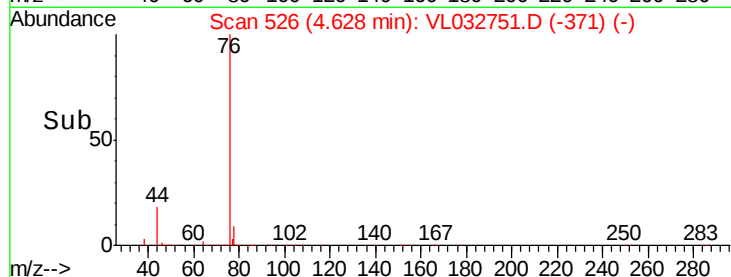
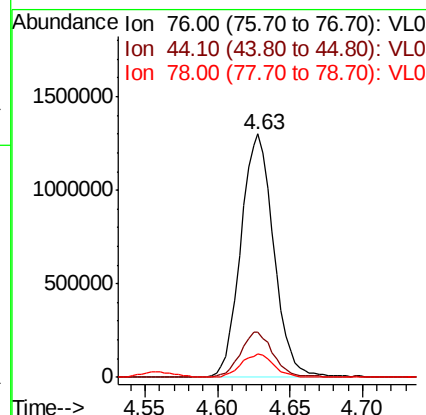
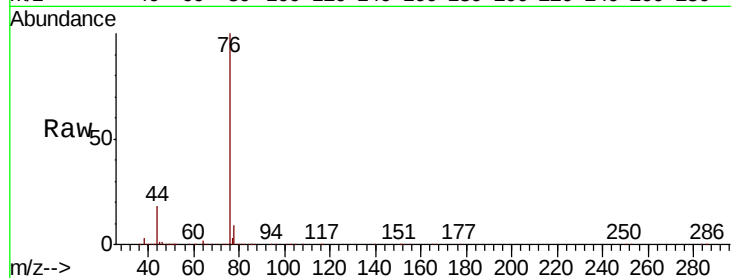
#27  
Carbon Disulfide  
Concen: 10.920 ppbv  
RT: 4.63 min Scan# 526  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76      | 100   |       |       |
| 44      | 17.8  | 14.4  | 21.6  |
| 78      | 9.4   | 7.7   | 11.5  |

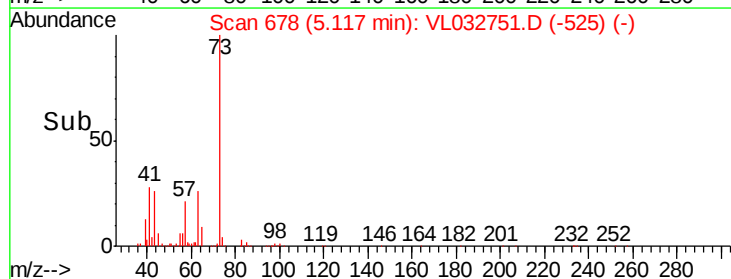
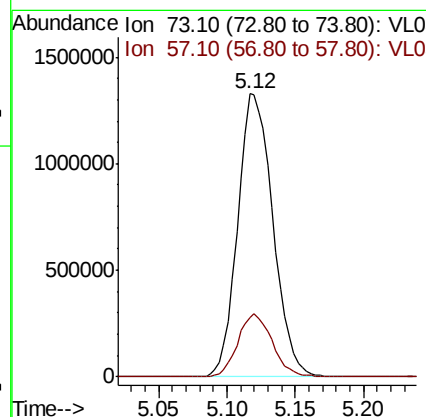
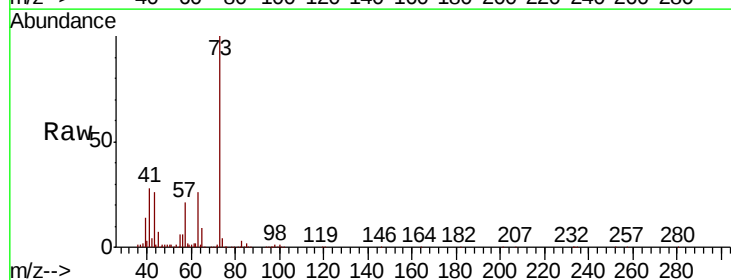
Manual Integrations  
APPROVED

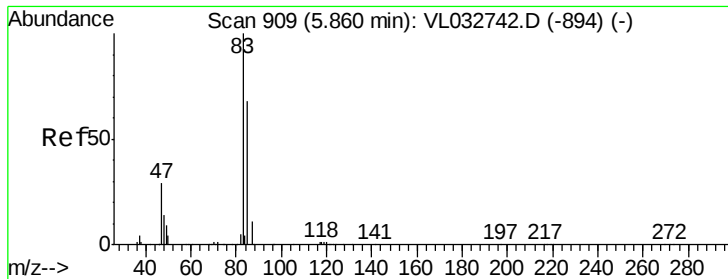
MMDadoda  
11/16/2018 1:29:51 PM



#28  
Methyl tert-Butyl Ether  
Concen: 10.062 ppbv  
RT: 5.12 min Scan# 678  
Delta R.T. -0.01 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 73      | 100   |       |       |
| 57      | 22.0  | 17.5  | 26.3  |





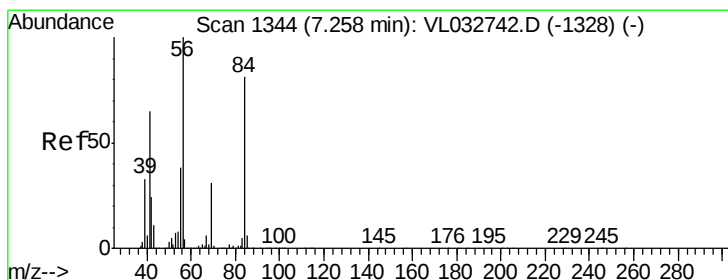
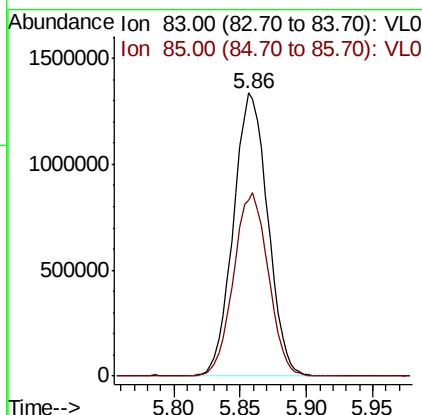
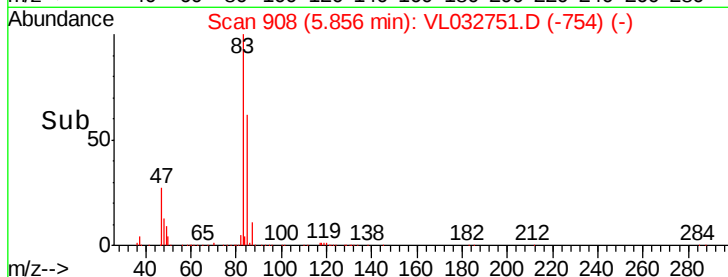
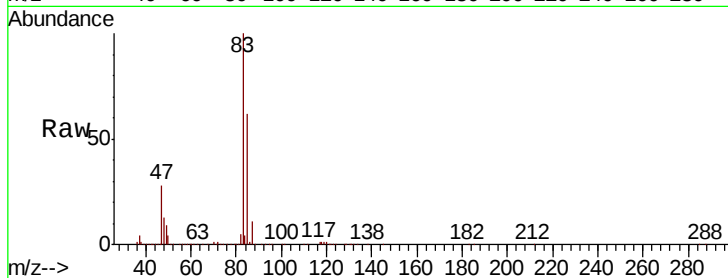
#29  
Chloroform  
Concen: 9.114 ppbv  
RT: 5.86 min Scan# 908  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS01

Tot Ion: 83 Resp: 2408583  
Ion Ratio Lower Upper  
83 100  
85 62.1 54.2 81.4

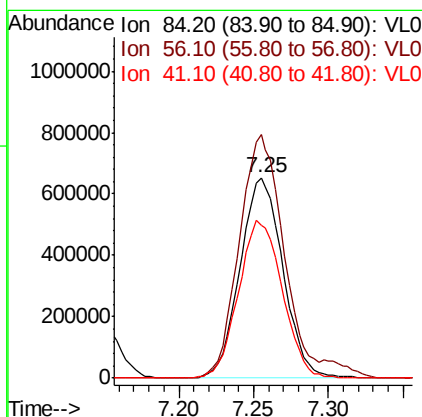
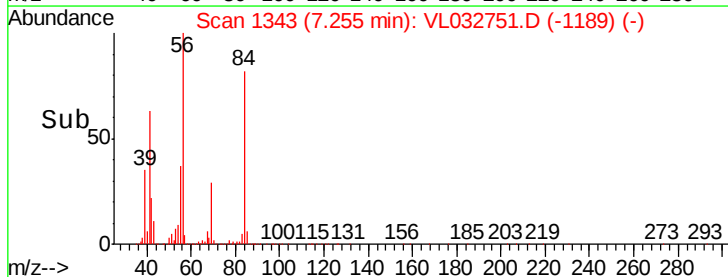
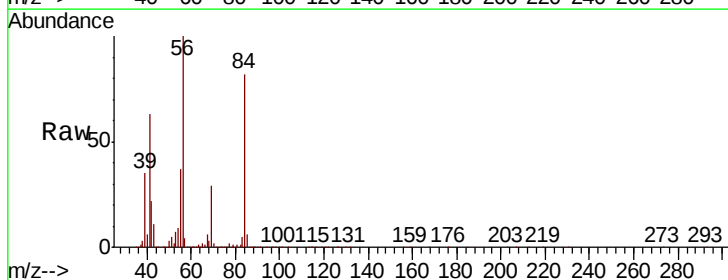
Manual Integrations  
APPROVED

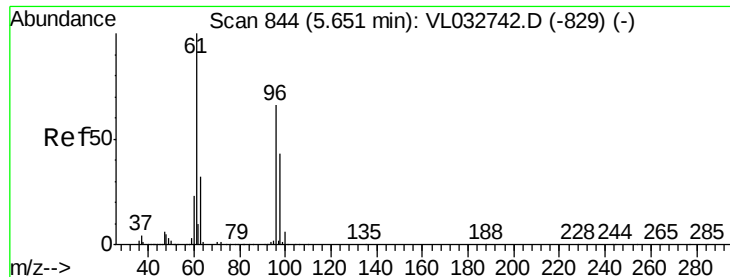
MMDadoda  
11/16/2018 1:29:51 PM



#30  
Cyclohexane  
Concen: 10.008 ppbv  
RT: 7.25 min Scan# 1343  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Tgt Ion: 84 Resp: 1297900  
Ion Ratio Lower Upper  
84 100  
56 130.9 105.0 157.4  
41 80.7 65.3 97.9





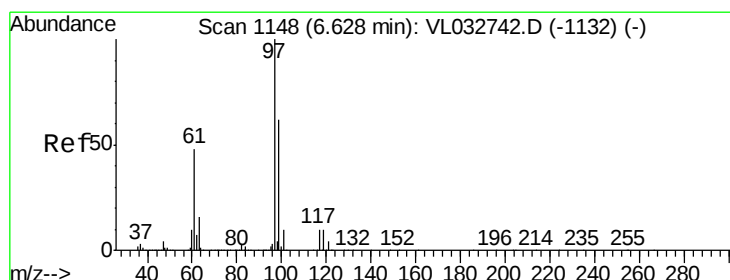
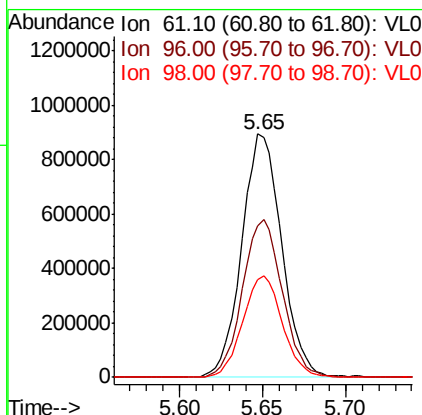
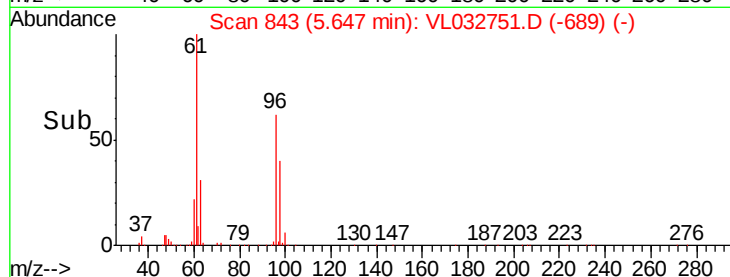
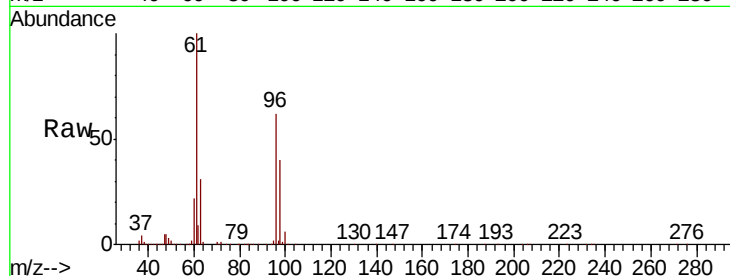
#31  
 cis-1,2-Dichloroethene  
 Concen: 10.058 ppbv  
 RT: 5.65 min Scan# 843  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61      | 100   |       |       |
| 96      | 62.1  | 53.2  | 79.8  |
| 98      | 39.9  | 34.4  | 51.6  |

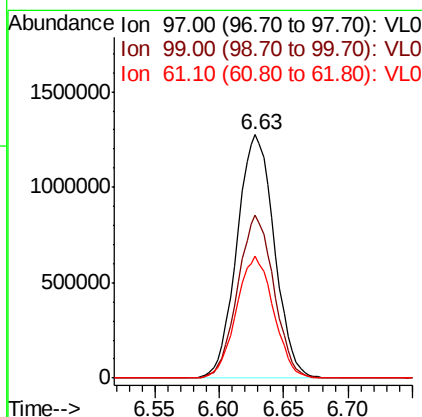
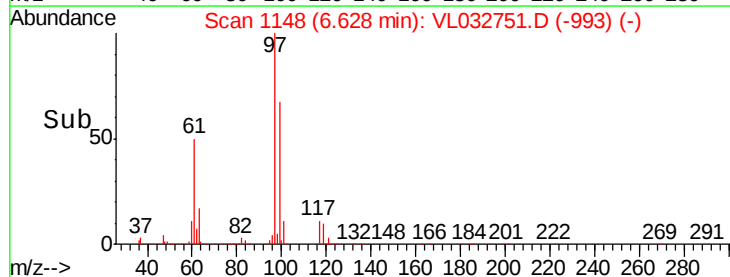
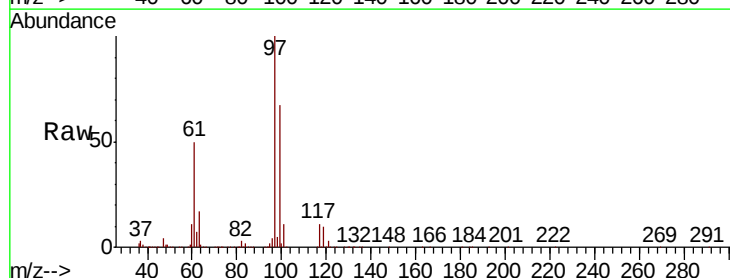
Manual Integrations  
 APPROVED

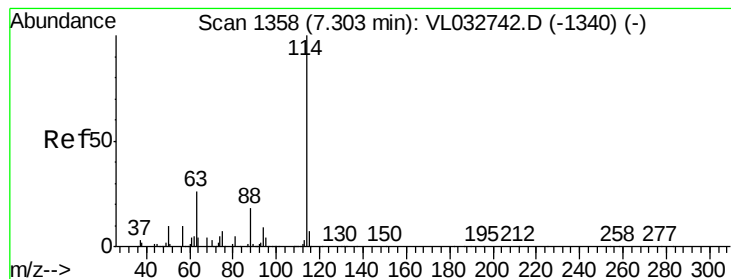
MMDadoda  
 11/16/2018 1:29:51 PM



#32  
 1,1,1-Trichloroethane  
 Concen: 8.866 ppbv  
 RT: 6.63 min Scan# 1148  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 65.2  | 51.8  | 77.6  |
| 61      | 49.9  | 39.7  | 59.5  |





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.30 min Scan# 1358

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion:114 Resp: 3996105

Ion Ratio Lower Upper

114 100

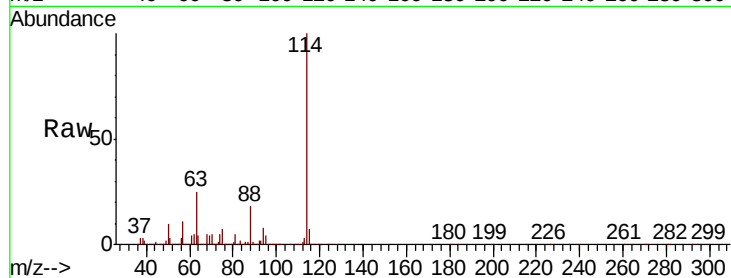
63 25.8 20.9 31.3

88 17.9 14.4 21.6

Manual Integrations  
APPROVED

MMDadoda

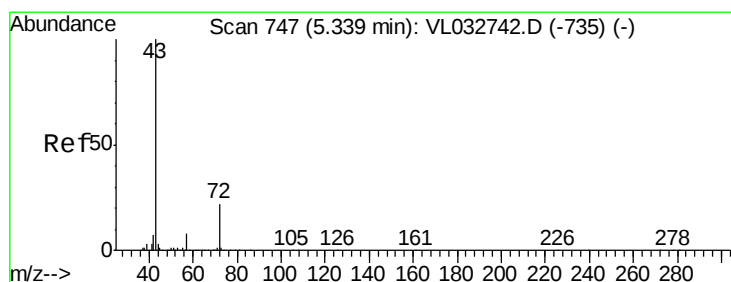
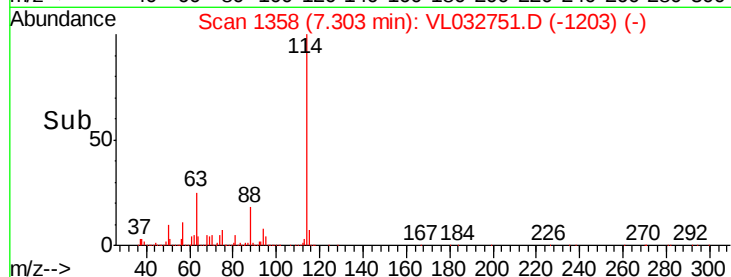
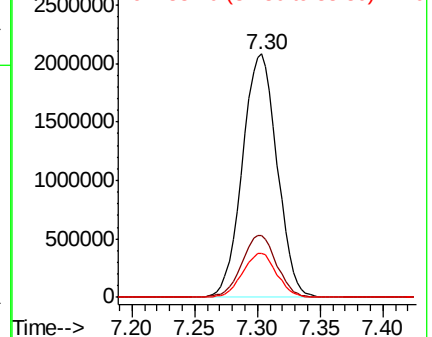
11/16/2018 1:29:51 PM



Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 9.751 ppbv

RT: 5.34 min Scan# 746

Delta R.T. -0.00 min

Lab File: VL032751.D

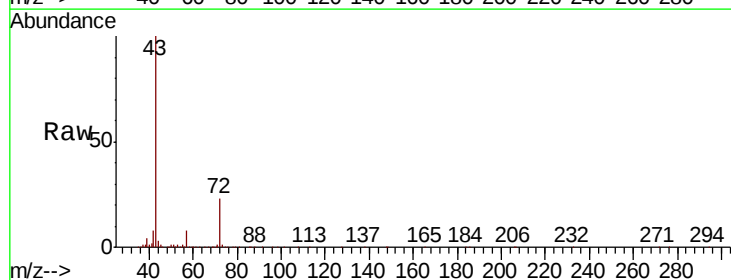
Acq: 14 Nov 2018 9:32

Tgt Ion: 43 Resp: 2020997

Ion Ratio Lower Upper

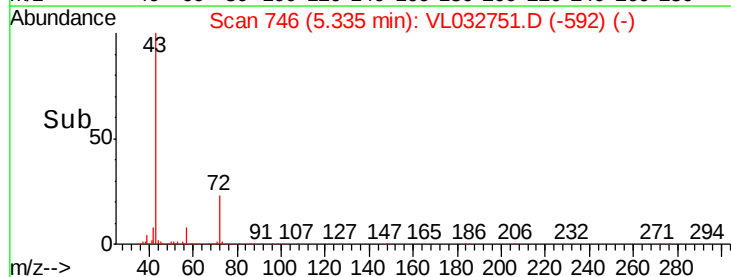
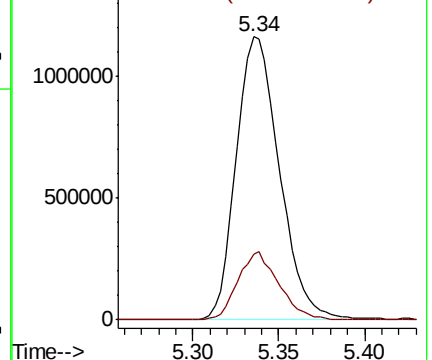
43 100

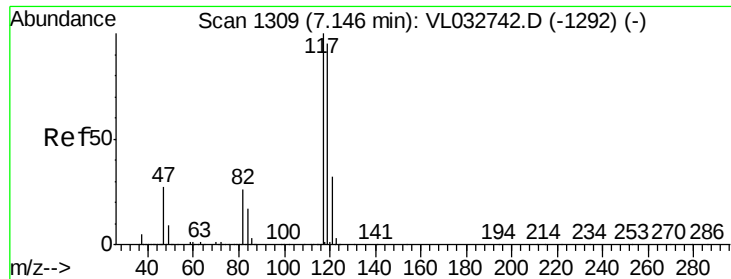
72 23.1 18.4 27.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





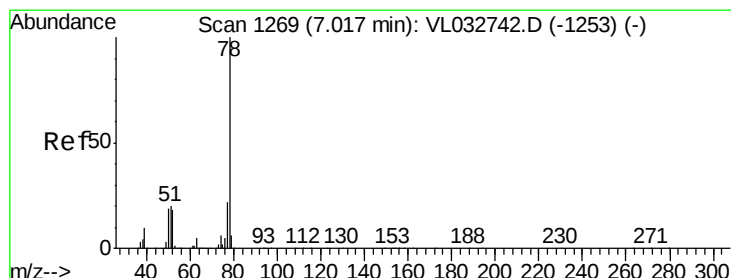
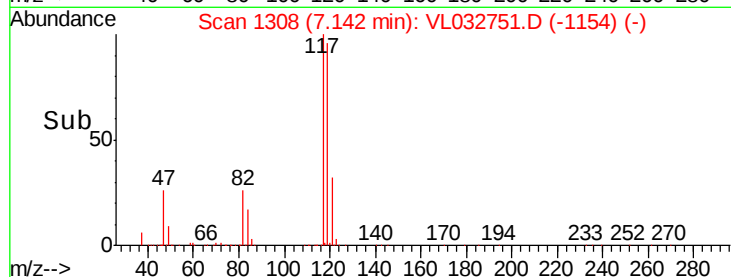
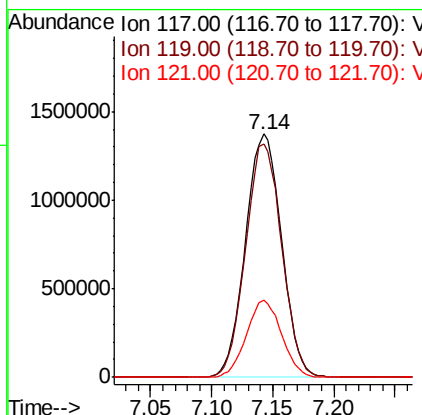
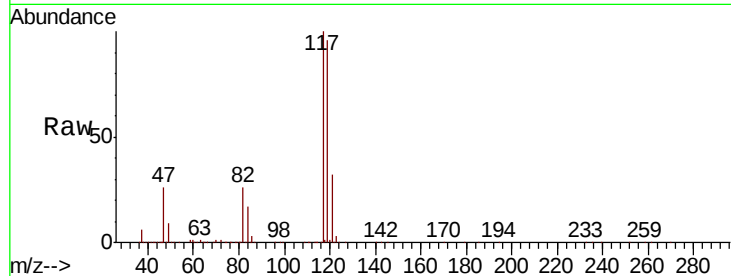
#35  
Carbon Tetrachloride  
Concen: 8.745 ppbv  
RT: 7.14 min Scan# 1308  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 119     | 95.9  | 76.1  | 114.1 |
| 121     | 31.7  | 25.4  | 38.0  |

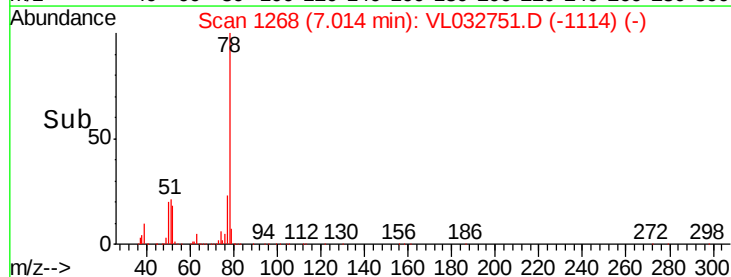
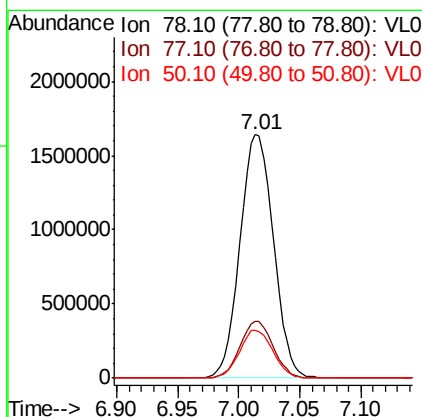
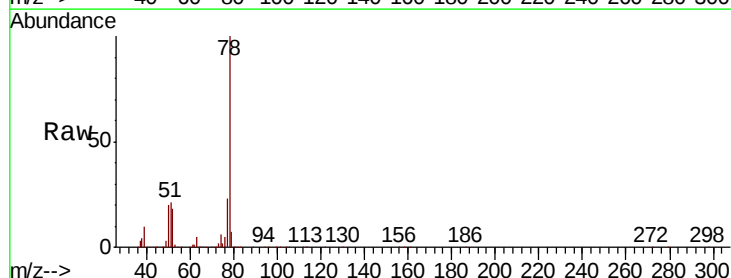
Manual Integrations  
APPROVED

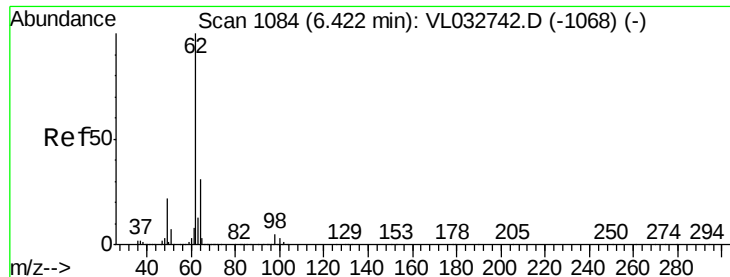
MMDadoda  
11/16/2018 1:29:51 PM



#36  
Benzene  
Concen: 9.755 ppbv  
RT: 7.01 min Scan# 1268  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 23.3  | 17.8  | 26.8  |
| 50      | 19.7  | 15.4  | 23.0  |





#37

1,2-Dichloroethane

Concen: 9.296 ppbv

RT: 6.42 min Scan# 1084

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion: 62 Resp: 1991386

Ion Ratio Lower Upper

62 100

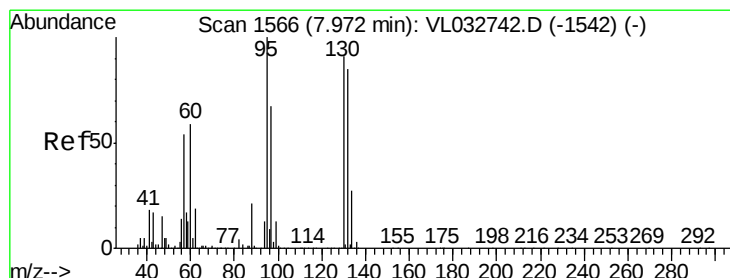
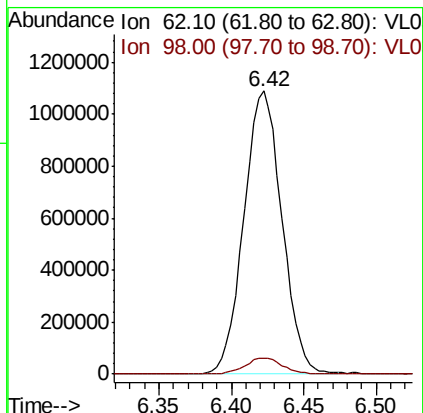
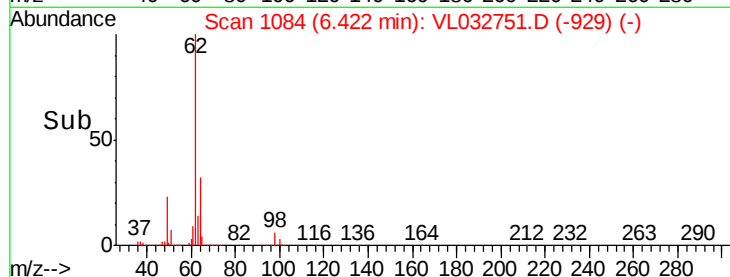
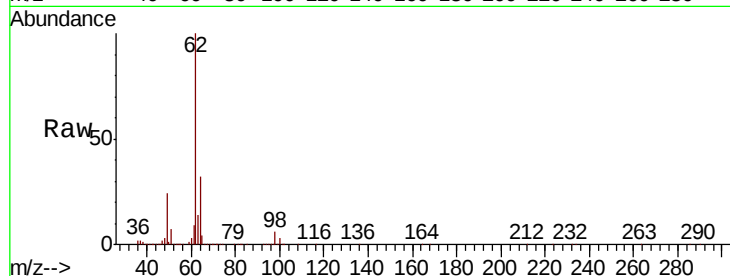
98 5.7 4.5 6.7

Manual Integrations

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11/16/2018 1:29:51 PM



#38

Trichloroethene

Concen: 9.559 ppbv

RT: 7.97 min Scan# 1565

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Tgt Ion: 130 Resp: 1231067

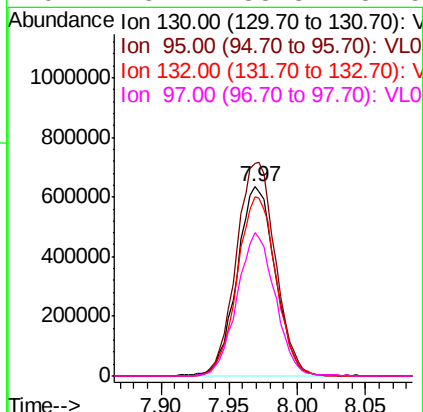
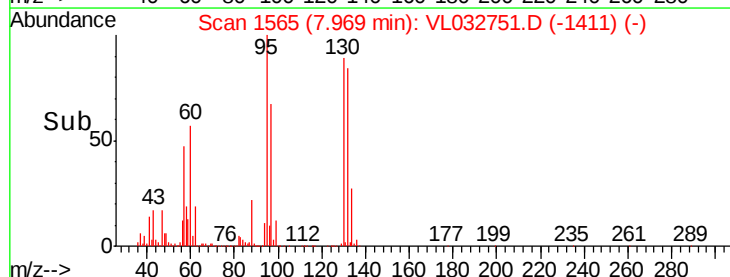
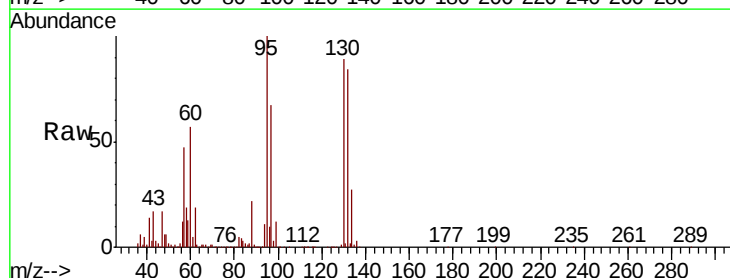
Ion Ratio Lower Upper

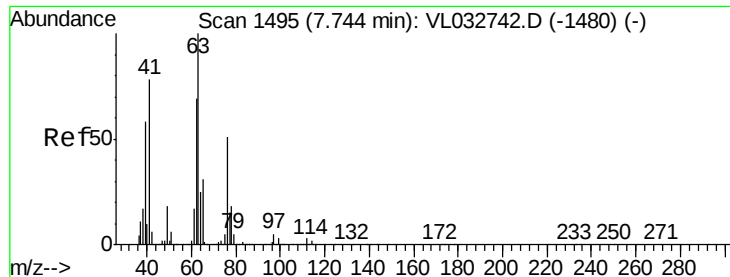
130 100

95 112.4 87.7 131.5

132 94.7 74.6 111.8

97 75.7 58.3 87.5





#39

1,2-Dichloropropane

Concen: 9.634 ppbv

RT: 7.75 min Scan# 1496

Delta R.T. 0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion: 63 Resp: 1168060

Ion Ratio Lower Upper

63 100

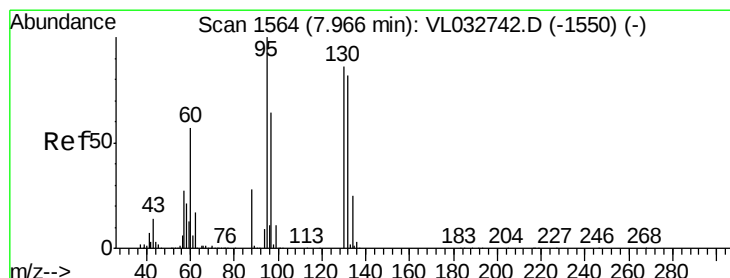
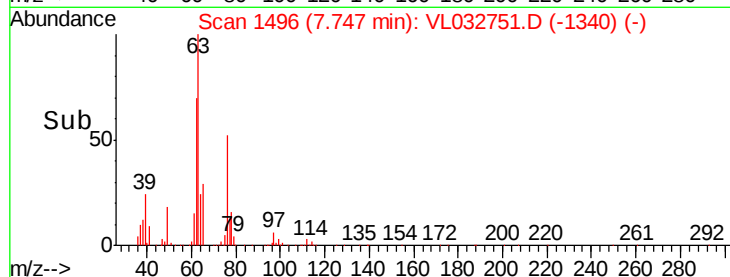
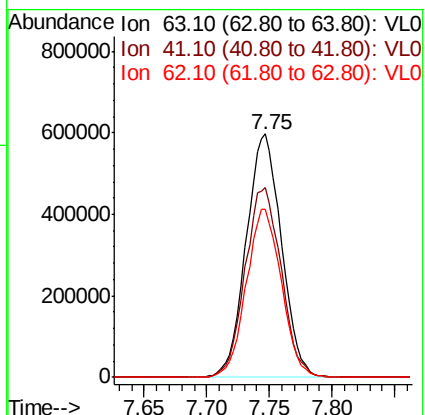
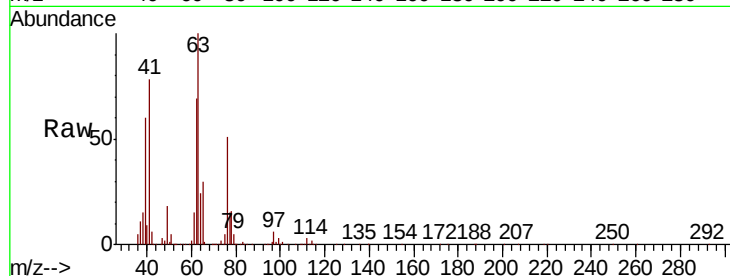
41 78.0 62.0 93.0

62 69.1 55.4 83.2

Manual Integrations  
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#40

1,4-Dioxane

Concen: 9.622 ppbv

RT: 7.96 min Scan# 1563

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Tgt Ion: 88 Resp: 416663

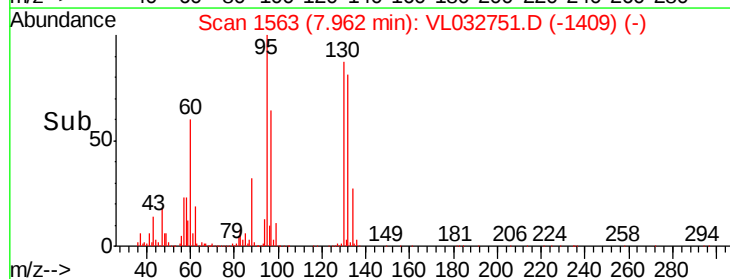
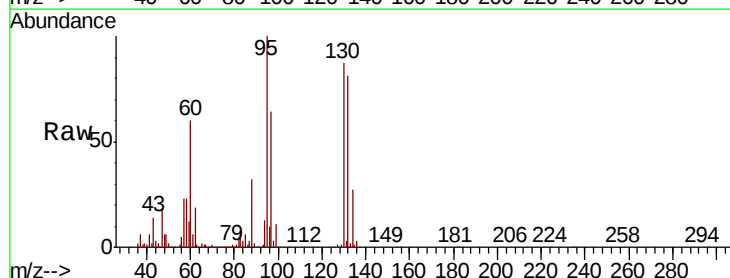
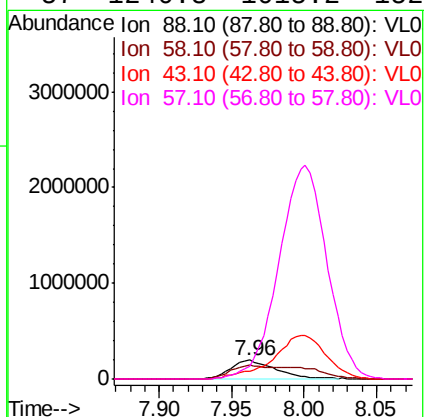
Ion Ratio Lower Upper

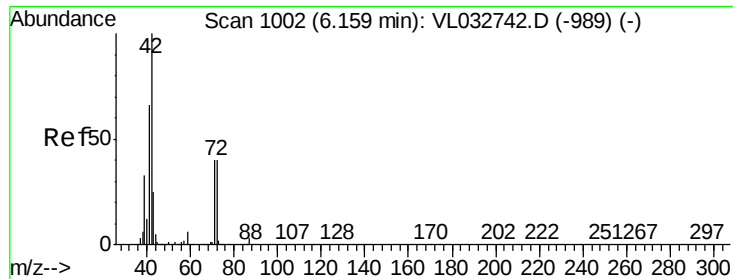
88 100

58 131.2 105.3 157.9

43 278.5 226.1 339.1

57 1240.8 1015.2 1522.8





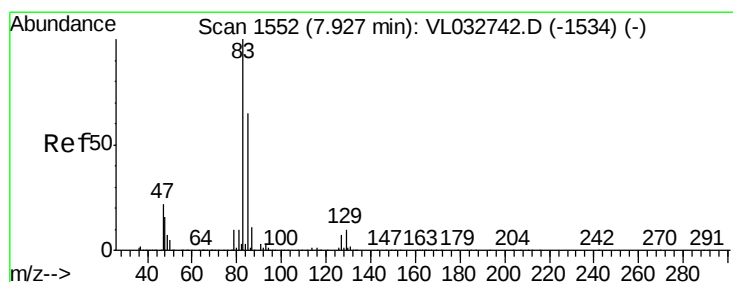
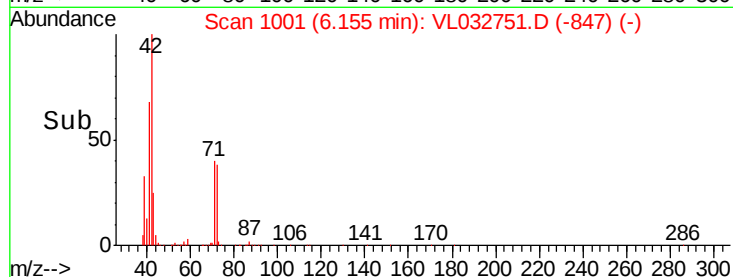
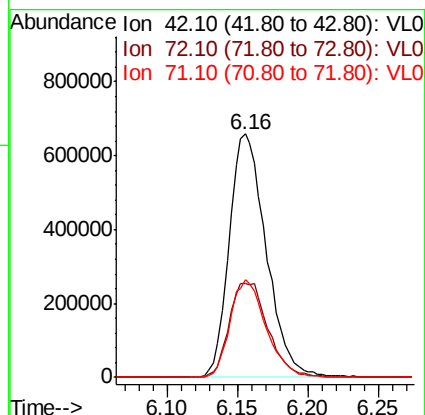
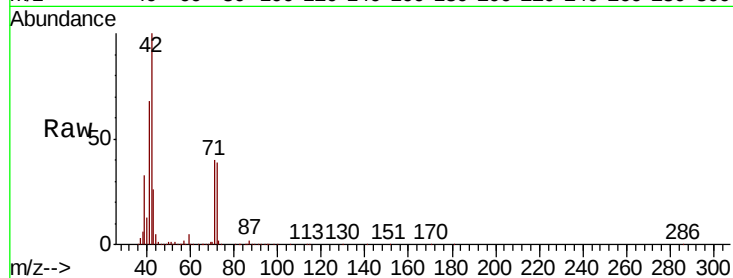
#41  
Tetrahydrofuran  
Concen: 10.177 ppbv  
RT: 6.16 min Scan# 1001  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 41.0  | 32.4  | 48.6  |
| 71      | 39.2  | 31.6  | 47.4  |

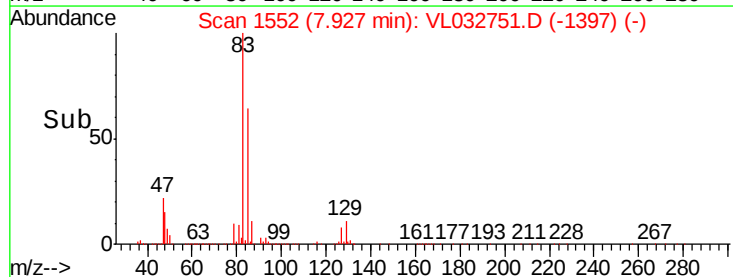
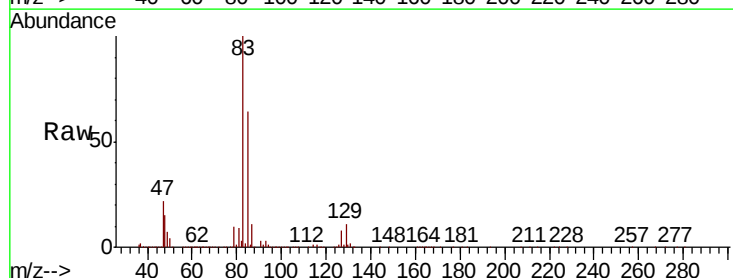
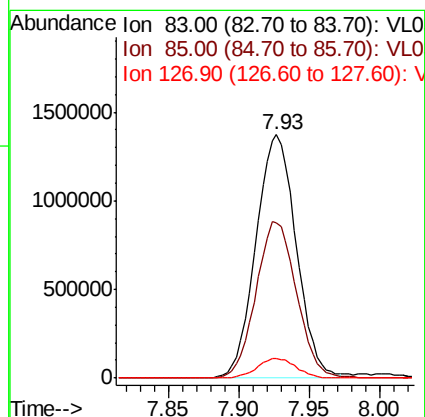
Manual Integrations  
APPROVED

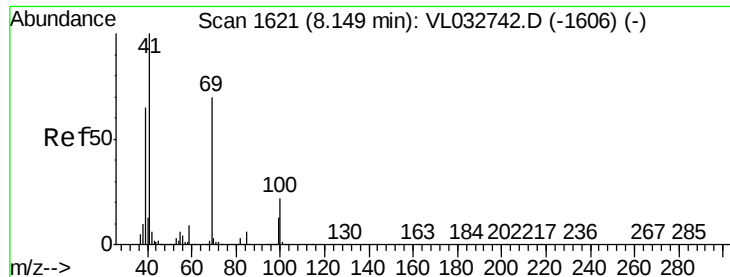
MMDadoda  
11/16/2018 1:29:51 PM



#42  
Bromodichloromethane  
Concen: 9.426 ppbv  
RT: 7.93 min Scan# 1552  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 63.6  | 51.8  | 77.8  |
| 127     | 8.0   | 5.9   | 8.9   |





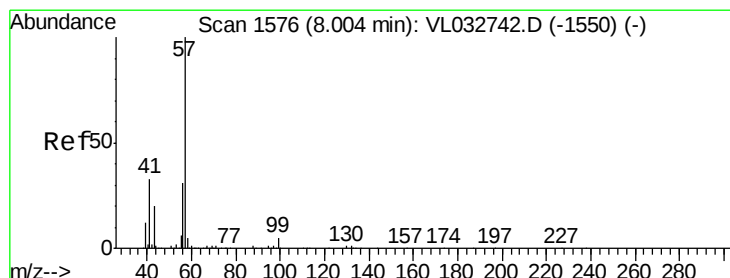
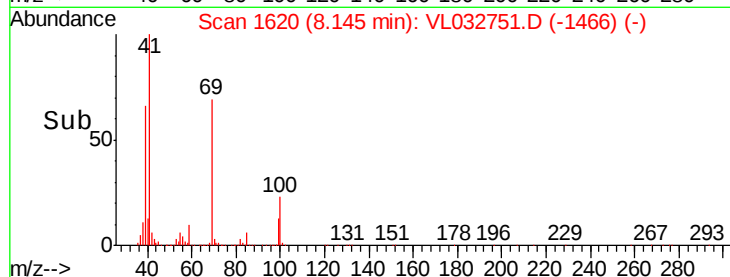
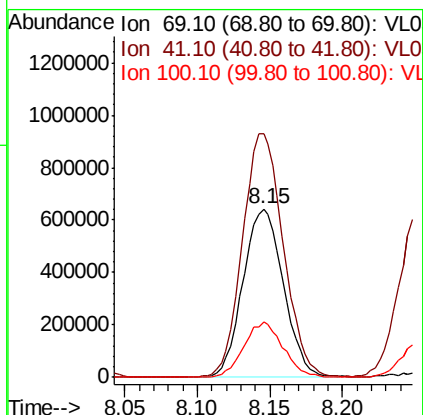
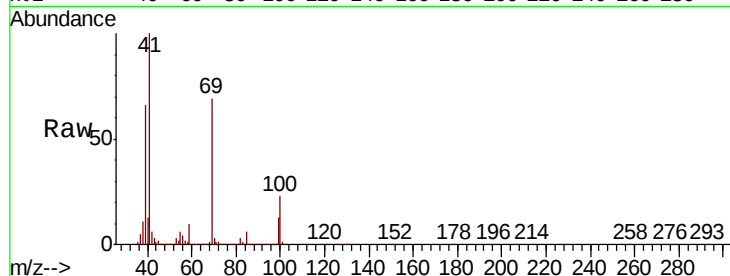
#43  
Methvl Methacrvlate  
Concen: 10.514 ppbv  
RT: 8.15 min Scan# 1620  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS01

Tot Ion: 69 Resp: 1249069  
Ion Ratio Lower Upper  
69 100  
41 145.4 115.0 172.4  
100 31.9 25.4 38.0

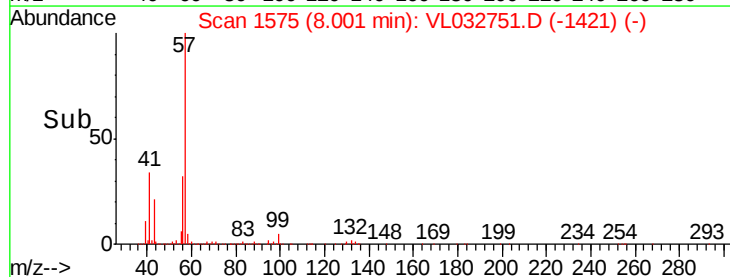
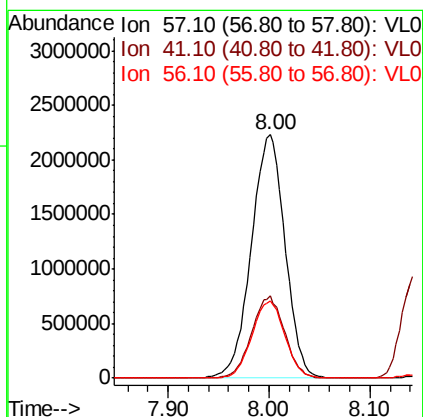
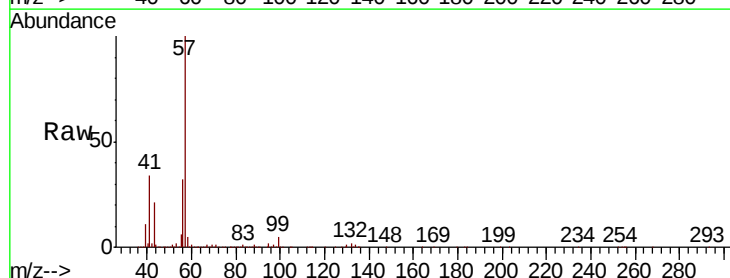
Manual Integrations  
APPROVED

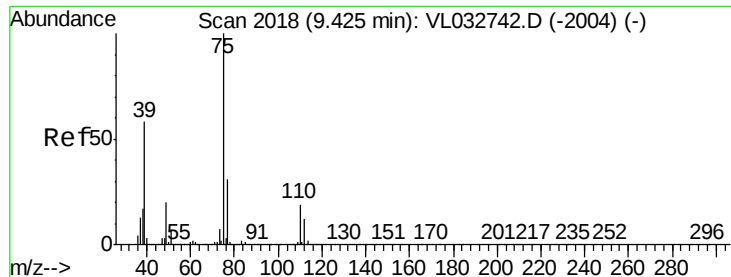
MMDadoda  
11/16/2018 1:29:51 PM



#44  
2,2,4-Trimethylpentane  
Concen: 9.713 ppbv  
RT: 8.00 min Scan# 1575  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Tgt Ion: 57 Resp: 5165185  
Ion Ratio Lower Upper  
57 100  
41 32.7 26.6 39.8  
56 31.1 24.8 37.2





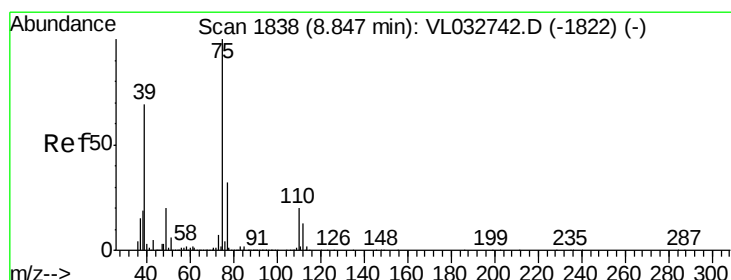
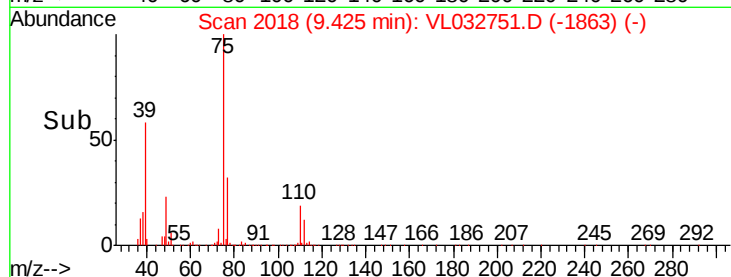
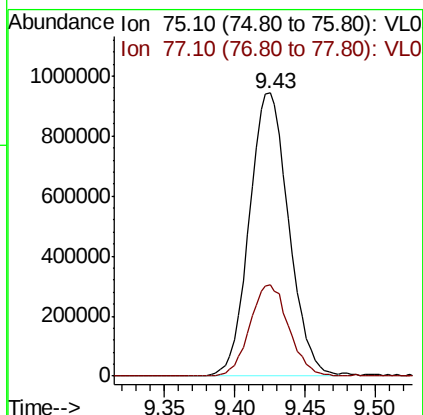
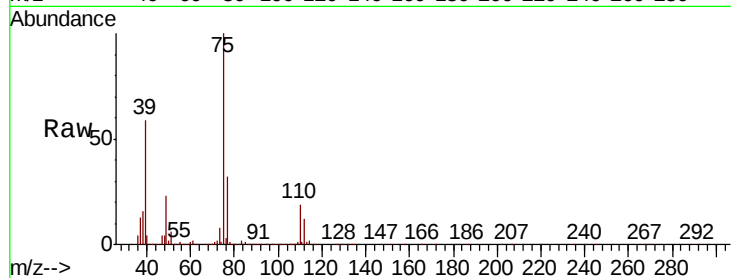
#45  
t-1,3-Dichloropropene  
Concen: 11.579 ppbv  
RT: 9.43 min Scan# 2018  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS01

Tot Ion: 75 Resp: 1845799  
Ion Ratio Lower Upper  
75 100  
77 32.4 24.6 36.8

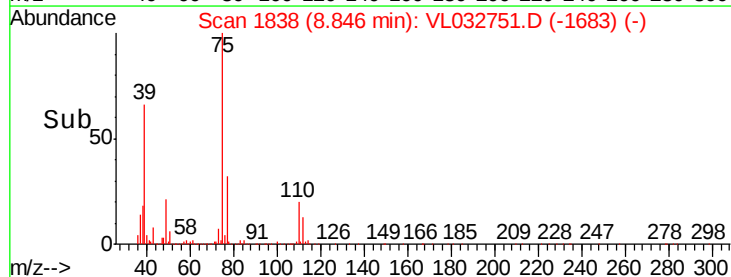
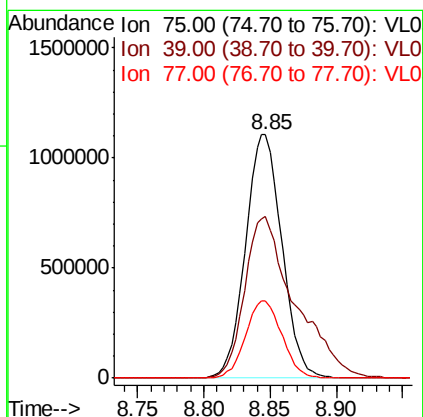
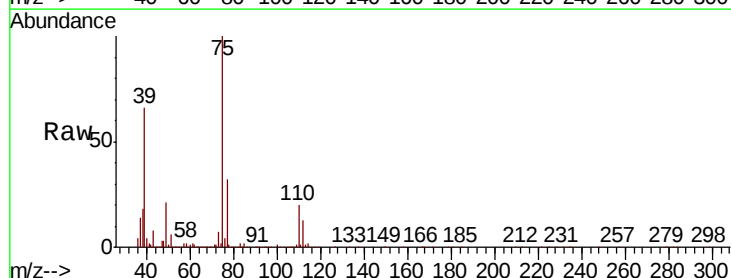
Manual Integrations  
APPROVED

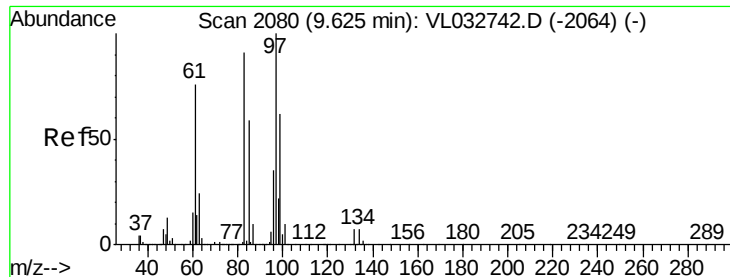
MMDadoda  
11/16/2018 1:29:51 PM



#46  
cis-1,3-Dichloropropene  
Concen: 10.955 ppbv  
RT: 8.85 min Scan# 1838  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Tgt Ion: 75 Resp: 2109911  
Ion Ratio Lower Upper  
75 100  
39 66.1 55.2 82.8  
77 31.9 25.8 38.6





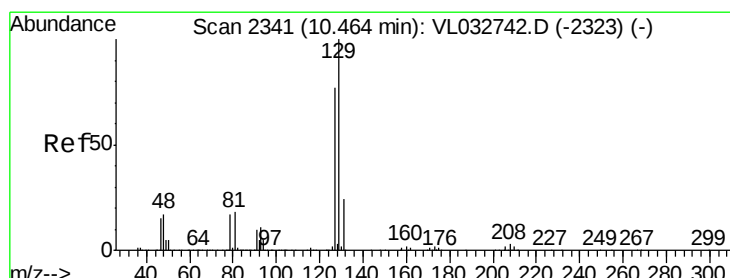
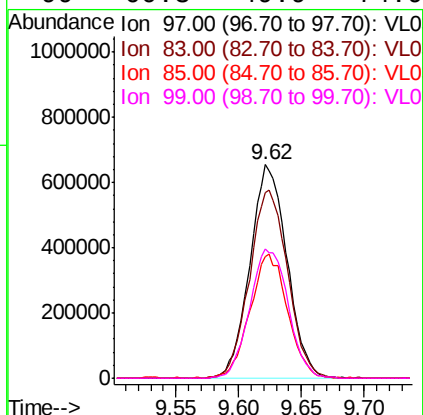
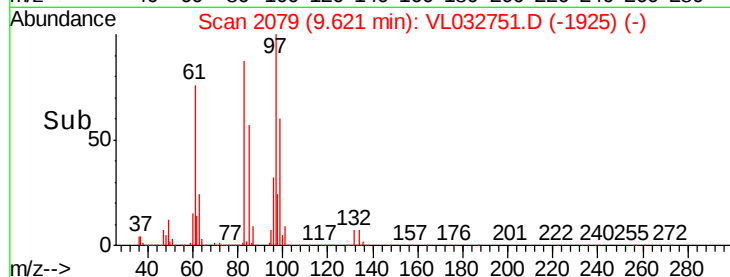
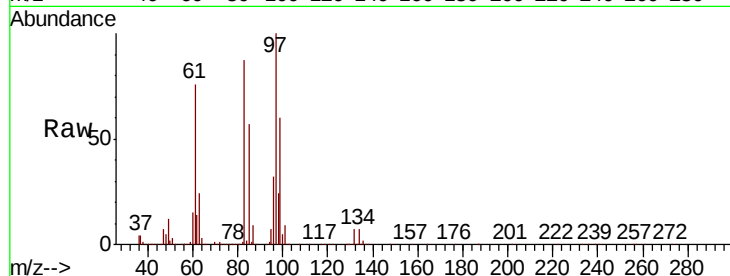
#47  
 1,1,2-Trichloroethane  
 Concen: 9.383 ppbv  
 RT: 9.62 min Scan# 2079  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 83      | 86.6  | 73.0  | 109.4 |
| 85      | 56.9  | 47.0  | 70.4  |
| 99      | 60.3  | 49.9  | 74.9  |

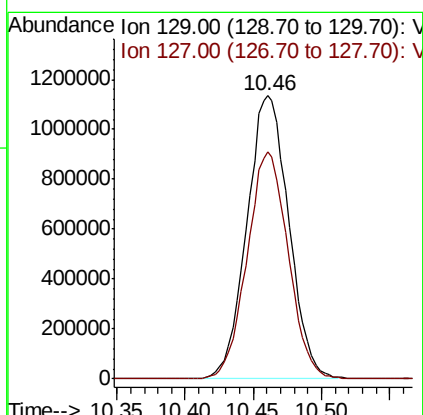
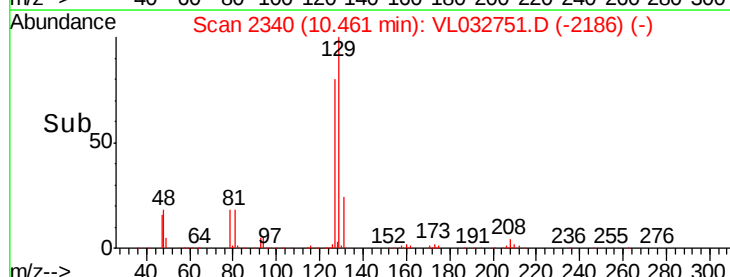
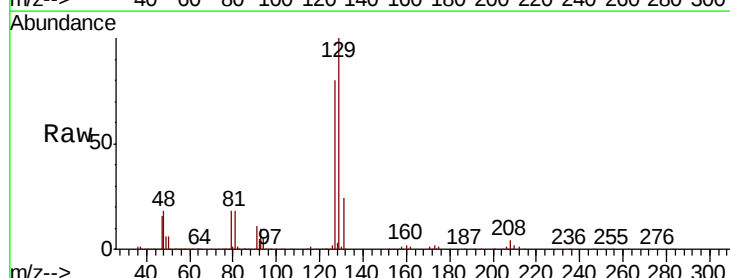
Manual Integrations  
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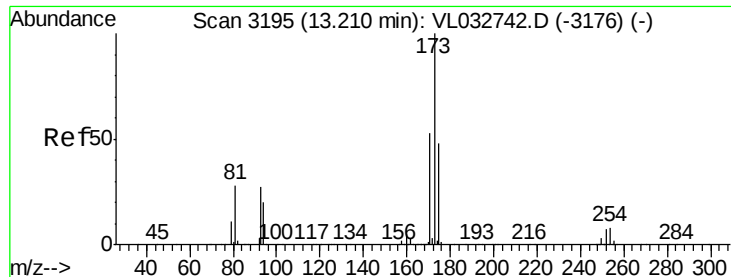
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 11/16/2018 1:29:51 PM



#48  
 Dibromochloromethane  
 Concen: 9.931 ppbv  
 RT: 10.46 min Scan# 2340  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 129     | 100   |       |       |
| 127     | 79.0  | 39.0  | 117.0 |





#49

Bromoform

Concen: 9.226 ppbv

RT: 13.21 min Scan# 3195

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion:173 Resp: 1856518

Ion Ratio Lower Upper

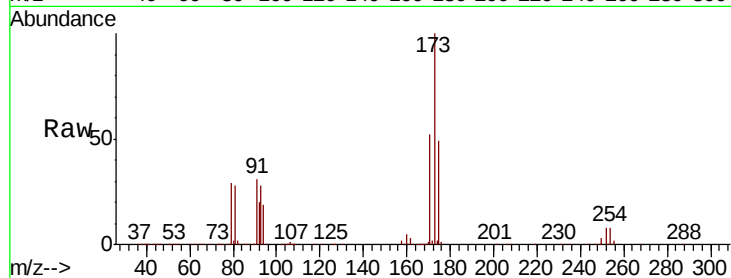
173 100

175 48.6 39.4 59.0

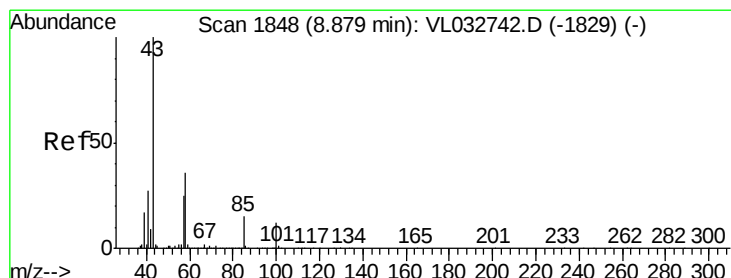
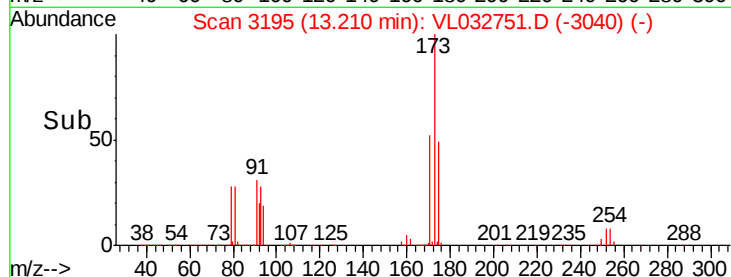
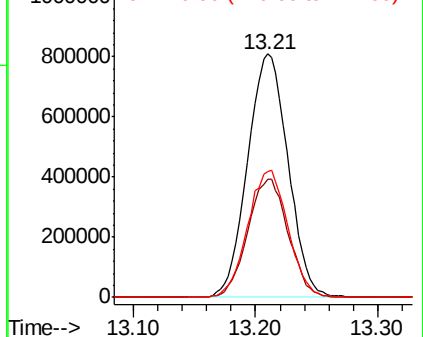
171 51.8 42.0 63.0

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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: 10.096 ppbv

RT: 8.88 min Scan# 1847

Delta R.T. -0.00 min

Lab File: VL032751.D

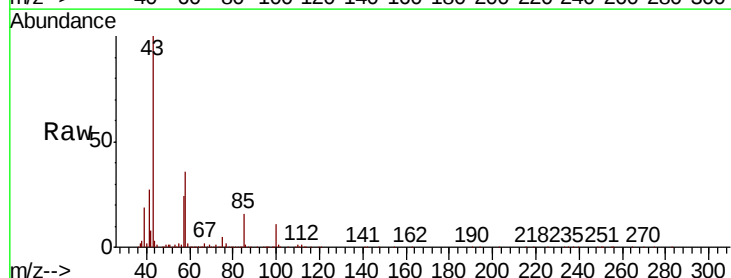
Acq: 14 Nov 2018 9:32

Tgt Ion: 43 Resp: 3268342

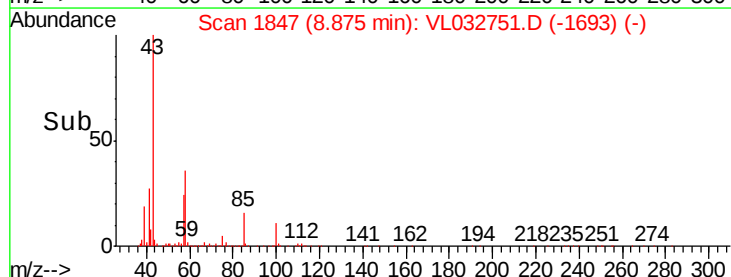
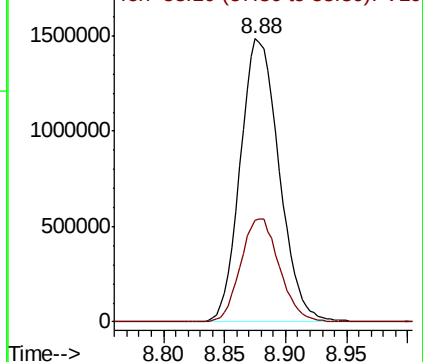
Ion Ratio Lower Upper

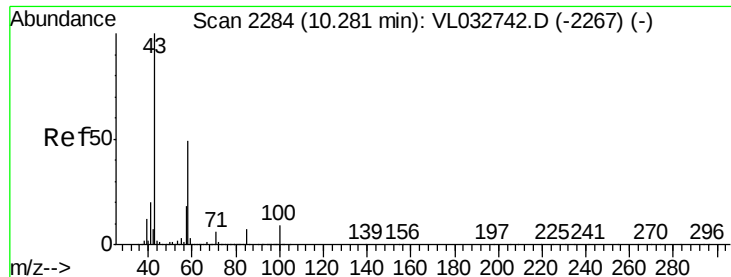
43 100

58 36.2 28.8 43.2



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





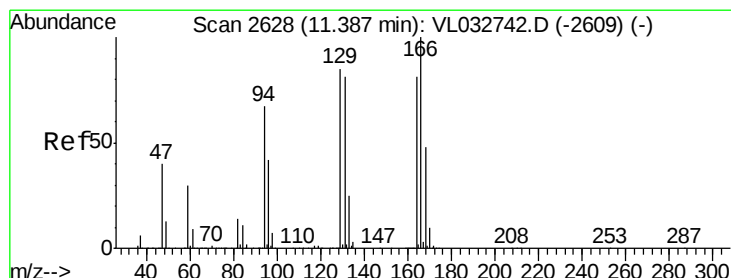
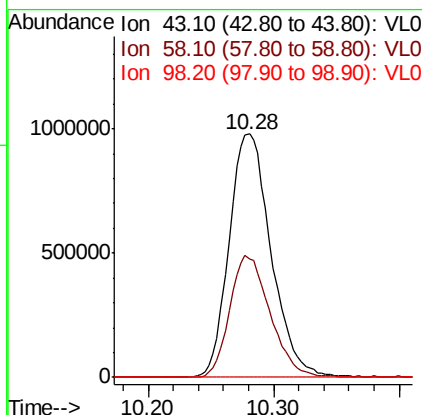
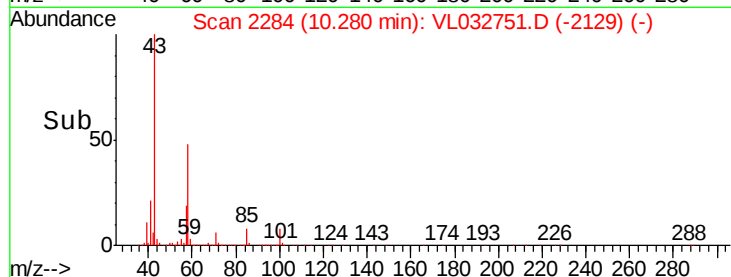
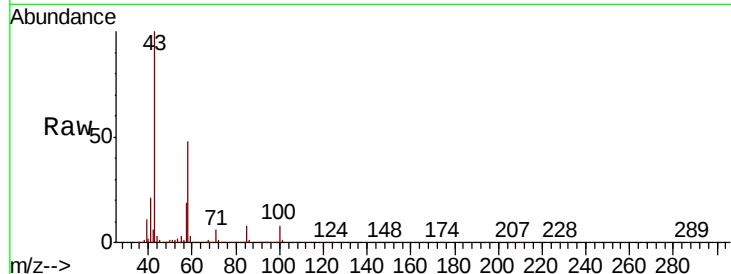
#51  
2-Hexanone  
Concen: 10.857 ppbv  
RT: 10.28 min Scan# 2284  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 48.6  | 38.9  | 58.3  |
| 98      | 0.4   | 0.2   | 0.4#  |

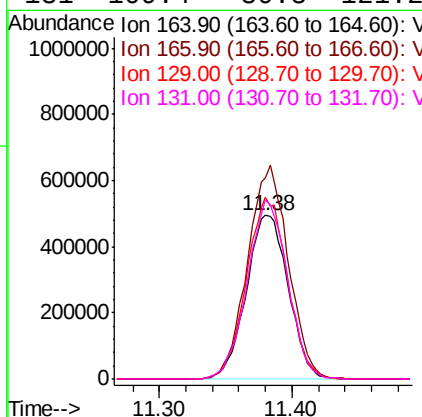
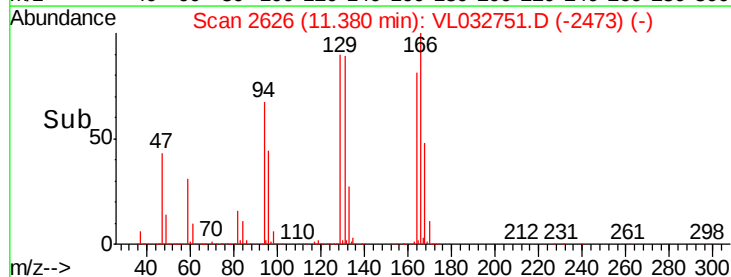
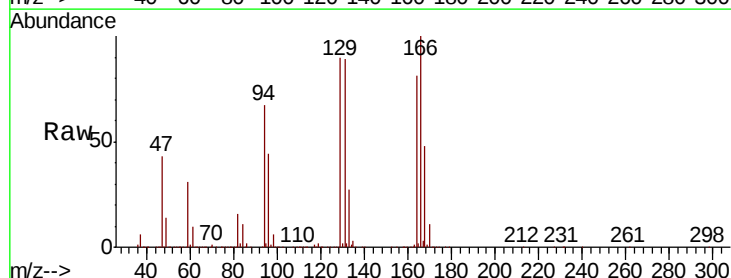
Manual Integrations  
APPROVED

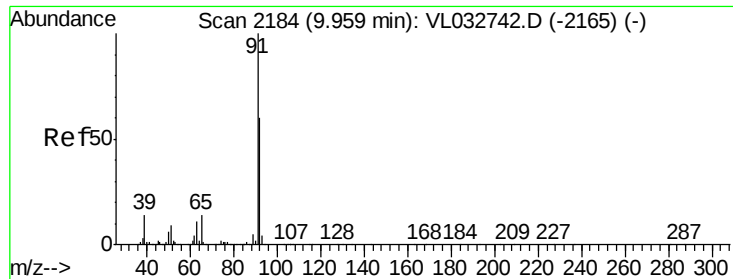
MMDadoda  
11/16/2018 1:29:51 PM



#52  
Tetrachloroethene  
Concen: 9.809 ppbv  
RT: 11.38 min Scan# 2626  
Delta R.T. -0.01 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 123.0 | 99.3  | 148.9 |
| 129     | 111.3 | 83.9  | 125.9 |
| 131     | 109.4 | 80.8  | 121.2 |





#53

Toluene

Concen: 10.728 ppbv

RT: 9.96 min Scan# 2183

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion: 91 Resp: 3561490

Ion Ratio Lower Upper

91 100

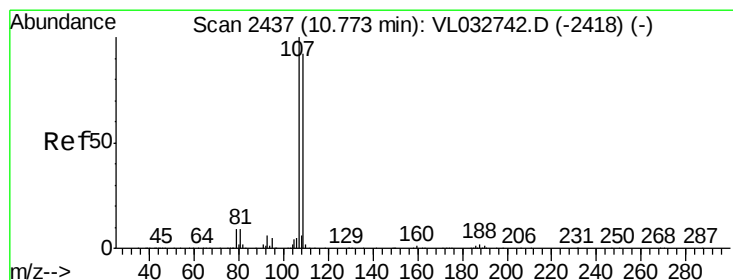
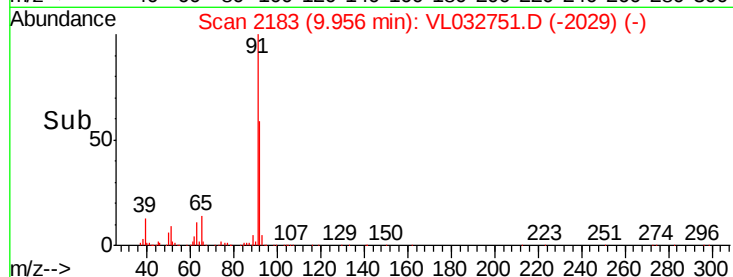
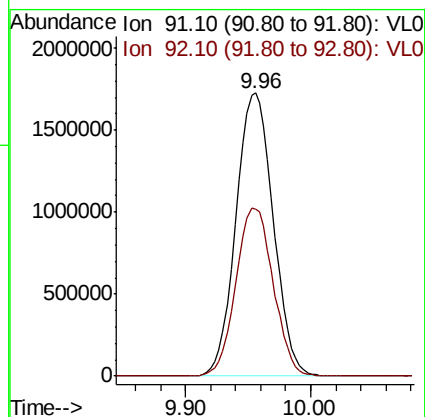
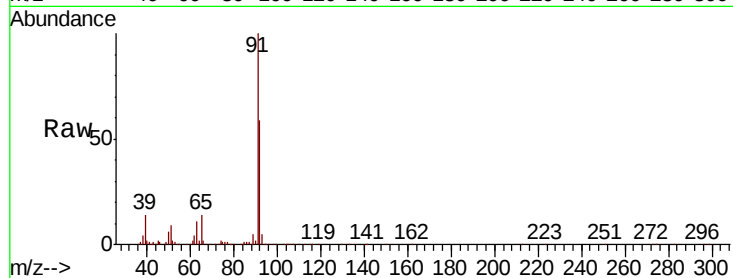
92 59.7 47.9 71.9

Manual Integrations

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MMDadoda

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#54

1,2-Dibromoethane

Concen: 9.699 ppbv

RT: 10.77 min Scan# 2436

Delta R.T. -0.00 min

Lab File: VL032751.D

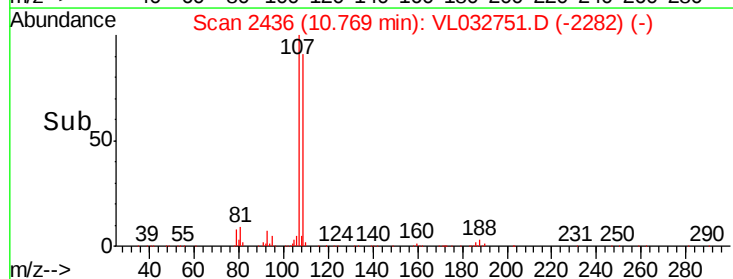
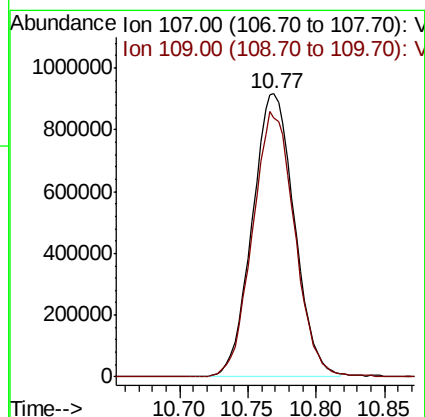
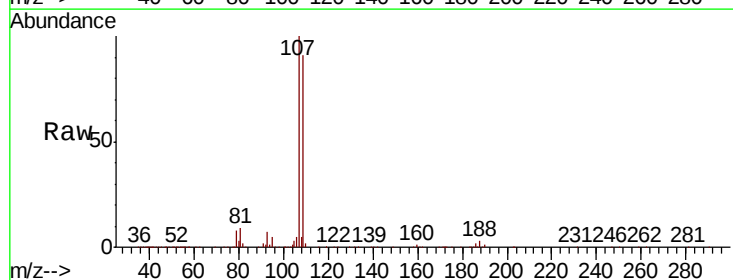
Acq: 14 Nov 2018 9:32

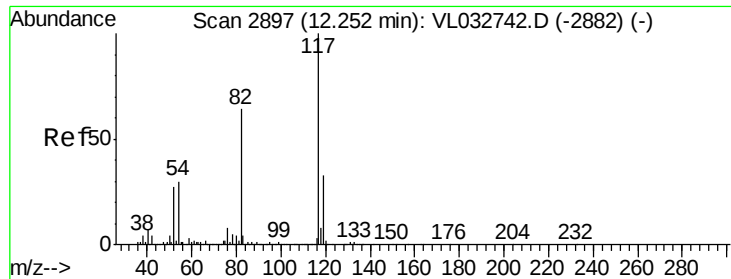
Tgt Ion: 107 Resp: 1965648

Ion Ratio Lower Upper

107 100

109 91.3 73.8 110.8





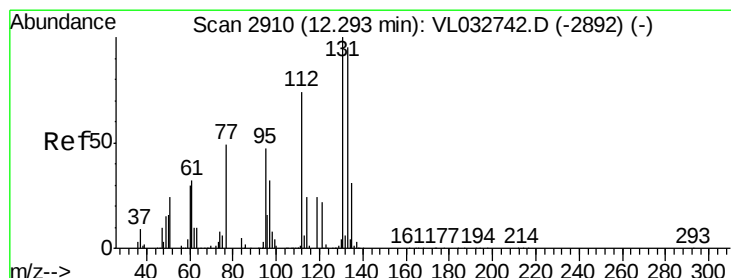
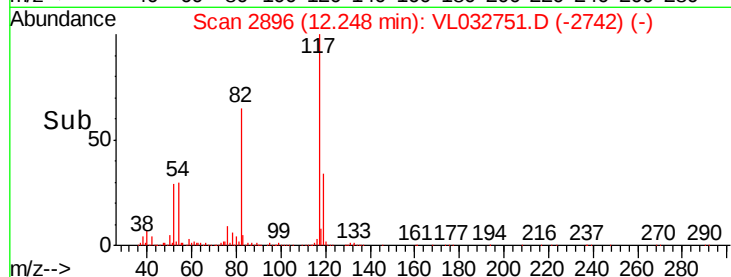
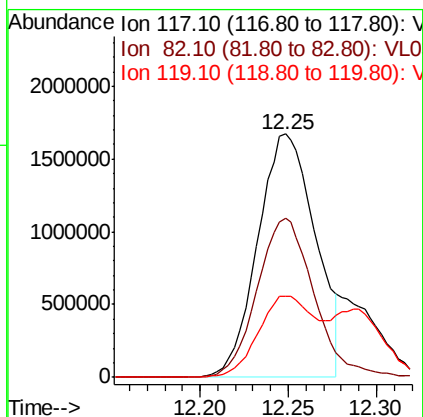
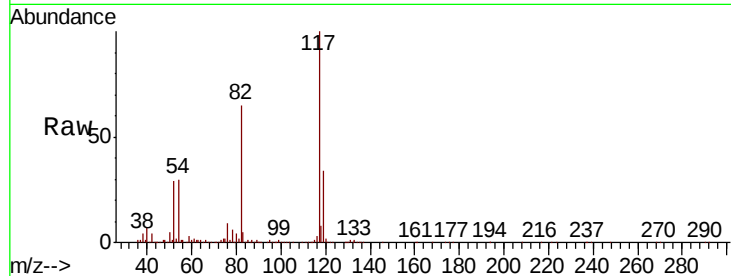
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv m  
RT: 12.25 min Scan# 2896  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 64.6  | 51.0  | 76.6  |
| 119     | 33.1  | 28.0  | 42.0  |

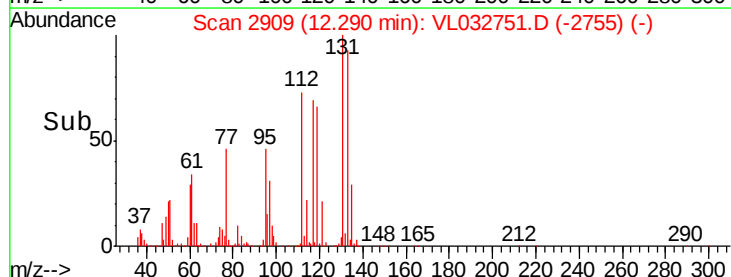
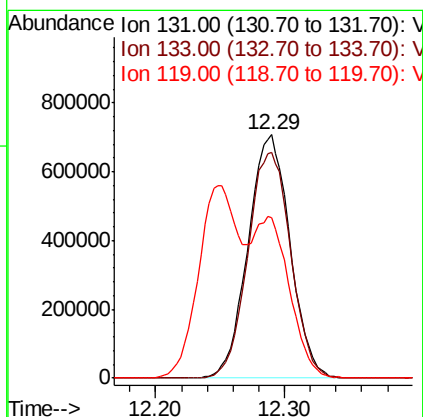
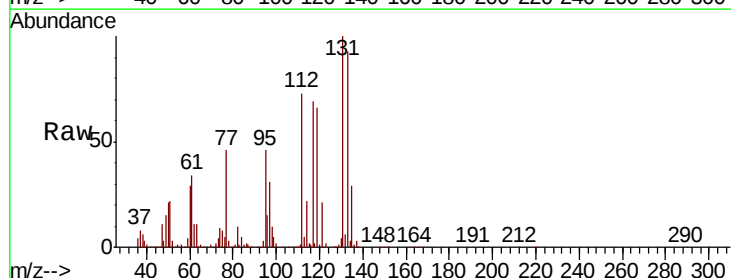
Manual Integrations  
APPROVED

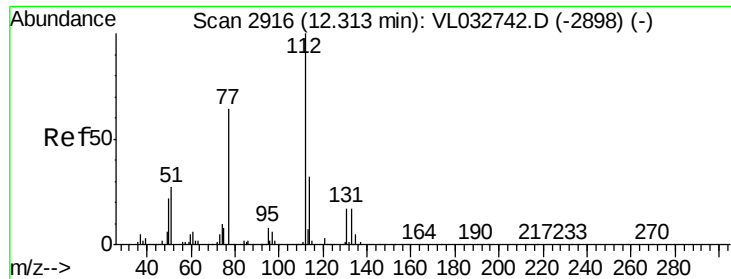
MMDadoda  
11/16/2018 1:29:51 PM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 9.024 ppbv  
RT: 12.29 min Scan# 2909  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 131     | 100   |       |       |
| 133     | 95.0  | 75.8  | 113.6 |
| 119     | 53.7  | 45.2  | 67.8  |





#57

Chlorobenzene

Concen: 9.150 ppbv

RT: 12.31 min Scan# 2915

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion:112 Resp: 2670020

Ion Ratio Lower Upper

112 100

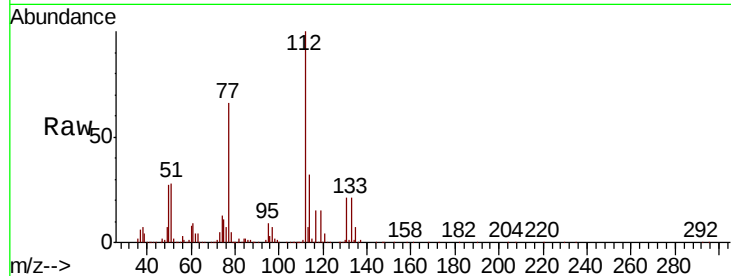
77 66.3 52.3 78.5

114 32.1 28.4 34.8

Manual Integrations  
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MMDadoda

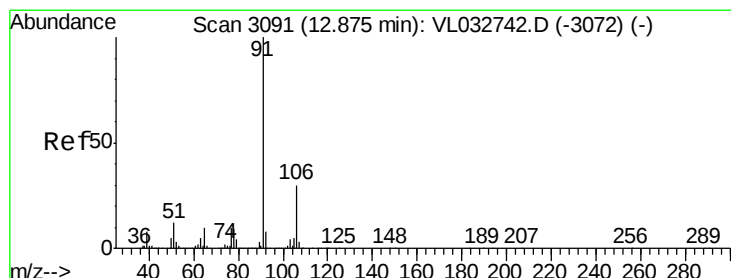
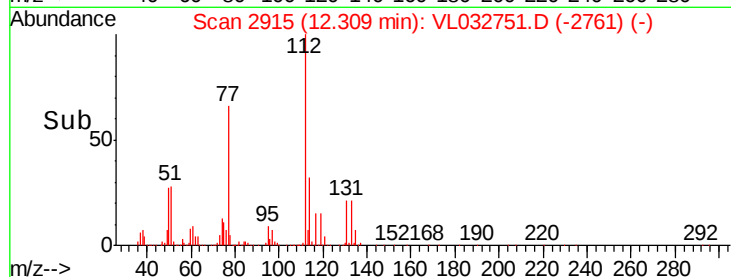
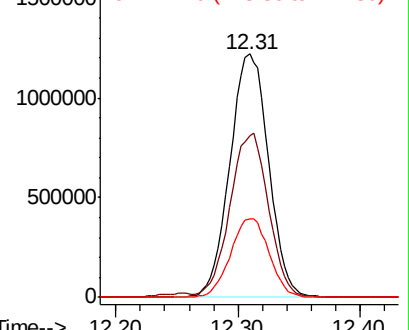
11/16/2018 1:29:51 PM



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: 10.299 ppbv

RT: 12.87 min Scan# 3090

Delta R.T. -0.00 min

Lab File: VL032751.D

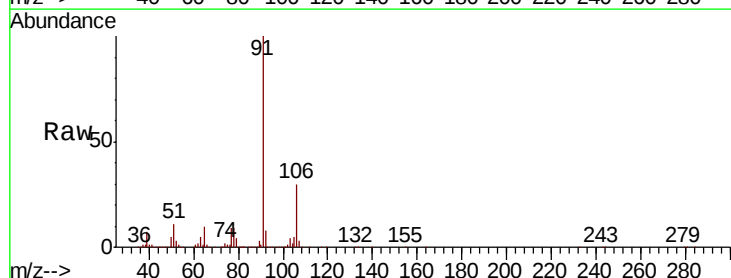
Acq: 14 Nov 2018 9:32

Tgt Ion: 91 Resp: 4724979

Ion Ratio Lower Upper

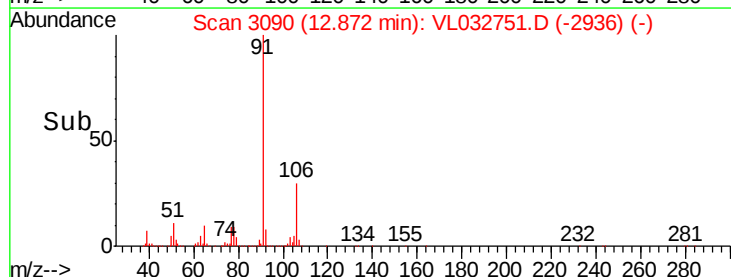
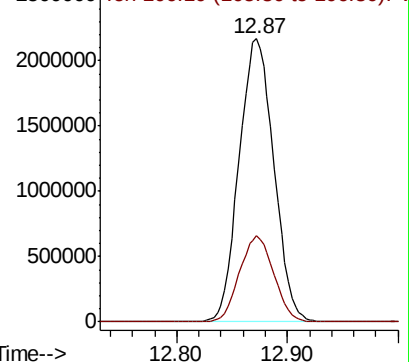
91 100

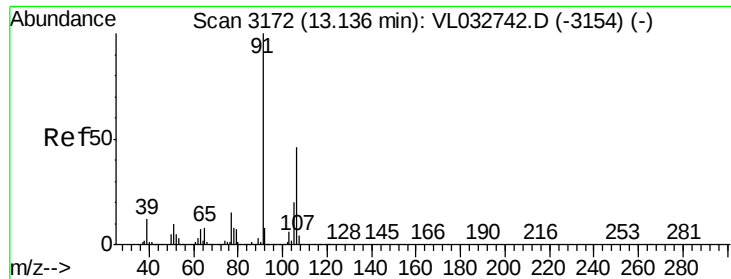
106 30.3 23.6 35.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





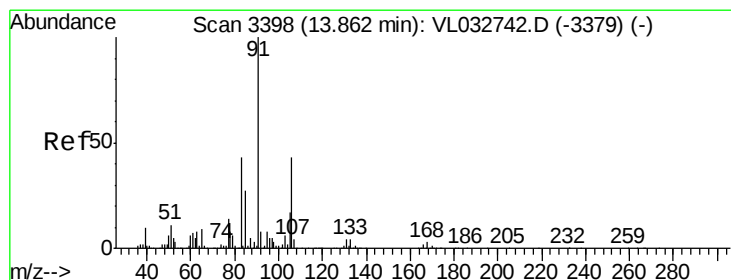
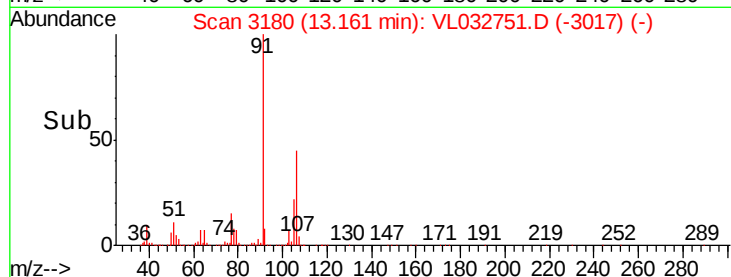
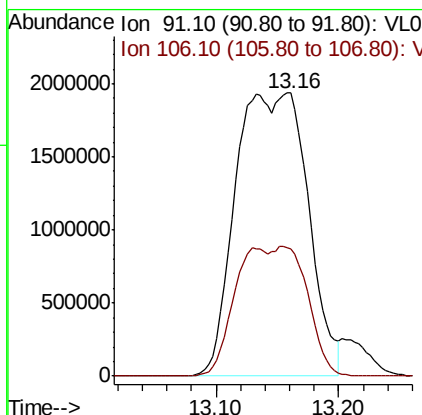
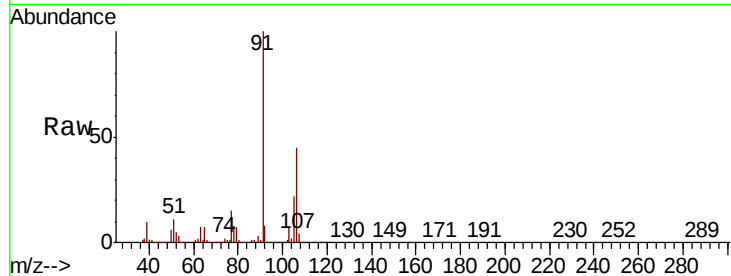
#59  
m/p-Xylene  
Concen: 19.357 ppbv m  
RT: 13.16 min Scan# 3180  
Delta R.T. 0.03 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS01

Tot Ion: 91 Resp: 7905726  
Ion Ratio Lower Upper  
91 100  
106 0.0 36.1 54.1#

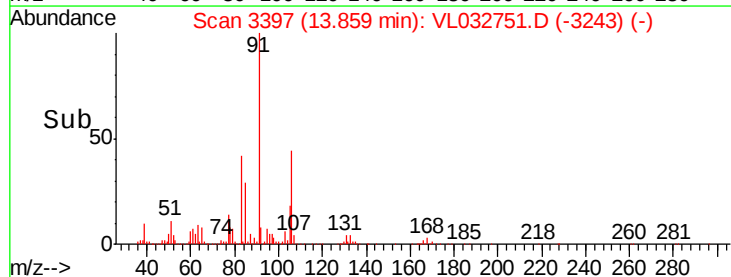
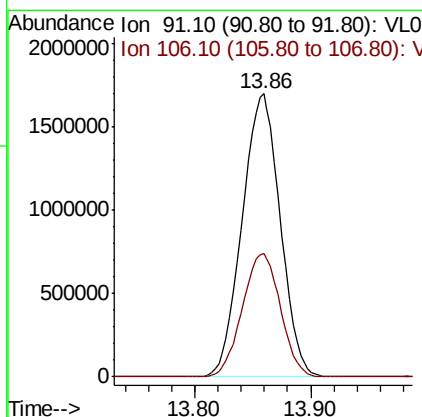
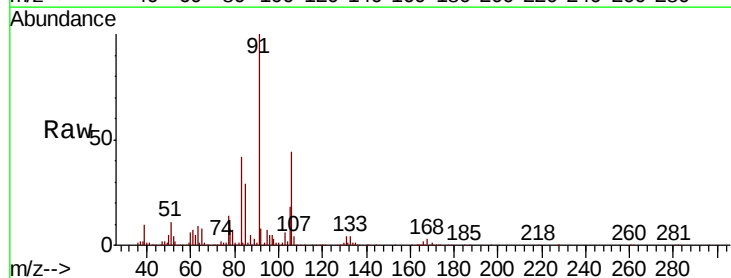
Manual Integrations  
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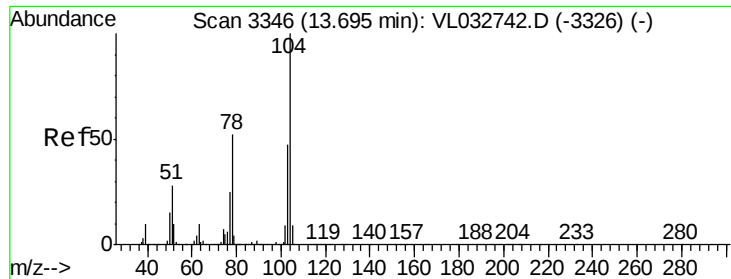
MMDadoda  
11/16/2018 1:29:51 PM



#60  
o-Xylene  
Concen: 9.420 ppbv  
RT: 13.86 min Scan# 3397  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Tgt Ion: 91 Resp: 3868306  
Ion Ratio Lower Upper  
91 100  
106 43.8 21.9 65.7





#61

Stvrene

Concen: 10.781 ppbv

RT: 13.69 min Scan# 3345

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion:104 Resp: 2882012

Ion Ratio Lower Upper

104 100

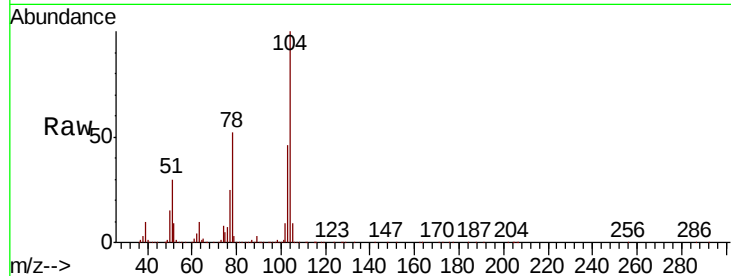
78 53.0 42.2 63.4

103 47.9 38.2 57.2

Manual Integrations  
APPROVED

MMDadoda

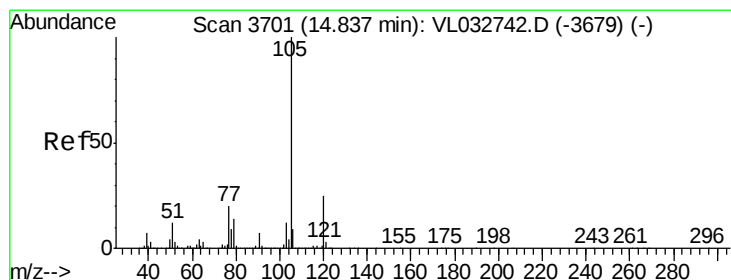
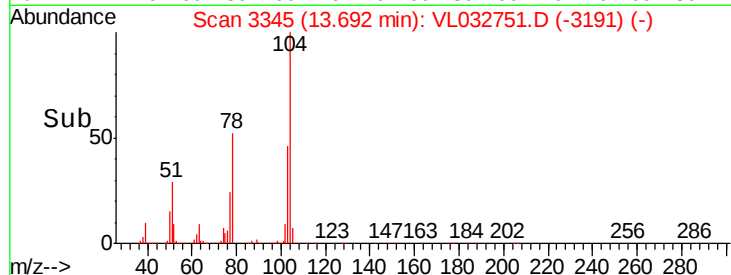
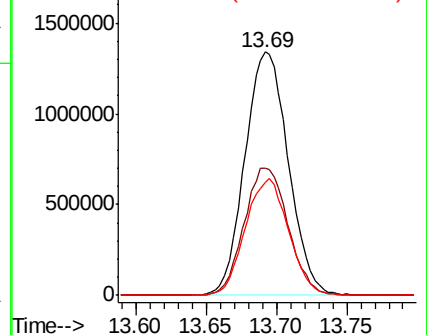
11/16/2018 1:29:51 PM



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#62

Isopropylbenzene

Concen: 9.663 ppbv

RT: 14.84 min Scan# 3701

Delta R.T. -0.00 min

Lab File: VL032751.D

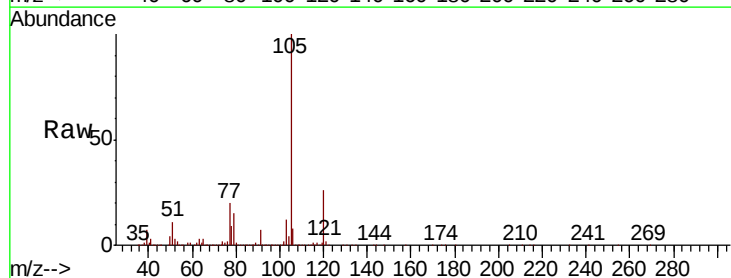
Acq: 14 Nov 2018 9:32

Tgt Ion:105 Resp: 5363841

Ion Ratio Lower Upper

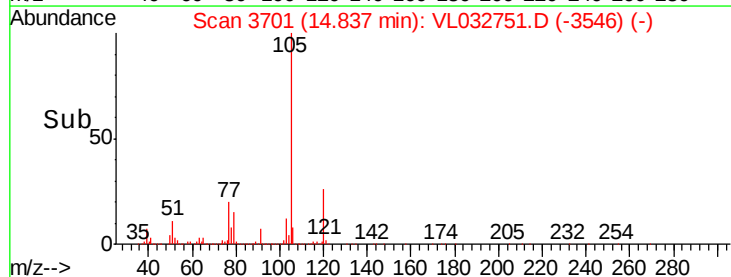
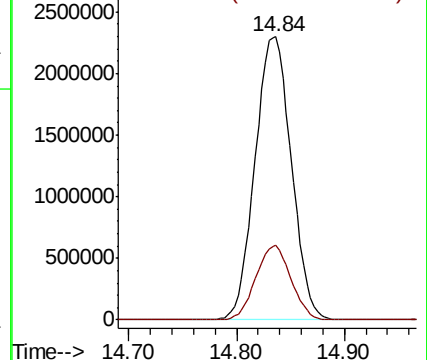
105 100

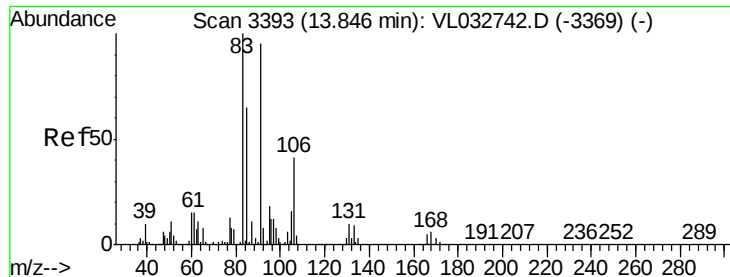
120 25.5 20.1 30.1



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





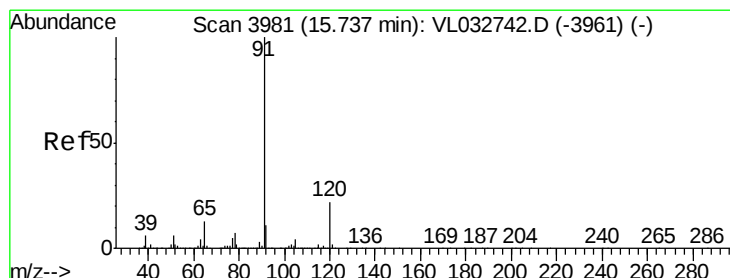
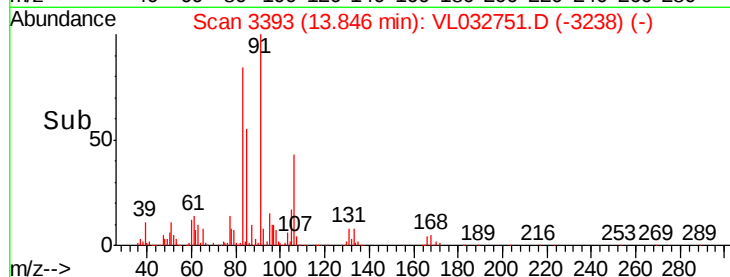
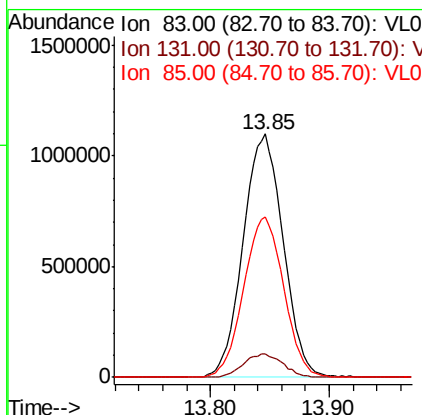
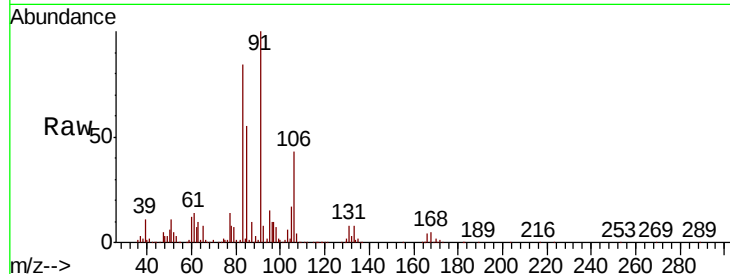
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 7.993 ppbv  
 RT: 13.85 min Scan# 3393  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 131     | 9.7   | 4.7   | 14.1  |
| 85      | 65.9  | 32.5  | 97.4  |

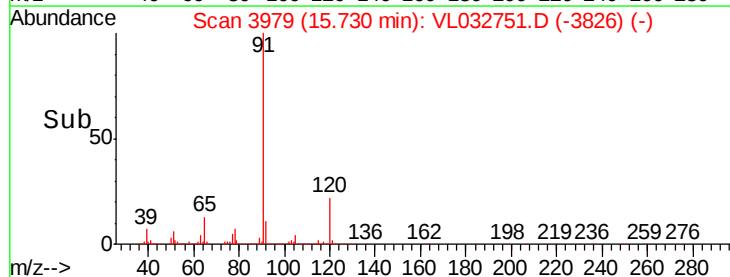
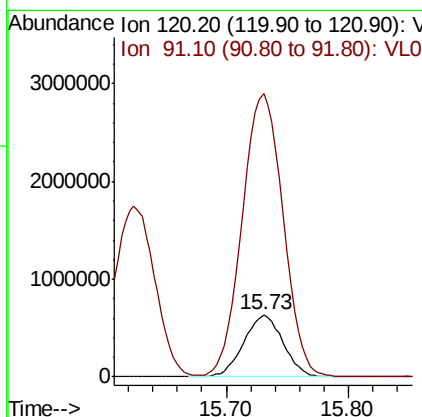
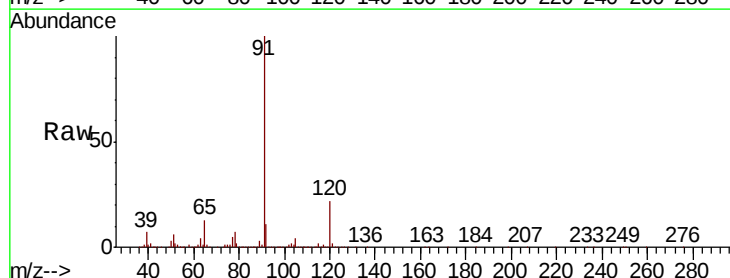
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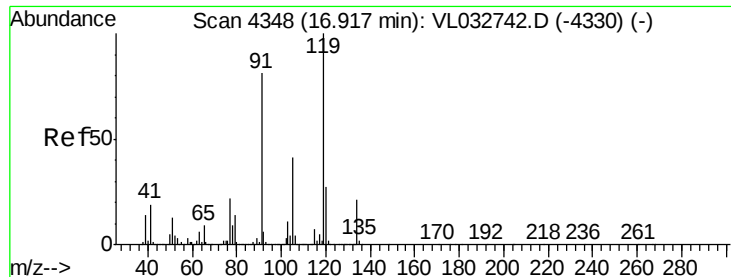
MMDadoda  
 11/16/2018 1:29:51 PM



#64  
 n-propylbenzene  
 Concen: 9.655 ppbv  
 RT: 15.73 min Scan# 3979  
 Delta R.T. -0.01 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 120     | 100   |       |       |
| 91      | 478.0 | 381.7 | 572.5 |





#65

tert-Butylbenzene

Concen: 9.650 ppbv

RT: 16.92 min Scan# 4348

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion:119 Resp: 4801790

Ion Ratio Lower Upper

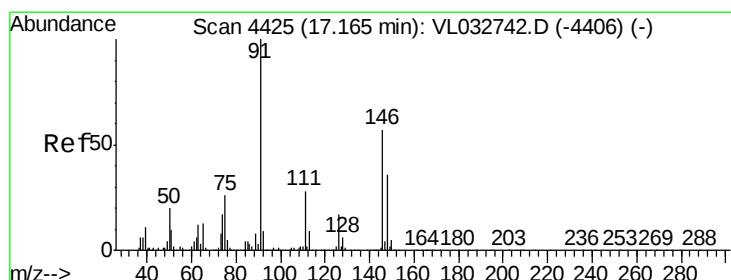
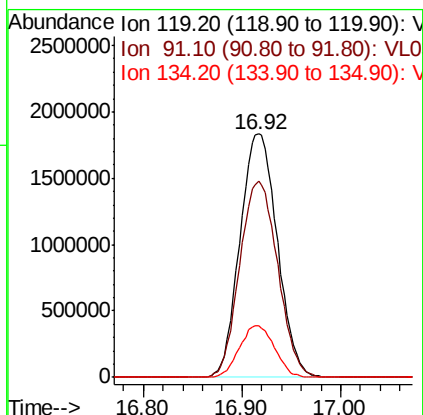
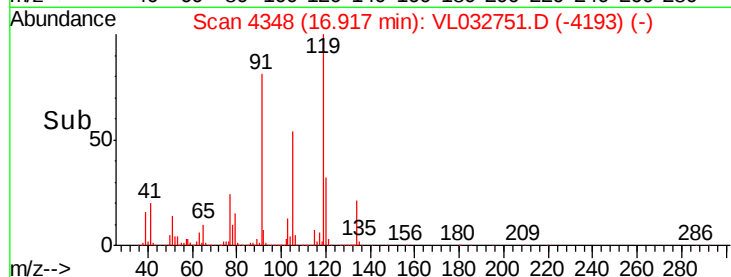
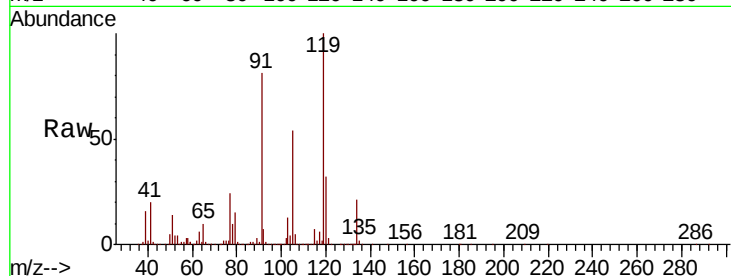
119 100

91 82.1 65.6 98.4

134 19.9 15.9 23.9

Manual Integrations  
APPROVED

MMDadoda  
11/16/2018 1:29:51 PM



#66

Benzyl Chloride

Concen: 10.078 ppbv

RT: 17.16 min Scan# 4424

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

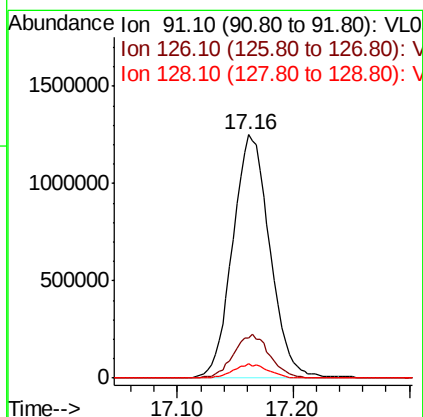
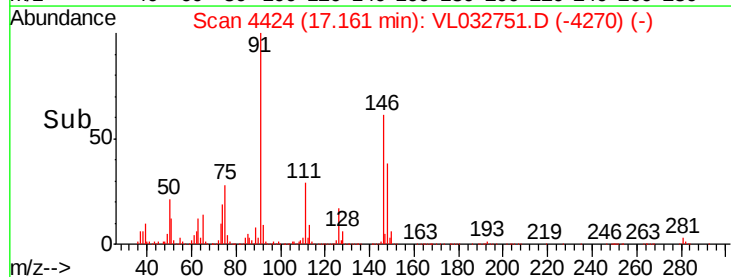
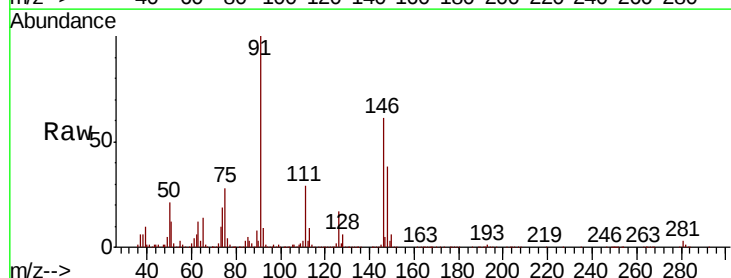
Tgt Ion: 91 Resp: 2772230

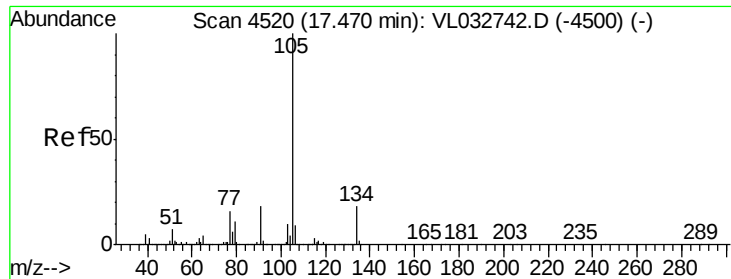
Ion Ratio Lower Upper

91 100

126 17.6 14.2 21.2

128 5.5 4.5 6.7





#67

sec-Butylbenzene

Concen: 9.496 ppbv

RT: 17.47 min Scan# 4519

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion: 105 Resp: 6809287

Ion Ratio Lower Upper

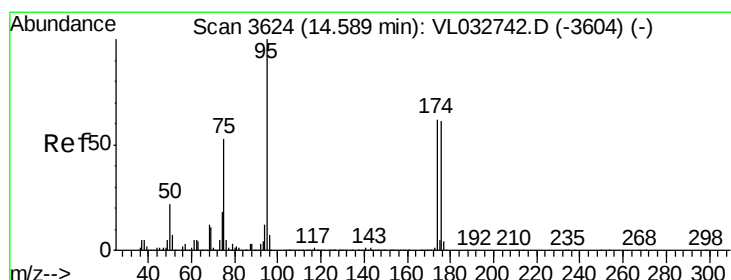
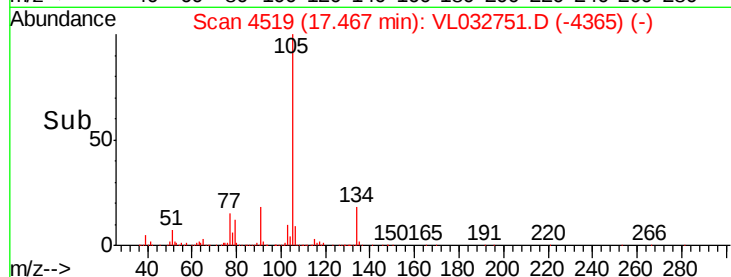
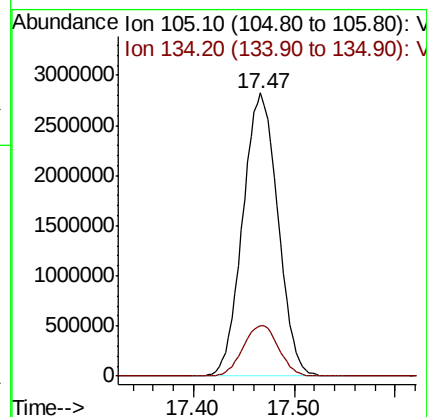
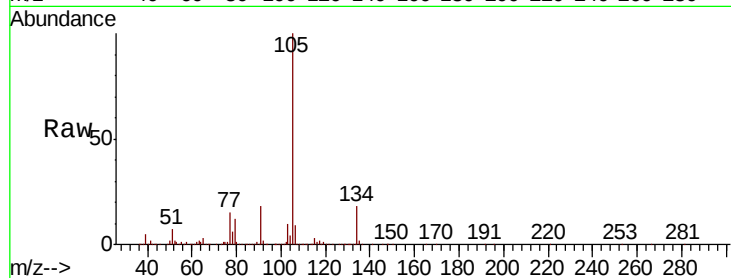
105 100

134 18.1 14.6 21.8

Manual Integrations  
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#68

1-Bromo-4-Fluorobenzene

Concen: 10.111 ppbv

RT: 14.59 min Scan# 3623

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

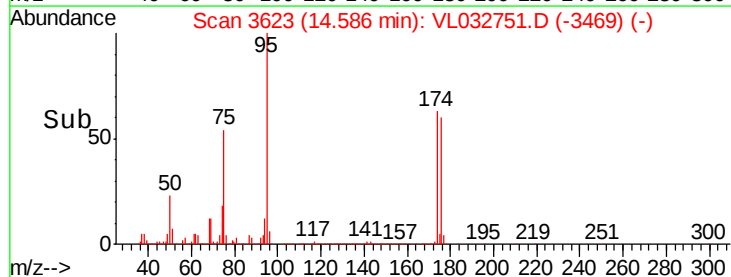
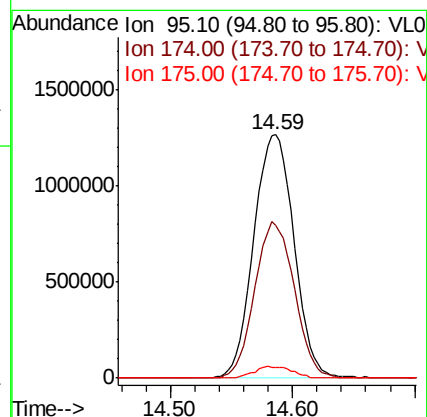
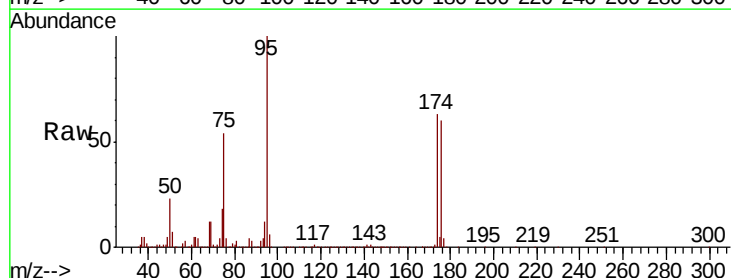
Tgt Ion: 95 Resp: 2882929

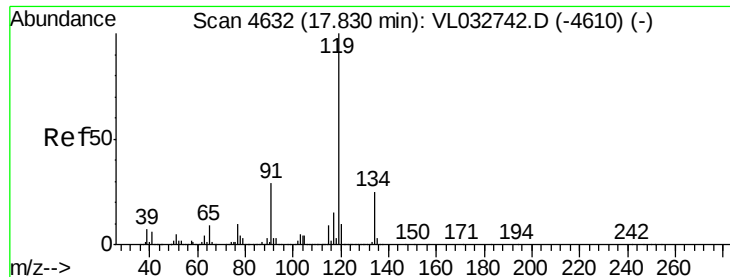
Ion Ratio Lower Upper

95 100

174 63.6 50.7 76.1

175 4.7 3.8 5.6





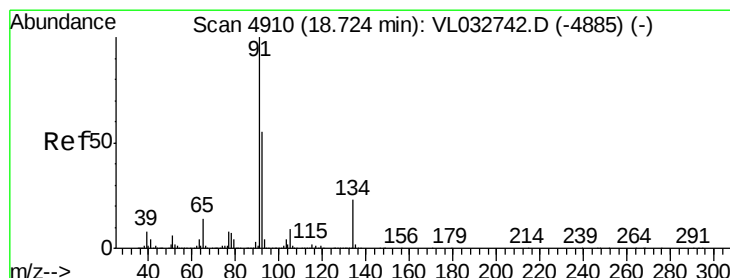
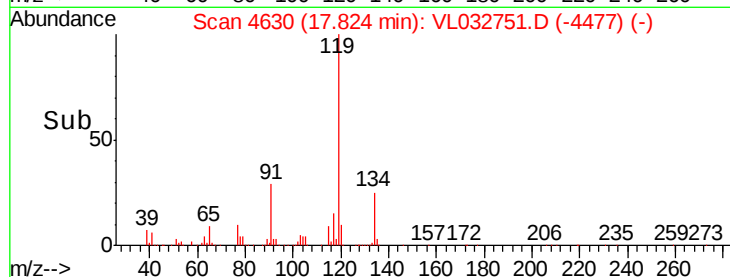
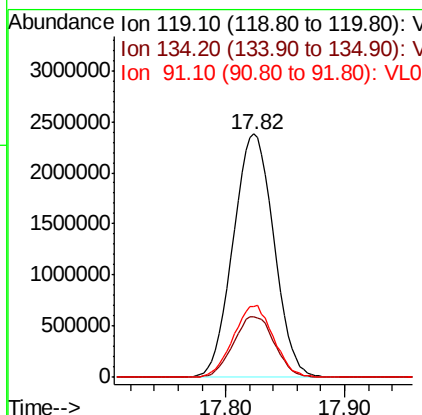
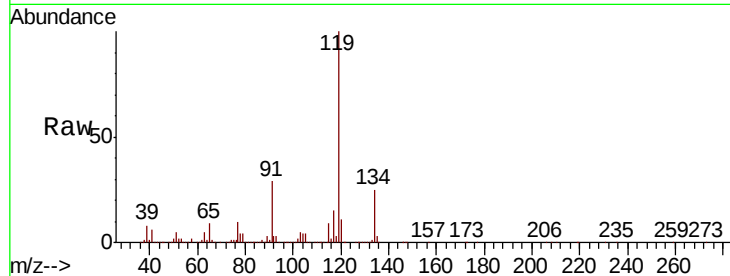
#69  
 p-Isopropyltoluene  
 Concen: 9.857 ppbv  
 RT: 17.82 min Scan# 4630  
 Delta R.T. -0.01 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 25.3  | 20.2  | 30.4  |
| 91      | 29.3  | 23.5  | 35.3  |

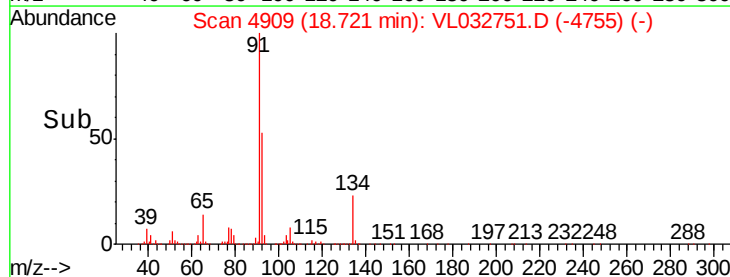
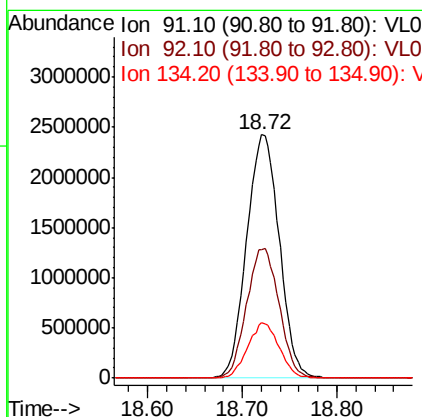
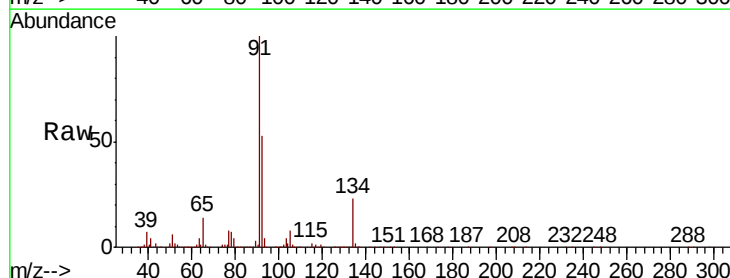
Manual Integrations  
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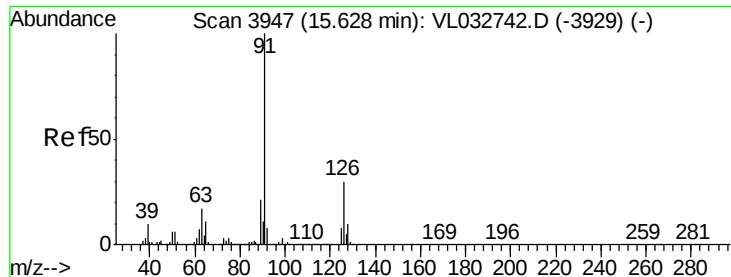
MMDadoda  
 11/16/2018 1:29:51 PM



#70  
 n-Butylbenzene  
 Concen: 10.013 ppbv  
 RT: 18.72 min Scan# 4909  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 53.3  | 42.9  | 64.3  |
| 134     | 22.0  | 17.8  | 26.8  |





#71

2-Chlorotoluene

Concen: 9.670 ppbv

RT: 15.62 min Scan# 3946

Delta R.T. -0.00 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Instrument :

MSVOA\_L

ClientSampleId :

VL1114ABS01

Tot Ion: 91 Resp: 4003042

Ion Ratio Lower Upper

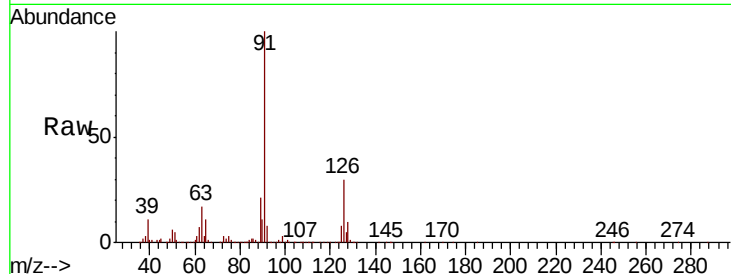
91 100

126 30.5 12.1 48.5

Manual Integrations  
APPROVED

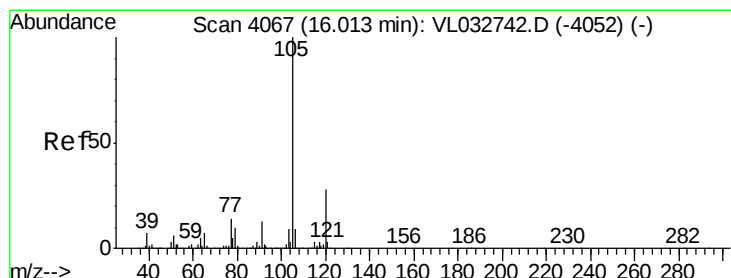
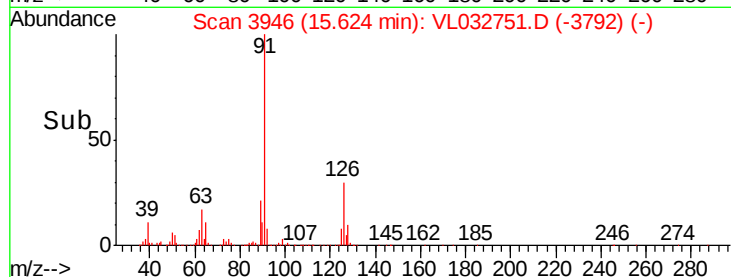
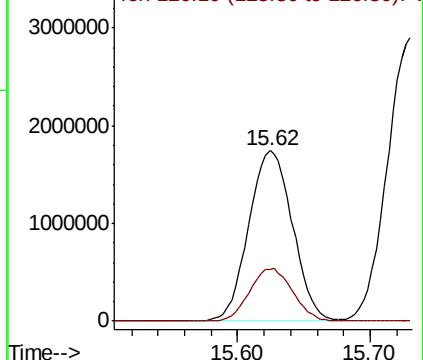
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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V



#72

4-Ethyltoluene

Concen: 10.053 ppbv

RT: 16.01 min Scan# 4065

Delta R.T. -0.01 min

Lab File: VL032751.D

Acq: 14 Nov 2018 9:32

Tgt Ion: 105 Resp: 4525113

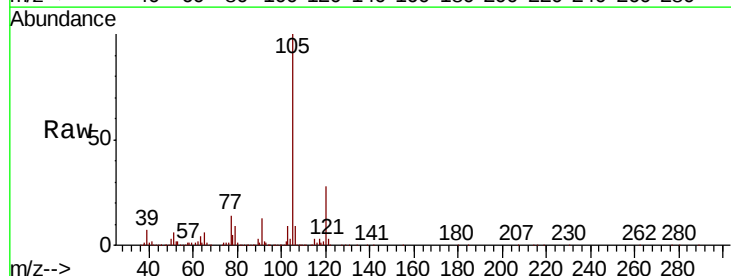
Ion Ratio Lower Upper

105 100

120 28.7 22.9 34.3

91 13.0 10.6 15.8

77 14.1 11.4 17.2

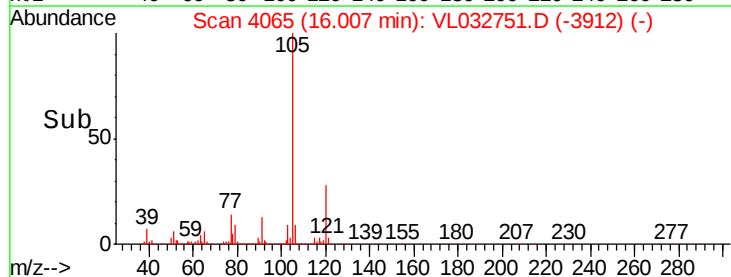
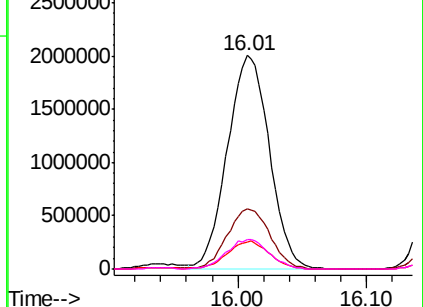


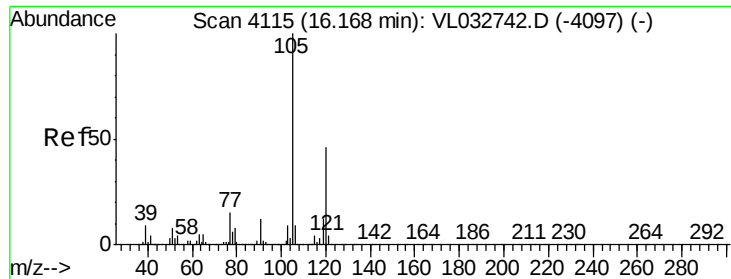
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





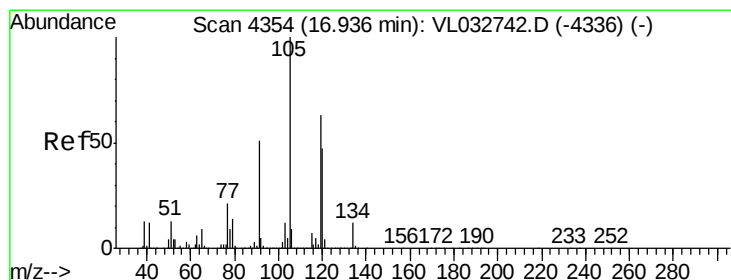
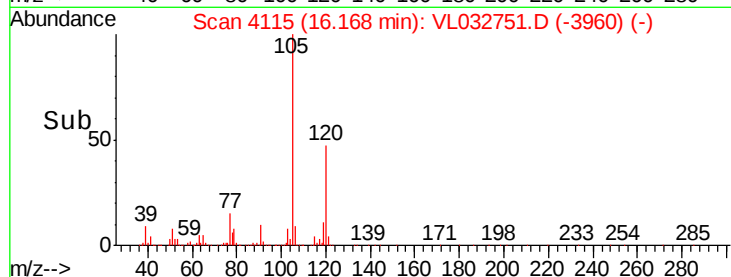
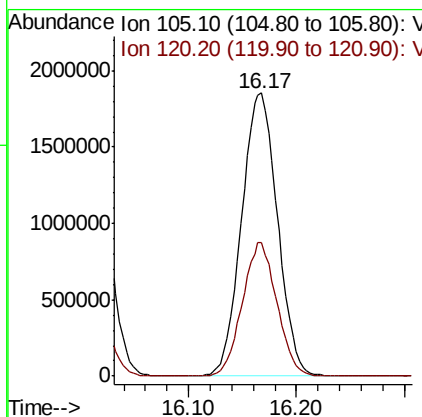
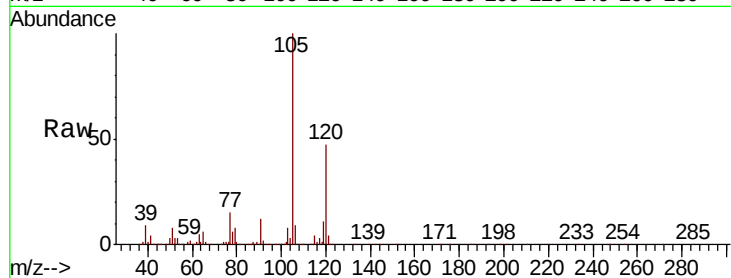
#73  
 1,3,5-Trimethylbenzene  
 Concen: 9.720 ppbv  
 RT: 16.17 min Scan# 4115  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS01

Tot Ion:105 Resp: 4277624  
 Ion Ratio Lower Upper  
 105 100  
 120 47.2 36.6 55.0

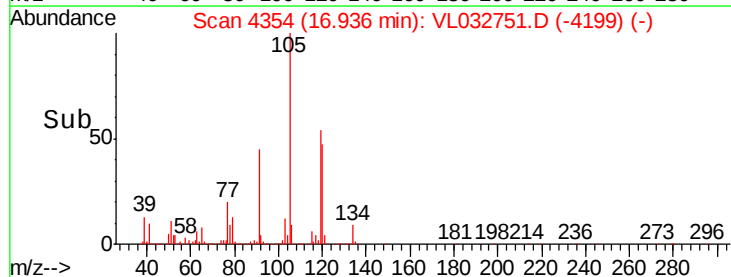
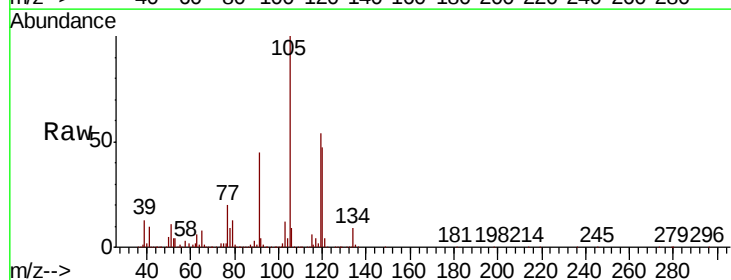
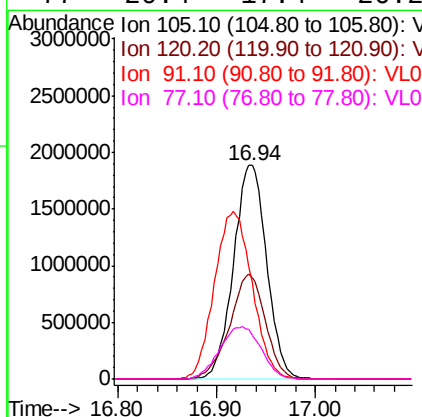
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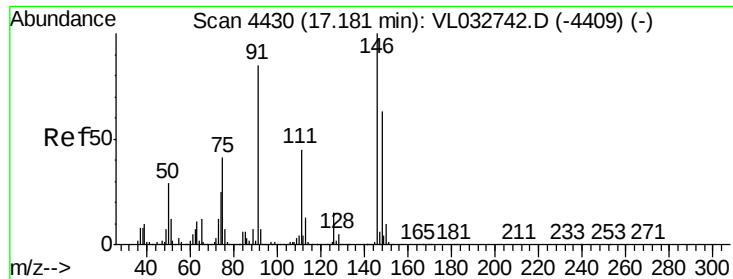
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#74  
 1,2,4-Trimethylbenzene  
 Concen: 9.354 ppbv  
 RT: 16.94 min Scan# 4354  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Tgt Ion:105 Resp: 4405113  
 Ion Ratio Lower Upper  
 105 100  
 120 47.4 37.6 56.4  
 91 44.9 42.5 63.7  
 77 20.4 17.4 26.2





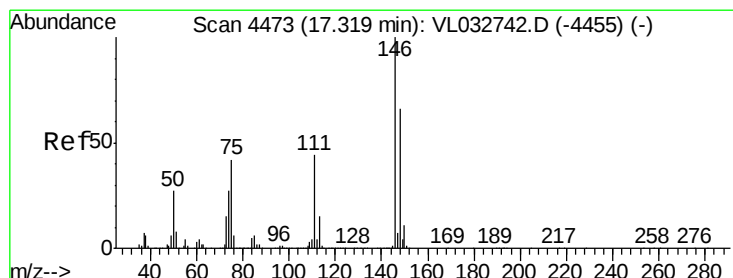
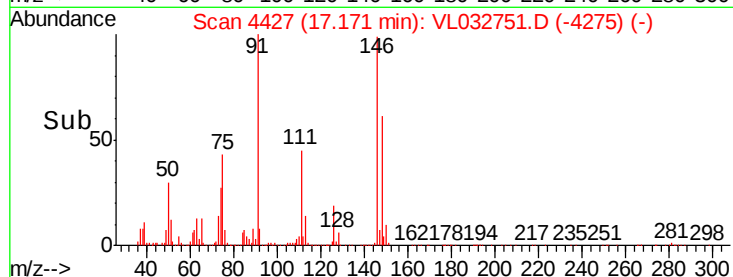
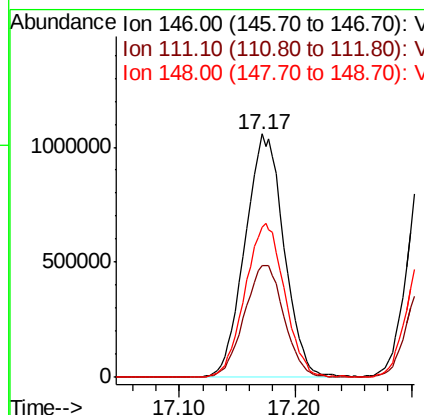
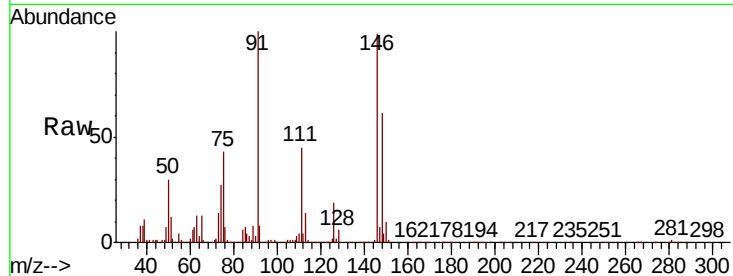
#75  
 1,3-Dichlorobenzene  
 Concen: 9.143 ppbv  
 RT: 17.17 min Scan# 4427  
 Delta R.T. -0.01 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 47.0  | 23.5  | 70.6  |
| 148     | 64.2  | 31.8  | 95.3  |

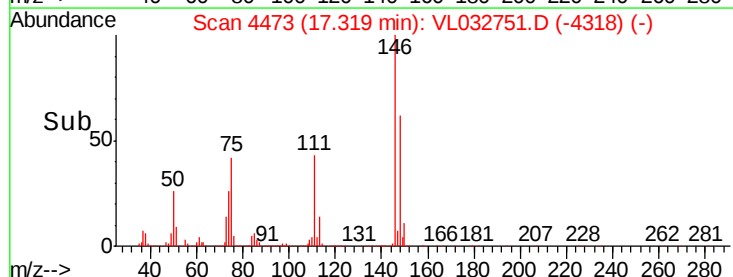
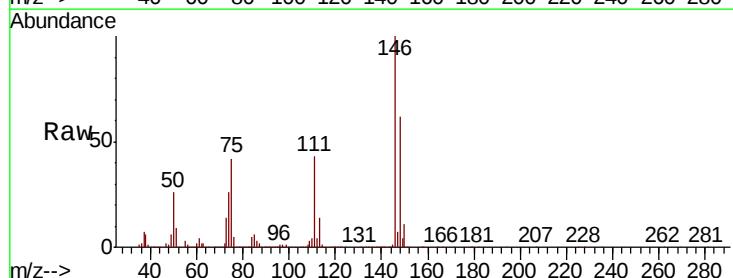
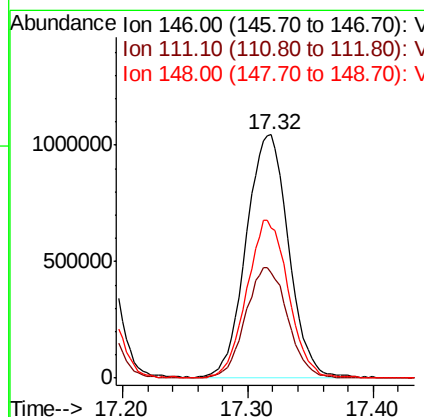
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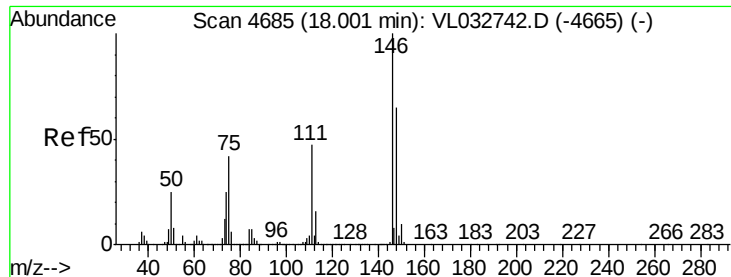
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#76  
 1,4-Dichlorobenzene  
 Concen: 9.653 ppbv  
 RT: 17.32 min Scan# 4473  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 45.8  | 22.5  | 67.5  |
| 148     | 64.3  | 32.5  | 97.5  |





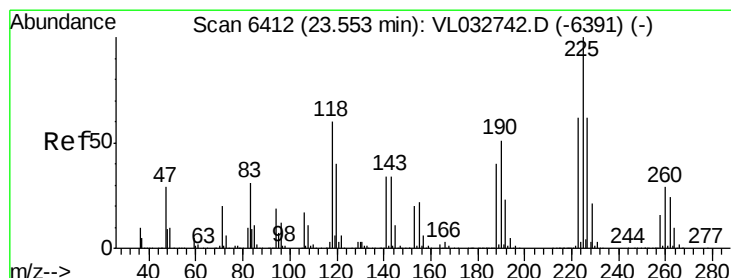
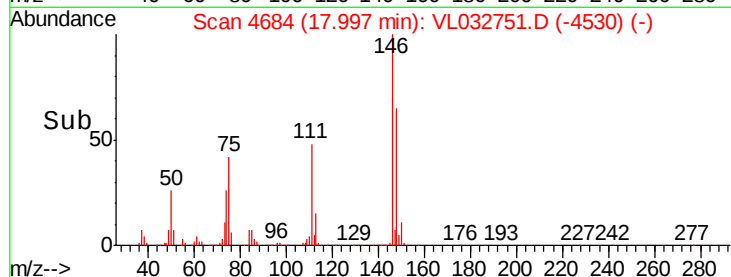
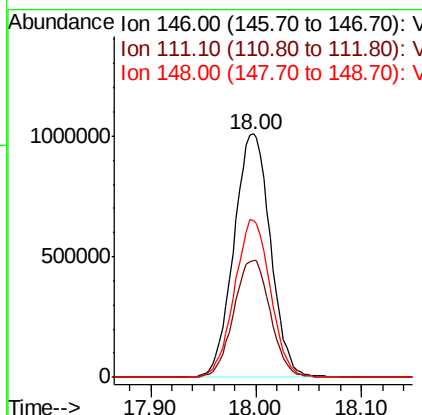
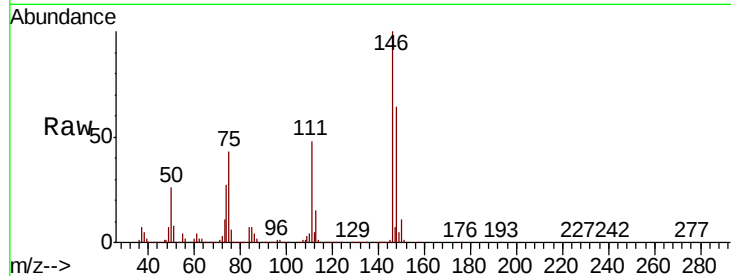
#77  
 1,2-Dichlorobenzene  
 Concen: 9.689 ppbv  
 RT: 18.00 min Scan# 4684  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 48.5  | 24.4  | 73.2  |
| 148     | 63.9  | 32.2  | 96.6  |

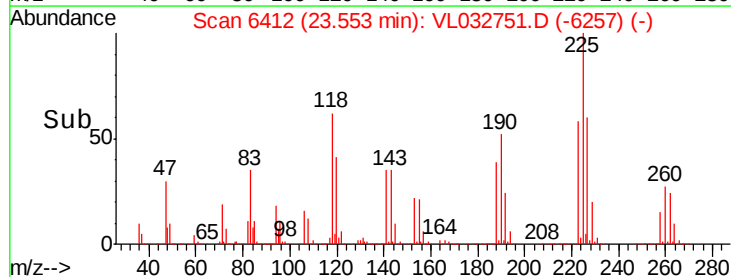
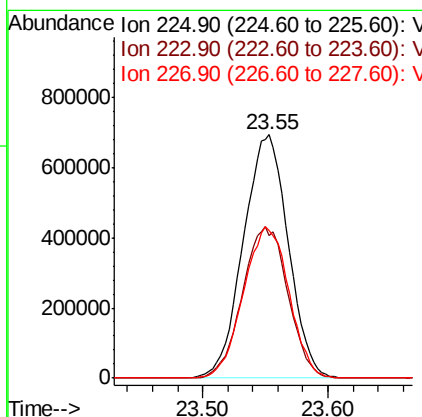
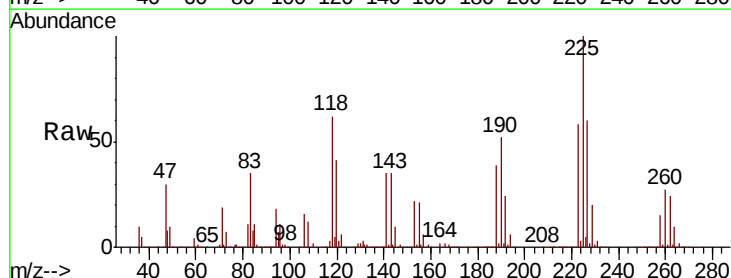
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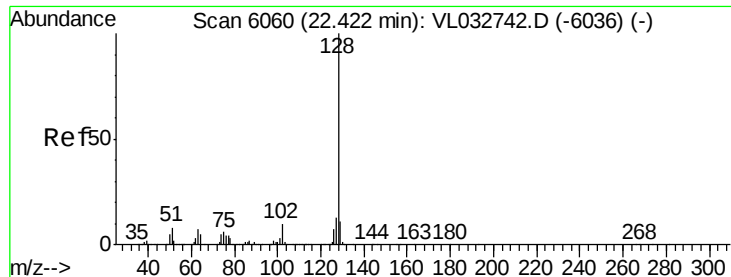
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#78  
 Hexachloro-1,3-Butadiene  
 Concen: 12.768 ppbv  
 RT: 23.55 min Scan# 6412  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 63.1  | 50.3  | 75.5  |
| 227     | 63.2  | 50.2  | 75.4  |





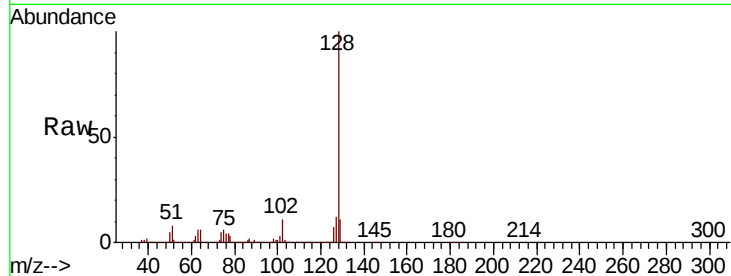
#79  
Naphthalene  
Concen: 13.118 ppbv  
RT: 22.42 min Scan# 6060  
Delta R.T. -0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1114ABS01

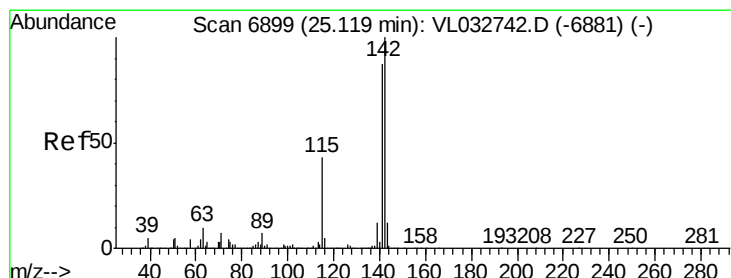
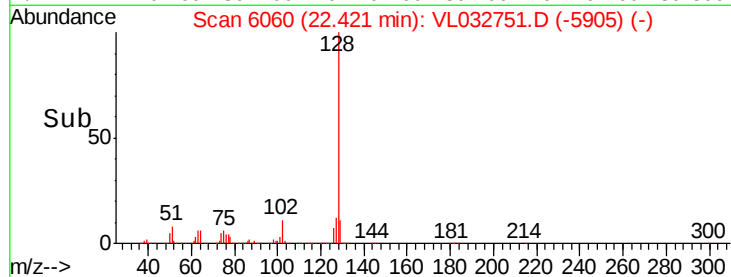
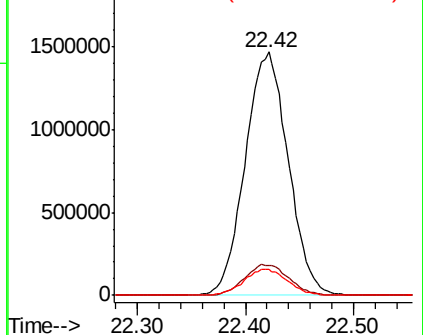
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 12.1  | 10.1  | 15.1  |
| 129     | 10.6  | 8.9   | 13.3  |

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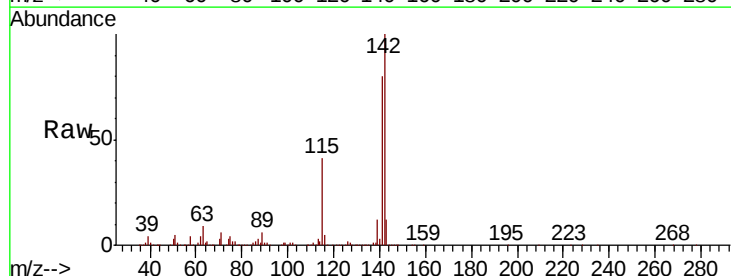


Abundance Ion 128.10 (127.80 to 128.80): V  
2000000  
Ion 127.10 (126.80 to 127.80): V  
Ion 129.10 (128.80 to 129.80): V

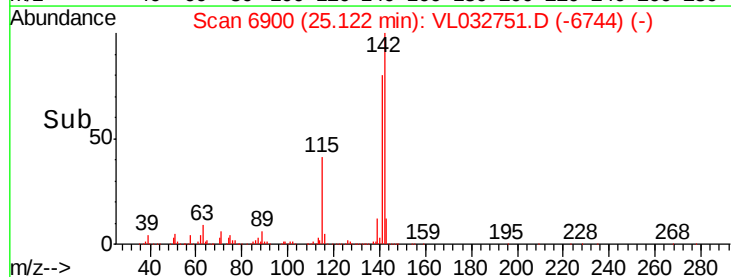
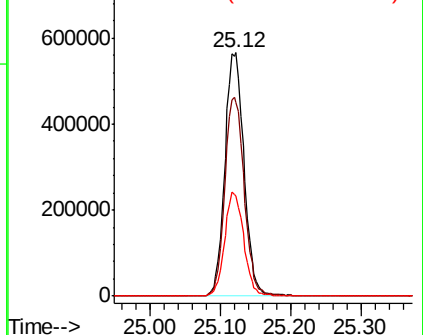


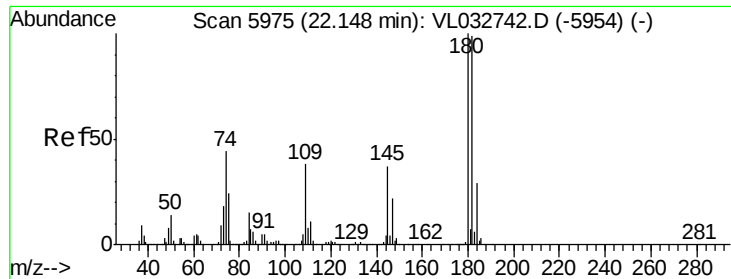
#80  
Naphthalene, 2-methyl-  
Concen: 13.959 ppbv  
RT: 25.12 min Scan# 6900  
Delta R.T. 0.00 min  
Lab File: VL032751.D  
Acq: 14 Nov 2018 9:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 83.0  | 68.7  | 103.1 |
| 115     | 42.4  | 35.5  | 53.3  |



Abundance Ion 142.00 (141.70 to 142.70): V  
600000  
Ion 141.00 (140.70 to 141.70): V  
Ion 115.00 (114.70 to 115.70): V





#81  
 1,2,4-Trichlorobenzene  
 Concen: 12.268 ppbv  
 RT: 22.14 min Scan# 5974  
 Delta R.T. -0.00 min  
 Lab File: VL032751.D  
 Acq: 14 Nov 2018 9:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1114ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.5  | 77.3  | 115.9 |
| 184     | 31.2  | 24.2  | 36.4  |

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