

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL111418\  
 Data File : VL032745.D  
 Acq On : 14 Nov 2018 4:22  
 Operator : SY/AP  
 Sample : VSTDIC0.5  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

Manual Integrations  
 APPROVED

MMDadoda  
 11/16/2018 1:29:44 PM

Quant Time: Nov 14 06:01:06 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Nov 14 06:01:06 2018  
 QLast Update : Wed Nov 14 05:38:10 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1609706  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.30  | 114  | 4069912  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 3677631  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.58  | 95    | 2764585  | 9.97     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 99.70% |

| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.08 | 85   | 131035   | 0.714 | ppbv   | 97     |
| 3) Chlorodifluoromethane       | 3.02 | 51   | 68917    | 0.541 | ppbv   | 96     |
| 4) Chloromethane               | 3.18 | 50   | 40740    | 0.576 | ppbv # | 83     |
| 5) Vinyl Chloride              | 3.30 | 62   | 35659    | 0.466 | ppbv   | 92     |
| 6) Bromomethane                | 3.52 | 94   | 24425    | 0.508 | ppbv   | 95     |
| 7) Chloroethane                | 3.61 | 64   | 15299    | 0.541 | ppbv   | 95     |
| 8) Dichlorotetrafluoroethane   | 3.23 | 85   | 104113   | 0.594 | ppbv   | 100    |
| 9) Propene                     | 3.05 | 41   | 27623    | 0.533 | ppbv   | 98     |
| 10) Heptane                    | 8.25 | 43   | 93414    | 0.465 | ppbv   | 95     |
| 11) Trichlorofluoromethane     | 4.01 | 101  | 134328   | 0.616 | ppbv   | 94     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.56 | 101  | 96125    | 0.546 | ppbv   | 98     |
| 13) Ethanol                    | 3.67 | 45   | 10822m   | 0.739 | ppbv   |        |
| 14) Bromoethene                | 3.80 | 108  | 31981    | 0.528 | ppbv # | 89     |
| 15) Acetone                    | 3.93 | 43   | 90455    | 0.605 | ppbv   | 98     |
| 16) 1,3-Butadiene              | 3.37 | 39   | 28035    | 0.494 | ppbv   | 88     |
| 17) tert-Butyl alcohol         | 4.40 | 59   | 25358m   | 0.600 | ppbv   |        |
| 18) 1,1-Dichloroethene         | 4.36 | 96   | 48854    | 0.615 | ppbv   | 94     |
| 19) Isopropyl Alcohol          | 4.05 | 45   | 61331    | 0.588 | ppbv # | 93     |
| 20) Methylene Chloride         | 4.42 | 84   | 44678    | 0.587 | ppbv   | 88     |
| 21) Allyl Chloride             | 4.49 | 41   | 62782    | 0.524 | ppbv   | 97     |
| 22) trans-1,2-Dichloroethene   | 4.97 | 96   | 45041    | 0.551 | ppbv   | 89     |
| 23) Vinyl Acetate              | 5.17 | 43   | 130269   | 0.482 | ppbv # | 96     |
| 24) 1,1-Dichloroethane         | 5.10 | 63   | 118054   | 0.556 | ppbv   | 99     |
| 25) Ethyl Acetate              | 5.79 | 43   | 181898   | 0.531 | ppbv   | 99     |
| 26) Hexane                     | 5.79 | 57   | 76951    | 0.477 | ppbv   | 87     |
| 27) Carbon Disulfide           | 4.63 | 76   | 97222    | 0.503 | ppbv # | 83     |
| 28) Methyl tert-Butyl Ether    | 5.13 | 73   | 119857   | 0.501 | ppbv   | 97     |
| 29) Chloroform                 | 5.85 | 83   | 152965   | 0.586 | ppbv   | 99     |
| 30) Cyclohexane                | 7.26 | 84   | 63344m   | 0.490 | ppbv   |        |
| 31) cis-1,2-Dichloroethene     | 5.65 | 61   | 76454    | 0.508 | ppbv   | 89     |
| 32) 1,1,1-Trichloroethane      | 6.63 | 97   | 153582   | 0.574 | ppbv   | 99     |
| 34) 2-Butanone                 | 5.35 | 43   | 104856m  | 0.480 | ppbv   |        |
| 35) Carbon Tetrachloride       | 7.14 | 117  | 163070   | 0.559 | ppbv   | 96     |
| 36) Benzene                    | 7.01 | 78   | 158283   | 0.481 | ppbv   | 94     |
| 37) 1,2-Dichloroethane         | 6.42 | 62   | 118004   | 0.577 | ppbv   | 99     |
| 38) Trichloroethene            | 7.97 | 130  | 62172    | 0.505 | ppbv   | 94     |
| 39) 1,2-Dichloropropane        | 7.74 | 63   | 63340    | 0.499 | ppbv   | 90     |
| 40) 1,4-Dioxane                | 8.00 | 88   | 21625m   | 0.501 | ppbv   |        |
| 41) Tetrahydrofuran            | 6.18 | 42   | 52649    | 0.435 | ppbv   | 100    |
| 42) Bromodichloromethane       | 7.92 | 83   | 148340   | 0.519 | ppbv   | 97     |
| 43) Methyl Methacrylate        | 8.16 | 69   | 52347    | 0.433 | ppbv   | 93     |

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

Instrument :  
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 ClientSampleId :  
 VSTDIC0.5

Manual Integrations  
 APPROVED

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 11/16/2018 1:29:44 PM

Quant Time: Nov 14 06:01:06 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 05:38:10 2018  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| -----                         |       |      |          |       |        |          |
| 44) 2,2,4-Trimethylpentane    | 8.00  | 57   | 244871   | 0.436 | ppbv   | 92       |
| 45) t-1,3-Dichloropropene     | 9.43  | 75   | 61429m   | 0.380 | ppbv   |          |
| 46) cis-1,3-Dichloropropene   | 8.84  | 75   | 81448    | 0.433 | ppbv # | 87       |
| 47) 1,1,2-Trichloroethane     | 9.62  | 97   | 72134m   | 0.481 | ppbv   |          |
| 48) Dibromochloromethane      | 10.45 | 129  | 117137   | 0.464 | ppbv   | 100      |
| 49) Bromoform                 | 13.21 | 173  | 94475m   | 0.476 | ppbv   |          |
| 50) 4-Methyl-2-Pentanone      | 8.89  | 43   | 141644   | 0.433 | ppbv   | 99       |
| 51) 2-Hexanone                | 10.30 | 43   | 82176m   | 0.349 | ppbv   |          |
| 52) Tetrachloroethene         | 11.38 | 164  | 58039m   | 0.504 | ppbv   |          |
| 53) Toluene                   | 9.95  | 91   | 134432   | 0.362 | ppbv   | 97       |
| 54) 1,2-Dibromoethane         | 10.77 | 107  | 97891m   | 0.485 | ppbv   |          |
| 56) 1,1,1,2-Tetrachloroethane | 12.28 | 131  | 93522m   | 0.572 | ppbv   |          |
| 57) Chlorobenzene             | 12.30 | 112  | 156714m  | 0.573 | ppbv   |          |
| 58) Ethyl Benzene             | 12.88 | 91   | 191195   | 0.443 | ppbv   | 98       |
| 59) m/p-Xylene                | 13.13 | 91   | 376482m  | 0.980 | ppbv   |          |
| 60) o-Xylene                  | 13.86 | 91   | 191559   | 0.513 | ppbv   | 99       |
| 61) Styrene                   | 13.70 | 104  | 90639    | 0.363 | ppbv   | 97       |
| 62) Isopropylbenzene          | 14.83 | 105  | 262196   | 0.497 | ppbv   | 98       |
| 63) 1,1,2,2-Tetrachloroethane | 13.84 | 83   | 163787   | 0.565 | ppbv   | 100      |
| 64) n-propylbenzene           | 15.73 | 120  | 66364    | 0.503 | ppbv   | 85       |
| 65) tert-Butylbenzene         | 16.91 | 119  | 226900m  | 0.499 | ppbv   |          |
| 66) Benzyl Chloride           | 17.16 | 91   | 117252m  | 0.494 | ppbv   |          |
| 67) sec-Butylbenzene          | 17.47 | 105  | 336844   | 0.522 | ppbv   | 98       |
| 69) p-Isopropyltoluene        | 17.82 | 119  | 257525   | 0.503 | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.72 | 91   | 260546m  | 0.496 | ppbv   |          |
| 71) 2-Chlorotoluene           | 15.63 | 91   | 179419   | 0.474 | ppbv   | 100      |
| 72) 4-Ethyltoluene            | 16.01 | 105  | 195499m  | 0.487 | ppbv   |          |
| 73) 1,3,5-Trimethylbenzene    | 16.16 | 105  | 198330   | 0.507 | ppbv   | 94       |
| 74) 1,2,4-Trimethylbenzene    | 16.93 | 105  | 236729   | 0.567 | ppbv   | 93       |
| 75) 1,3-Dichlorobenzene       | 17.18 | 146  | 141309m  | 0.588 | ppbv   |          |
| 76) 1,4-Dichlorobenzene       | 17.31 | 146  | 122866m  | 0.552 | ppbv   |          |
| 77) 1,2-Dichlorobenzene       | 17.99 | 146  | 126151   | 0.556 | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.55 | 225  | 79945    | 0.695 | ppbv   | 97       |
| 79) Naphthalene               | 22.43 | 128  | 107553m  | 0.410 | ppbv   |          |
| 80) Naphthalene, 2-methyl-    | 25.13 | 142  | 16136    | 0.257 | ppbv   | 98       |
| 81) 1,2,4-Trichlorobenzene    | 22.15 | 180  | 63385m   | 0.472 | ppbv   |          |
| -----                         |       |      |          |       |        |          |

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

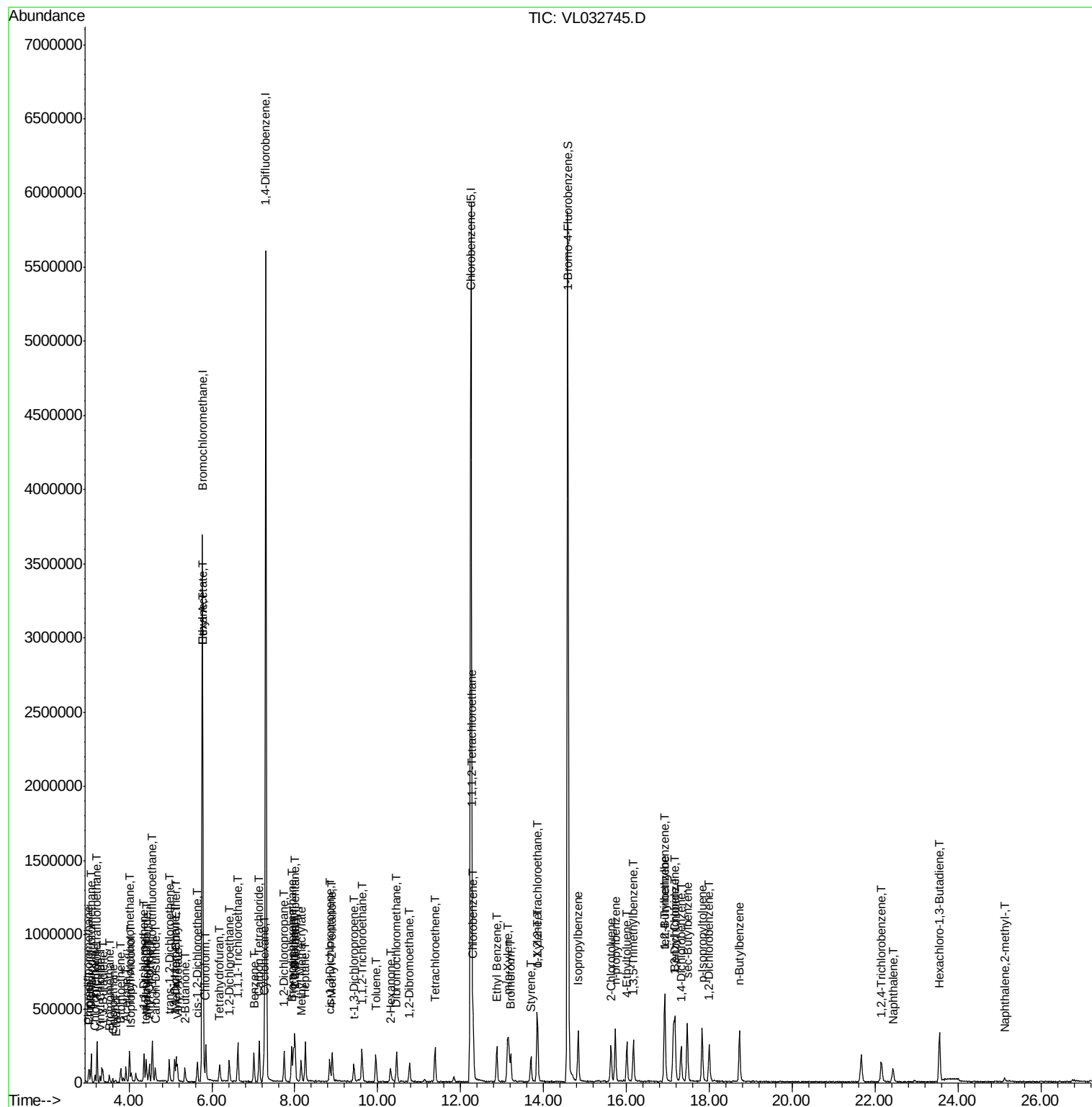
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL111418\  
Data File : VL032745.D  
Acq On : 14 Nov 2018 4:22  
Operator : SY/AP  
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Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

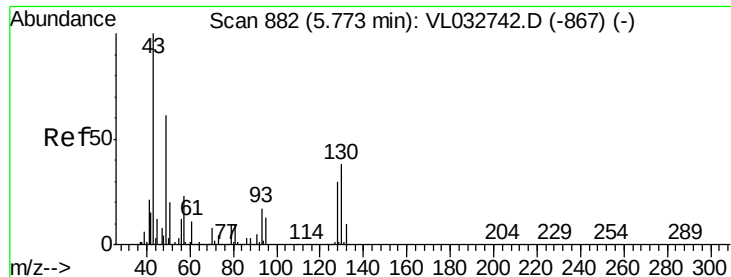
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

Manual Integrations  
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Quant Time: Nov 14 06:01:06 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Nov  
QLast Update : Wed Nov 14 05:38:10 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 881

Delta R.T. -0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 49 Resp: 1609706

Ion Ratio Lower Upper

49 100

128 50.5 24.9 74.6

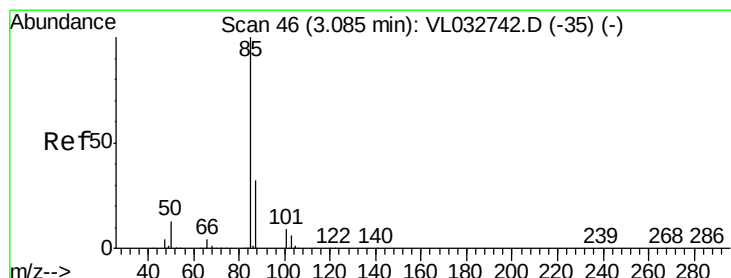
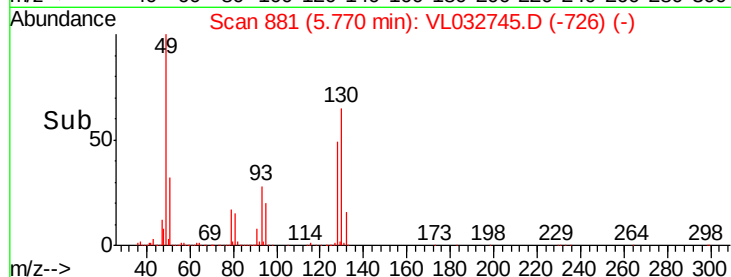
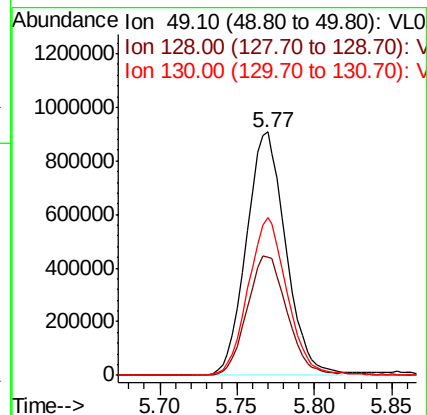
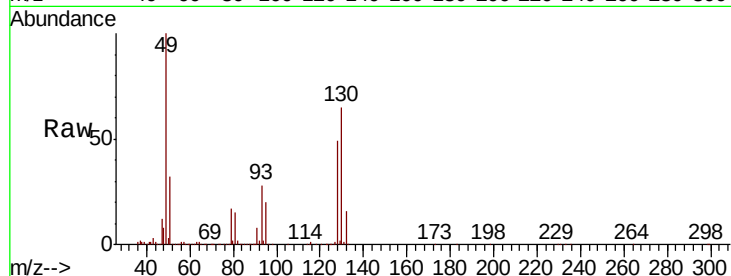
130 65.1 31.4 94.2

Manual Integrations

APPROVED

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11/16/2018 1:29:44 PM



#2

Dichlorodifluoromethane

Concen: 0.714 ppbv

RT: 3.08 min Scan# 46

Delta R.T. 0.00 min

Lab File: VL032745.D

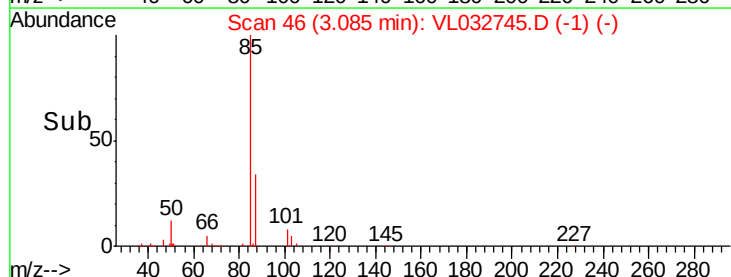
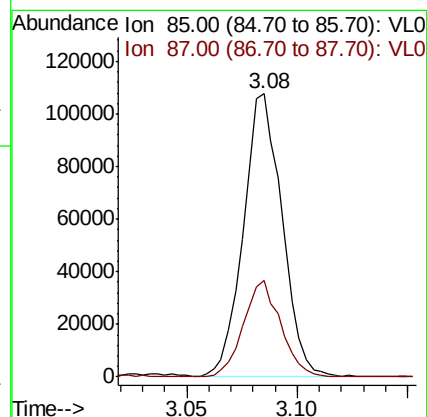
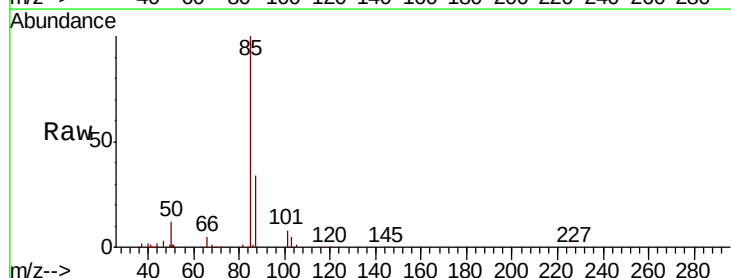
Acq: 14 Nov 2018 4:22

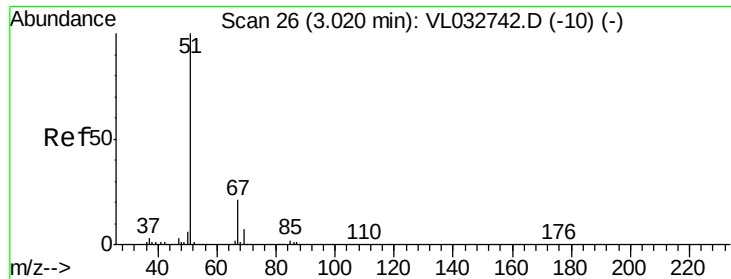
Tgt Ion: 85 Resp: 131035

Ion Ratio Lower Upper

85 100

87 34.0 26.0 39.0





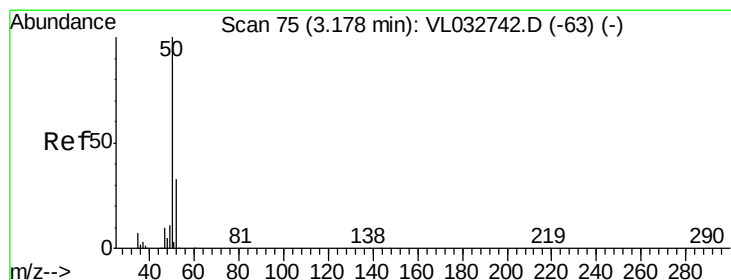
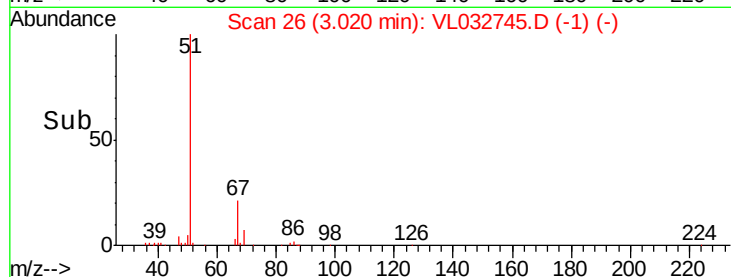
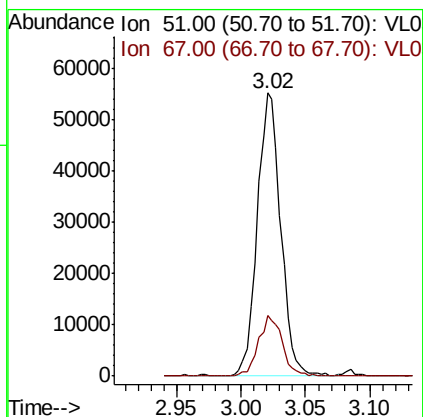
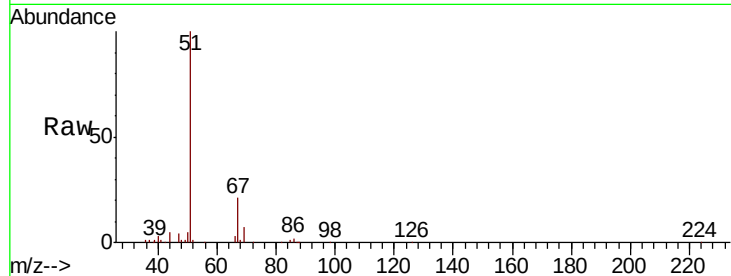
#3  
Chlorodifluoromethane  
Concen: 0.541 ppbv  
RT: 3.02 min Scan# 26  
Delta R.T. 0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 51      | 100   |       |       |
| 67      | 21.8  | 16.1  | 24.1  |

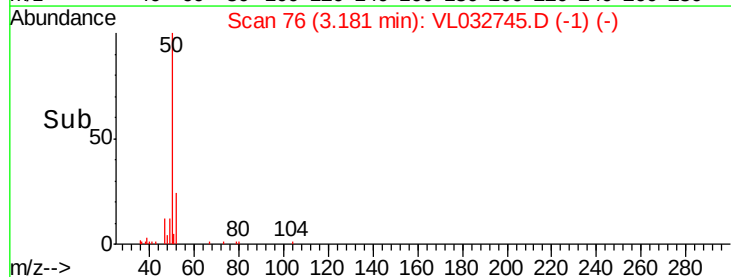
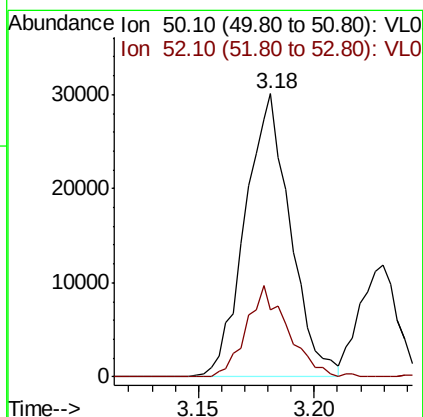
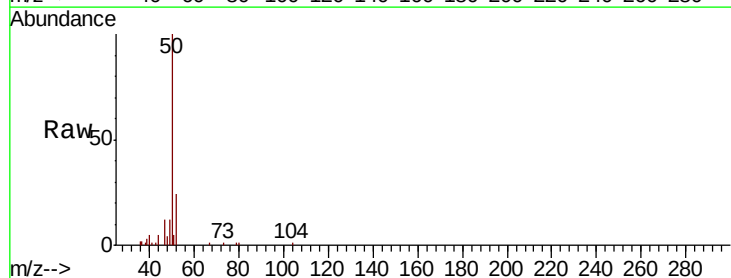
Manual Integrations  
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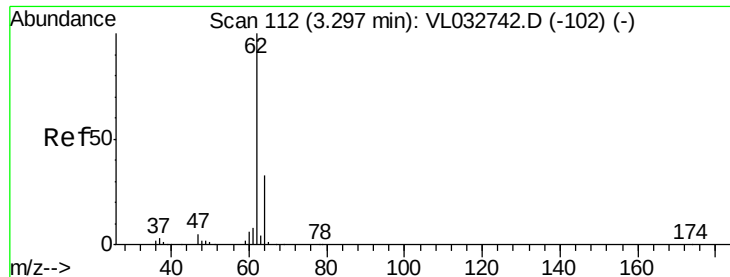
MMDadoda  
11/16/2018 1:29:44 PM



#4  
Chloromethane  
Concen: 0.576 ppbv  
RT: 3.18 min Scan# 76  
Delta R.T. 0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50      | 100   |       |       |
| 52      | 23.9  | 26.6  | 40.0# |





#5

Vinyl Chloride

Concen: 0.466 ppbv

RT: 3.30 min Scan# 113

Delta R.T. 0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 62 Resp: 35659

Ion Ratio Lower Upper

62 100

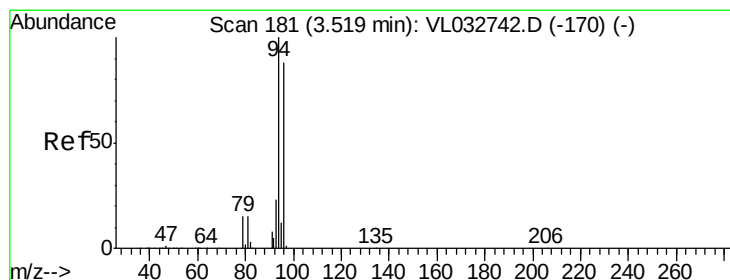
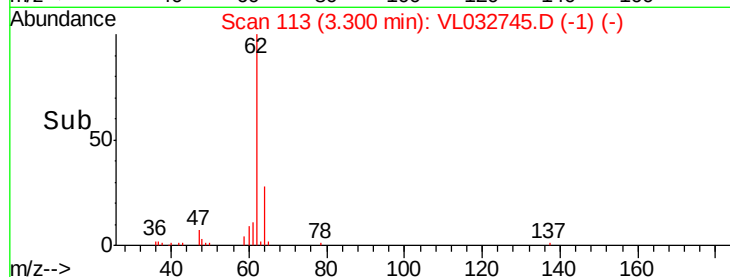
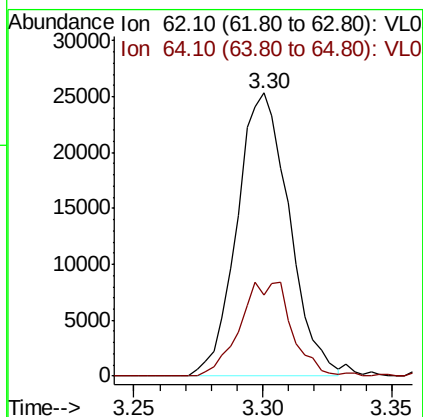
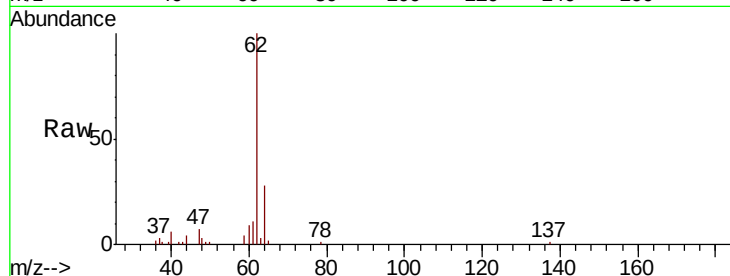
64 28.5 26.2 39.4

Manual Integrations

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11/16/2018 1:29:44 PM



#6

Bromomethane

Concen: 0.508 ppbv

RT: 3.52 min Scan# 182

Delta R.T. 0.00 min

Lab File: VL032745.D

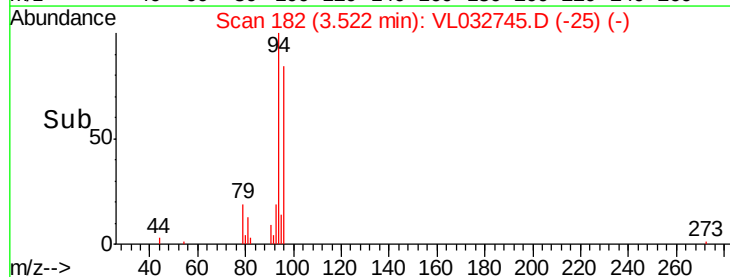
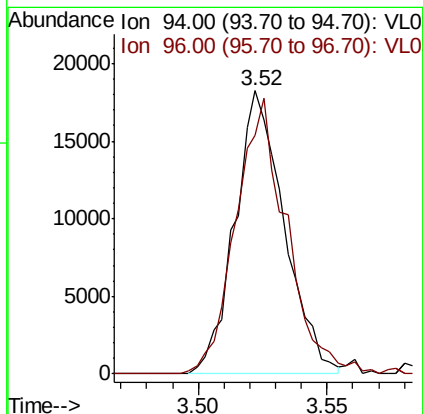
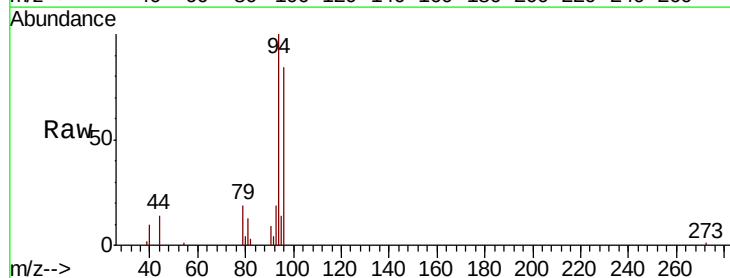
Acq: 14 Nov 2018 4:22

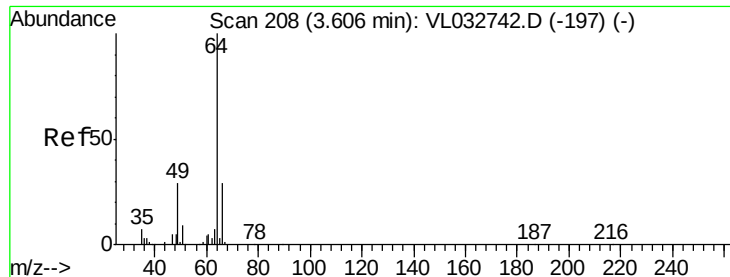
Tgt Ion: 94 Resp: 24425

Ion Ratio Lower Upper

94 100

96 83.1 70.2 105.2





#7

Chloroethane

Concen: 0.541 ppbv

RT: 3.61 min Scan# 209

Delta R.T. 0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 64 Resp: 15299

Ion Ratio Lower Upper

64 100

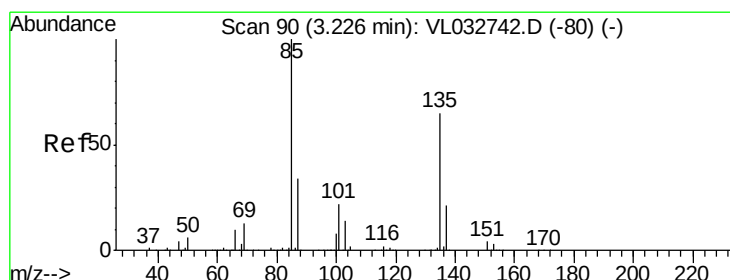
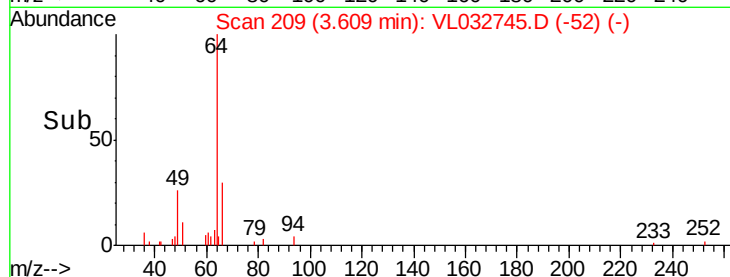
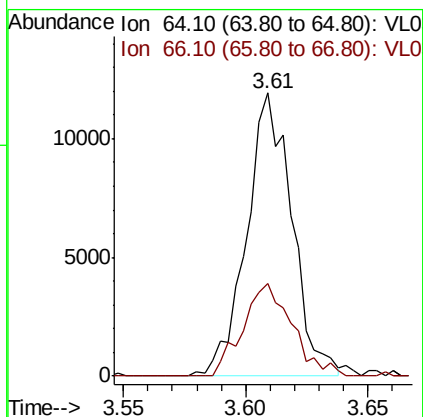
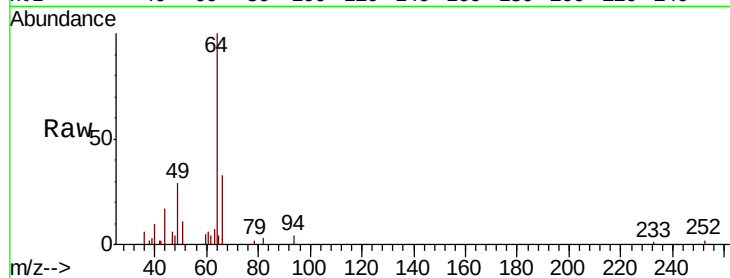
66 31.4 23.2 34.8

Manual Integrations

APPROVED

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11/16/2018 1:29:44 PM



#8

Dichlorotetrafluoroethane

Concen: 0.594 ppbv

RT: 3.23 min Scan# 90

Delta R.T. 0.00 min

Lab File: VL032745.D

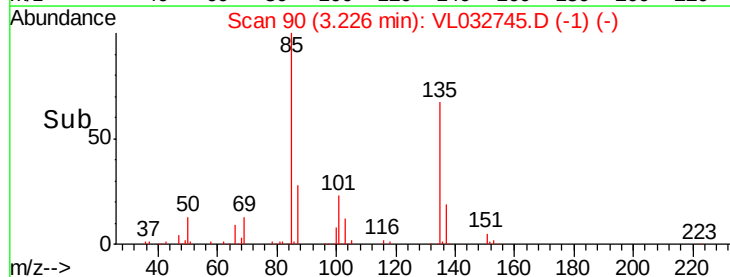
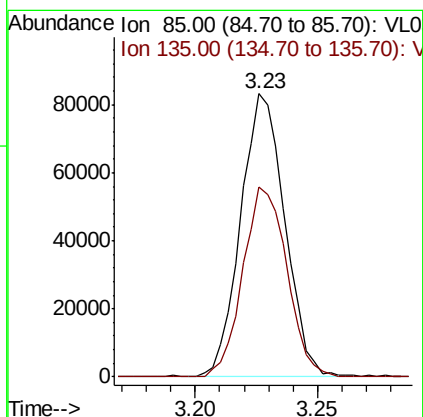
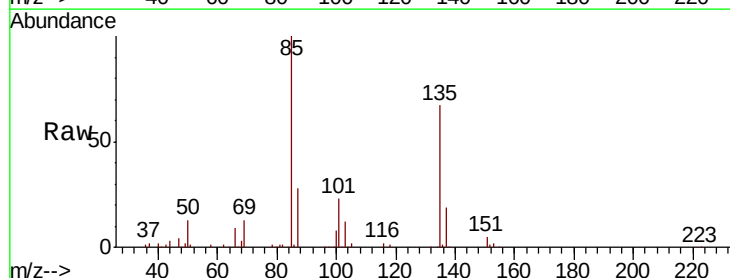
Acq: 14 Nov 2018 4:22

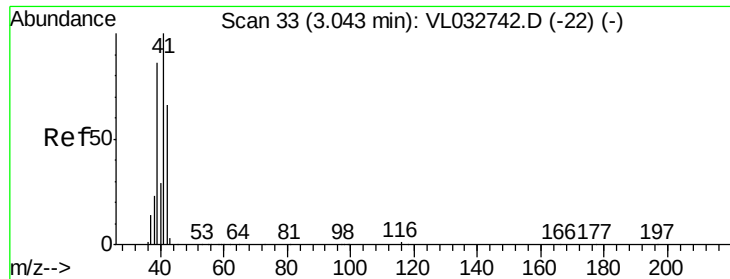
Tgt Ion: 85 Resp: 104113

Ion Ratio Lower Upper

85 100

135 67.0 53.8 80.8





#9

Propene

Concen: 0.533 ppbv

RT: 3.05 min Scan# 34

Delta R.T. 0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 41 Resp: 27623

Ion Ratio Lower Upper

41 100

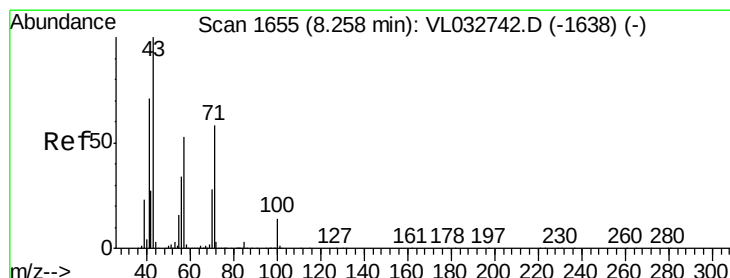
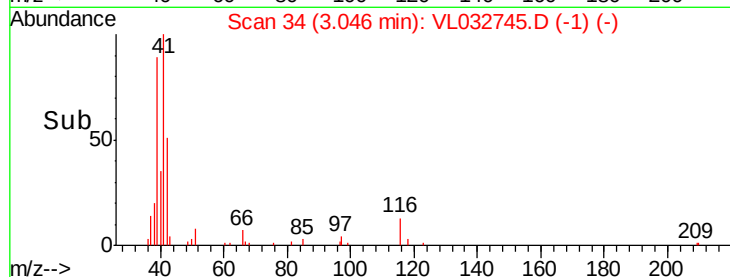
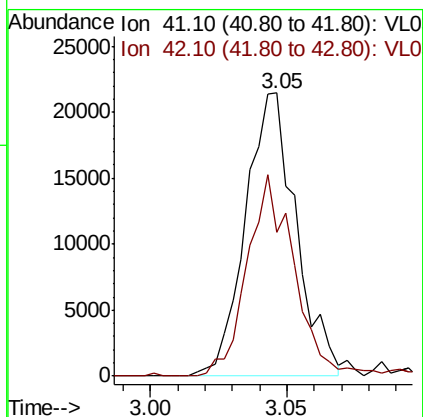
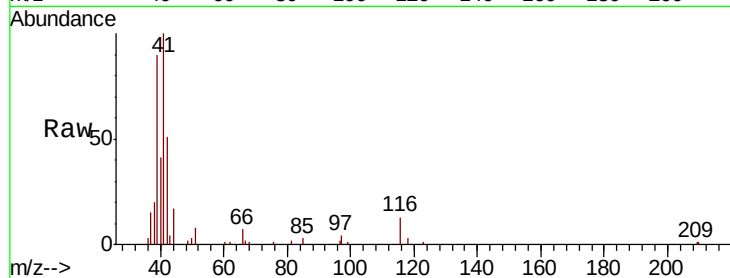
42 67.1 55.0 82.6

Manual Integrations

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#10

Heptane

Concen: 0.465 ppbv

RT: 8.25 min Scan# 1653

Delta R.T. -0.01 min

Lab File: VL032745.D

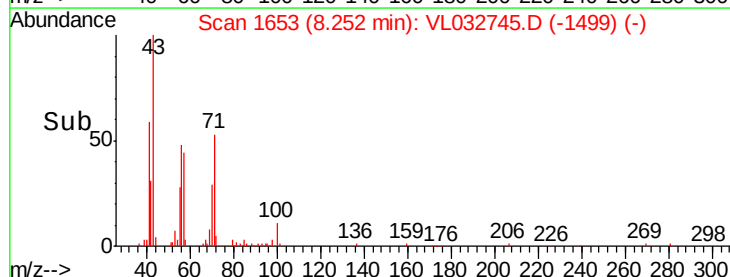
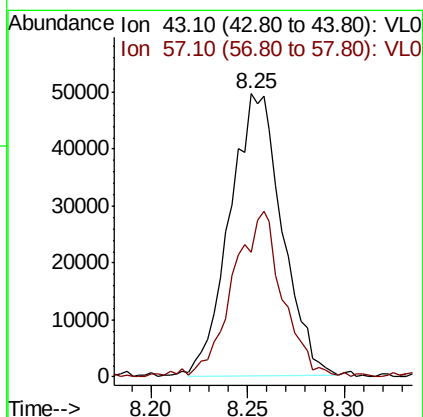
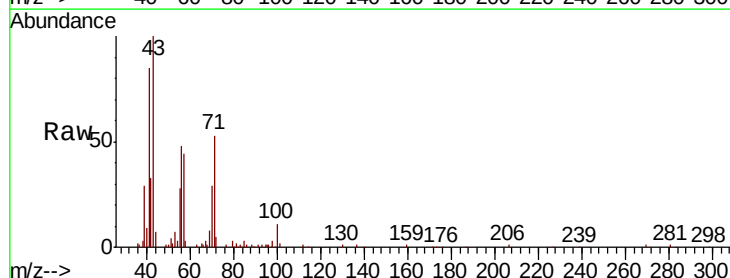
Acq: 14 Nov 2018 4:22

Tgt Ion: 43 Resp: 93414

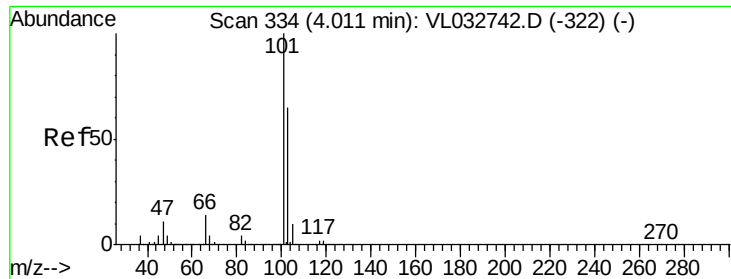
Ion Ratio Lower Upper

43 100

57 56.1 41.8 62.8







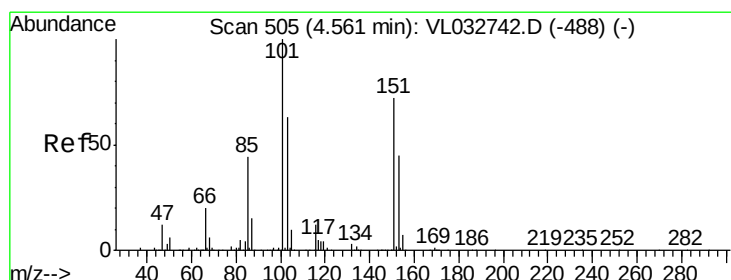
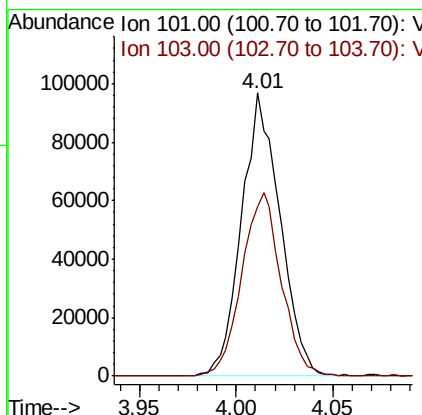
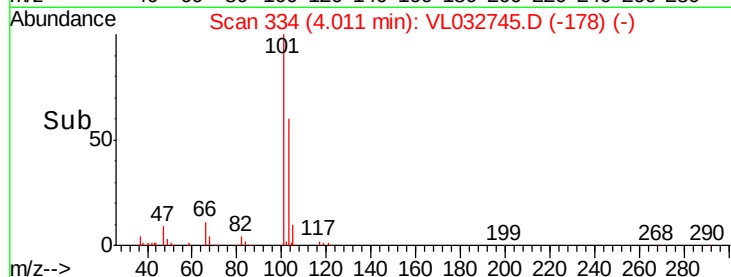
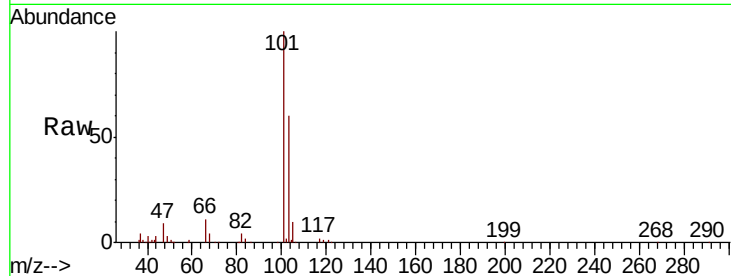
#11  
 Trichlorofluoromethane  
 Concen: 0.616 ppbv  
 RT: 4.01 min Scan# 334  
 Delta R.T. 0.00 min  
 Lab File: VL032745.D  
 Acq: 14 Nov 2018 4:22

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 101     | 100   |       |       |
| 103     | 60.0  | 51.6  | 77.4  |

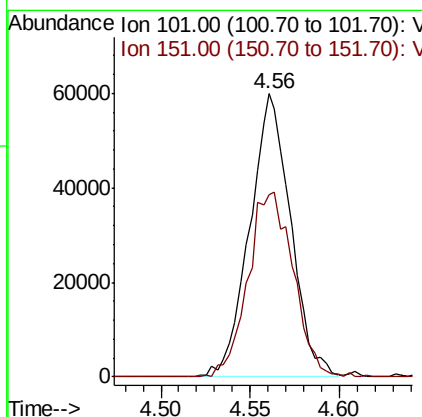
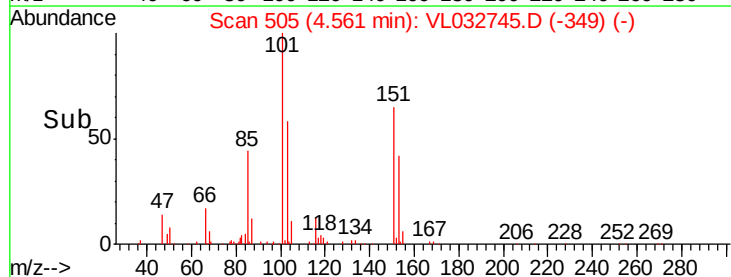
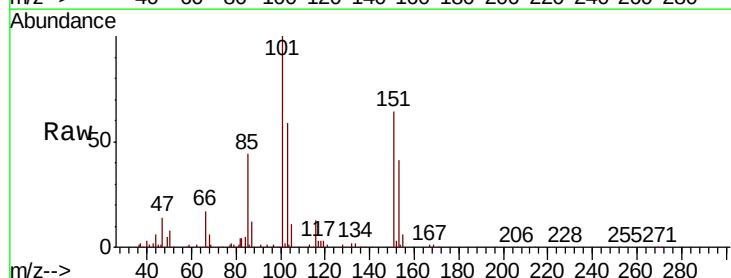
Manual Integrations  
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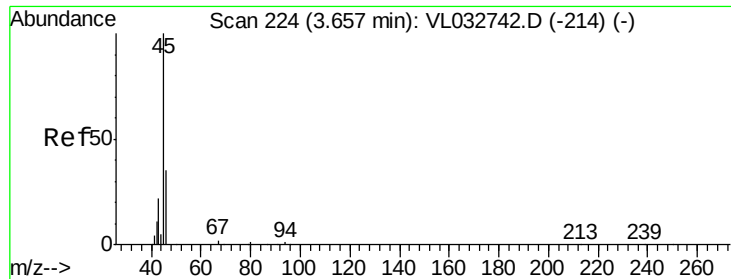
MMDadoda  
 11/16/2018 1:29:44 PM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 0.546 ppbv  
 RT: 4.56 min Scan# 505  
 Delta R.T. 0.00 min  
 Lab File: VL032745.D  
 Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 101     | 100   |       |       |
| 151     | 72.2  | 56.7  | 85.1  |





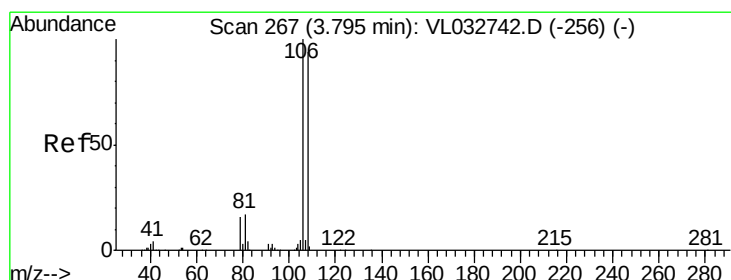
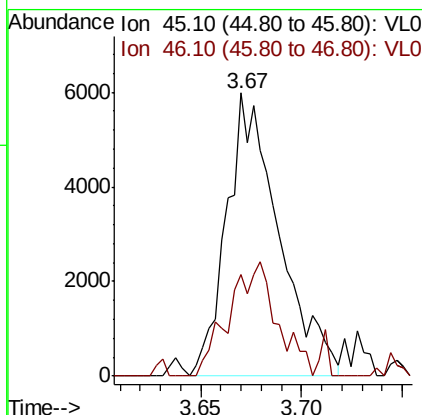
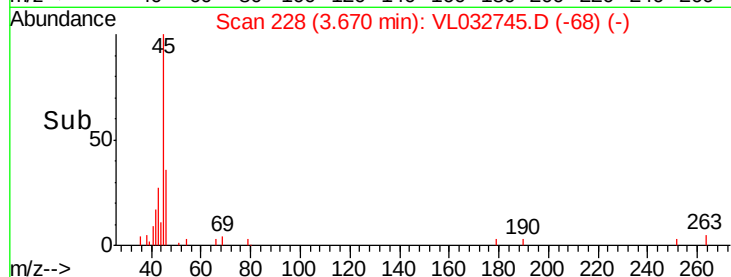
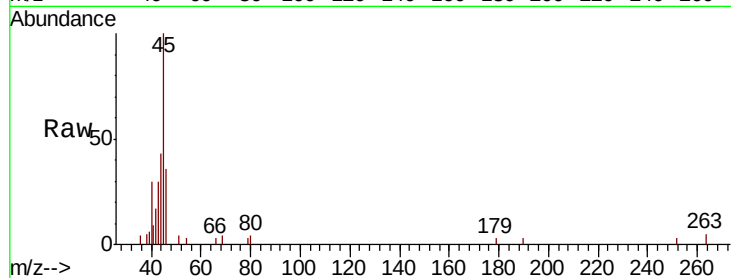
#13  
Ethanol  
Concen: 0.739 ppbv m  
RT: 3.67 min Scan# 228  
Delta R.T. 0.01 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | 45  | 46  | Ratio | 100 | 0.0  | Resp | 10822 | Lower | Upper |
|---------|-----|-----|-------|-----|------|------|-------|-------|-------|
| 45      | 100 |     |       |     |      |      |       |       |       |
| 46      |     | 0.0 |       |     | 14.5 |      | 57.9# |       |       |

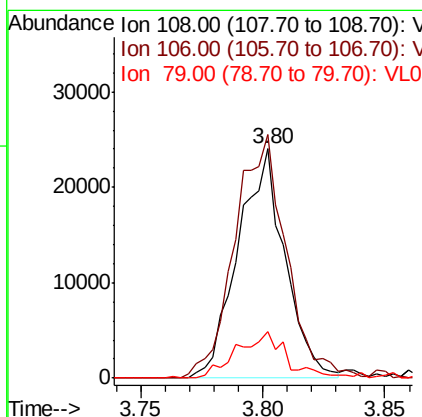
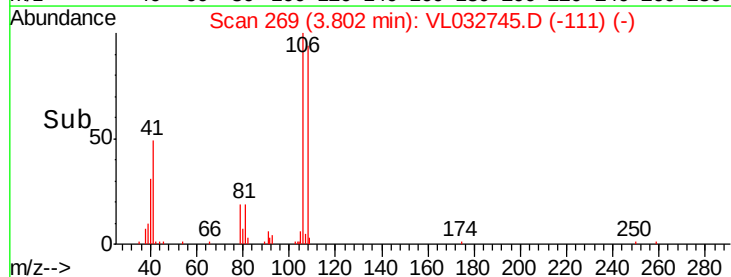
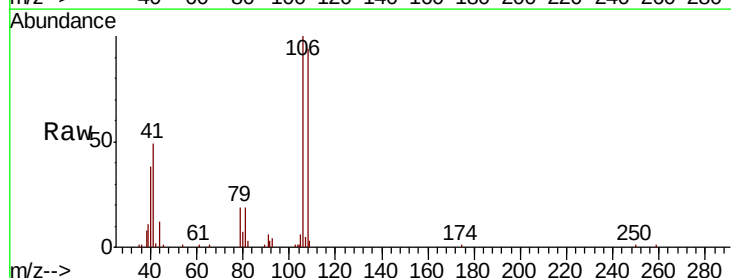
Manual Integrations  
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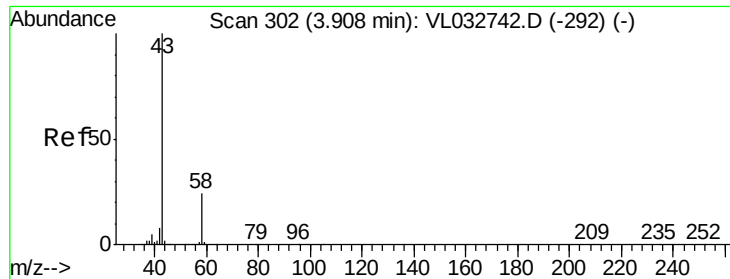
MMDadoda  
11/16/2018 1:29:44 PM



#14  
Bromoethene  
Concen: 0.528 ppbv  
RT: 3.80 min Scan# 269  
Delta R.T. 0.01 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

| Tgt Ion | 108 | 106   | 79   | Ratio | 100  | 117.4 | 21.9 | Resp | 31981 | Lower | Upper |
|---------|-----|-------|------|-------|------|-------|------|------|-------|-------|-------|
| 108     | 100 |       |      |       |      |       |      |      |       |       |       |
| 106     |     | 117.4 |      |       | 84.9 |       |      |      | 127.3 |       |       |
| 79      |     |       | 21.9 |       | 14.2 |       |      |      | 21.4# |       |       |





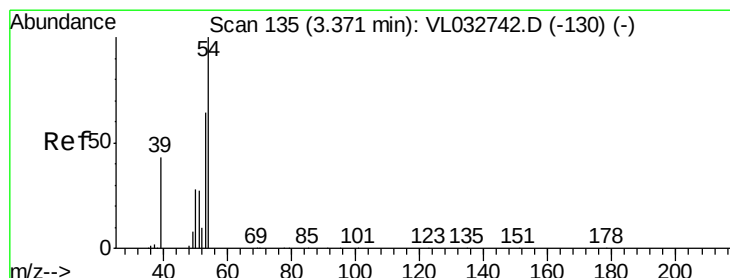
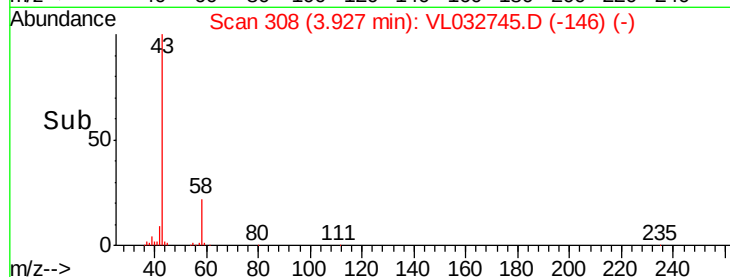
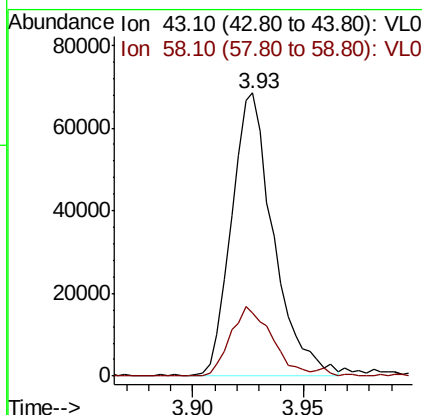
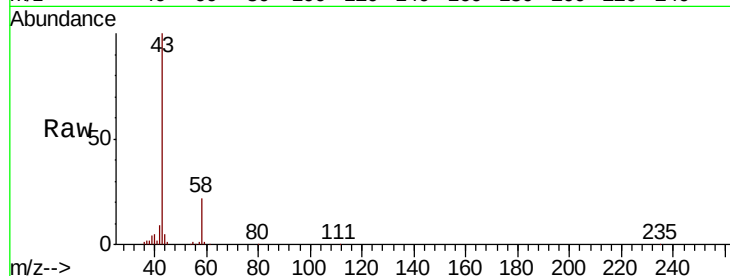
#15  
Acetone  
Concen: 0.605 ppbv  
RT: 3.93 min Scan# 308  
Delta R.T. 0.02 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 25.2  | 21.1  | 31.7  |

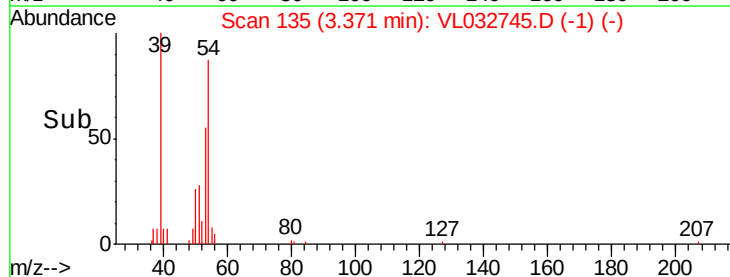
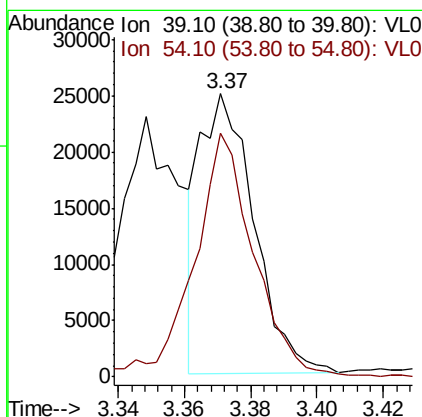
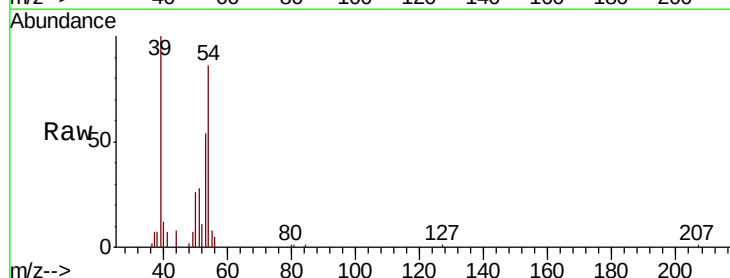
Manual Integrations  
APPROVED

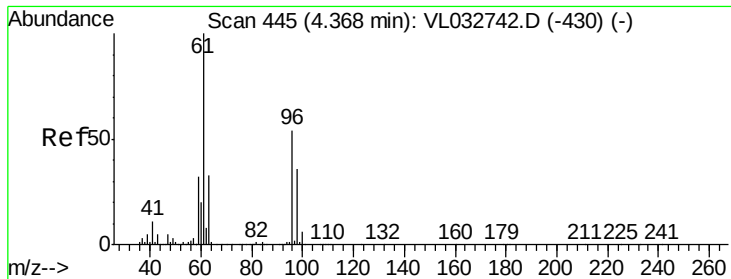
MMDadoda  
11/16/2018 1:29:44 PM



#16  
1,3-Butadiene  
Concen: 0.494 ppbv  
RT: 3.37 min Scan# 135  
Delta R.T. 0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 39      | 100   |       |       |
| 54      | 97.5  | 68.9  | 103.3 |





#17

tert-Butyl alcohol

Concen: 0.600 ppbv m

RT: 4.40 min Scan# 454

Delta R.T. 0.03 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 59 Resp: 25358

Ion Ratio Lower Upper

59 100

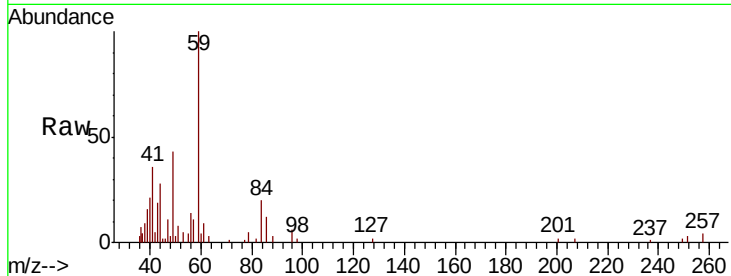
57 0.0 7.8 11.8#

Manual Integrations

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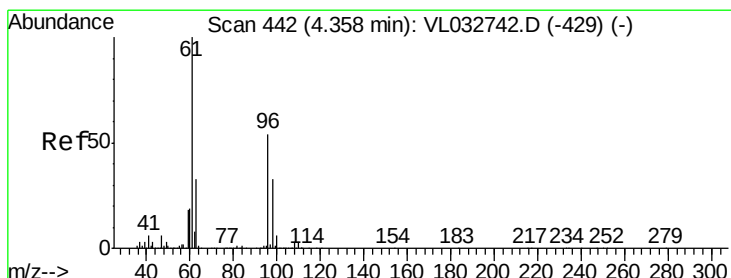
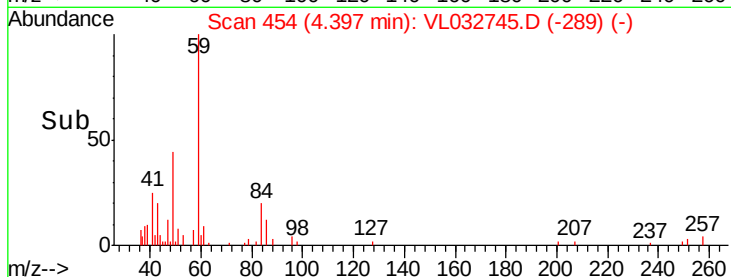
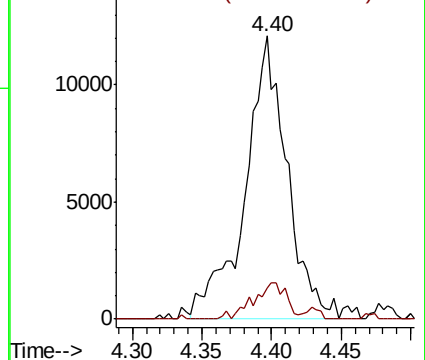
MMDadoda

11/16/2018 1:29:44 PM



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#18

1,1-Dichloroethene

Concen: 0.615 ppbv

RT: 4.36 min Scan# 443

Delta R.T. 0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

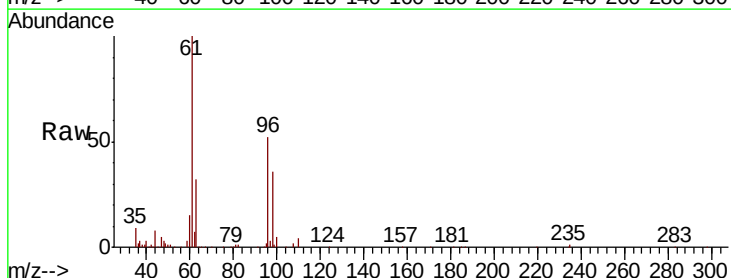
Tgt Ion: 96 Resp: 48854

Ion Ratio Lower Upper

96 100

61 191.6 148.5 222.7

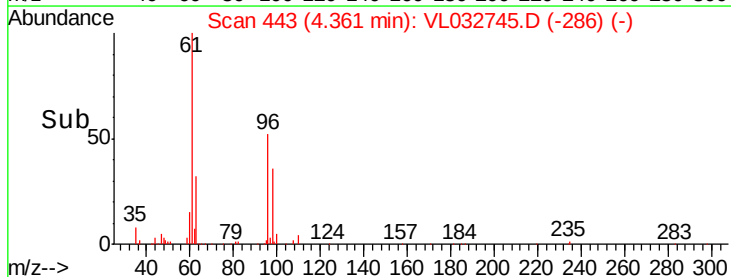
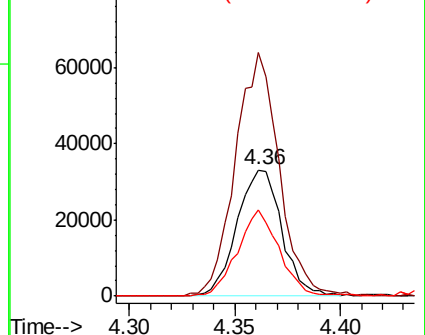
98 68.2 48.6 72.8

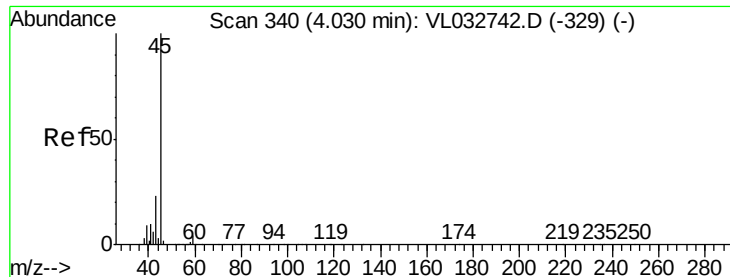


Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0





#19

Isopropyl Alcohol

Concen: 0.588 ppbv

RT: 4.05 min Scan# 347

Delta R.T. 0.02 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 45 Resp: 61331

Ion Ratio Lower Upper

45 100

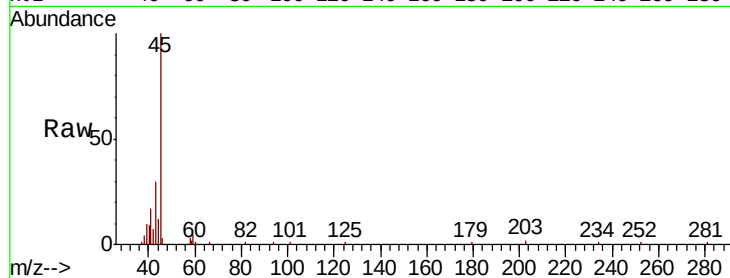
58 4.3 1.4 2.0#

Manual Integrations

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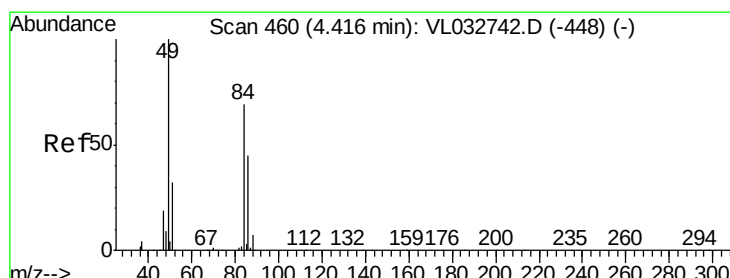
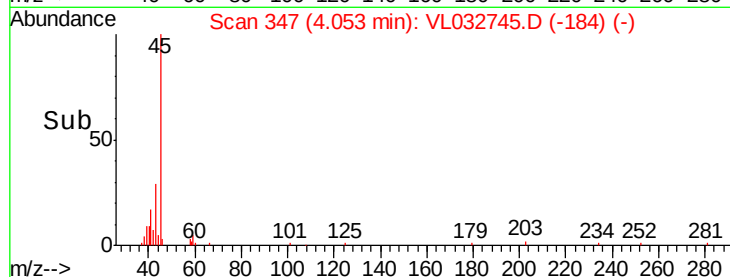
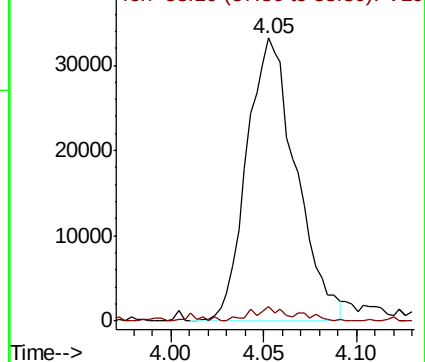
MMDadoda

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Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 0.587 ppbv

RT: 4.42 min Scan# 460

Delta R.T. 0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Tgt Ion: 84 Resp: 44678

Ion Ratio Lower Upper

84 100

49 131.2 115.8 173.6

51 37.2 36.9 55.3

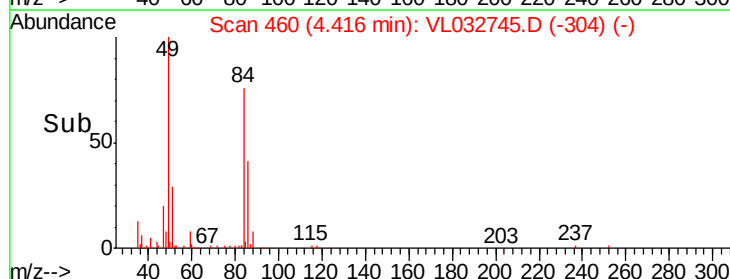
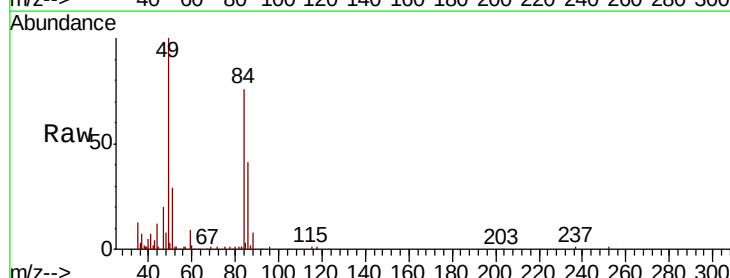
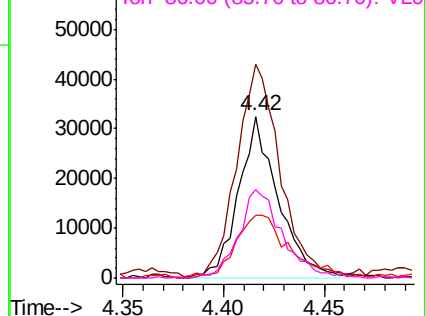
86 54.6 52.4 78.6

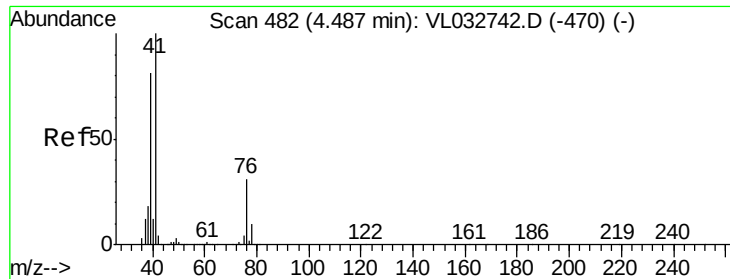
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0





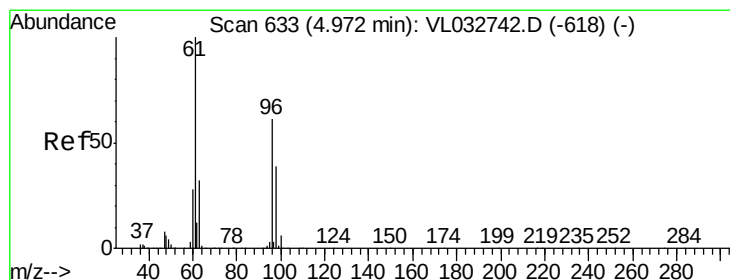
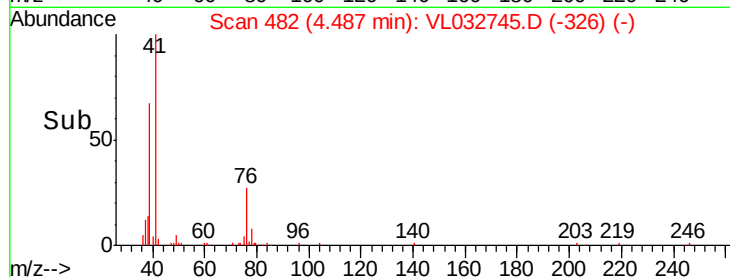
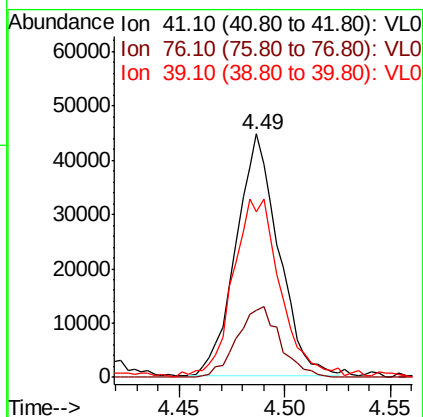
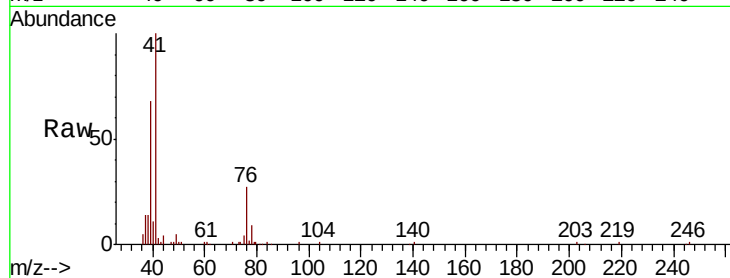
#21  
Allvl Chloride  
Concen: 0.524 ppbv  
RT: 4.49 min Scan# 482  
Delta R.T. 0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 41      | 100   |       |       |
| 76      | 29.4  | 24.4  | 36.6  |
| 39      | 82.1  | 63.5  | 95.3  |

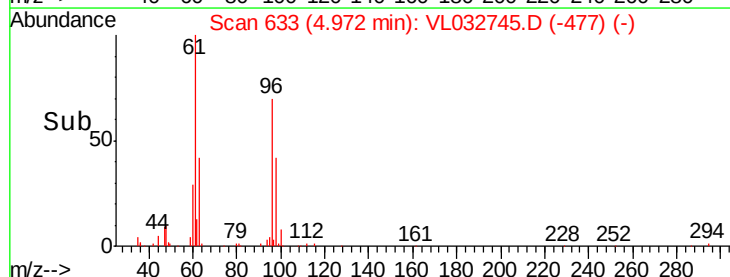
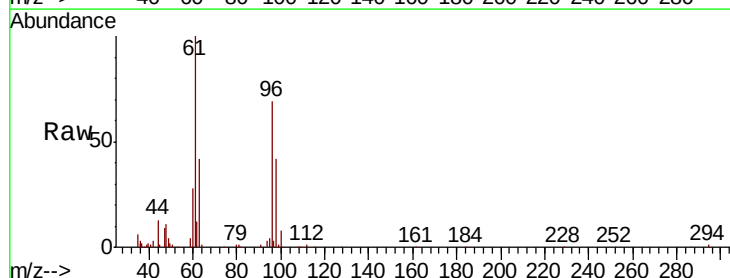
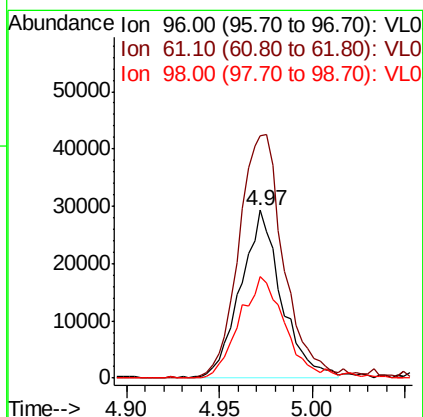
Manual Integrations  
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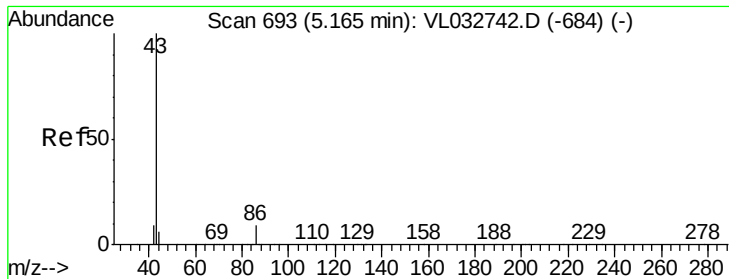
MMDadoda  
11/16/2018 1:29:44 PM



#22  
trans-1,2-Dichloroethene  
Concen: 0.551 ppbv  
RT: 4.97 min Scan# 633  
Delta R.T. 0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 144.2 | 130.2 | 195.2 |
| 98      | 60.3  | 50.2  | 75.2  |





#23

Vinyl Acetate

Concen: 0.482 ppbv

RT: 5.17 min Scan# 694

Delta R.T. 0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

ClientSampleId :

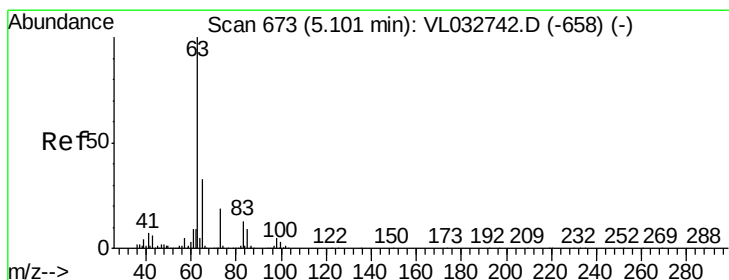
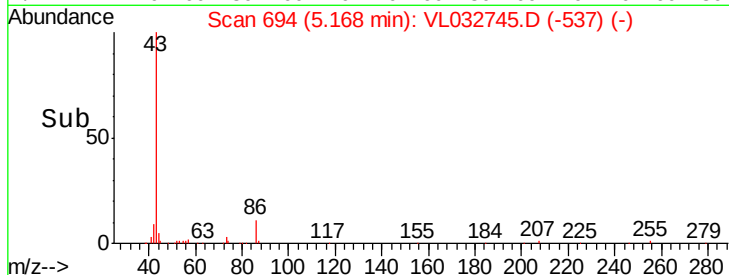
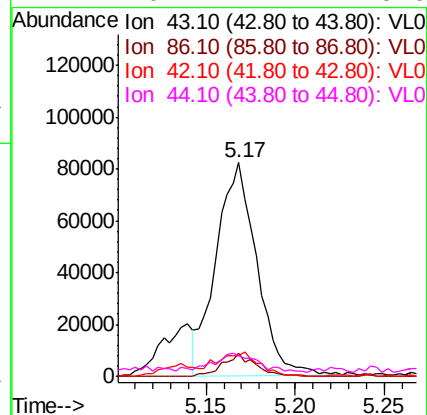
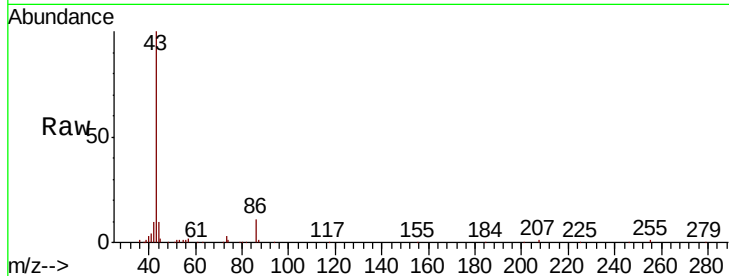
VSTDIC0.5

Tot Ion: 43 Resp: 130269

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 86  | 10.6  | 6.2   | 9.4#  |
| 42  | 9.5   | 7.8   | 11.6  |
| 44  | 6.7   | 4.4   | 6.6#  |

Manual Integrations  
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11/16/2018 1:29:44 PM



#24

1,1-Dichloroethane

Concen: 0.556 ppbv

RT: 5.10 min Scan# 673

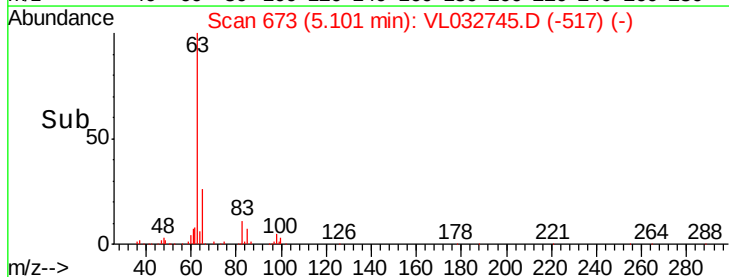
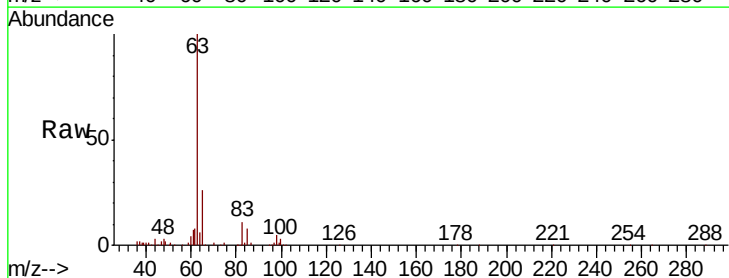
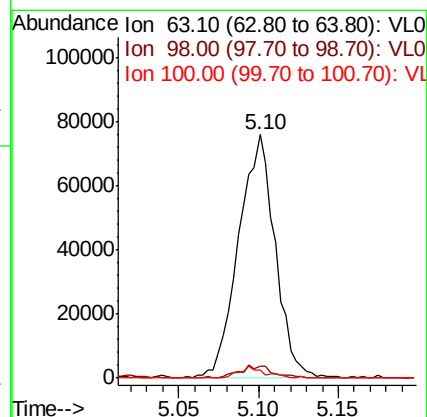
Delta R.T. 0.00 min

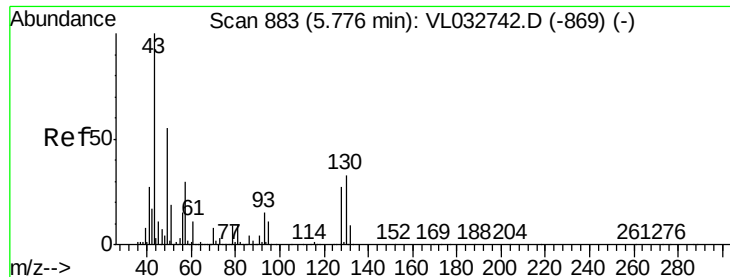
Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Tgt Ion: 63 Resp: 118054

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 63  | 100   |       |       |
| 98  | 5.0   | 2.3   | 6.8   |
| 100 | 3.2   | 1.4   | 4.2   |





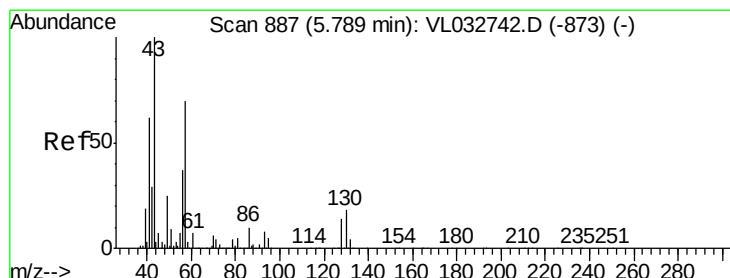
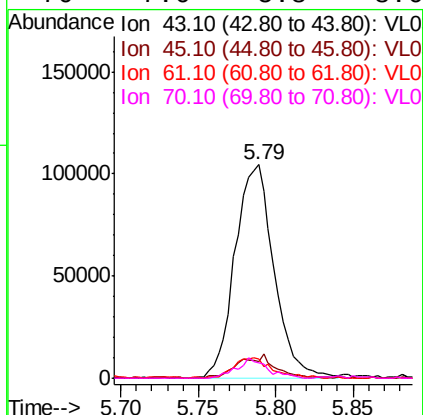
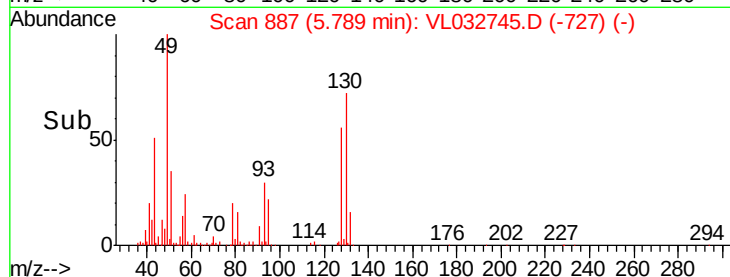
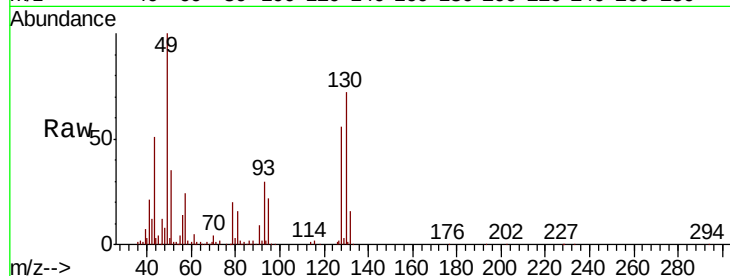
#25  
Ethyl Acetate  
Concen: 0.531 ppbv  
RT: 5.79 min Scan# 887  
Delta R.T. 0.01 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ion  | Ratio | Resp | Lower | Upper |
|---------|------|-------|------|-------|-------|
| 43      | 100  |       |      |       |       |
| 45      | 11.0 | 7.9   | 11.9 |       |       |
| 61      | 9.8  | 7.8   | 11.6 |       |       |
| 70      | 7.6  | 5.8   | 8.6  |       |       |

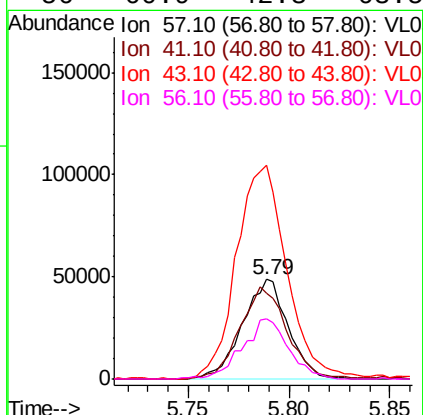
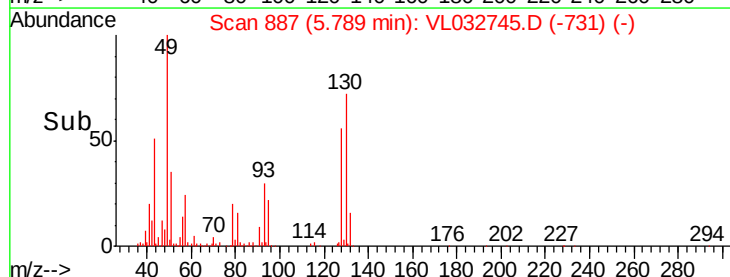
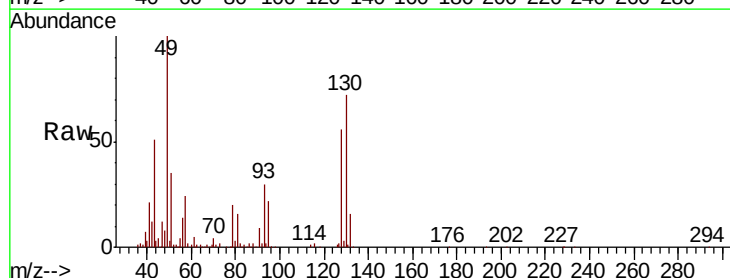
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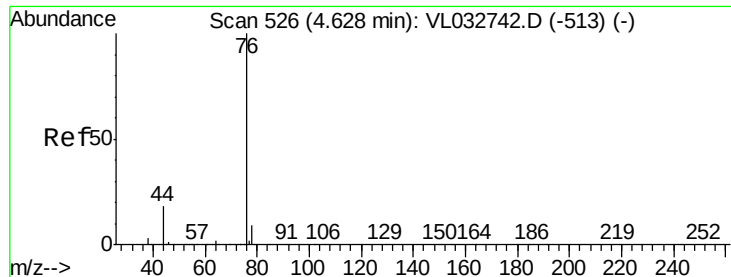


#26  
Hexane  
Concen: 0.477 ppbv  
RT: 5.79 min Scan# 887  
Delta R.T. 0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

| Tgt Ion | Ion   | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|-------|
| 57      | 100   |       |       |       |       |
| 41      | 95.9  | 70.3  | 105.5 |       |       |
| 43      | 242.6 | 174.0 | 261.0 |       |       |
| 56      | 60.9  | 42.3  | 63.5  |       |       |







#27

Carbon Disulfide

Concen: 0.503 ppbv

RT: 4.63 min Scan# 527

Delta R.T. 0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

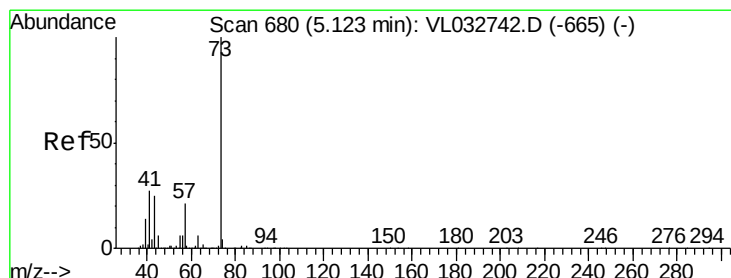
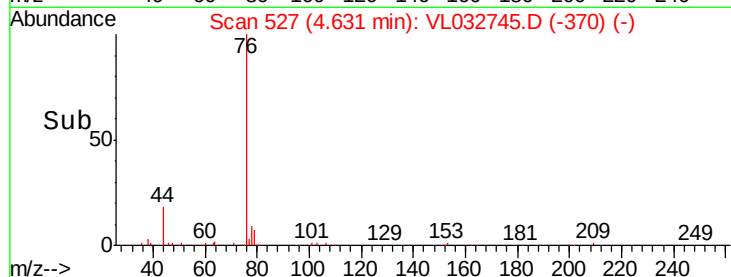
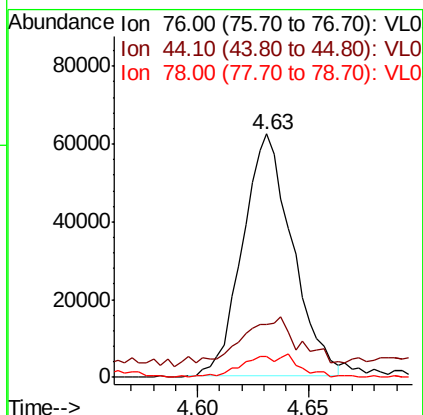
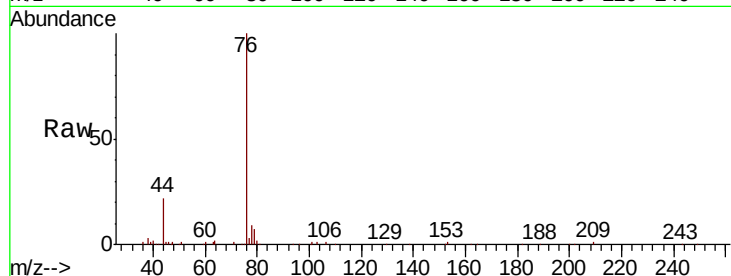
ClientSampleId :

VSTDIC0.5

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 76    | Resp: | 97222 |
| Ion Ratio | Lower | Upper |       |
| 76        | 100   |       |       |
| 44        | 28.4  | 14.4  | 21.6# |
| 78        | 10.9  | 7.7   | 11.5  |

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#28

Methyl tert-Butyl Ether

Concen: 0.501 ppbv

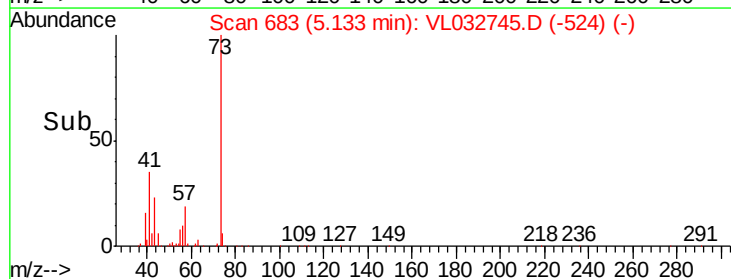
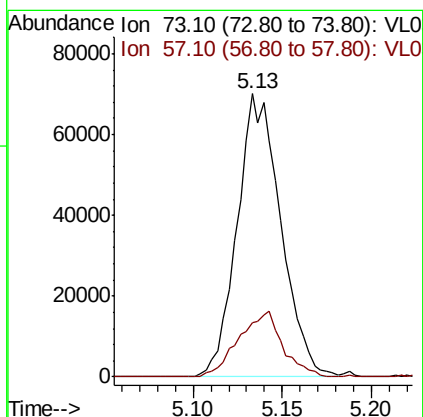
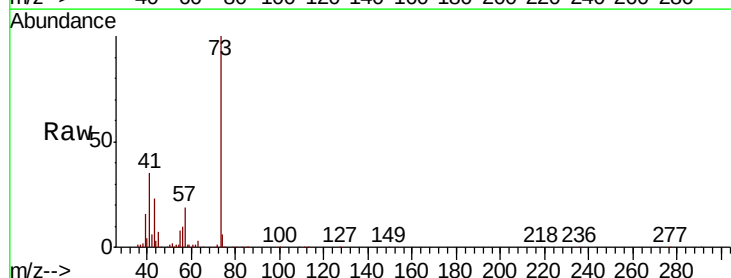
RT: 5.13 min Scan# 683

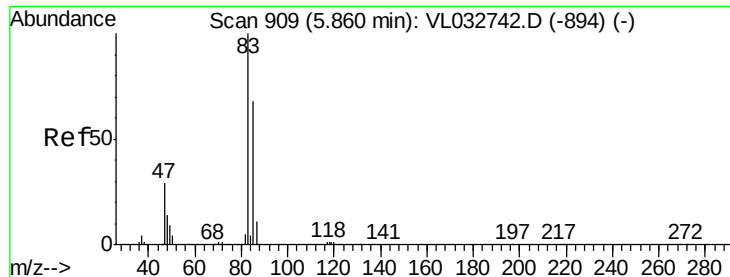
Delta R.T. 0.01 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 73    | Resp: | 119857 |
| Ion Ratio | Lower | Upper |        |
| 73        | 100   |       |        |
| 57        | 23.4  | 17.5  | 26.3   |





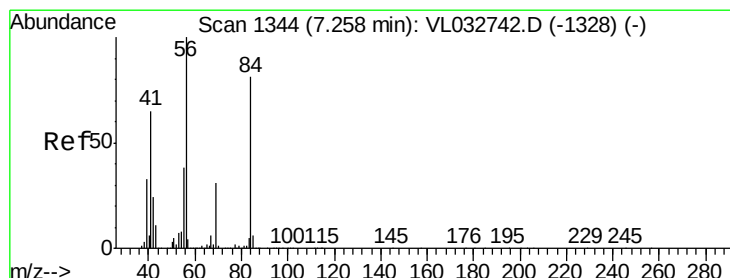
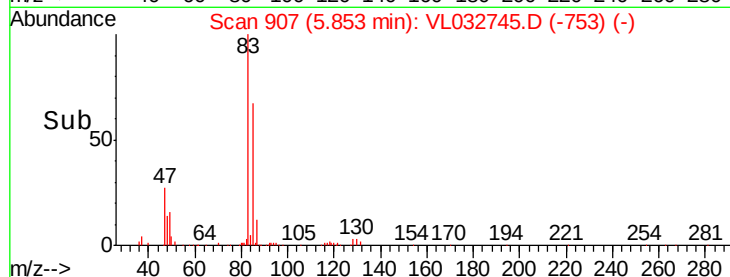
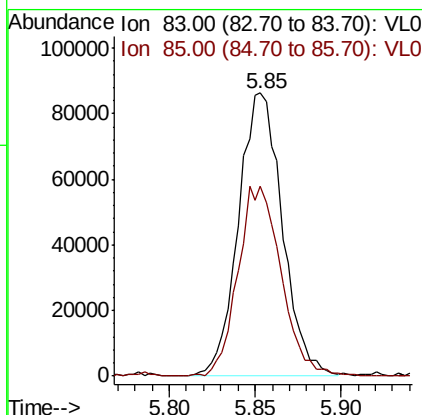
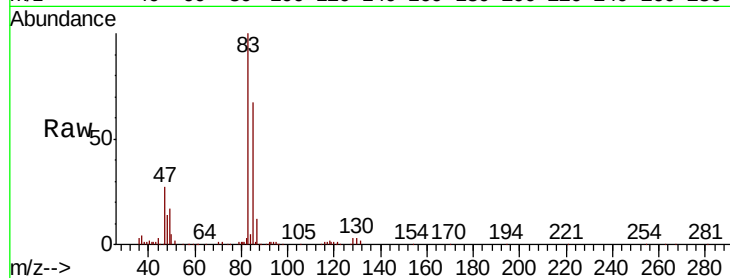
#29  
Chloroform  
Concen: 0.586 ppbv  
RT: 5.85 min Scan# 907  
Delta R.T. -0.01 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion   | 83   | Resp  | 152965 |
|-----------|------|-------|--------|
| Ion Ratio | 100  | Lower | Upper  |
| 83        | 100  |       |        |
| 85        | 66.9 | 54.2  | 81.4   |

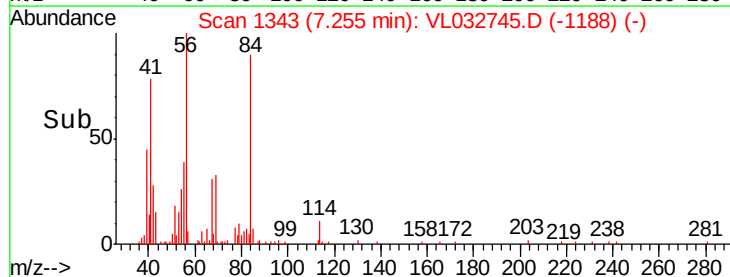
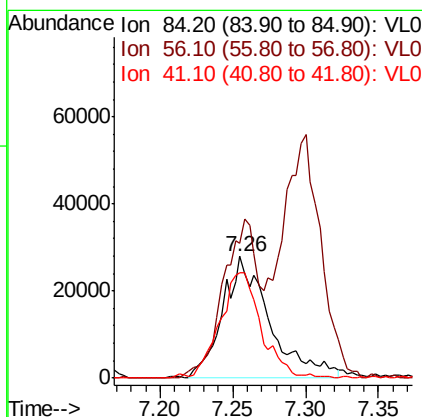
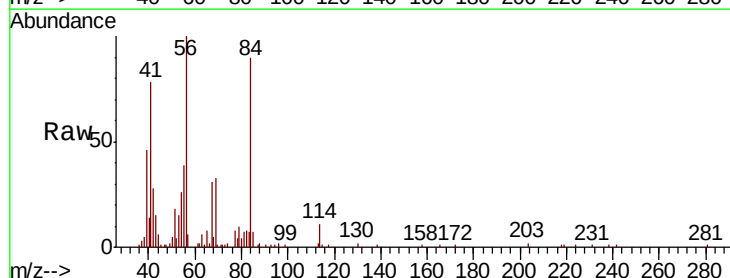
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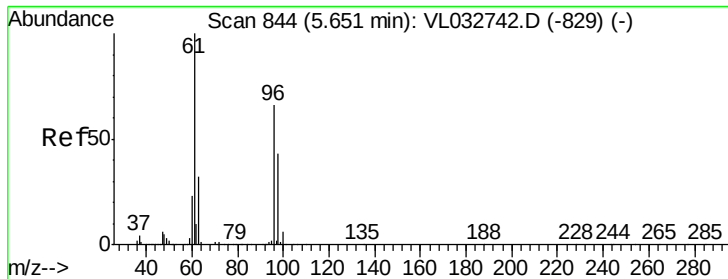
MMDadoda  
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#30  
Cyclohexane  
Concen: 0.490 ppbv m  
RT: 7.26 min Scan# 1343  
Delta R.T. -0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

| Tgt Ion   | 84    | Resp  | 63344  |
|-----------|-------|-------|--------|
| Ion Ratio | 100   | Lower | Upper  |
| 84        | 100   |       |        |
| 56        | 103.4 | 105.0 | 157.4# |
| 41        | 76.9  | 65.3  | 97.9   |





#31

cis-1,2-Dichloroethene

Concen: 0.508 ppbv

RT: 5.65 min Scan# 844

Delta R.T. 0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

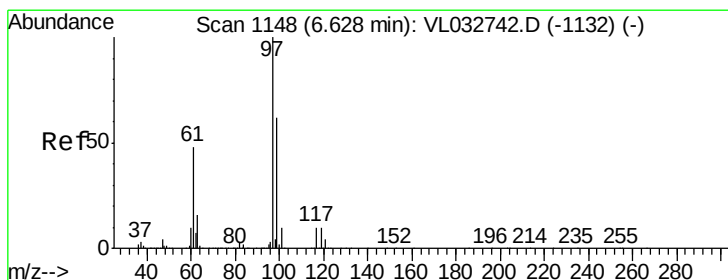
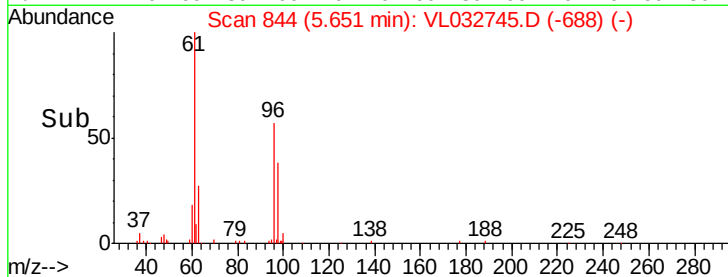
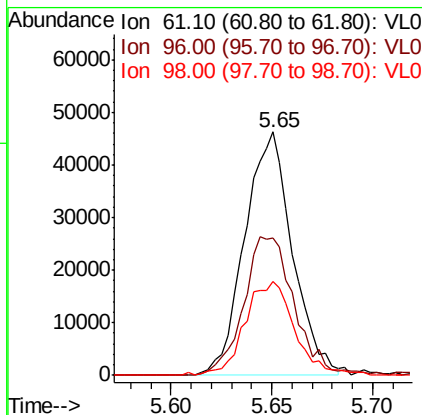
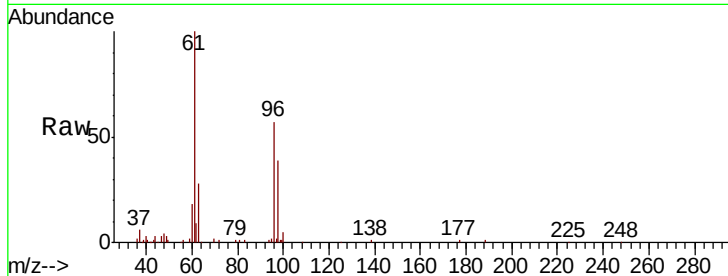
ClientSampleId :

VSTDIC0.5

|           |      |       |       |
|-----------|------|-------|-------|
| Tot Ion:  | 61   | Resp: | 76454 |
| Ion Ratio |      | Lower | Upper |
| 61        | 100  |       |       |
| 96        | 56.7 | 53.2  | 79.8  |
| 98        | 37.8 | 34.4  | 51.6  |

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#32

1,1,1-Trichloroethane

Concen: 0.574 ppbv

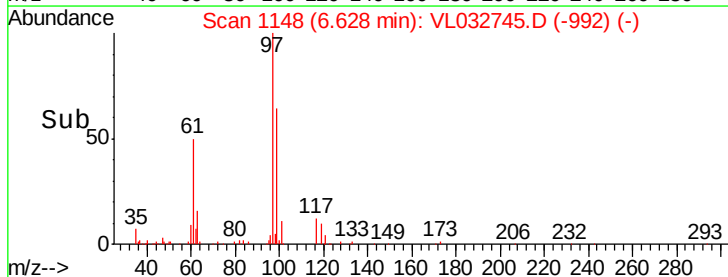
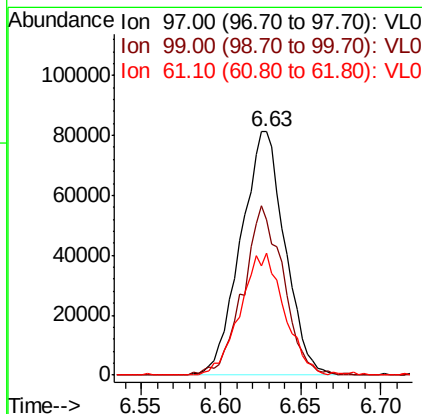
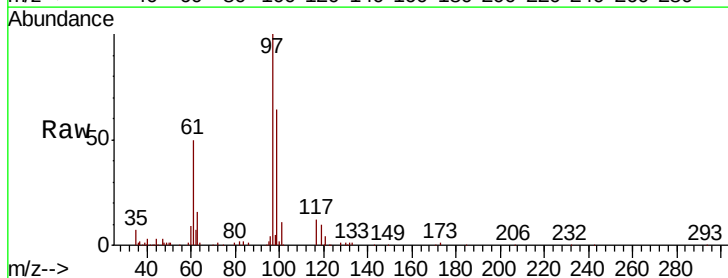
RT: 6.63 min Scan# 1148

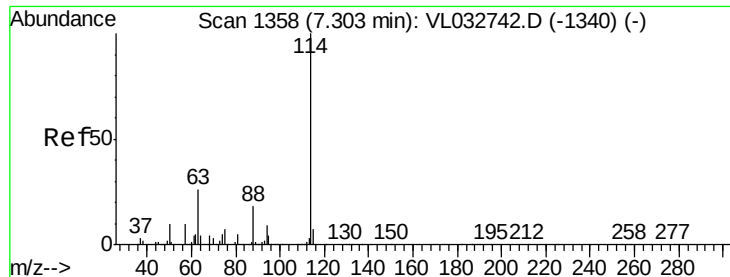
Delta R.T. 0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

|           |      |       |        |
|-----------|------|-------|--------|
| Tgt Ion:  | 97   | Resp: | 153582 |
| Ion Ratio |      | Lower | Upper  |
| 97        | 100  |       |        |
| 99        | 63.5 | 51.8  | 77.6   |
| 61        | 50.2 | 39.7  | 59.5   |





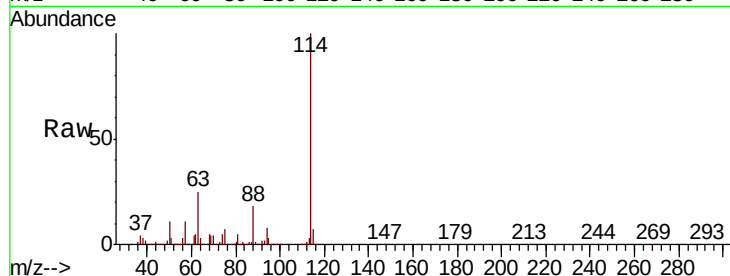
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.30 min Scan# 1356  
 Delta R.T. -0.01 min  
 Lab File: VL032745.D  
 Acq: 14 Nov 2018 4:22

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

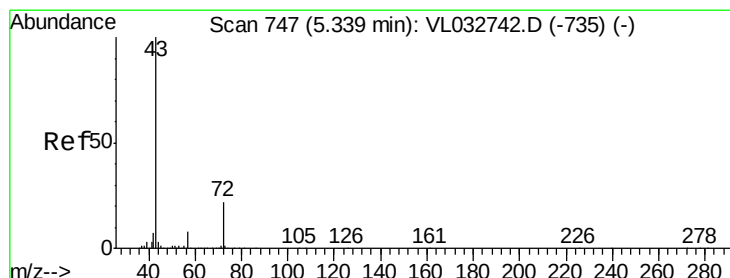
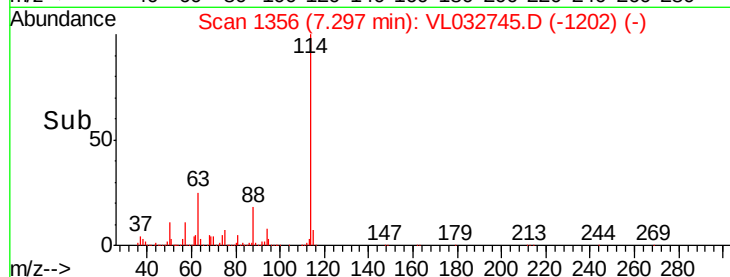
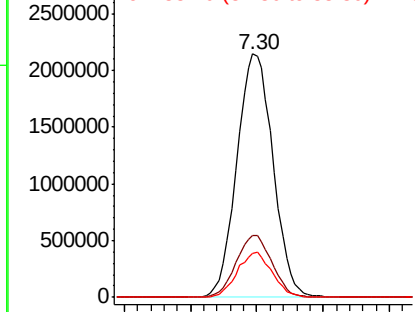
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 25.2  | 20.9  | 31.3  |
| 88      | 17.9  | 14.4  | 21.6  |

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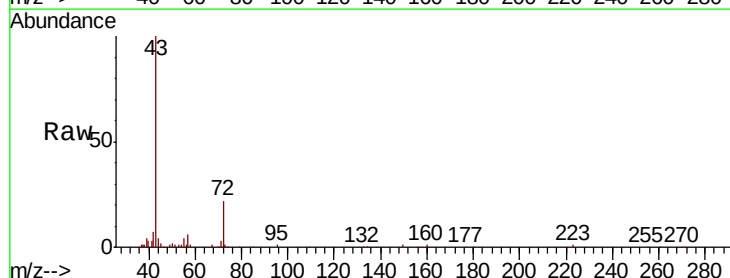


Abundance Ion 114.10 (113.80 to 114.80): VL0  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

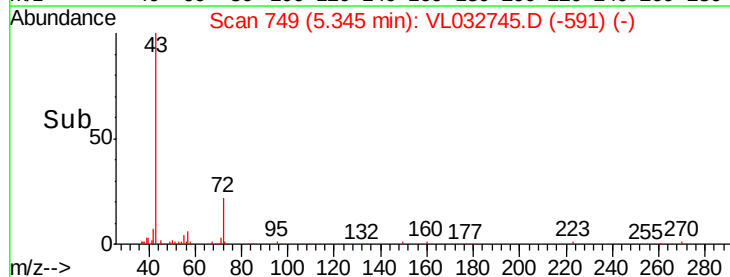
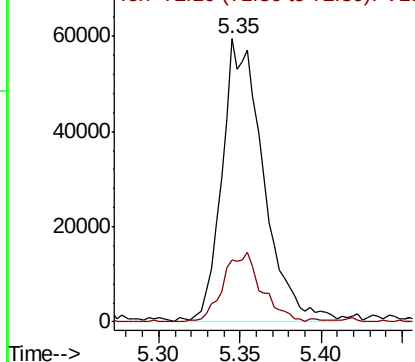


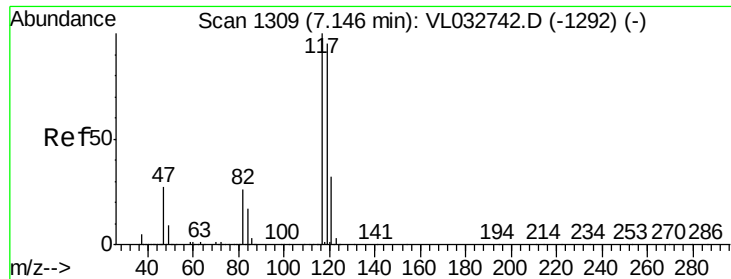
#34  
 2-Butanone  
 Concen: 0.480 ppbv m  
 RT: 5.35 min Scan# 749  
 Delta R.T. 0.01 min  
 Lab File: VL032745.D  
 Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 0.0   | 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: 0.559 ppbv

RT: 7.14 min Scan# 1308

Delta R.T. -0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

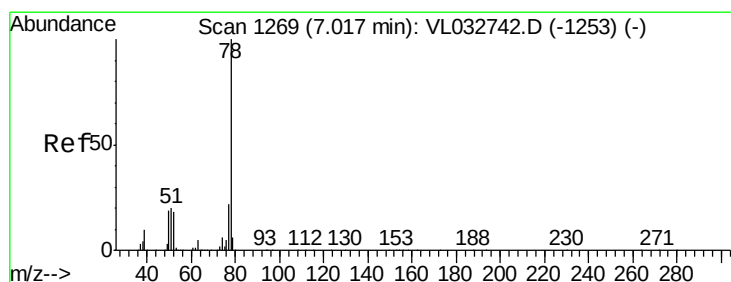
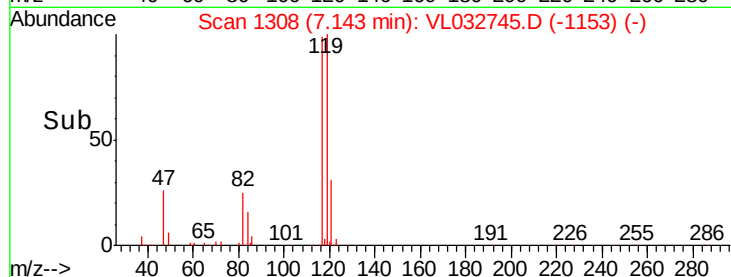
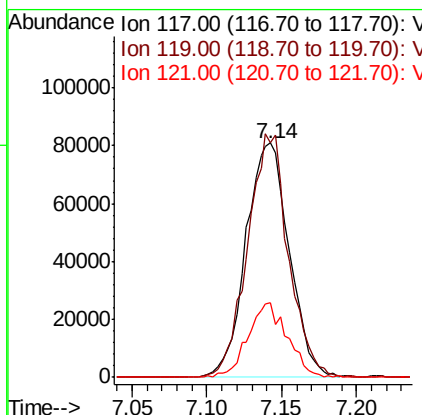
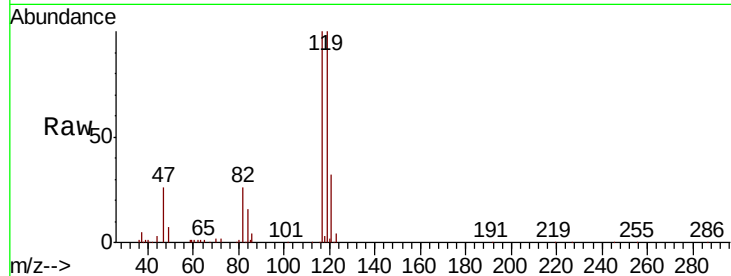
ClientSampleId :

VSTDIC0.5

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 117   | Resp: | 163070 |
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 119       | 100.3 | 76.1  | 114.1  |
| 121       | 32.0  | 25.4  | 38.0   |

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#36

Benzene

Concen: 0.481 ppbv

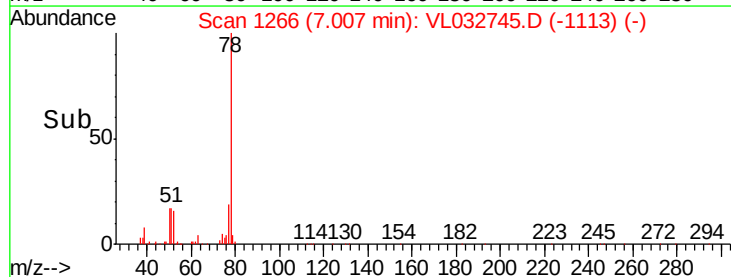
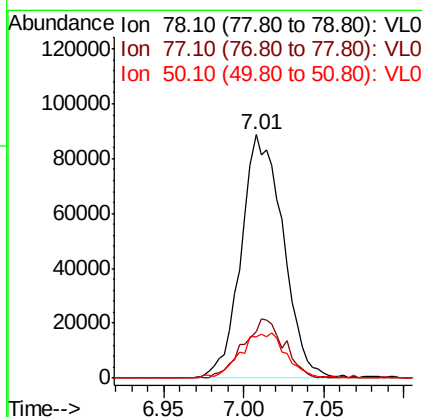
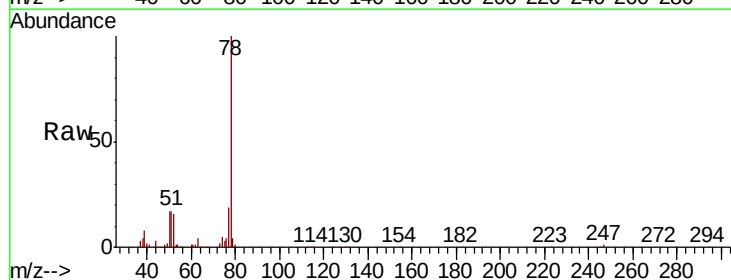
RT: 7.01 min Scan# 1266

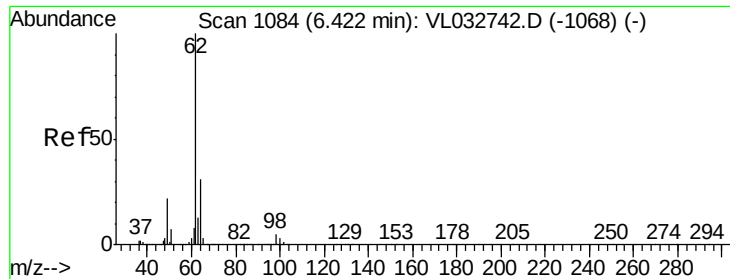
Delta R.T. -0.01 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 78    | Resp: | 158283 |
| Ion Ratio | Lower | Upper |        |
| 78        | 100   |       |        |
| 77        | 18.9  | 17.8  | 26.8   |
| 50        | 16.9  | 15.4  | 23.0   |





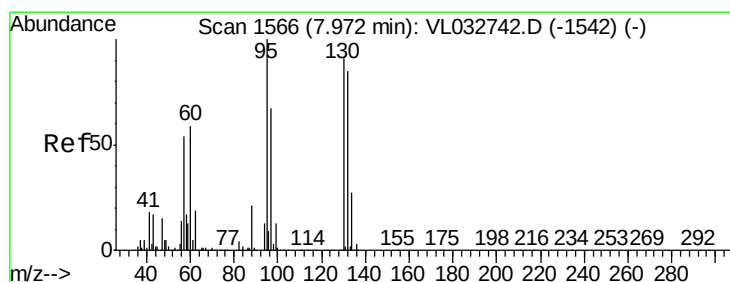
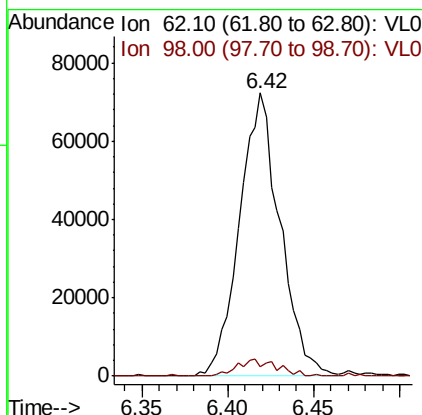
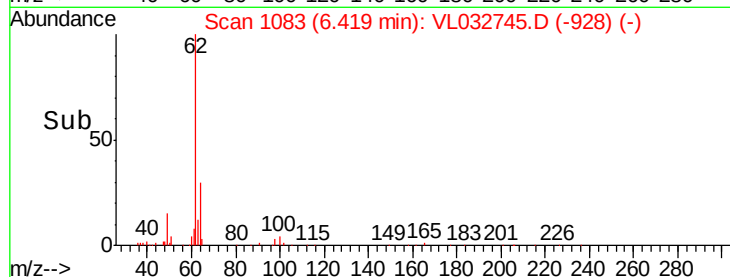
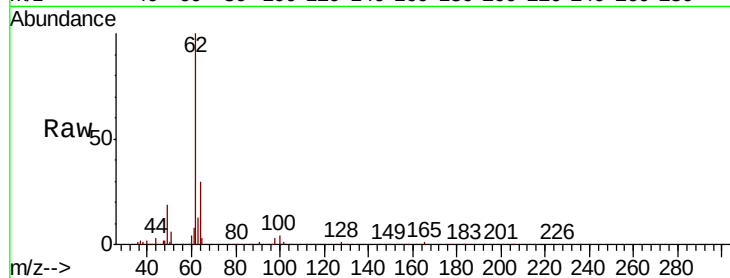
#37  
 1,2-Dichloroethane  
 Concen: 0.577 ppbv  
 RT: 6.42 min Scan# 1083  
 Delta R.T. -0.00 min  
 Lab File: VL032745.D  
 Acq: 14 Nov 2018 4:22

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62      | 100   |       |       |
| 98      | 6.0   | 4.5   | 6.7   |

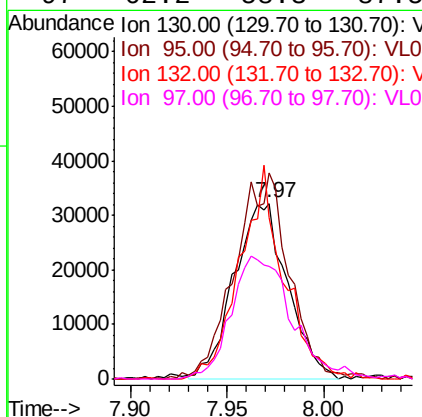
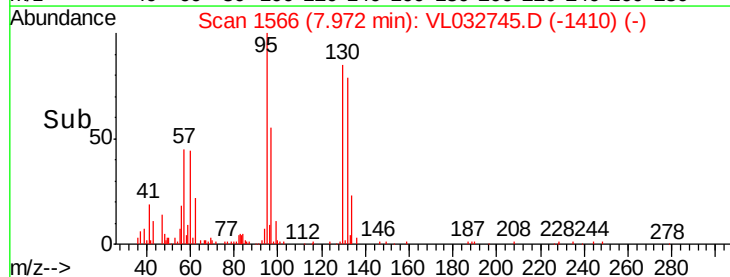
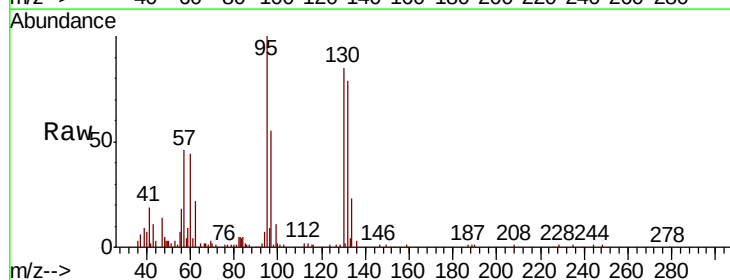
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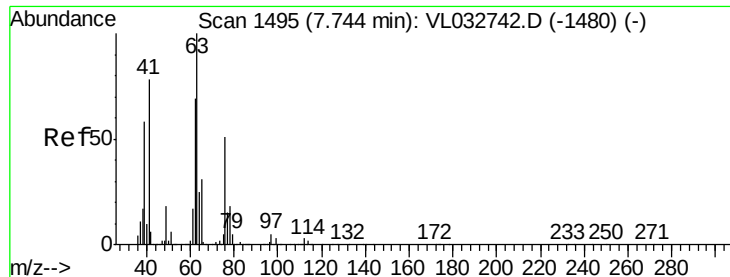
MMDadoda  
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#38  
 Trichloroethene  
 Concen: 0.505 ppbv  
 RT: 7.97 min Scan# 1566  
 Delta R.T. 0.00 min  
 Lab File: VL032745.D  
 Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 130     | 100   |       |       |
| 95      | 114.9 | 87.7  | 131.5 |
| 132     | 90.5  | 74.6  | 111.8 |
| 97      | 62.2  | 58.3  | 87.5  |





#39

1,2-Dichloropropane

Concen: 0.499 ppbv

RT: 7.74 min Scan# 1494

Delta R.T. -0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

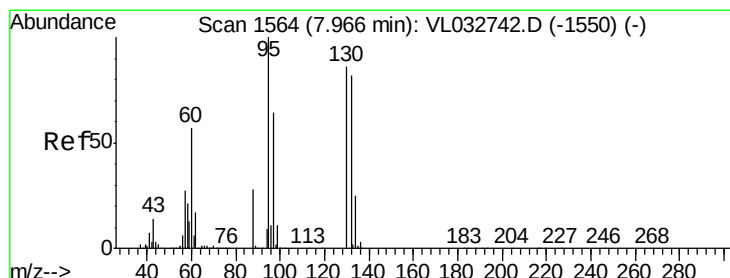
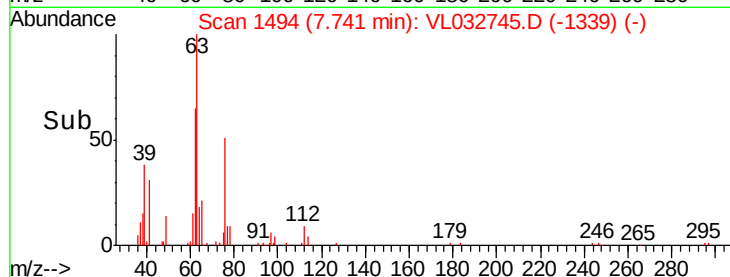
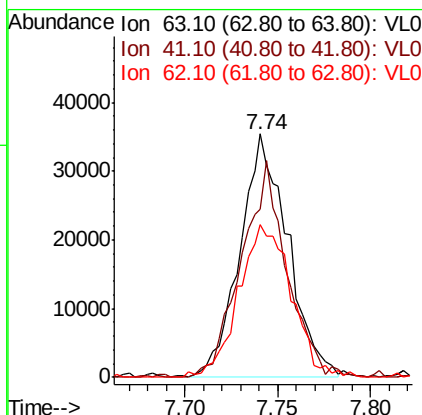
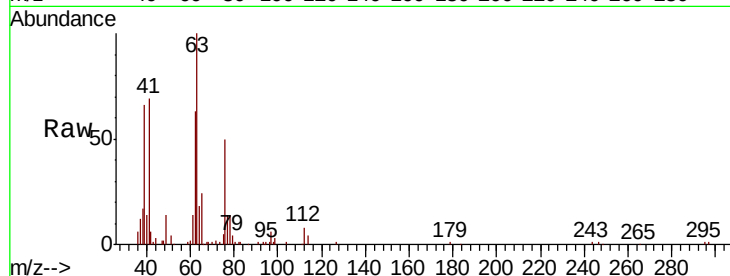
ClientSampleId :

VSTDIC0.5

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 63    | Resp: | 63340 |
| Ion Ratio | Lower | Upper |       |
| 63        | 100   |       |       |
| 41        | 69.0  | 62.0  | 93.0  |
| 62        | 60.5  | 55.4  | 83.2  |

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#40

1,4-Dioxane

Concen: 0.501 ppbv m

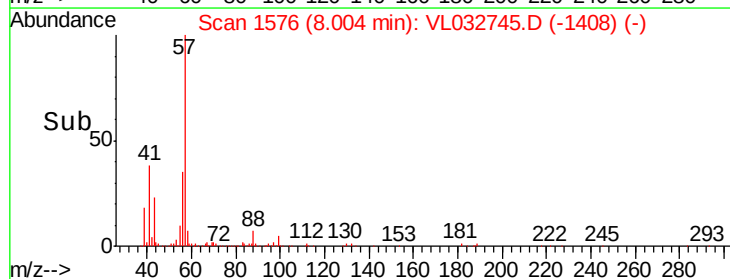
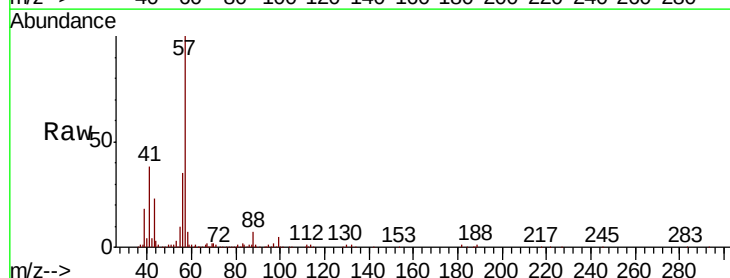
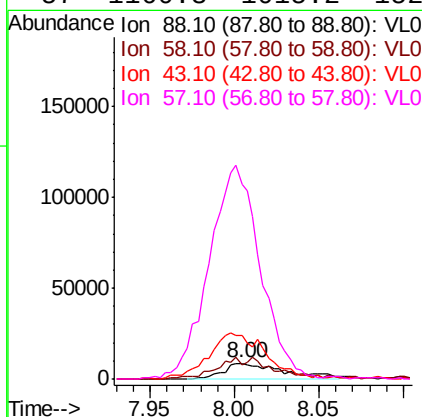
RT: 8.00 min Scan# 1576

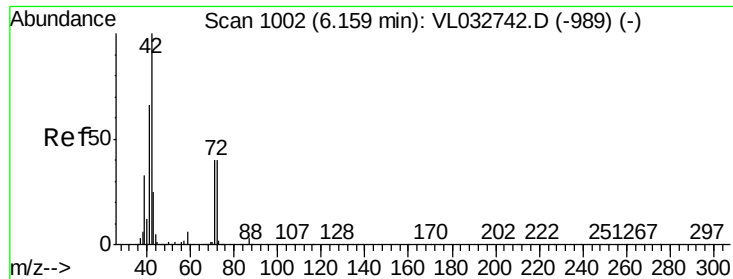
Delta R.T. 0.04 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

|           |        |        |        |
|-----------|--------|--------|--------|
| Tgt Ion:  | 88     | Resp:  | 21625  |
| Ion Ratio | Lower  | Upper  |        |
| 88        | 100    |        |        |
| 58        | 132.1  | 105.3  | 157.9  |
| 43        | 282.6  | 226.1  | 339.1  |
| 57        | 1160.3 | 1015.2 | 1522.8 |





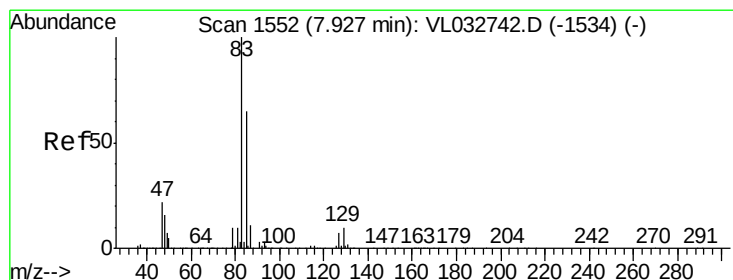
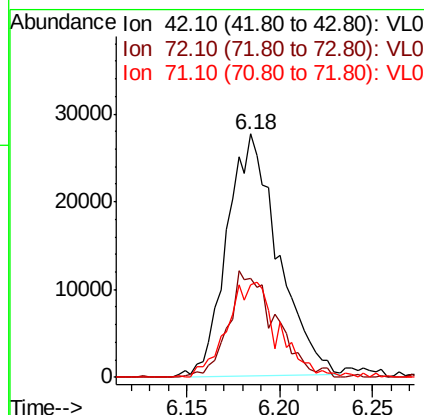
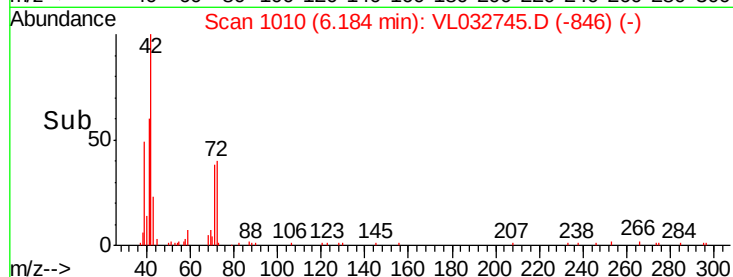
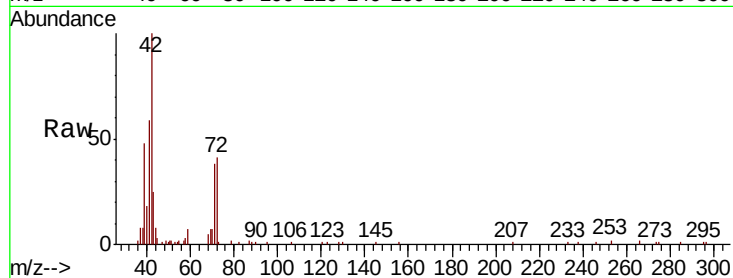
#41  
Tetrahydrofuran  
Concen: 0.435 ppbv  
RT: 6.18 min Scan# 1010  
Delta R.T. 0.03 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 41.0  | 32.4  | 48.6  |
| 71      | 39.6  | 31.6  | 47.4  |

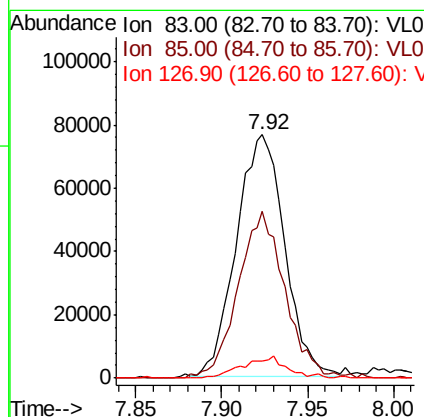
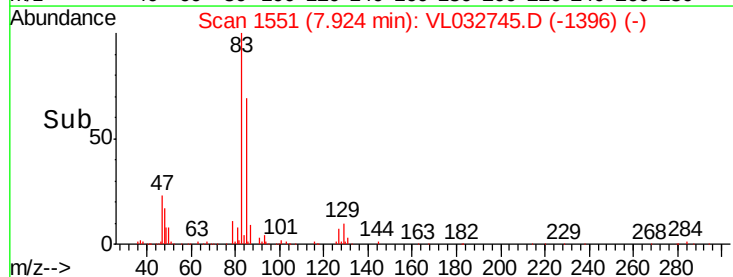
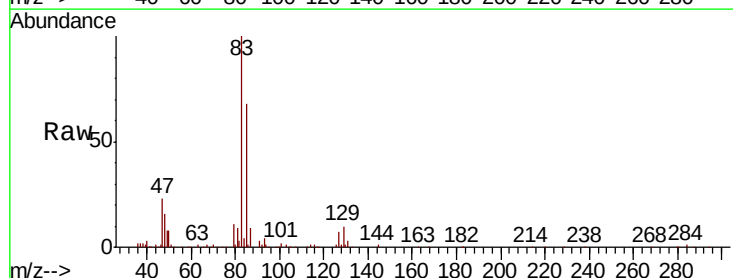
Manual Integrations  
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11/16/2018 1:29:44 PM

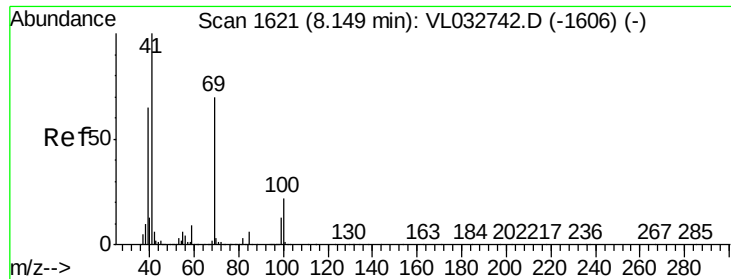


#42  
Bromodichloromethane  
Concen: 0.519 ppbv  
RT: 7.92 min Scan# 1551  
Delta R.T. -0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 67.7  | 51.8  | 77.8  |
| 127     | 7.1   | 5.9   | 8.9   |







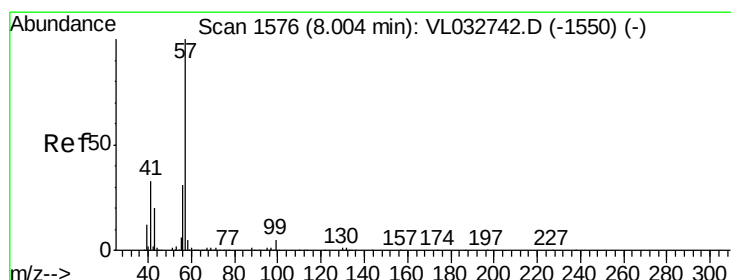
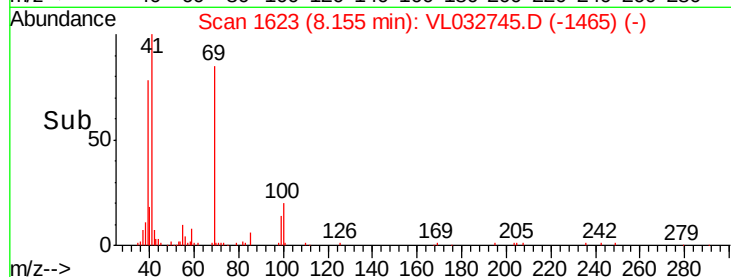
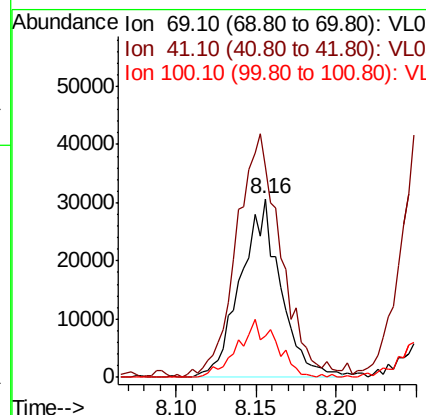
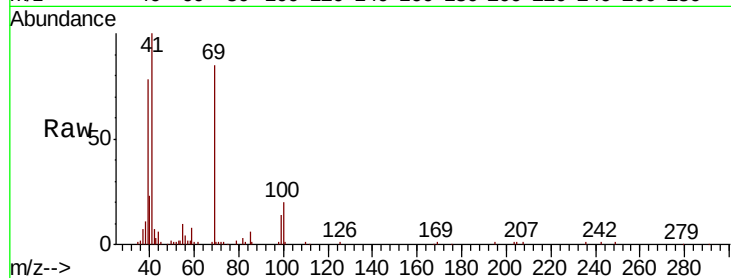
#43  
Methyl Methacrylate  
Concen: 0.433 ppbv  
RT: 8.16 min Scan# 1623  
Delta R.T. 0.01 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 69      | 100   |       |       |
| 41      | 153.3 | 115.0 | 172.4 |
| 100     | 31.3  | 25.4  | 38.0  |

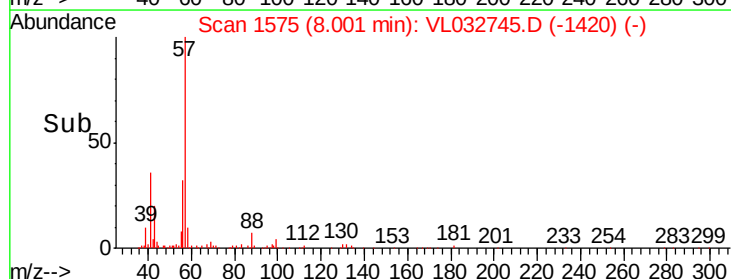
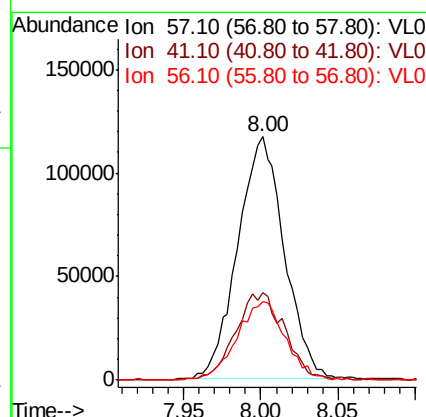
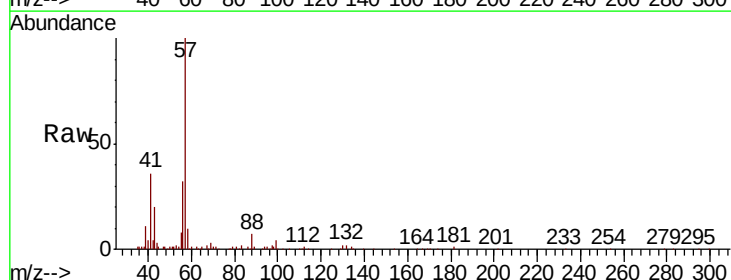
Manual Integrations  
APPROVED

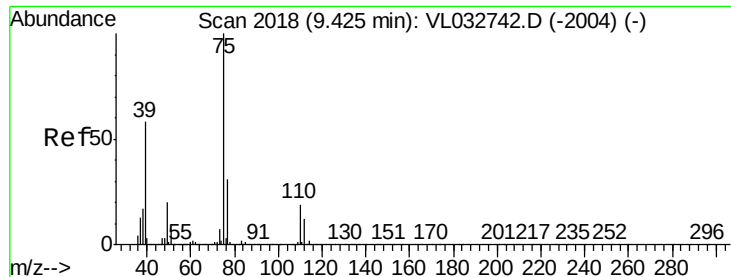
MMDadoda  
11/16/2018 1:29:44 PM



#44  
2,2,4-Trimethylpentane  
Concen: 0.436 ppbv  
RT: 8.00 min Scan# 1575  
Delta R.T. -0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 38.9  | 26.6  | 39.8  |
| 56      | 33.8  | 24.8  | 37.2  |





#45

t-1,3-Dichloropropene

Concen: 0.380 ppbv m

RT: 9.43 min Scan# 2018

Delta R.T. 0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 75 Resp: 61429

Ion Ratio Lower Upper

75 100

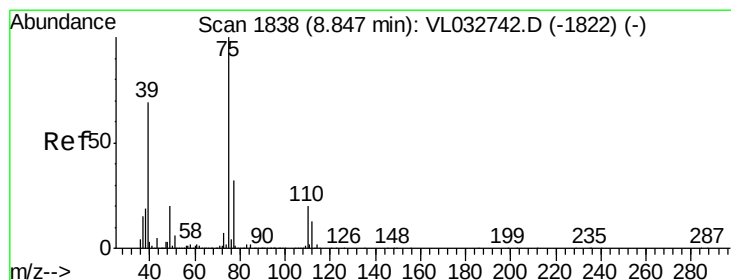
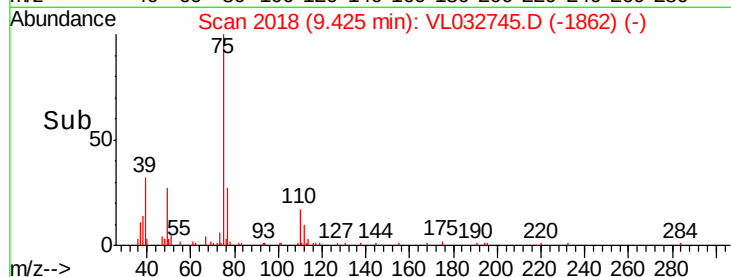
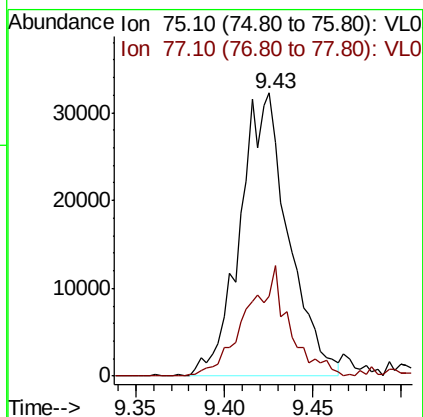
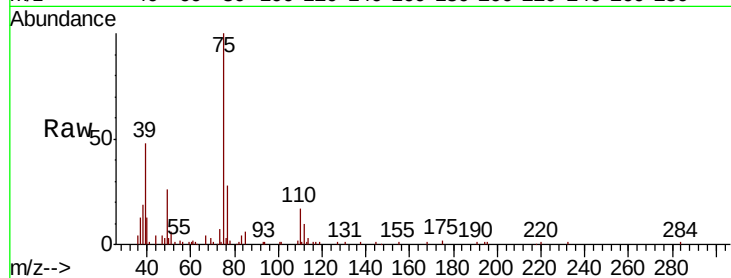
77 28.1 24.6 36.8

Manual Integrations

APPROVED

MMDadoda

11/16/2018 1:29:44 PM



#46

cis-1,3-Dichloropropene

Concen: 0.433 ppbv

RT: 8.84 min Scan# 1837

Delta R.T. -0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

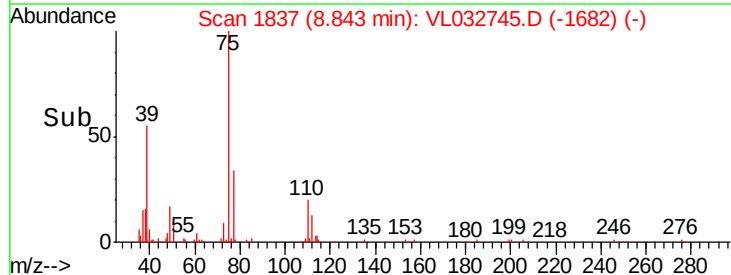
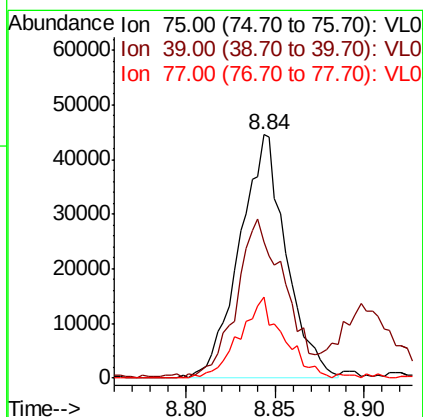
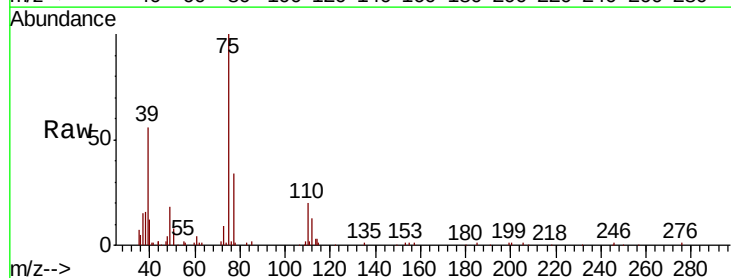
Tgt Ion: 75 Resp: 81448

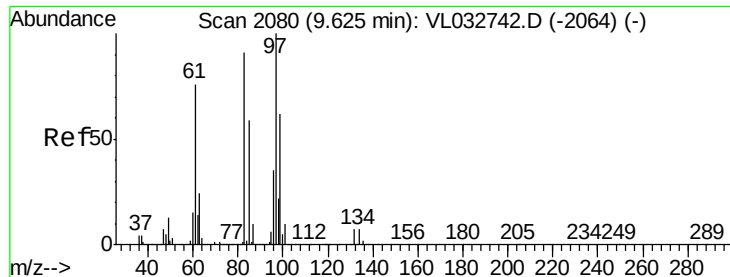
Ion Ratio Lower Upper

75 100

39 53.9 55.2 82.8#

77 33.5 25.8 38.6





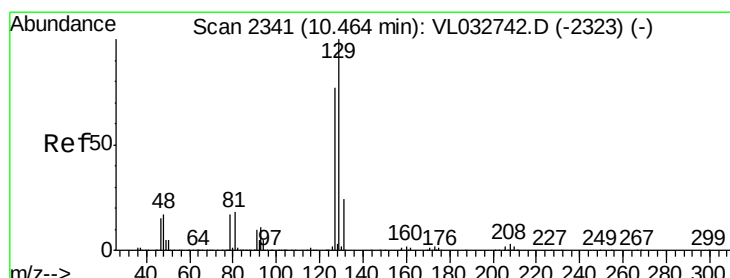
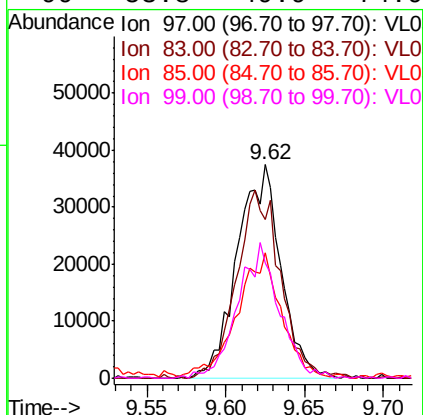
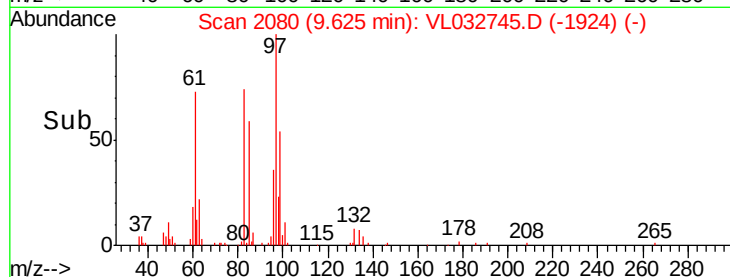
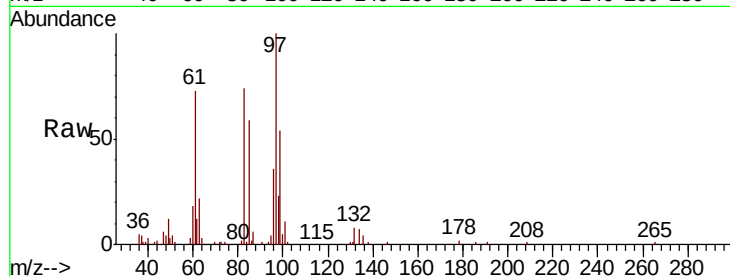
#47  
 1,1,2-Trichloroethane  
 Concen: 0.481 ppbv m  
 RT: 9.62 min Scan# 2080  
 Delta R.T. 0.00 min  
 Lab File: VL032745.D  
 Acq: 14 Nov 2018 4:22

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 97    | Resp: | 72134 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 83       | 74.1  | 73.0  | 109.4 |
| 85       | 58.9  | 47.0  | 70.4  |
| 99       | 53.8  | 49.9  | 74.9  |

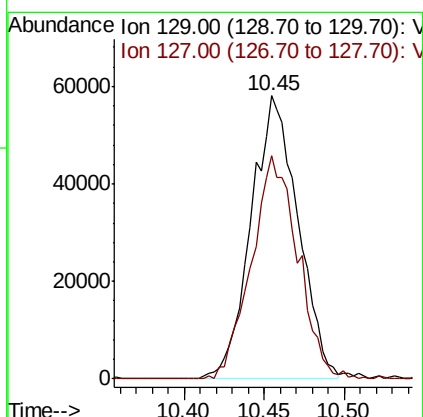
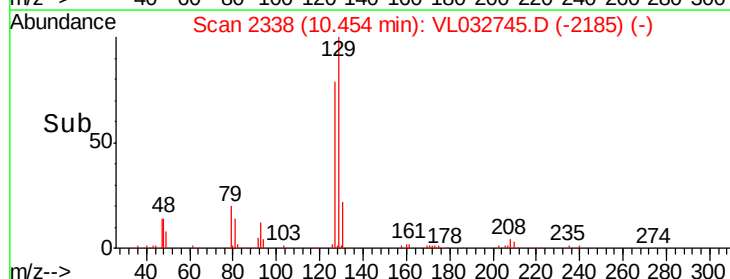
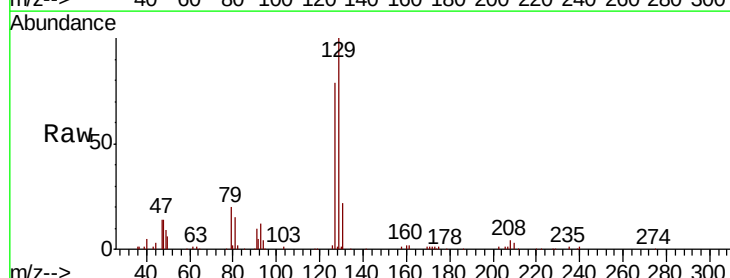
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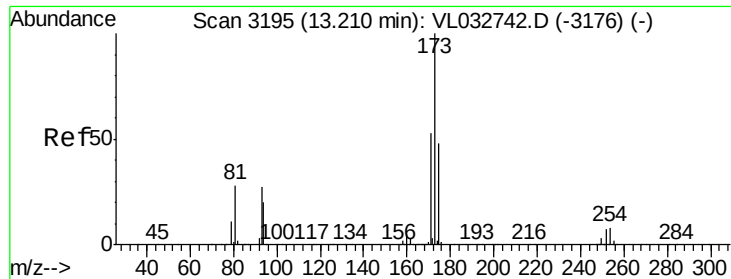
MMDadoda  
 11/16/2018 1:29:44 PM



#48  
 Dibromochloromethane  
 Concen: 0.464 ppbv  
 RT: 10.45 min Scan# 2338  
 Delta R.T. -0.01 min  
 Lab File: VL032745.D  
 Acq: 14 Nov 2018 4:22

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 129   | Resp: | 117137 |
| Ion      | Ratio | Lower | Upper  |
| 129      | 100   |       |        |
| 127      | 78.3  | 39.0  | 117.0  |





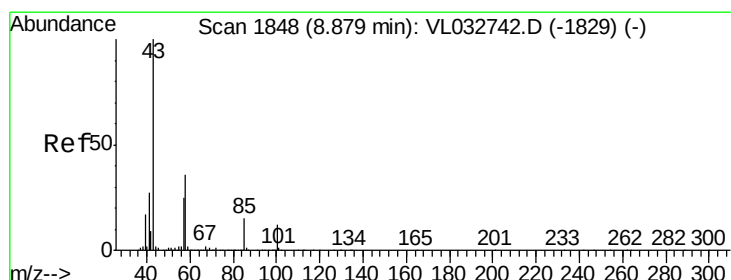
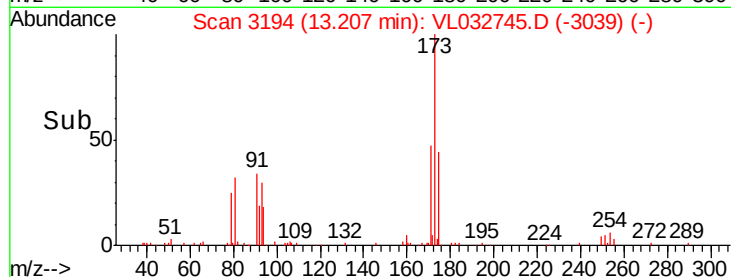
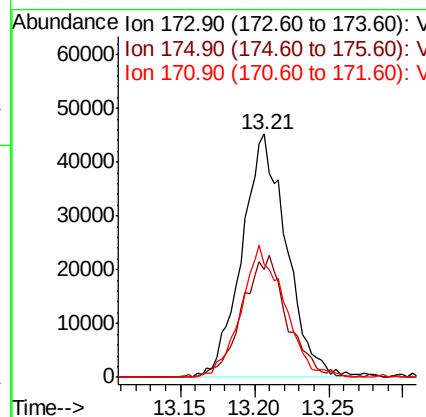
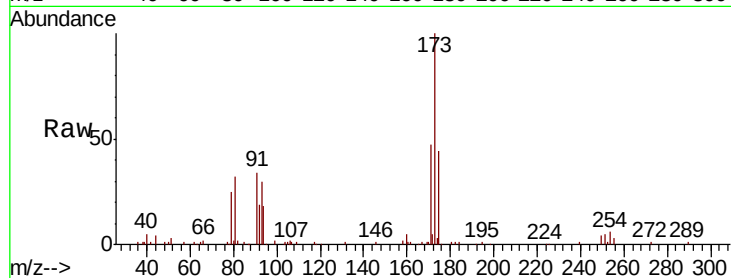
#49  
Bromoform  
Concen: 0.476 ppbv m  
RT: 13.21 min Scan# 3194  
Delta R.T. -0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 173     | 100   |       |       |
| 175     | 50.7  | 39.4  | 59.0  |
| 171     | 52.6  | 42.0  | 63.0  |

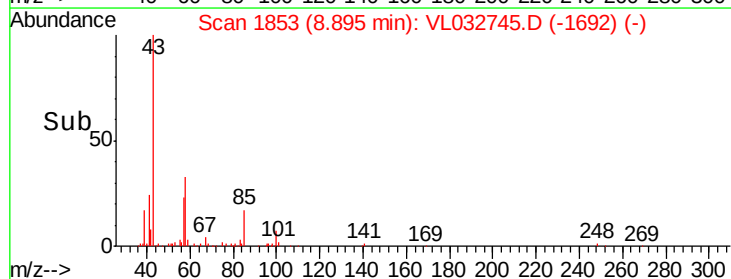
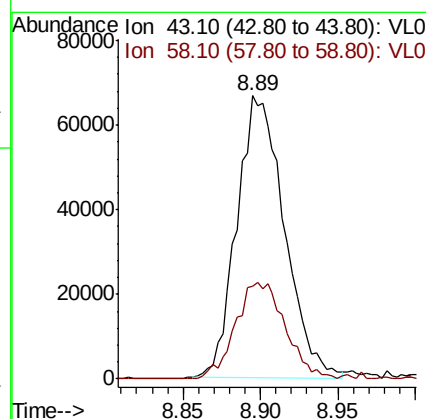
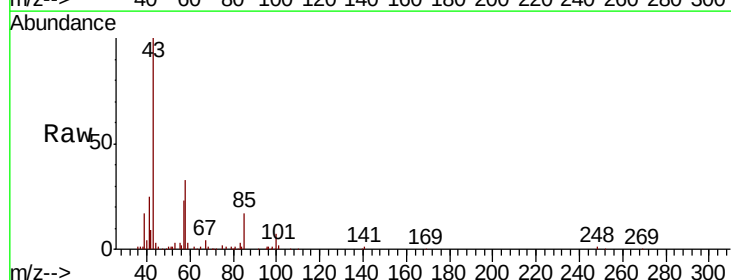
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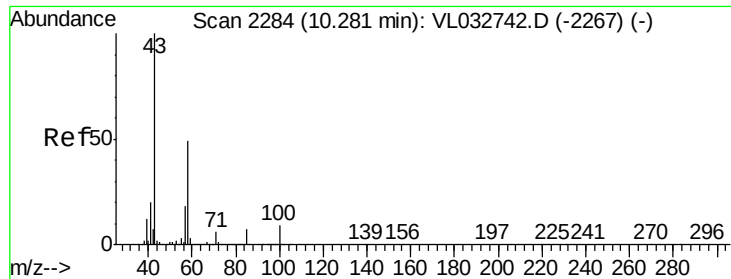
MMDadoda  
11/16/2018 1:29:44 PM



#50  
4-Methyl-2-Pentanone  
Concen: 0.433 ppbv  
RT: 8.89 min Scan# 1853  
Delta R.T. 0.02 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 36.6  | 28.8  | 43.2  |





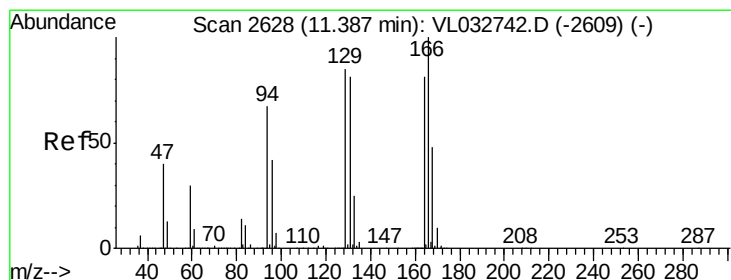
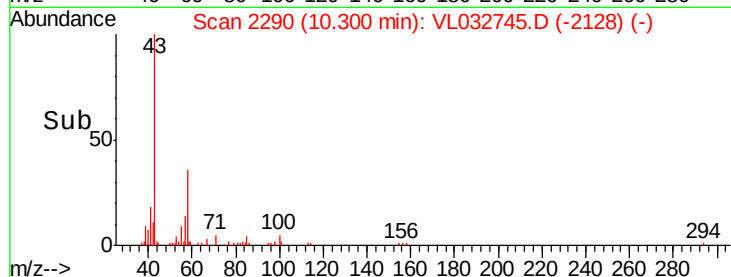
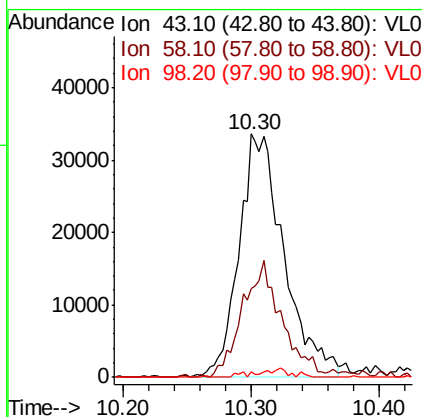
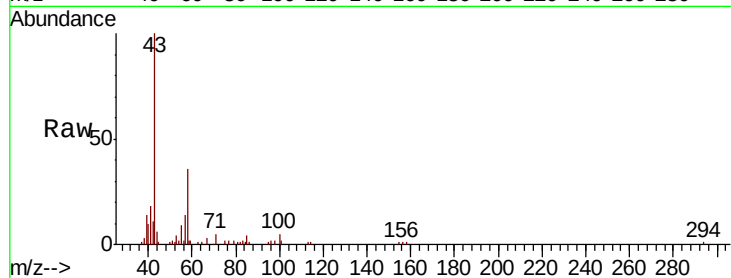
#51  
2-Hexanone  
Concen: 0.349 ppbv m  
RT: 10.30 min Scan# 2290  
Delta R.T. 0.02 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 0.0   | 38.9  | 58.3# |
| 98      | 0.0   | 0.2   | 0.4#  |

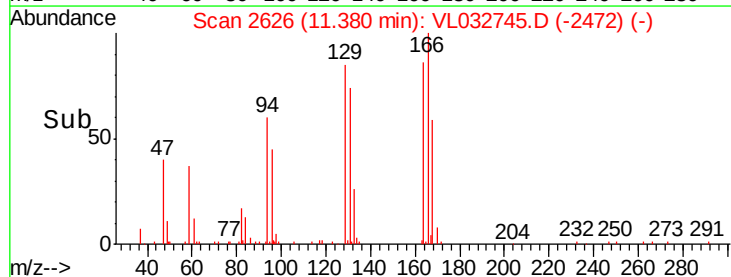
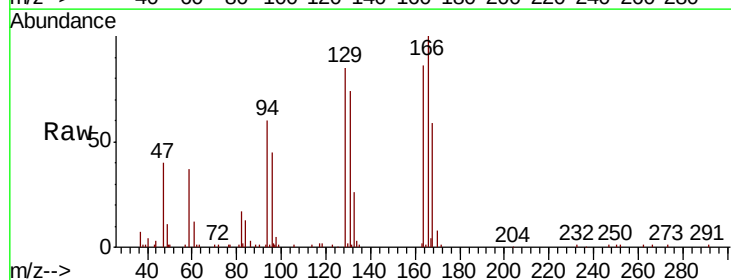
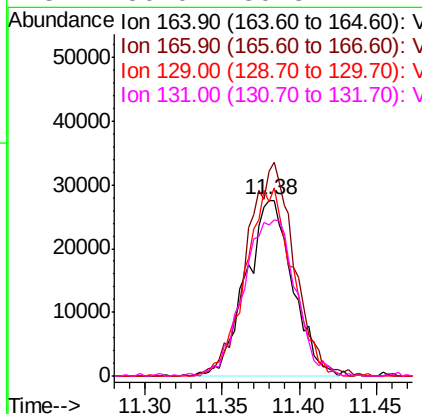
Manual Integrations  
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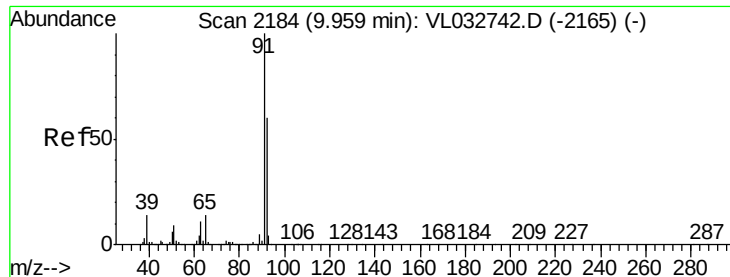
MMDadoda  
11/16/2018 1:29:44 PM



#52  
Tetrachloroethene  
Concen: 0.504 ppbv m  
RT: 11.38 min Scan# 2626  
Delta R.T. -0.01 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 116.6 | 99.3  | 148.9 |
| 129     | 99.3  | 83.9  | 125.9 |
| 131     | 86.0  | 80.8  | 121.2 |





#53

Toluene

Concen: 0.362 ppbv

RT: 9.95 min Scan# 2182

Delta R.T. -0.01 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 91 Resp: 134432

Ion Ratio Lower Upper

91 100

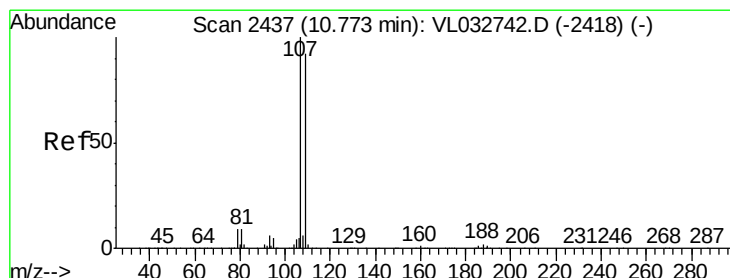
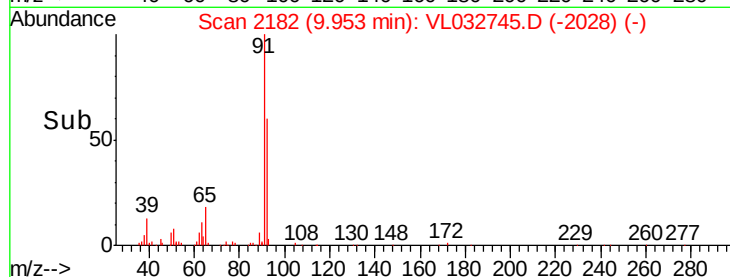
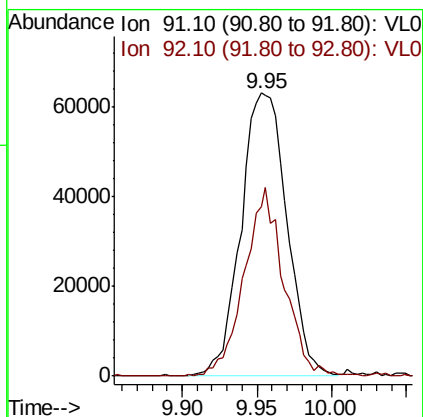
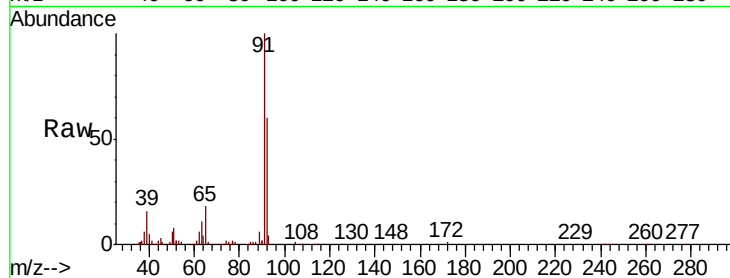
92 57.6 47.9 71.9

Manual Integrations

APPROVED

MMDadoda

11/16/2018 1:29:44 PM



#54

1,2-Dibromoethane

Concen: 0.485 ppbv m

RT: 10.77 min Scan# 2436

Delta R.T. -0.00 min

Lab File: VL032745.D

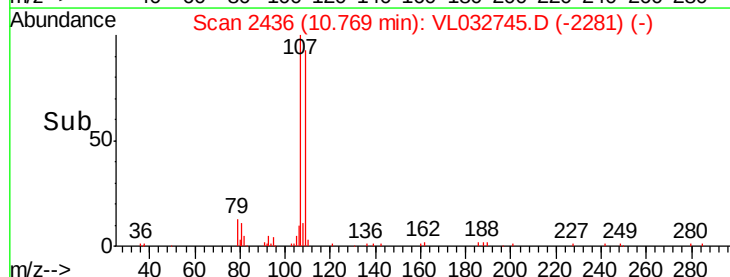
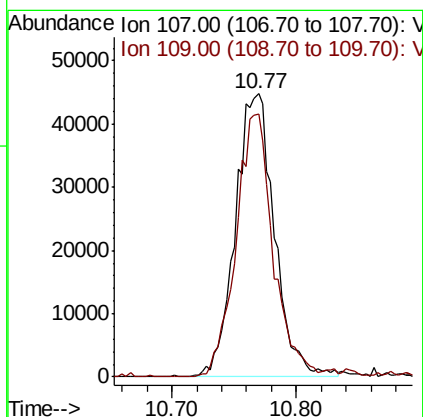
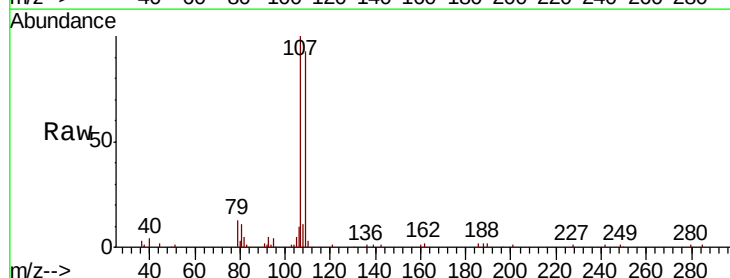
Acq: 14 Nov 2018 4:22

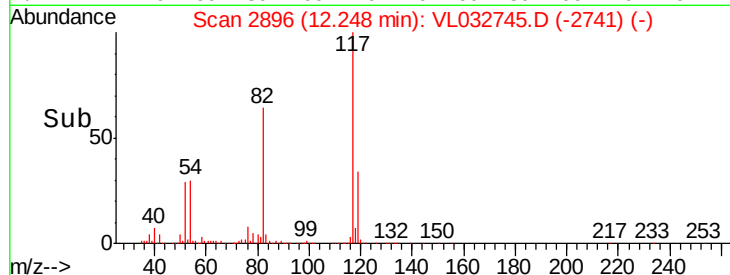
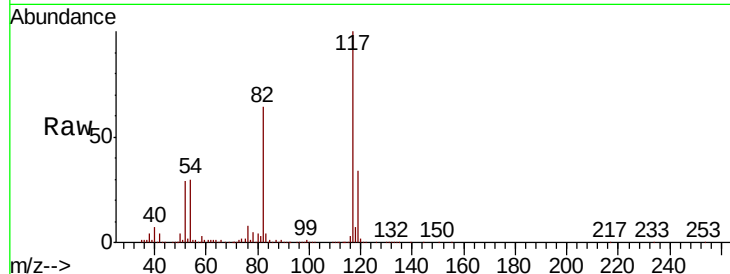
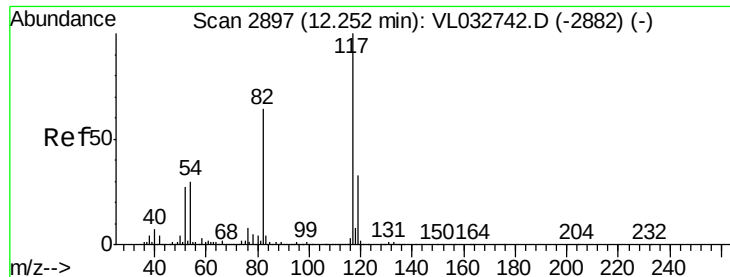
Tgt Ion: 107 Resp: 97891

Ion Ratio Lower Upper

107 100

109 92.8 73.8 110.8





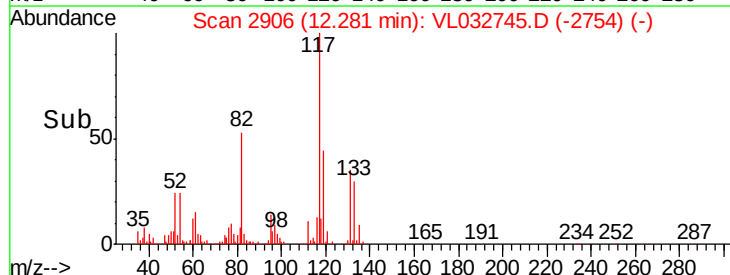
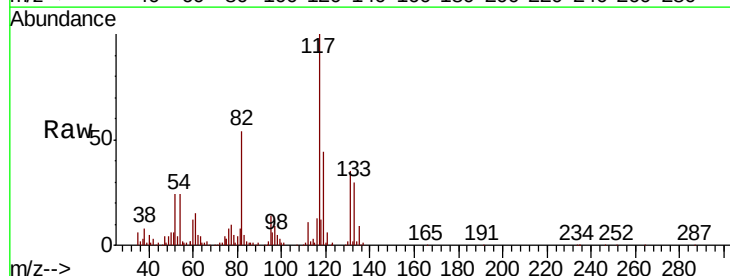
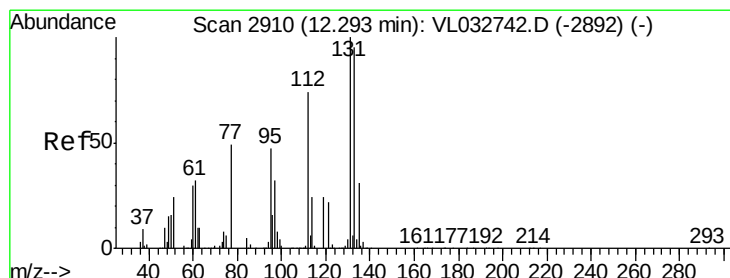
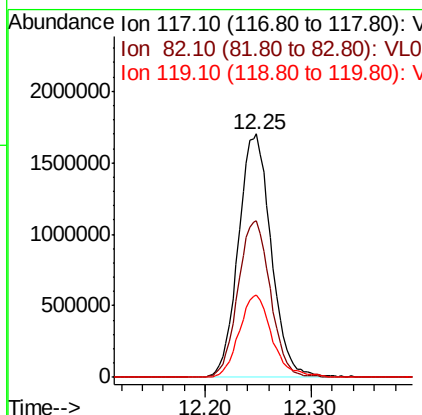
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.25 min Scan# 2896  
Delta R.T. -0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

Tot Ion:117 Resp: 3677631  
Ion Ratio Lower Upper  
117 100  
82 63.6 51.0 76.6  
119 34.0 28.0 42.0

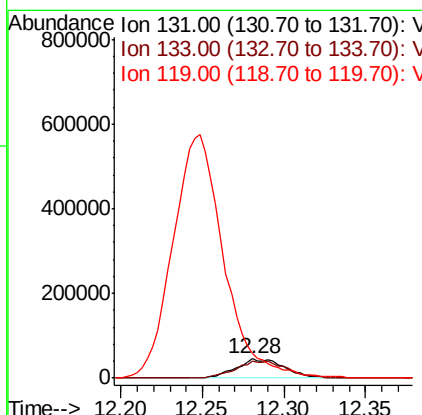
Manual Integrations  
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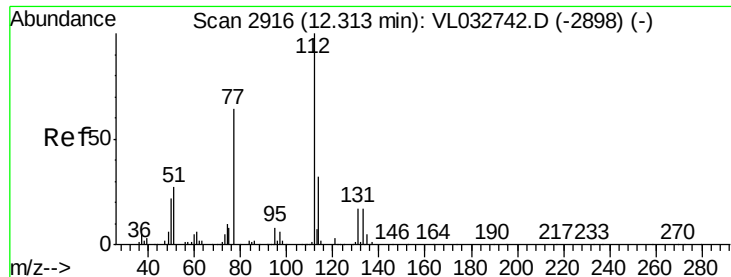
MMDadoda  
11/16/2018 1:29:44 PM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 0.572 ppbv m  
RT: 12.28 min Scan# 2906  
Delta R.T. -0.01 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Tgt Ion:131 Resp: 93522  
Ion Ratio Lower Upper  
131 100  
133 0.0 75.8 113.6#  
119 0.0 45.2 67.8#





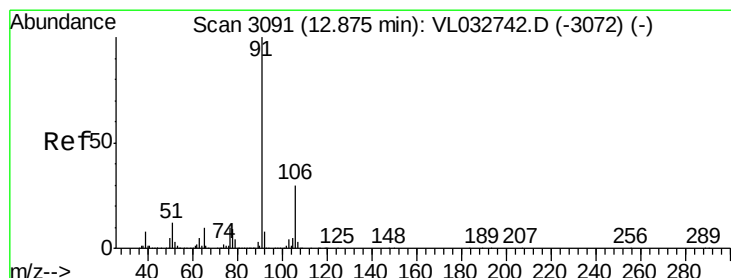
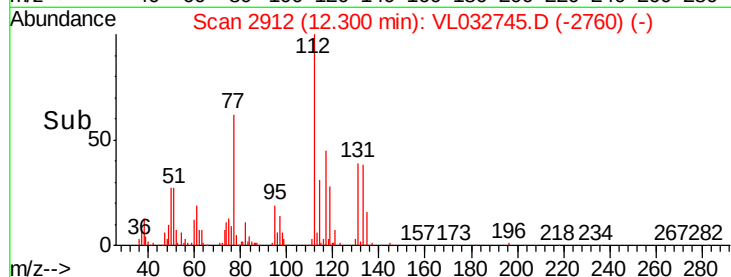
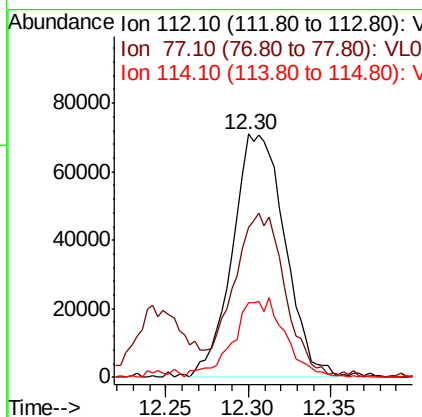
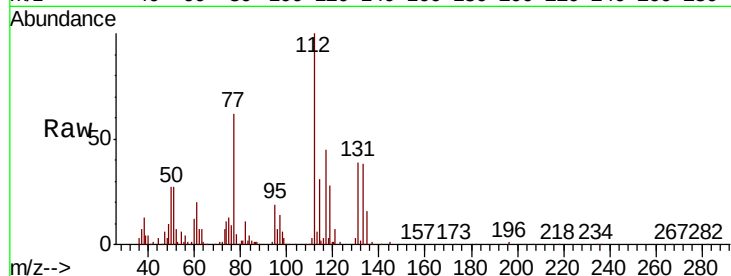
#57  
Chlorobenzene  
Concen: 0.573 ppbv m  
RT: 12.30 min Scan# 2912  
Delta R.T. -0.01 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 77      | 61.5  | 52.3  | 78.5  |
| 114     | 30.7  | 28.4  | 34.8  |

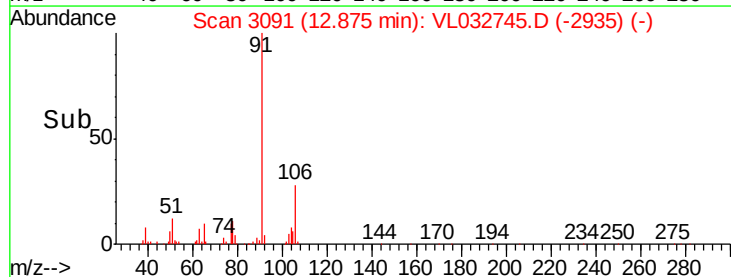
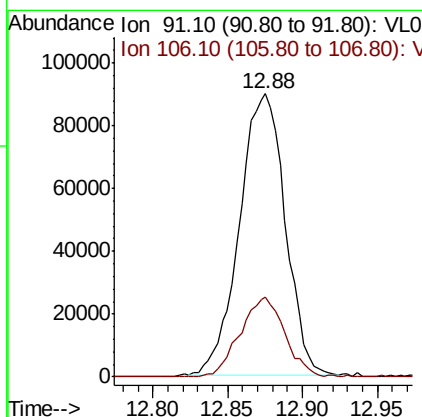
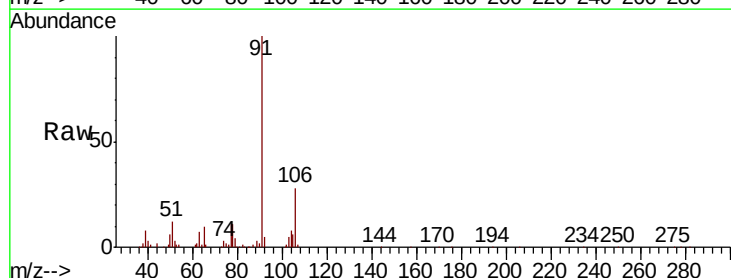
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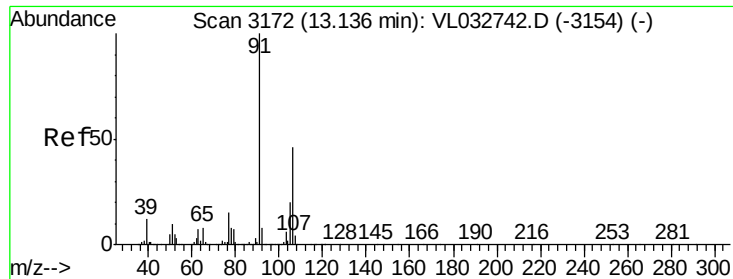


#58  
Ethyl Benzene  
Concen: 0.443 ppbv  
RT: 12.88 min Scan# 3091  
Delta R.T. 0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 28.4  | 23.6  | 35.4  |







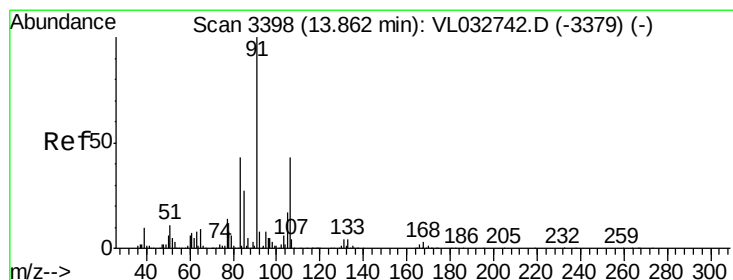
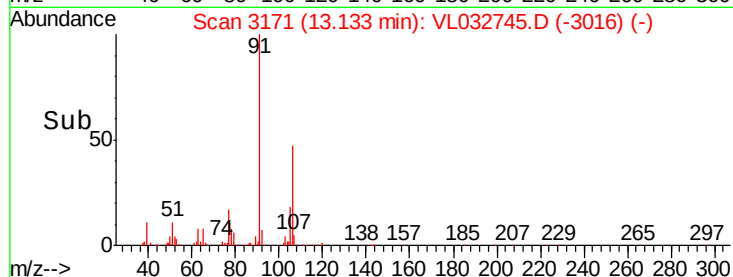
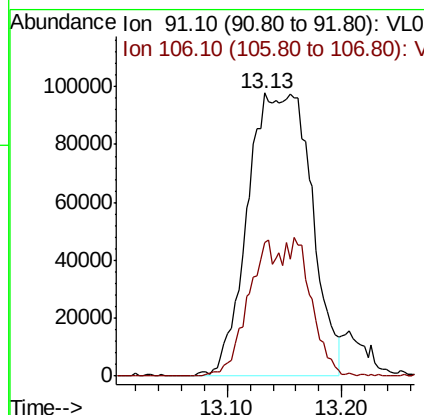
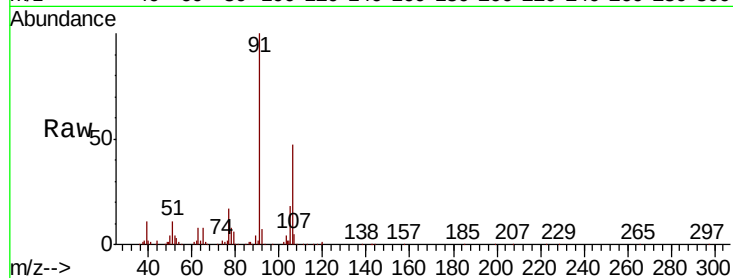
#59  
m/p-Xylene  
Concen: 0.980 ppbv m  
RT: 13.13 min Scan# 3171  
Delta R.T. -0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

Tot Ion: 91 Resp: 376482  
Ion Ratio Lower Upper  
91 100  
106 0.0 36.1 54.1#

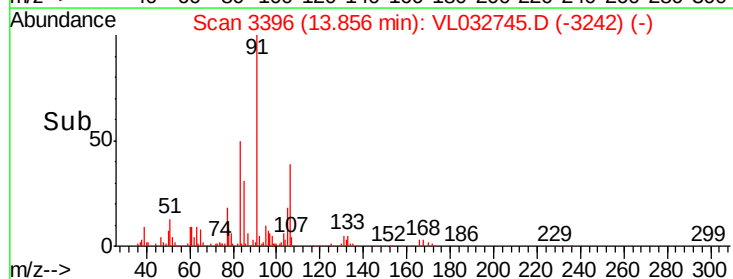
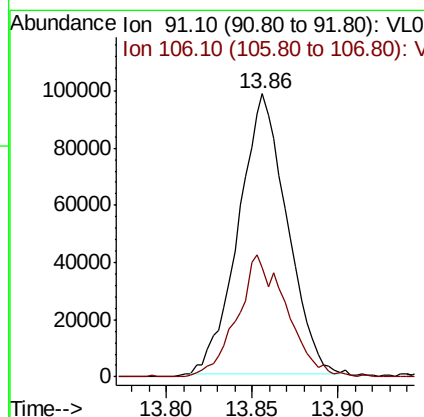
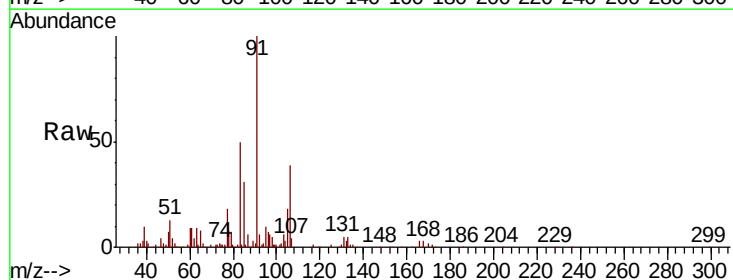
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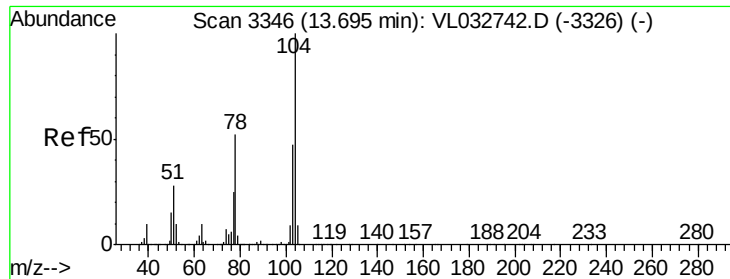
MMDadoda  
11/16/2018 1:29:44 PM



#60  
o-Xylene  
Concen: 0.513 ppbv  
RT: 13.86 min Scan# 3396  
Delta R.T. -0.01 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Tgt Ion: 91 Resp: 191559  
Ion Ratio Lower Upper  
91 100  
106 44.4 21.9 65.7





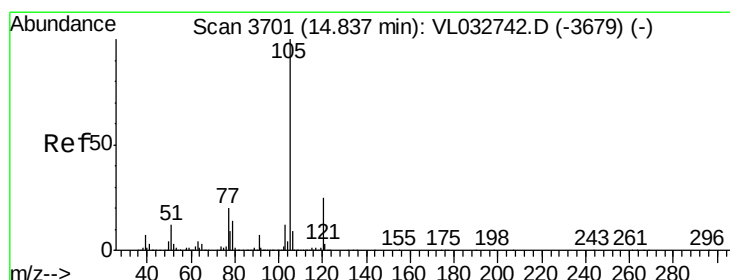
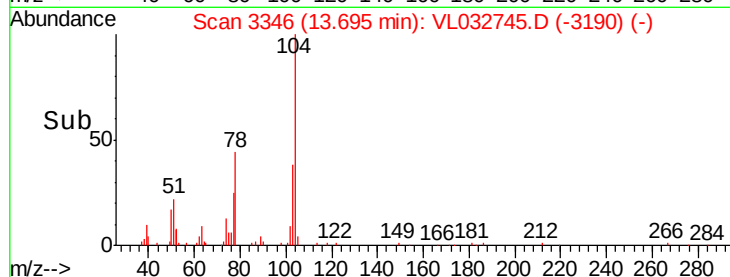
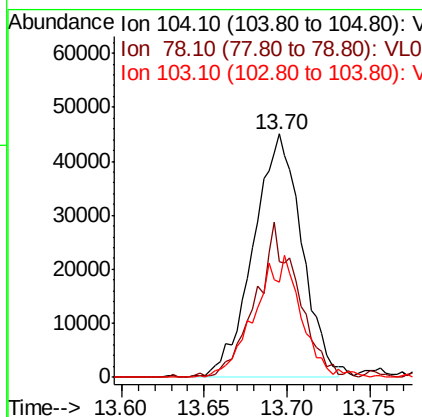
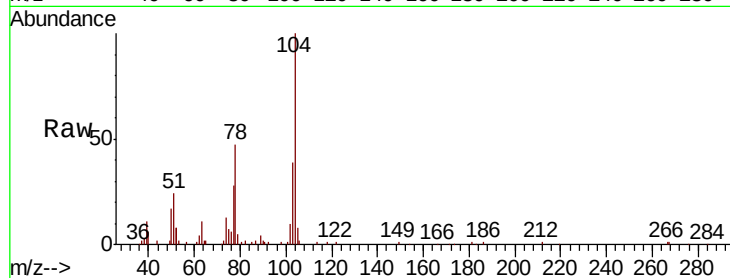
#61  
Stvrene  
Concen: 0.363 ppbv  
RT: 13.70 min Scan# 3346  
Delta R.T. 0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 56.4  | 42.2  | 63.4  |
| 103     | 48.4  | 38.2  | 57.2  |

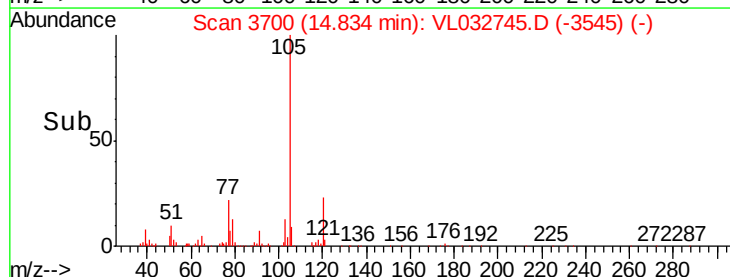
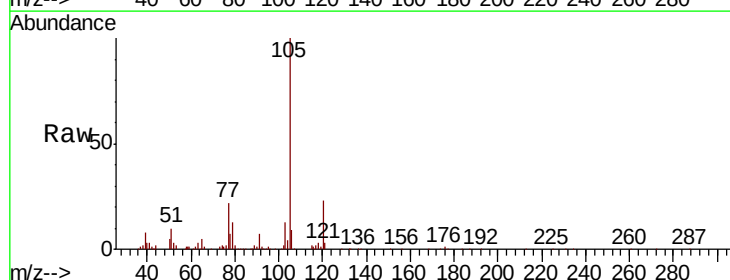
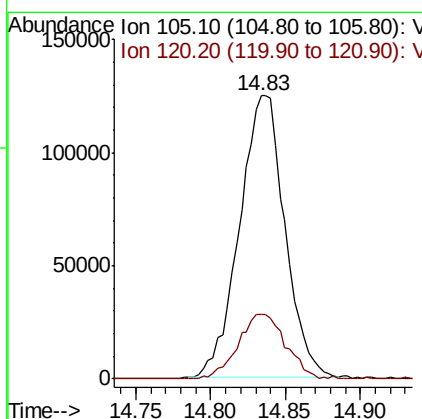
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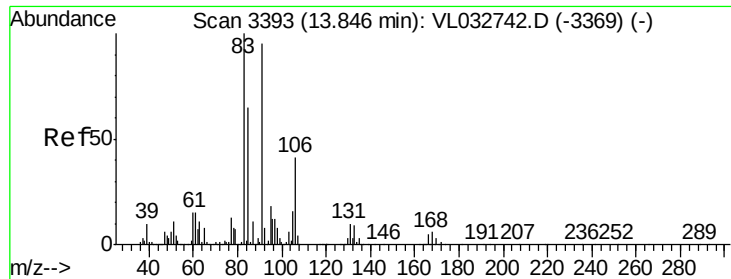
MMDadoda  
11/16/2018 1:29:44 PM



#62  
Isopropylbenzene  
Concen: 0.497 ppbv  
RT: 14.83 min Scan# 3700  
Delta R.T. -0.00 min  
Lab File: VL032745.D  
Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 24.2  | 20.1  | 30.1  |





#63

1,1,2,2-Tetrachloroethane

Concen: 0.565 ppbv

RT: 13.84 min Scan# 3392

Delta R.T. -0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

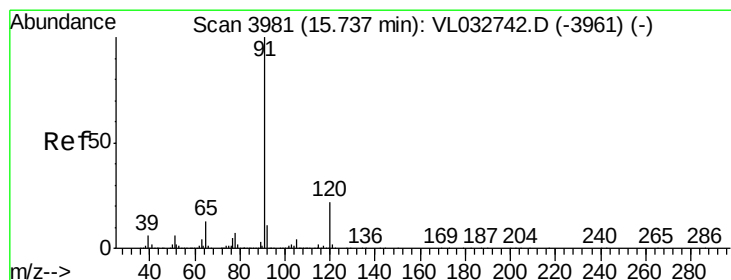
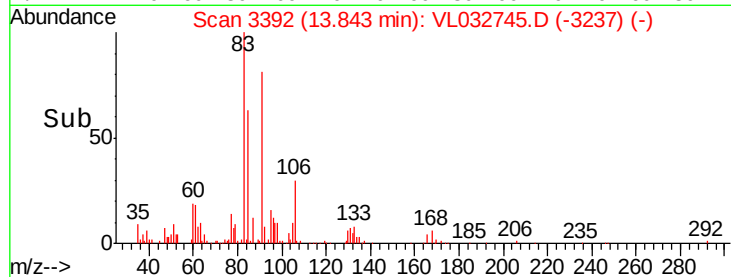
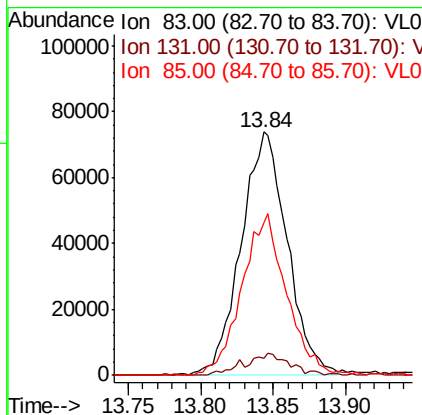
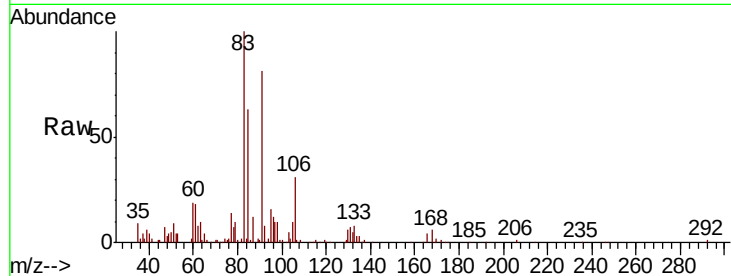
ClientSampleId :

VSTDIC0.5

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 83    | Resp: | 163787 |
| Ion Ratio | Lower | Upper |        |
| 83        | 100   |       |        |
| 131       | 9.4   | 4.7   | 14.1   |
| 85        | 64.7  | 32.5  | 97.4   |

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11/16/2018 1:29:44 PM



#64

n-propylbenzene

Concen: 0.503 ppbv

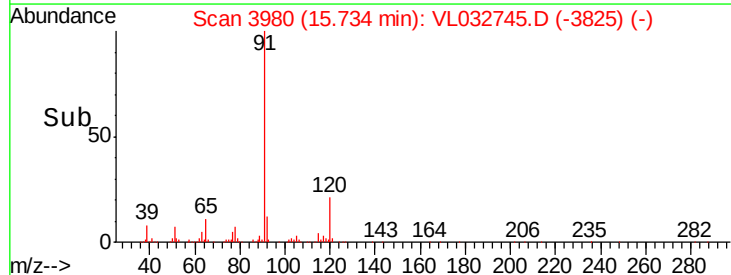
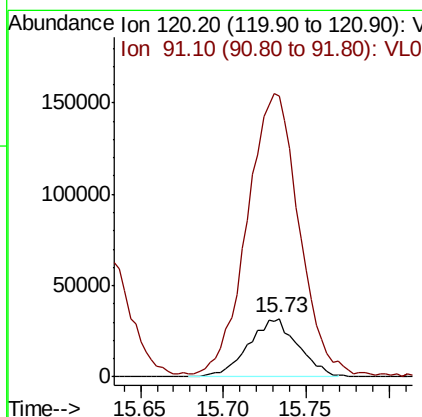
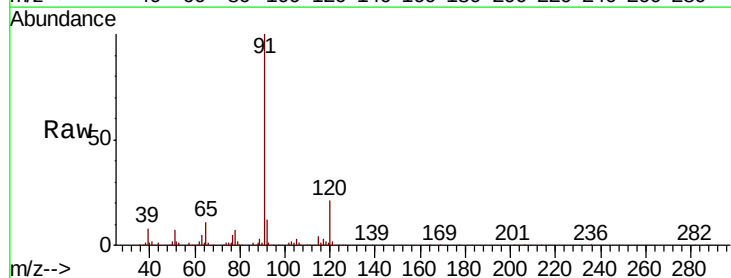
RT: 15.73 min Scan# 3980

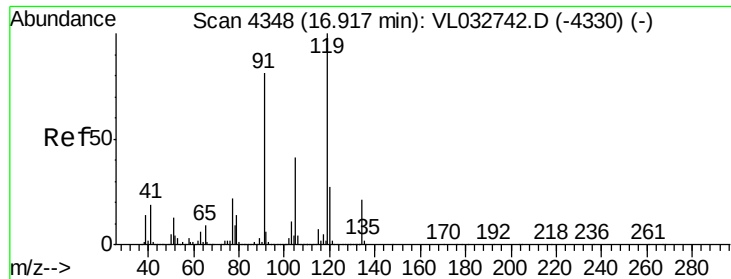
Delta R.T. -0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 120   | Resp: | 66364 |
| Ion Ratio | Lower | Upper |       |
| 120       | 100   |       |       |
| 91        | 516.2 | 381.7 | 572.5 |





#65

tert-Butylbenzene

Concen: 0.499 ppbv m

RT: 16.91 min Scan# 4347

Delta R.T. -0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

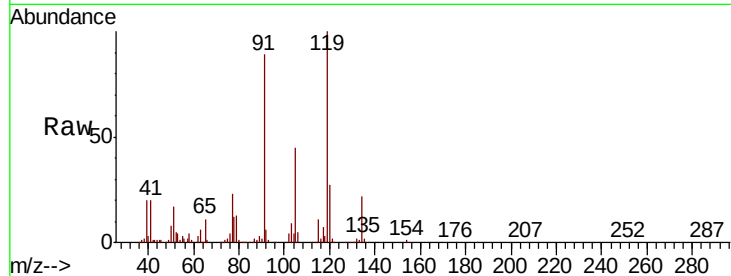
ClientSampleId :

VSTDIC0.5

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 119   | Resp: | 226900 |
| Ion Ratio | Lower | Upper |        |
| 119       | 100   |       |        |
| 91        | 90.0  | 65.6  | 98.4   |
| 134       | 19.8  | 15.9  | 23.9   |

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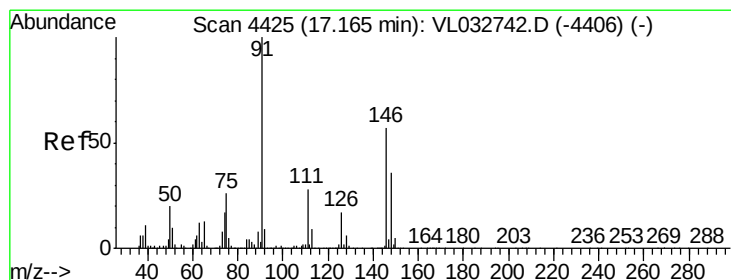
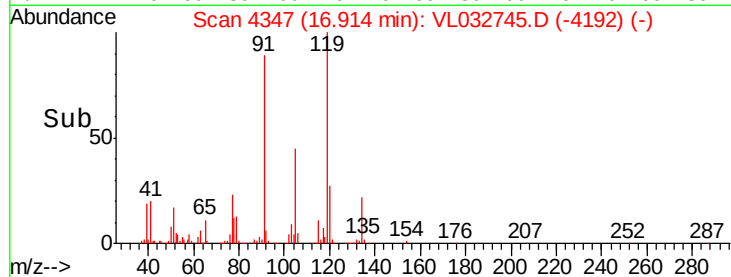
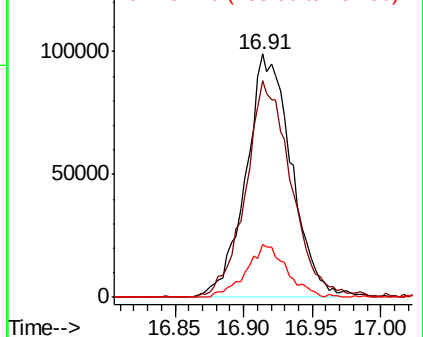
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Abundance Ion 119.20 (118.90 to 119.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 134.20 (133.90 to 134.90): V



#66

Benzyl Chloride

Concen: 0.494 ppbv m

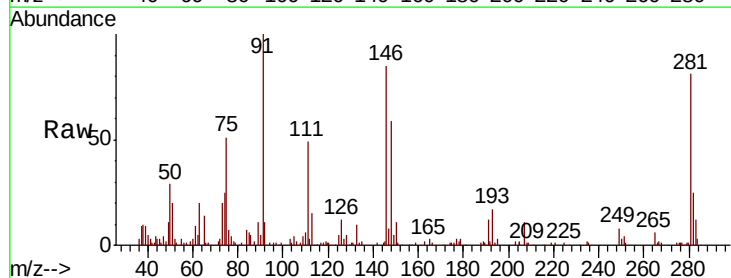
RT: 17.16 min Scan# 4423

Delta R.T. -0.01 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

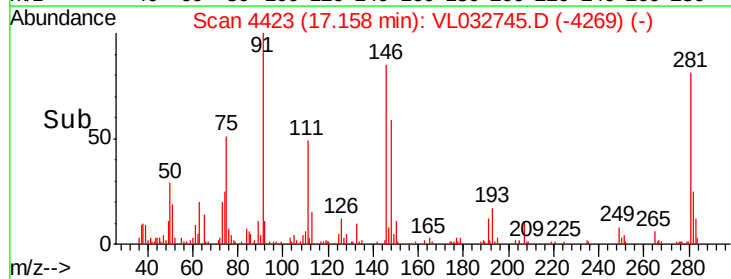
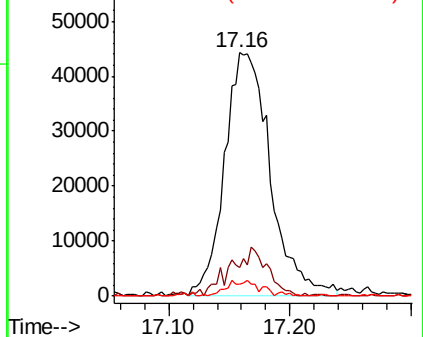
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 91    | Resp: | 117252 |
| Ion Ratio | Lower | Upper |        |
| 91        | 100   |       |        |
| 126       | 17.2  | 14.2  | 21.2   |
| 128       | 4.9   | 4.5   | 6.7    |

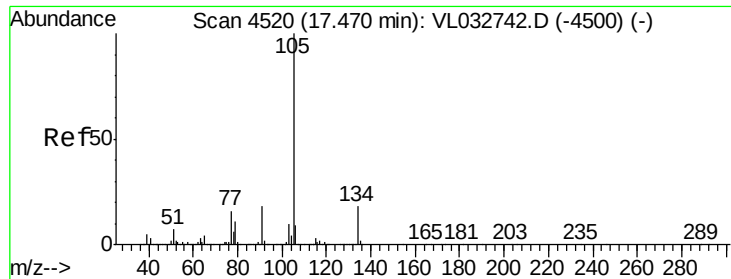


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

Ion 128.10 (127.80 to 128.80): V





#67

sec-Butylbenzene

Concen: 0.522 ppbv

RT: 17.47 min Scan# 4519

Delta R.T. -0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 105 Resp: 336844

Ion Ratio Lower Upper

105 100

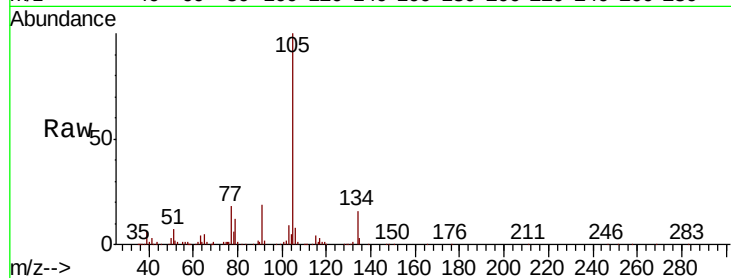
134 17.5 14.6 21.8

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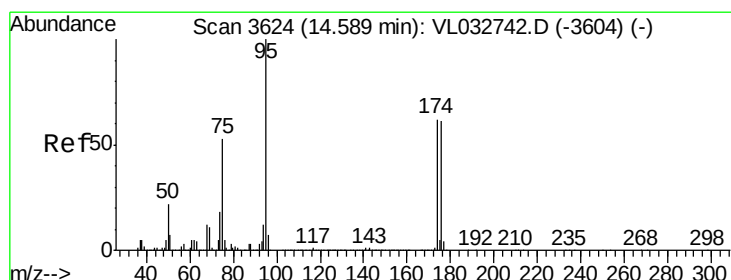
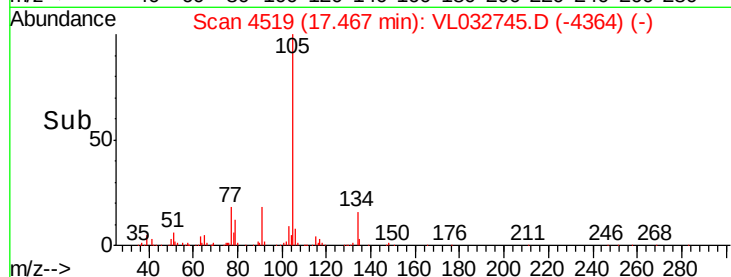
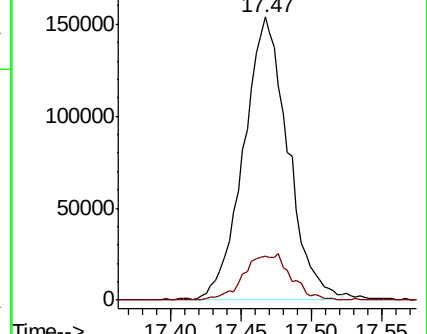
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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 9.974 ppbv

RT: 14.58 min Scan# 3622

Delta R.T. -0.01 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

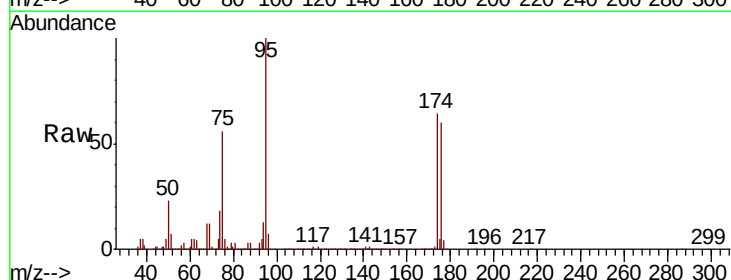
Tgt Ion: 95 Resp: 2764585

Ion Ratio Lower Upper

95 100

174 64.7 50.7 76.1

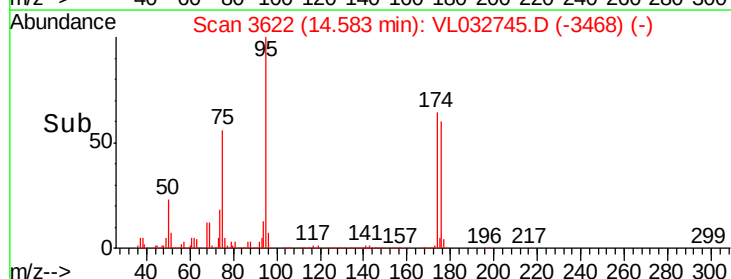
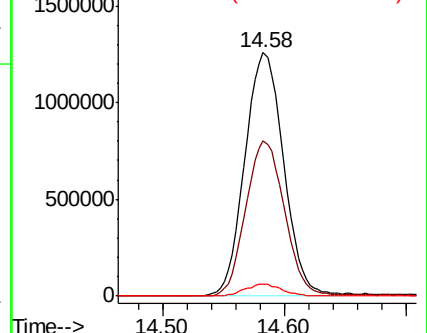
175 4.8 3.8 5.6

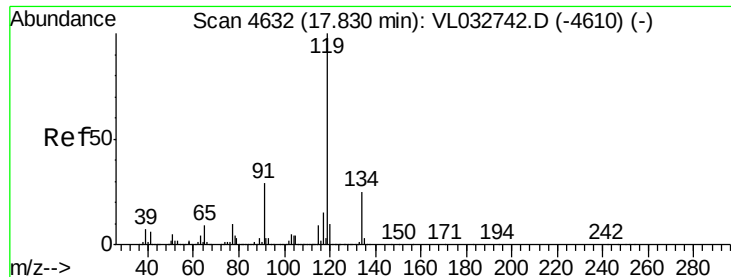


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





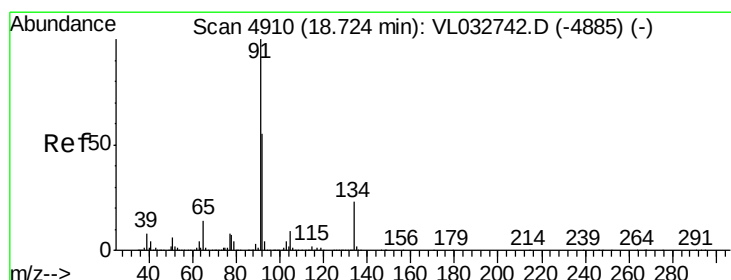
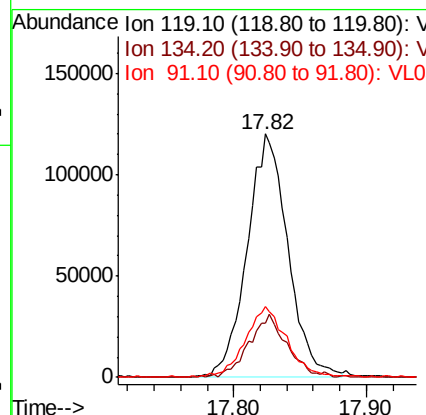
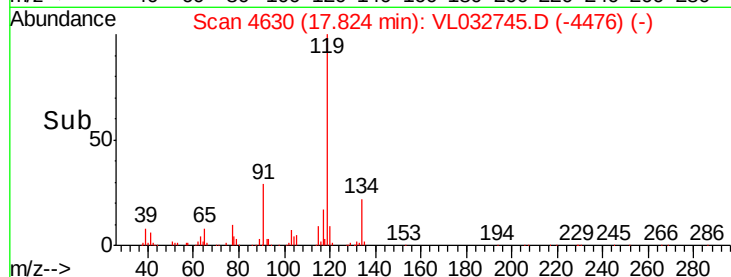
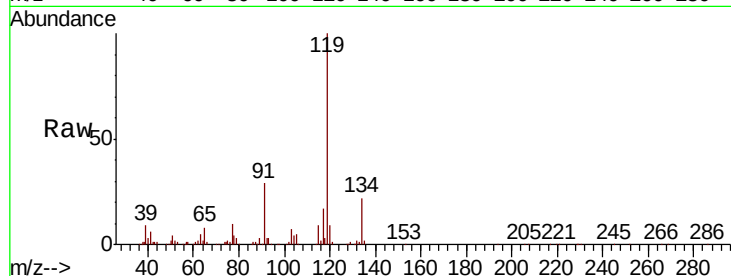
#69  
 p-Isopropyltoluene  
 Concen: 0.503 ppbv  
 RT: 17.82 min Scan# 4630  
 Delta R.T. -0.01 min  
 Lab File: VL032745.D  
 Acq: 14 Nov 2018 4:22

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 119     | 100   | 257525 |       |       |
| 134     | 24.3  | 20.2   | 30.4  |       |
| 91      | 29.2  | 23.5   | 35.3  |       |

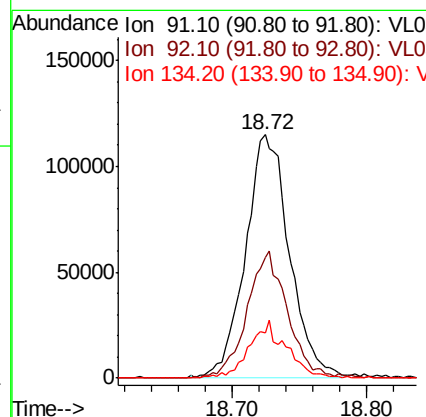
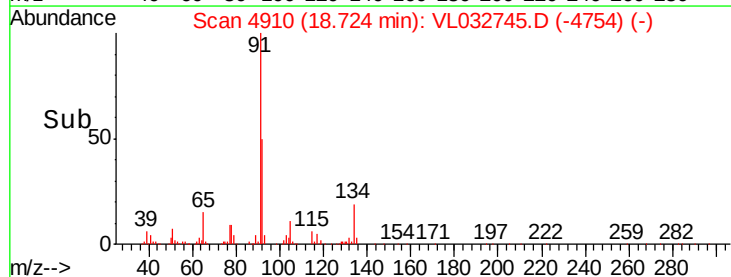
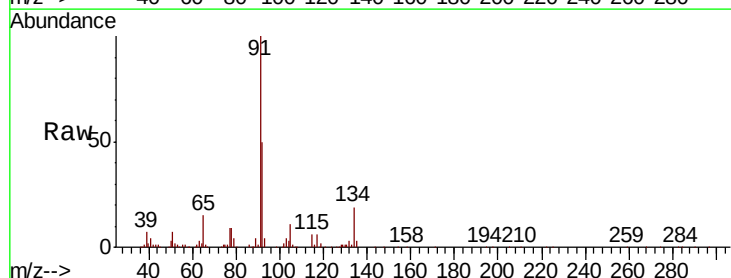
Manual Integrations  
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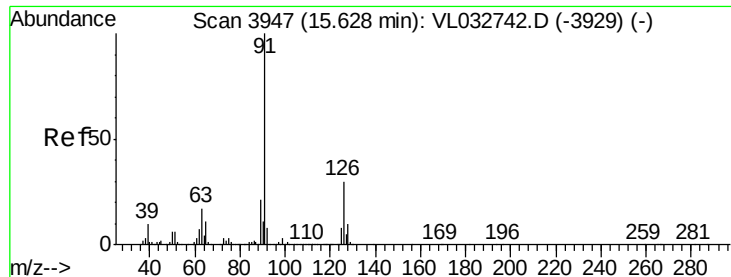
MMDadoda  
 11/16/2018 1:29:44 PM



#70  
 n-Butylbenzene  
 Concen: 0.496 ppbv m  
 RT: 18.72 min Scan# 4910  
 Delta R.T. 0.00 min  
 Lab File: VL032745.D  
 Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 91      | 100   | 260546 |       |       |
| 92      | 48.5  | 42.9   | 64.3  |       |
| 134     | 20.1  | 17.8   | 26.8  |       |





#71

2-Chlorotoluene

Concen: 0.474 ppbv

RT: 15.63 min Scan# 3947

Delta R.T. 0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 91 Resp: 179419

Ion Ratio Lower Upper

91 100

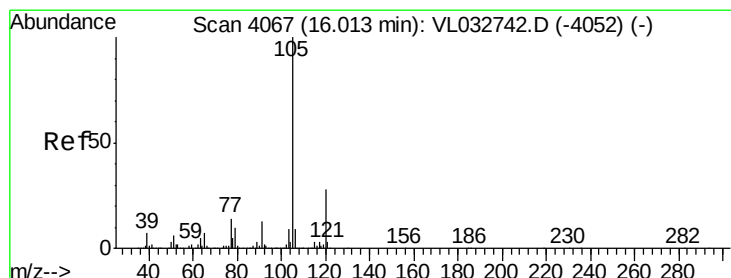
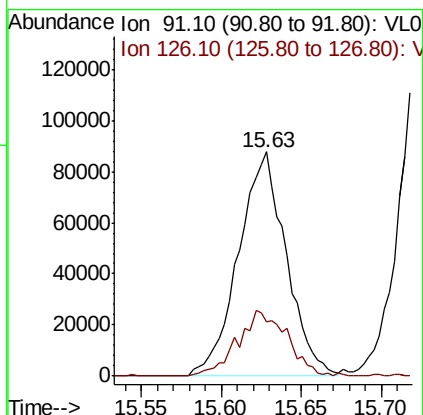
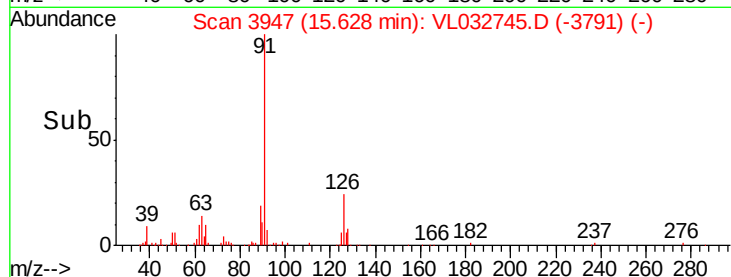
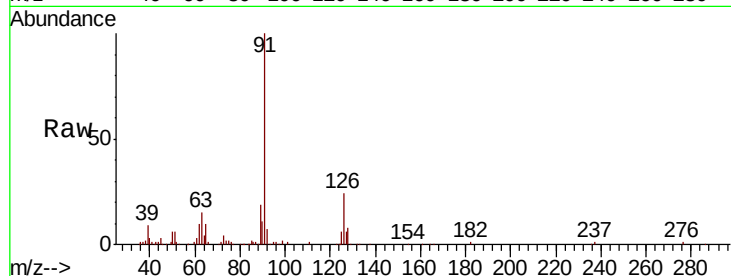
126 30.4 12.1 48.5

Manual Integrations

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#72

4-Ethyltoluene

Concen: 0.487 ppbv m

RT: 16.01 min Scan# 4065

Delta R.T. -0.01 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Tgt Ion: 105 Resp: 195499

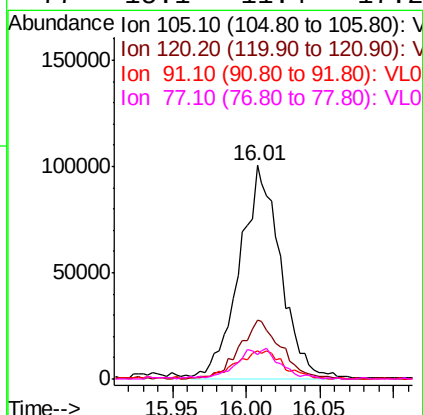
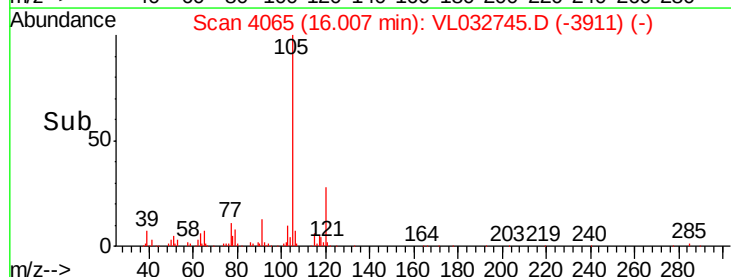
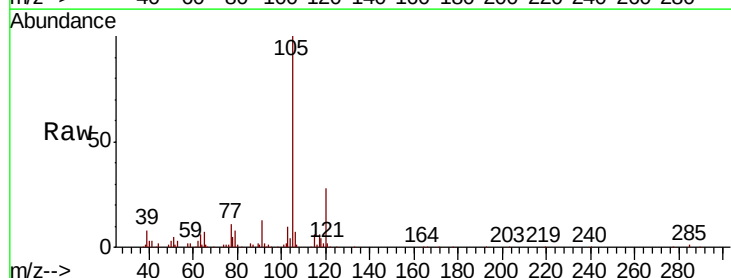
Ion Ratio Lower Upper

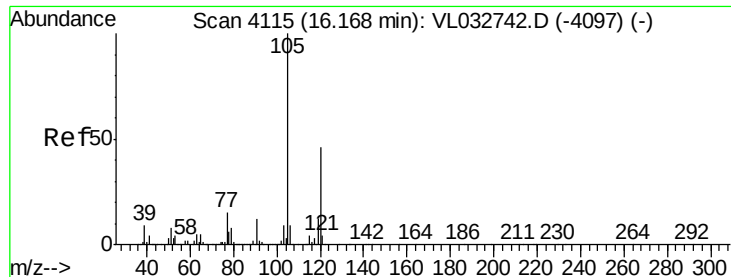
105 100

120 28.7 22.9 34.3

91 15.9 10.6 15.8#

77 15.1 11.4 17.2





#73

1,3,5-Trimethylbenzene

Concen: 0.507 ppbv

RT: 16.16 min Scan# 4114

Delta R.T. -0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

ClientSampled :

VSTDIC0.5

Tot Ion:105 Resp: 198330

Ion Ratio Lower Upper

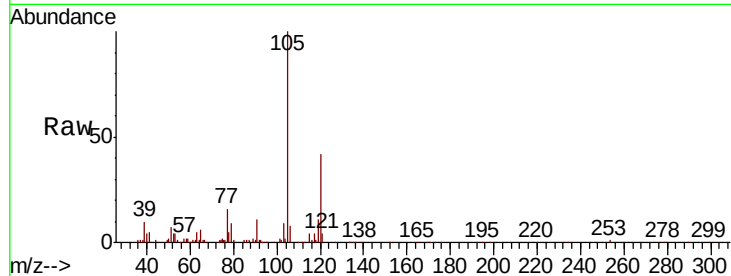
105 100

120 41.9 36.6 55.0

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

16.16

100000

80000

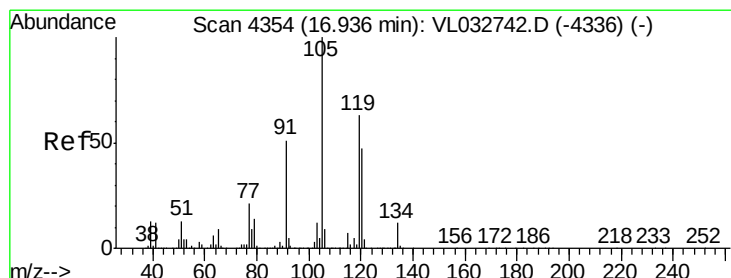
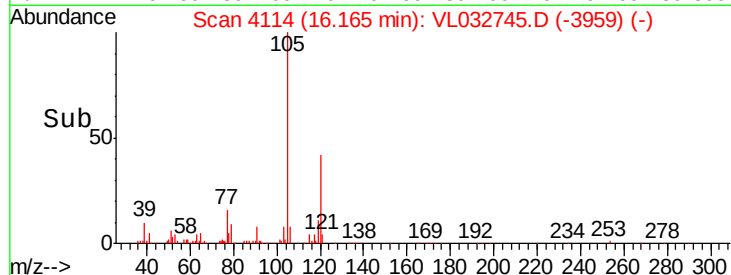
60000

40000

20000

0

Time-->



#74

1,2,4-Trimethylbenzene

Concen: 0.567 ppbv

RT: 16.93 min Scan# 4353

Delta R.T. -0.00 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Tgt Ion:105 Resp: 236729

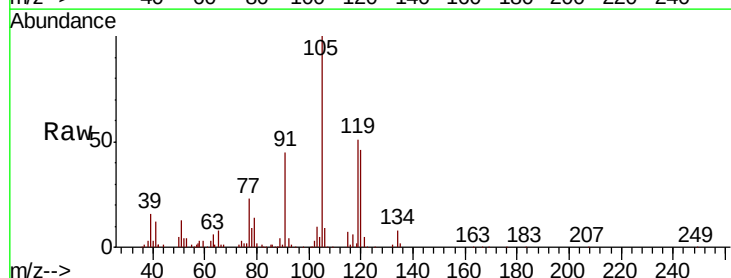
Ion Ratio Lower Upper

105 100

120 45.2 37.6 56.4

91 43.9 42.5 63.7

77 22.7 17.4 26.2



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

16.93

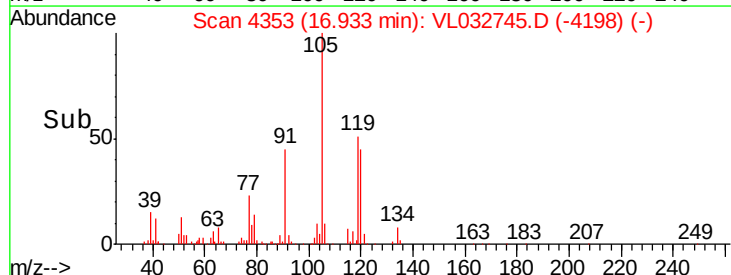
150000

100000

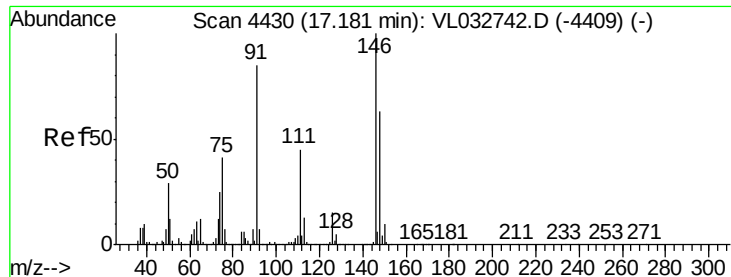
50000

0

Time-->







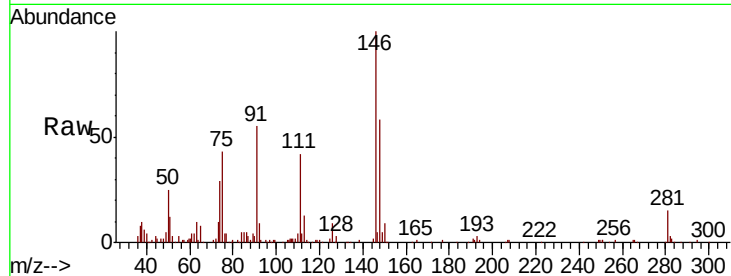
#75  
 1,3-Dichlorobenzene  
 Concen: 0.588 ppbv m  
 RT: 17.18 min Scan# 4429  
 Delta R.T. -0.00 min  
 Lab File: VL032745.D  
 Acq: 14 Nov 2018 4:22

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 48.9  | 23.5  | 70.6  |
| 148     | 66.7  | 31.8  | 95.3  |

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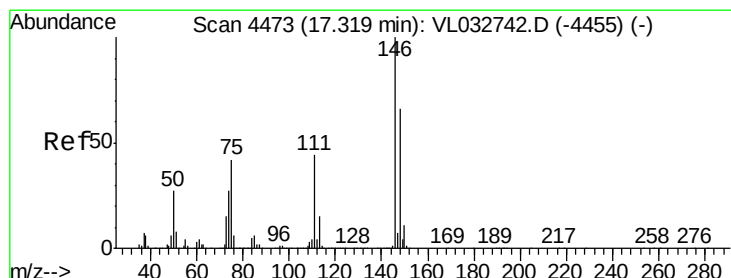
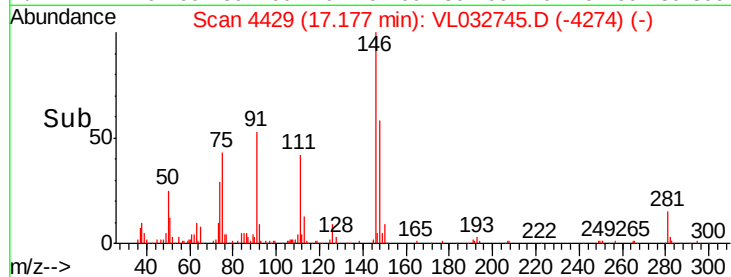
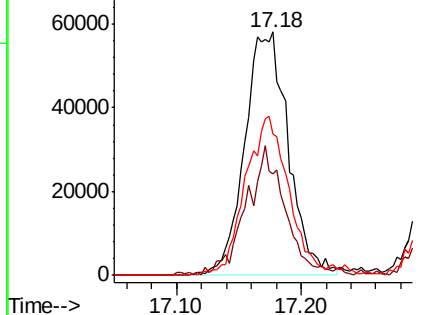


Abundance

Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#76  
 1,4-Dichlorobenzene  
 Concen: 0.552 ppbv m  
 RT: 17.31 min Scan# 4471  
 Delta R.T. -0.01 min  
 Lab File: VL032745.D  
 Acq: 14 Nov 2018 4:22

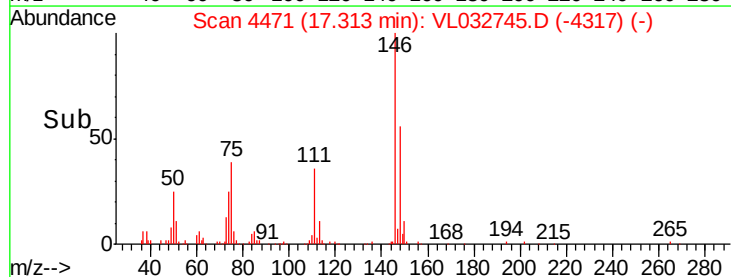
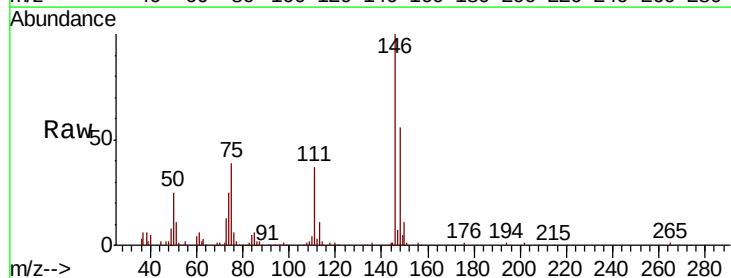
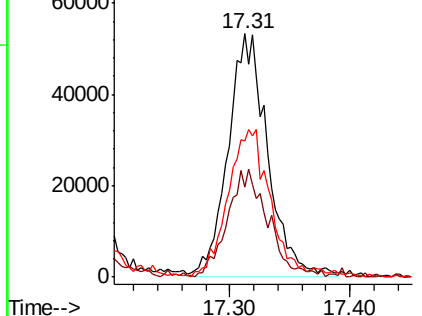
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 0.0   | 22.5  | 67.5# |
| 148     | 0.0   | 32.5  | 97.5# |

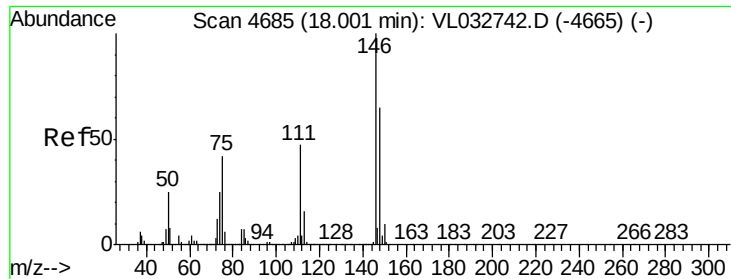
Abundance

Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V





#77

1,2-Dichlorobenzene

Concen: 0.556 ppbv

RT: 17.99 min Scan# 4683

Delta R.T. -0.01 min

Lab File: VL032745.D

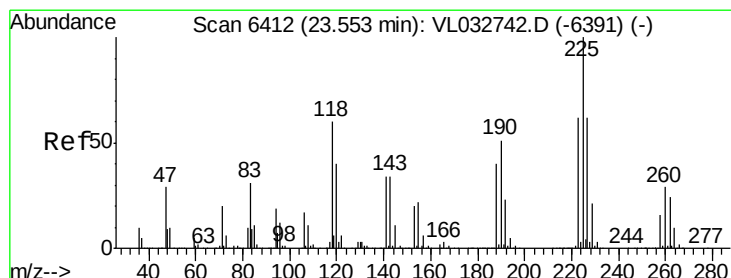
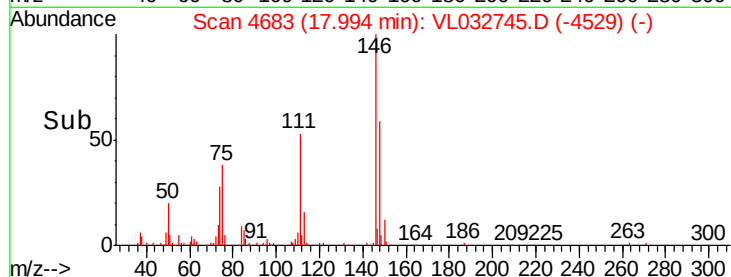
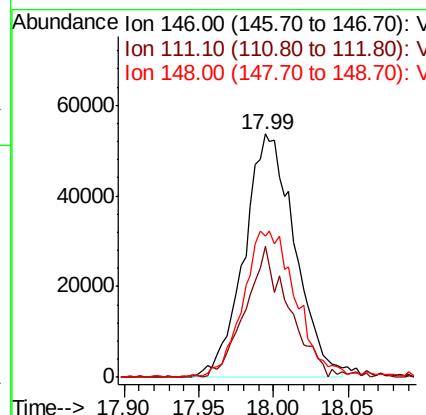
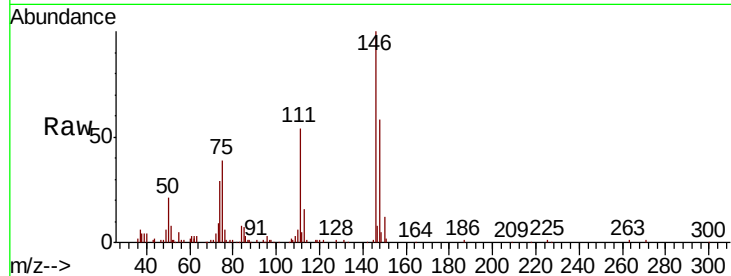
Acq: 14 Nov 2018 4:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 47.9  | 24.4  | 73.2  |
| 148     | 64.5  | 32.2  | 96.6  |

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#78

Hexachloro-1,3-Butadiene

Concen: 0.695 ppbv

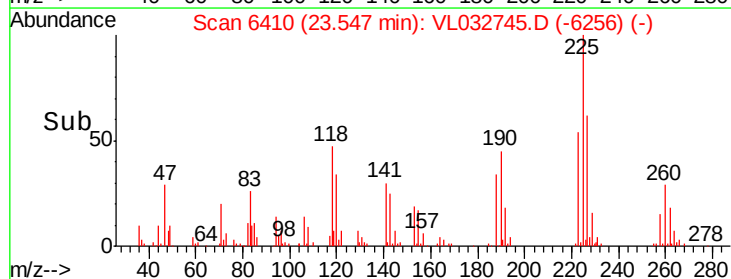
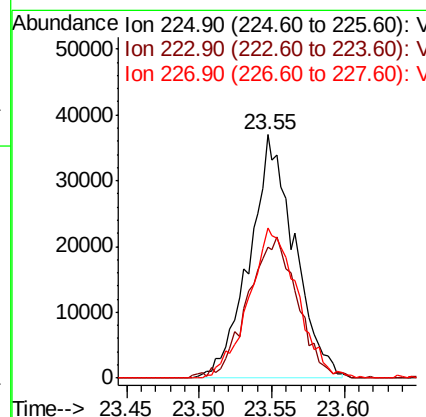
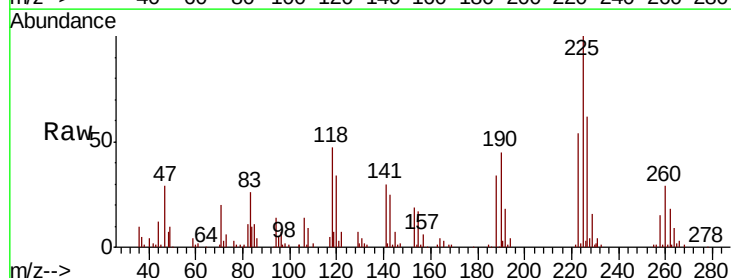
RT: 23.55 min Scan# 6410

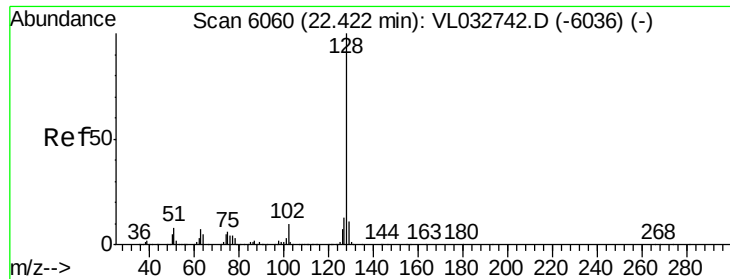
Delta R.T. -0.01 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 63.8  | 50.3  | 75.5  |
| 227     | 66.0  | 50.2  | 75.4  |





#79

Naphthalene

Concen: 0.410 ppbv m

RT: 22.43 min Scan# 6063

Delta R.T. 0.01 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

Instrument :

MSVOA\_L

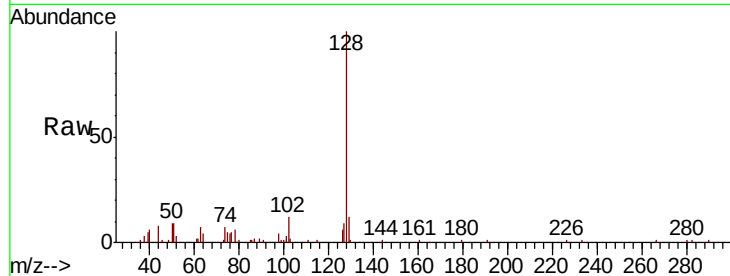
ClientSampleId :

VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 8.9   | 10.1  | 15.1# |
| 129     | 12.2  | 8.9   | 13.3  |

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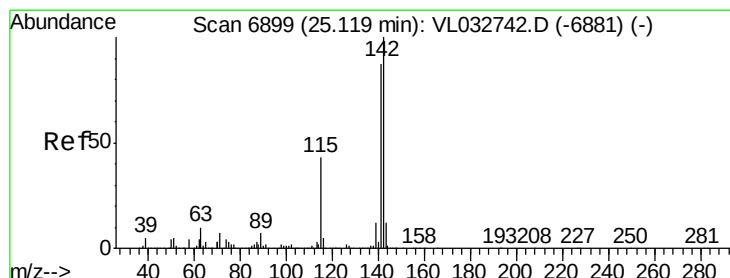
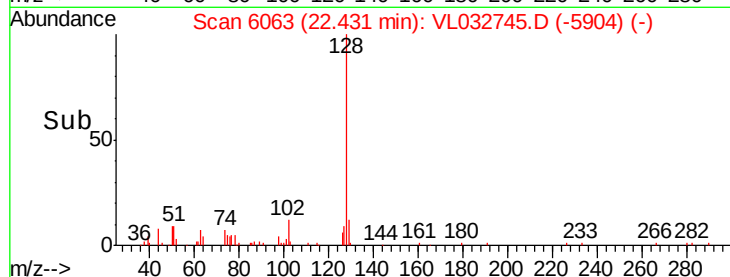
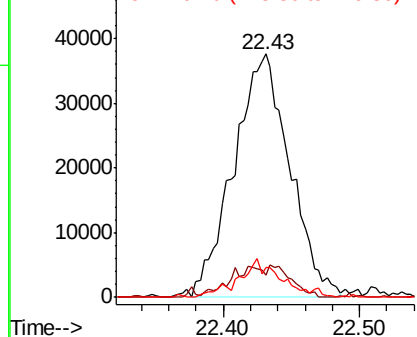


Abundance

Ion 128.10 (127.80 to 128.80): V

Ion 127.10 (126.80 to 127.80): V

Ion 129.10 (128.80 to 129.80): V



#80

Naphthalene, 2-methyl-

Concen: 0.257 ppbv

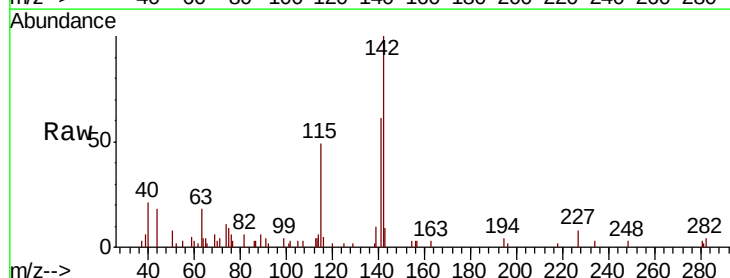
RT: 25.13 min Scan# 6901

Delta R.T. 0.01 min

Lab File: VL032745.D

Acq: 14 Nov 2018 4:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 86.7  | 68.7  | 103.1 |
| 115     | 47.6  | 35.5  | 53.3  |

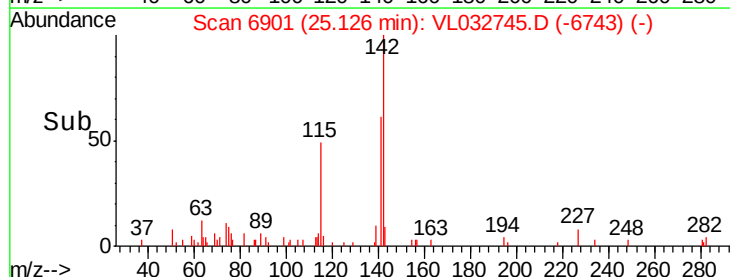
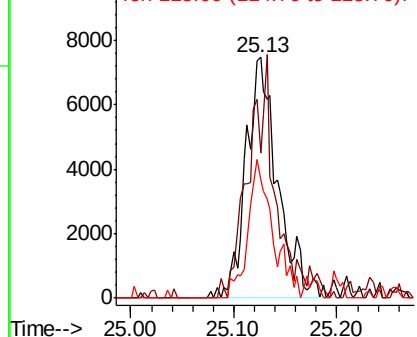


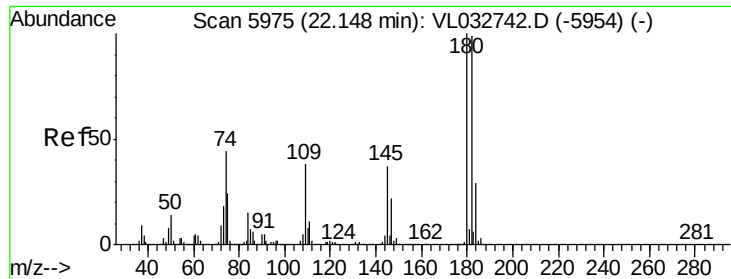
Abundance

Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V





#81  
 1,2,4-Trichlorobenzene  
 Concen: 0.472 ppbv m  
 RT: 22.15 min Scan# 5974  
 Delta R.T. -0.00 min  
 Lab File: VL032745.D  
 Acq: 14 Nov 2018 4:22

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 91.6  | 77.3  | 115.9 |
| 184     | 0.0   | 24.2  | 36.4  |

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