

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101719\  
 Data File : VL034319.D  
 Acq On : 17 Oct 2019 16:05  
 Operator : SY/AP  
 Sample : VL1017ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1017ABS01

Manual Integrations  
 APPROVED

MMDadoda  
 10/22/2019 2:54:41 PM

Quant Time: Oct 18 05:06:38 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101619AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct 18 05:06:38 2019  
 QLast Update : Thu Oct 17 05:12:37 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.69  | 49   | 1039058  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.22  | 114  | 2004065  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.15 | 117  | 1962198  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.49  | 95    | 1705261  | 10.26    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 102.60% |

| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.03 | 85   | 35898    | 0.200 | ppbv   | 91     |
| 3) Chlorodifluoromethane       | 2.97 | 51   | 21910    | 0.180 | ppbv   | 92     |
| 4) Chloromethane               | 3.12 | 50   | 12923    | 0.179 | ppbv # | 86     |
| 5) Vinyl Chloride              | 3.25 | 62   | 11679m   | 0.170 | ppbv   |        |
| 6) Bromomethane                | 3.47 | 94   | 5973m    | 0.178 | ppbv   |        |
| 7) Chloroethane                | 3.55 | 64   | 4812m    | 0.199 | ppbv   |        |
| 8) Dichlorotetrafluoroethane   | 3.17 | 85   | 30041    | 0.194 | ppbv   | 97     |
| 9) Propene                     | 2.99 | 41   | 10968m   | 0.203 | ppbv   |        |
| 10) Heptane                    | 8.17 | 43   | 21145m   | 0.153 | ppbv   |        |
| 11) Trichlorofluoromethane     | 3.94 | 101  | 32182    | 0.189 | ppbv   | 86     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.49 | 101  | 21090    | 0.189 | ppbv   | 97     |
| 13) Ethanol                    | 3.61 | 45   | 10576    | 0.875 | ppbv   | 88     |
| 14) Bromoethene                | 3.73 | 108  | 7851     | 0.179 | ppbv # | 89     |
| 15) Acetone                    | 3.86 | 43   | 47839    | 0.322 | ppbv   | 96     |
| 16) 1,3-Butadiene              | 3.32 | 39   | 10197    | 0.169 | ppbv   | 94     |
| 17) tert-Butyl alcohol         | 4.34 | 59   | 21035m   | 0.222 | ppbv   |        |
| 18) 1,1-Dichloroethene         | 4.29 | 96   | 8968m    | 0.184 | ppbv   |        |
| 19) Isopropyl Alcohol          | 3.99 | 45   | 20988m   | 0.253 | ppbv   |        |
| 20) Methylene Chloride         | 4.35 | 84   | 123615   | 2.301 | ppbv   | 95     |
| 21) Allyl Chloride             | 4.41 | 41   | 14895m   | 0.181 | ppbv   |        |
| 22) trans-1,2-Dichloroethene   | 4.90 | 96   | 8576     | 0.176 | ppbv # | 63     |
| 23) Vinyl Acetate              | 5.09 | 43   | 34118    | 0.184 | ppbv # | 94     |
| 24) 1,1-Dichloroethane         | 5.02 | 63   | 24450m   | 0.177 | ppbv   |        |
| 25) Ethyl Acetate              | 5.71 | 43   | 55127    | 0.220 | ppbv # | 96     |
| 26) Hexane                     | 5.71 | 57   | 36462m   | 0.341 | ppbv   |        |
| 27) Carbon Disulfide           | 4.56 | 76   | 17058m   | 0.154 | ppbv   |        |
| 28) Methyl tert-Butyl Ether    | 5.06 | 73   | 27373m   | 0.169 | ppbv   |        |
| 29) Chloroform                 | 5.78 | 83   | 30336    | 0.179 | ppbv   | 99     |
| 30) Cyclohexane                | 7.16 | 84   | 15747m   | 0.200 | ppbv   |        |
| 31) cis-1,2-Dichloroethene     | 5.57 | 61   | 17854m   | 0.164 | ppbv   |        |
| 32) 1,1,1-Trichloroethane      | 6.55 | 97   | 27579m   | 0.168 | ppbv   |        |
| 34) 2-Butanone                 | 5.28 | 43   | 27051m   | 0.165 | ppbv   |        |
| 35) Carbon Tetrachloride       | 7.06 | 117  | 28696m   | 0.164 | ppbv   |        |
| 36) Benzene                    | 6.93 | 78   | 30139    | 0.157 | ppbv # | 93     |
| 37) 1,2-Dichloroethane         | 6.34 | 62   | 24493    | 0.171 | ppbv # | 96     |
| 38) Trichloroethene            | 7.88 | 130  | 13489m   | 0.175 | ppbv   |        |
| 39) 1,2-Dichloropropane        | 7.65 | 63   | 14934m   | 0.180 | ppbv   |        |
| 40) 1,4-Dioxane                | 7.94 | 88   | 6579m    | 0.226 | ppbv   |        |
| 41) Tetrahydrofuran            | 6.11 | 42   | 12117m   | 0.133 | ppbv   |        |
| 42) Bromodichloromethane       | 7.83 | 83   | 28570m   | 0.163 | ppbv   |        |
| 43) Methyl Methacrylate        | 8.08 | 69   | 10647m   | 0.134 | ppbv   |        |

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 Data File : VL034319.D  
 Acq On : 17 Oct 2019 16:05  
 Operator : SY/AP  
 Sample : VL1017ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1017ABS01

Manual Integrations  
 APPROVED

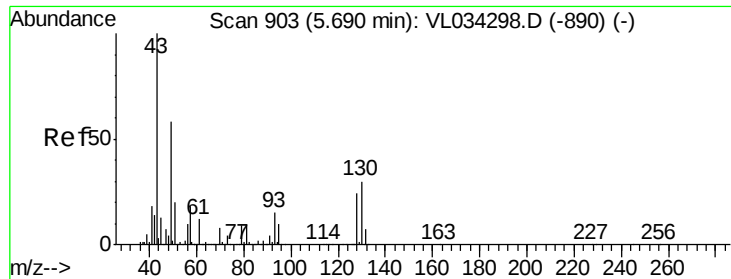
MMDadoda  
 10/22/2019 2:54:41 PM

Quant Time: Oct 18 05:06:38 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101619AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct 18 05:06:38 2019  
 QLast Update : Thu Oct 17 05:12:37 2019  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| -----                         |       |      |          |       |        |          |
| 44) 2,2,4-Trimethylpentane    | 7.92  | 57   | 52141m   | 0.147 | ppbv   |          |
| 45) t-1,3-Dichloropropene     | 9.34  | 75   | 10833m   | 0.112 | ppbv   |          |
| 46) cis-1,3-Dichloropropene   | 8.76  | 75   | 13902m   | 0.125 | ppbv   |          |
| 47) 1,1,2-Trichloroethane     | 9.53  | 97   | 15694m   | 0.187 | ppbv   |          |
| 48) Dibromochloromethane      | 10.37 | 129  | 21380m   | 0.155 | ppbv   |          |
| 49) Bromoform                 | 13.11 | 173  | 19782m   | 0.162 | ppbv   |          |
| 50) 4-Methyl-2-Pentanone      | 8.82  | 43   | 34746m   | 0.148 | ppbv   |          |
| 51) 2-Hexanone                | 10.24 | 43   | 28963m   | 0.151 | ppbv   |          |
| 52) Tetrachloroethene         | 11.29 | 164  | 12757m   | 0.169 | ppbv   |          |
| 53) Toluene                   | 9.86  | 91   | 30812m   | 0.145 | ppbv   |          |
| 54) 1,2-Dibromoethane         | 10.67 | 107  | 22533m   | 0.181 | ppbv   |          |
| 56) 1,1,1,2-Tetrachloroethane | 12.20 | 131  | 19196m   | 0.212 | ppbv   |          |
| 57) Chlorobenzene             | 12.22 | 112  | 36340m   | 0.222 | ppbv   |          |
| 58) Ethyl Benzene             | 12.78 | 91   | 43379    | 0.158 | ppbv   | 90       |
| 59) m/p-Xylene                | 13.07 | 91   | 81320m   | 0.342 | ppbv   |          |
| 60) o-Xylene                  | 13.76 | 91   | 40681m   | 0.172 | ppbv   |          |
| 61) Styrene                   | 13.61 | 104  | 23414m   | 0.141 | ppbv   |          |
| 62) Isopropylbenzene          | 14.75 | 105  | 56031m   | 0.179 | ppbv   |          |
| 63) 1,1,2,2-Tetrachloroethane | 13.76 | 83   | 50499m   | 0.266 | ppbv   |          |
| 64) n-propylbenzene           | 15.64 | 120  | 13615m   | 0.170 | ppbv   |          |
| 65) tert-Butylbenzene         | 16.83 | 119  | 53654m   | 0.194 | ppbv   |          |
| 66) Benzyl Chloride           | 17.09 | 91   | 22749m   | 0.208 | ppbv   |          |
| 67) sec-Butylbenzene          | 17.38 | 105  | 75875m   | 0.195 | ppbv   |          |
| 69) p-Isopropyltoluene        | 17.73 | 119  | 63237m   | 0.199 | ppbv   |          |
| 70) n-Butylbenzene            | 18.64 | 91   | 74954    | 0.217 | ppbv # | 93       |
| 71) 2-Chlorotoluene           | 15.53 | 91   | 45851m   | 0.189 | ppbv   |          |
| 72) 4-Ethyltoluene            | 15.92 | 105  | 45118m   | 0.170 | ppbv   |          |
| 73) 1,3,5-Trimethylbenzene    | 16.08 | 105  | 52032m   | 0.197 | ppbv   |          |
| 74) 1,2,4-Trimethylbenzene    | 16.85 | 105  | 58718m   | 0.214 | ppbv   |          |
| 75) 1,3-Dichlorobenzene       | 17.09 | 146  | 45953m   | 0.278 | ppbv   |          |
| 76) 1,4-Dichlorobenzene       | 17.23 | 146  | 45174m   | 0.280 | ppbv   |          |
| 77) 1,2-Dichlorobenzene       | 17.91 | 146  | 49726m   | 0.307 | ppbv   |          |
| 78) Hexachloro-1,3-Butadiene  | 23.46 | 225  | 67649m   | 0.505 | ppbv   |          |
| 79) Naphthalene               | 22.32 | 128  | 107073m  | 0.533 | ppbv   |          |
| 80) Naphthalene, 2-methyl-    | 25.05 | 142  | 78413    | 1.351 | ppbv   | 96       |
| 81) 1,2,4-Trichlorobenzene    | 22.05 | 180  | 63794m   | 0.486 | ppbv   |          |
| -----                         |       |      |          |       |        |          |

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





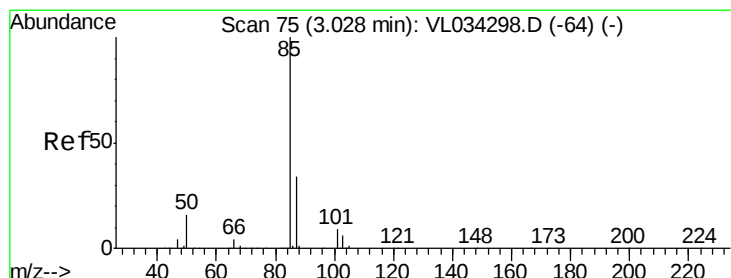
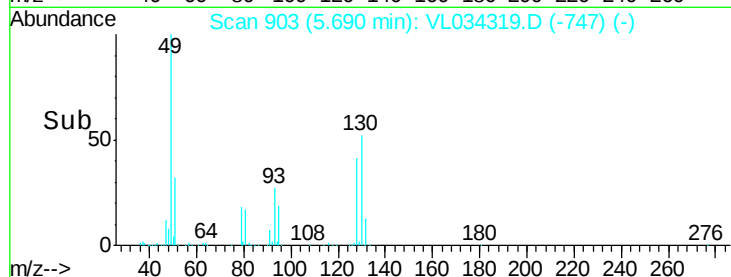
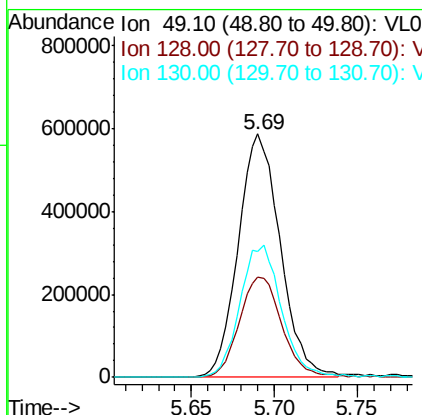
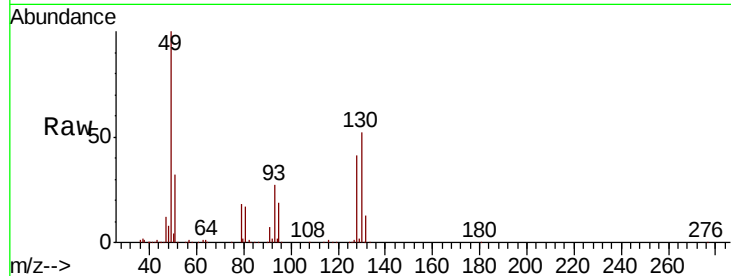
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Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.69 min Scan# 903  
Delta R.T. 0.00 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1017ABS01

Tot Ion: 49 Resp: 1039058  
Ion Ratio Lower Upper  
49 100  
128 42.2 20.6 61.8  
130 54.3 26.2 78.5

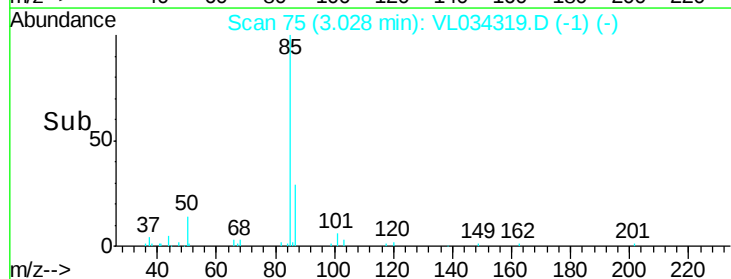
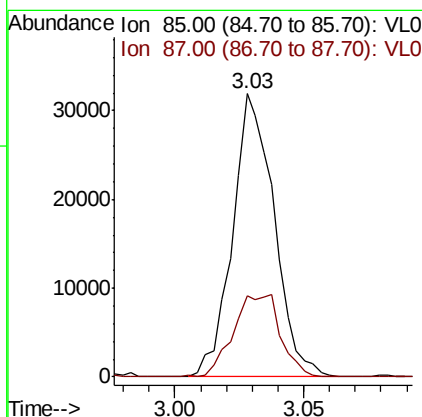
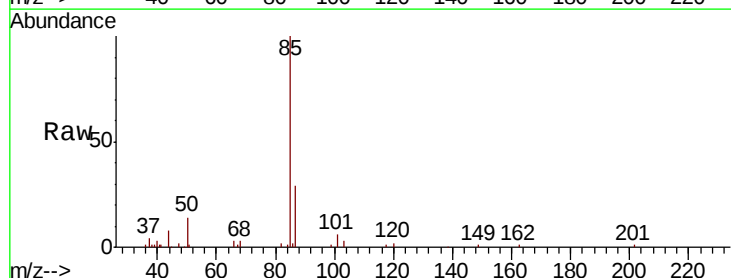
Manual Integrations  
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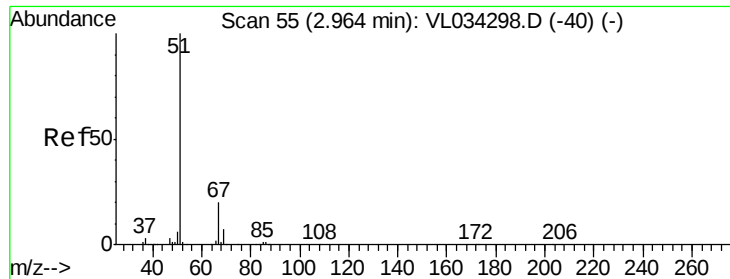
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#2  
Dichlorodifluoromethane  
Concen: 0.200 ppbv  
RT: 3.03 min Scan# 75  
Delta R.T. 0.00 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

Tgt Ion: 85 Resp: 35898  
Ion Ratio Lower Upper  
85 100  
87 28.5 27.0 40.6





#3

Chlorodifluoromethane

Concen: 0.180 ppbv

RT: 2.97 min Scan# 56

Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

ClientSampleId :

VL1017ABS01

Tot Ion: 51 Resp: 21910

Ion Ratio Lower Upper

51 100

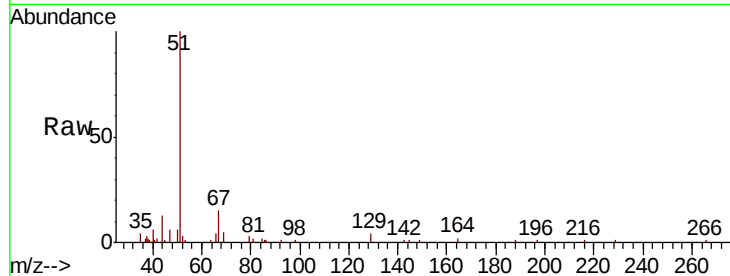
67 23.6 15.8 23.8

Manual Integrations

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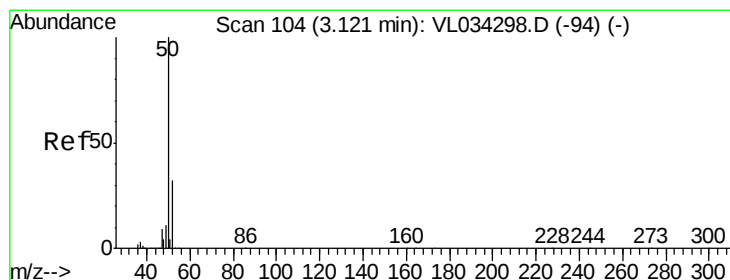
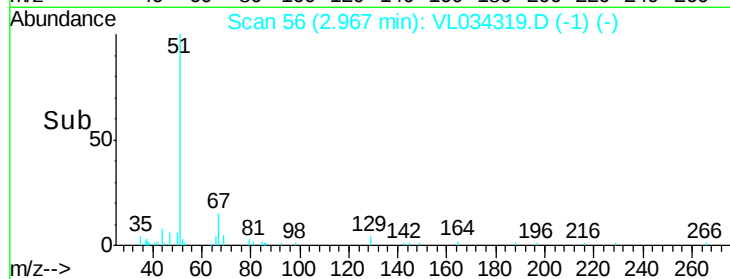
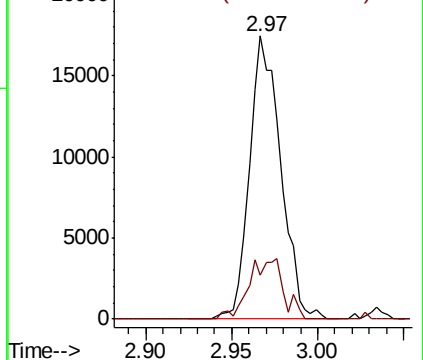
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.179 ppbv

RT: 3.12 min Scan# 105

Delta R.T. 0.00 min

Lab File: VL034319.D

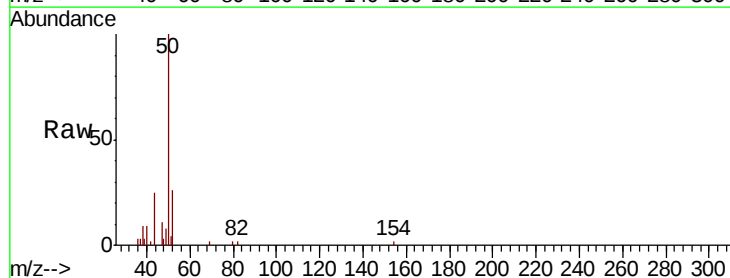
Acq: 17 Oct 2019 16:05

Tgt Ion: 50 Resp: 12923

Ion Ratio Lower Upper

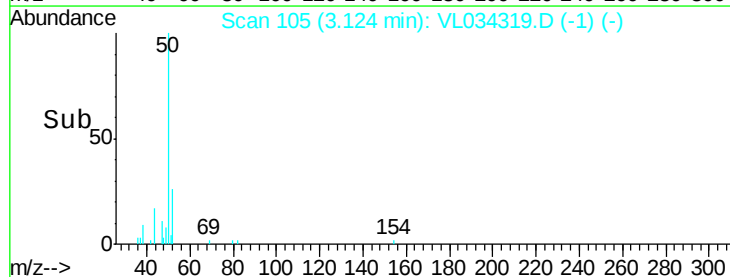
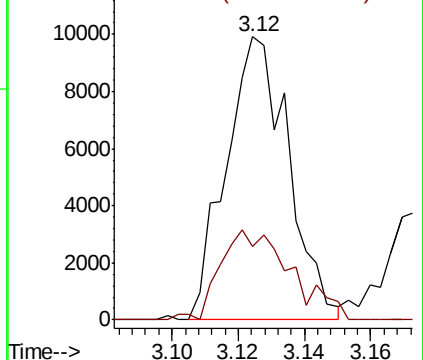
50 100

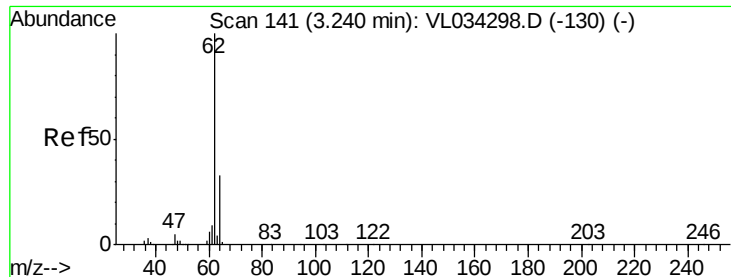
52 24.2 25.4 38.2#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.170 ppbv m

RT: 3.25 min Scan# 143

Delta R.T. 0.01 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

ClientSampleId :

VL1017ABS01

Tot Ion: 62 Resp: 11679

Ion Ratio Lower Upper

62 100

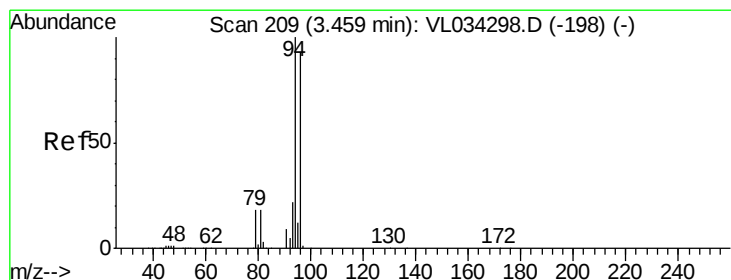
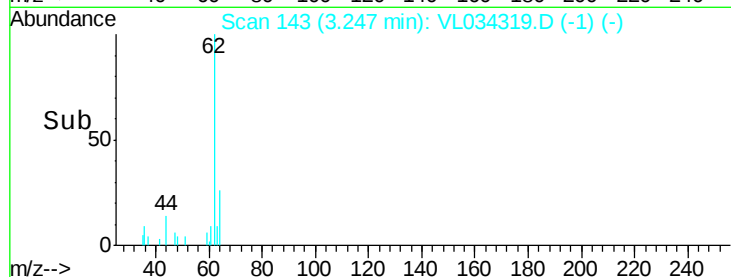
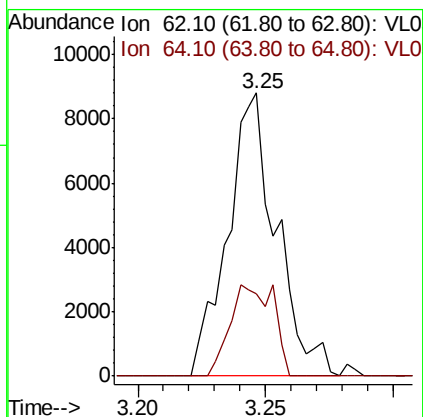
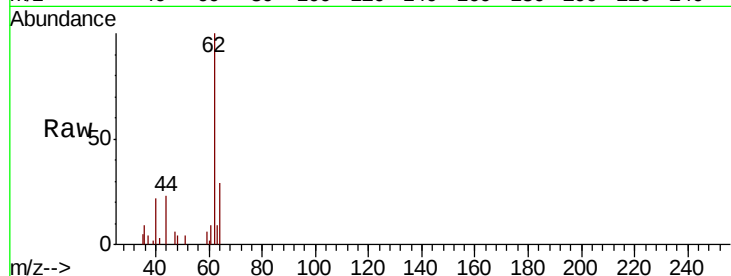
64 29.0 26.0 39.0

Manual Integrations

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#6

Bromomethane

Concen: 0.178 ppbv m

RT: 3.47 min Scan# 211

Delta R.T. 0.01 min

Lab File: VL034319.D

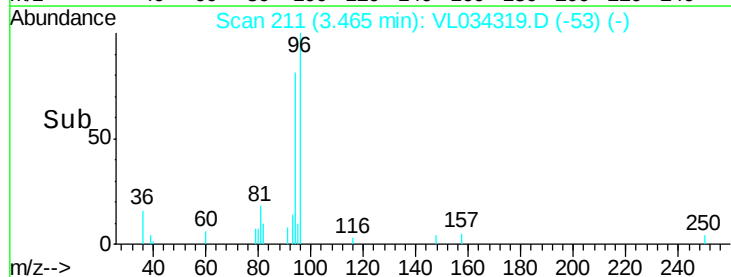
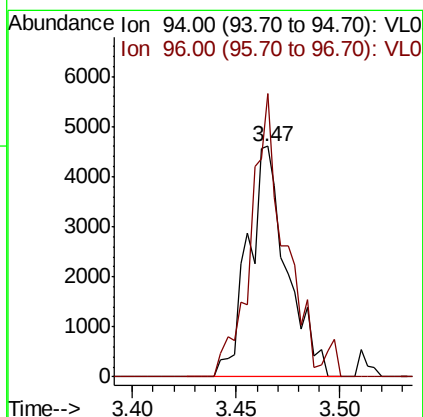
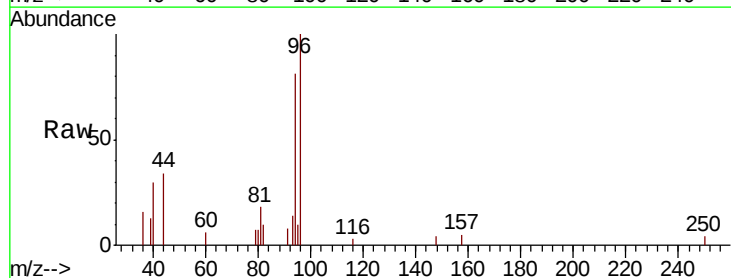
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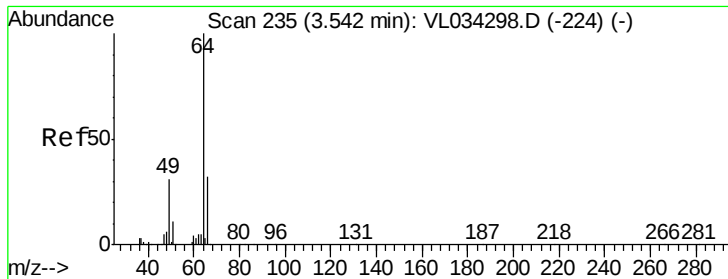
Tgt Ion: 94 Resp: 5973

Ion Ratio Lower Upper

94 100

96 122.8 74.6 112.0#





#7

Chloroethane

Concen: 0.199 ppbv m

RT: 3.55 min Scan# 236

Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

ClientSampleId :

VL1017ABS01

Tot Ion: 64 Resp: 4812

Ion Ratio Lower Upper

64 100

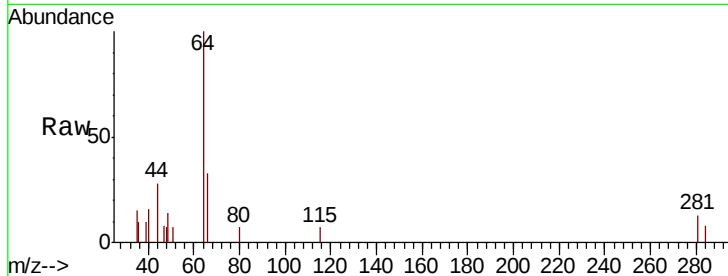
66 32.9 25.4 38.0

Manual Integrations

APPROVED

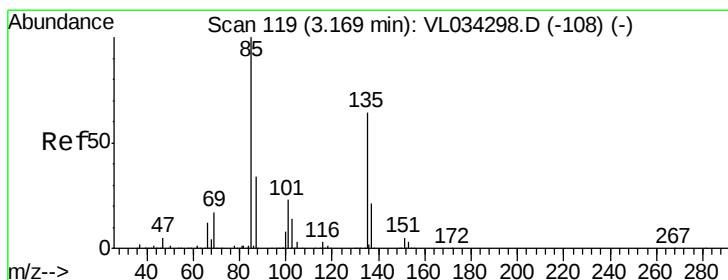
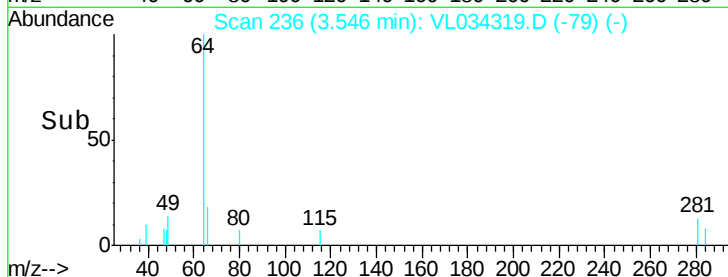
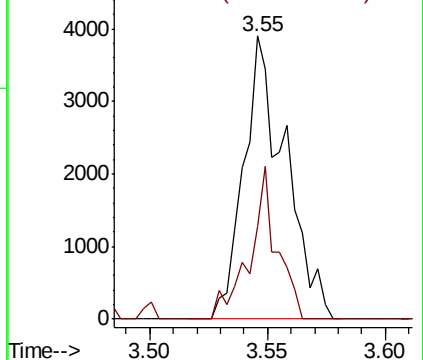
MMDadoda

10/22/2019 2:54:41 PM



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#8

Dichlorotetrafluoroethane

Concen: 0.194 ppbv

RT: 3.17 min Scan# 120

Delta R.T. 0.00 min

Lab File: VL034319.D

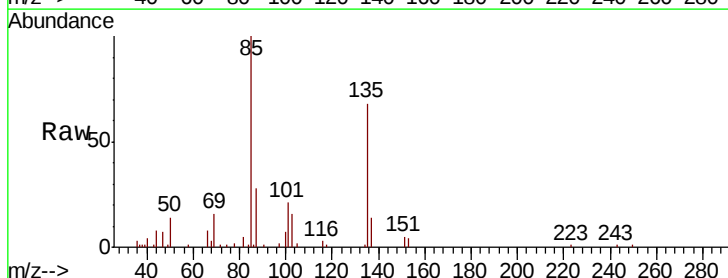
Acq: 17 Oct 2019 16:05

Tgt Ion: 85 Resp: 30041

Ion Ratio Lower Upper

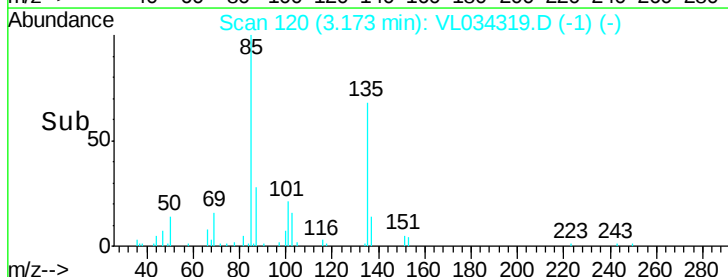
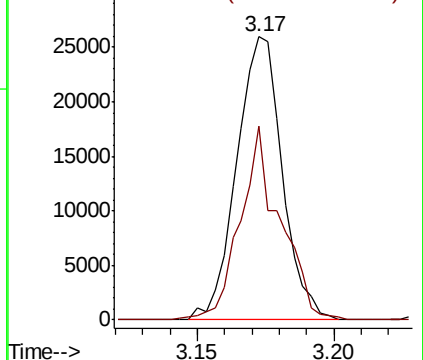
85 100

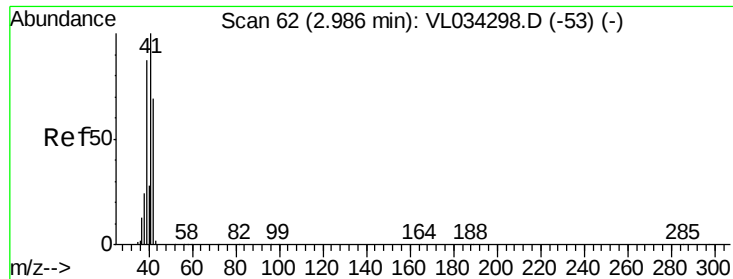
135 60.2 50.2 75.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V





#9

Propene

Concen: 0.203 ppbv m

RT: 2.99 min Scan# 64

Delta R.T. 0.01 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

ClientSampleId :

VL1017ABS01

Tot Ion: 41 Resp: 10968

Ion Ratio Lower Upper

41 100

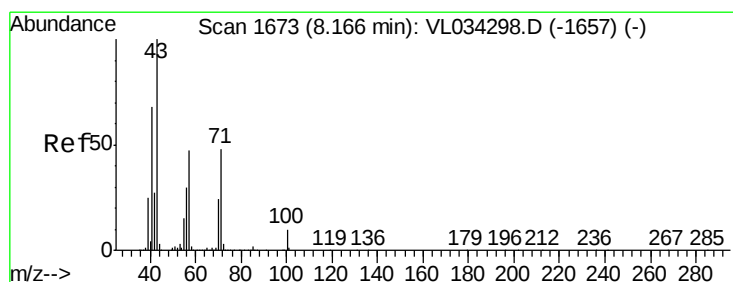
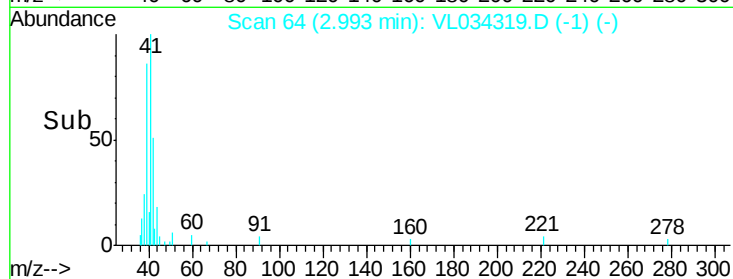
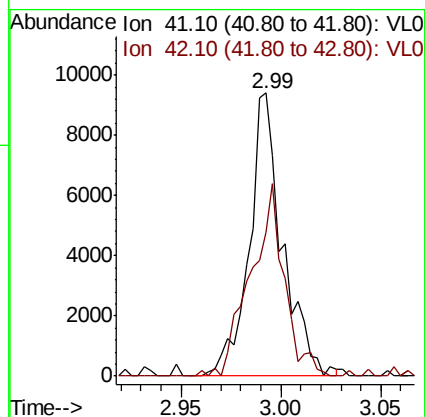
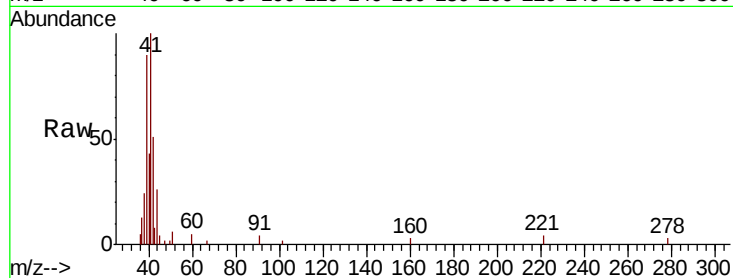
42 68.7 53.9 80.9

Manual Integrations

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#10

Heptane

Concen: 0.153 ppbv m

RT: 8.17 min Scan# 1674

Delta R.T. 0.00 min

Lab File: VL034319.D

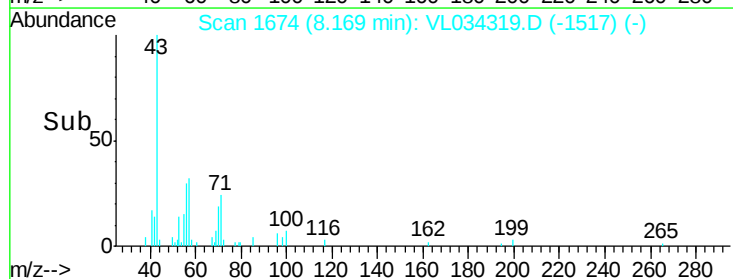
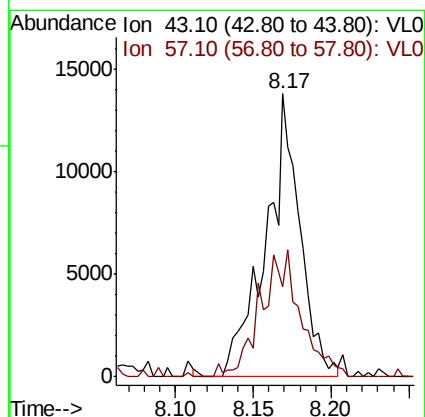
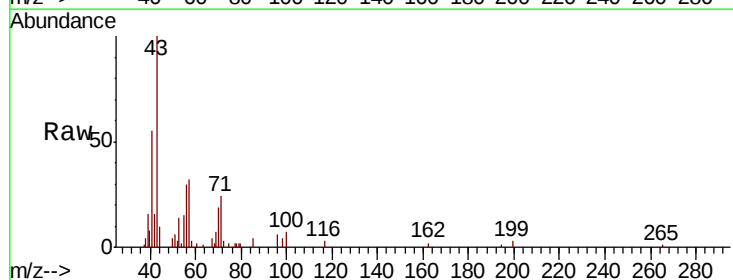
Acq: 17 Oct 2019 16:05

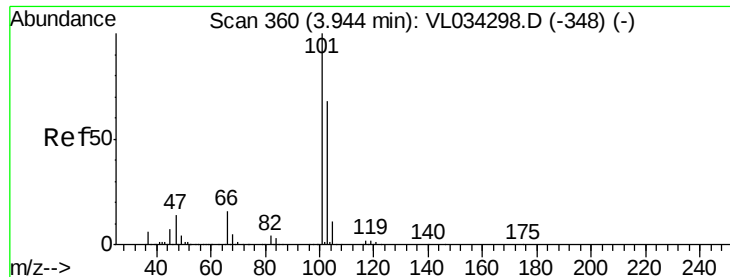
Tgt Ion: 43 Resp: 21145

Ion Ratio Lower Upper

43 100

57 0.0 39.5 59.3#





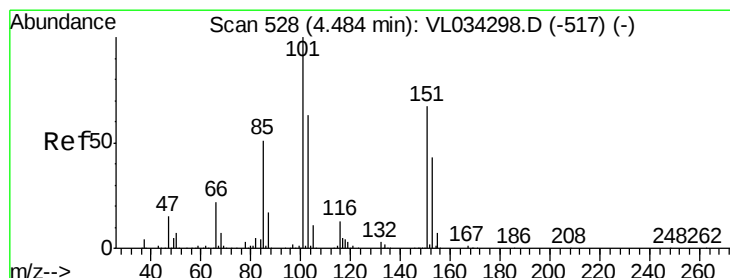
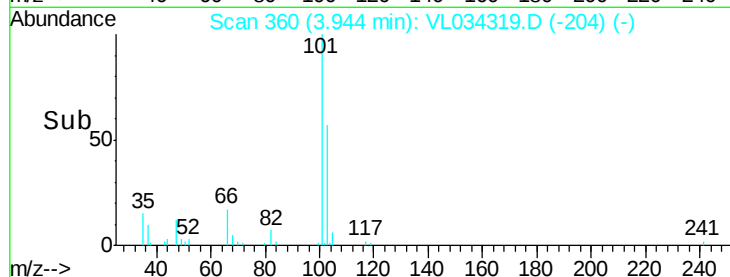
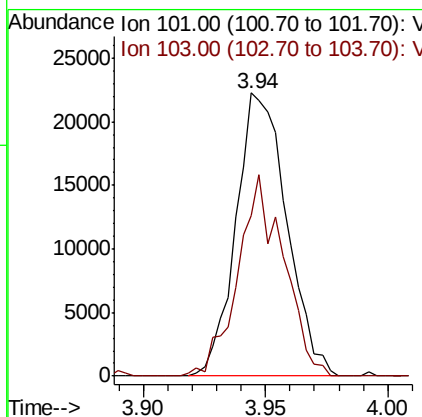
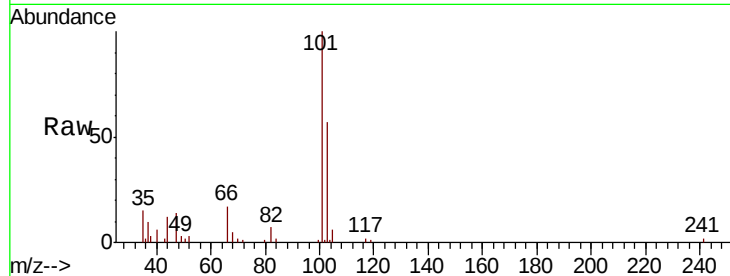
#11  
 Trichlorofluoromethane  
 Concen: 0.189 ppbv  
 RT: 3.94 min Scan# 360  
 Delta R.T. 0.00 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1017ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 101     | 100   |       |       |
| 103     | 56.6  | 54.5  | 81.7  |

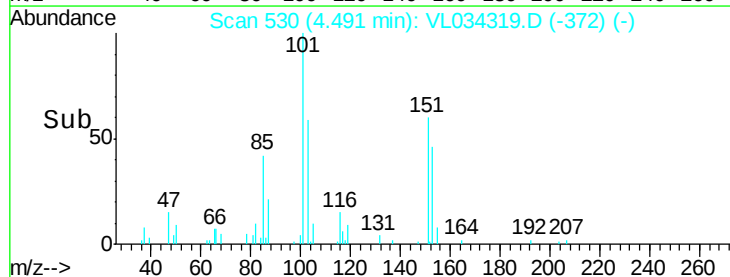
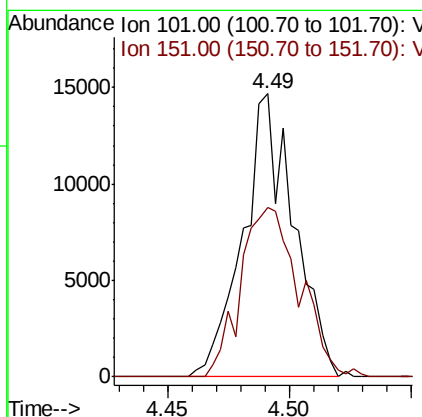
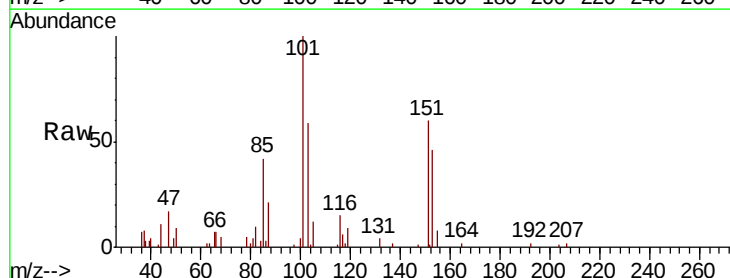
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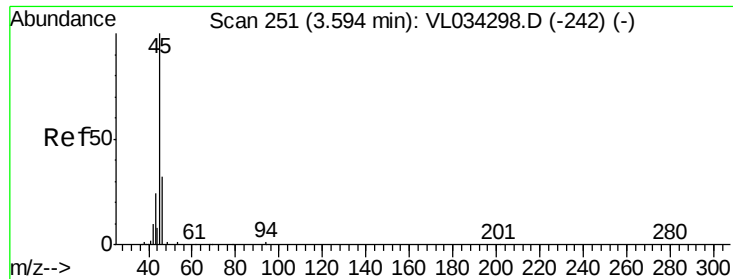
MMDadoda  
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#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 0.189 ppbv  
 RT: 4.49 min Scan# 530  
 Delta R.T. 0.01 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 101     | 100   |       |       |
| 151     | 69.7  | 57.4  | 86.2  |





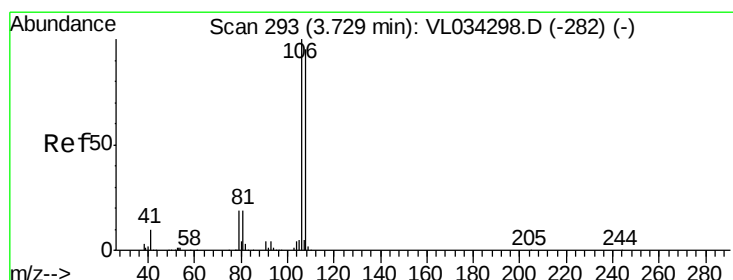
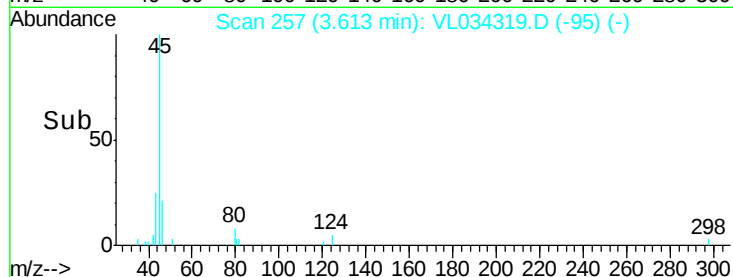
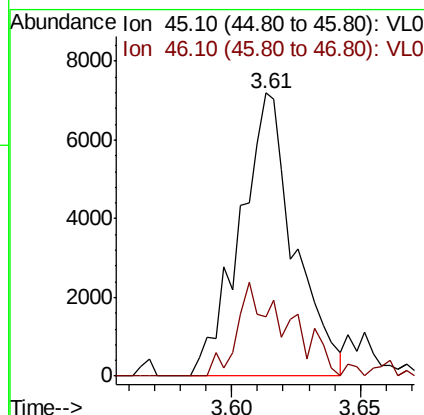
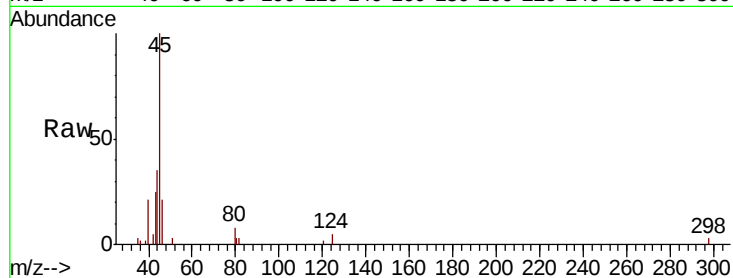
#13  
Ethanol  
Concen: 0.875 ppbv  
RT: 3.61 min Scan# 257  
Delta R.T. 0.02 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1017ABS01

| Tot Ion | 45  | 46   | Ratio | Lower | Upper |
|---------|-----|------|-------|-------|-------|
| 10576   | 100 | 32.1 |       | 15.8  | 63.2  |

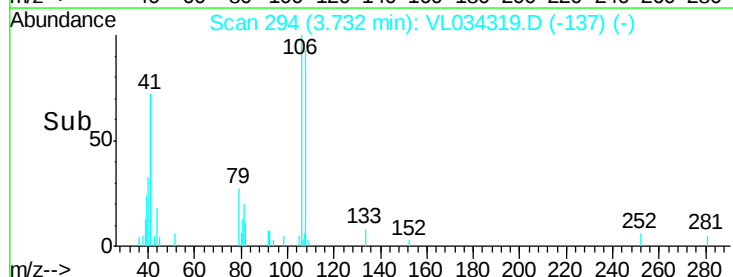
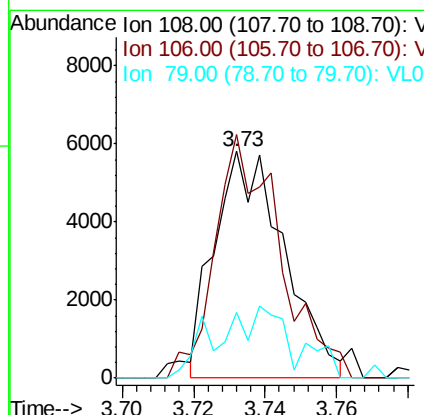
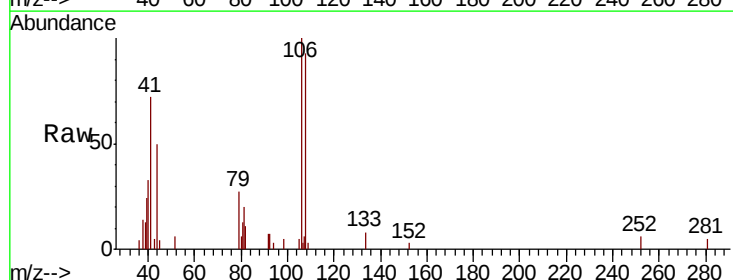
Manual Integrations  
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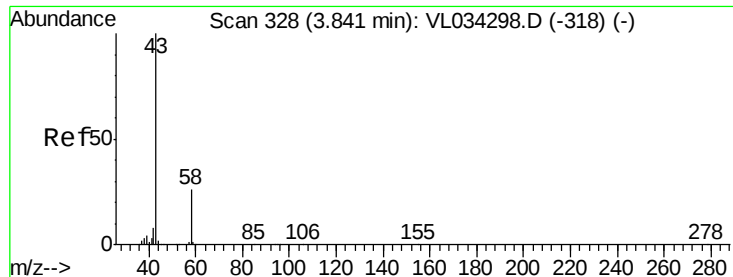
MMDadoda  
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#14  
Bromoethene  
Concen: 0.179 ppbv  
RT: 3.73 min Scan# 294  
Delta R.T. 0.00 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

| Tgt Ion | 108 | 106  | 79   | Ratio | Lower | Upper |
|---------|-----|------|------|-------|-------|-------|
| 7851    | 100 | 99.1 | 35.7 |       | 84.8  | 127.2 |
|         |     |      |      |       | 17.0  | 25.4# |





#15

Acetone

Concen: 0.322 ppbv

RT: 3.86 min Scan# 333

Delta R.T. 0.02 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

ClientSampleId :

VL1017ABS01

Tot Ion: 43 Resp: 47839

Ion Ratio Lower Upper

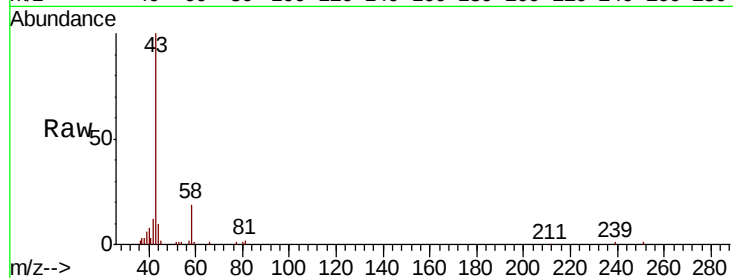
43 100

58 27.7 20.4 30.6

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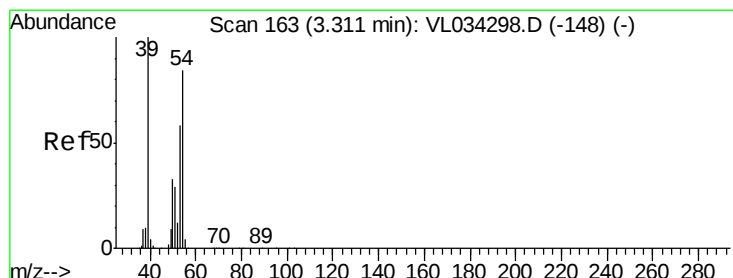
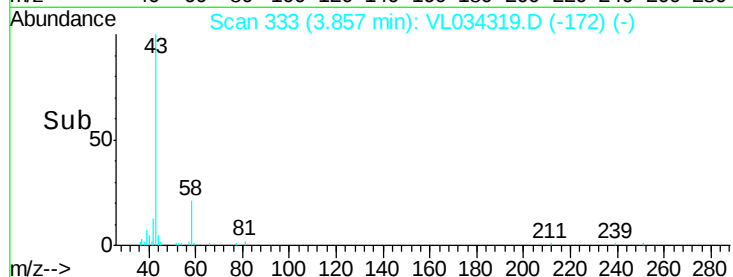
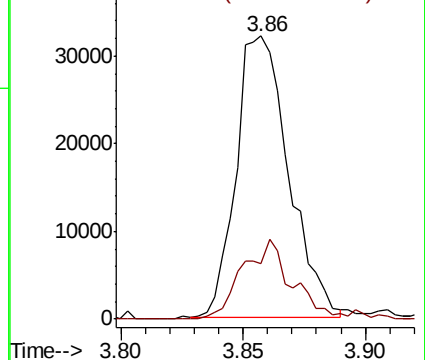
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.169 ppbv

RT: 3.32 min Scan# 165

Delta R.T. 0.01 min

Lab File: VL034319.D

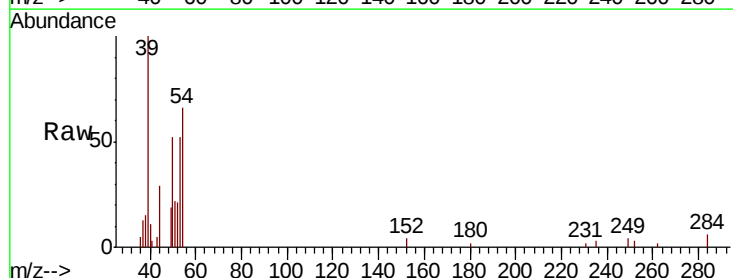
Acq: 17 Oct 2019 16:05

Tgt Ion: 39 Resp: 10197

Ion Ratio Lower Upper

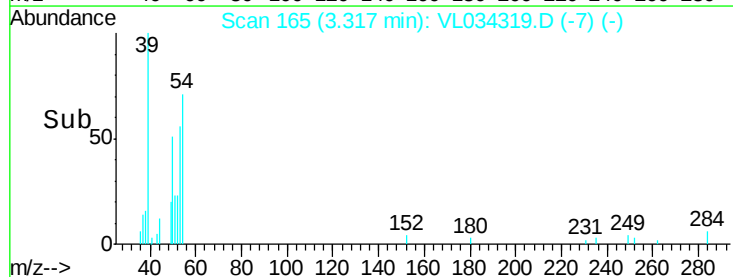
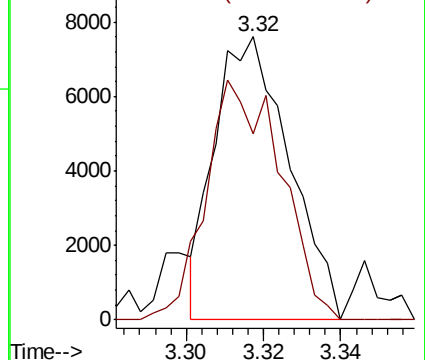
39 100

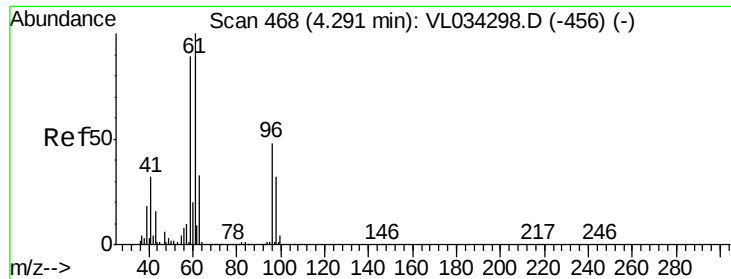
54 85.2 63.9 95.9



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#17

tert-Butyl alcohol

Concen: 0.222 ppbv m

RT: 4.34 min Scan# 482

Delta R.T. 0.05 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

ClientSampleID :

VL1017ABS01

Tot Ion: 59 Resp: 21035

Ion Ratio Lower Upper

59 100

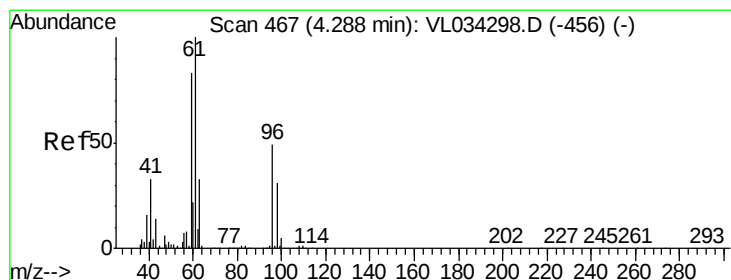
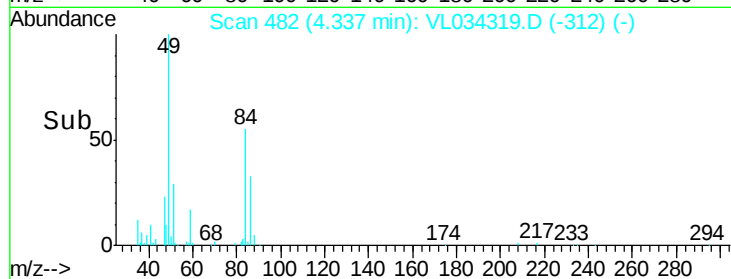
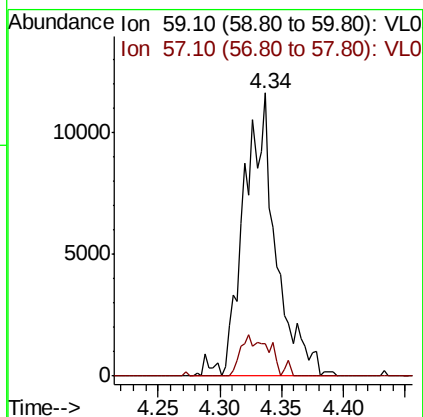
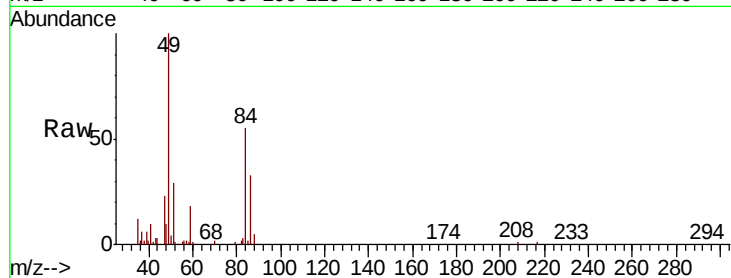
57 0.0 8.8 13.2#

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#18

1,1-Dichloroethene

Concen: 0.184 ppbv m

RT: 4.29 min Scan# 469

Delta R.T. 0.01 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

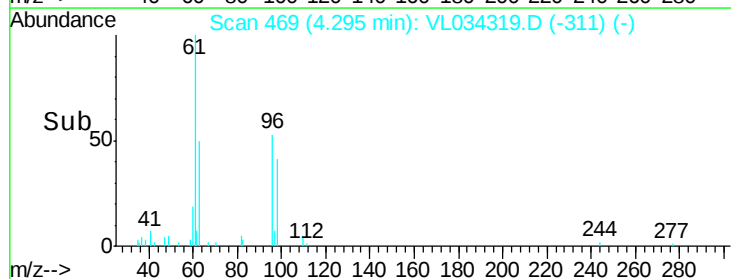
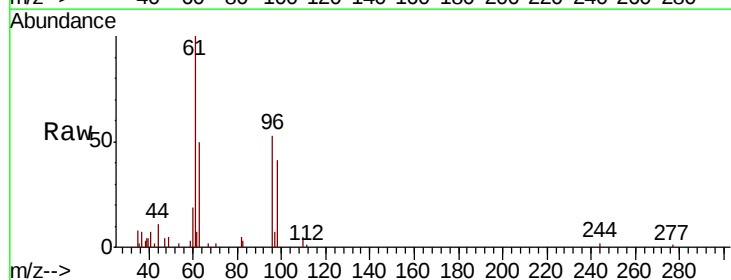
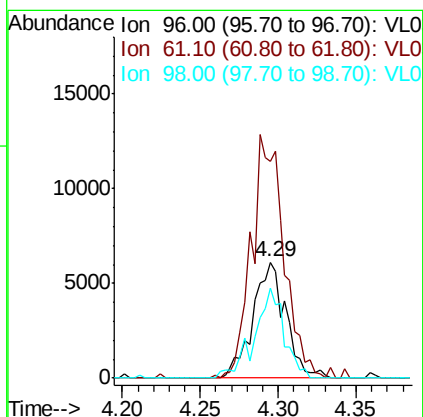
Tgt Ion: 96 Resp: 8968

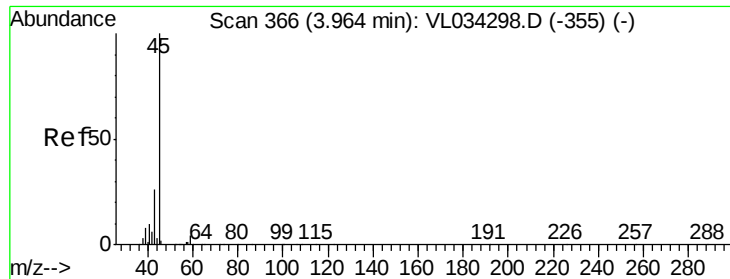
Ion Ratio Lower Upper

96 100

61 187.3 164.5 246.7

98 77.2 51.7 77.5





#19

Isopropyl Alcohol

Concen: 0.253 ppbv m

RT: 3.99 min Scan# 374

Delta R.T. 0.03 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

ClientSampleId :

VL1017ABS01

Tot Ion: 45 Resp: 20988

Ion Ratio Lower Upper

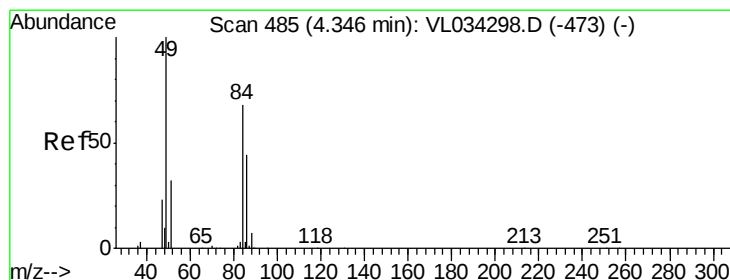
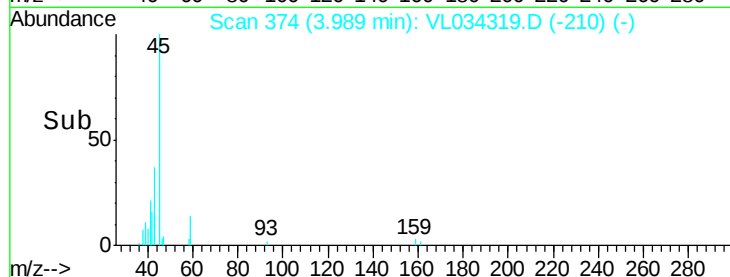
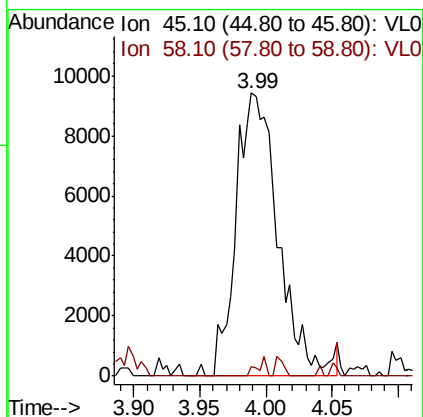
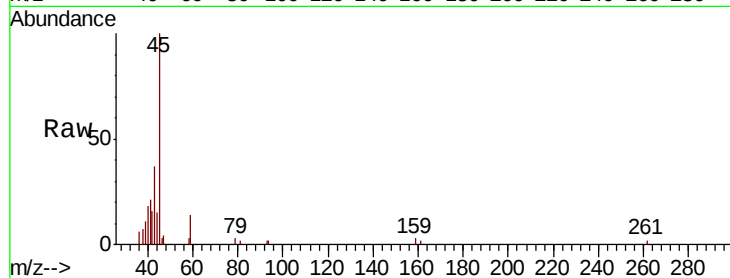
45 100

58 0.0 1.4 2.2#

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#20

Methylene Chloride

Concen: 2.301 ppbv

RT: 4.35 min Scan# 487

Delta R.T. 0.01 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Tgt Ion: 84 Resp: 123615

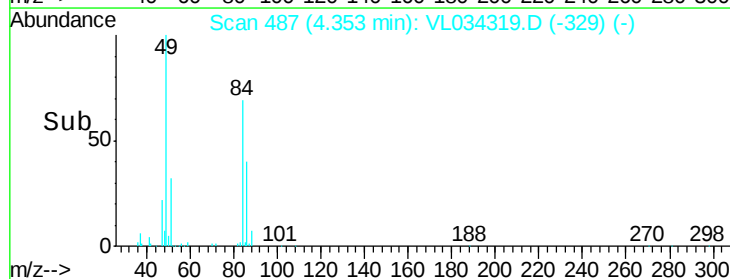
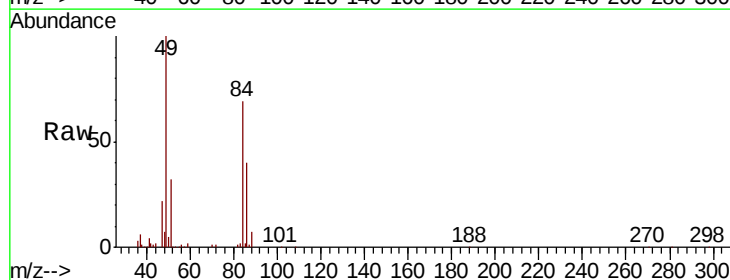
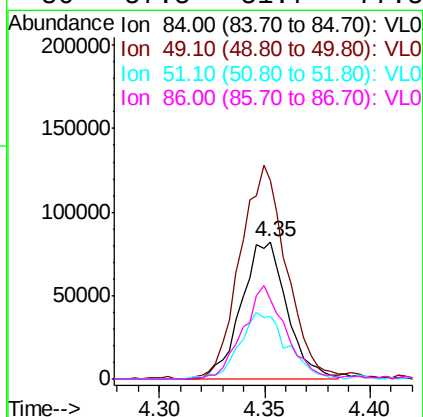
Ion Ratio Lower Upper

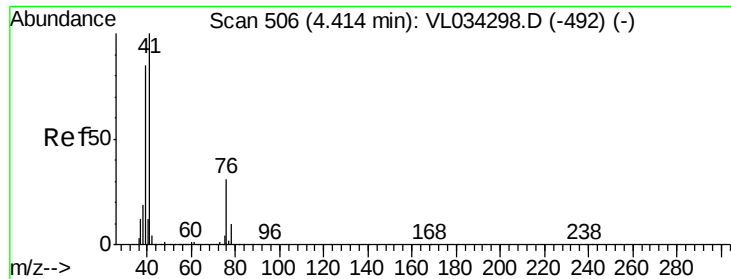
84 100

49 144.3 118.5 177.7

51 44.8 38.8 58.2

86 57.5 51.7 77.5





#21

Allvl Chloride

Concen: 0.181 ppbv m

RT: 4.41 min Scan# 506

Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

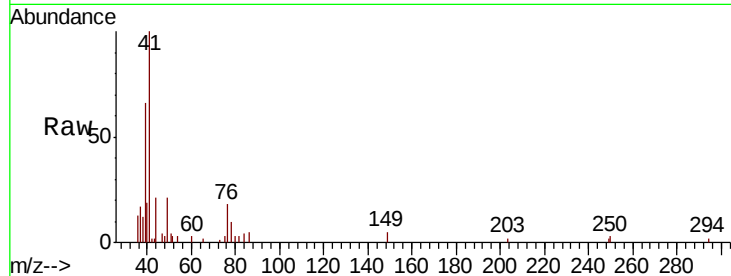
ClientSampleId :

VL1017ABS01

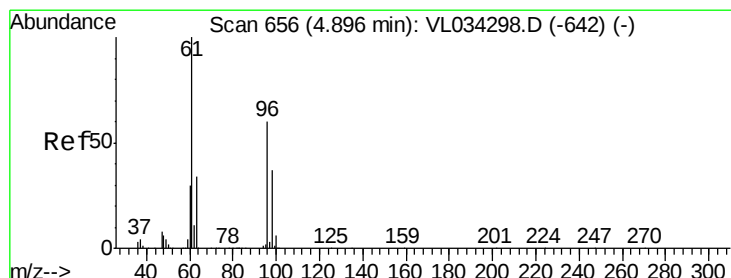
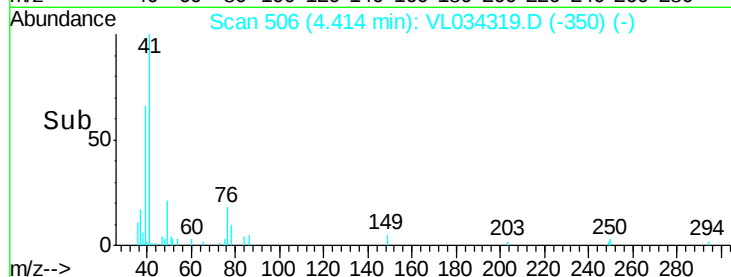
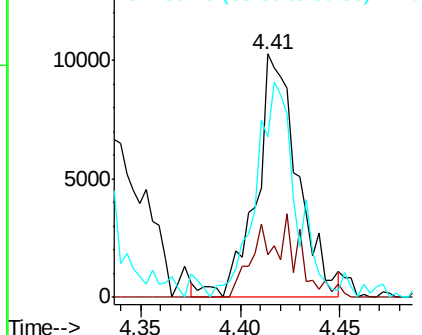
|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 41    | Resp: | 14895 |
| Ion Ratio | Lower | Upper |       |
| 41        | 100   |       |       |
| 76        | 32.0  | 22.8  | 34.2  |
| 39        | 89.7  | 66.0  | 99.0  |

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Abundance Ion 41.10 (40.80 to 41.80): VL0  
Ion 76.10 (75.80 to 76.80): VL0  
Ion 39.10 (38.80 to 39.80): VL0



#22

trans-1,2-Dichloroethene

Concen: 0.176 ppbv

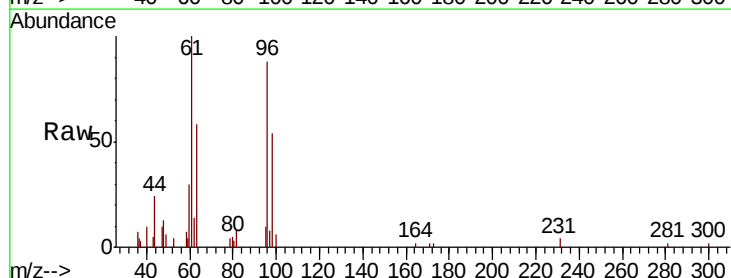
RT: 4.90 min Scan# 657

Delta R.T. 0.00 min

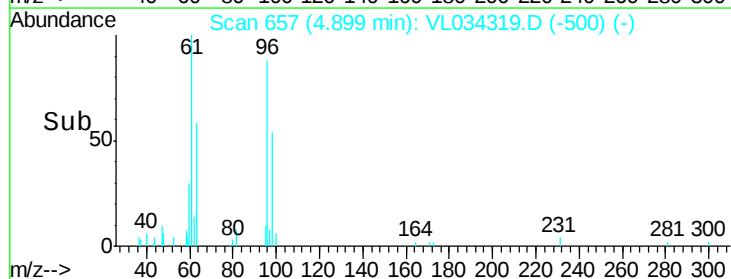
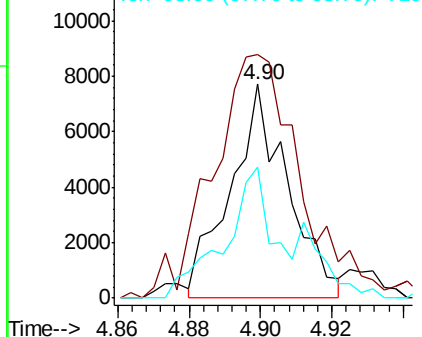
Lab File: VL034319.D

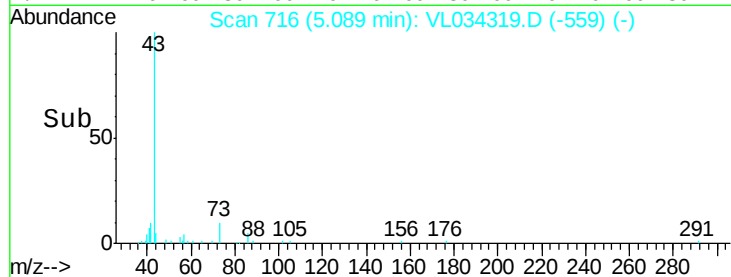
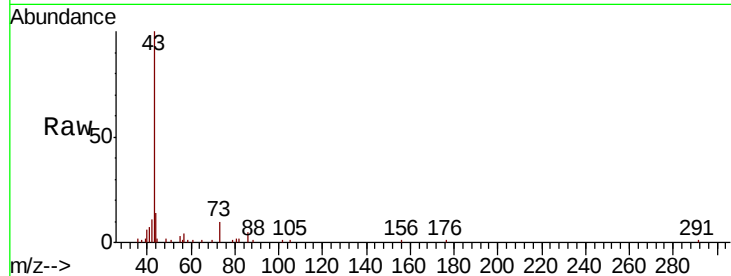
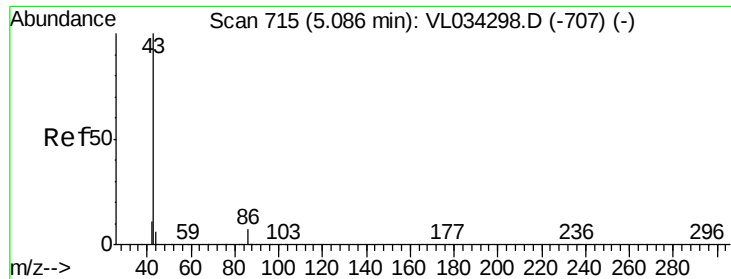
Acq: 17 Oct 2019 16:05

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 96    | Resp: | 8576   |
| Ion Ratio | Lower | Upper |        |
| 96        | 100   |       |        |
| 61        | 101.2 | 133.8 | 200.6# |
| 98        | 56.7  | 49.4  | 74.0   |



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





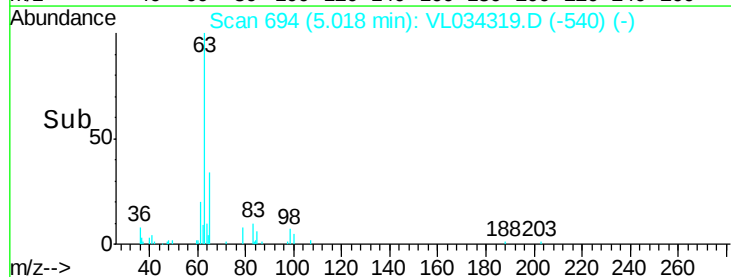
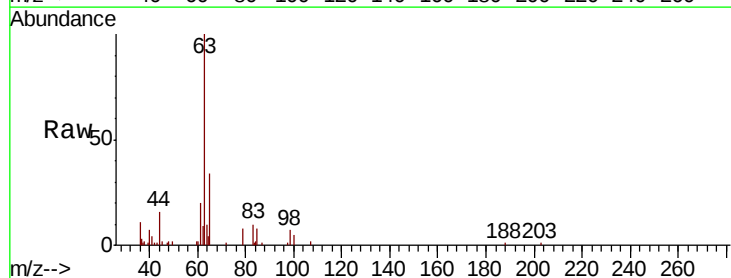
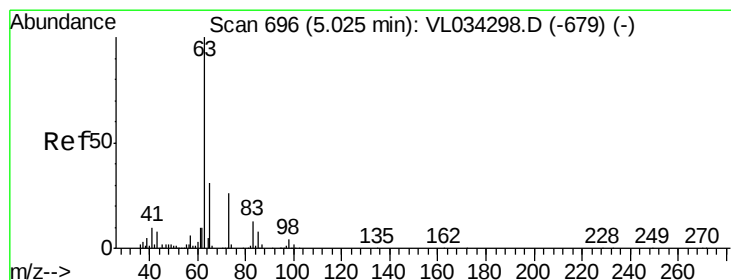
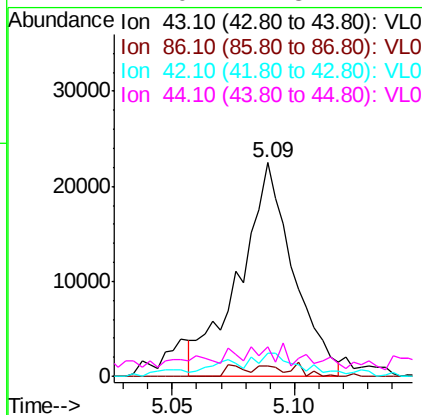
#23  
 Vinyl Acetate  
 Concen: 0.184 ppbv  
 RT: 5.09 min Scan# 716  
 Delta R.T. 0.00 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

| Tot Ion   | 43    | Resp: | 34118 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 43        | 100   |       |       |
| 86        | 5.0   | 5.0   | 7.4   |
| 42        | 9.8   | 8.6   | 13.0  |
| 44        | 11.0  | 4.8   | 7.2#  |

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1017ABS01

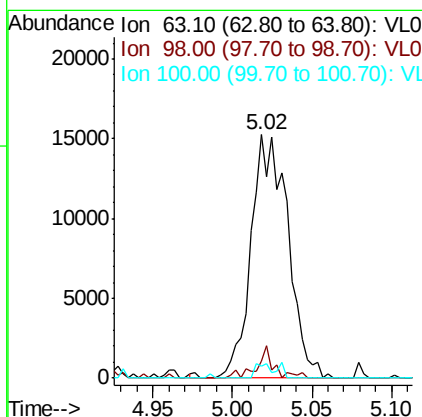
Manual Integrations  
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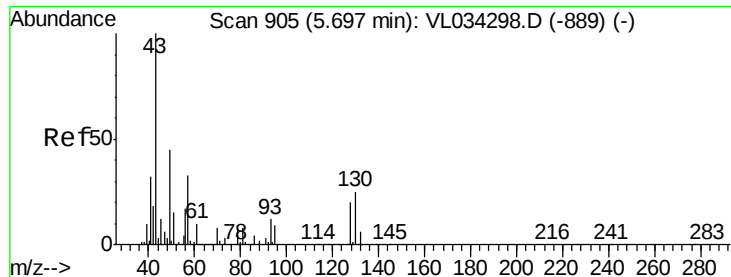
MMDadoda  
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#24  
 1,1-Dichloroethane  
 Concen: 0.177 ppbv m  
 RT: 5.02 min Scan# 694  
 Delta R.T. -0.01 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

| Tgt Ion   | 63    | Resp: | 24450 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 63        | 100   |       |       |
| 98        | 7.1   | 2.0   | 6.0#  |
| 100       | 4.8   | 1.1   | 3.5#  |





#25

Ethyl Acetate

Concen: 0.220 ppbv

RT: 5.71 min Scan# 909

Delta R.T. 0.01 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

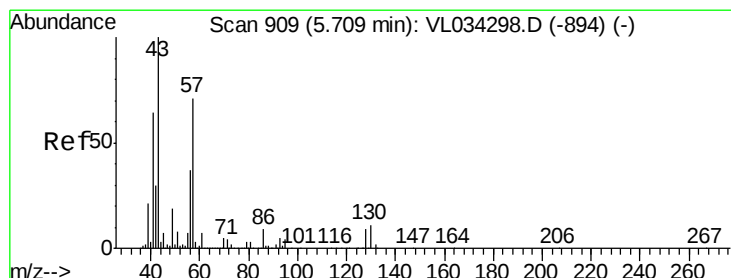
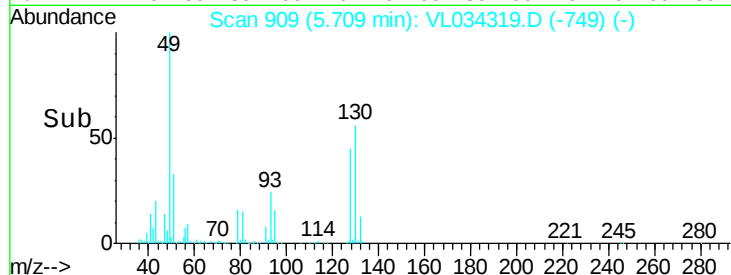
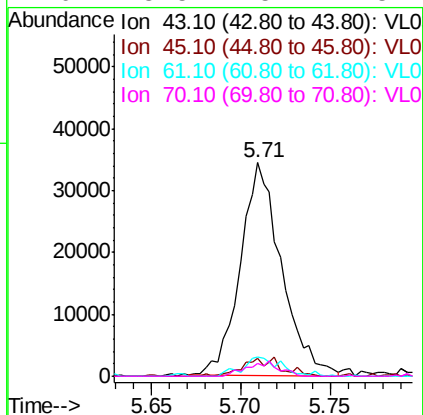
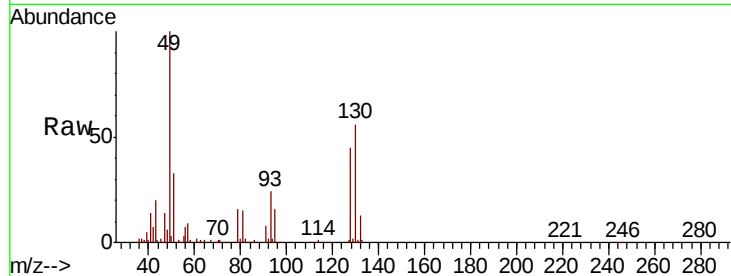
ClientSampleID :

VL1017ABS01

| Tot Ion | Ion | Ratio | Resp  | Lower | Upper |
|---------|-----|-------|-------|-------|-------|
| 43      | 100 |       |       |       |       |
| 45      | 8.0 | 8.3   | 12.5# |       |       |
| 61      | 9.0 | 7.7   | 11.5  |       |       |
| 70      | 5.5 | 5.4   | 8.2   |       |       |

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#26

Hexane

Concen: 0.341 ppbv m

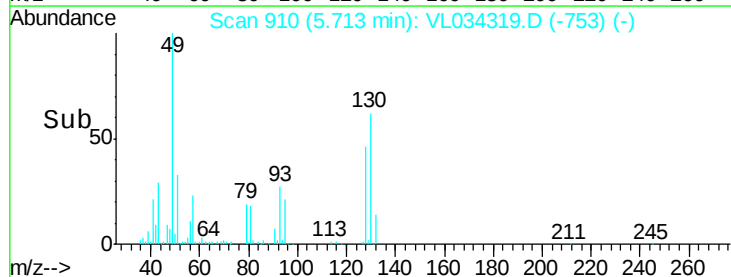
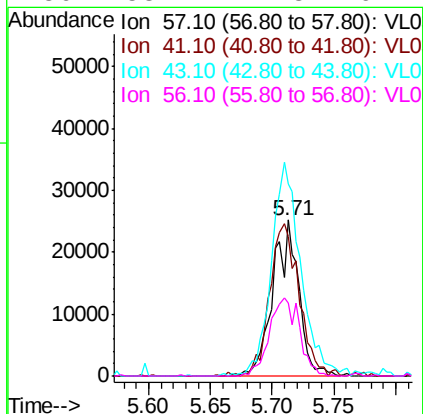
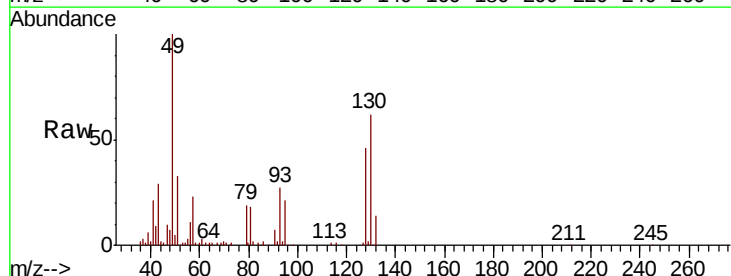
RT: 5.71 min Scan# 910

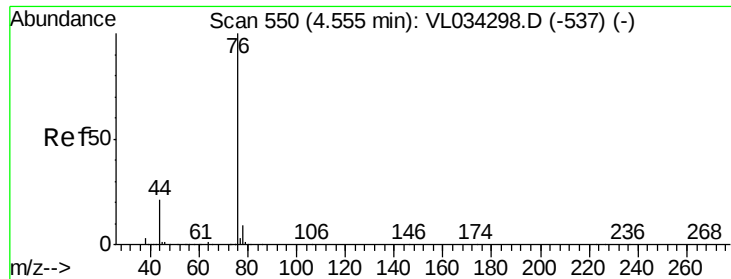
Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

| Tgt Ion | Ion   | Ratio | Resp   | Lower | Upper |
|---------|-------|-------|--------|-------|-------|
| 57      | 100   |       |        |       |       |
| 41      | 112.5 | 76.5  | 114.7  |       |       |
| 43      | 159.2 | 188.5 | 282.7# |       |       |
| 56      | 58.1  | 42.8  | 64.2   |       |       |





#27

Carbon Disulfide

Concen: 0.154 ppbv m

RT: 4.56 min Scan# 552

Delta R.T. 0.01 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

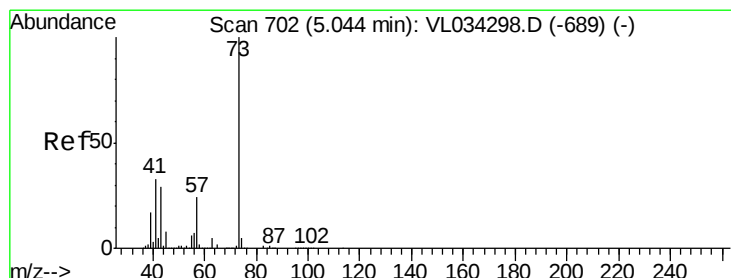
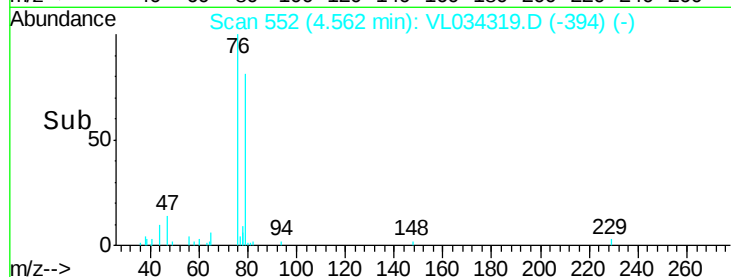
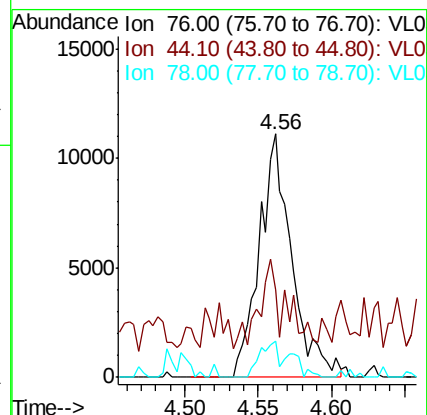
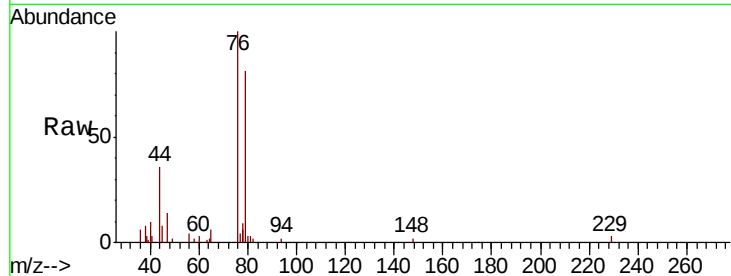
ClientSampled :

VL1017ABS01

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 76    | Resp: | 17058 |
| Ion Ratio | Lower | Upper |       |
| 76        | 100   |       |       |
| 44        | 17.6  | 17.3  | 25.9  |
| 78        | 13.6  | 7.8   | 11.6# |

Manual Integrations  
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#28

Methyl tert-Butyl Ether

Concen: 0.169 ppbv m

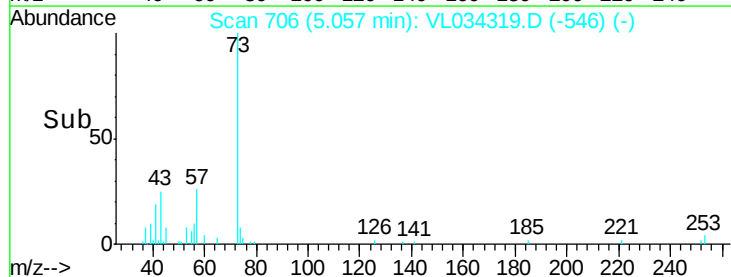
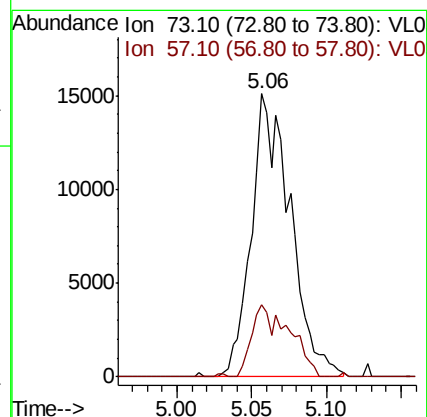
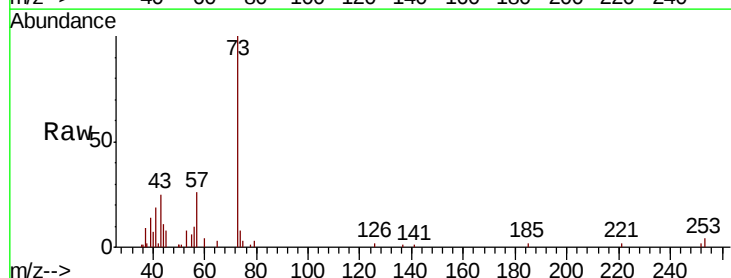
RT: 5.06 min Scan# 706

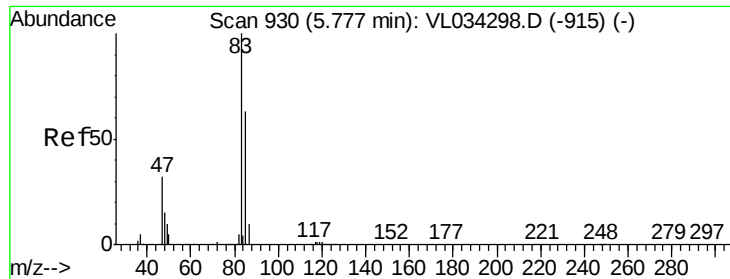
Delta R.T. 0.01 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 73    | Resp: | 27373 |
| Ion Ratio | Lower | Upper |       |
| 73        | 100   |       |       |
| 57        | 25.1  | 19.2  | 28.8  |





#29

Chloroform

Concen: 0.179 ppbv

RT: 5.78 min Scan# 930

Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

ClientSampleId :

VL1017ABS01

Tot Ion: 83 Resp: 30336

Ion Ratio Lower Upper

83 100

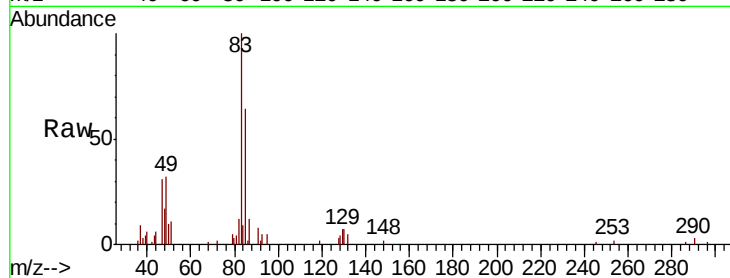
85 63.9 50.5 75.7

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Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

20000

15000

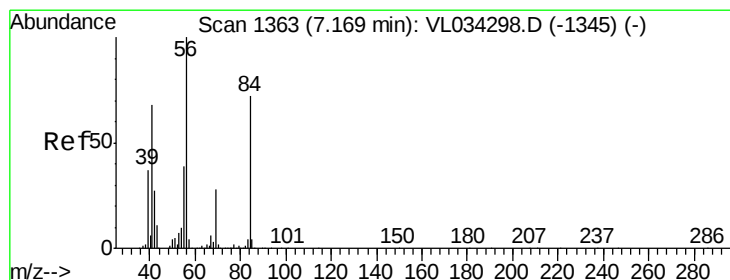
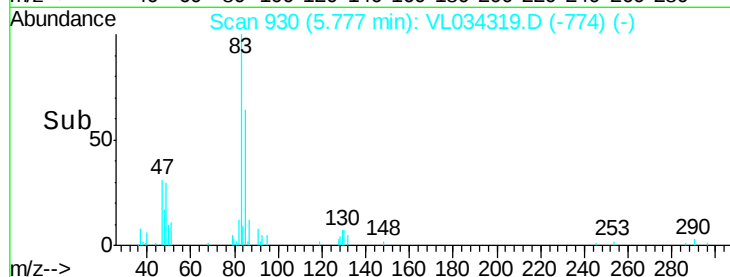
10000

5000

0

5.75 5.80

Time-->



#30

Cyclohexane

Concen: 0.200 ppbv m

RT: 7.16 min Scan# 1361

Delta R.T. -0.01 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

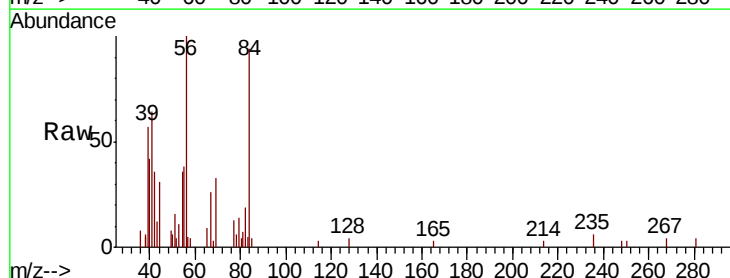
Tgt Ion: 84 Resp: 15747

Ion Ratio Lower Upper

84 100

56 0.0 119.4 179.0#

41 80.2 78.7 118.1



Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

40000

30000

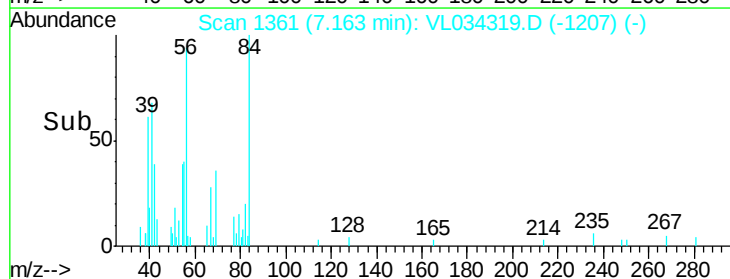
20000

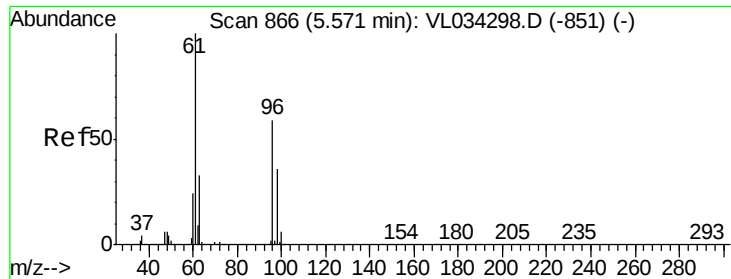
10000

0

7.10 7.20 7.30

Time-->





#31

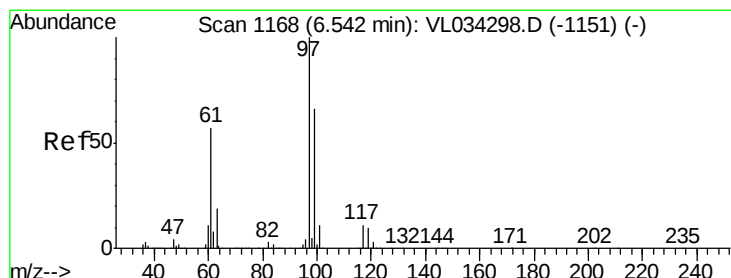
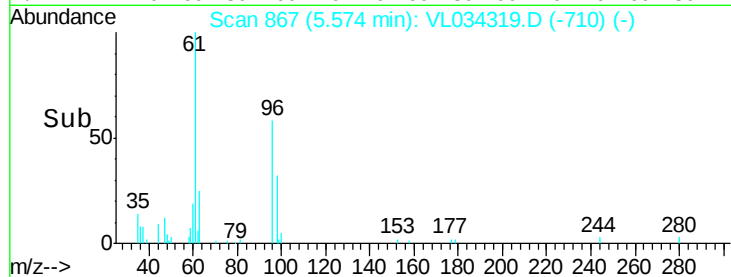
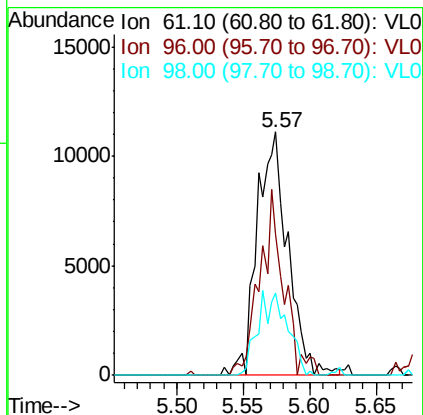
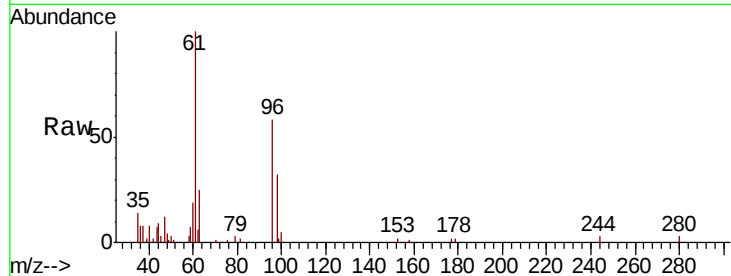
cis-1,2-Dichloroethene  
Concen: 0.164 ppbv m  
RT: 5.57 min Scan# 867  
Delta R.T. 0.00 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1017ABS01

| Tot Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 61      | 100   | 17854 |       |       |
| 96      | 58.1  |       | 47.5  | 71.3  |
| 98      | 31.7  |       | 28.8  | 43.2  |

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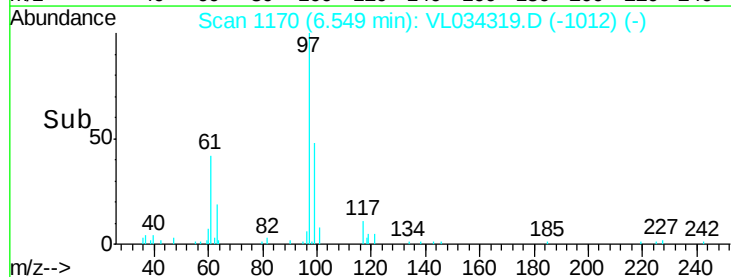
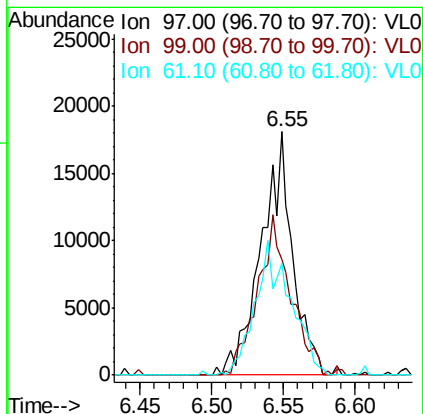
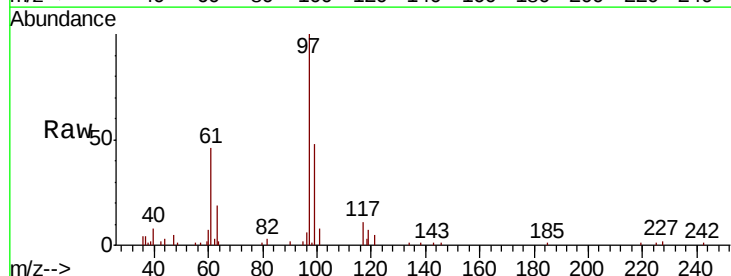
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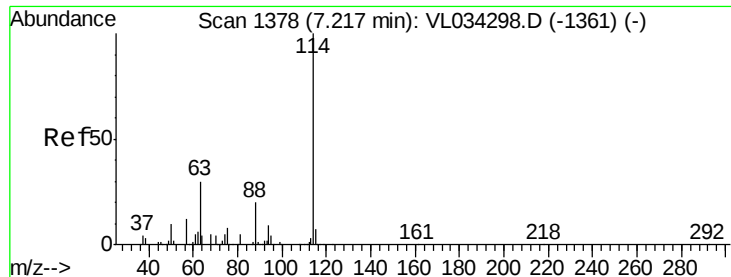


#32

1,1,1-Trichloroethane  
Concen: 0.168 ppbv m  
RT: 6.55 min Scan# 1170  
Delta R.T. 0.01 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 97      | 100   | 27579 |       |       |
| 99      | 70.0  |       | 52.6  | 78.8  |
| 61      | 61.9  |       | 44.5  | 66.7  |





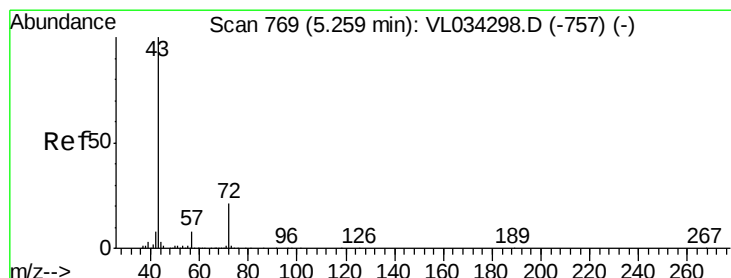
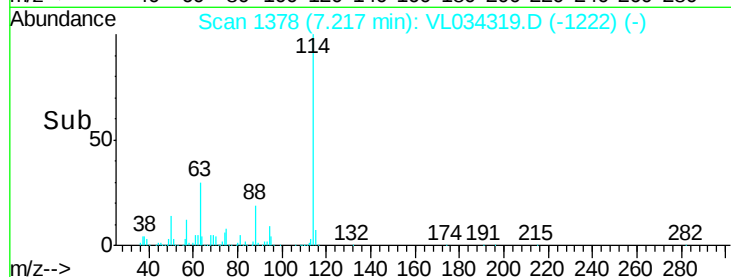
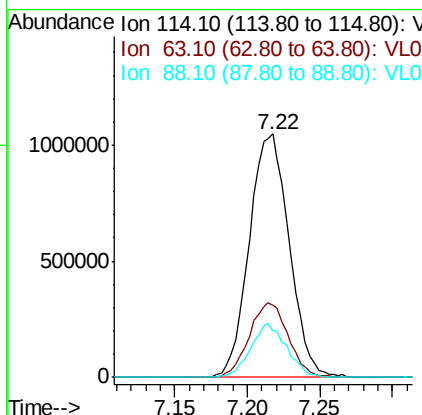
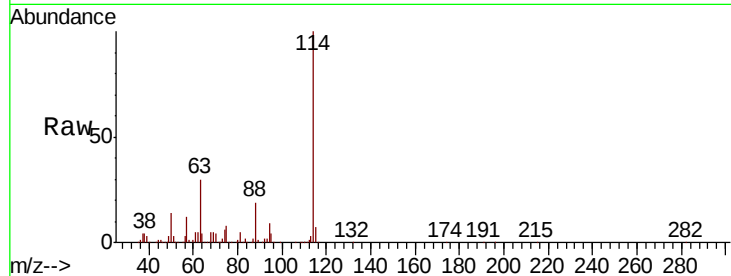
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.22 min Scan# 1378  
 Delta R.T. 0.00 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1017ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 30.2  | 25.2  | 37.8  |
| 88      | 20.1  | 16.0  | 24.0  |

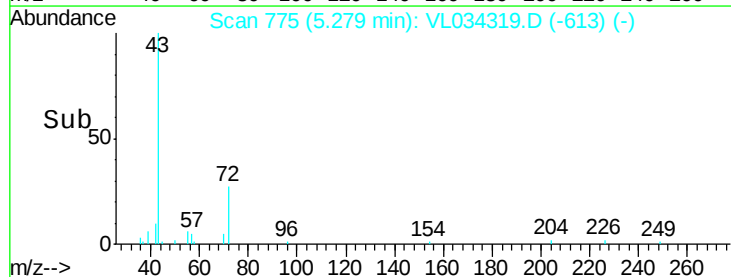
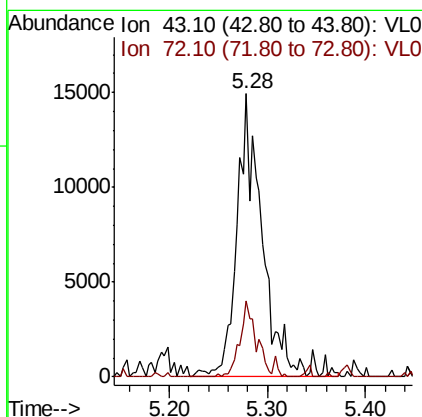
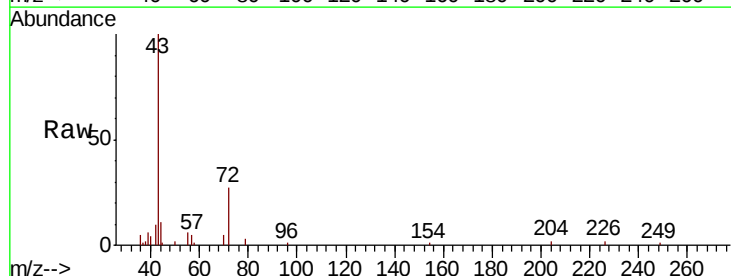
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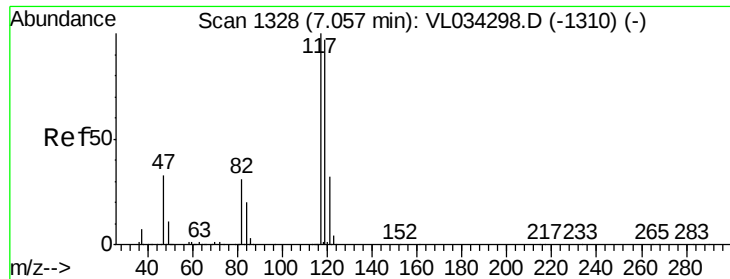
MMDadoda  
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#34  
 2-Butanone  
 Concen: 0.165 ppbv m  
 RT: 5.28 min Scan# 775  
 Delta R.T. 0.02 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 19.3  | 16.3  | 24.5  |





#35

Carbon Tetrachloride

Concen: 0.164 ppbv m

RT: 7.06 min Scan# 1329

Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

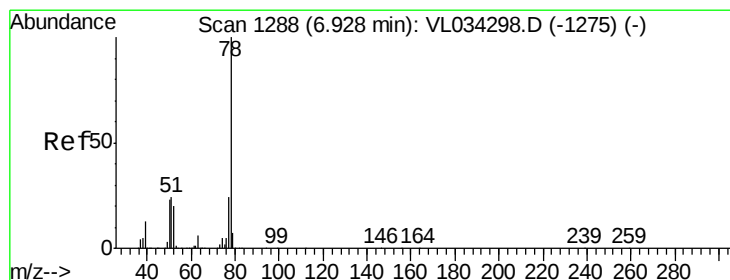
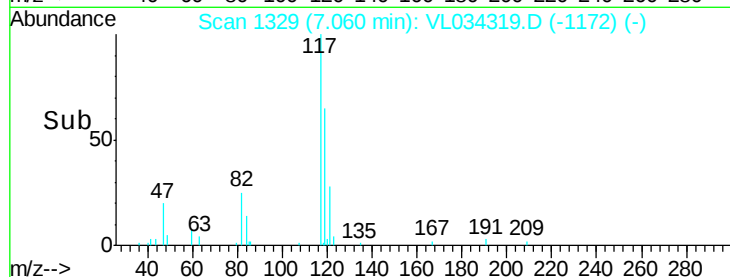
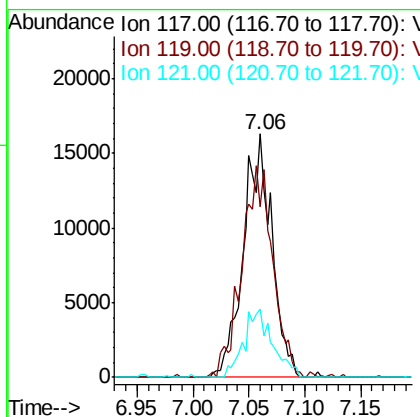
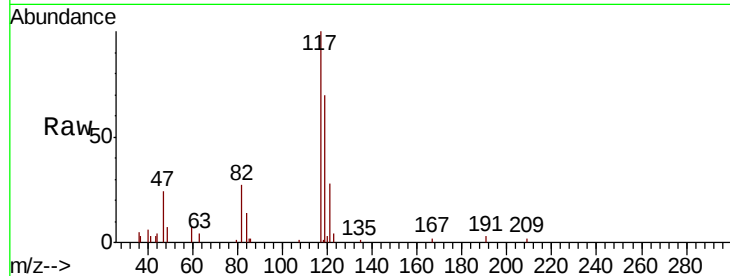
ClientSampleId :

VL1017ABS01

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 70.2  | 77.3  | 115.9# |
| 121     | 27.8  | 25.5  | 38.3   |

Manual Integrations  
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#36

Benzene

Concen: 0.157 ppbv

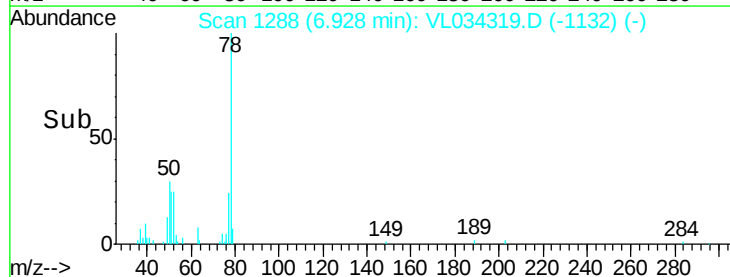
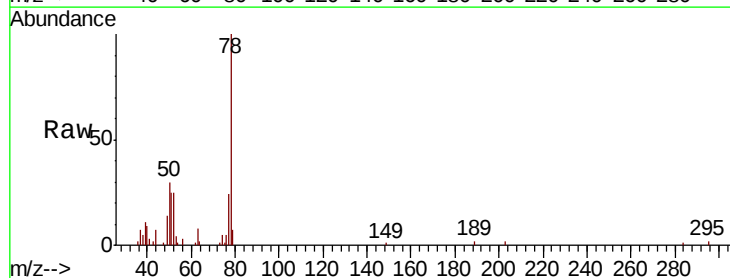
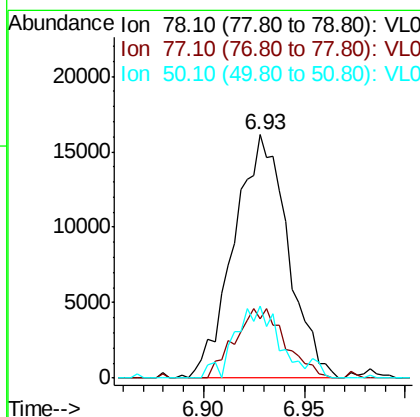
RT: 6.93 min Scan# 1288

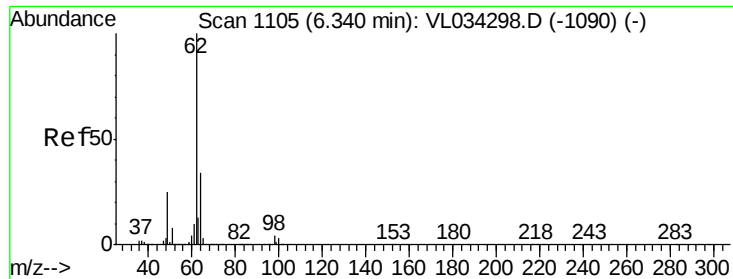
Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 24.4  | 19.0  | 28.4  |
| 50      | 29.7  | 18.6  | 27.8# |





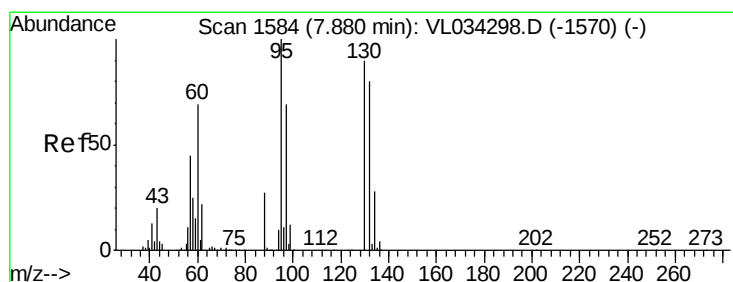
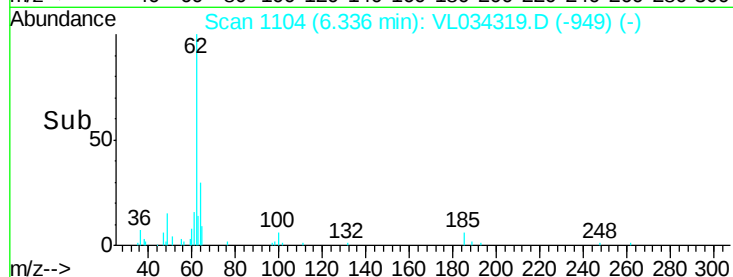
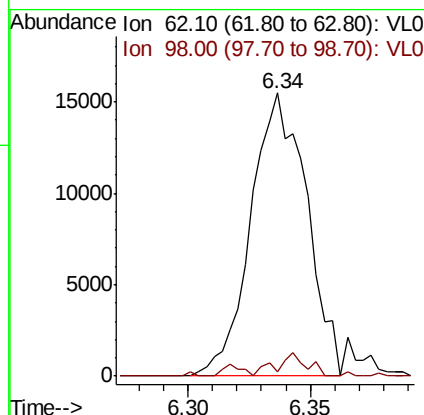
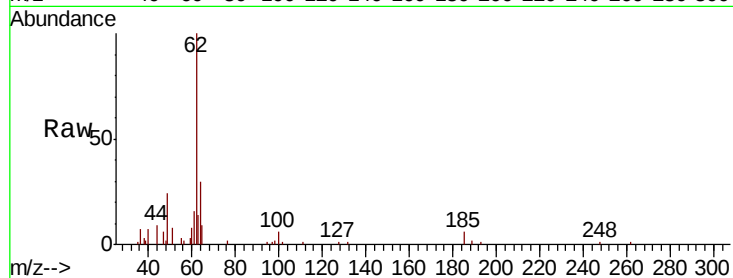
#37  
 1,2-Dichloroethane  
 Concen: 0.171 ppbv  
 RT: 6.34 min Scan# 1104  
 Delta R.T. -0.00 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1017ABS01

| Tot Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 62      | 100   | 24493 |       |       |
| 98      | 6.1   |       | 3.8   | 5.6#  |

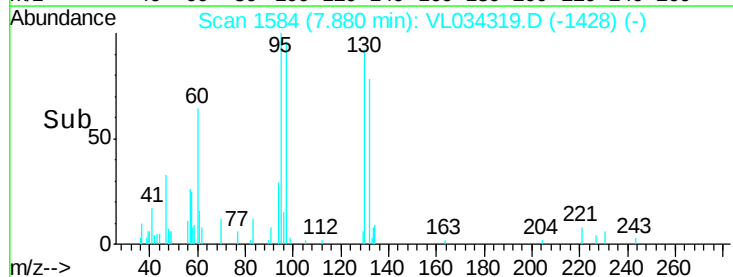
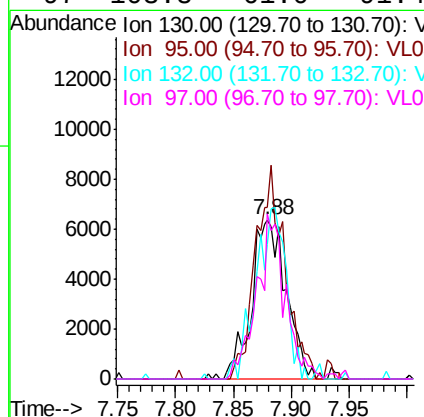
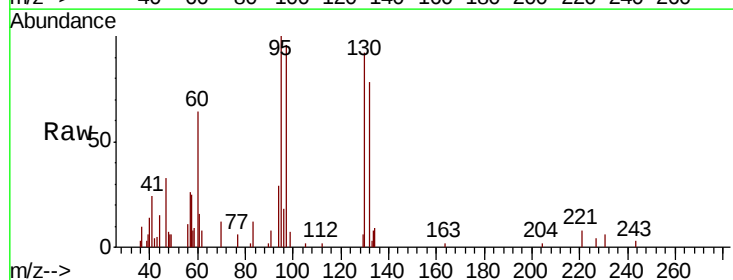
Manual Integrations  
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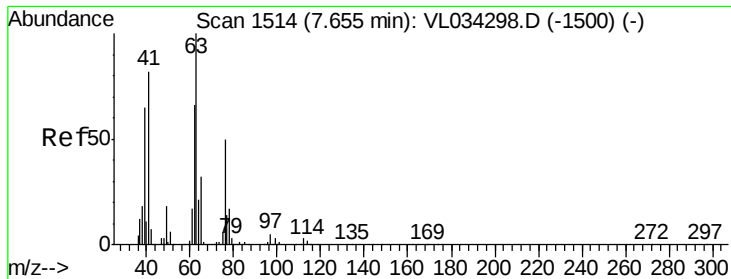
MMDadoda  
 10/22/2019 2:54:41 PM



#38  
 Trichloroethene  
 Concen: 0.175 ppbv m  
 RT: 7.88 min Scan# 1584  
 Delta R.T. 0.00 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 130     | 100   | 13489 |       |       |
| 95      | 108.2 |       | 88.6  | 132.8 |
| 132     | 84.2  |       | 71.2  | 106.8 |
| 97      | 103.8 |       | 61.0  | 91.4# |





#39

1,2-Dichloropropane

Concen: 0.180 ppbv m

RT: 7.65 min Scan# 1513

Delta R.T. -0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

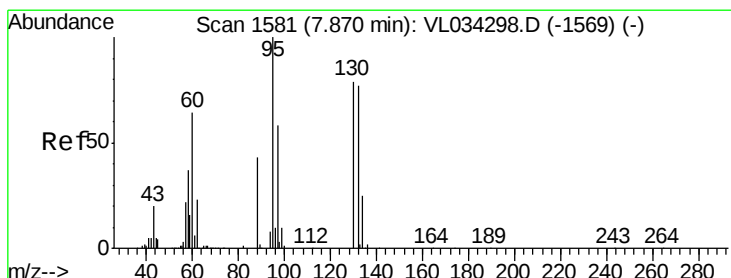
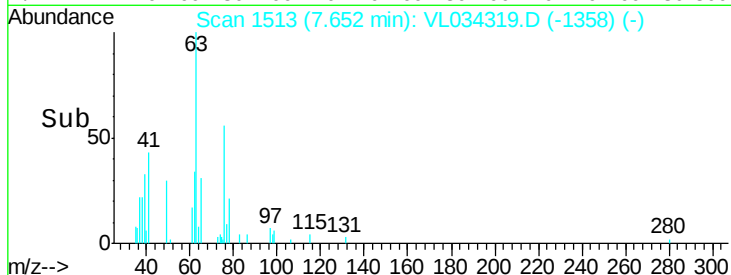
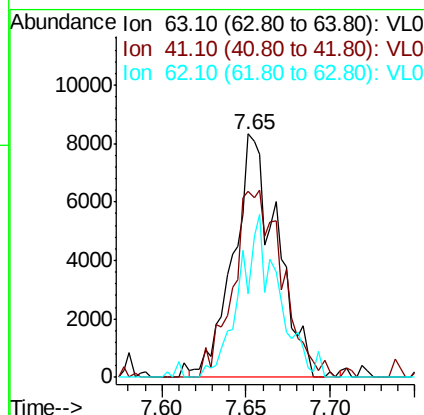
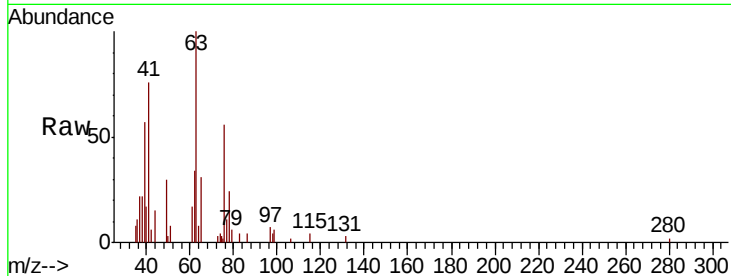
ClientSampleId :

VL1017ABS01

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 63    | Resp: | 14934 |
| Ion      | Ratio | Lower | Upper |
| 63       | 100   |       |       |
| 41       | 76.4  | 65.6  | 98.4  |
| 62       | 34.1  | 53.0  | 79.6# |

Manual Integrations  
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10/22/2019 2:54:41 PM



#40

1,4-Dioxane

Concen: 0.226 ppbv m

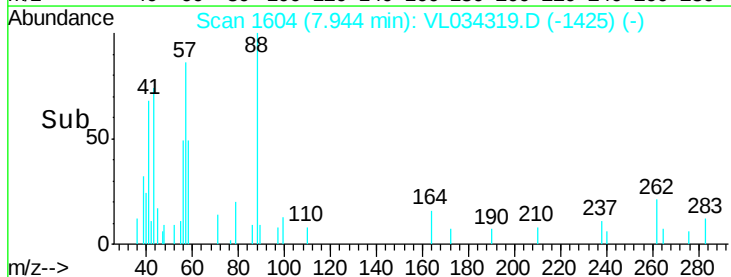
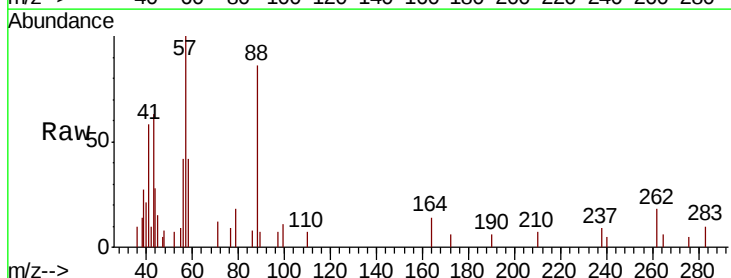
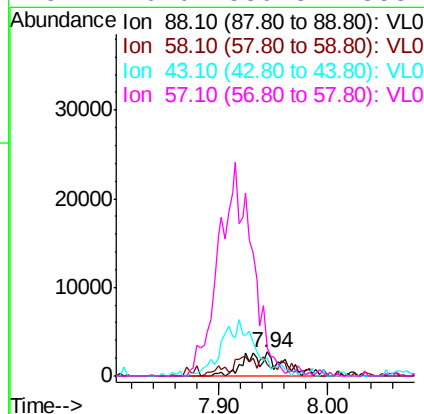
RT: 7.94 min Scan# 1604

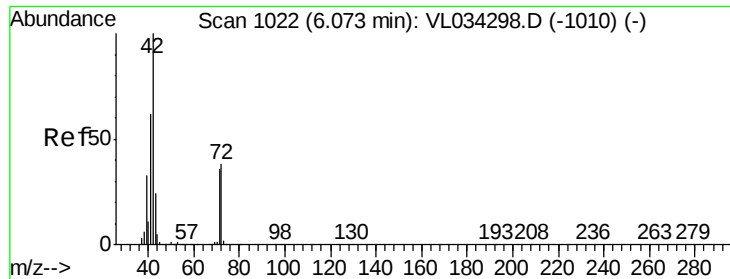
Delta R.T. 0.07 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 88    | Resp: | 6579    |
| Ion      | Ratio | Lower | Upper   |
| 88       | 100   |       |         |
| 58       | 11.3  | 110.3 | 165.5#  |
| 43       | 0.0   | 228.1 | 342.1#  |
| 57       | 0.0   | 889.3 | 1333.9# |





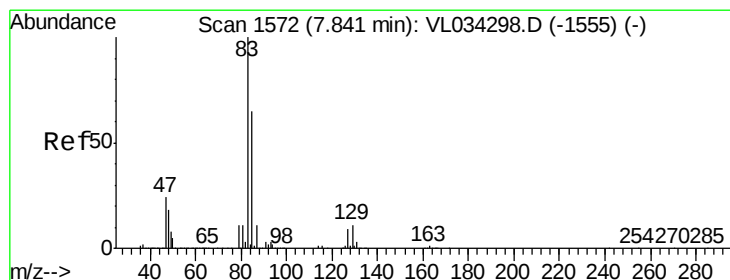
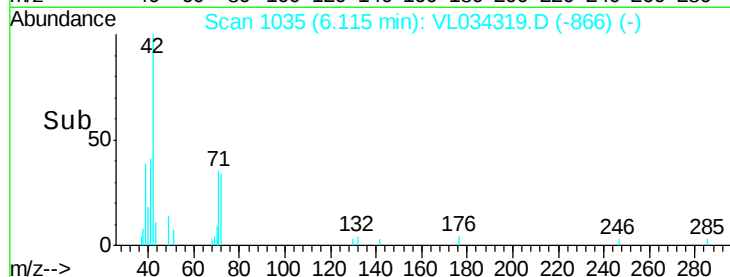
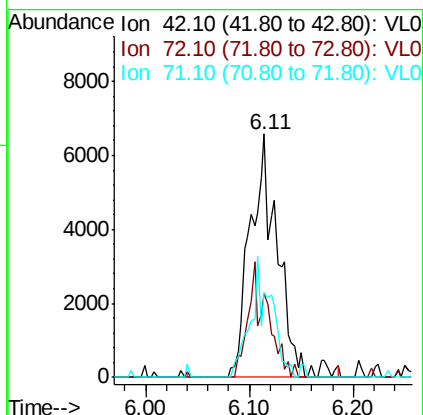
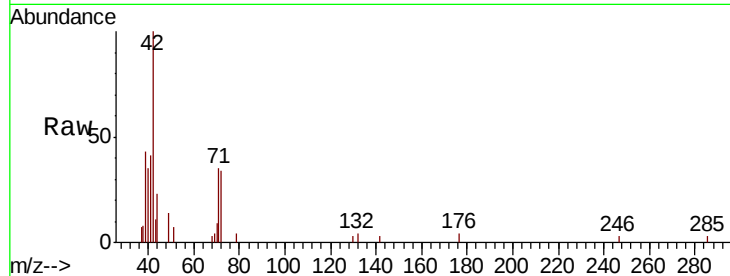
#41  
Tetrahydrofuran  
Concen: 0.133 ppbv m  
RT: 6.11 min Scan# 1035  
Delta R.T. 0.04 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1017ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 33.6  | 28.0  | 42.0  |
| 71      | 38.3  | 27.3  | 40.9  |

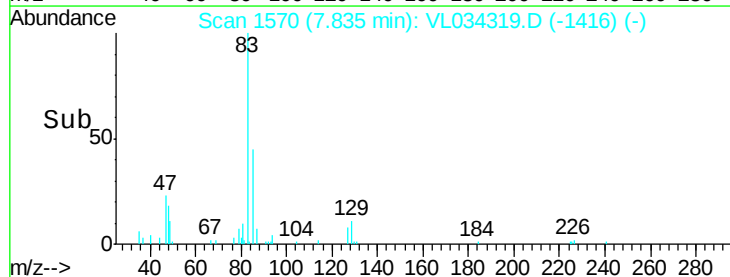
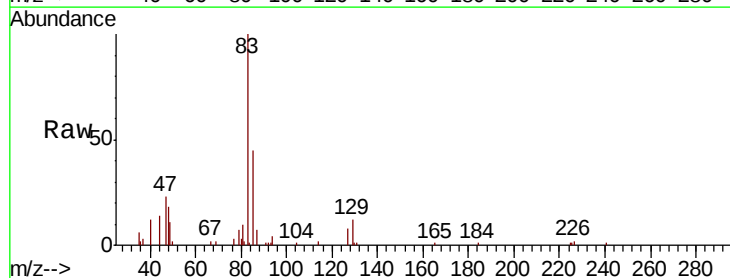
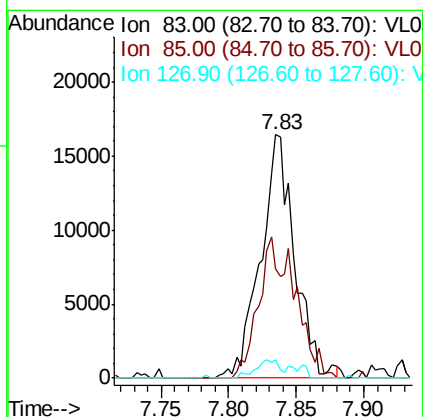
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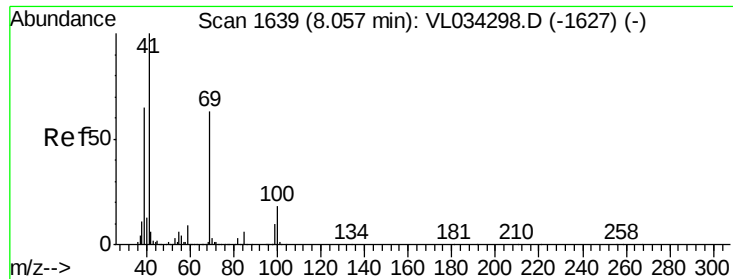
MMDadoda  
10/22/2019 2:54:41 PM



#42  
Bromodichloromethane  
Concen: 0.163 ppbv m  
RT: 7.83 min Scan# 1570  
Delta R.T. -0.01 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 44.7  | 51.8  | 77.6# |
| 127     | 7.6   | 7.0   | 10.6  |





#43

Methvl Methacrylate

Concen: 0.134 ppbv m

RT: 8.08 min Scan# 1645

Delta R.T. 0.02 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

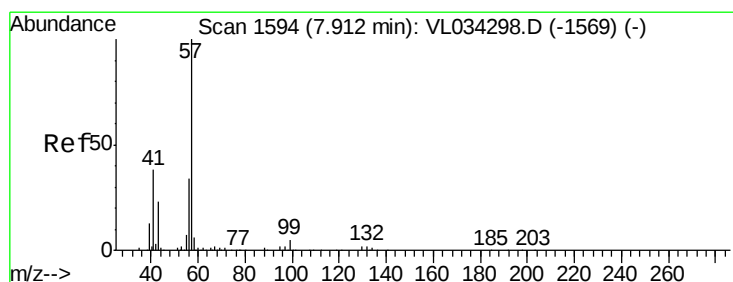
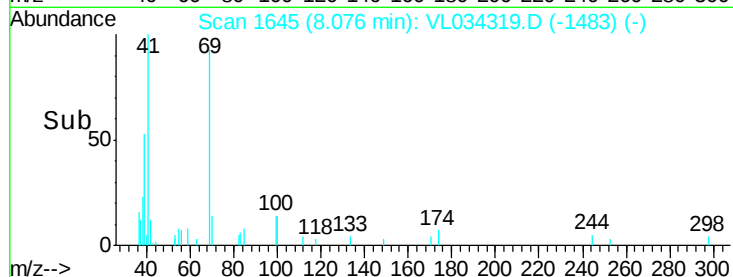
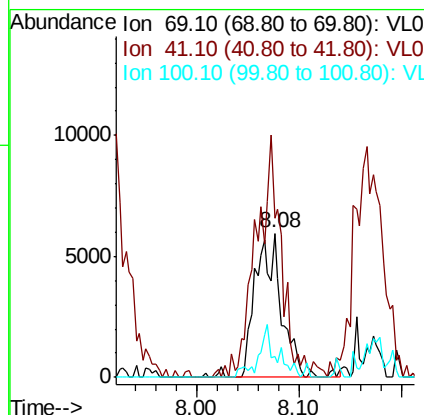
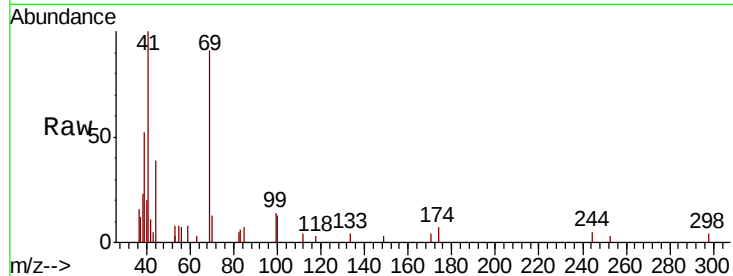
Instrument :  
MSVOA\_L

ClientSampleId :  
VL1017ABS01

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 69      | 100   |       |        |
| 41      | 0.0   | 132.1 | 198.1# |
| 100     | 0.0   | 23.2  | 34.8#  |

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#44

2,2,4-Trimethylpentane

Concen: 0.147 ppbv m

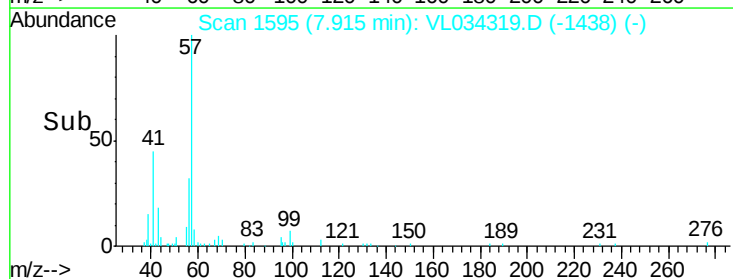
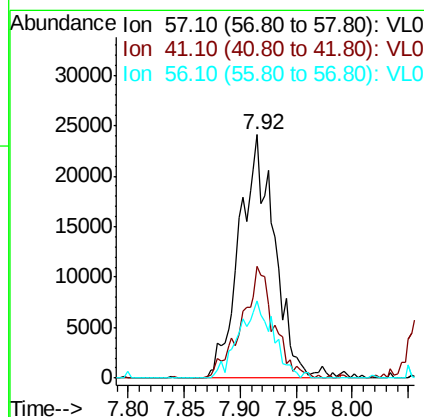
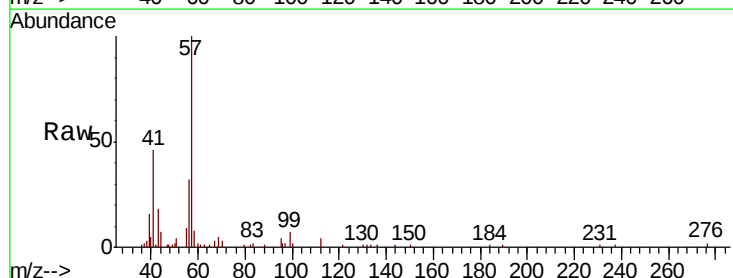
RT: 7.92 min Scan# 1595

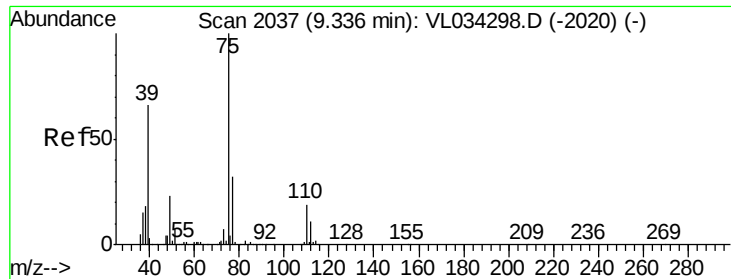
Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 42.8  | 29.3  | 43.9  |
| 56      | 31.1  | 25.3  | 37.9  |





#45

t-1,3-Dichloropropene

Concen: 0.112 ppbv m

RT: 9.34 min Scan# 2037

Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

ClientSampleId :

VL1017ABS01

Tot Ion: 75 Resp: 10833

Ion Ratio Lower Upper

75 100

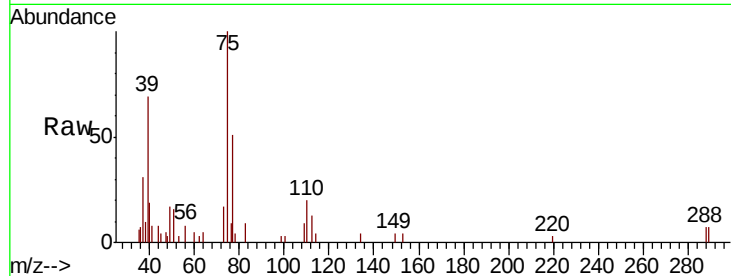
77 51.3 25.6 38.4#

Manual Integrations

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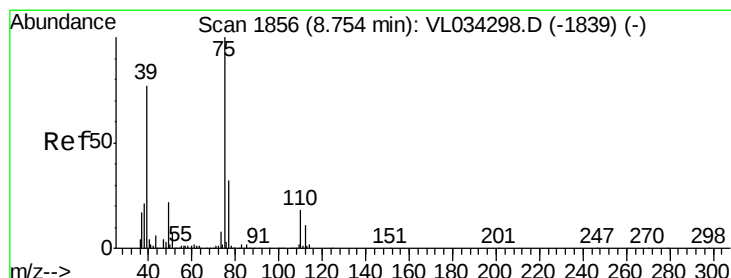
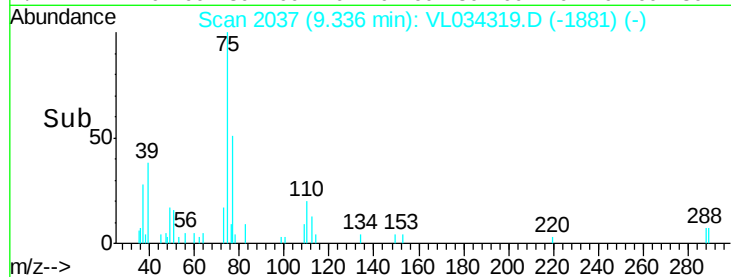
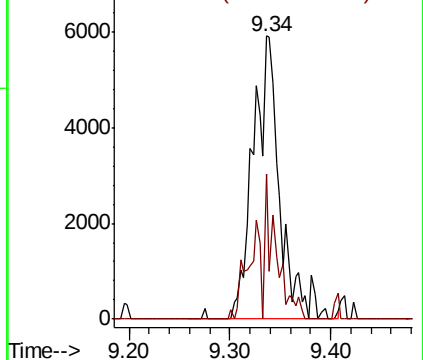
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Abundance Ion 75.10 (74.80 to 75.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#46

cis-1,3-Dichloropropene

Concen: 0.125 ppbv m

RT: 8.76 min Scan# 1857

Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

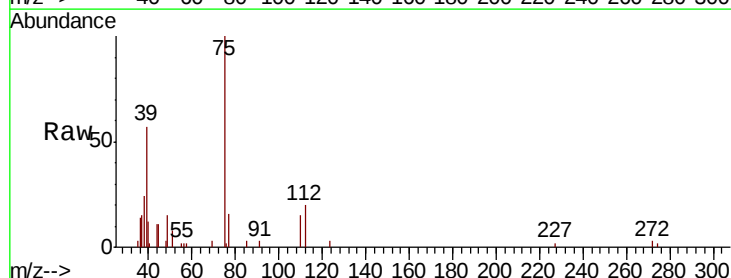
Tgt Ion: 75 Resp: 13902

Ion Ratio Lower Upper

75 100

39 57.5 61.2 91.8#

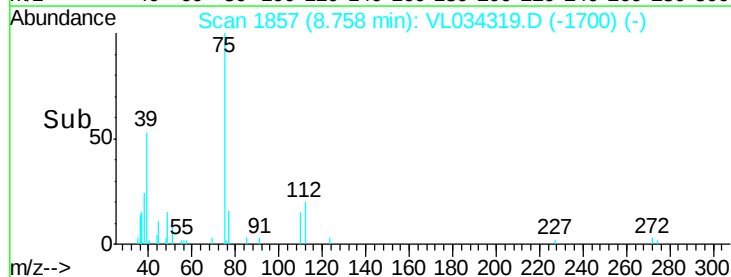
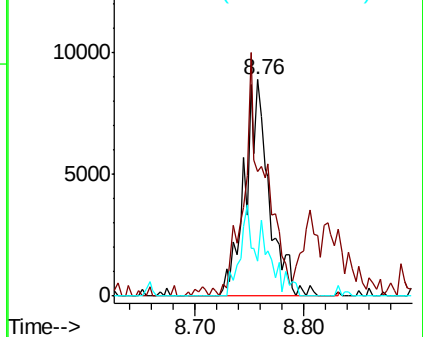
77 16.3 25.9 38.9#

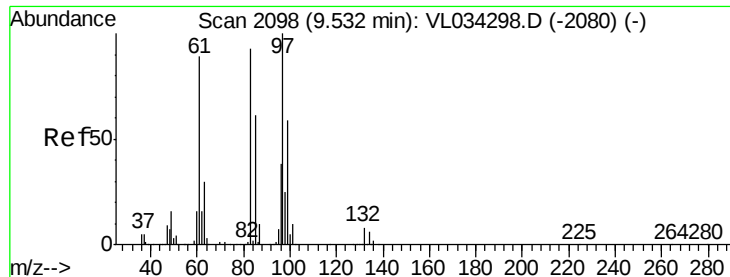


Abundance Ion 75.00 (74.70 to 75.70): VL0

Ion 39.00 (38.70 to 39.70): VL0

Ion 77.00 (76.70 to 77.70): VL0





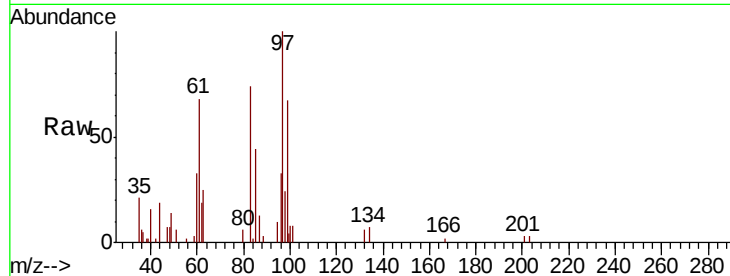
#47  
 1,1,2-Trichloroethane  
 Concen: 0.187 ppbv m  
 RT: 9.53 min Scan# 2098  
 Delta R.T. 0.00 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1017ABS01

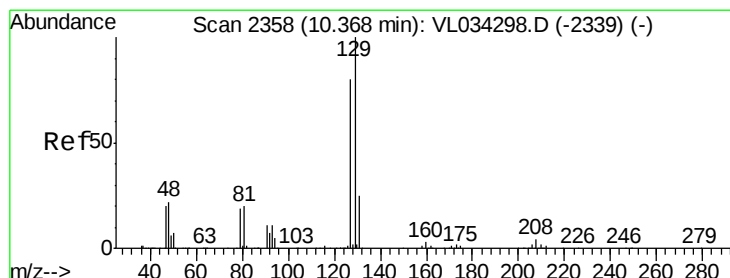
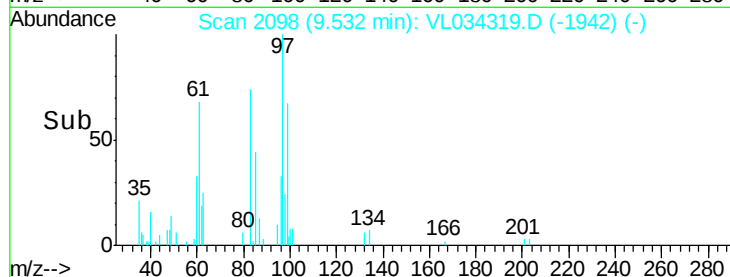
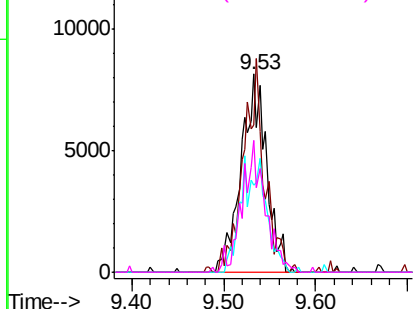
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 83      | 74.3  | 74.2  | 111.2 |
| 85      | 43.7  | 48.6  | 73.0# |
| 99      | 66.6  | 47.0  | 70.6  |

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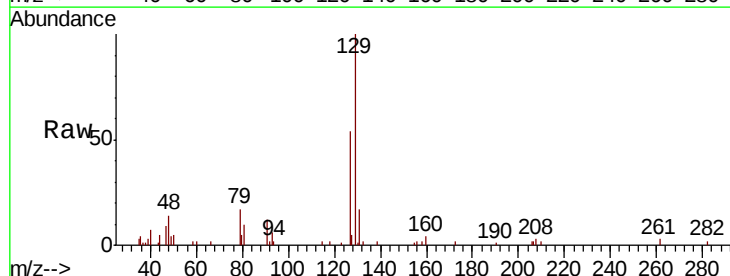


Abundance Ion 97.00 (96.70 to 97.70): VL0  
 Ion 83.00 (82.70 to 83.70): VL0  
 Ion 85.00 (84.70 to 85.70): VL0  
 Ion 99.00 (98.70 to 99.70): VL0

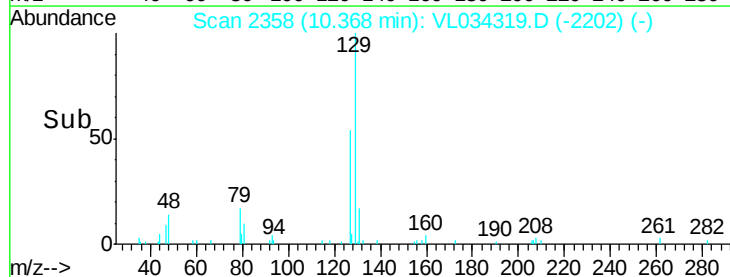
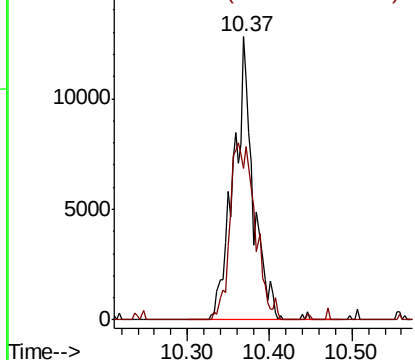


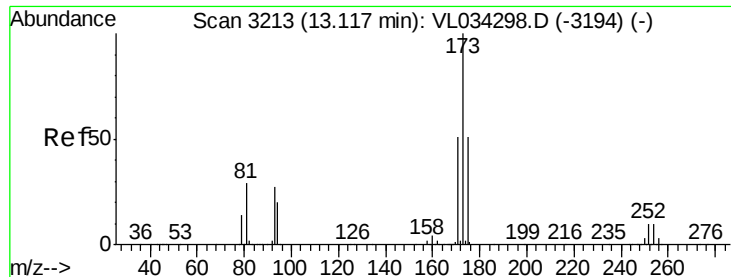
#48  
 Dibromochloromethane  
 Concen: 0.155 ppbv m  
 RT: 10.37 min Scan# 2358  
 Delta R.T. 0.00 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 129     | 100   |       |        |
| 127     | 0.0   | 39.7  | 119.1# |



Abundance Ion 129.00 (128.70 to 129.70): V  
 Ion 127.00 (126.70 to 127.70): V





#49

Bromoform

Concen: 0.162 ppbv m

RT: 13.11 min Scan# 3211

Delta R.T. -0.01 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

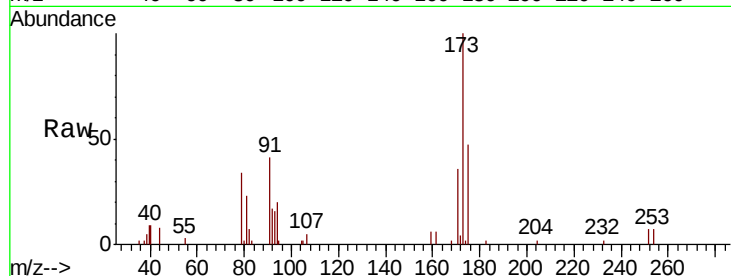
ClientSampleId :

VL1017ABS01

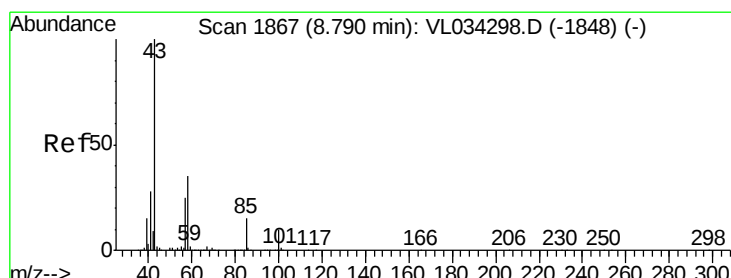
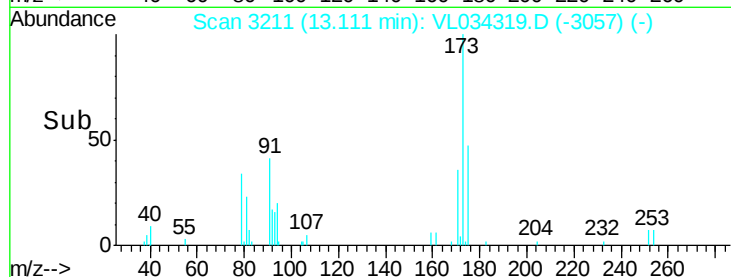
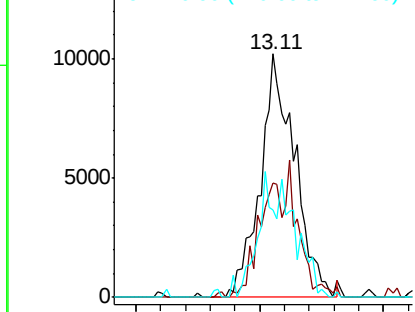
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 173     | 100   |       |       |
| 175     | 55.3  | 39.8  | 59.6  |
| 171     | 0.0   | 41.8  | 62.6  |

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



#50

4-Methyl-2-Pentanone

Concen: 0.148 ppbv m

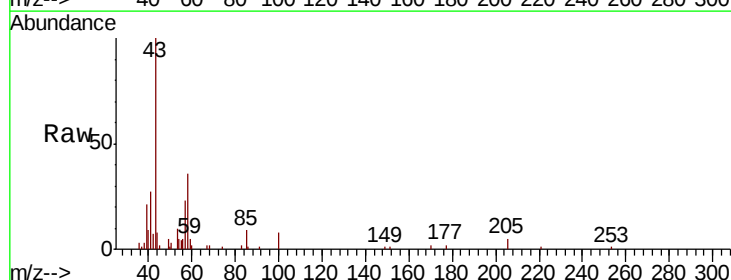
RT: 8.82 min Scan# 1876

Delta R.T. 0.03 min

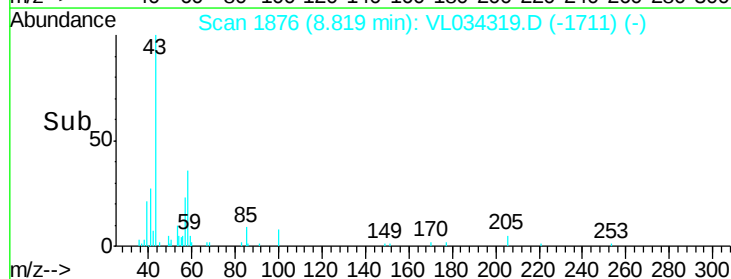
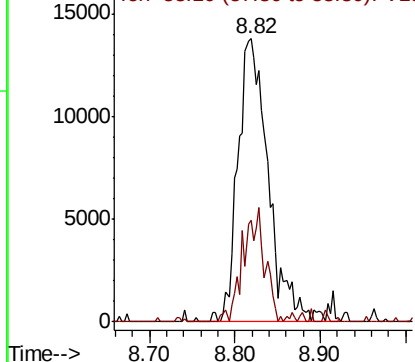
Lab File: VL034319.D

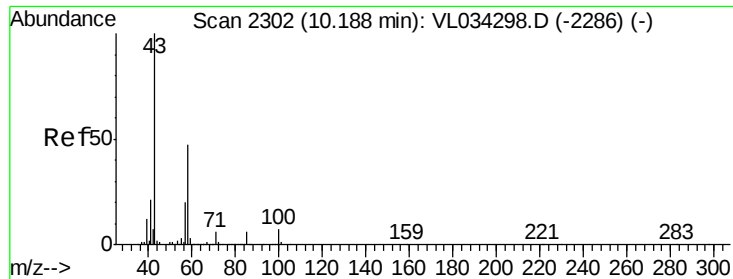
Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 28.5  | 27.6  | 41.4  |



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





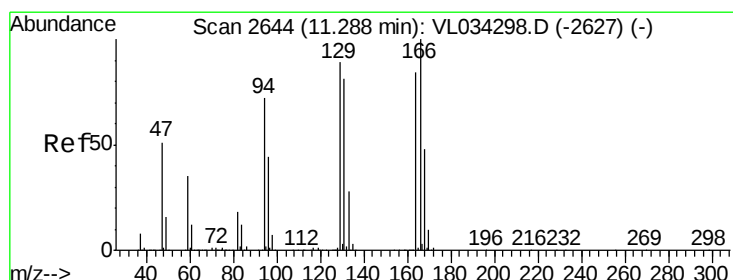
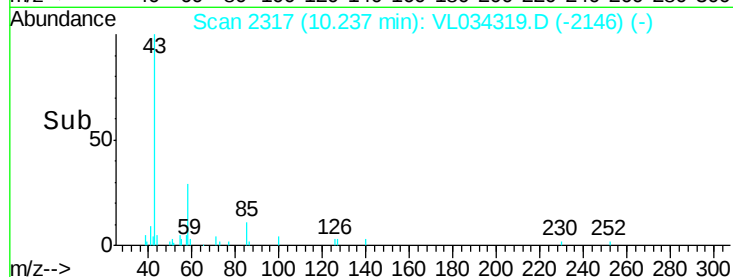
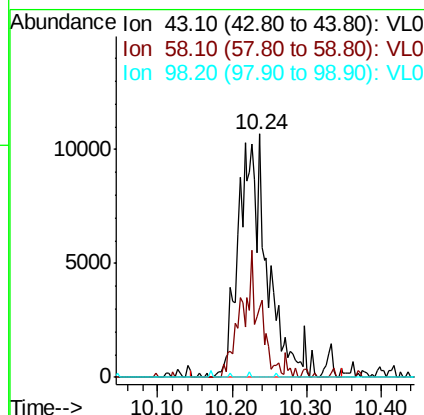
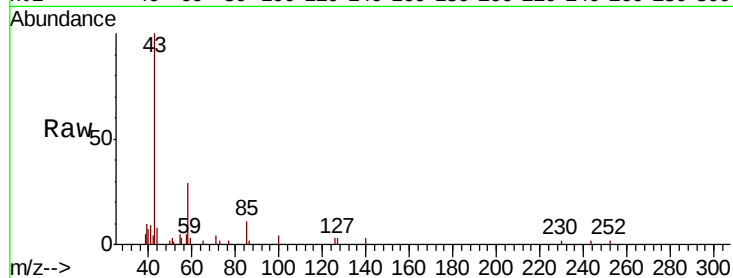
#51  
2-Hexanone  
Concen: 0.151 ppbv m  
RT: 10.24 min Scan# 2317  
Delta R.T. 0.05 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1017ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 0.0   | 37.0  | 55.6# |
| 98      | 0.1   | 0.2   | 0.2#  |

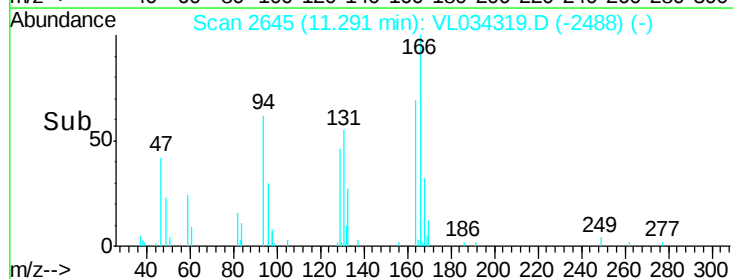
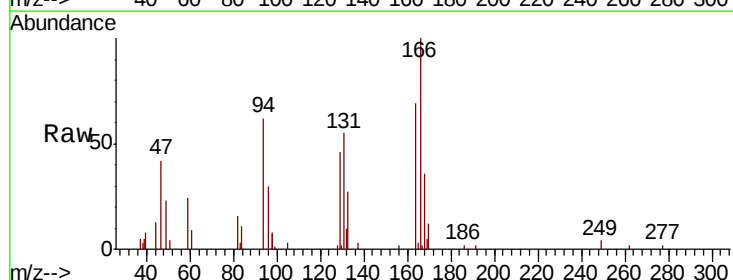
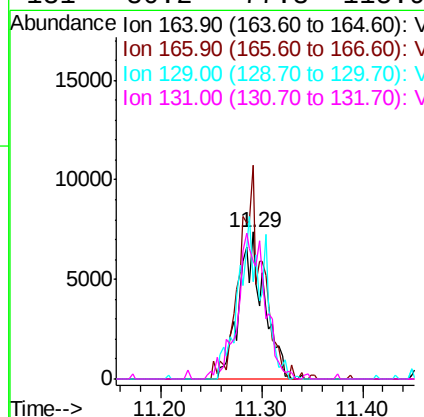
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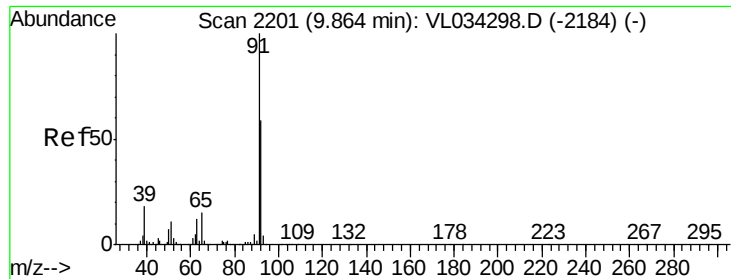
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#52  
Tetrachloroethene  
Concen: 0.169 ppbv m  
RT: 11.29 min Scan# 2645  
Delta R.T. 0.00 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 164     | 100   |       |        |
| 166     | 145.4 | 95.3  | 142.9# |
| 129     | 66.2  | 84.5  | 126.7# |
| 131     | 80.2  | 77.3  | 115.9  |





#53

Toluene

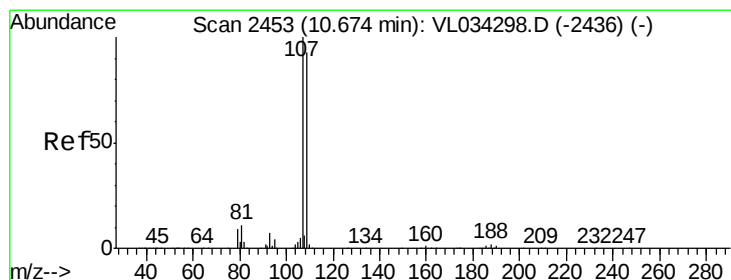
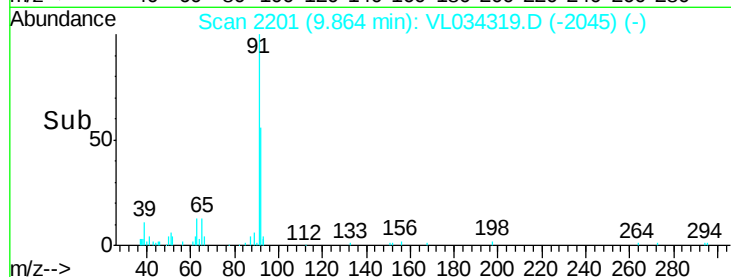
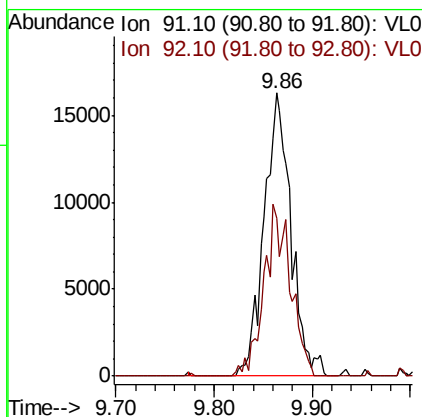
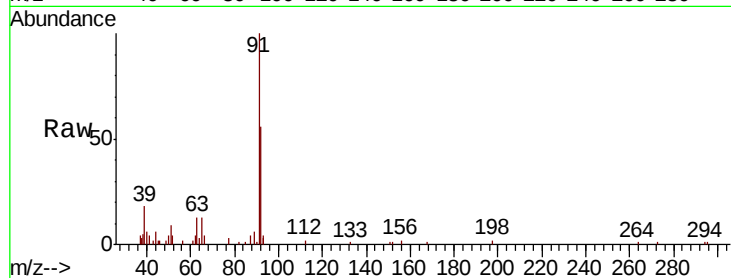
Concen: 0.145 ppbv m  
RT: 9.86 min Scan# 2201  
Delta R.T. 0.00 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1017ABS01

| Tot Ion | 91    | Resp  | 30812 |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 91      | 100   |       |       |
| 92      | 59.8  | 48.4  | 72.6  |

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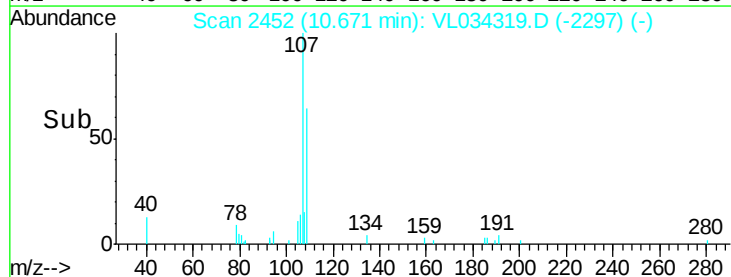
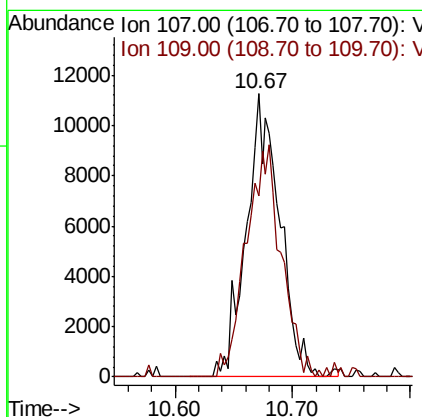
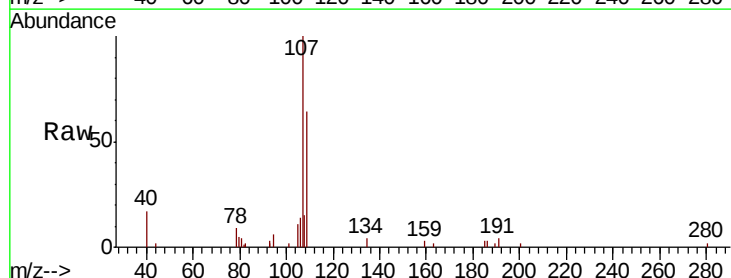


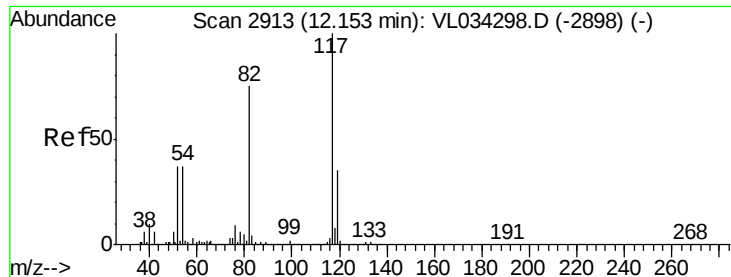
#54

1,2-Dibromoethane

Concen: 0.181 ppbv m  
RT: 10.67 min Scan# 2452  
Delta R.T. -0.00 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

| Tgt Ion | 107   | Resp  | 22533  |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 107     | 100   |       |        |
| 109     | 64.1  | 74.6  | 112.0# |





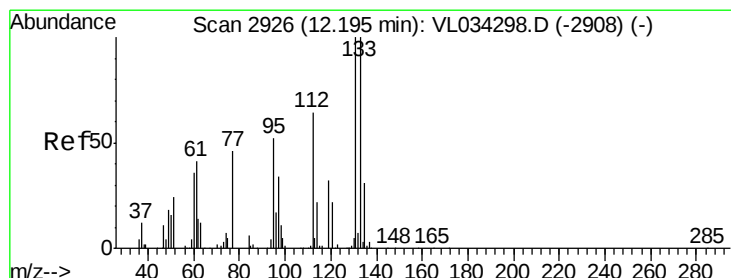
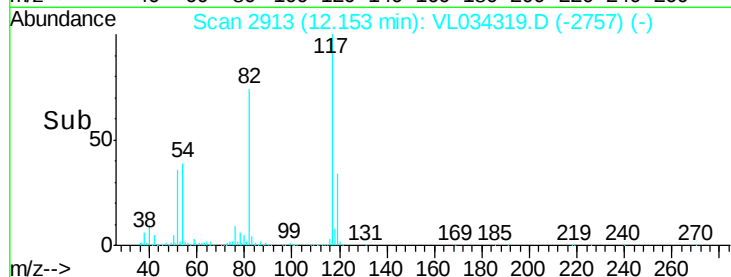
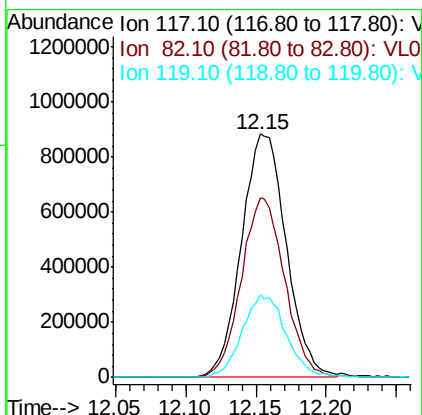
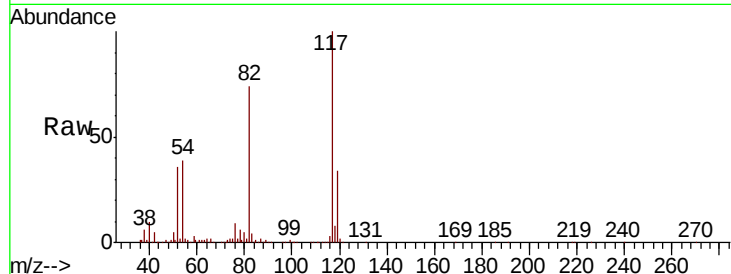
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.15 min Scan# 2913  
Delta R.T. 0.00 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1017ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 72.0  | 55.5  | 83.3  |
| 119     | 33.4  | 26.5  | 39.7  |

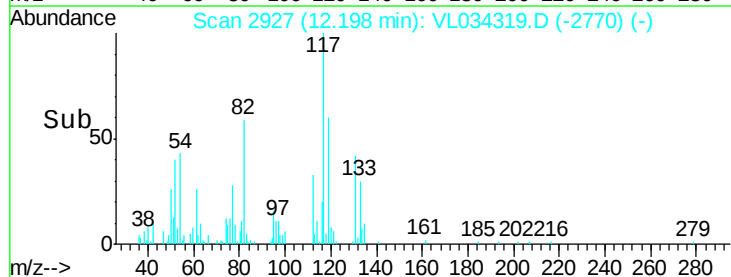
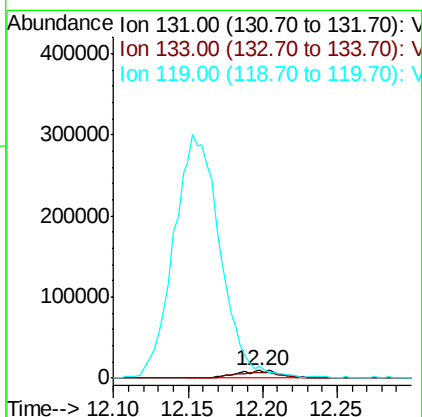
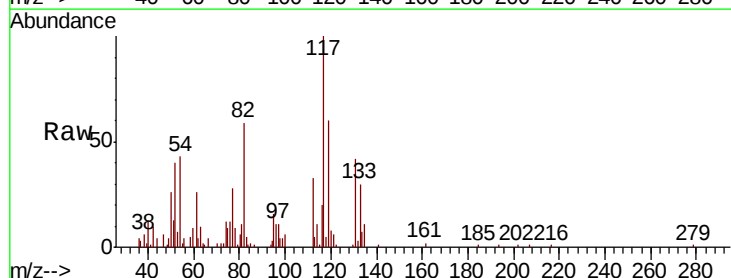
Manual Integrations  
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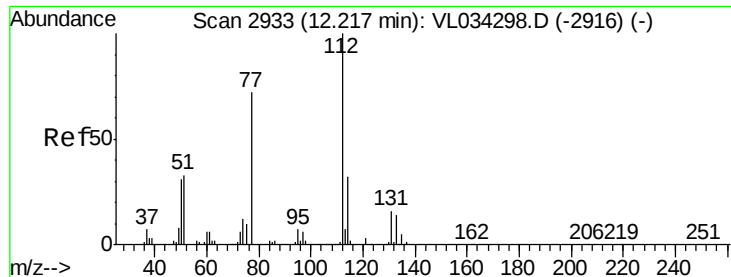
MMDadoda  
10/22/2019 2:54:41 PM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 0.212 ppbv m  
RT: 12.20 min Scan# 2927  
Delta R.T. 0.00 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 131     | 100   |       |       |
| 133     | 85.1  | 77.1  | 115.7 |
| 119     | 0.0   | 49.0  | 73.4# |





#57

Chlorobenzene

Concen: 0.222 ppbv m

RT: 12.22 min Scan# 2933

Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

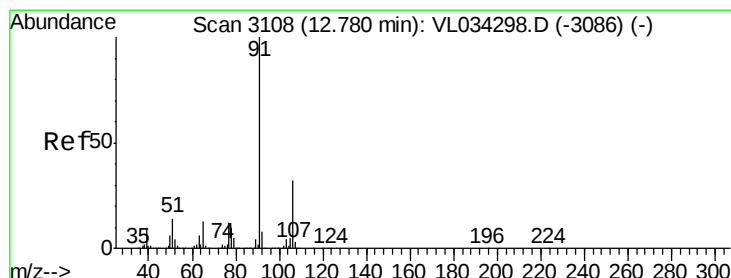
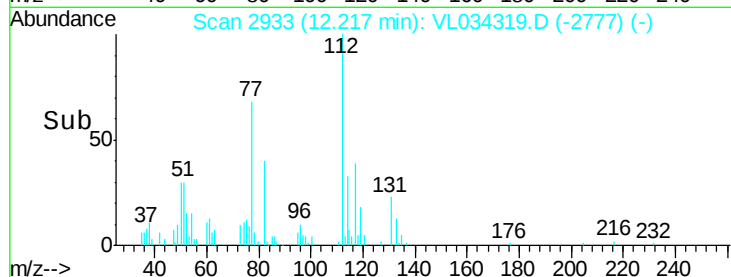
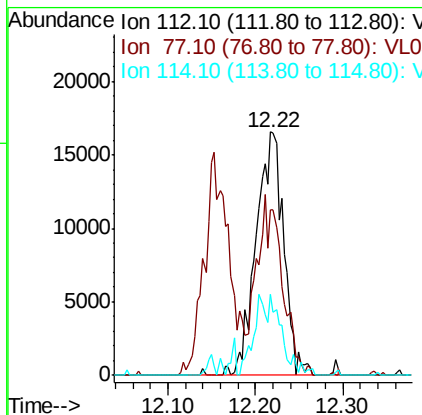
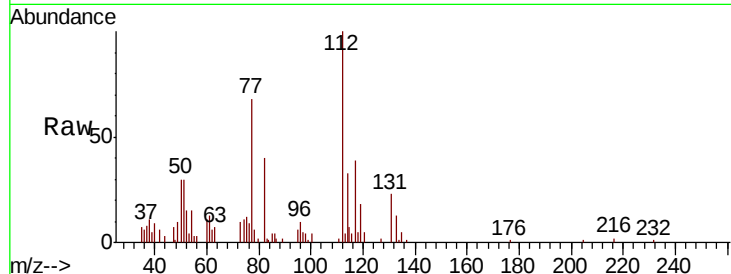
ClientSampleId :

VL1017ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 77      | 67.8  | 58.6  | 88.0  |
| 114     | 33.1  | 28.6  | 35.0  |

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10/22/2019 2:54:41 PM



#58

Ethyl Benzene

Concen: 0.158 ppbv

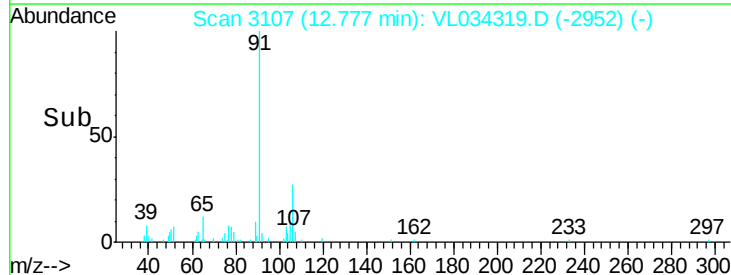
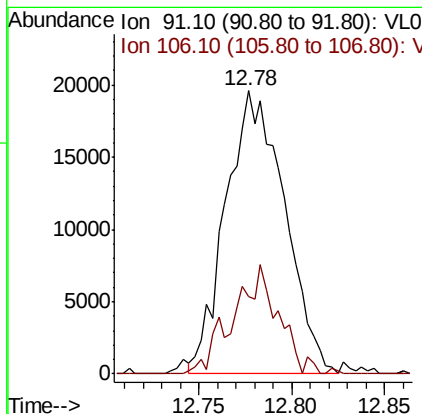
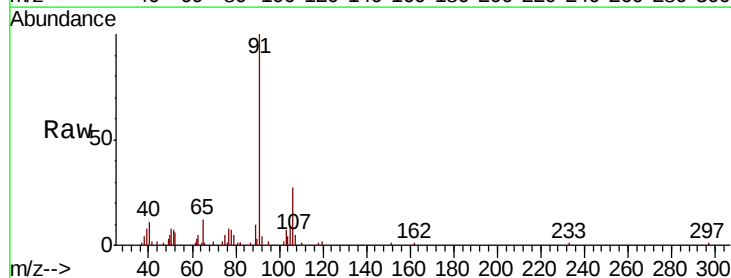
RT: 12.78 min Scan# 3107

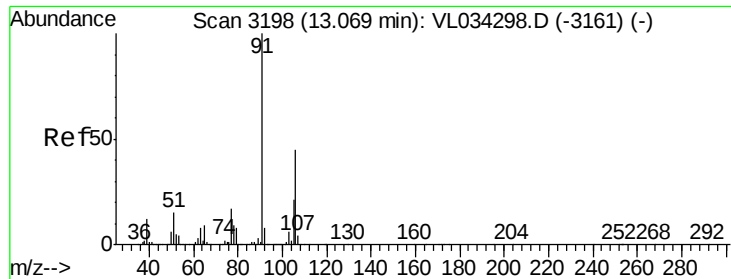
Delta R.T. -0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 26.3  | 25.3  | 37.9  |





#59

m/p-Xylene

Concen: 0.342 ppbv m

RT: 13.07 min Scan# 3197

Delta R.T. -0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

ClientSampleId :

VL1017ABS01

Tot Ion: 91 Resp: 81320

Ion Ratio Lower Upper

91 100

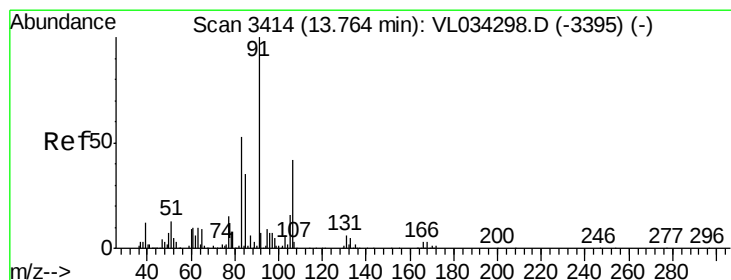
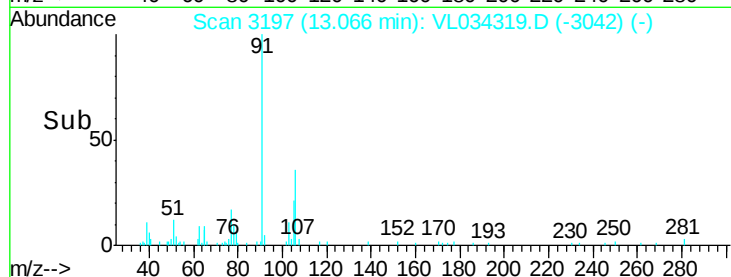
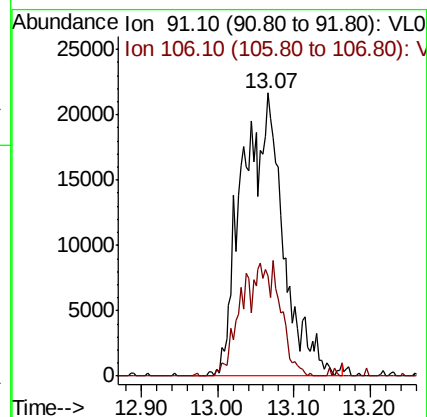
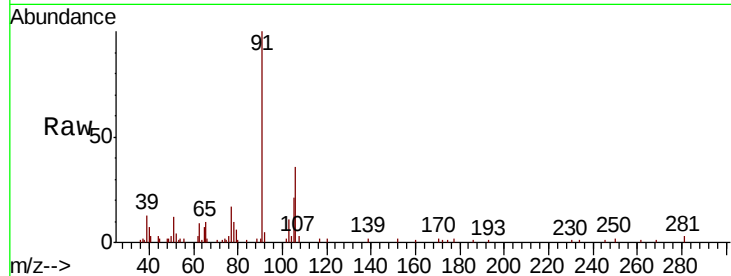
106 37.3 35.4 53.2

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#60

o-Xylene

Concen: 0.172 ppbv m

RT: 13.76 min Scan# 3413

Delta R.T. -0.00 min

Lab File: VL034319.D

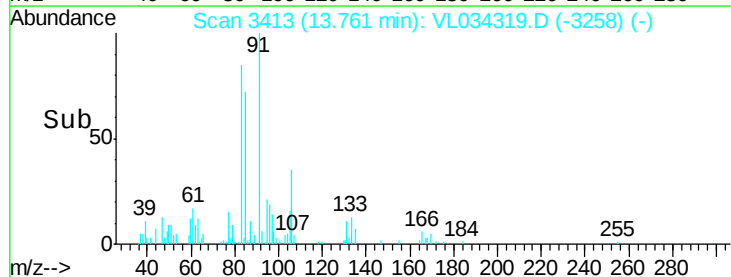
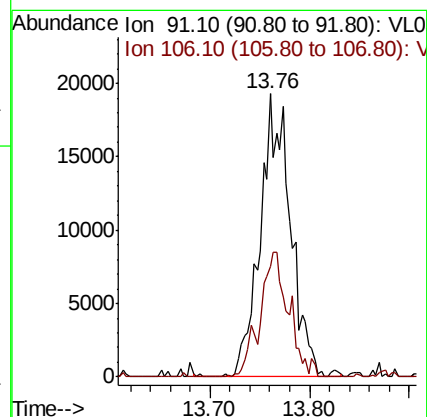
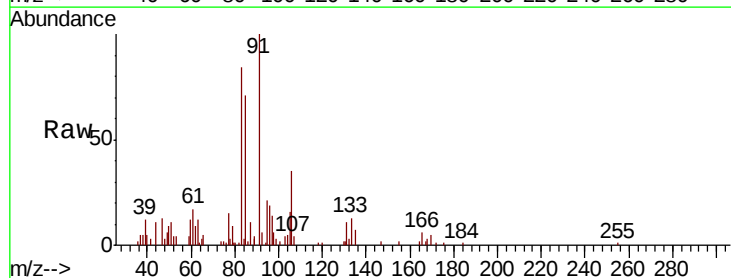
Acq: 17 Oct 2019 16:05

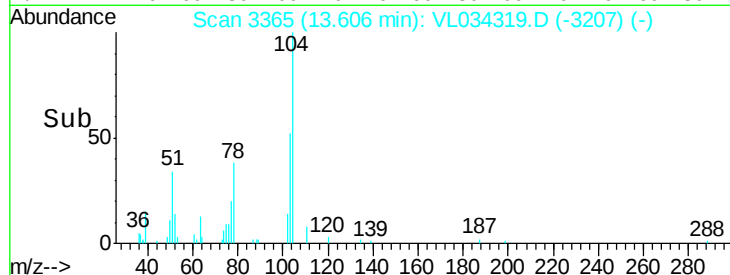
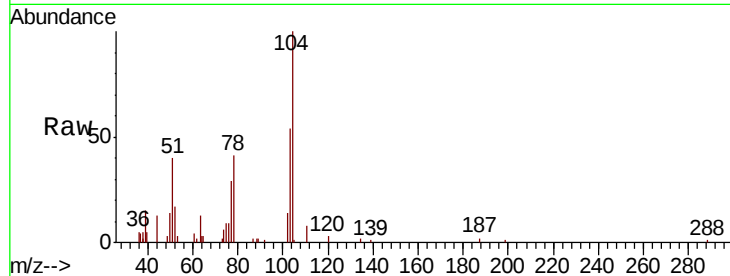
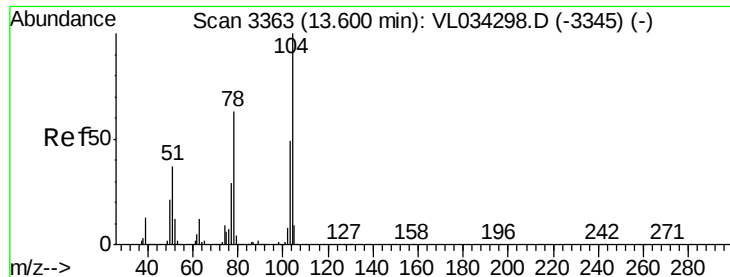
Tgt Ion: 91 Resp: 40681

Ion Ratio Lower Upper

91 100

106 0.0 21.6 64.6#





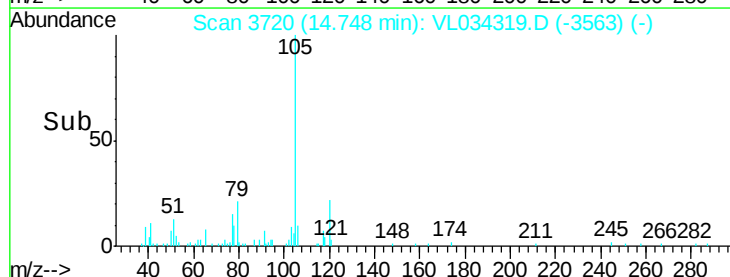
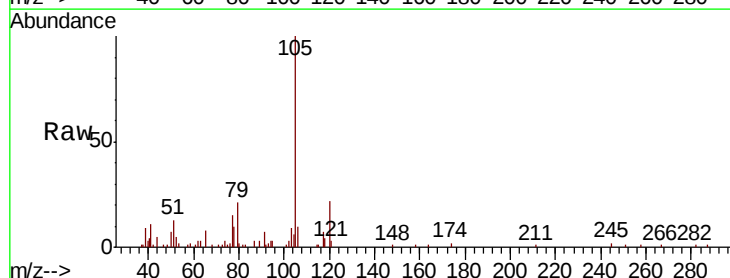
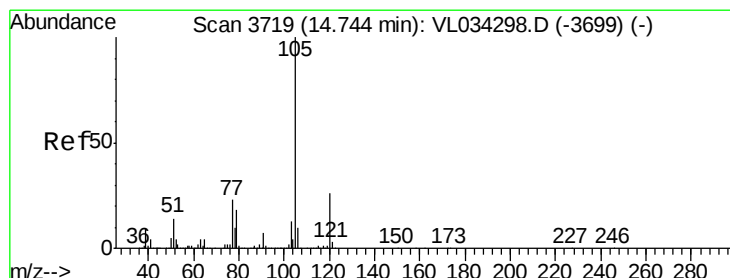
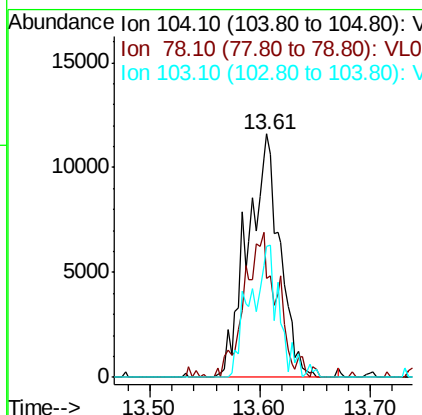
#61  
Stvrene  
Concen: 0.141 ppbv m  
RT: 13.61 min Scan# 3365  
Delta R.T. 0.01 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1017ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 62.0  | 47.8  | 71.8  |
| 103     | 49.7  | 39.0  | 58.6  |

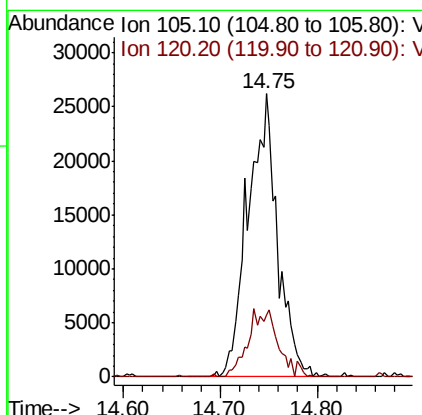
Manual Integrations  
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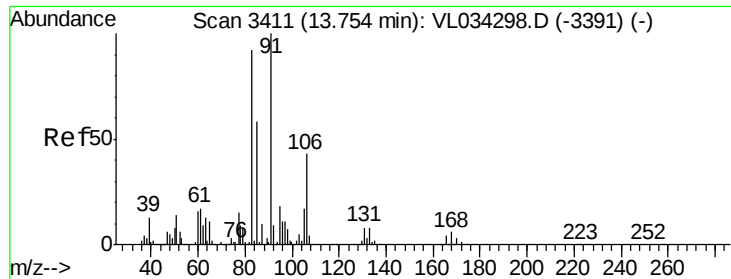
MMDadoda  
10/22/2019 2:54:41 PM



#62  
Isopropylbenzene  
Concen: 0.179 ppbv m  
RT: 14.75 min Scan# 3720  
Delta R.T. 0.00 min  
Lab File: VL034319.D  
Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 0.0   | 20.8  | 31.2# |





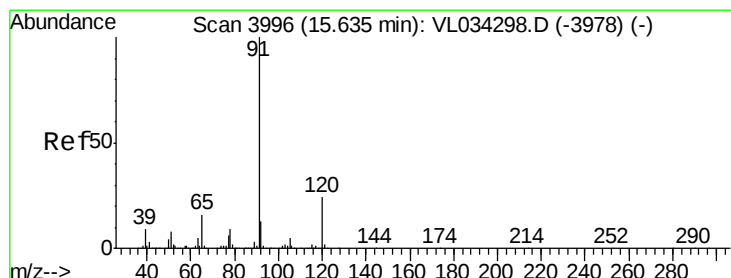
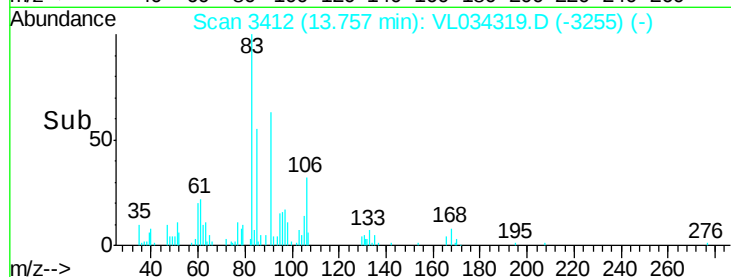
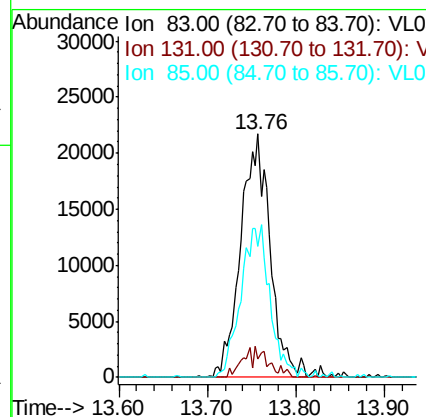
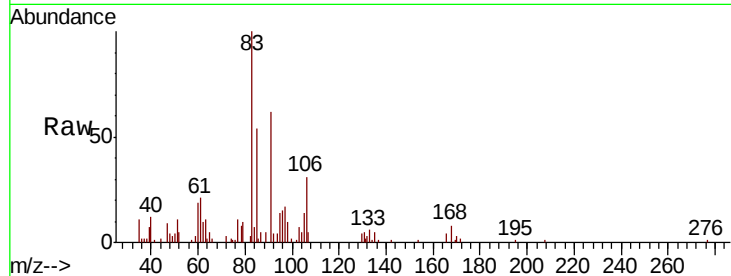
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 0.266 ppbv m  
 RT: 13.76 min Scan# 3412  
 Delta R.T. 0.00 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1017ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 131     | 10.5  | 4.8   | 14.4  |
| 85      | 0.0   | 32.5  | 97.4# |

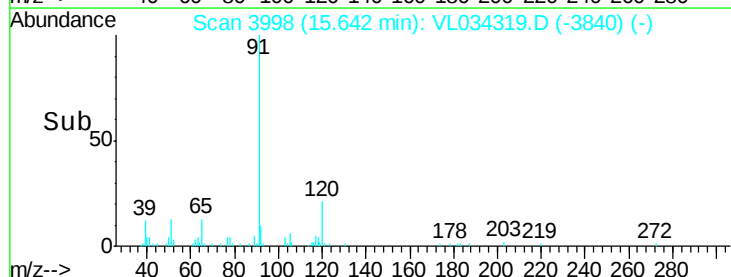
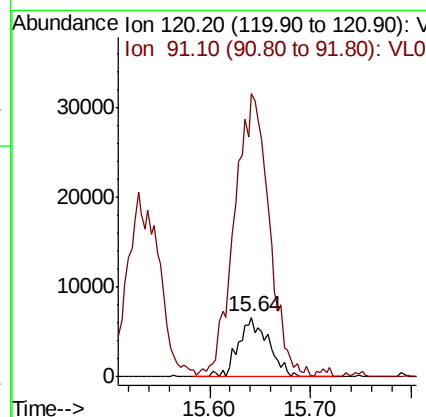
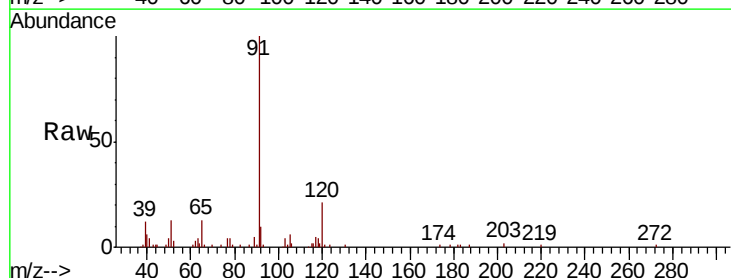
Manual Integrations  
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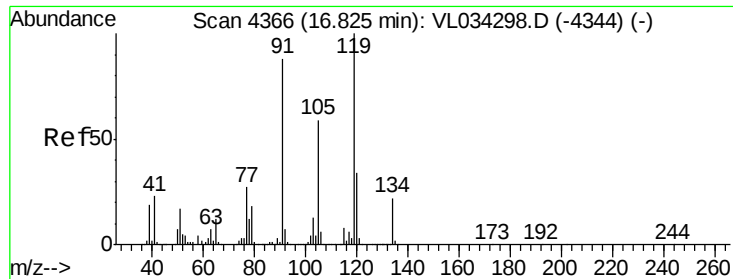
MMDadoda  
 10/22/2019 2:54:41 PM



#64  
 n-propylbenzene  
 Concen: 0.170 ppbv m  
 RT: 15.64 min Scan# 3998  
 Delta R.T. 0.01 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 120     | 100   |       |       |
| 91      | 556.8 | 374.9 | 562.3 |





#65

tert-Butylbenzene

Concen: 0.194 ppbv m

RT: 16.83 min Scan# 4367

Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

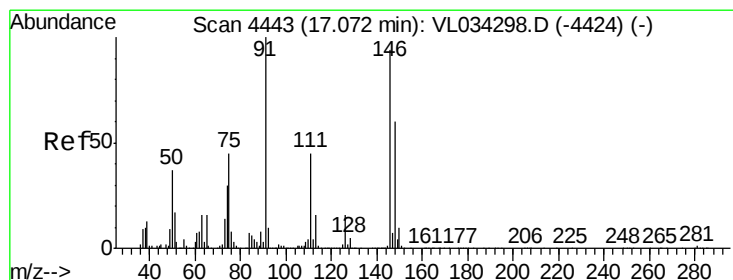
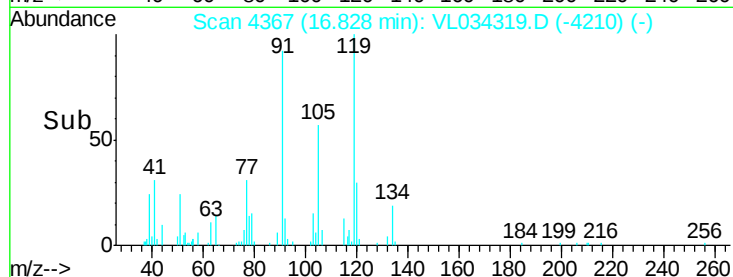
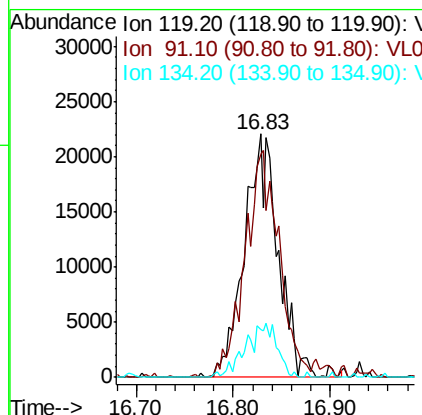
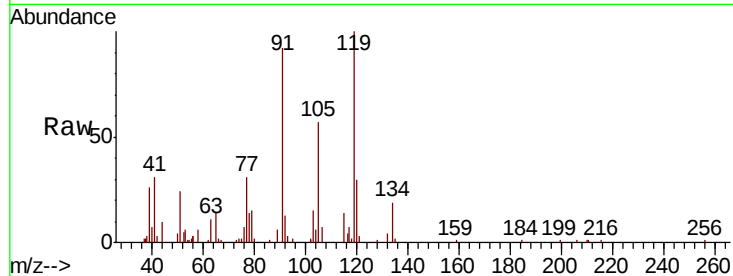
ClientSampleId :

VL1017ABS01

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 119   | Resp: | 53654  |
| Ion Ratio | Lower | Upper |        |
| 119       | 100   |       |        |
| 91        | 0.0   | 71.4  | 107.0# |
| 134       | 0.0   | 15.9  | 23.9#  |

Manual Integrations  
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10/22/2019 2:54:41 PM



#66

Benzyl Chloride

Concen: 0.208 ppbv m

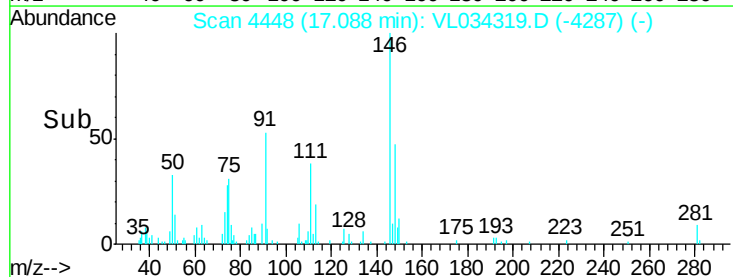
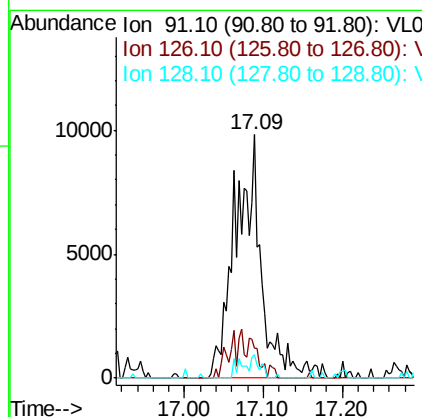
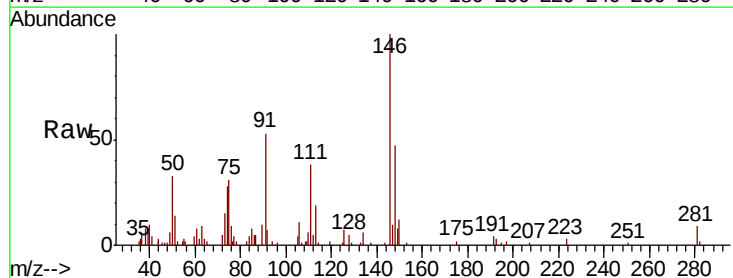
RT: 17.09 min Scan# 4448

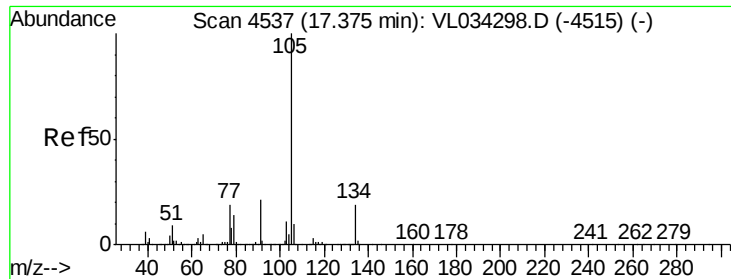
Delta R.T. 0.02 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 91    | Resp: | 22749 |
| Ion Ratio | Lower | Upper |       |
| 91        | 100   |       |       |
| 126       | 17.9  | 12.9  | 19.3  |
| 128       | 0.0   | 4.3   | 6.5#  |





#67

sec-Butylbenzene

Concen: 0.195 ppbv m

RT: 17.38 min Scan# 4539

Delta R.T. 0.01 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

ClientSampleId :

VL1017ABS01

Tot Ion: 105 Resp: 75875

Ion Ratio Lower Upper

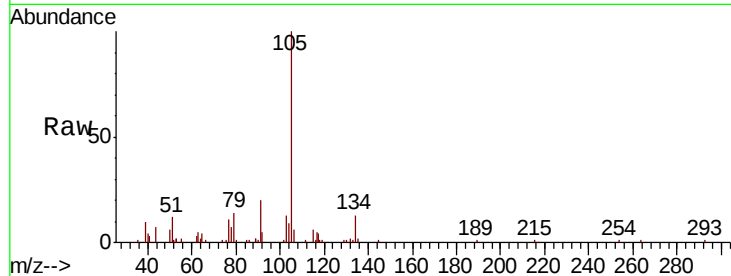
105 100

134 0.0 15.4 23.0#

Manual Integrations  
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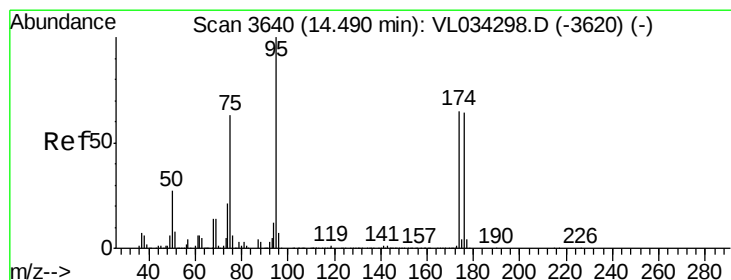
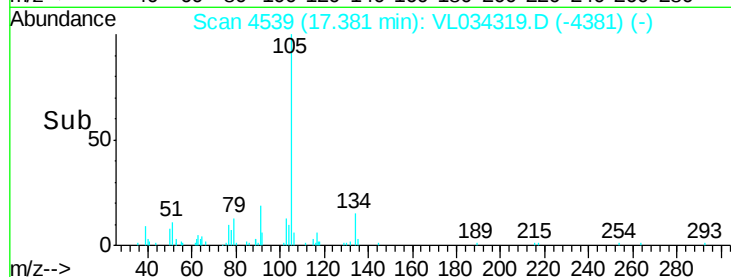
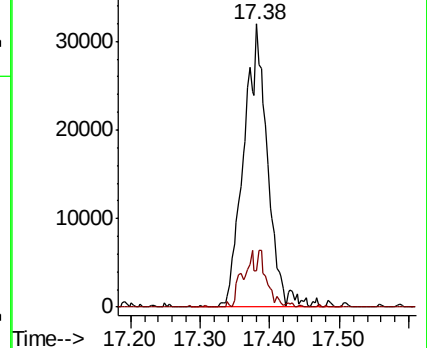
MMDadoda

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.261 ppbv

RT: 14.49 min Scan# 3641

Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

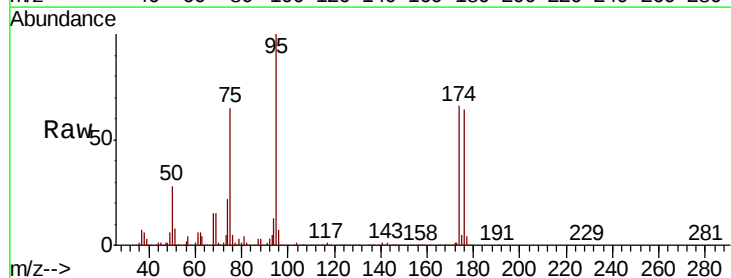
Tgt Ion: 95 Resp: 1705261

Ion Ratio Lower Upper

95 100

174 64.4 52.6 78.8

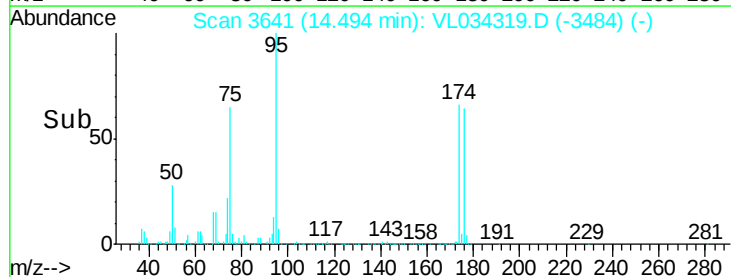
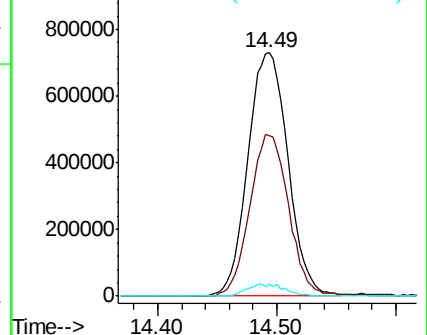
175 4.8 3.8 5.6

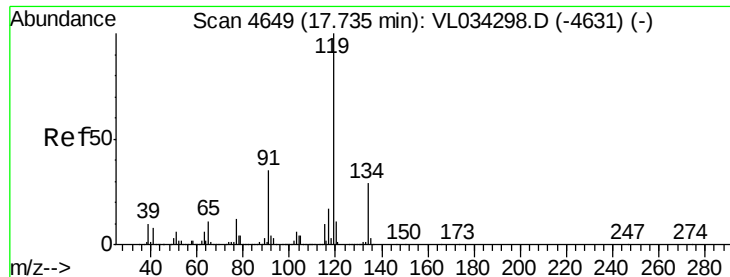


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





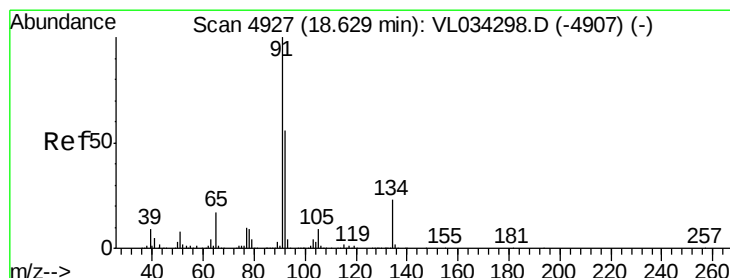
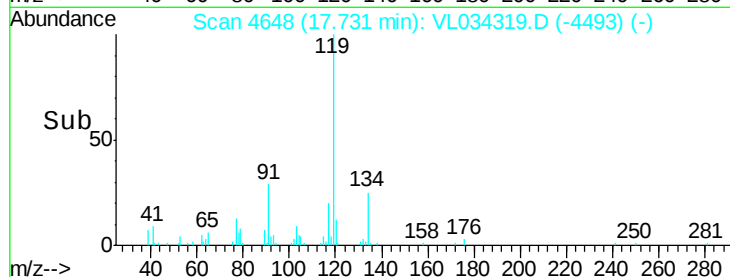
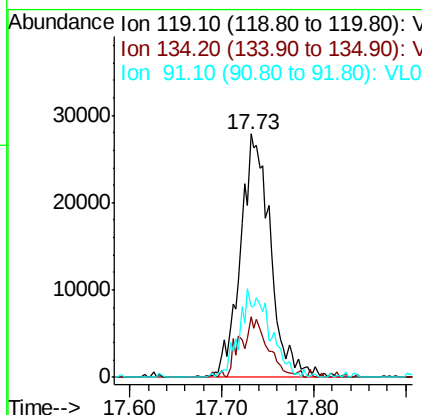
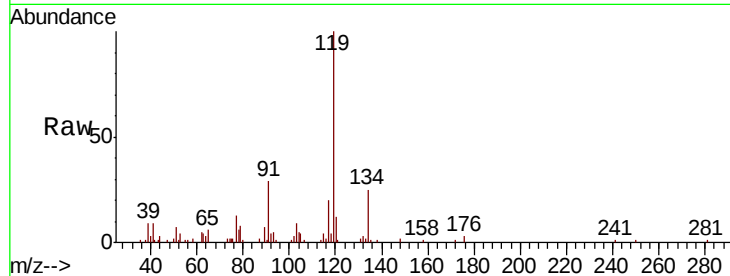
#69  
 p-Isopropyltoluene  
 Concen: 0.199 ppbv m  
 RT: 17.73 min Scan# 4648  
 Delta R.T. -0.00 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1017ABS01

| Tot Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 119     | 100   | 63237 |       |       |
| 134     | 23.1  |       | 21.3  | 31.9  |
| 91      | 37.3  |       | 26.6  | 39.8  |

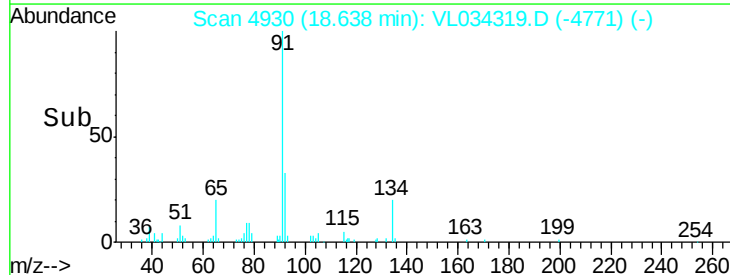
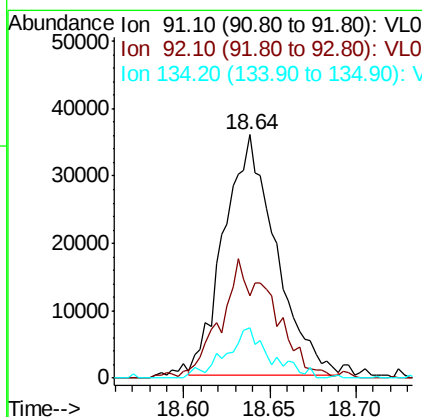
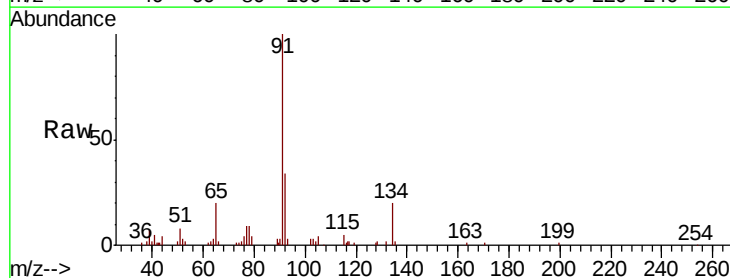
Manual Integrations  
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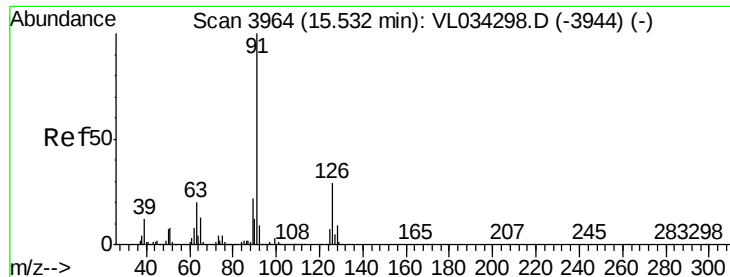
MMDadoda  
 10/22/2019 2:54:41 PM



#70  
 n-Butylbenzene  
 Concen: 0.217 ppbv  
 RT: 18.64 min Scan# 4930  
 Delta R.T. 0.01 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 91      | 100   | 74954 |       |       |
| 92      | 51.4  |       | 44.5  | 66.7  |
| 134     | 17.8  |       | 18.2  | 27.2  |





#71

2-Chlorotoluene

Concen: 0.189 ppbv m

RT: 15.53 min Scan# 3963

Delta R.T. -0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

ClientSampleId :

VL1017ABS01

Tot Ion: 91 Resp: 45851

Ion Ratio Lower Upper

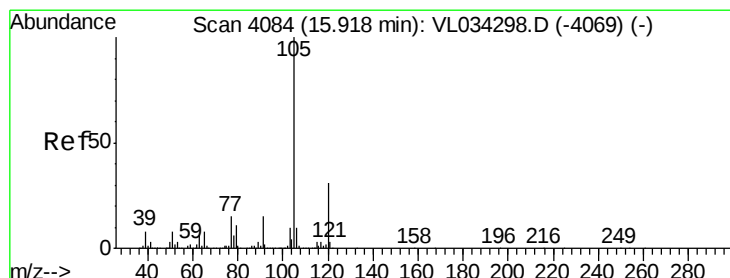
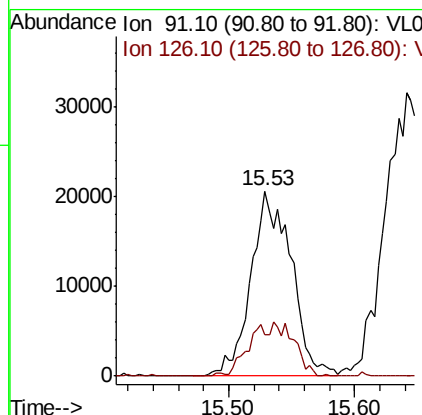
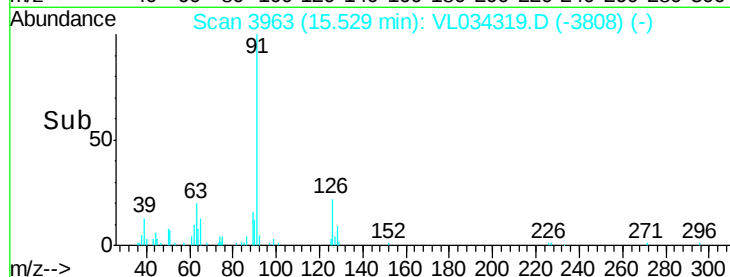
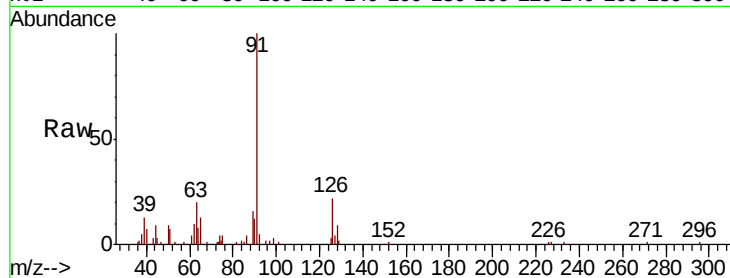
91 100

126 0.0 11.9 47.5#

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#72

4-Ethyltoluene

Concen: 0.170 ppbv m

RT: 15.92 min Scan# 4084

Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Tgt Ion: 105 Resp: 45118

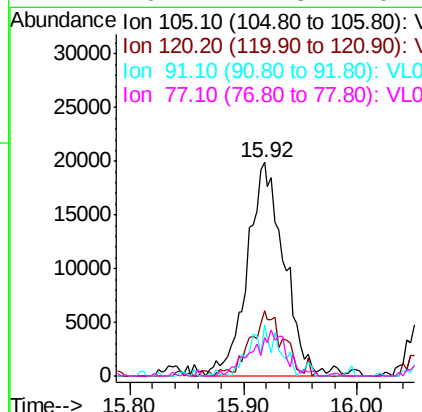
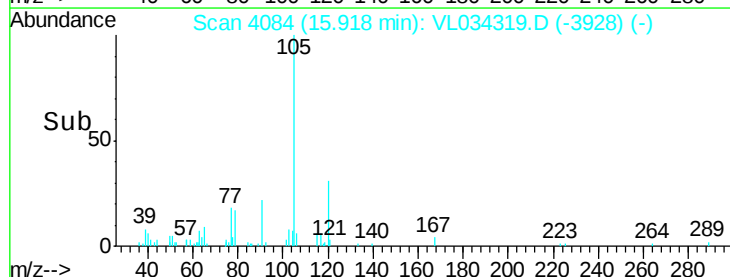
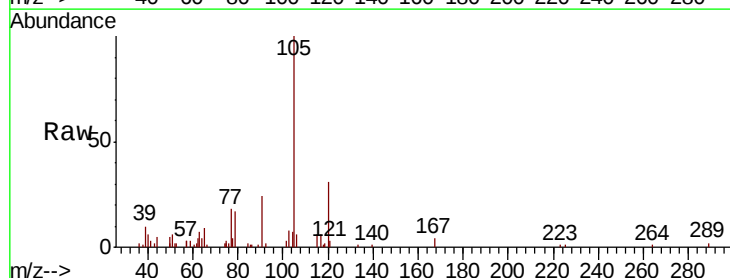
Ion Ratio Lower Upper

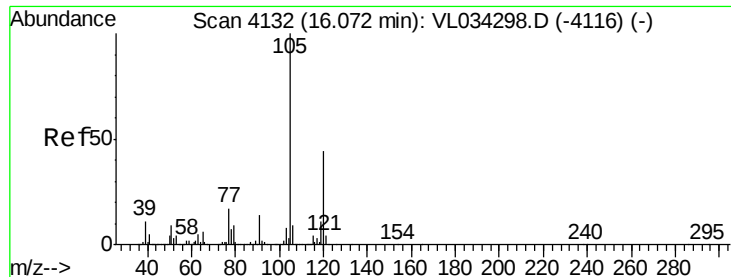
105 100

120 27.5 23.8 35.8

91 20.4 11.2 16.8#

77 20.1 12.8 19.2#





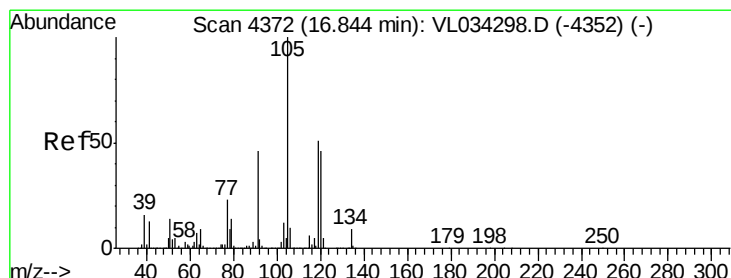
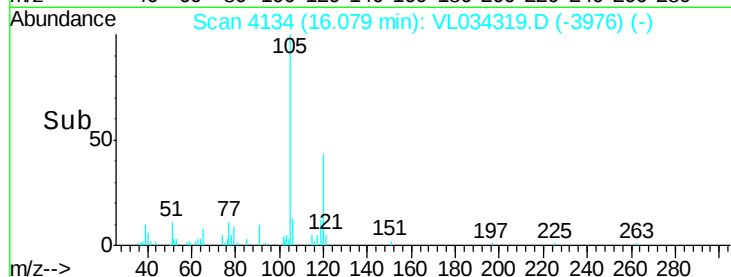
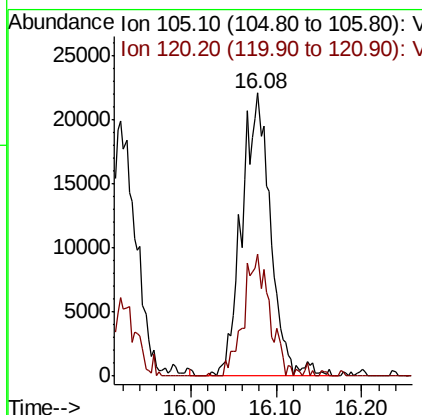
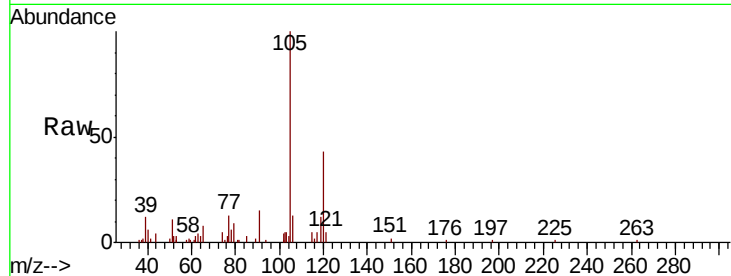
#73  
 1,3,5-Trimethylbenzene  
 Concen: 0.197 ppbv m  
 RT: 16.08 min Scan# 4134  
 Delta R.T. 0.01 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1017ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 43.1  | 35.2  | 52.8  |

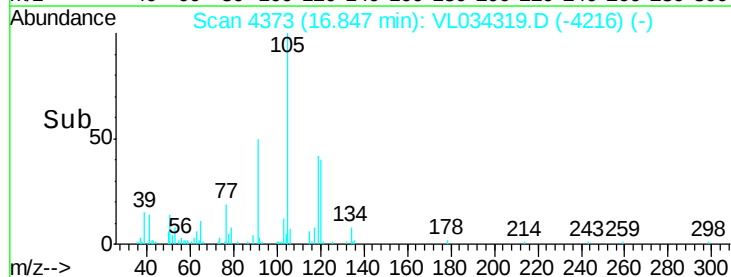
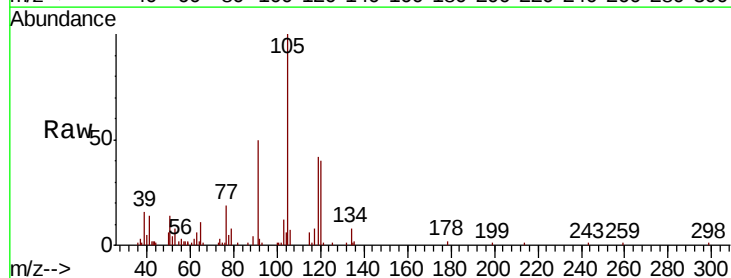
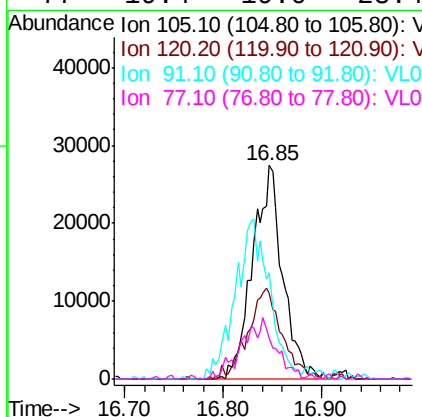
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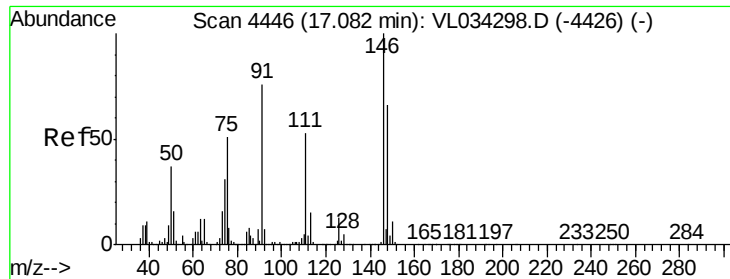
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#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.214 ppbv m  
 RT: 16.85 min Scan# 4373  
 Delta R.T. 0.00 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 39.9  | 37.0  | 55.6  |
| 91      | 49.9  | 38.2  | 57.2  |
| 77      | 19.4  | 19.0  | 28.4  |





#75

1,3-Dichlorobenzene

Concen: 0.278 ppbv m

RT: 17.09 min Scan# 4447

Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

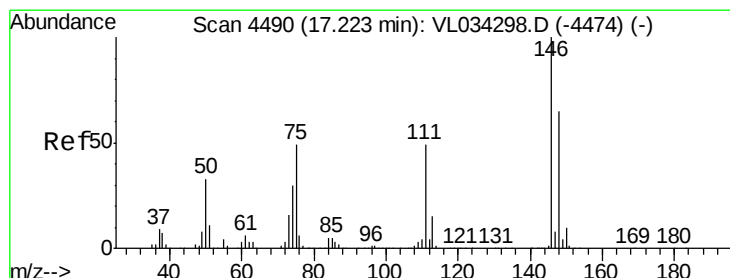
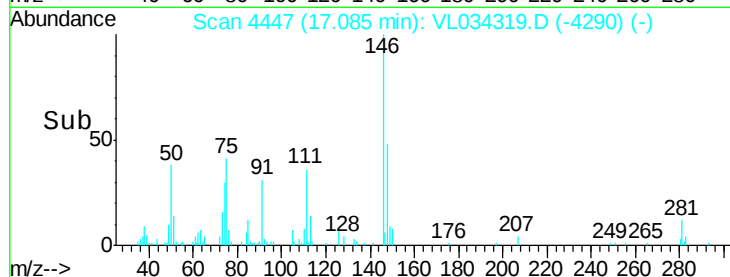
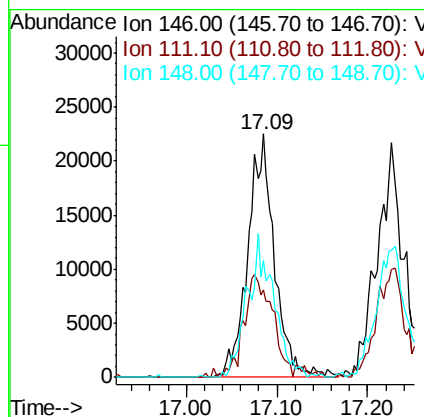
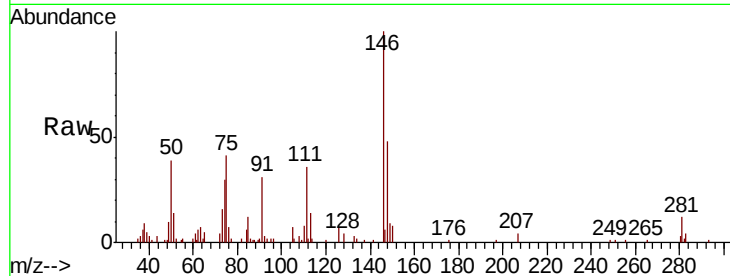
ClientSampleId :

VL1017ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 0.0   | 24.5  | 73.5# |
| 148     | 0.0   | 32.3  | 96.8# |

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#76

1,4-Dichlorobenzene

Concen: 0.280 ppbv m

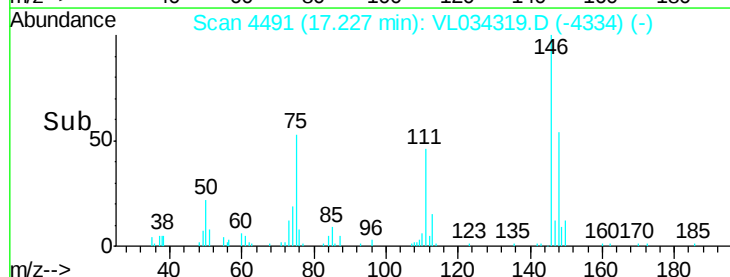
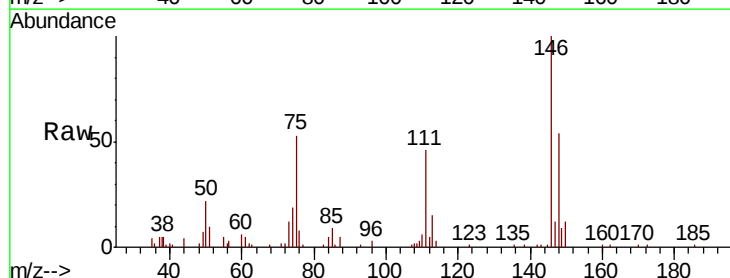
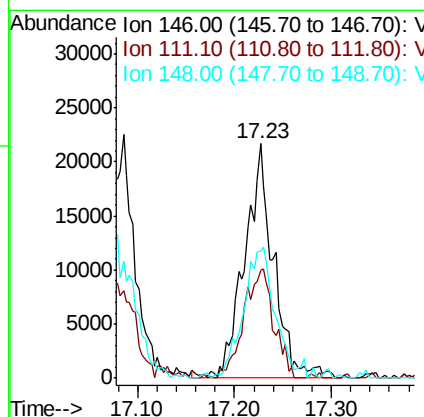
RT: 17.23 min Scan# 4491

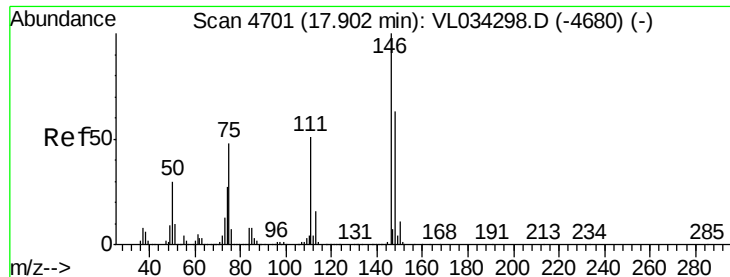
Delta R.T. 0.00 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 48.3  | 23.9  | 71.7  |
| 148     | 62.1  | 33.1  | 99.2  |





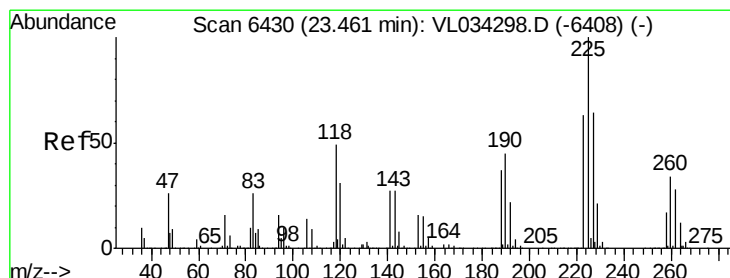
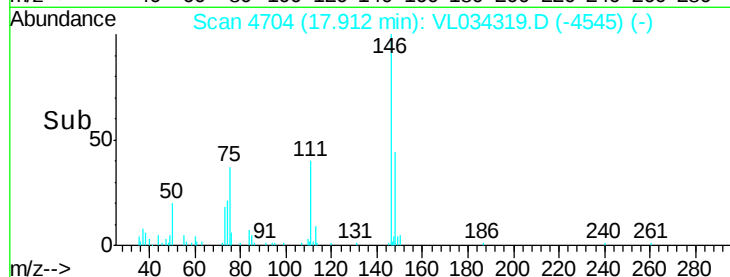
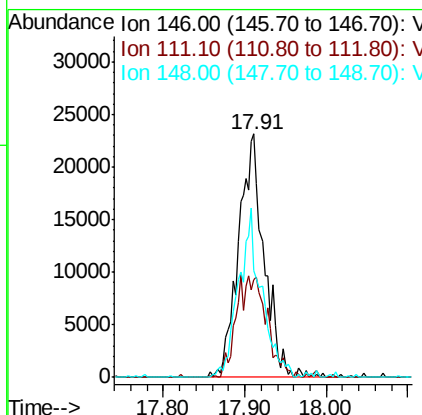
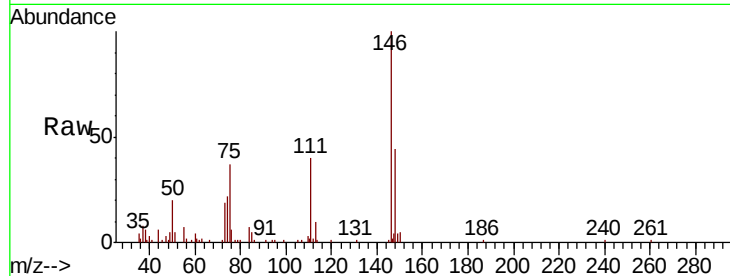
#77  
 1,2-Dichlorobenzene  
 Concen: 0.307 ppbv m  
 RT: 17.91 min Scan# 4704  
 Delta R.T. 0.01 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1017ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 50.3  | 25.1  | 75.3  |
| 148     | 0.0   | 32.3  | 96.8# |

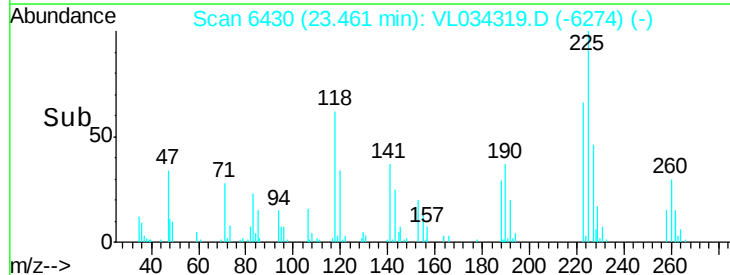
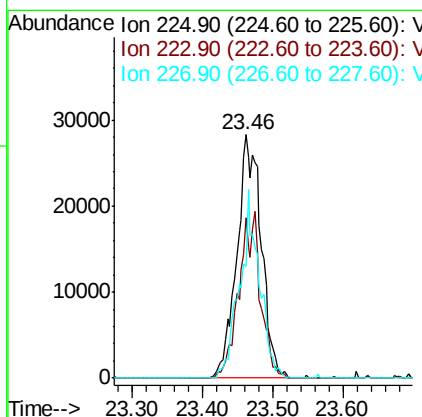
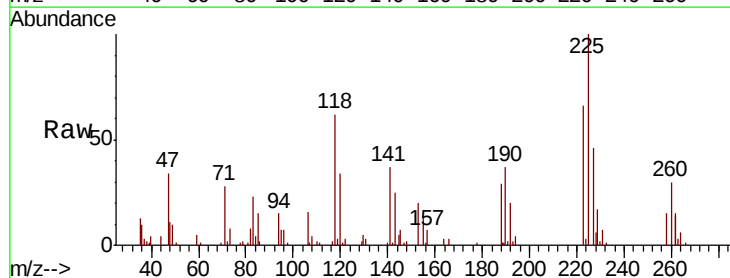
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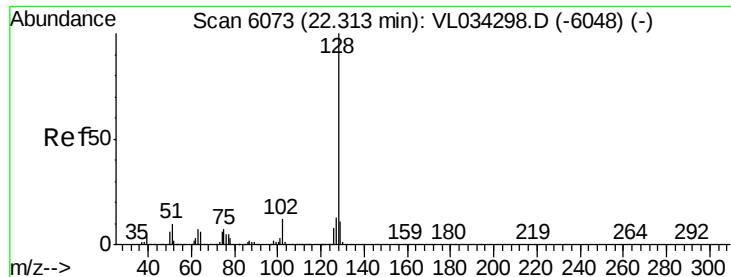
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#78  
 Hexachloro-1,3-Butadiene  
 Concen: 0.505 ppbv m  
 RT: 23.46 min Scan# 6430  
 Delta R.T. 0.00 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 0.0   | 50.8  | 76.2# |
| 227     | 62.4  | 51.5  | 77.3  |





#79

Naphthalene

Concen: 0.533 ppbv m

RT: 22.32 min Scan# 6075

Delta R.T. 0.01 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

Instrument :

MSVOA\_L

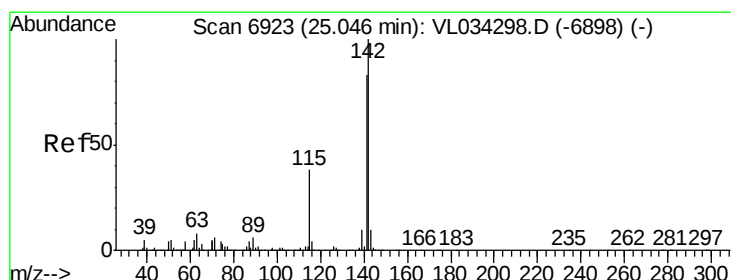
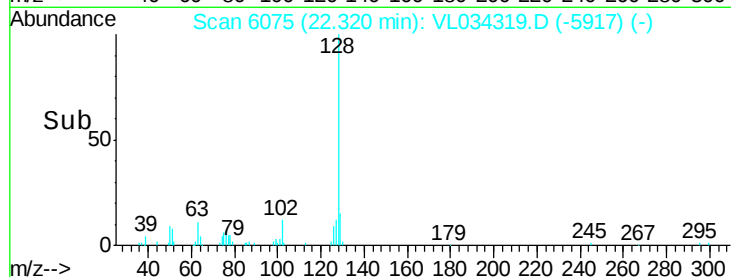
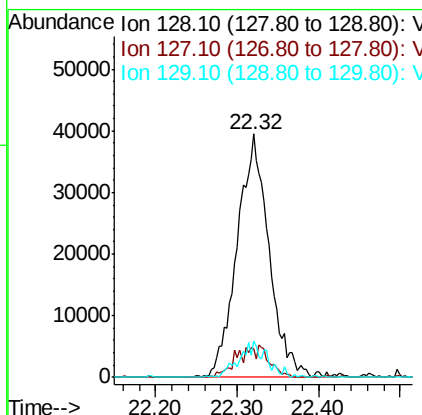
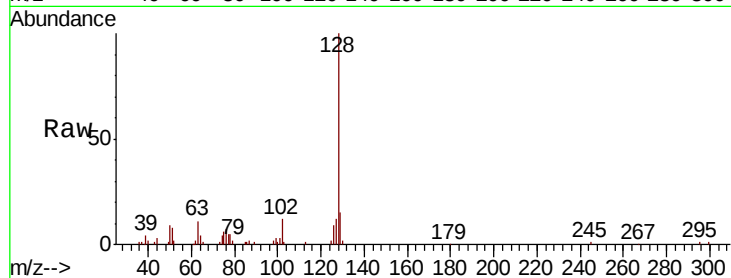
ClientSampleId :

VL1017ABS01

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 128   | Resp: | 107073 |
| Ion Ratio | Lower | Upper |        |
| 128       | 100   |       |        |
| 127       | 11.7  | 10.2  | 15.4   |
| 129       | 15.1  | 8.9   | 13.3#  |

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#80

Naphthalene, 2-methyl-

Concen: 1.351 ppbv

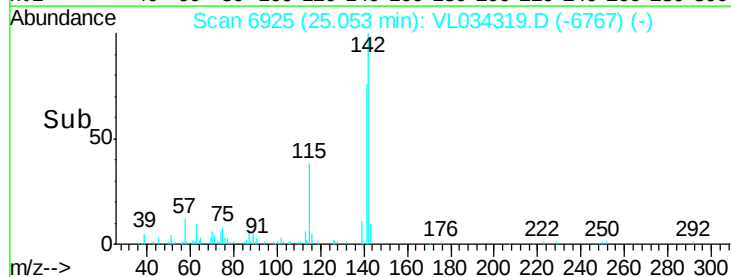
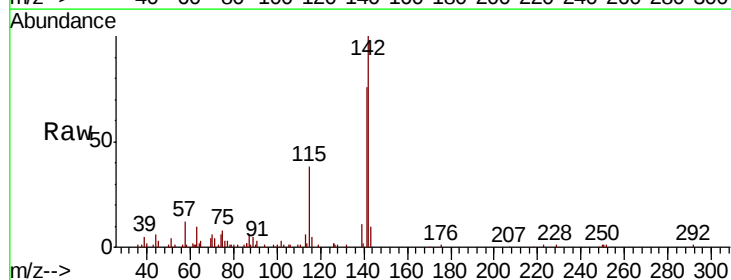
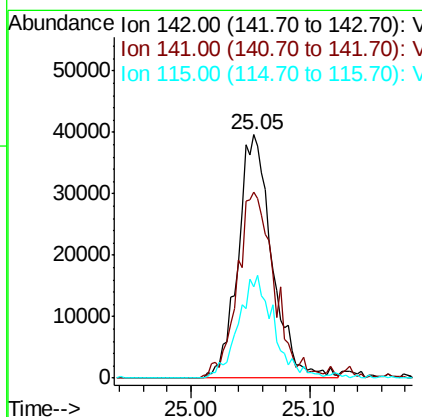
RT: 25.05 min Scan# 6925

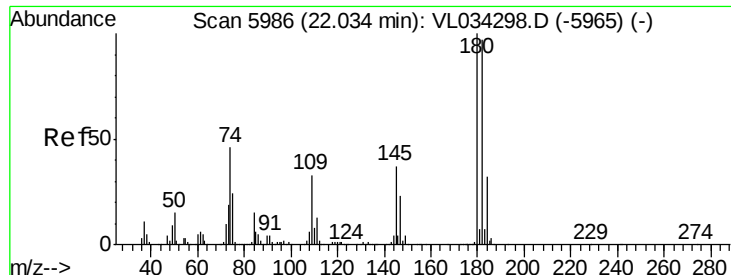
Delta R.T. 0.01 min

Lab File: VL034319.D

Acq: 17 Oct 2019 16:05

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 142   | Resp: | 78413 |
| Ion Ratio | Lower | Upper |       |
| 142       | 100   |       |       |
| 141       | 83.4  | 65.7  | 98.5  |
| 115       | 44.4  | 30.9  | 46.3  |





#81  
 1,2,4-Trichlorobenzene  
 Concen: 0.486 ppbv m  
 RT: 22.05 min Scan# 5990  
 Delta R.T. 0.01 min  
 Lab File: VL034319.D  
 Acq: 17 Oct 2019 16:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1017ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 98.7  | 77.8  | 116.8 |
| 184     | 0.0   | 25.4  | 38.2  |

Manual Integrations  
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