

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121718\  
 Data File : VL032997.D  
 Acq On : 17 Dec 2018 13:01  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Dec 18 01:14:27 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Dec 07 09:35:17 2018  
 QLast Update : Fri Dec 07 09:35:17 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1225073  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.30  | 114  | 3020926  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 4216274  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.59  | 95    | 2524319  | 8.10     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 81.00% |

| Target Compounds               | R.T. | QIon | Response | Conc   | Units  | Ovalue |
|--------------------------------|------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.08 | 85   | 1713526  | 10.478 | ppbv   | 99     |
| 3) Chlorodifluoromethane       | 3.02 | 51   | 946021   | 10.196 | ppbv   | 98     |
| 4) Chloromethane               | 3.17 | 50   | 518687   | 9.603  | ppbv   | 98     |
| 5) Vinyl Chloride              | 3.29 | 62   | 536806   | 9.767  | ppbv   | 99     |
| 6) Bromomethane                | 3.52 | 94   | 351339   | 10.221 | ppbv   | 97     |
| 7) Chloroethane                | 3.61 | 64   | 205105   | 10.413 | ppbv   | 95     |
| 8) Dichlorotetrafluoroethane   | 3.22 | 85   | 1350555  | 9.937  | ppbv   | 97     |
| 9) Propene                     | 3.04 | 41   | 400596   | 10.920 | ppbv   | 97     |
| 10) Heptane                    | 8.25 | 43   | 1305111  | 9.470  | ppbv   | 100    |
| 11) Trichlorofluoromethane     | 4.01 | 101  | 1515441  | 9.835  | ppbv   | 97     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.56 | 101  | 1075359  | 8.180  | ppbv   | 100    |
| 13) Ethanol                    | 3.65 | 45   | 91594    | 7.251  | ppbv   | 96     |
| 14) Bromoethene                | 3.79 | 108  | 471200   | 10.796 | ppbv   | 99     |
| 15) Acetone                    | 3.91 | 43   | 971669   | 9.241  | ppbv   | 98     |
| 16) 1,3-Butadiene              | 3.37 | 39   | 444139   | 10.646 | ppbv   | 97     |
| 17) tert-Butyl alcohol         | 4.36 | 59   | 259214   | 9.682  | ppbv # | 82     |
| 18) 1,1-Dichloroethene         | 4.36 | 96   | 502522   | 9.760  | ppbv   | 97     |
| 19) Isopropyl Alcohol          | 4.03 | 45   | 684165   | 10.361 | ppbv   | 100    |
| 20) Methylene Chloride         | 4.41 | 84   | 423891   | 8.248  | ppbv   | 99     |
| 21) Allyl Chloride             | 4.48 | 41   | 769985   | 8.985  | ppbv   | 98     |
| 22) trans-1,2-Dichloroethene   | 4.97 | 96   | 639318   | 10.005 | ppbv   | 100    |
| 23) Vinyl Acetate              | 5.16 | 43   | 2031062  | 11.408 | ppbv   | 99     |
| 24) 1,1-Dichloroethane         | 5.10 | 63   | 1524151  | 9.845  | ppbv   | 99     |
| 25) Ethyl Acetate              | 5.78 | 43   | 2469377  | 9.941  | ppbv   | 100    |
| 26) Hexane                     | 5.79 | 57   | 1135052  | 9.897  | ppbv   | 98     |
| 27) Carbon Disulfide           | 4.62 | 76   | 1499356  | 10.457 | ppbv   | 99     |
| 28) Methyl tert-Butyl Ether    | 5.12 | 73   | 1914688  | 11.117 | ppbv   | 100    |
| 29) Chloroform                 | 5.86 | 83   | 1901703  | 9.294  | ppbv   | 100    |
| 30) Cyclohexane                | 7.26 | 84   | 964901   | 10.151 | ppbv   | 100    |
| 31) cis-1,2-Dichloroethene     | 5.65 | 61   | 1179329  | 11.206 | ppbv   | 98     |
| 32) 1,1,1-Trichloroethane      | 6.63 | 97   | 1971143  | 9.104  | ppbv   | 99     |
| 34) 2-Butanone                 | 5.34 | 43   | 1549183  | 11.773 | ppbv   | 100    |
| 35) Carbon Tetrachloride       | 7.14 | 117  | 2139869  | 9.012  | ppbv   | 100    |
| 36) Benzene                    | 7.01 | 78   | 2294201  | 10.325 | ppbv   | 98     |
| 37) 1,2-Dichloroethane         | 6.42 | 62   | 1452593  | 9.602  | ppbv   | 98     |
| 38) Trichloroethene            | 7.97 | 130  | 944622   | 10.215 | ppbv   | 99     |
| 39) 1,2-Dichloropropane        | 7.75 | 63   | 820836   | 9.741  | ppbv   | 96     |
| 40) 1,4-Dioxane                | 7.97 | 88   | 283724   | 9.141  | ppbv # | 98     |
| 41) Tetrahydrofuran            | 6.16 | 42   | 892257   | 10.903 | ppbv   | 99     |
| 42) Bromodichloromethane       | 7.93 | 83   | 1961690  | 9.359  | ppbv   | 100    |
| 43) Methyl Methacrylate        | 8.15 | 69   | 866950   | 10.530 | ppbv   | 99     |

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 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

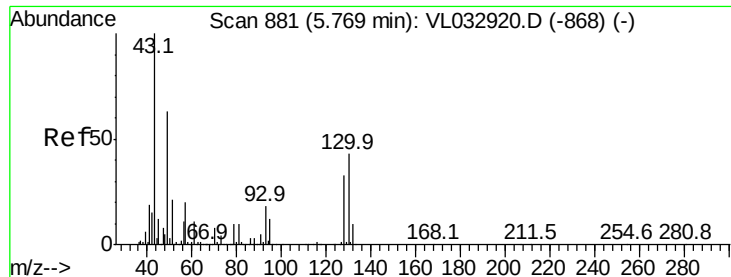
Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Dec 18 01:14:27 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Dec 07 09:35:17 2018  
 QLast Update : Fri Dec 07 09:35:17 2018  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 8.00  | 57   | 3689058  | 9.781  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.43  | 75   | 1239018  | 12.274 | ppbv   | 99       |
| 46) cis-1,3-Dichloropropene   | 8.85  | 75   | 1422446  | 11.513 | ppbv   | 99       |
| 47) 1,1,2-Trichloroethane     | 9.63  | 97   | 444638   | 4.794  | ppbv   | 99       |
| 48) Dibromochloromethane      | 10.46 | 129  | 1760089  | 10.115 | ppbv   | 99       |
| 49) Bromoform                 | 13.21 | 173  | 1801762  | 12.590 | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.88  | 43   | 2140030  | 10.170 | ppbv   | 99       |
| 51) 2-Hexanone                | 10.28 | 43   | 1618823  | 11.344 | ppbv # | 98       |
| 52) Tetrachloroethene         | 11.38 | 164  | 924996   | 11.445 | ppbv   | 98       |
| 53) Toluene                   | 9.96  | 91   | 2621760  | 11.125 | ppbv   | 99       |
| 54) 1,2-Dibromoethane         | 10.77 | 107  | 1453911  | 10.034 | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.29 | 131  | 1457963  | 7.756  | ppbv   | 97       |
| 57) Chlorobenzene             | 12.31 | 112  | 2406510  | 7.903  | ppbv   | 97       |
| 58) Ethyl Benzene             | 12.88 | 91   | 4200586  | 9.339  | ppbv   | 99       |
| 59) m/p-Xylene                | 13.16 | 91   | 3756218  | 9.211  | ppbv # | 100      |
| 60) o-Xylene                  | 13.86 | 91   | 3305086  | 8.026  | ppbv   | 99       |
| 61) Styrene                   | 13.70 | 104  | 2496526  | 9.114  | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.84 | 105  | 5131267  | 8.931  | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.85 | 83   | 2255323  | 7.053  | ppbv   | 100      |
| 64) n-propylbenzene           | 15.74 | 120  | 1257455  | 8.426  | ppbv   | 94       |
| 65) tert-Butylbenzene         | 16.92 | 119  | 4427422  | 8.312  | ppbv   | 99       |
| 66) Benzyl Chloride           | 17.17 | 91   | 2638505  | 8.937  | ppbv   | 99       |
| 67) sec-Butylbenzene          | 17.47 | 105  | 6178363  | 7.867  | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.83 | 119  | 5157753  | 8.104  | ppbv   | 100      |
| 70) n-Butylbenzene            | 18.73 | 91   | 4560260  | 7.788  | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.63 | 91   | 3587889  | 8.397  | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 16.01 | 105  | 3964634  | 8.623  | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.17 | 105  | 3859772  | 8.600  | ppbv   | 97       |
| 74) 1,2,4-Trimethylbenzene    | 16.94 | 105  | 3965968  | 7.826  | ppbv   | 97       |
| 75) 1,3-Dichlorobenzene       | 17.18 | 146  | 2254052  | 7.553  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.32 | 146  | 2189794  | 7.863  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 18.00 | 146  | 2235299  | 8.020  | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.56 | 225  | 1274614  | 8.316  | ppbv   | 99       |
| 79) Naphthalene               | 22.43 | 128  | 2818987  | 8.615  | ppbv   | 98       |
| 80) Naphthalene, 2-methyl-    | 25.13 | 142  | 714610   | 10.221 | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.15 | 180  | 1398532  | 8.059  | ppbv   | 100      |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 881

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

ClientSampled :

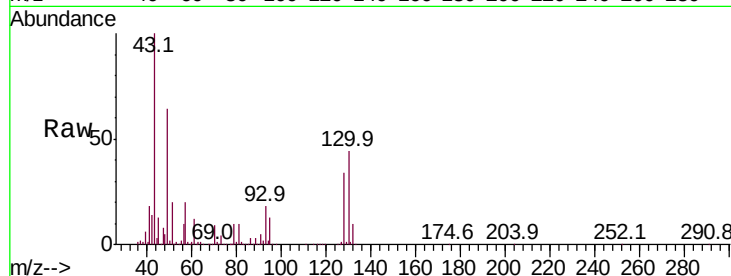
Tot Ion: 49 Resp: 1225073

Ion Ratio Lower Upper

49 100

128 53.1 26.3 78.8

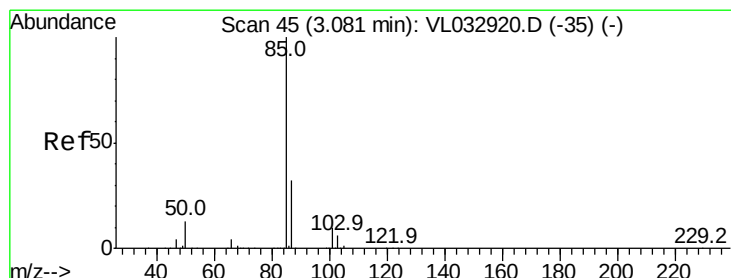
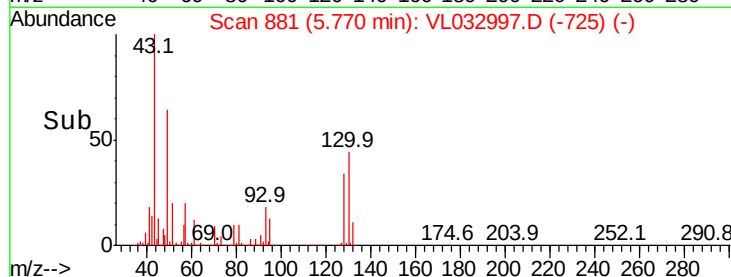
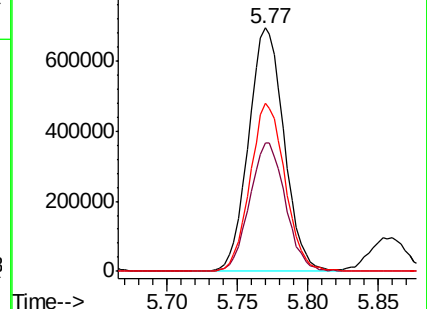
130 68.4 33.9 101.7



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 10.478 ppbv

RT: 3.08 min Scan# 45

Delta R.T. 0.00 min

Lab File: VL032997.D

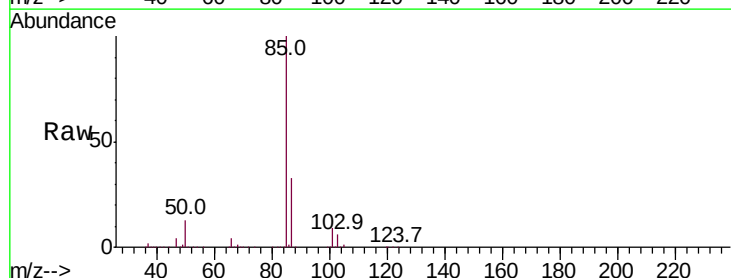
Acq: 17 Dec 2018 13:01

Tgt Ion: 85 Resp: 1713526

Ion Ratio Lower Upper

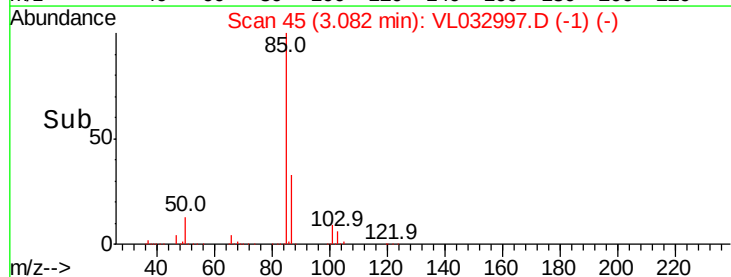
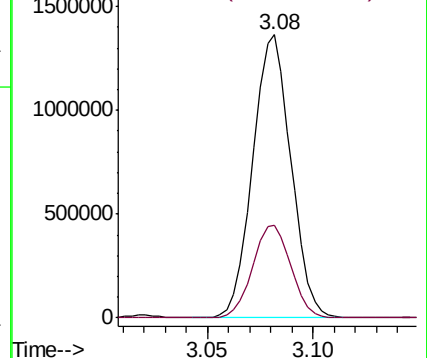
85 100

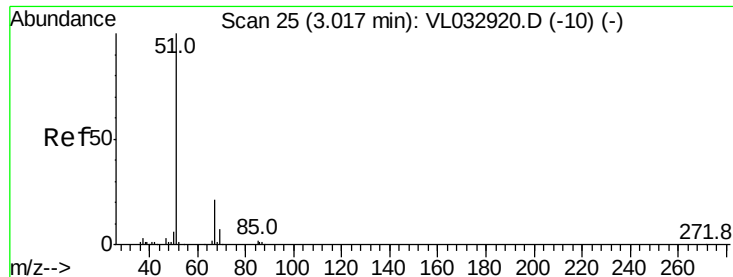
87 32.7 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 10.196 ppbv

RT: 3.02 min Scan# 25

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

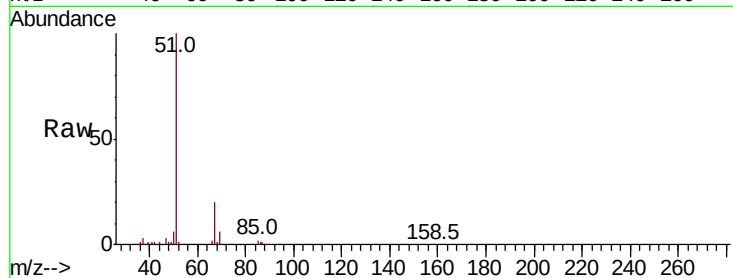
ClientSampleId :

Tot Ion: 51 Resp: 946021

Ion Ratio Lower Upper

51 100

67 20.0 16.8 25.2



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

3.02

800000

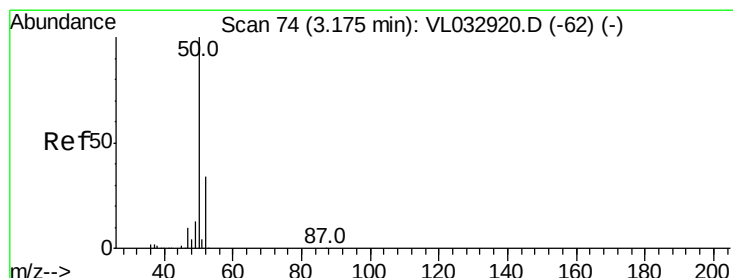
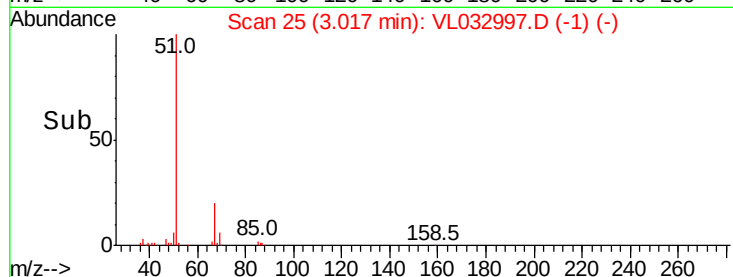
600000

400000

200000

0

Time-->



#4

Chloromethane

Concen: 9.603 ppbv

RT: 3.17 min Scan# 74

Delta R.T. 0.00 min

Lab File: VL032997.D

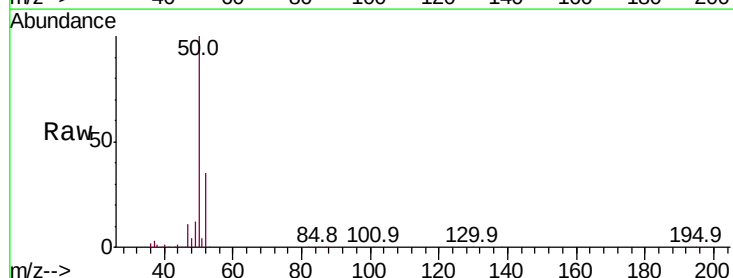
Acq: 17 Dec 2018 13:01

Tgt Ion: 50 Resp: 518687

Ion Ratio Lower Upper

50 100

52 35.2 27.3 40.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

3.17

400000

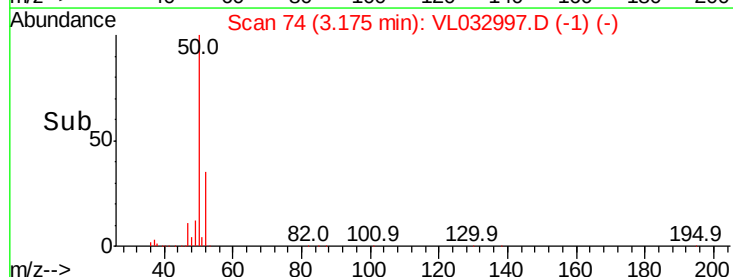
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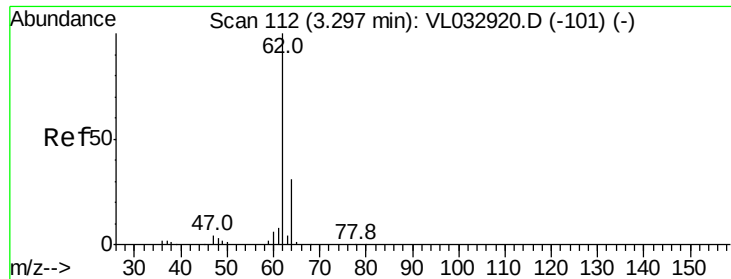
200000

100000

0

Time-->





#5

Vinyl Chloride

Concen: 9.767 ppbv

RT: 3.29 min Scan# 111

Delta R.T. -0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

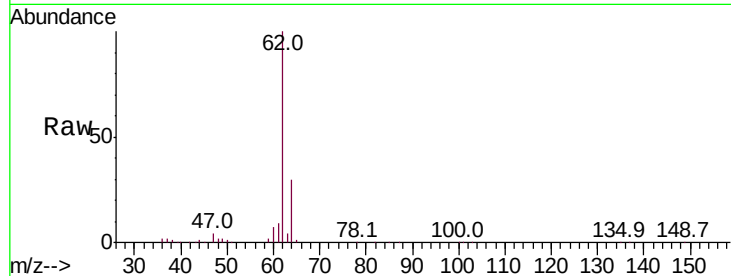
ClientSampleId :

Tot Ion: 62 Resp: 536806

Ion Ratio Lower Upper

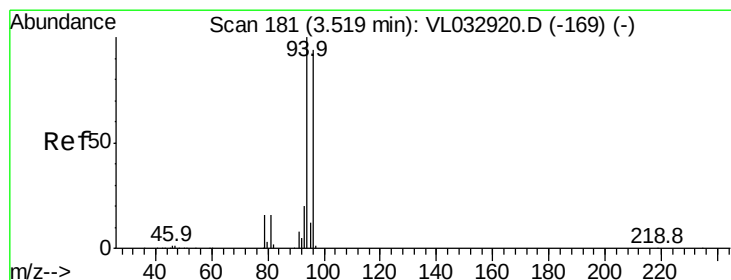
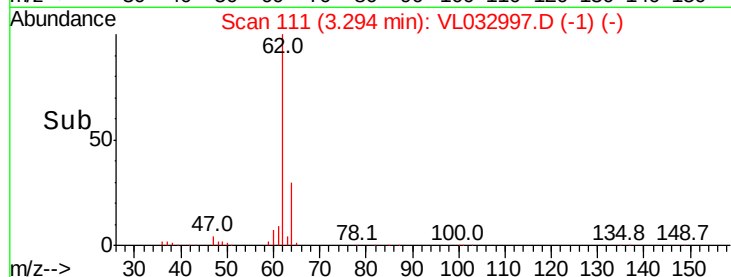
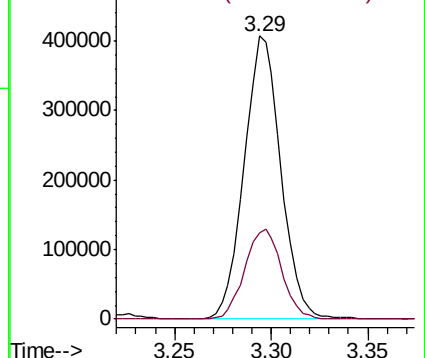
62 100

64 30.4 24.8 37.2



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#6

Bromomethane

Concen: 10.221 ppbv

RT: 3.52 min Scan# 181

Delta R.T. 0.00 min

Lab File: VL032997.D

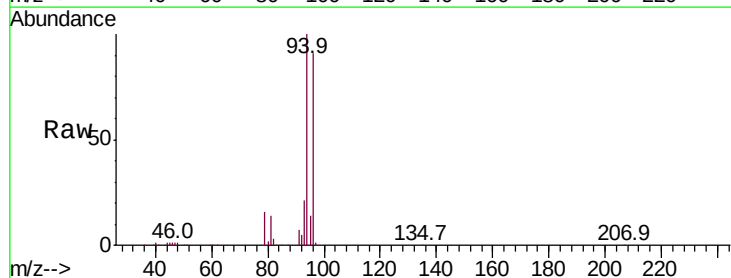
Acq: 17 Dec 2018 13:01

Tgt Ion: 94 Resp: 351339

Ion Ratio Lower Upper

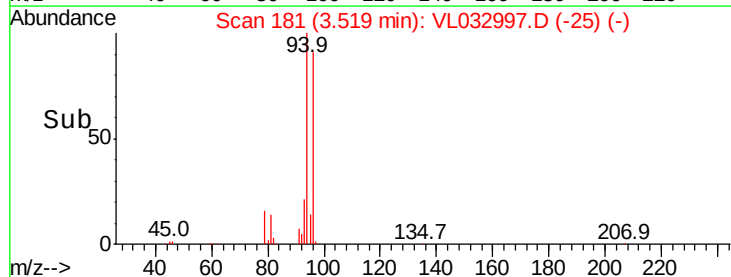
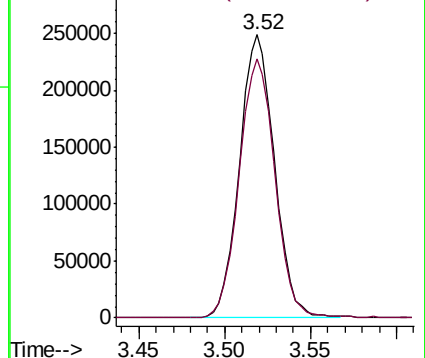
94 100

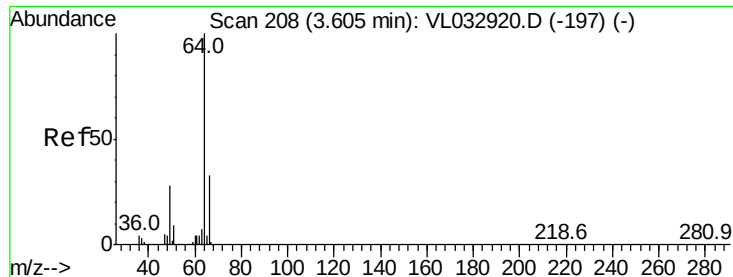
96 91.3 75.5 113.3



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0





#7

Chloroethane

Concen: 10.413 ppbv

RT: 3.61 min Scan# 208

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

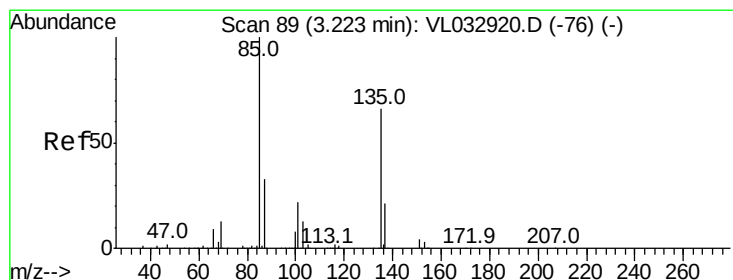
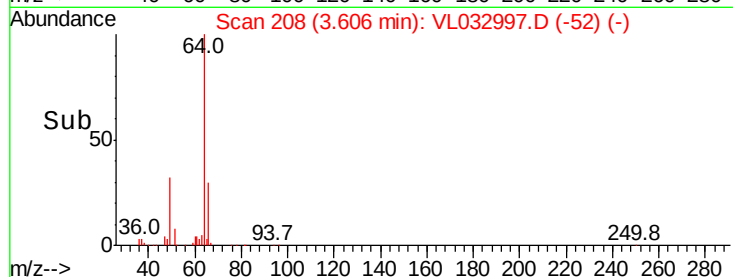
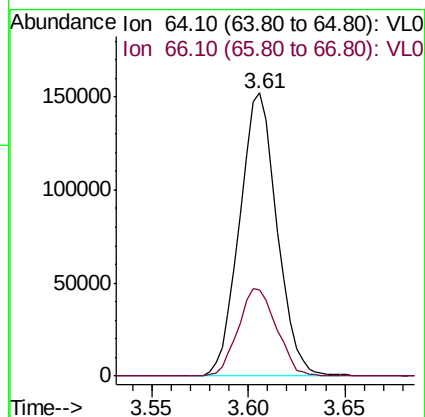
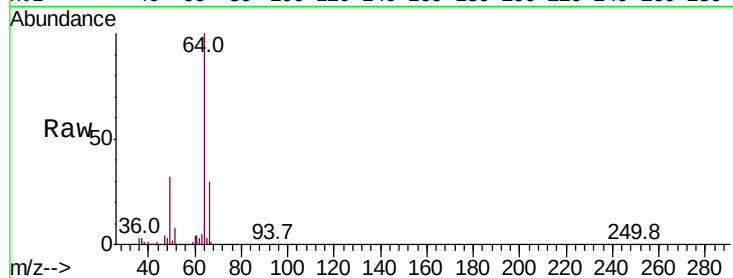
ClientSampleId :

Tot Ion: 64 Resp: 205105

Ion Ratio Lower Upper

64 100

66 30.4 26.6 40.0



#8

Dichlorotetrafluoroethane

Concen: 9.937 ppbv

RT: 3.22 min Scan# 89

Delta R.T. 0.00 min

Lab File: VL032997.D

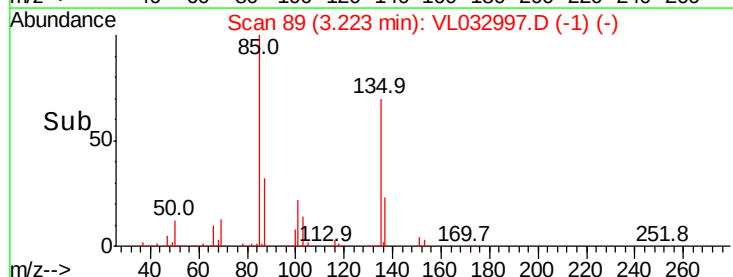
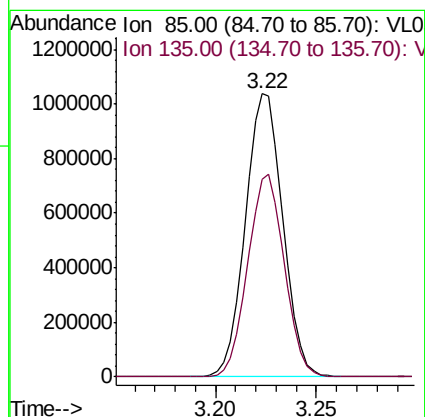
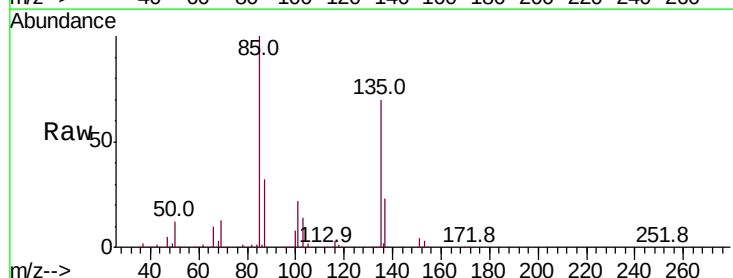
Acq: 17 Dec 2018 13:01

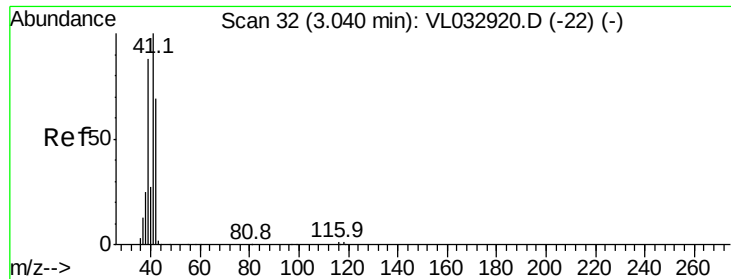
Tgt Ion: 85 Resp: 1350555

Ion Ratio Lower Upper

85 100

135 70.2 54.5 81.7





#9

Propene

Concen: 10.920 ppbv

RT: 3.04 min Scan# 32

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

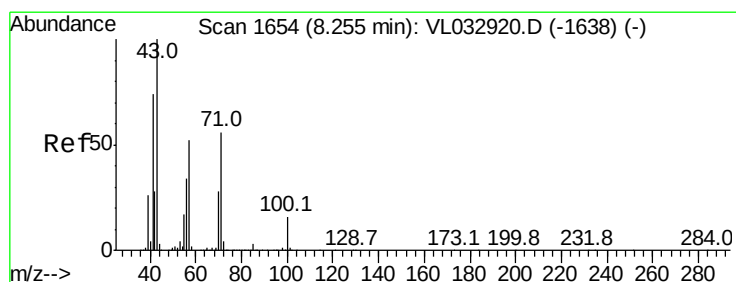
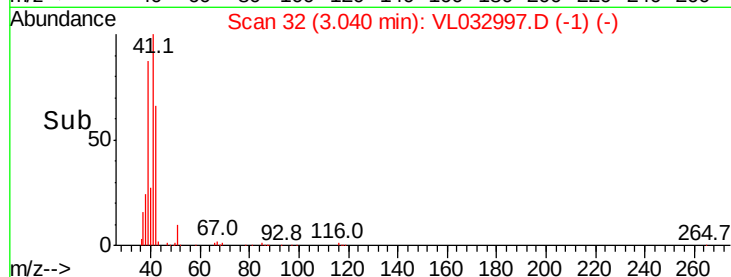
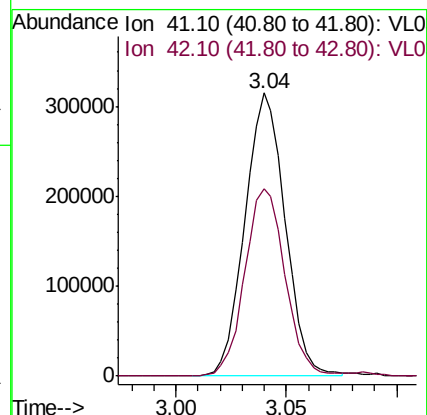
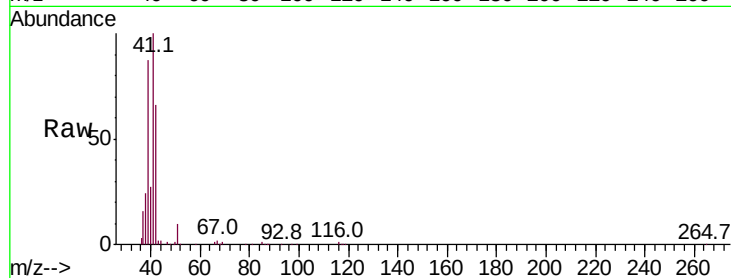
ClientSampleId :

Tot Ion: 41 Resp: 400596

Ion Ratio Lower Upper

41 100

42 67.6 56.2 84.2



#10

Heptane

Concen: 9.470 ppbv

RT: 8.25 min Scan# 1654

Delta R.T. 0.00 min

Lab File: VL032997.D

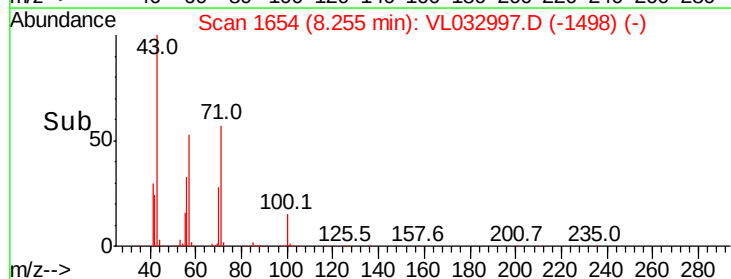
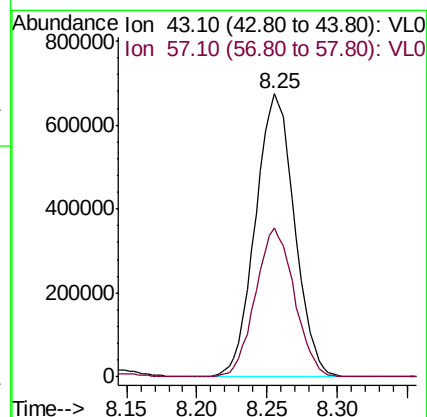
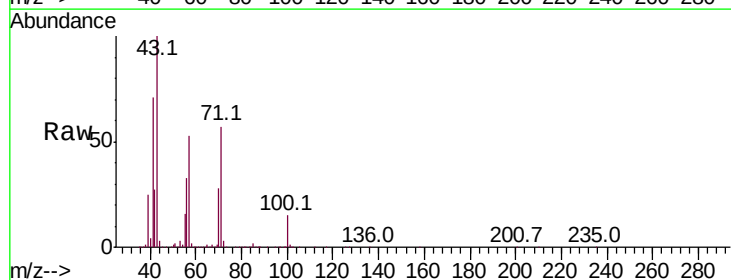
Acq: 17 Dec 2018 13:01

Tgt Ion: 43 Resp: 1305111

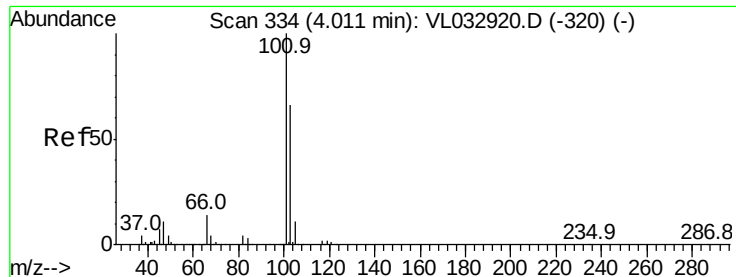
Ion Ratio Lower Upper

43 100

57 52.5 41.8 62.6







#11

Trichlorofluoromethane

Concen: 9.835 ppbv

RT: 4.01 min Scan# 334

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

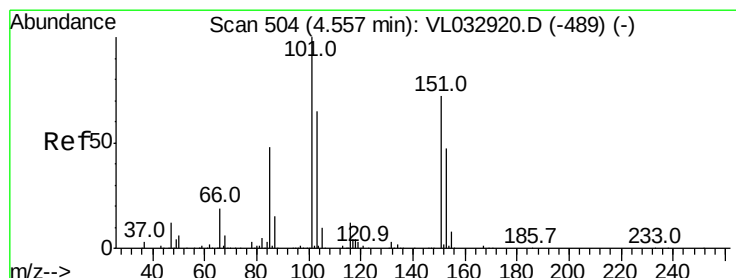
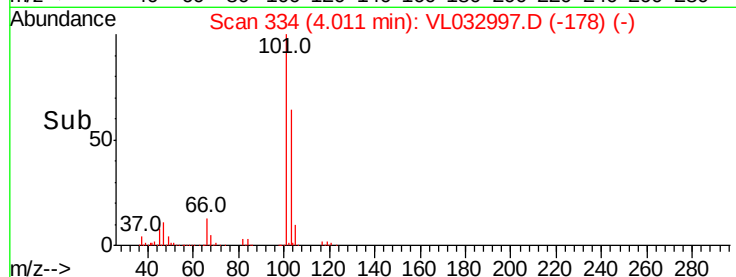
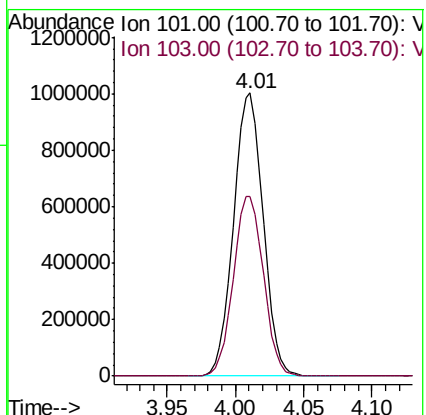
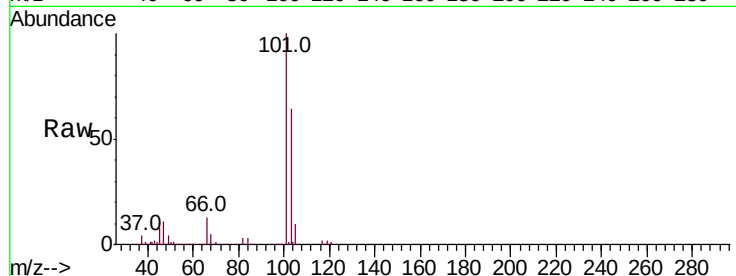
ClientSampleId :

Tot Ion:101 Resp: 1515441

Ion Ratio Lower Upper

101 100

103 63.6 52.7 79.1



#12

1,1,2-Trichlorotrifluoroethane

Concen: 8.180 ppbv

RT: 4.56 min Scan# 504

Delta R.T. 0.00 min

Lab File: VL032997.D

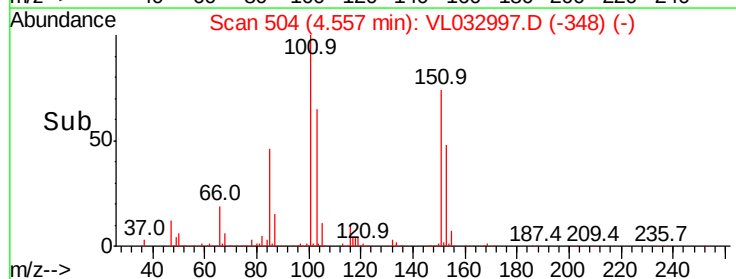
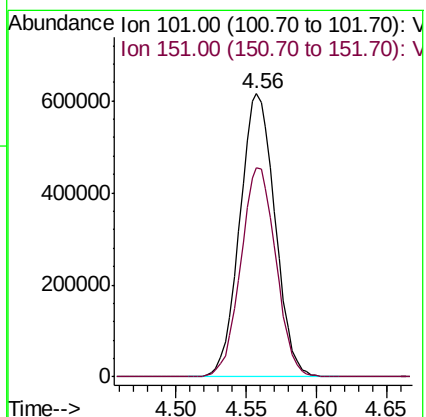
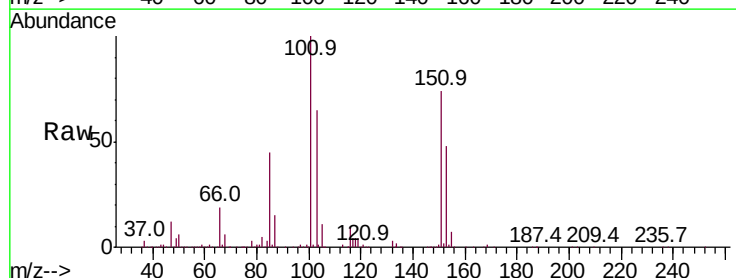
Acq: 17 Dec 2018 13:01

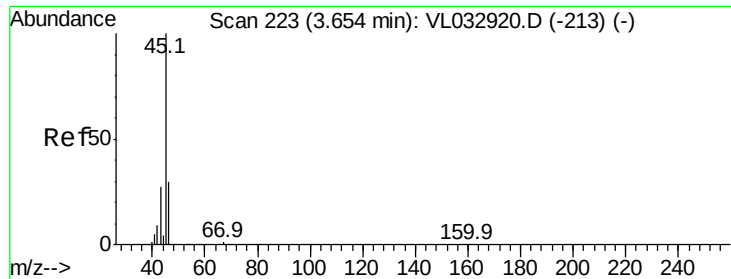
Tgt Ion:101 Resp: 1075359

Ion Ratio Lower Upper

101 100

151 74.1 59.3 88.9

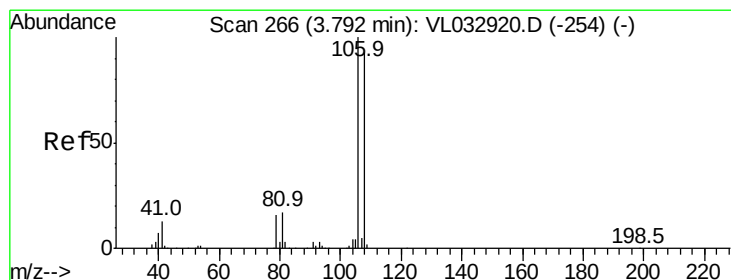
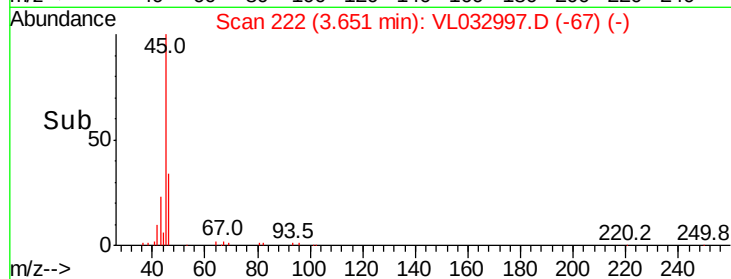
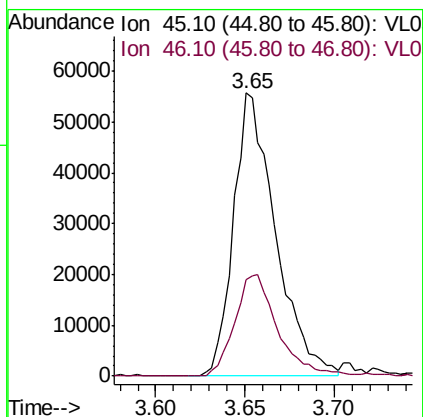
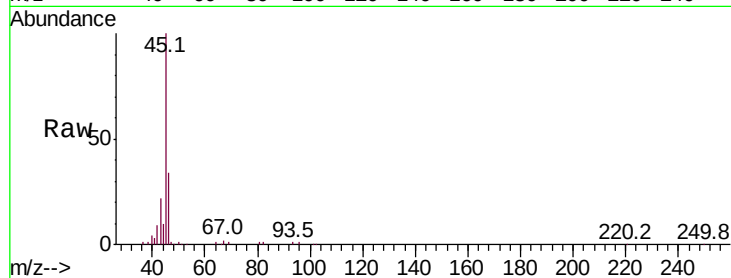




#13  
 Ethanol  
 Concen: 7.251 ppbv  
 RT: 3.65 min Scan# 222  
 Delta R.T. -0.00 min  
 Lab File: VL032997.D  
 Acq: 17 Dec 2018 13:01

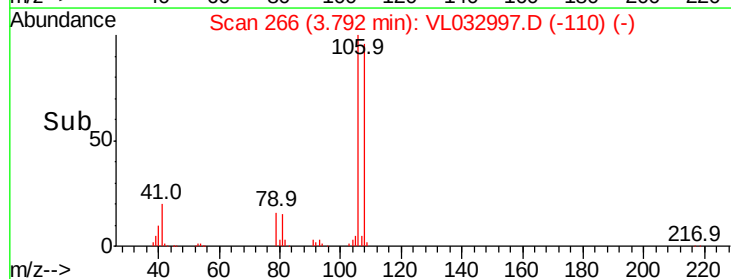
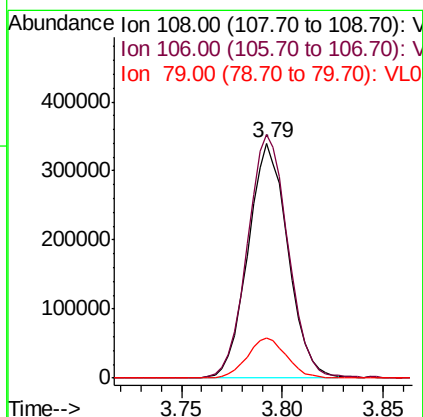
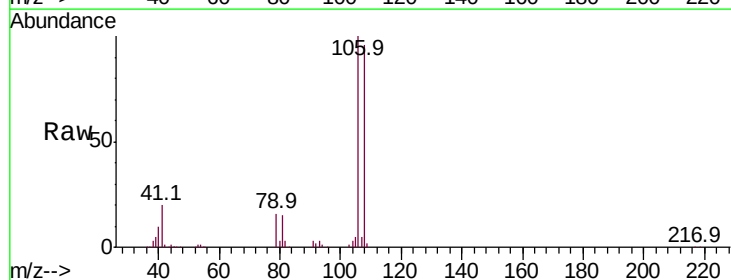
Instrument :  
 MSVOA\_L  
 ClientSampleId :

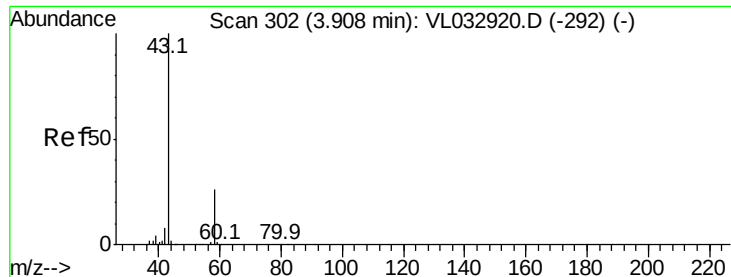
Tot Ion: 45 Resp: 91594  
 Ion Ratio Lower Upper  
 45 100  
 46 37.2 13.8 55.4



#14  
 Bromoethene  
 Concen: 10.796 ppbv  
 RT: 3.79 min Scan# 266  
 Delta R.T. 0.00 min  
 Lab File: VL032997.D  
 Acq: 17 Dec 2018 13:01

Tgt Ion: 108 Resp: 471200  
 Ion Ratio Lower Upper  
 108 100  
 106 106.2 85.4 128.2  
 79 17.2 14.6 21.8





#15

Acetone

Concen: 9.241 ppbv

RT: 3.91 min Scan# 302

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

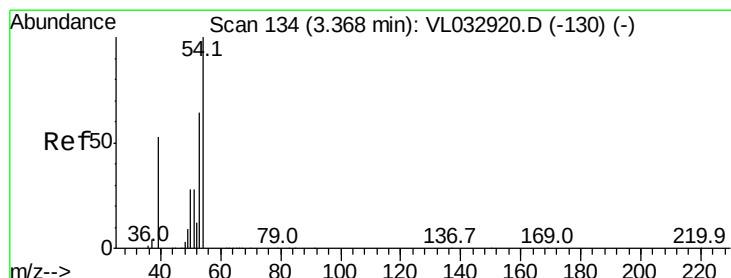
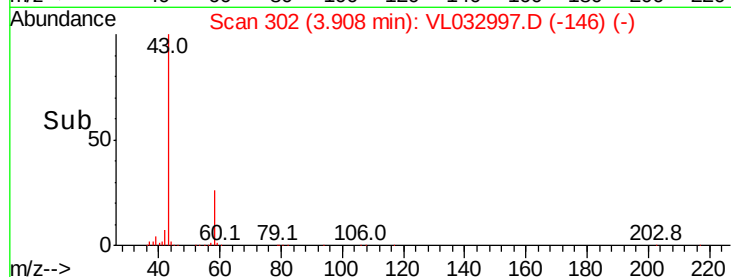
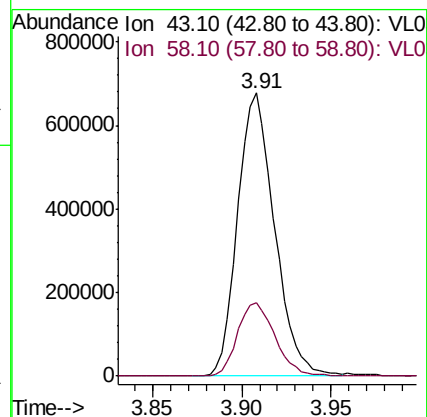
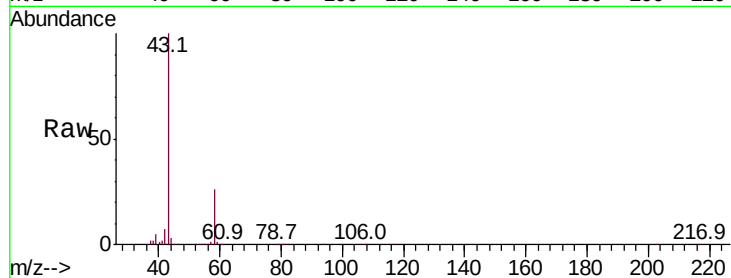
Instrument :  
MSVOA\_L  
ClientSampleId :

Tot Ion: 43 Resp: 971669

Ion Ratio Lower Upper

43 100

58 26.6 20.6 30.8



#16

1,3-Butadiene

Concen: 10.646 ppbv

RT: 3.37 min Scan# 134

Delta R.T. 0.00 min

Lab File: VL032997.D

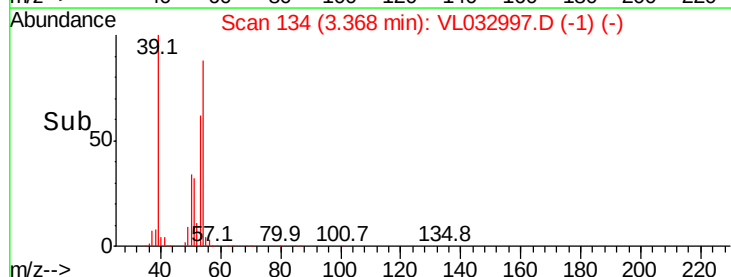
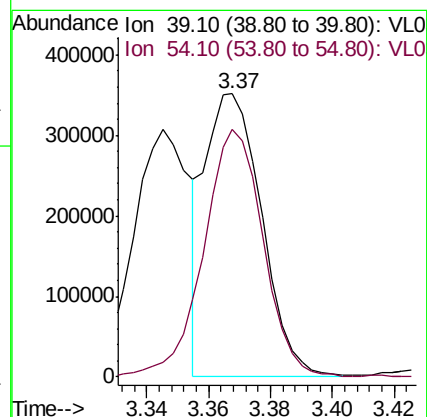
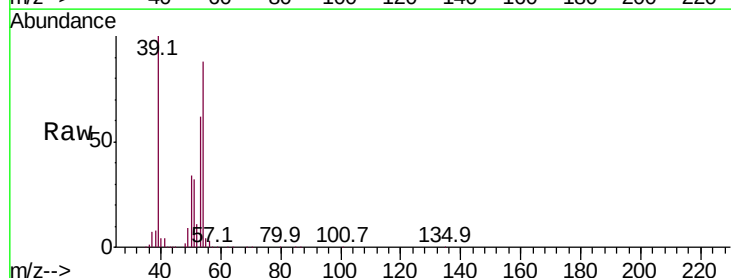
Acq: 17 Dec 2018 13:01

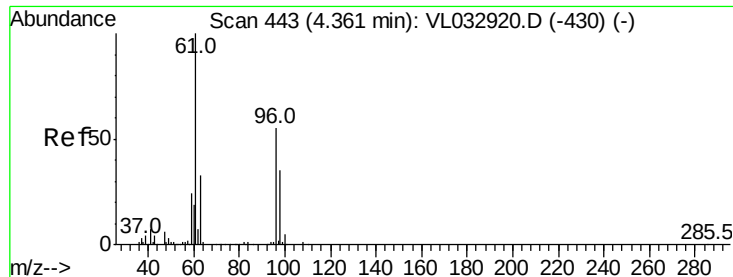
Tgt Ion: 39 Resp: 444139

Ion Ratio Lower Upper

39 100

54 93.7 72.7 109.1





#17

tert-Butyl alcohol

Concen: 9.682 ppbv

RT: 4.36 min Scan# 444

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

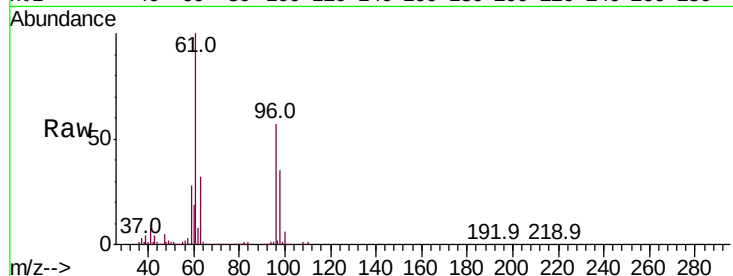
ClientSampled :

Tot Ion: 59 Resp: 259214

Ion Ratio Lower Upper

59 100

57 9.9 0.6 1.0#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

4.36

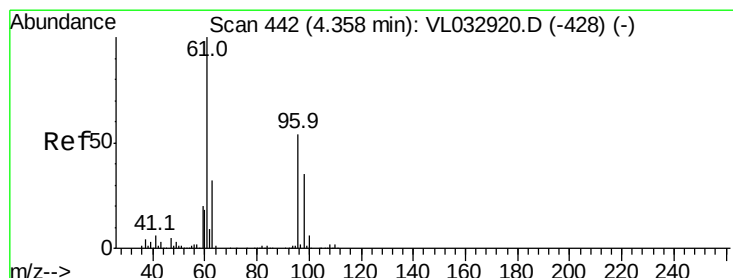
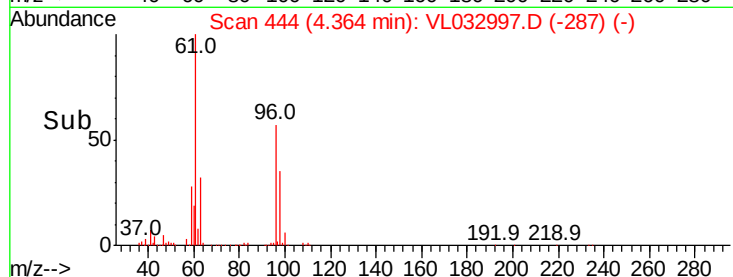
150000

100000

50000

0

Time-->



#18

1,1-Dichloroethene

Concen: 9.760 ppbv

RT: 4.36 min Scan# 442

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

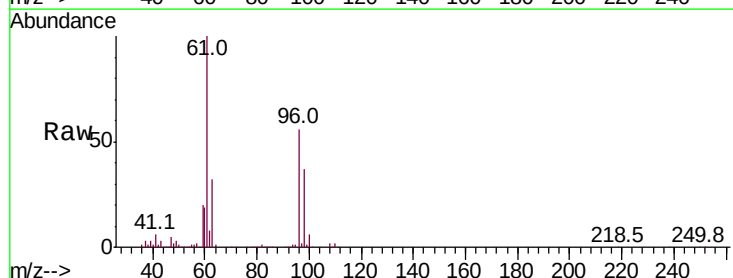
Tgt Ion: 96 Resp: 502522

Ion Ratio Lower Upper

96 100

61 180.1 147.0 220.4

98 66.3 50.7 76.1



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

800000

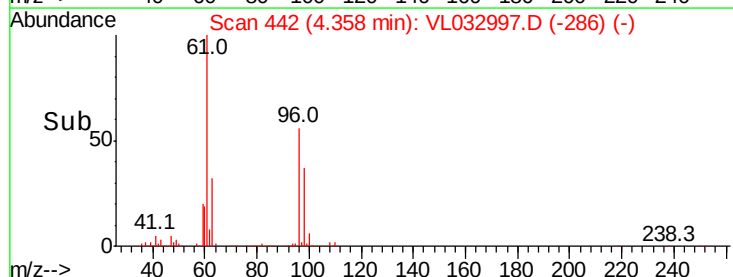
600000

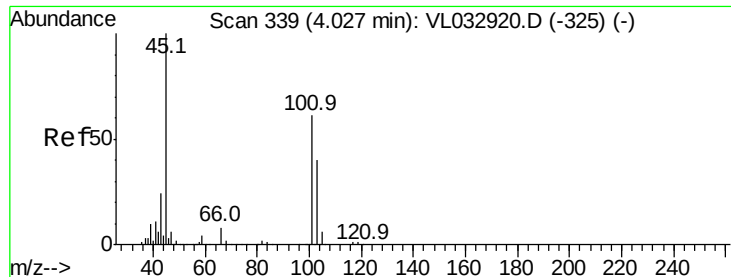
400000

200000

0

Time-->





#19

Isopropyl Alcohol

Concen: 10.361 ppbv

RT: 4.03 min Scan# 339

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

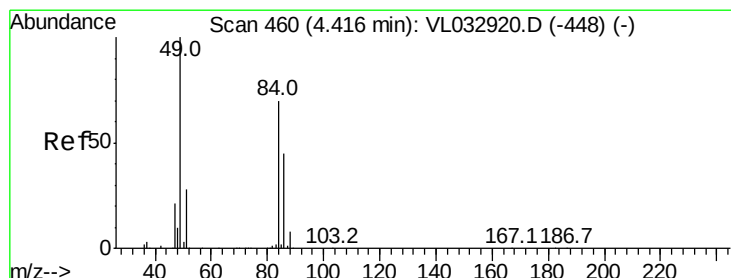
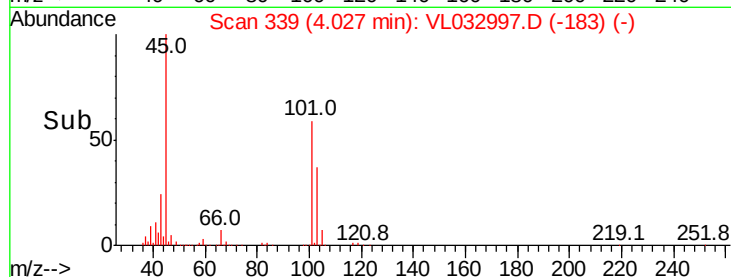
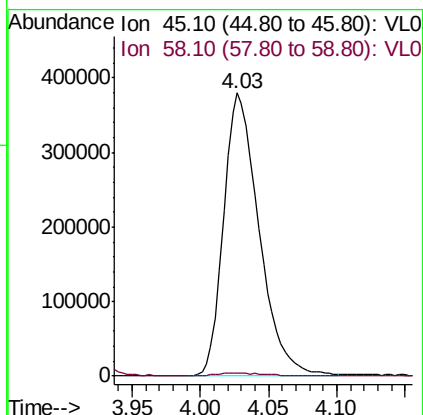
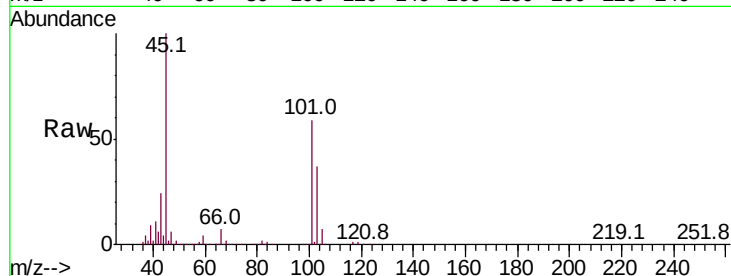
ClientSampleId :

Tot Ion: 45 Resp: 684165

Ion Ratio Lower Upper

45 100

58 1.7 1.4 2.2



#20

Methylene Chloride

Concen: 8.248 ppbv

RT: 4.41 min Scan# 459

Delta R.T. -0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Tgt Ion: 84 Resp: 423891

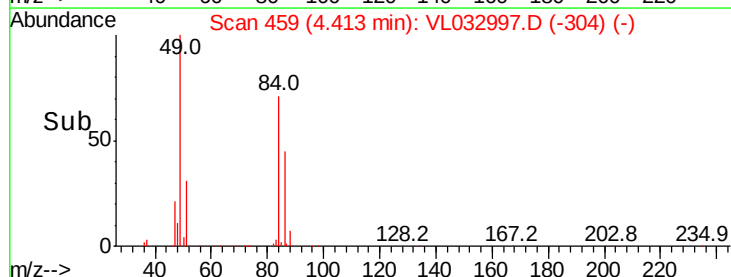
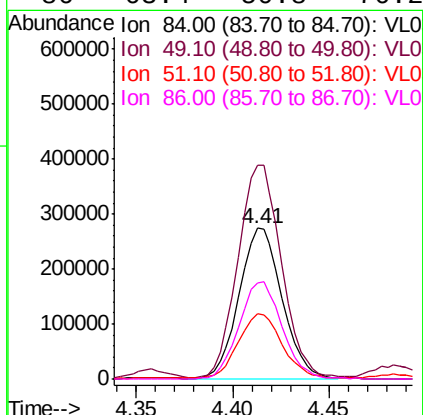
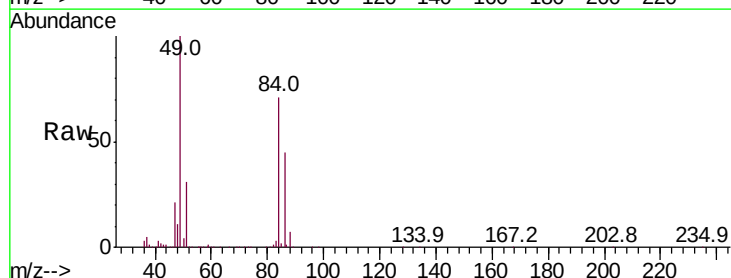
Ion Ratio Lower Upper

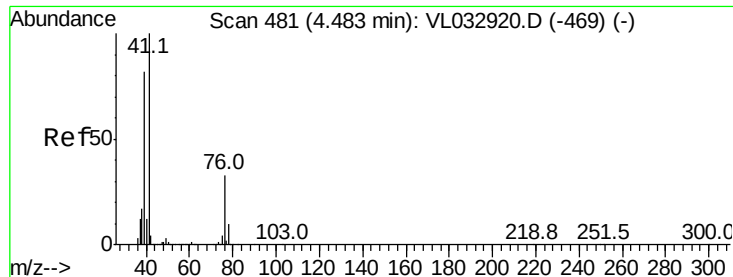
84 100

49 141.2 113.8 170.8

51 43.0 31.8 47.8

86 63.4 50.8 76.2

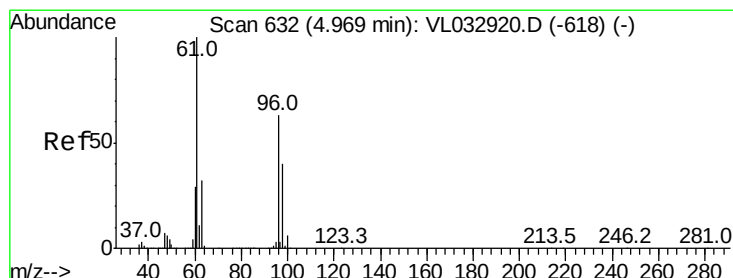
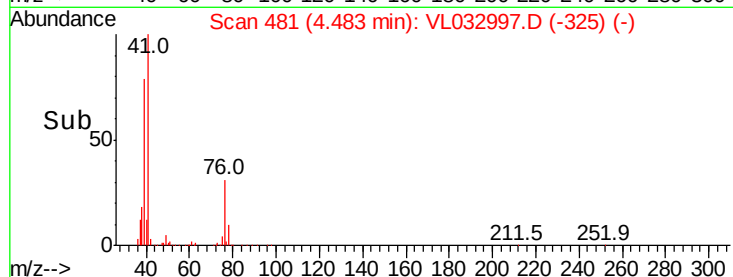
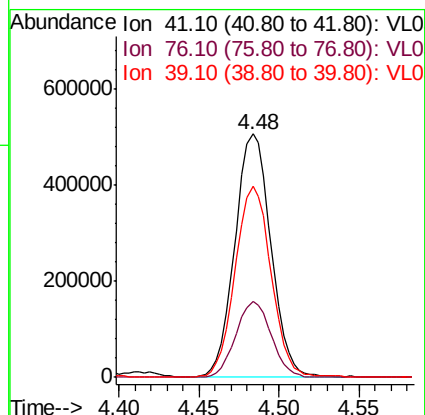
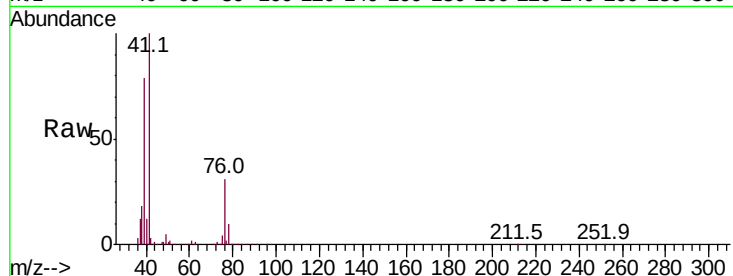




#21  
Allvl Chloride  
Concen: 8.985 ppbv  
RT: 4.48 min Scan# 481  
Delta R.T. 0.00 min  
Lab File: VL032997.D  
Acq: 17 Dec 2018 13:01

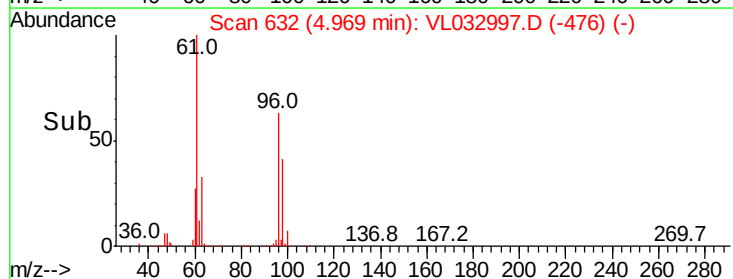
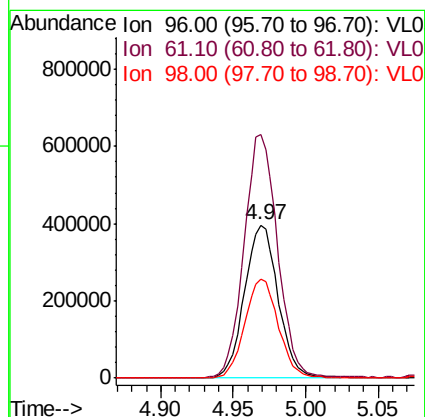
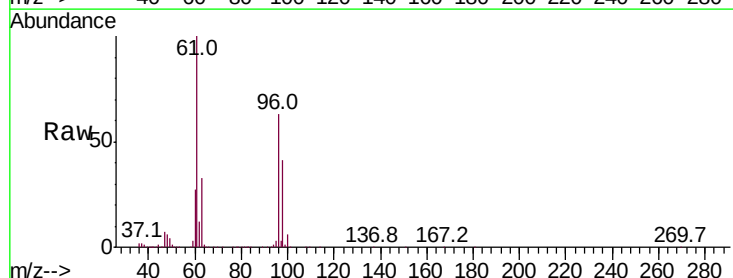
Instrument :  
MSVOA\_L  
ClientSampleId :

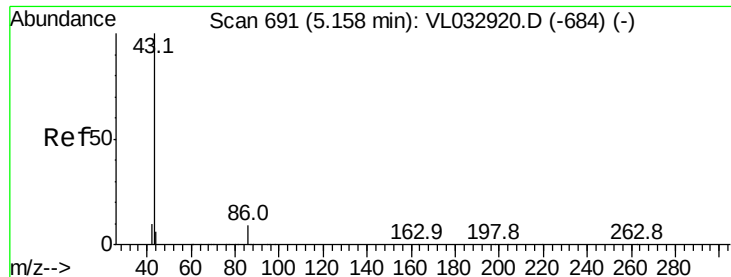
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 41      | 100   |       |       |
| 76      | 30.9  | 25.2  | 37.8  |
| 39      | 78.8  | 65.2  | 97.8  |



#22  
trans-1,2-Dichloroethene  
Concen: 10.005 ppbv  
RT: 4.97 min Scan# 632  
Delta R.T. 0.00 min  
Lab File: VL032997.D  
Acq: 17 Dec 2018 13:01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 158.9 | 127.1 | 190.7 |
| 98      | 64.9  | 51.3  | 76.9  |





#23

Vinyl Acetate

Concen: 11.408 ppbv

RT: 5.16 min Scan# 692

Delta R.T. 0.00 min

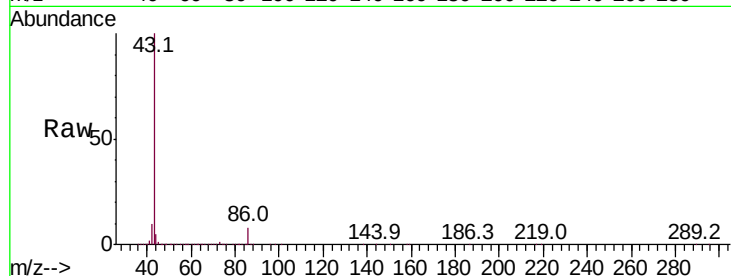
Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

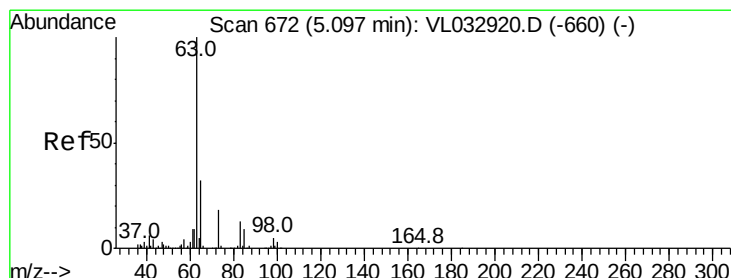
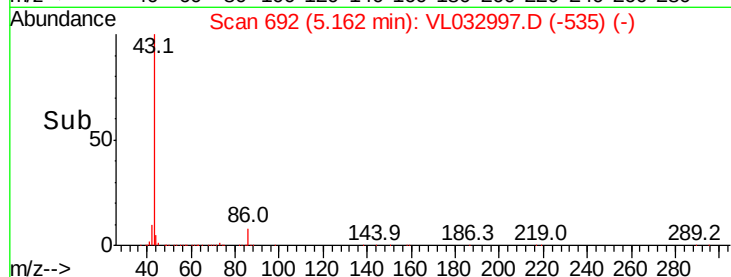
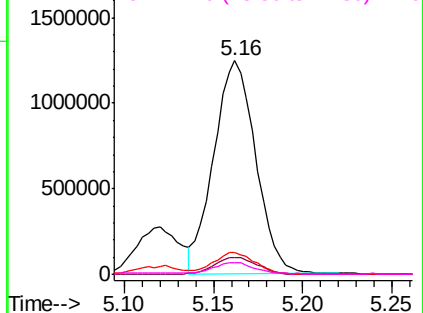
Instrument :  
MSVOA\_L  
ClientSampleId :

Tot Ion: 43 Resp: 2031062

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 86  | 8.0   | 6.6   | 9.8   |
| 42  | 10.1  | 8.3   | 12.5  |
| 44  | 5.3   | 4.2   | 6.4   |



Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 86.10 (85.80 to 86.80): VL0  
Ion 42.10 (41.80 to 42.80): VL0  
Ion 44.10 (43.80 to 44.80): VL0



#24

1,1-Dichloroethane

Concen: 9.845 ppbv

RT: 5.10 min Scan# 672

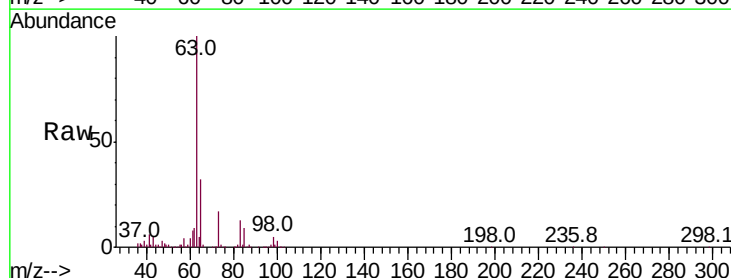
Delta R.T. 0.00 min

Lab File: VL032997.D

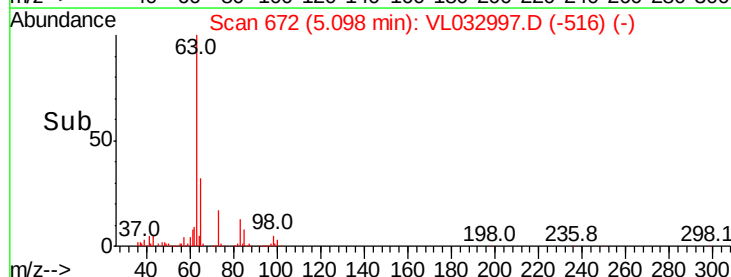
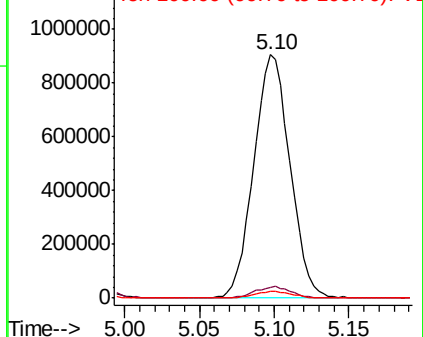
Acq: 17 Dec 2018 13:01

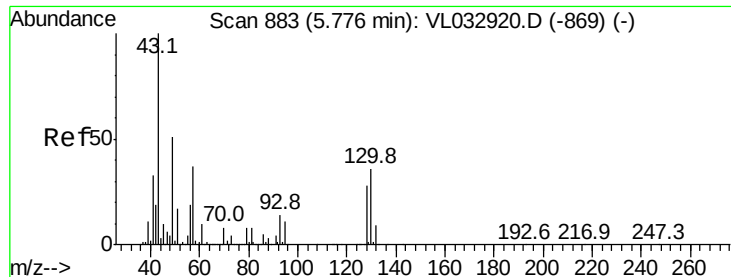
Tgt Ion: 63 Resp: 1524151

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 63  | 100   |       |       |
| 98  | 4.5   | 2.5   | 7.5   |
| 100 | 3.1   | 1.4   | 4.2   |



Abundance Ion 63.10 (62.80 to 63.80): VL0  
Ion 98.00 (97.70 to 98.70): VL0  
Ion 100.00 (99.70 to 100.70): VL0

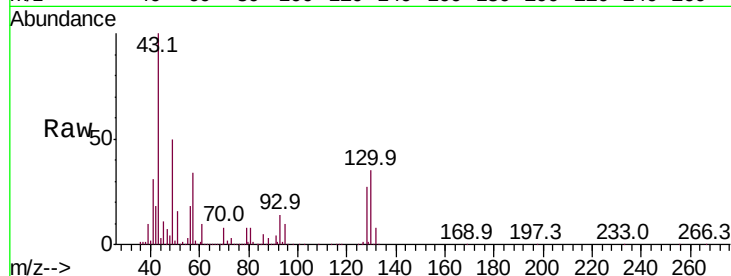




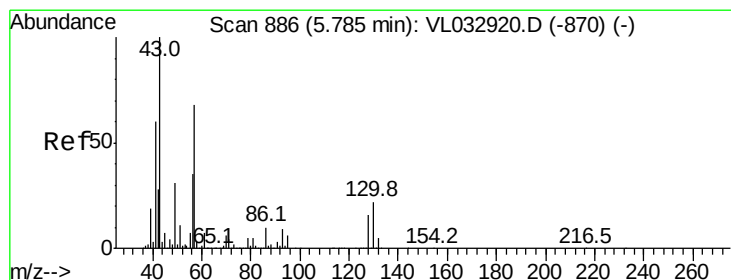
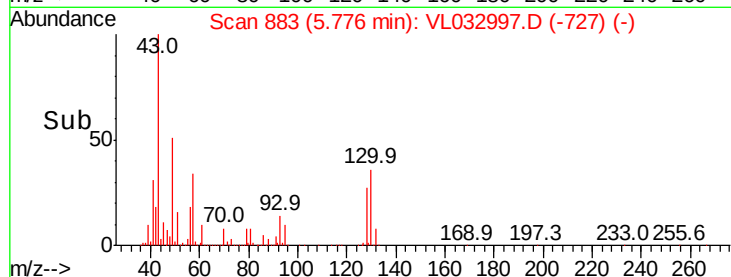
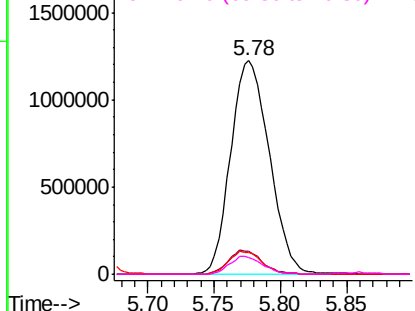
#25  
Ethyl Acetate  
Concen: 9.941 ppbv  
RT: 5.78 min Scan# 883  
Delta R.T. 0.00 min  
Lab File: VL032997.D  
Acq: 17 Dec 2018 13:01

Instrument :  
MSVOA\_L  
ClientSampleId :

| Tot Ion: | 43    | Resp: | 2469377 |
|----------|-------|-------|---------|
| Ion      | Ratio | Lower | Upper   |
| 43       | 100   |       |         |
| 45       | 9.9   | 7.8   | 11.6    |
| 61       | 9.4   | 7.4   | 11.2    |
| 70       | 7.3   | 5.7   | 8.5     |

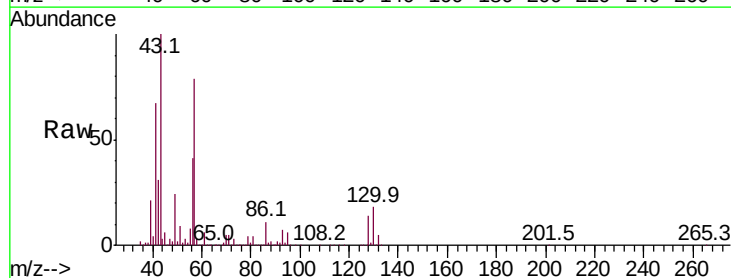


Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 45.10 (44.80 to 45.80): VL0  
Ion 61.10 (60.80 to 61.80): VL0  
Ion 70.10 (69.80 to 70.80): VL0

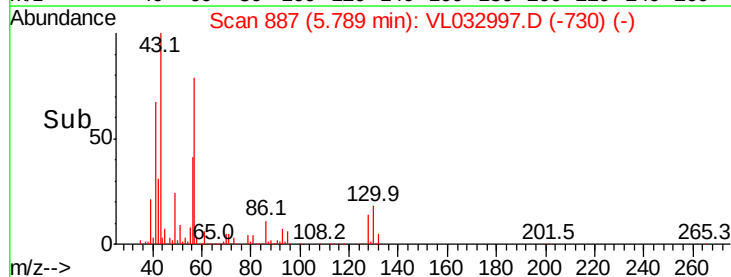
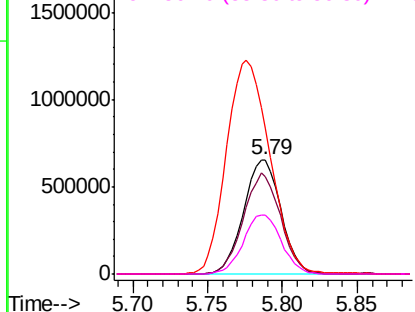


#26  
Hexane  
Concen: 9.897 ppbv  
RT: 5.79 min Scan# 887  
Delta R.T. 0.00 min  
Lab File: VL032997.D  
Acq: 17 Dec 2018 13:01

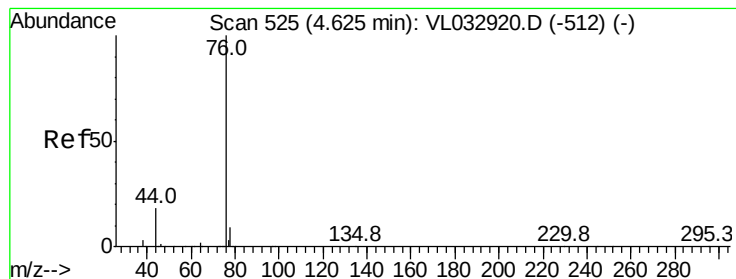
| Tgt Ion: | 57    | Resp: | 1135052 |
|----------|-------|-------|---------|
| Ion      | Ratio | Lower | Upper   |
| 57       | 100   |       |         |
| 41       | 87.8  | 72.2  | 108.2   |
| 43       | 218.4 | 171.9 | 257.9   |
| 56       | 52.7  | 42.2  | 63.2    |



Abundance Ion 57.10 (56.80 to 57.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0  
Ion 43.10 (42.80 to 43.80): VL0  
Ion 56.10 (55.80 to 56.80): VL0







#27

Carbon Disulfide

Concen: 10.457 ppbv

RT: 4.62 min Scan# 525

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

ClientSampleId :

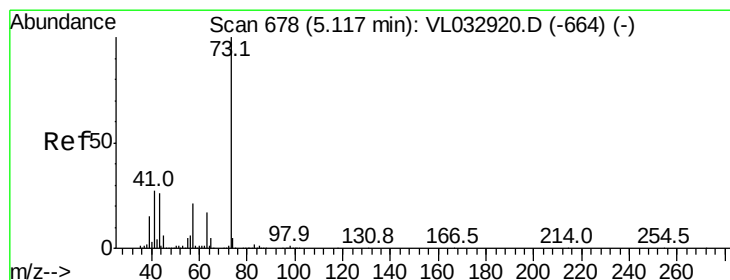
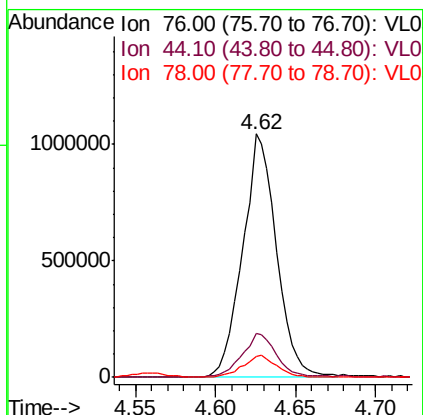
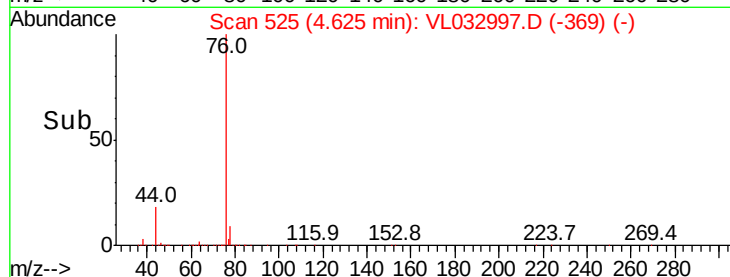
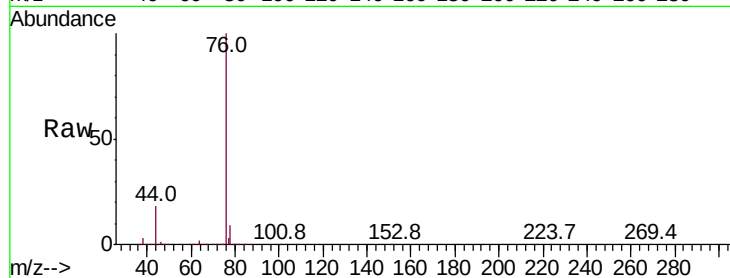
Tot Ion: 76 Resp: 1499356

Ion Ratio Lower Upper

76 100

44 18.1 14.7 22.1

78 9.1 7.4 11.2



#28

Methyl tert-Butyl Ether

Concen: 11.117 ppbv

RT: 5.12 min Scan# 678

Delta R.T. 0.00 min

Lab File: VL032997.D

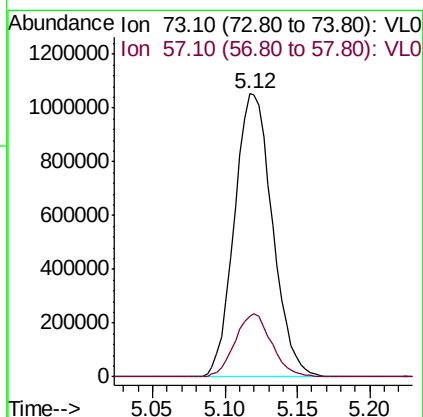
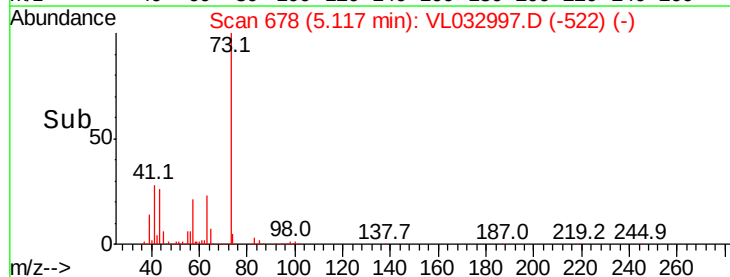
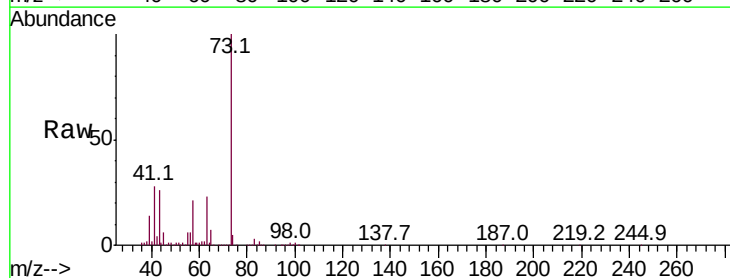
Acq: 17 Dec 2018 13:01

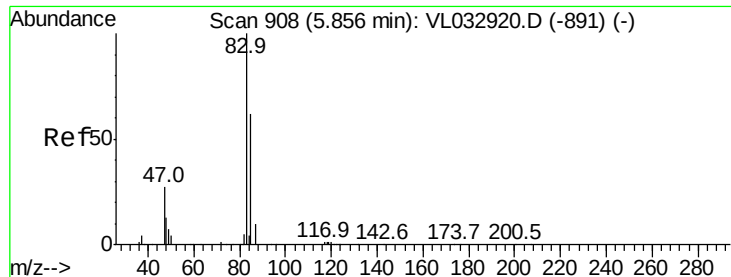
Tgt Ion: 73 Resp: 1914688

Ion Ratio Lower Upper

73 100

57 21.8 17.4 26.0





#29

Chloroform

Concen: 9.294 ppbv

RT: 5.86 min Scan# 908

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

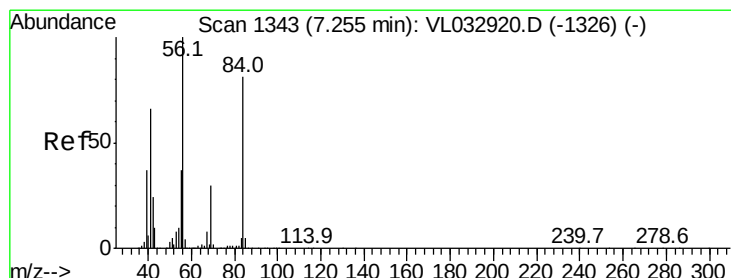
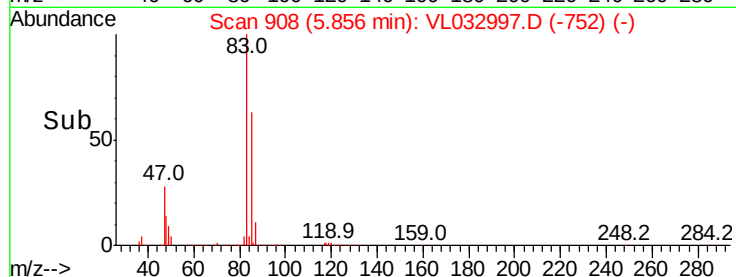
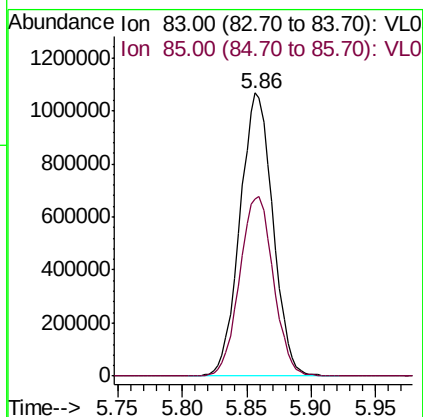
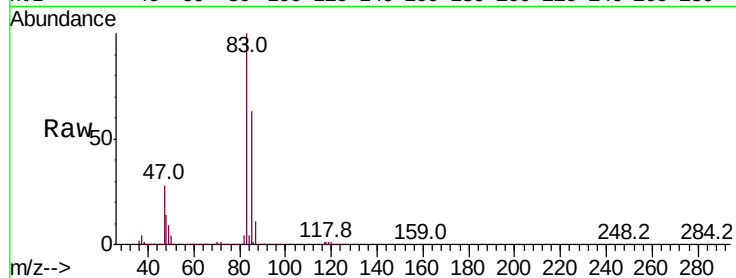
ClientSampleId :

Tot Ion: 83 Resp: 1901703

Ion Ratio Lower Upper

83 100

85 62.5 49.8 74.8



#30

Cyclohexane

Concen: 10.151 ppbv

RT: 7.26 min Scan# 1343

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

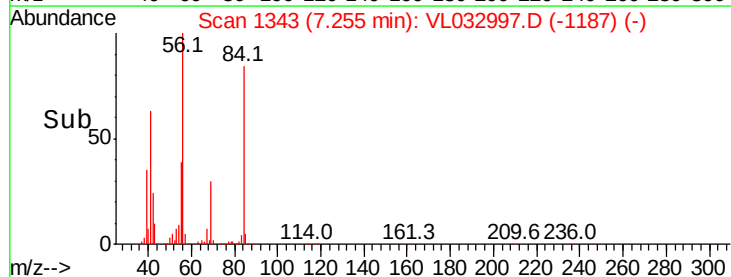
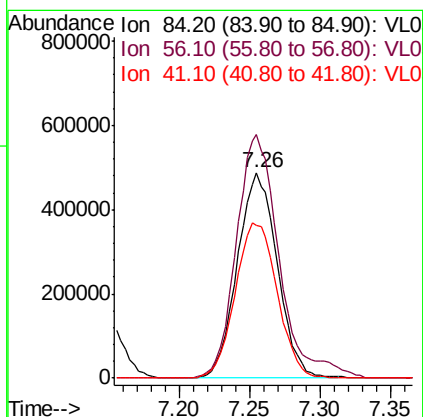
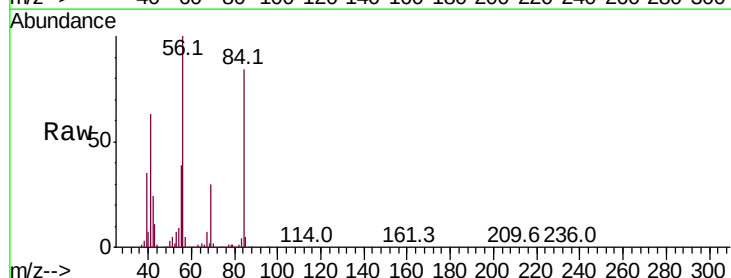
Tgt Ion: 84 Resp: 964901

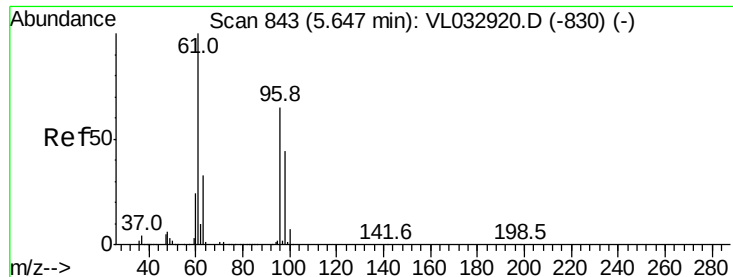
Ion Ratio Lower Upper

84 100

56 127.9 102.5 153.7

41 79.8 64.1 96.1



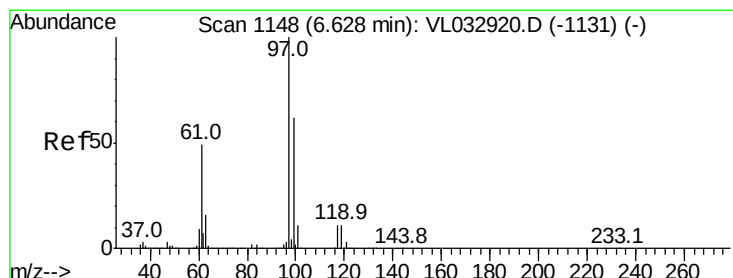
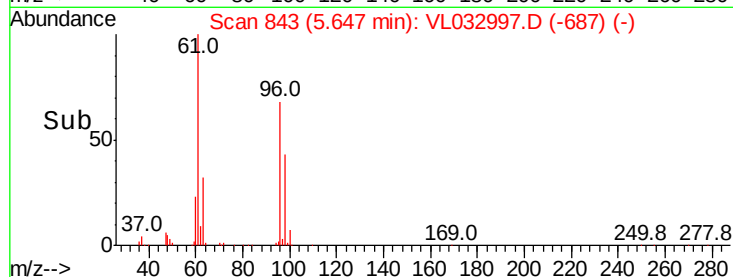
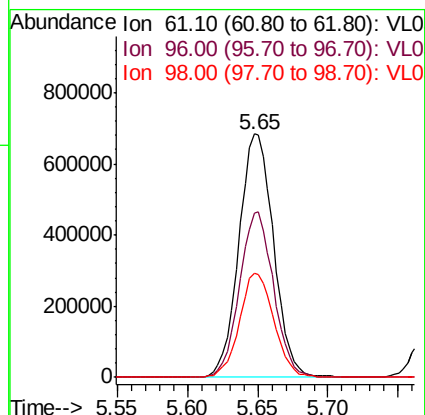
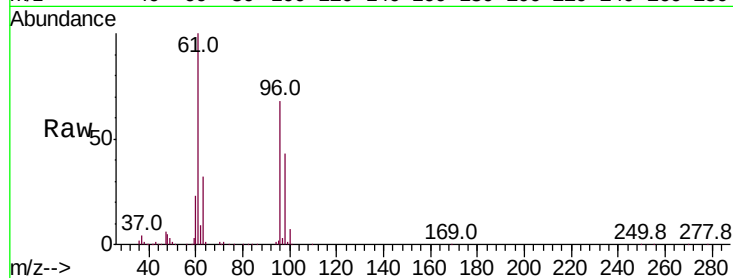


#31

cis-1,2-Dichloroethene  
 Concen: 11.206 ppbv  
 RT: 5.65 min Scan# 843  
 Delta R.T. 0.00 min  
 Lab File: VL032997.D  
 Acq: 17 Dec 2018 13:01

Instrument :  
 MSVOA\_L  
 ClientSampleId :

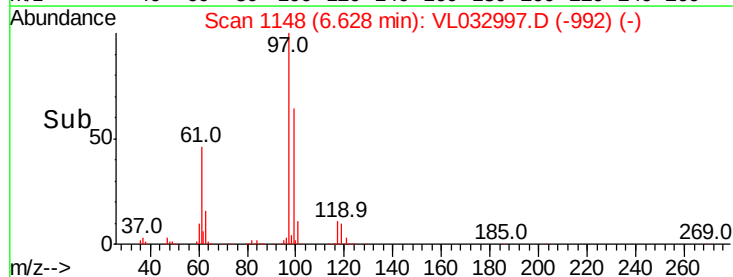
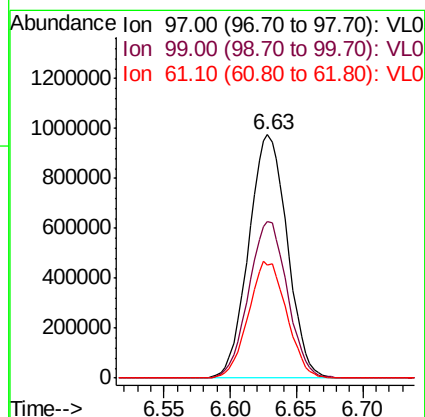
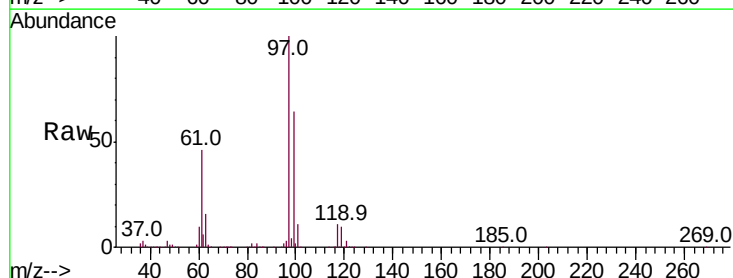
Tot Ion: 61 Resp: 1179329  
 Ion Ratio Lower Upper  
 61 100  
 96 67.6 51.9 77.9  
 98 43.0 35.0 52.4

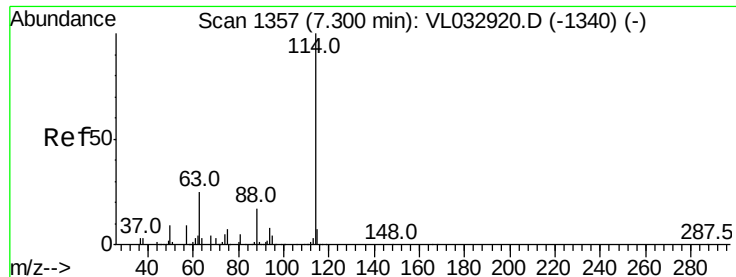


#32

1,1,1-Trichloroethane  
 Concen: 9.104 ppbv  
 RT: 6.63 min Scan# 1148  
 Delta R.T. 0.00 min  
 Lab File: VL032997.D  
 Acq: 17 Dec 2018 13:01

Tgt Ion: 97 Resp: 1971143  
 Ion Ratio Lower Upper  
 97 100  
 99 64.5 51.1 76.7  
 61 47.6 39.3 58.9





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.30 min Scan# 1358

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

ClientSampleId :

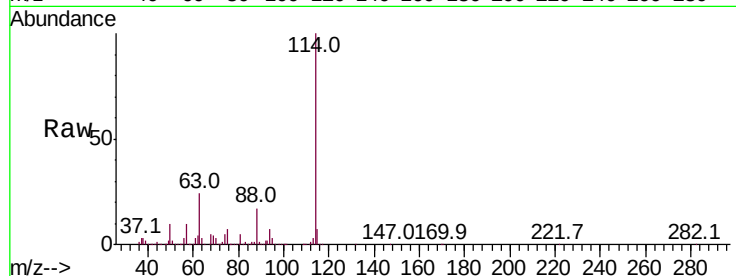
Tot Ion:114 Resp: 3020926

Ion Ratio Lower Upper

114 100

63 24.2 20.1 30.1

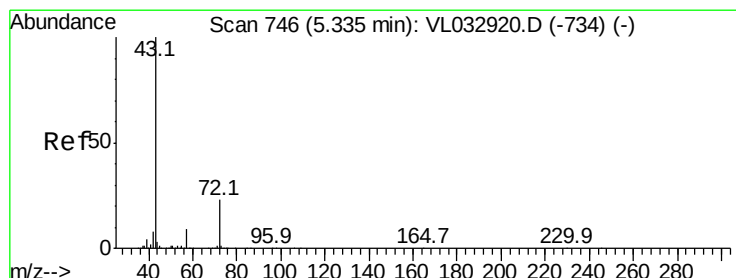
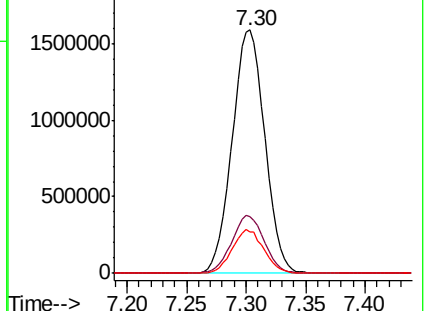
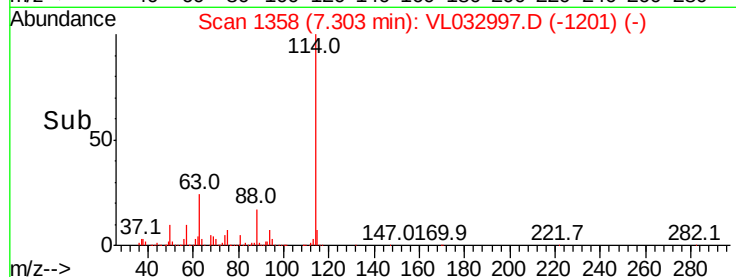
88 17.3 14.2 21.4



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 11.773 ppbv

RT: 5.34 min Scan# 746

Delta R.T. 0.00 min

Lab File: VL032997.D

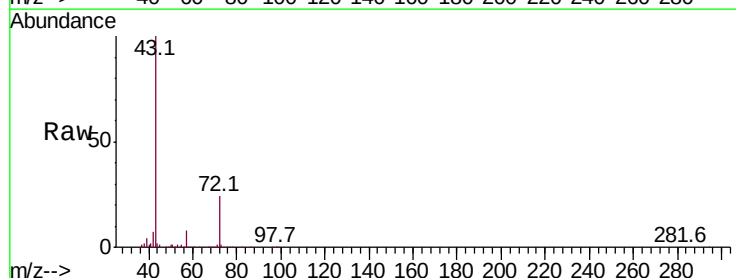
Acq: 17 Dec 2018 13:01

Tgt Ion: 43 Resp: 1549183

Ion Ratio Lower Upper

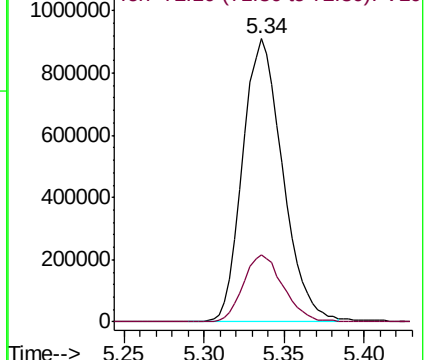
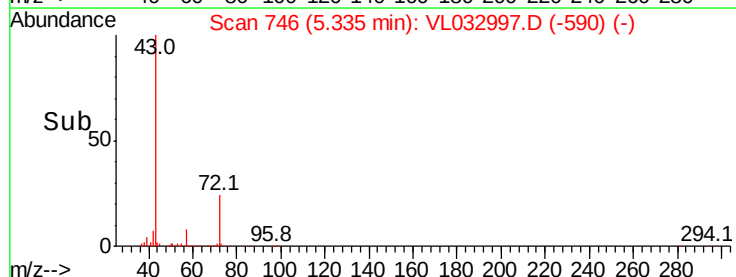
43 100

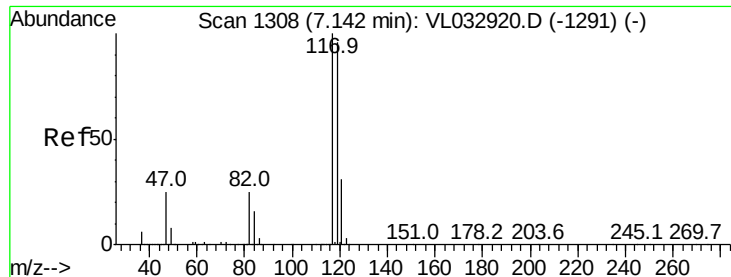
72 23.6 18.8 28.2



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 9.012 ppbv

RT: 7.14 min Scan# 1308

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

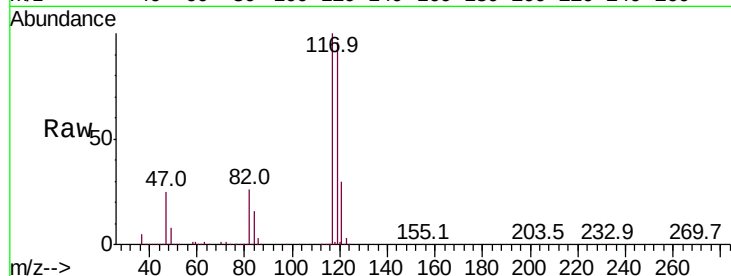
Instrument :

MSVOA\_L

ClientSampleId :

Tot Ion:117 Resp: 2139869

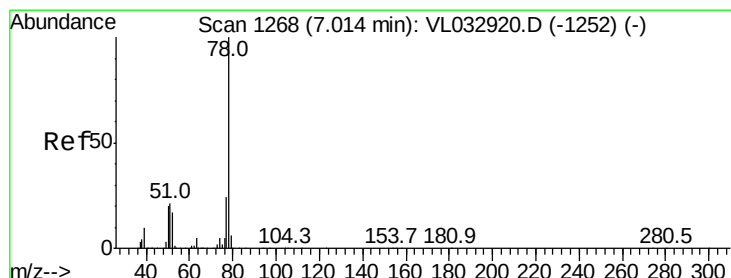
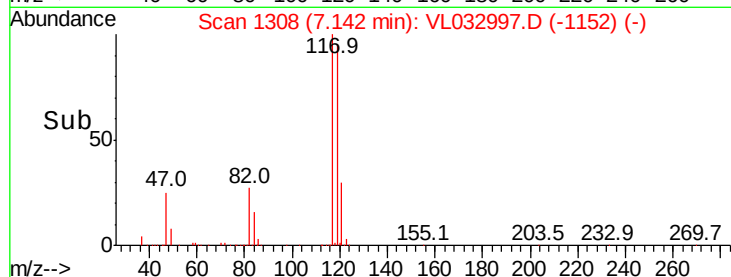
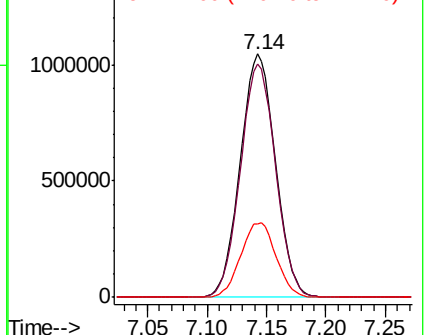
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 117 | 100   |       |       |
| 119 | 95.7  | 76.5  | 114.7 |
| 121 | 30.2  | 24.5  | 36.7  |



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 10.325 ppbv

RT: 7.01 min Scan# 1268

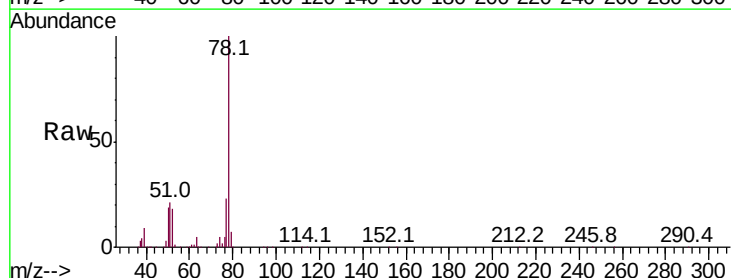
Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Tgt Ion: 78 Resp: 2294201

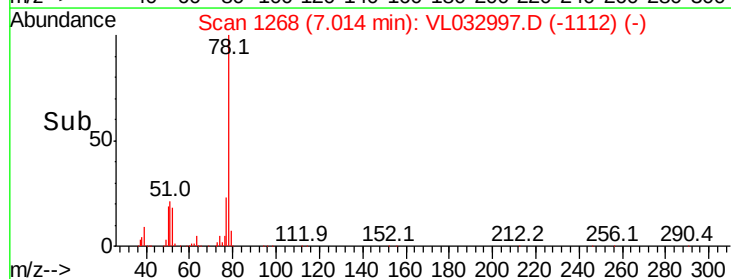
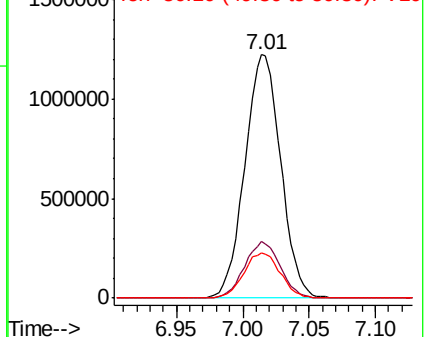
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 78  | 100   |       |       |
| 77  | 23.3  | 18.9  | 28.3  |
| 50  | 18.5  | 16.1  | 24.1  |

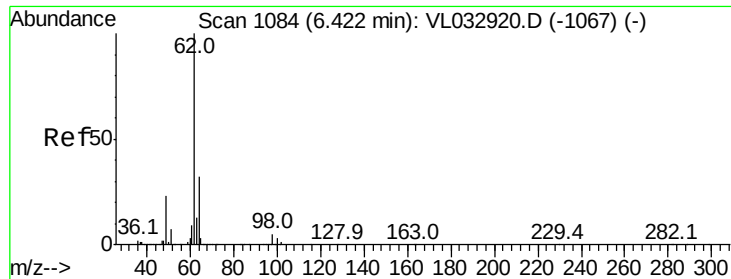


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#37

1,2-Dichloroethane

Concen: 9.602 ppbv

RT: 6.42 min Scan# 1084

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

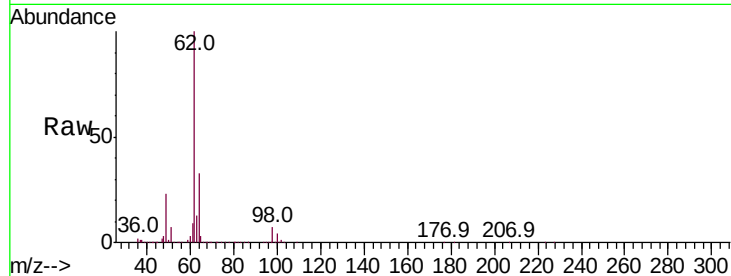
ClientSampleId :

Tot Ion: 62 Resp: 1452593

Ion Ratio Lower Upper

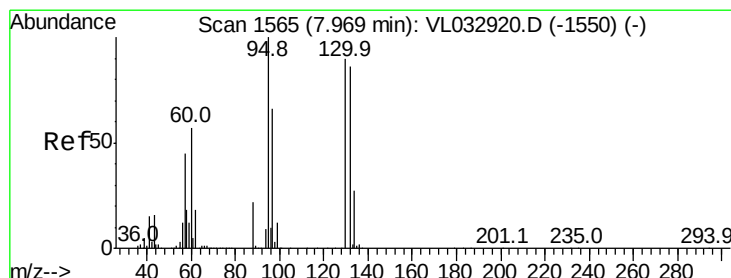
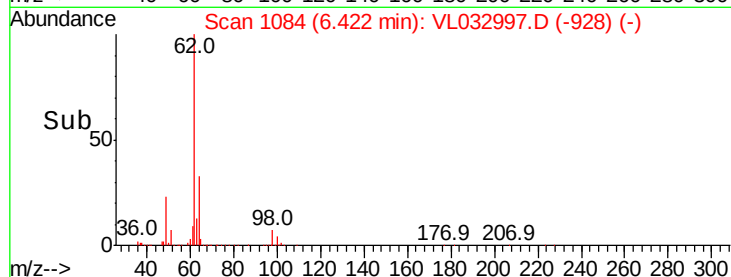
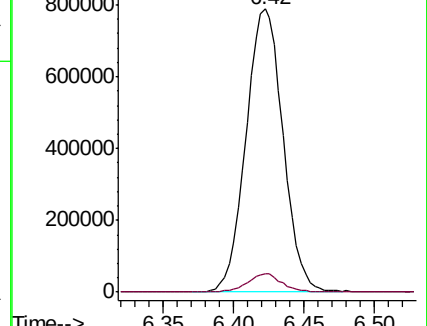
62 100

98 6.0 4.3 6.5



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0



#38

Trichloroethene

Concen: 10.215 ppbv

RT: 7.97 min Scan# 1565

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Tgt Ion:130 Resp: 944622

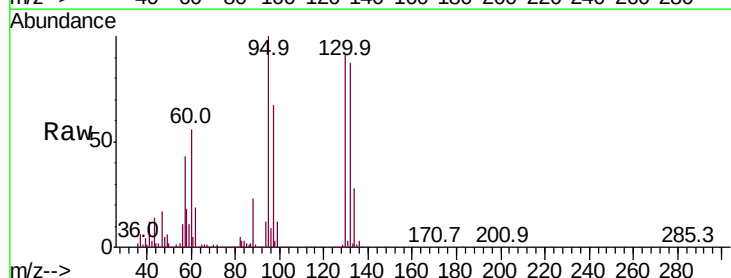
Ion Ratio Lower Upper

130 100

95 109.4 88.6 132.8

132 95.0 76.1 114.1

97 73.5 58.0 87.0

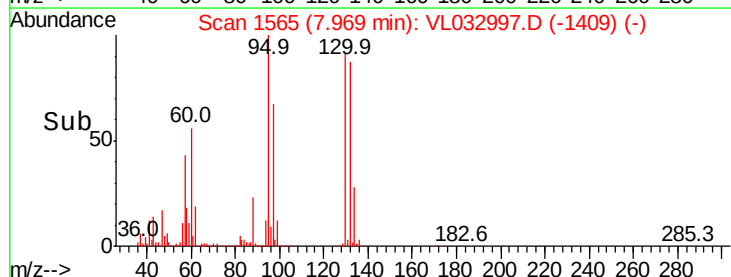
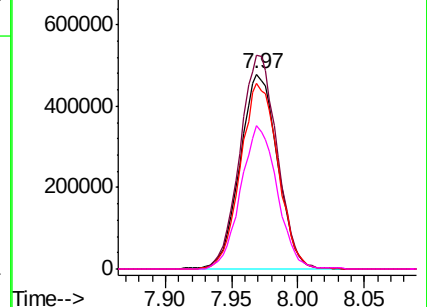


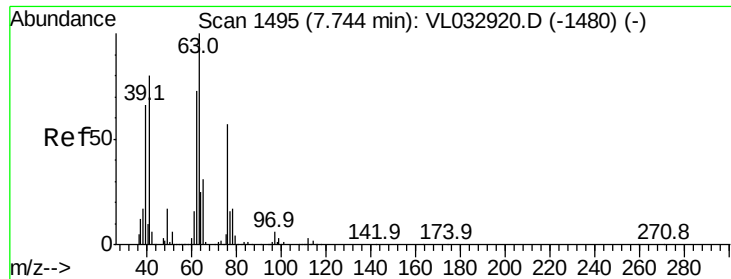
Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0





#39

1,2-Dichloropropane

Concen: 9.741 ppbv

RT: 7.75 min Scan# 1496

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

ClientSampled :

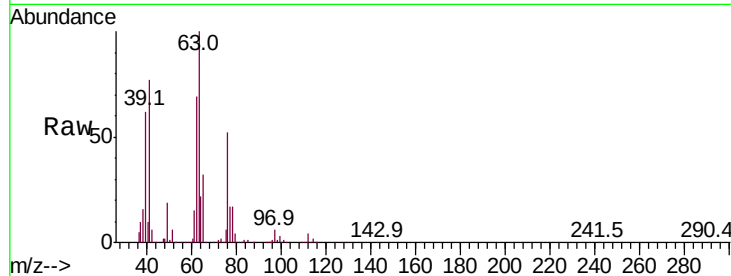
Tot Ion: 63 Resp: 820836

Ion Ratio Lower Upper

63 100

41 77.3 63.9 95.9

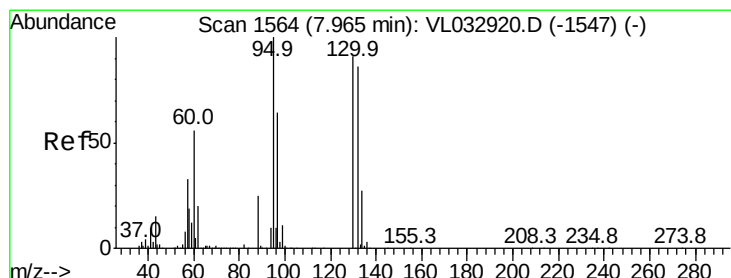
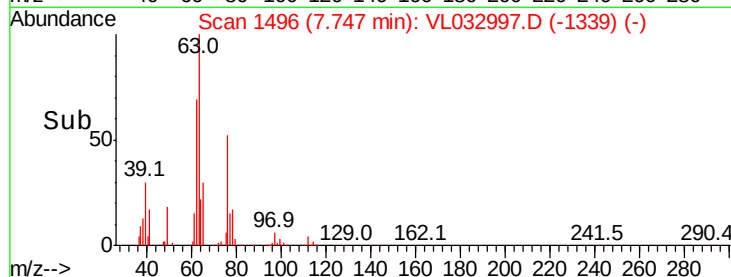
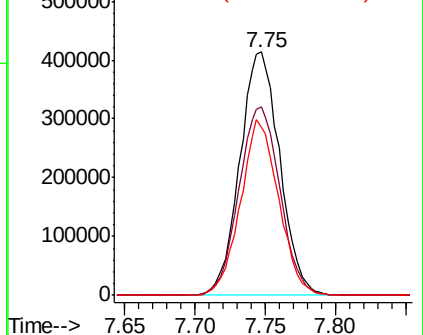
62 68.9 58.8 88.2



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#40

1,4-Dioxane

Concen: 9.141 ppbv

RT: 7.97 min Scan# 1564

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Tgt Ion: 88 Resp: 283724

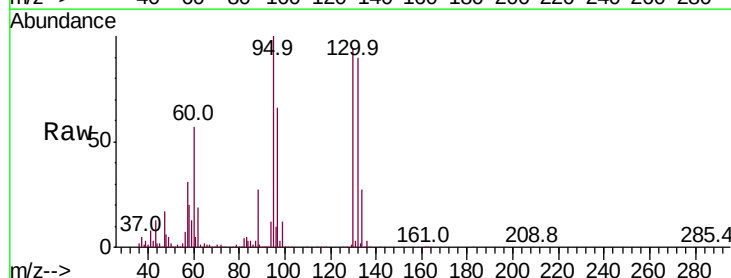
Ion Ratio Lower Upper

88 100

58 131.9 107.4 161.2

43 0.0 0.0 0.0

57 0.0 0.0 0.0

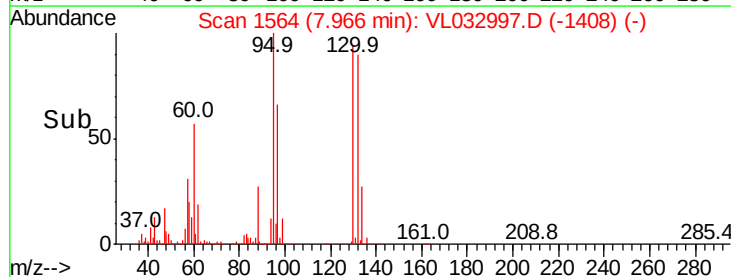
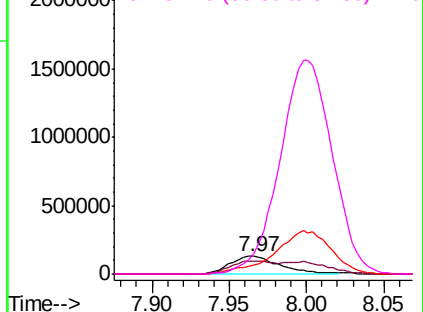


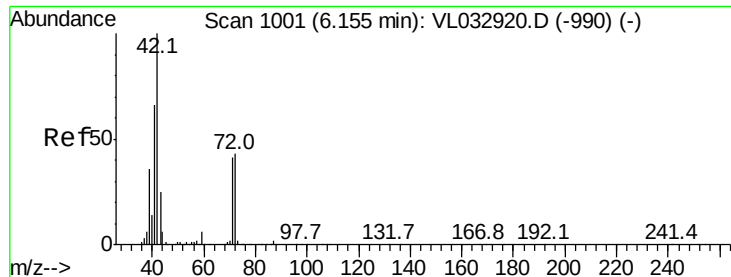
Abundance Ion 88.10 (87.80 to 88.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#41

Tetrahydrofuran

Concen: 10.903 ppbv

RT: 6.16 min Scan# 1001

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

ClientSampleId :

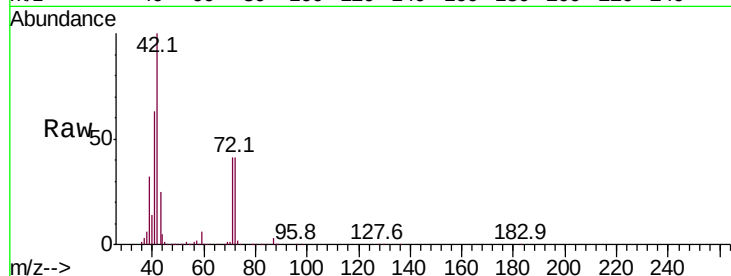
Tot Ion: 42 Resp: 892257

Ion Ratio Lower Upper

42 100

72 40.6 32.9 49.3

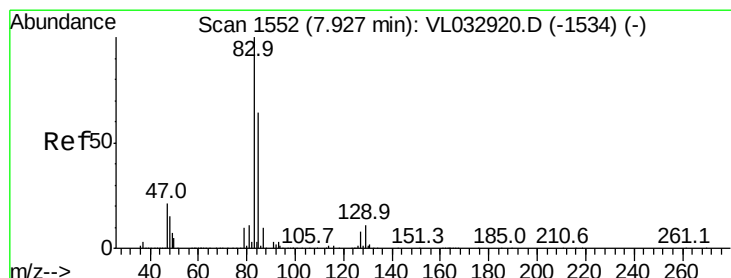
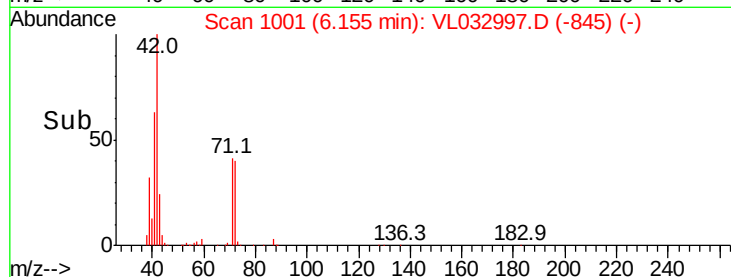
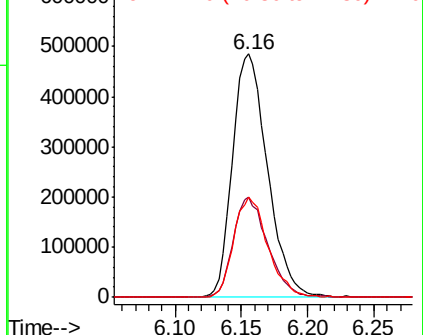
71 40.4 32.0 48.0



Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0



#42

Bromodichloromethane

Concen: 9.359 ppbv

RT: 7.93 min Scan# 1552

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

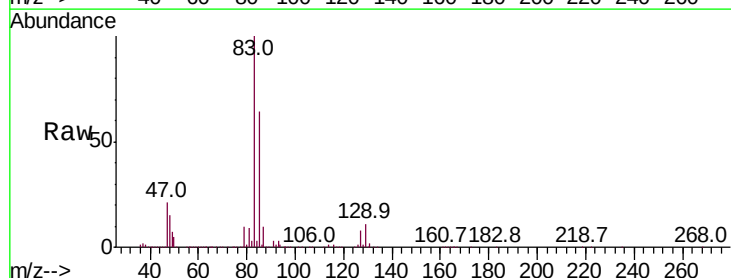
Tgt Ion: 83 Resp: 1961690

Ion Ratio Lower Upper

83 100

85 63.6 50.9 76.3

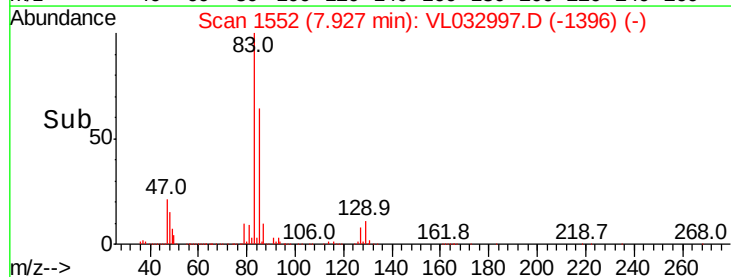
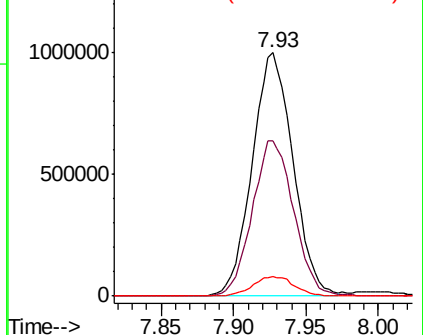
127 8.1 6.7 10.1



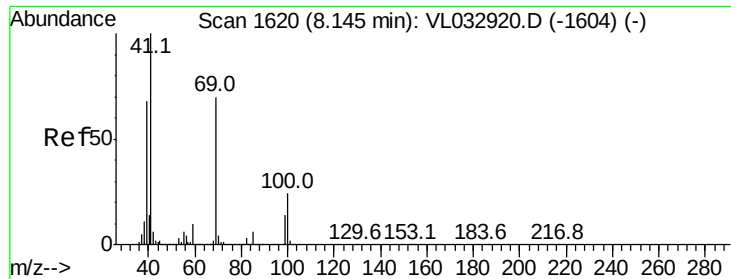
Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 126.90 (126.60 to 127.60): V







#43

Methyl Methacrylate

Concen: 10.530 ppbv

RT: 8.15 min Scan# 1620

Delta R.T. 0.00 min

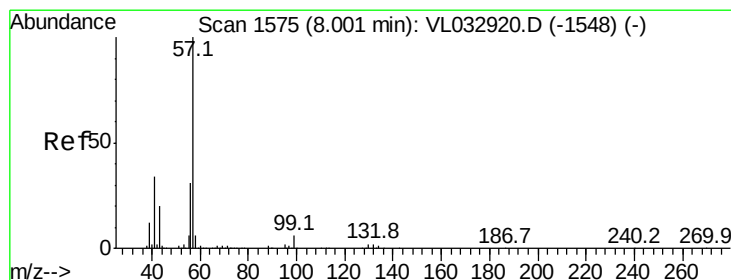
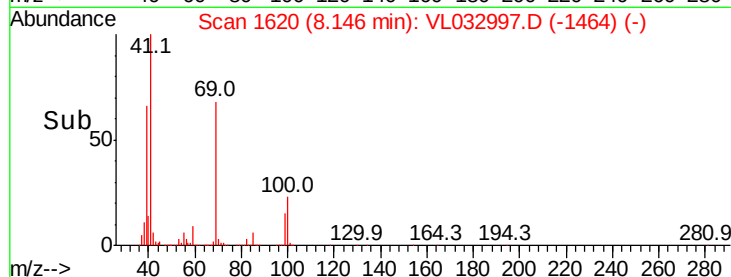
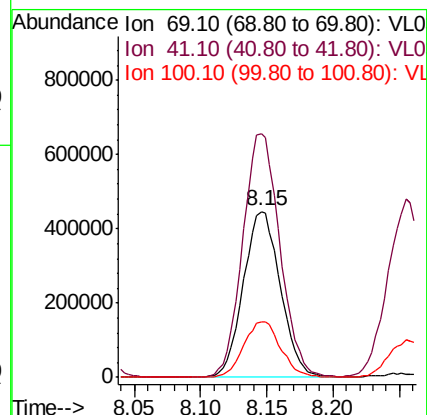
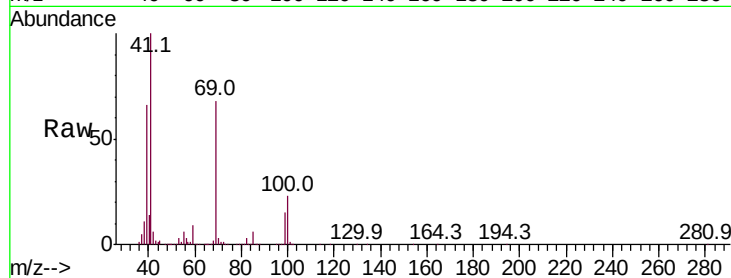
Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :  
MSVOA\_L  
ClientSampleId :

Tot Ion: 69 Resp: 866950

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 69  | 100   |       |       |
| 41  | 147.2 | 116.6 | 175.0 |
| 100 | 33.4  | 26.5  | 39.7  |



#44

2,2,4-Trimethylpentane

Concen: 9.781 ppbv

RT: 8.00 min Scan# 1575

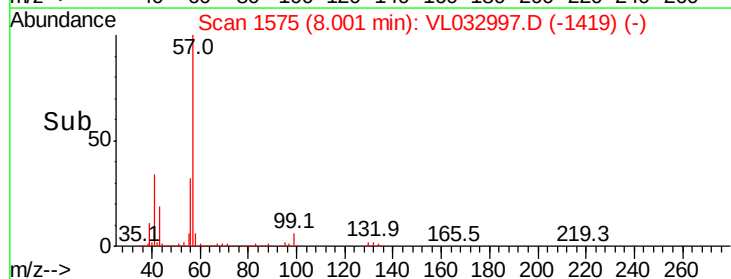
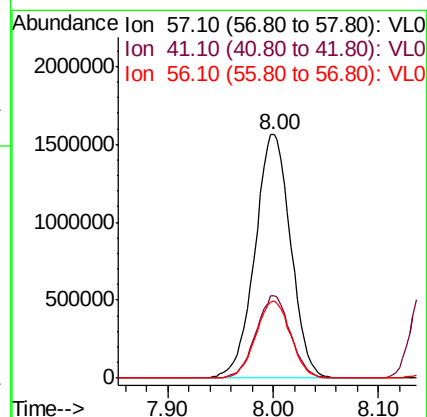
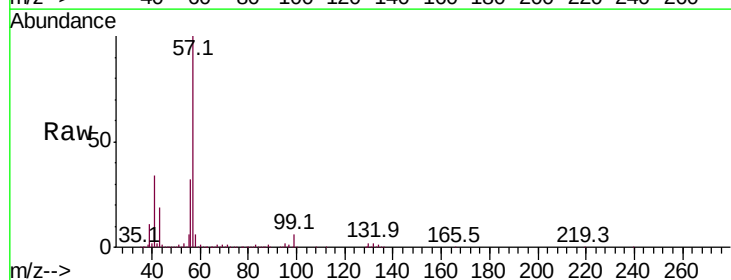
Delta R.T. 0.00 min

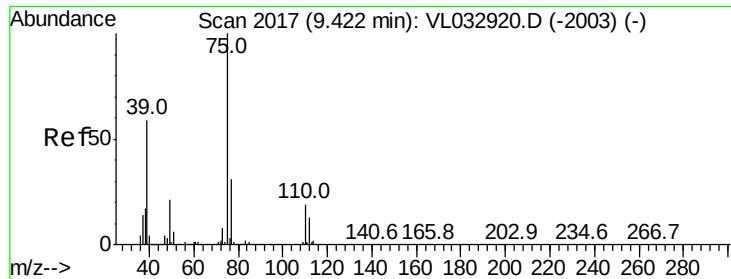
Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Tgt Ion: 57 Resp: 3689058

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 57  | 100   |       |       |
| 41  | 32.7  | 27.0  | 40.4  |
| 56  | 30.7  | 24.6  | 37.0  |





#45

t-1,3-Dichloropropene

Concen: 12.274 ppbv

RT: 9.43 min Scan# 2018

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

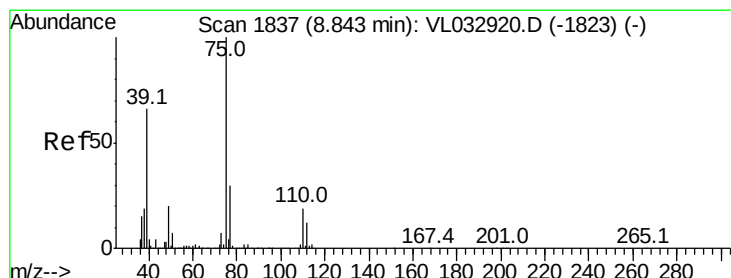
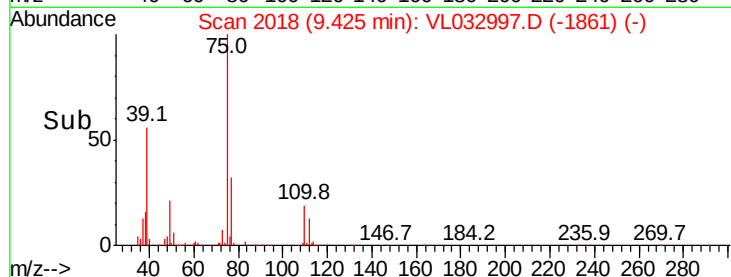
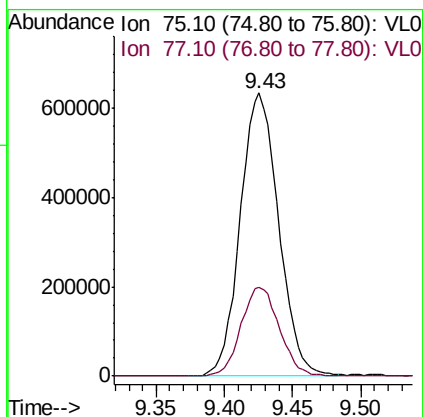
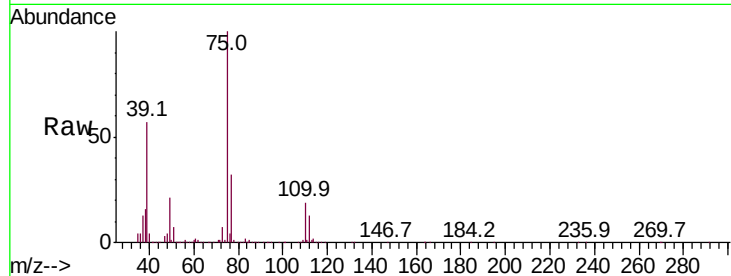
ClientSampleId :

Tot Ion: 75 Resp: 1239018

Ion Ratio Lower Upper

75 100

77 31.6 24.8 37.2



#46

cis-1,3-Dichloropropene

Concen: 11.513 ppbv

RT: 8.85 min Scan# 1838

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

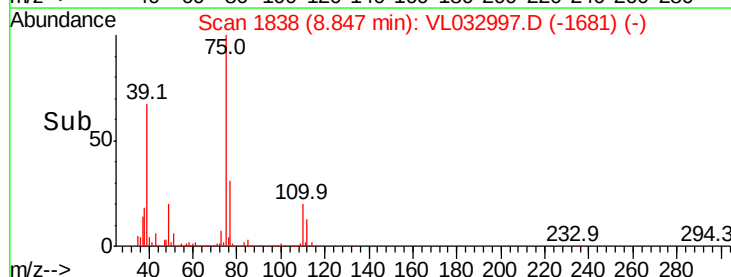
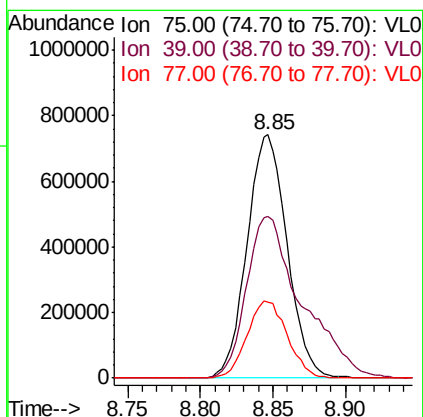
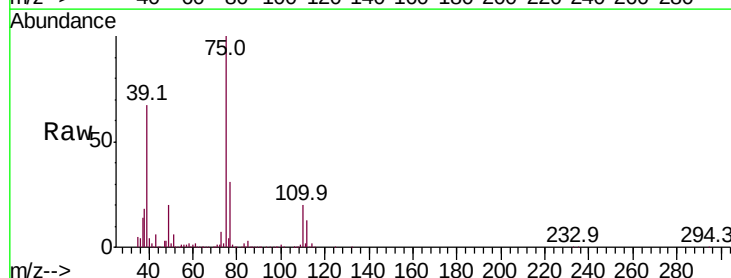
Tgt Ion: 75 Resp: 1422446

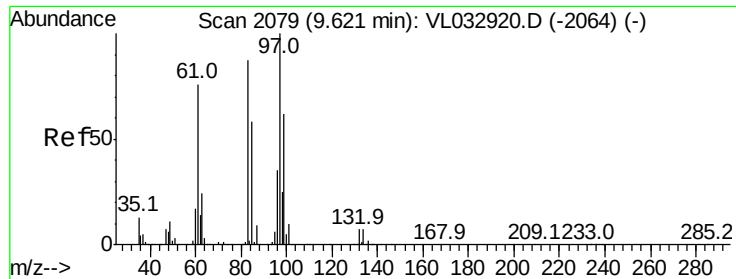
Ion Ratio Lower Upper

75 100

39 66.6 52.8 79.2

77 31.2 24.3 36.5





#47

1,1,2-Trichloroethane

Concen: 4.794 ppbv

RT: 9.63 min Scan# 2081

Delta R.T. 0.01 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

ClientSampleId :

Tot Ion: 97 Resp: 444638

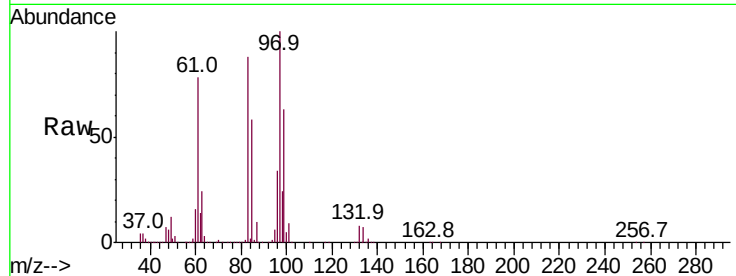
Ion Ratio Lower Upper

97 100

83 87.7 69.8 104.8

85 57.7 46.7 70.1

99 62.8 49.2 73.8

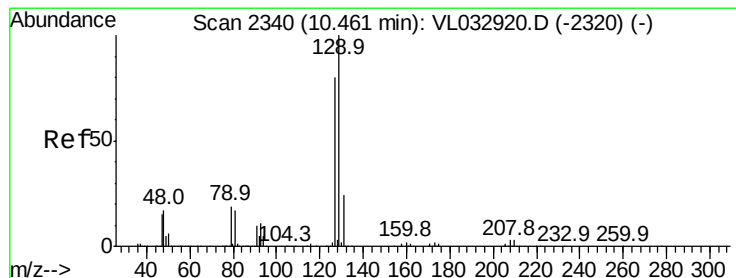
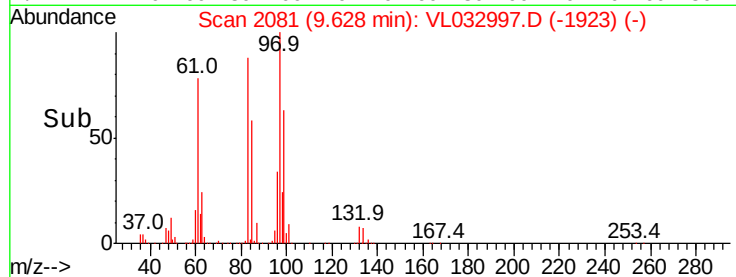
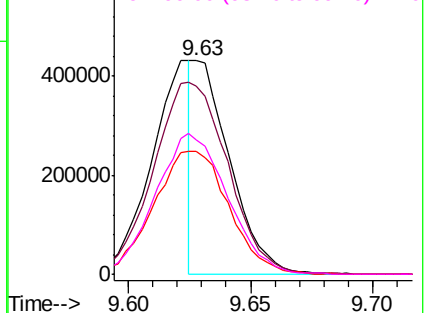


Abundance Ion 97.00 (96.70 to 97.70): VL0

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: 10.115 ppbv

RT: 10.46 min Scan# 2341

Delta R.T. 0.00 min

Lab File: VL032997.D

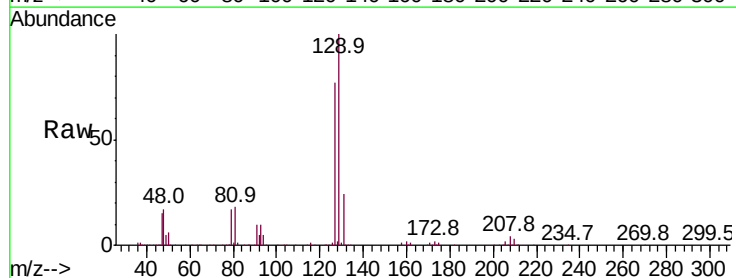
Acq: 17 Dec 2018 13:01

Tgt Ion: 129 Resp: 1760089

Ion Ratio Lower Upper

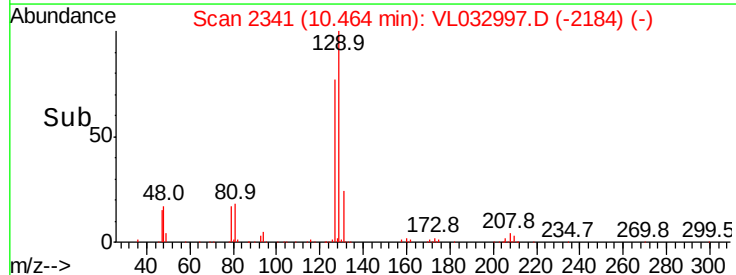
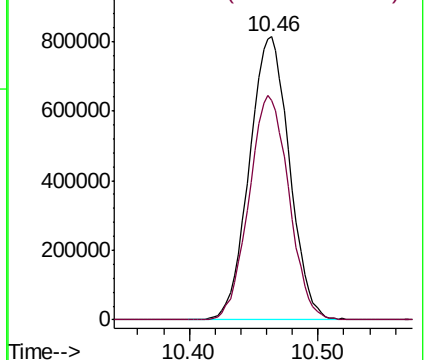
129 100

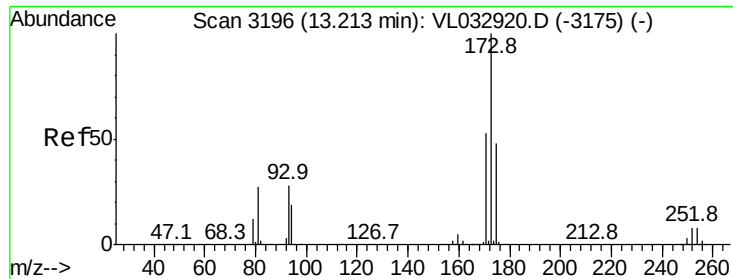
127 79.1 39.3 117.8



Abundance Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V





#49

Bromoform

Concen: 12.590 ppbv

RT: 13.21 min Scan# 3196

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

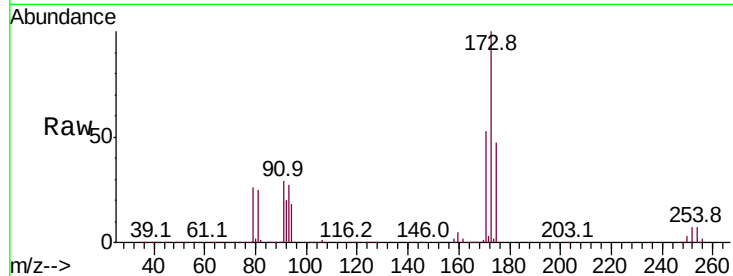
Instrument :

MSVOA\_L

ClientSampleId :

Tot Ion:173 Resp: 1801762

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 173 | 100   |       |       |
| 175 | 49.0  | 39.0  | 58.4  |
| 171 | 52.0  | 41.5  | 62.3  |

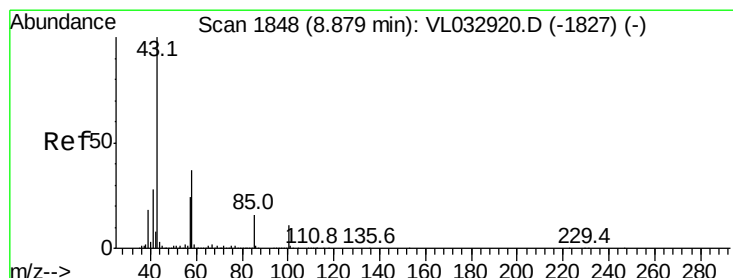
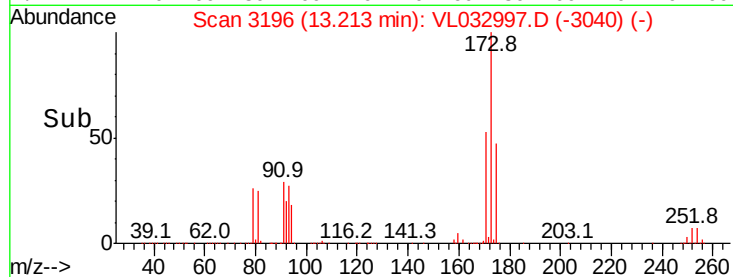
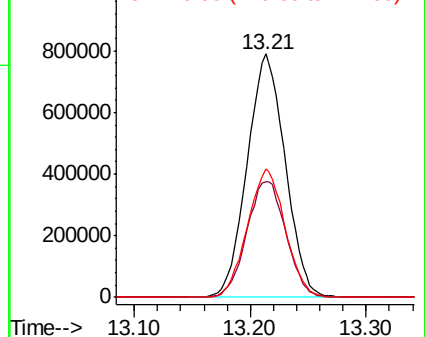


Abundance

Ion 172.90 (172.60 to 173.60): V

Ion 174.90 (174.60 to 175.60): V

Ion 170.90 (170.60 to 171.60): V



#50

4-Methyl-2-Pentanone

Concen: 10.170 ppbv

RT: 8.88 min Scan# 1848

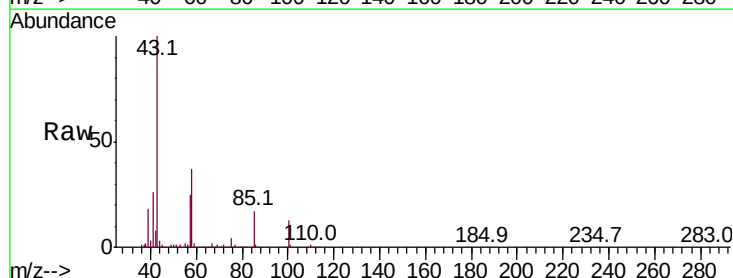
Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Tgt Ion: 43 Resp: 2140030

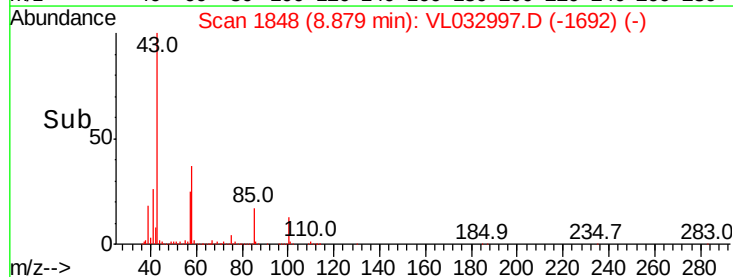
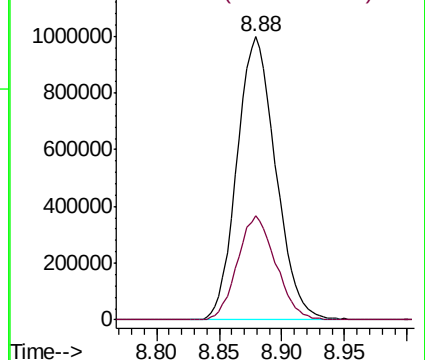
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 58  | 36.5  | 29.0  | 43.4  |

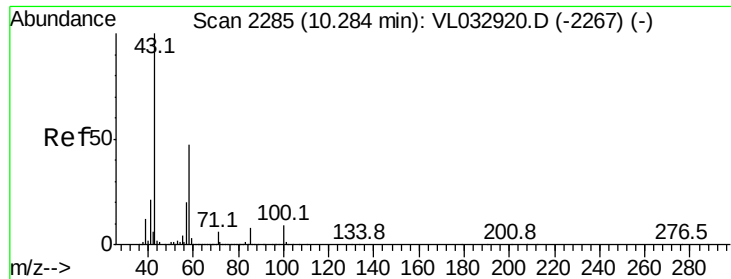


Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

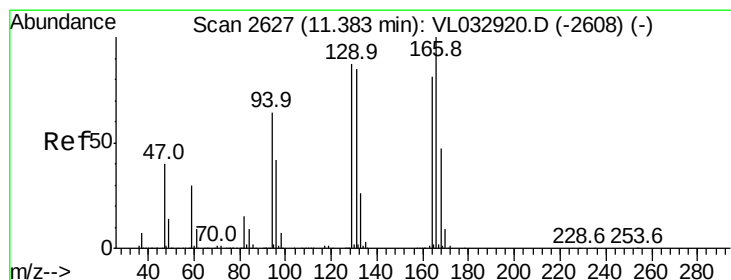
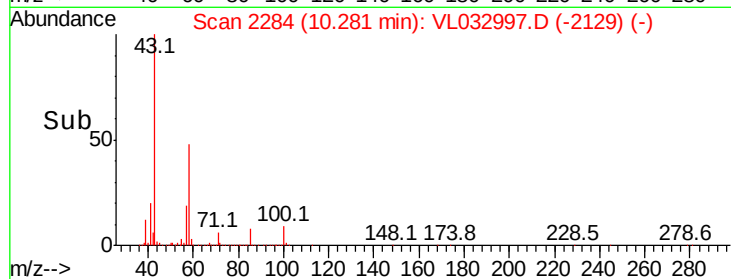
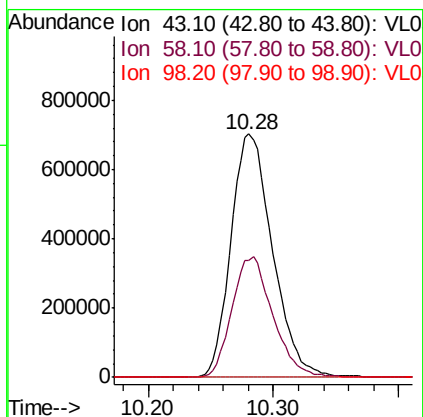
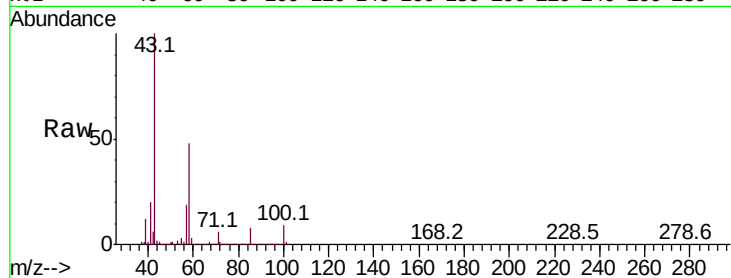




#51  
2-Hexanone  
Concen: 11.344 ppbv  
RT: 10.28 min Scan# 2284  
Delta R.T. -0.00 min  
Lab File: VL032997.D  
Acq: 17 Dec 2018 13:01

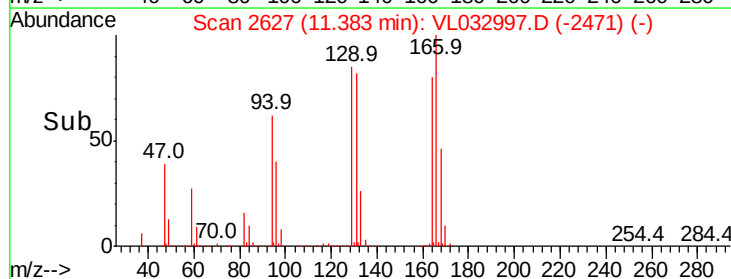
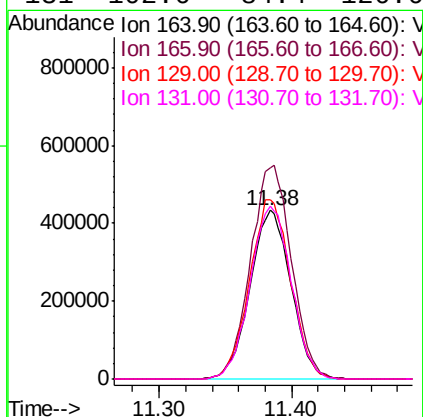
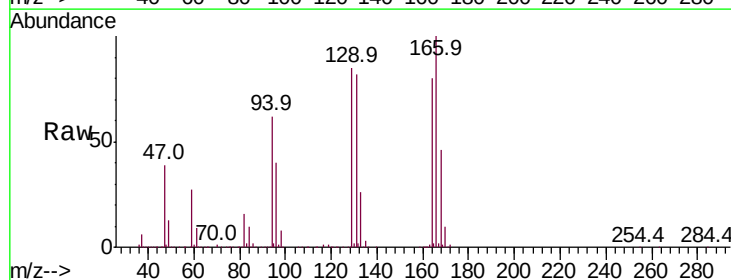
Instrument :  
MSVOA\_L  
ClientSampleId :

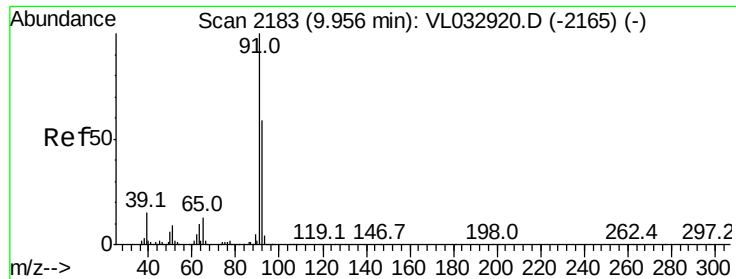
Tot Ion: 43 Resp: 1618823  
Ion Ratio Lower Upper  
43 100  
58 48.9 38.1 57.1  
98 0.4 0.4 0.6#



#52  
Tetrachloroethene  
Concen: 11.445 ppbv  
RT: 11.38 min Scan# 2627  
Delta R.T. 0.00 min  
Lab File: VL032997.D  
Acq: 17 Dec 2018 13:01

Tgt Ion:164 Resp: 924996  
Ion Ratio Lower Upper  
164 100  
166 125.2 98.8 148.2  
129 106.5 85.5 128.3  
131 102.6 84.4 126.6





#53

Toluene

Concen: 11.125 ppbv

RT: 9.96 min Scan# 2183

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

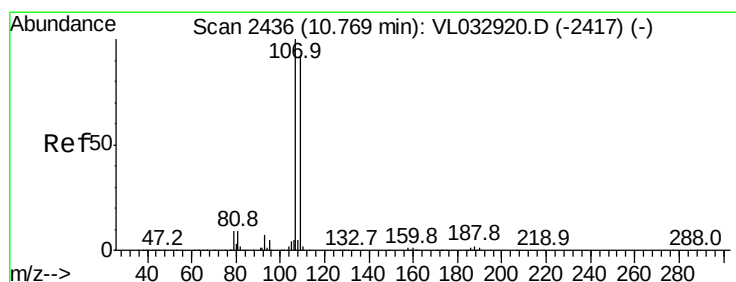
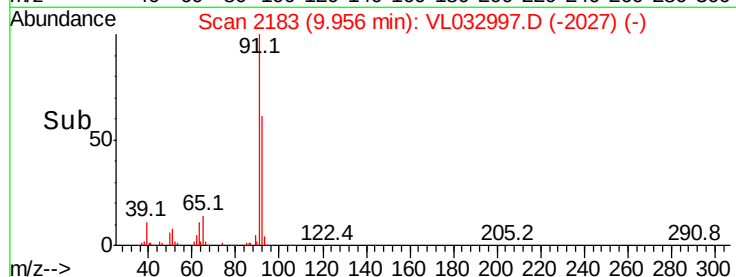
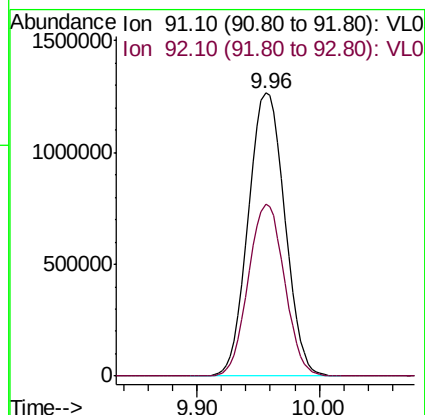
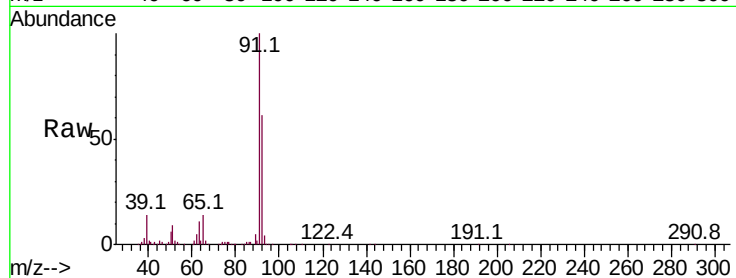
ClientSampleId :

Tot Ion: 91 Resp: 2621760

Ion Ratio Lower Upper

91 100

92 60.1 47.4 71.0



#54

1,2-Dibromoethane

Concen: 10.034 ppbv

RT: 10.77 min Scan# 2436

Delta R.T. 0.00 min

Lab File: VL032997.D

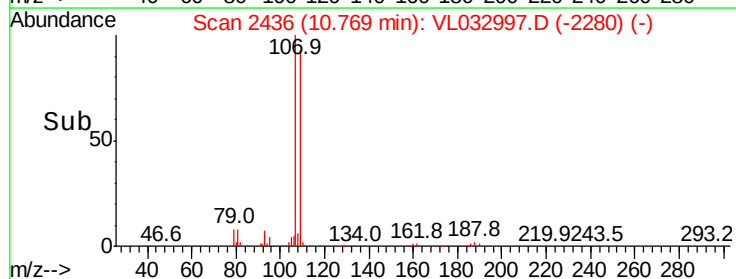
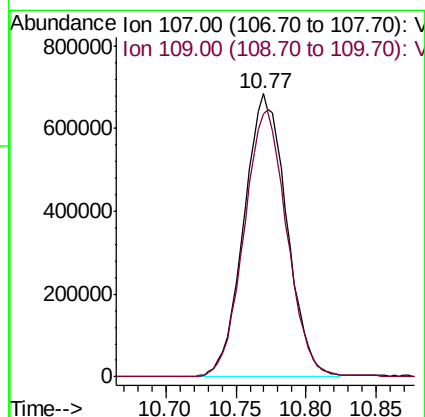
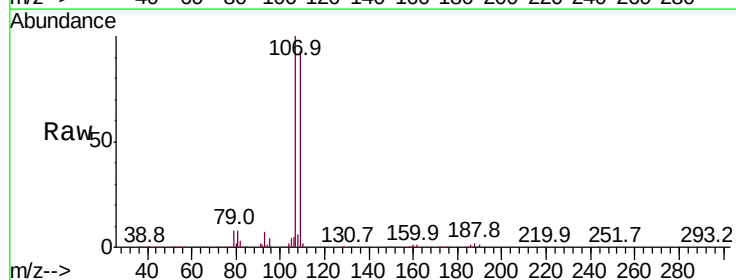
Acq: 17 Dec 2018 13:01

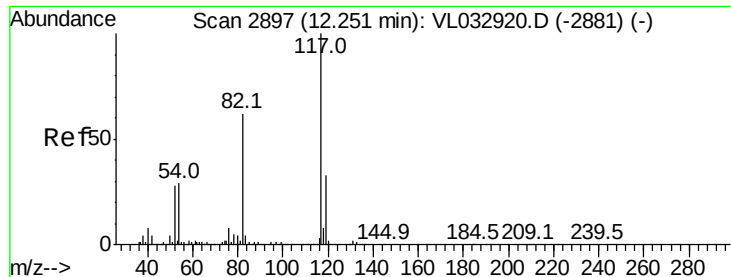
Tgt Ion:107 Resp: 1453911

Ion Ratio Lower Upper

107 100

109 92.6 73.4 110.2

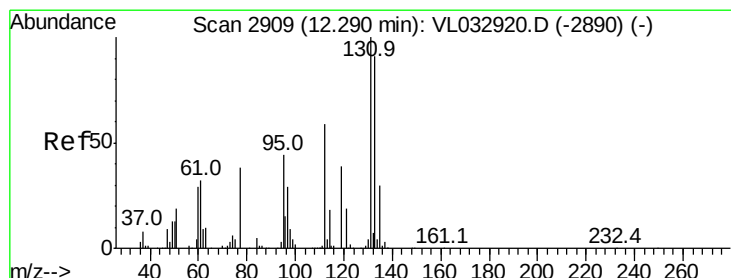
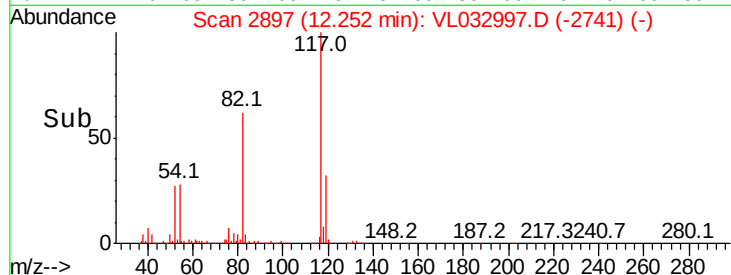
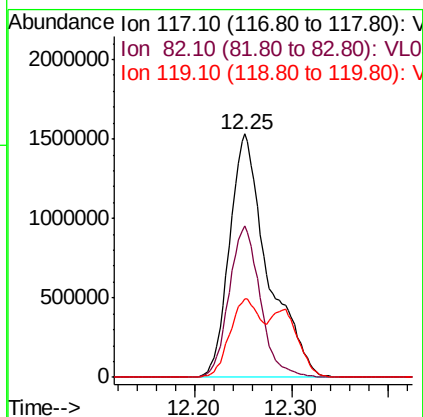
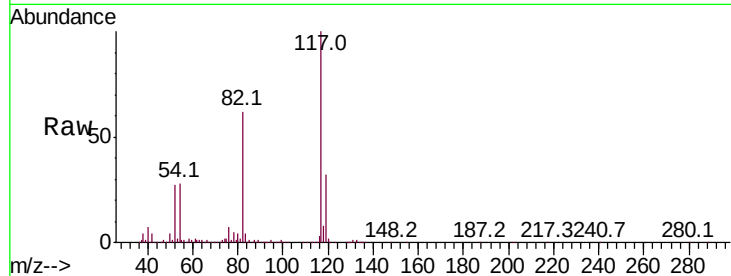




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.25 min Scan# 2897  
Delta R.T. 0.00 min  
Lab File: VL032997.D  
Acq: 17 Dec 2018 13:01

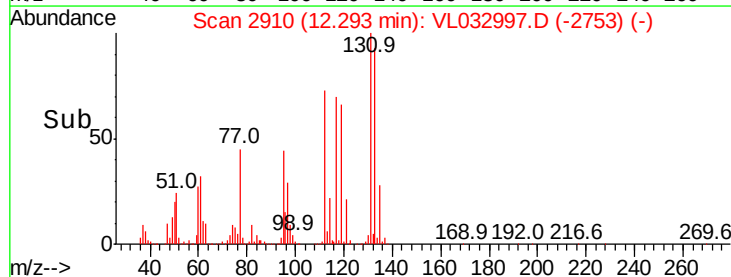
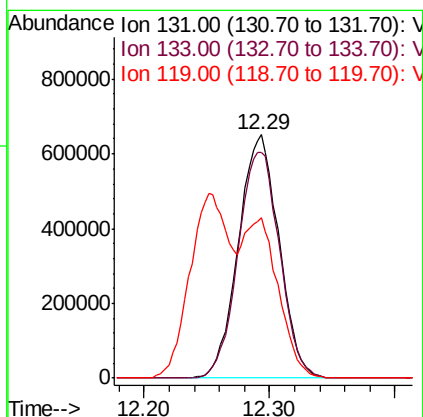
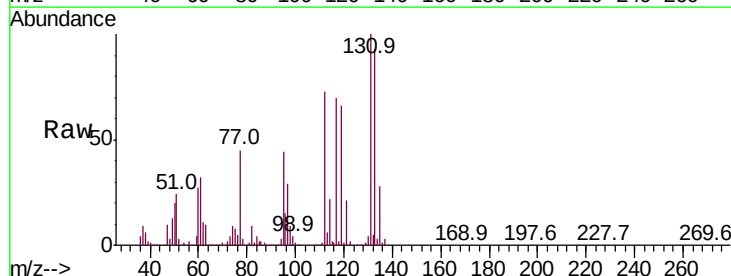
Instrument :  
MSVOA\_L  
ClientSampleId :

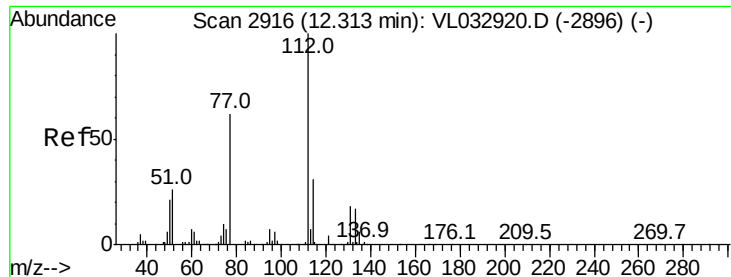
Tot Ion:117 Resp: 4216274  
Ion Ratio Lower Upper  
117 100  
82 50.8 47.8 71.8  
119 28.2 43.1 64.7#



#56  
1,1,1,2-Tetrachloroethane  
Concen: 7.756 ppbv  
RT: 12.29 min Scan# 2910  
Delta R.T. 0.00 min  
Lab File: VL032997.D  
Acq: 17 Dec 2018 13:01

Tgt Ion:131 Resp: 1457963  
Ion Ratio Lower Upper  
131 100  
133 95.8 75.1 112.7  
119 62.3 47.5 71.3





#57

Chlorobenzene

Concen: 7.903 ppbv

RT: 12.31 min Scan# 2916

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

ClientSampleId :

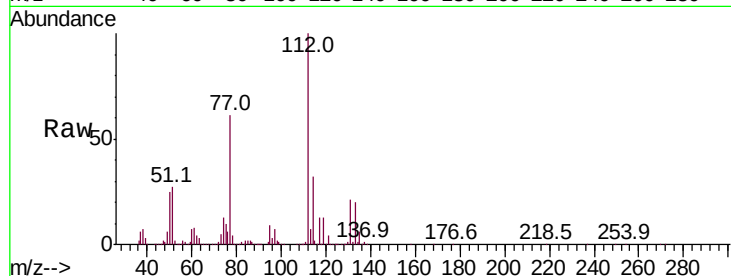
Tot Ion:112 Resp: 2406510

Ion Ratio Lower Upper

112 100

77 61.0 51.1 76.7

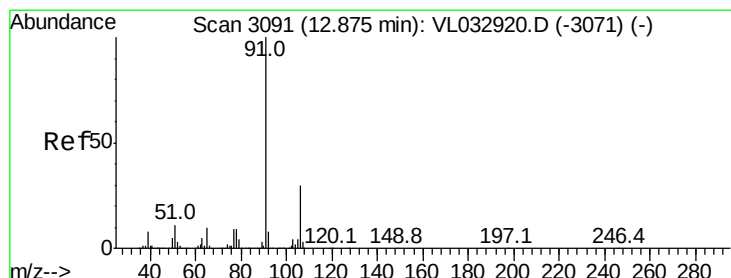
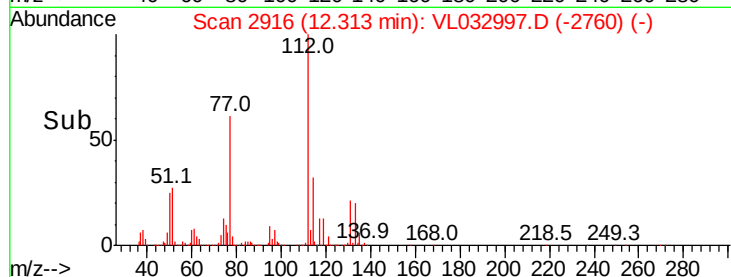
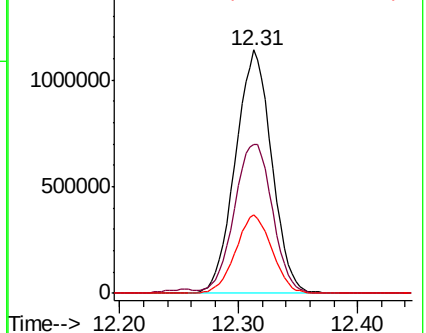
114 32.4 28.4 34.7



Abundance Ion 112.10 (111.80 to 112.80): V

Ion 77.10 (76.80 to 77.80): VL0

Ion 114.10 (113.80 to 114.80): V



#58

Ethyl Benzene

Concen: 9.339 ppbv

RT: 12.88 min Scan# 3091

Delta R.T. 0.00 min

Lab File: VL032997.D

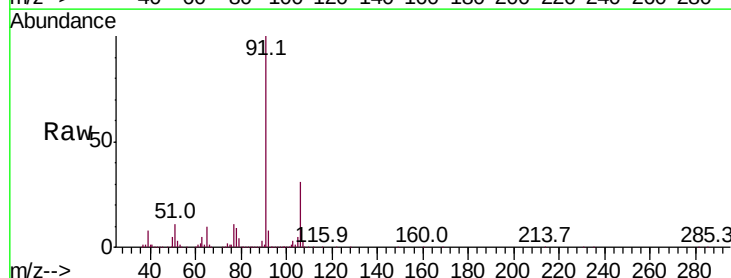
Acq: 17 Dec 2018 13:01

Tgt Ion: 91 Resp: 4200586

Ion Ratio Lower Upper

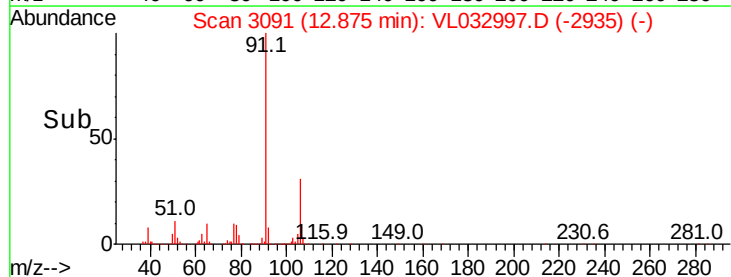
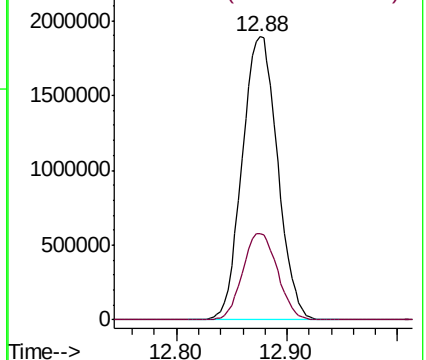
91 100

106 30.7 23.9 35.9

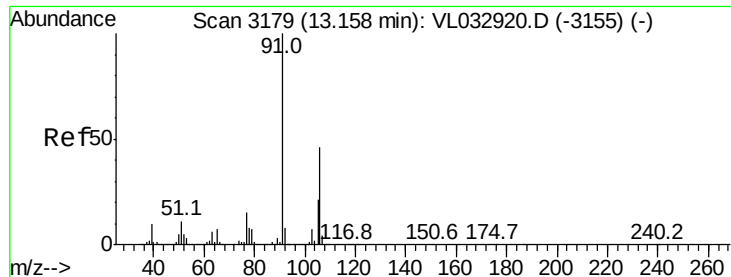


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V







#59

m/p-Xylene

Concen: 9.211 ppbv

RT: 13.16 min Scan# 3179

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

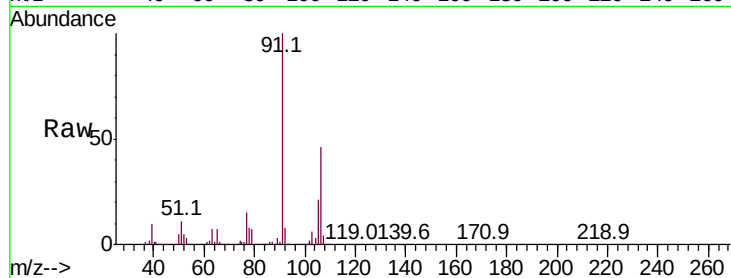
ClientSampleId :

Tot Ion: 91 Resp: 3756218

Ion Ratio Lower Upper

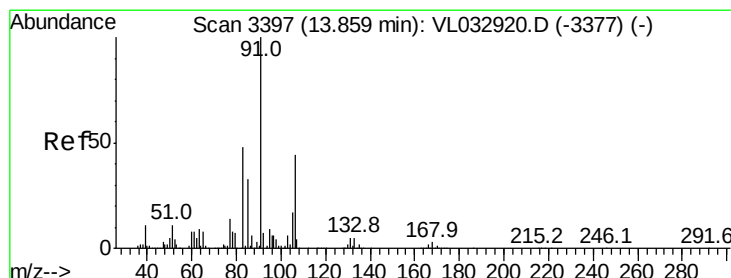
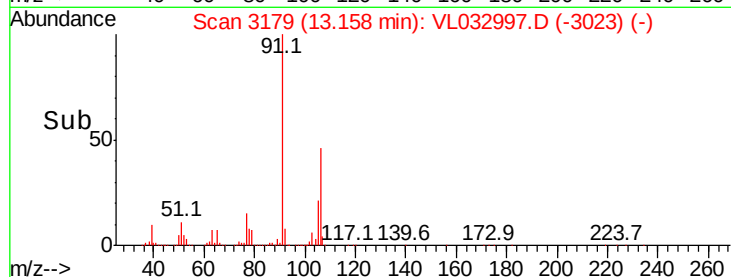
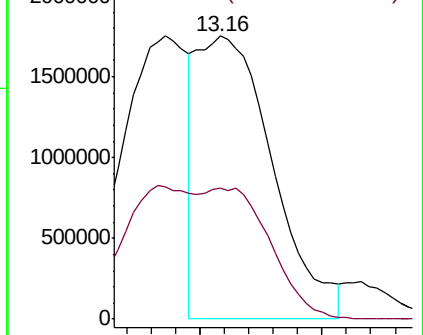
91 100

106 0.0 0.0 0.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 8.026 ppbv

RT: 13.86 min Scan# 3398

Delta R.T. 0.00 min

Lab File: VL032997.D

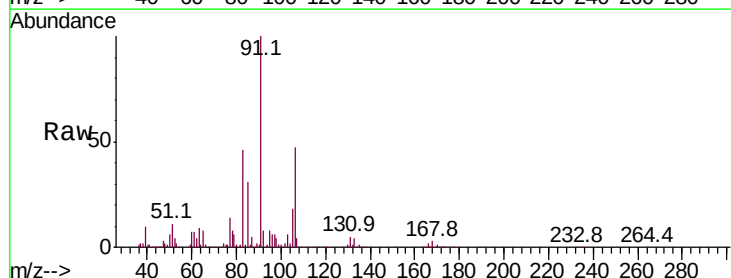
Acq: 17 Dec 2018 13:01

Tgt Ion: 91 Resp: 3305086

Ion Ratio Lower Upper

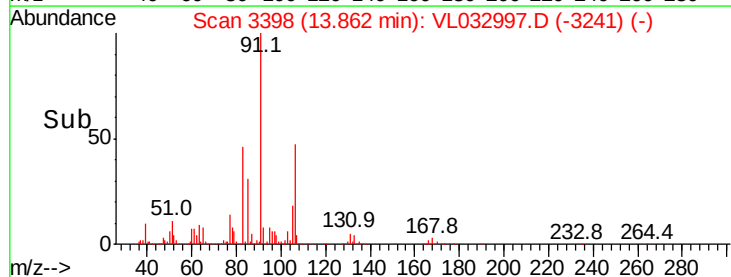
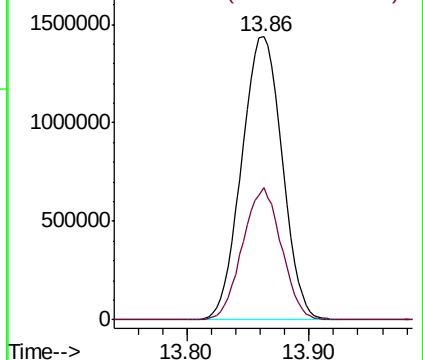
91 100

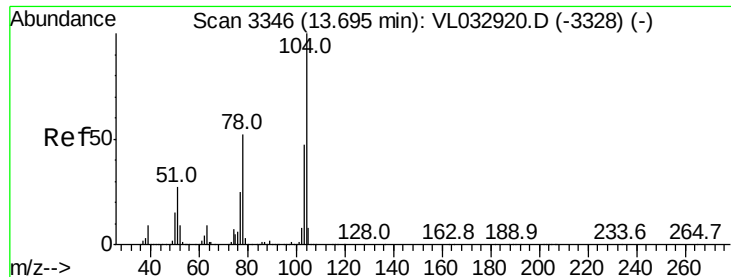
106 44.7 21.9 65.8



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#61

Stvrene

Concen: 9.114 ppbv

RT: 13.70 min Scan# 3346

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

ClientSampleId :

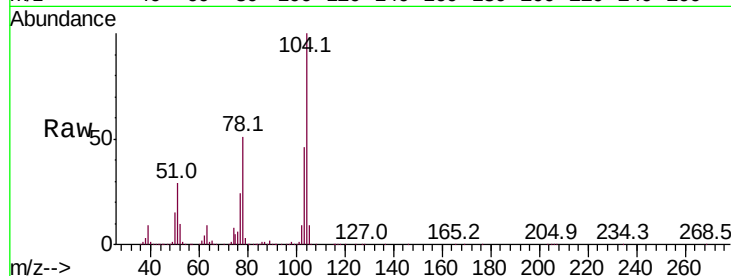
Tot Ion:104 Resp: 2496526

Ion Ratio Lower Upper

104 100

78 51.3 42.0 63.0

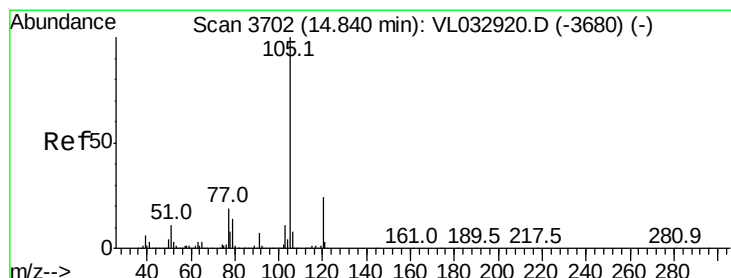
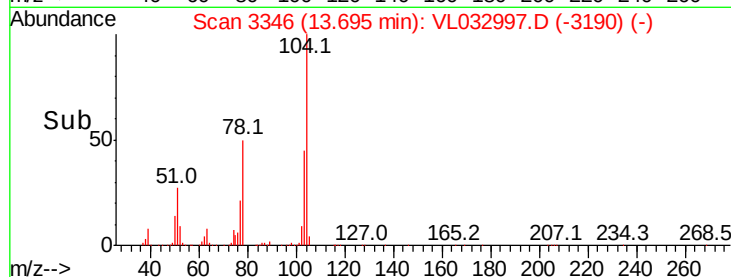
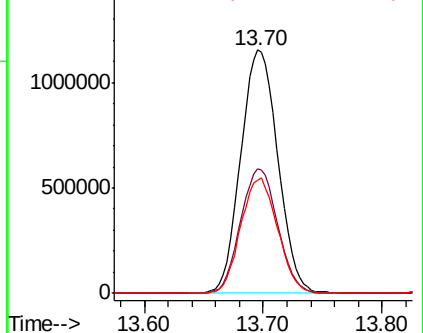
103 47.2 38.3 57.5



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#62

Isopropylbenzene

Concen: 8.931 ppbv

RT: 14.84 min Scan# 3701

Delta R.T. -0.00 min

Lab File: VL032997.D

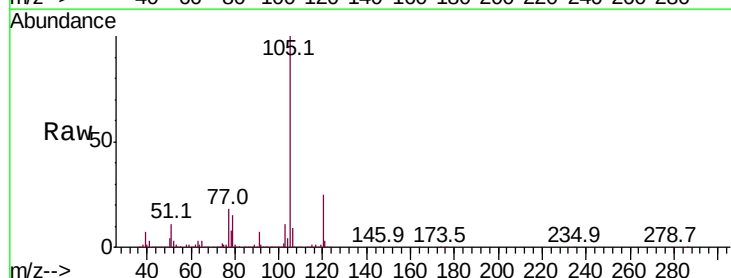
Acq: 17 Dec 2018 13:01

Tgt Ion:105 Resp: 5131267

Ion Ratio Lower Upper

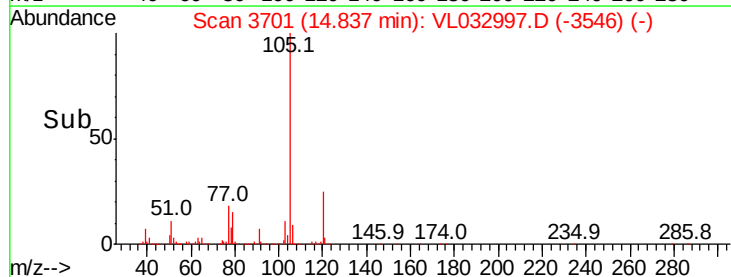
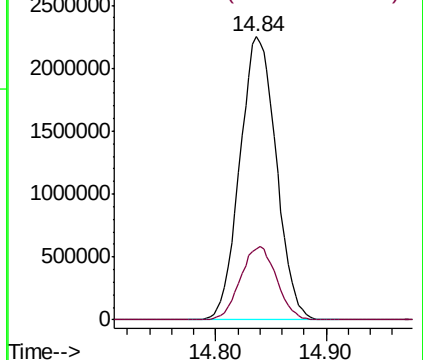
105 100

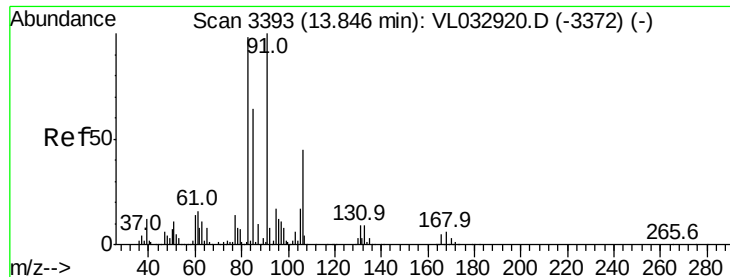
120 25.8 20.3 30.5



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#63

1,1,2,2-Tetrachloroethane

Concen: 7.053 ppbv

RT: 13.85 min Scan# 3393

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

ClientSampleId :

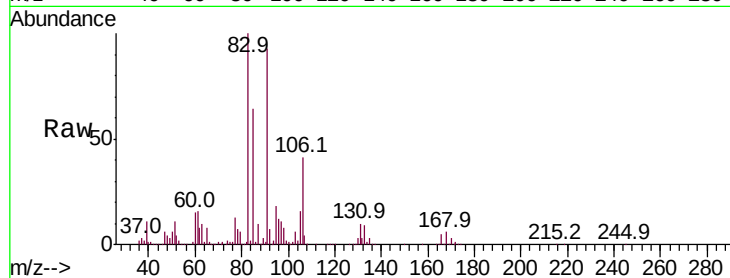
Tot Ion: 83 Resp: 2255323

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 83  | 100   |       |       |
| 131 | 9.9   | 4.9   | 14.6  |
| 85  | 65.8  | 32.9  | 98.6  |

83 100

131 9.9 4.9 14.6

85 65.8 32.9 98.6

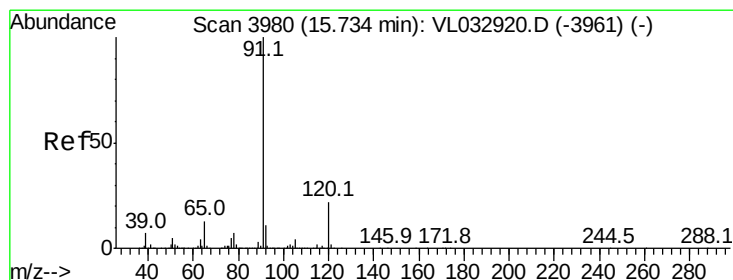
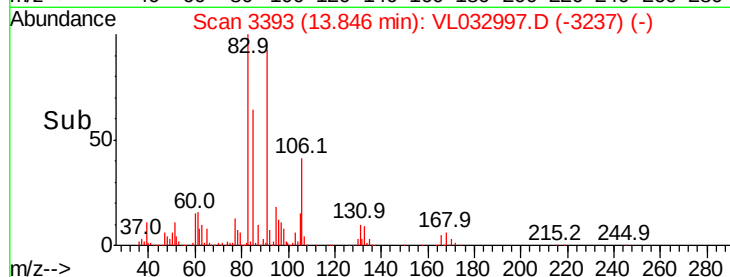
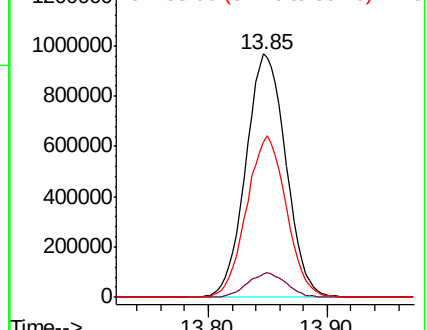


Abundance

Ion 83.00 (82.70 to 83.70): VL0

Ion 131.00 (130.70 to 131.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#64

n-propylbenzene

Concen: 8.426 ppbv

RT: 15.74 min Scan# 3981

Delta R.T. 0.00 min

Lab File: VL032997.D

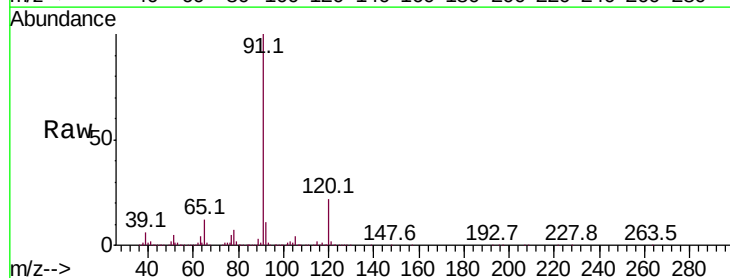
Acq: 17 Dec 2018 13:01

Tgt Ion:120 Resp: 1257455

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 120 | 100   |       |       |
| 91  | 460.4 | 380.4 | 570.6 |

120 100

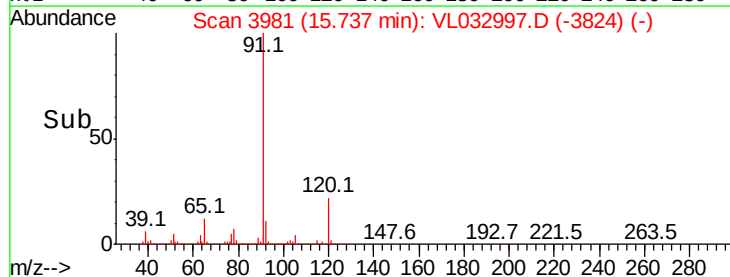
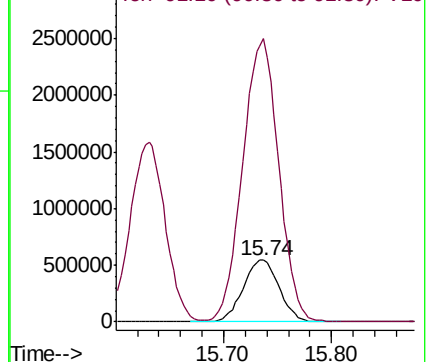
91 460.4 380.4 570.6

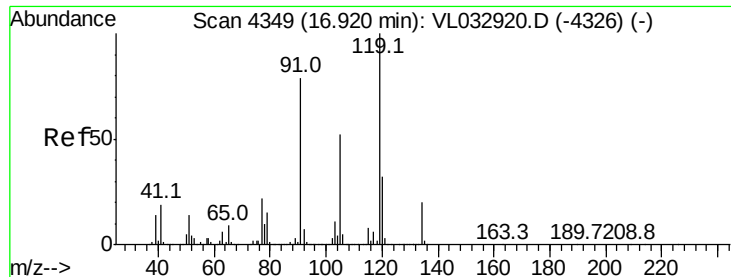


Abundance

Ion 120.20 (119.90 to 120.90): VL0

Ion 91.10 (90.80 to 91.80): VL0





#65

tert-Butylbenzene

Concen: 8.312 ppbv

RT: 16.92 min Scan# 4350

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

ClientSampled :

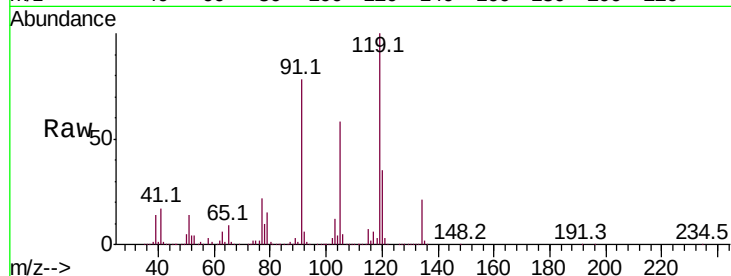
Tot Ion:119 Resp: 4427422

Ion Ratio Lower Upper

119 100

91 79.6 64.5 96.7

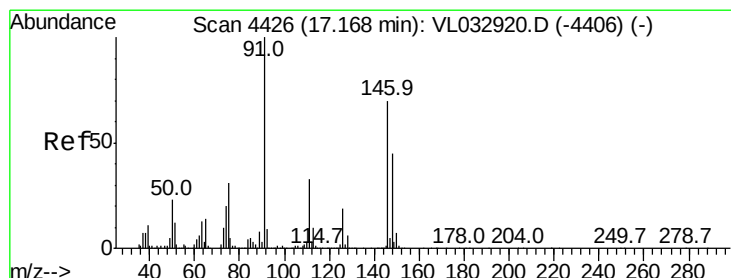
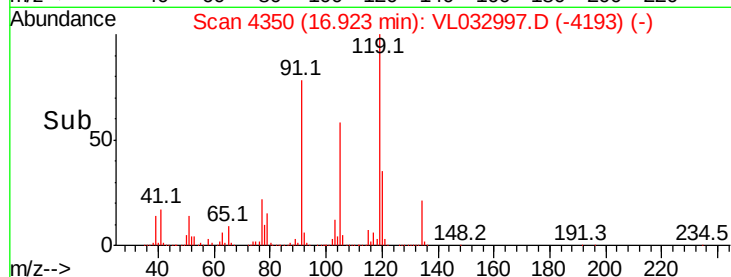
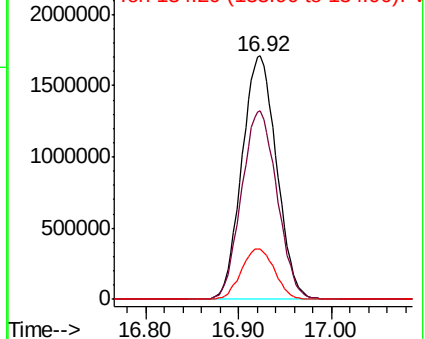
134 19.9 15.7 23.5



Abundance Ion 119.20 (118.90 to 119.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 134.20 (133.90 to 134.90): V



#66

Benzyl Chloride

Concen: 8.937 ppbv

RT: 17.17 min Scan# 4427

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

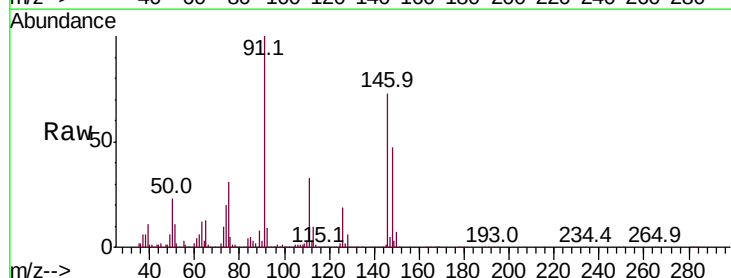
Tgt Ion: 91 Resp: 2638505

Ion Ratio Lower Upper

91 100

126 17.9 14.1 21.1

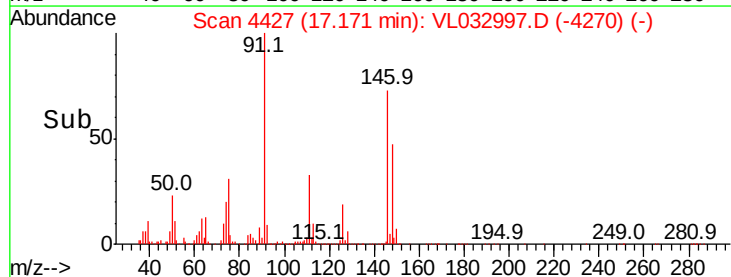
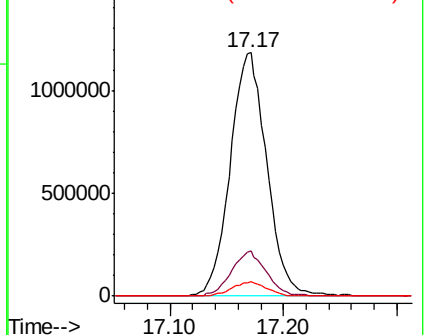
128 5.7 4.5 6.7

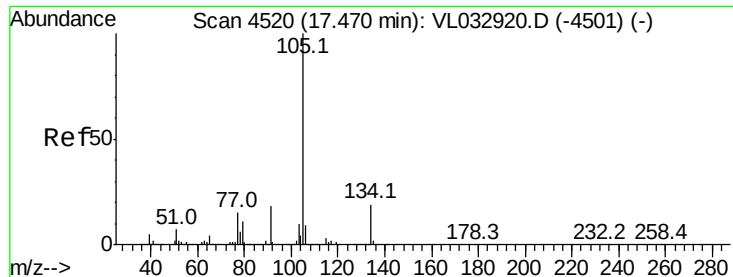


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

Ion 128.10 (127.80 to 128.80): V





#67

sec-Butylbenzene

Concen: 7.867 ppbv

RT: 17.47 min Scan# 4520

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

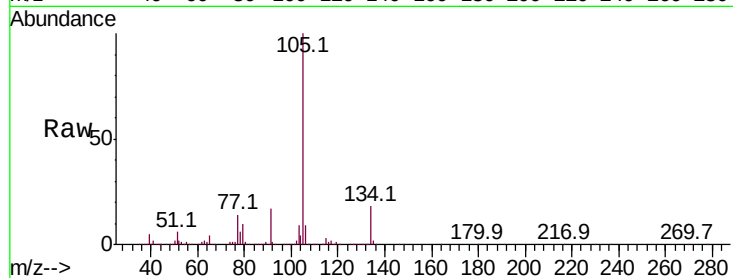
ClientSampleId :

Tot Ion:105 Resp: 6178363

Ion Ratio Lower Upper

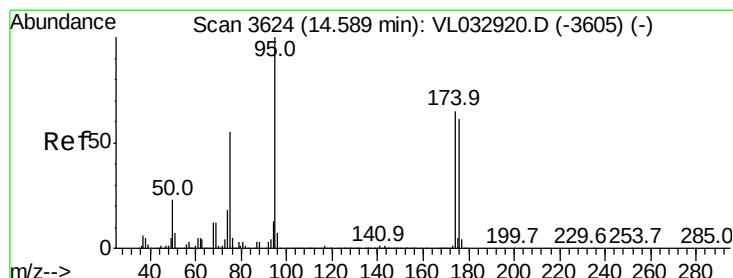
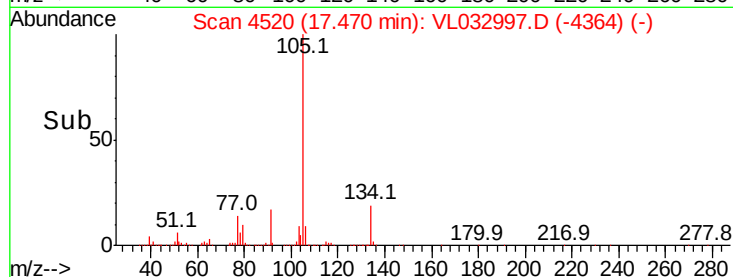
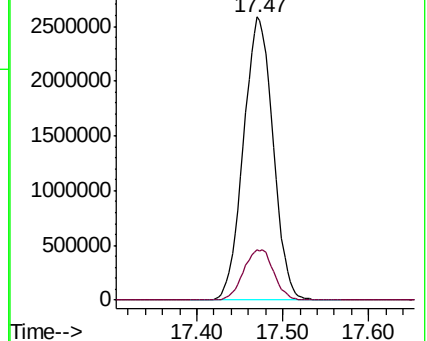
105 100

134 18.2 14.6 21.8



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: 8.104 ppbv

RT: 14.59 min Scan# 3625

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

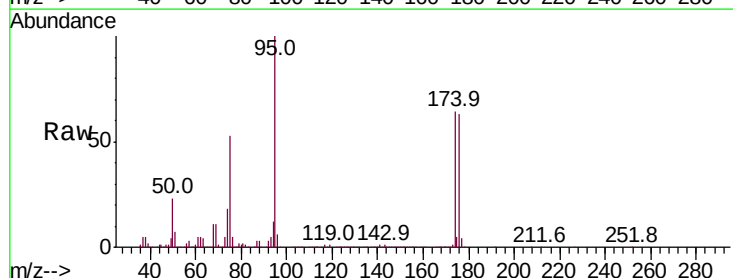
Tgt Ion: 95 Resp: 2524319

Ion Ratio Lower Upper

95 100

174 66.6 51.4 77.0

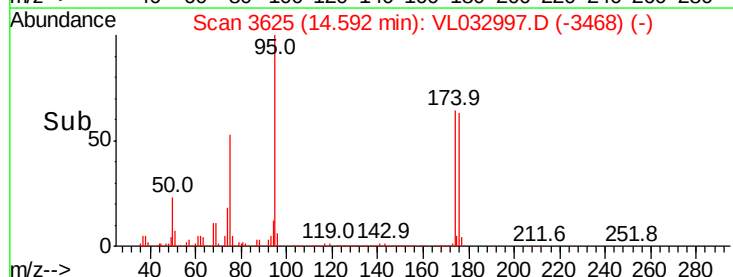
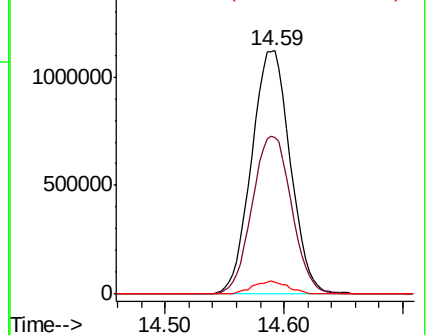
175 4.9 3.8 5.6

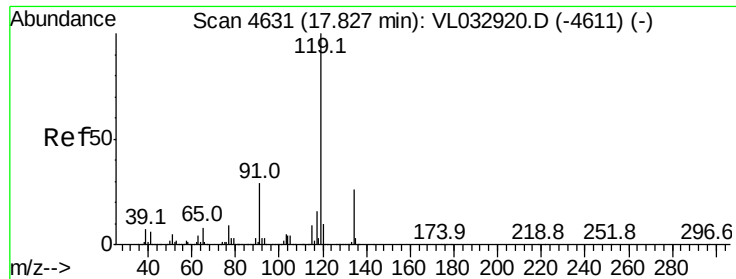


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



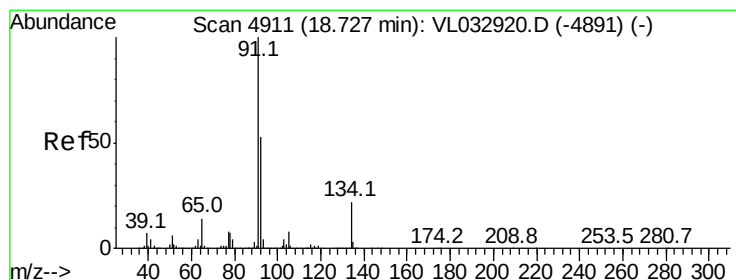
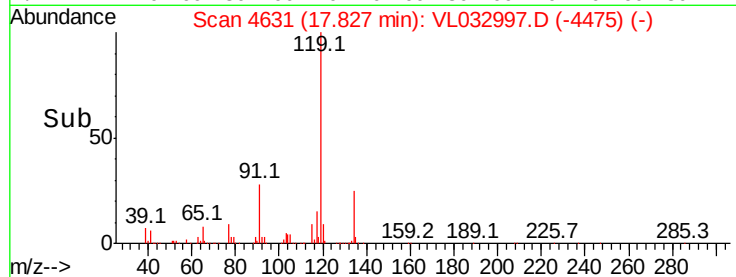
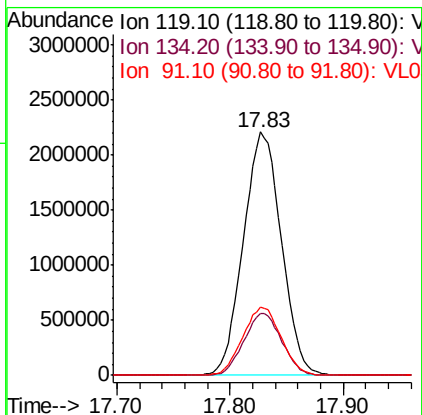
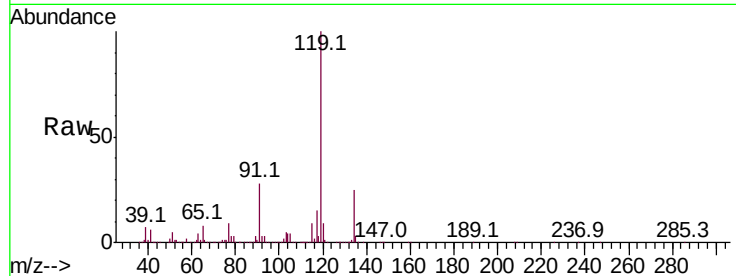


#69  
 p-Isopropyltoluene  
 Concen: 8.104 ppbv  
 RT: 17.83 min Scan# 4631  
 Delta R.T. 0.00 min  
 Lab File: VL032997.D  
 Acq: 17 Dec 2018 13:01

Instrument :  
 MSVOA\_L  
 ClientSampled :

Tot Ion: 119 Resp: 5157753  

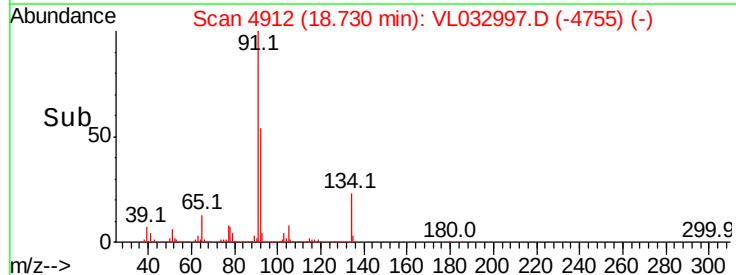
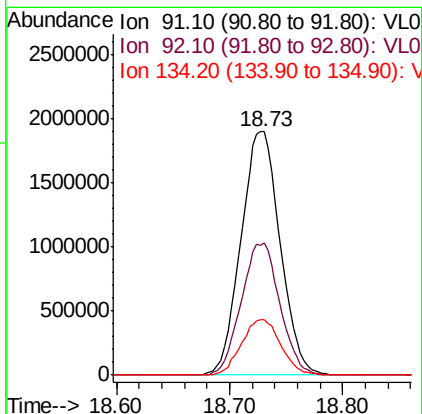
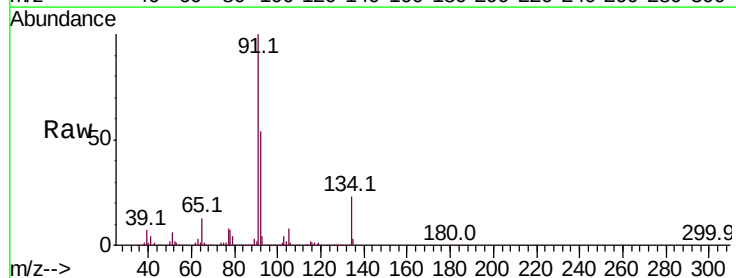
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 119 | 100   |       |       |
| 134 | 25.4  | 20.2  | 30.2  |
| 91  | 28.4  | 22.9  | 34.3  |

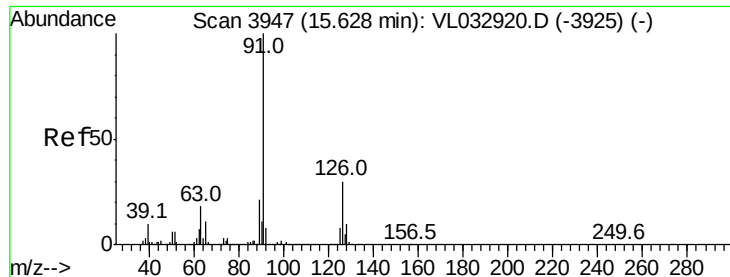


#70  
 n-Butylbenzene  
 Concen: 7.788 ppbv  
 RT: 18.73 min Scan# 4912  
 Delta R.T. 0.00 min  
 Lab File: VL032997.D  
 Acq: 17 Dec 2018 13:01

Tgt Ion: 91 Resp: 4560260  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 91  | 100   |       |       |
| 92  | 53.7  | 42.7  | 64.1  |
| 134 | 22.9  | 18.0  | 27.0  |





#71

2-Chlorotoluene

Concen: 8.397 ppbv

RT: 15.63 min Scan# 3948

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

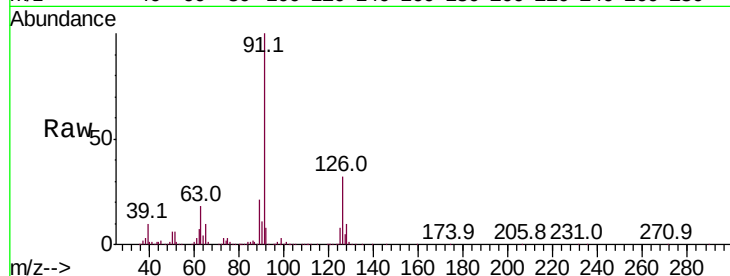
ClientSampleId :

Tot Ion: 91 Resp: 3587889

Ion Ratio Lower Upper

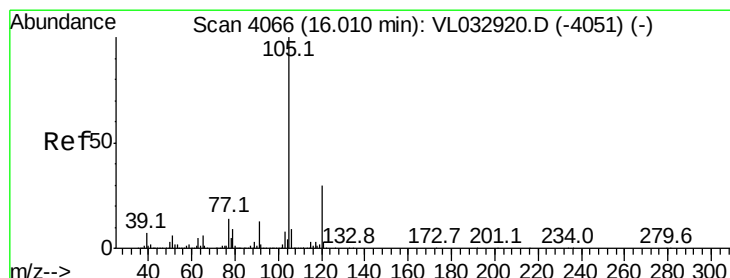
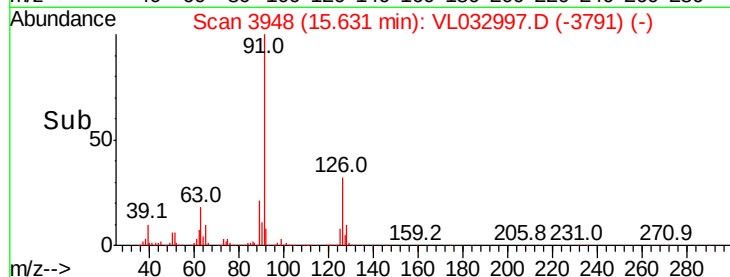
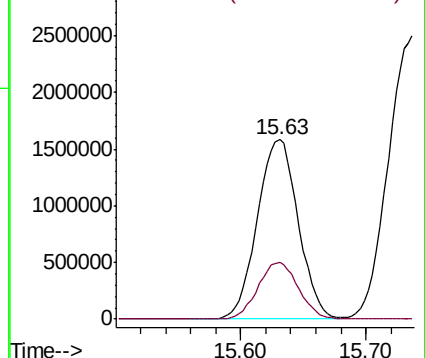
91 100

126 31.3 12.3 49.3



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V



#72

4-Ethyltoluene

Concen: 8.623 ppbv

RT: 16.01 min Scan# 4066

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Tgt Ion: 105 Resp: 3964634

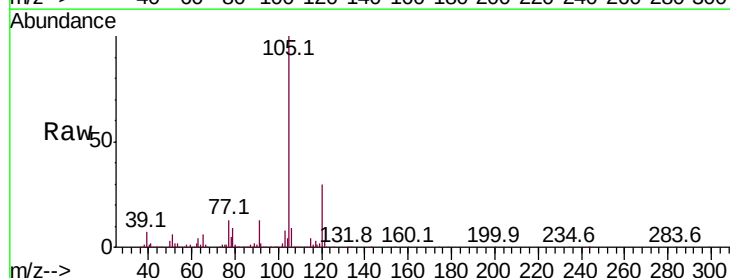
Ion Ratio Lower Upper

105 100

120 29.1 23.0 34.4

91 12.9 10.4 15.6

77 13.5 11.0 16.4

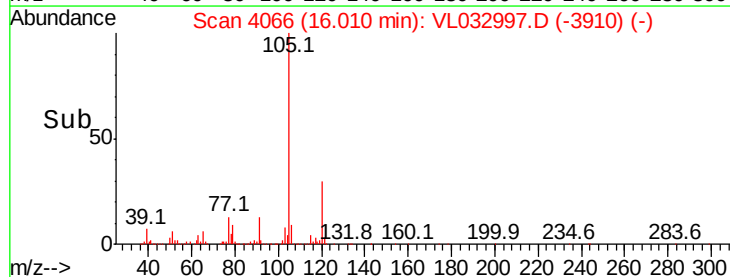
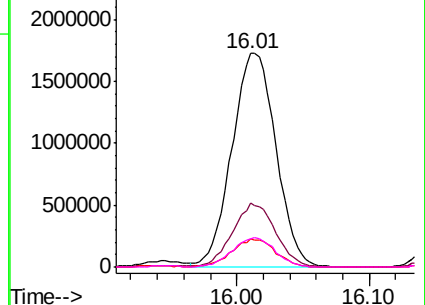


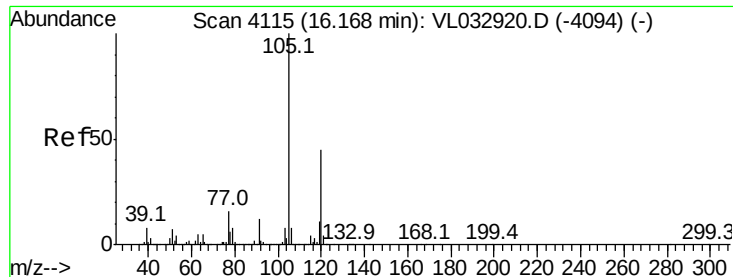
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

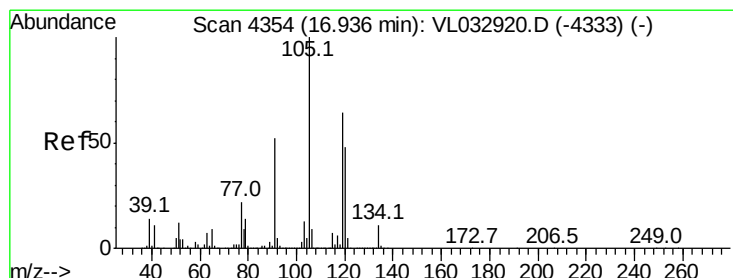
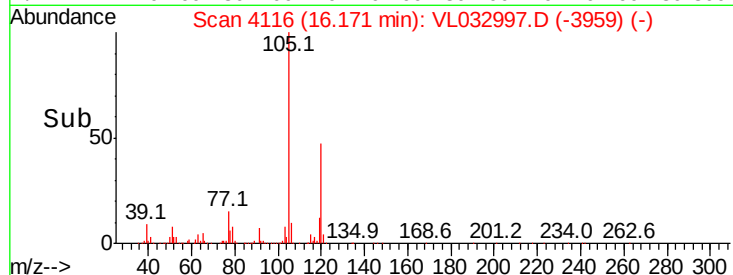
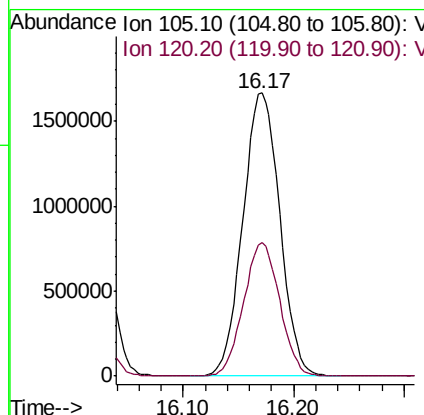
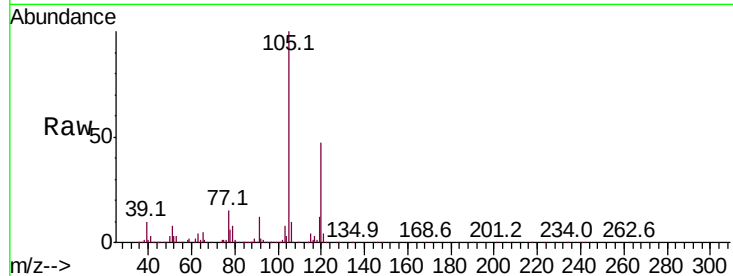




#73  
 1,3,5-Trimethylbenzene  
 Concen: 8.600 ppbv  
 RT: 16.17 min Scan# 4116  
 Delta R.T. 0.00 min  
 Lab File: VL032997.D  
 Acq: 17 Dec 2018 13:01

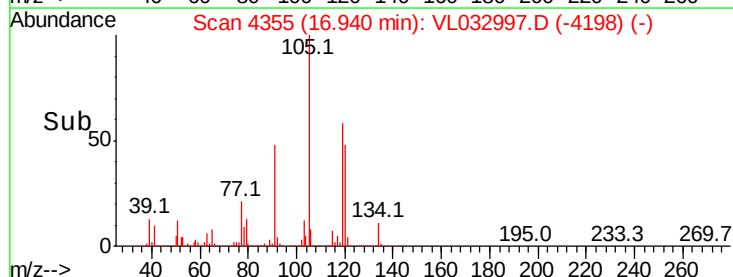
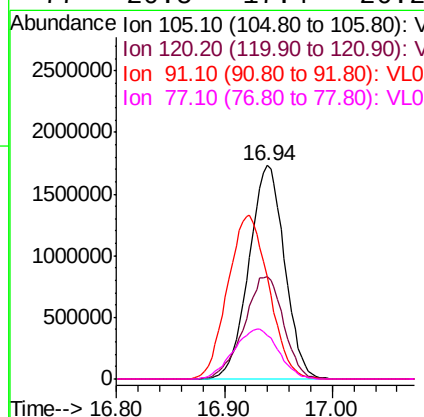
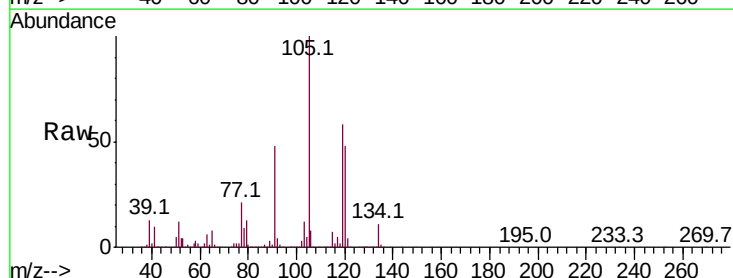
Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion:105 Resp: 3859772  
 Ion Ratio Lower Upper  
 105 100  
 120 47.0 36.0 54.0

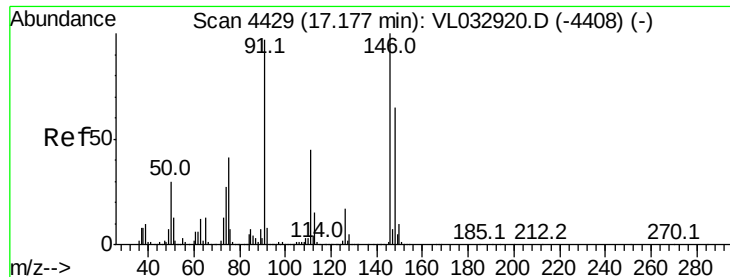


#74  
 1,2,4-Trimethylbenzene  
 Concen: 7.826 ppbv  
 RT: 16.94 min Scan# 4355  
 Delta R.T. 0.00 min  
 Lab File: VL032997.D  
 Acq: 17 Dec 2018 13:01

Tgt Ion:105 Resp: 3965968  
 Ion Ratio Lower Upper  
 105 100  
 120 47.9 38.6 58.0  
 91 47.8 41.7 62.5  
 77 20.5 17.4 26.2



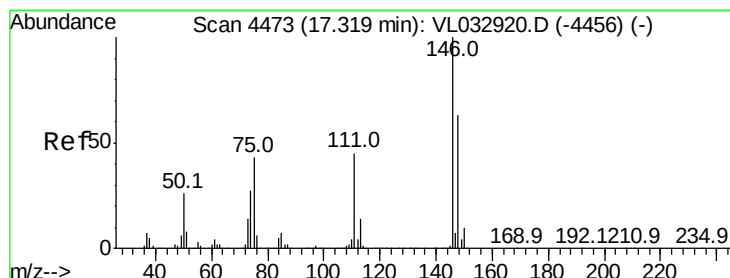
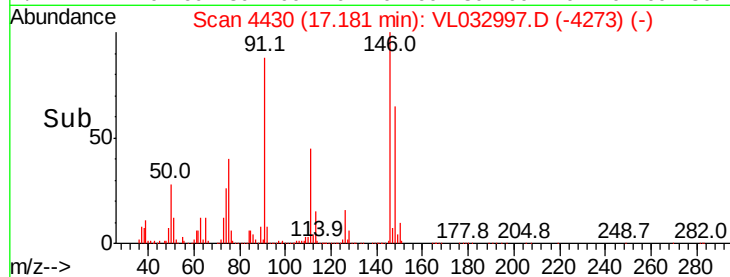
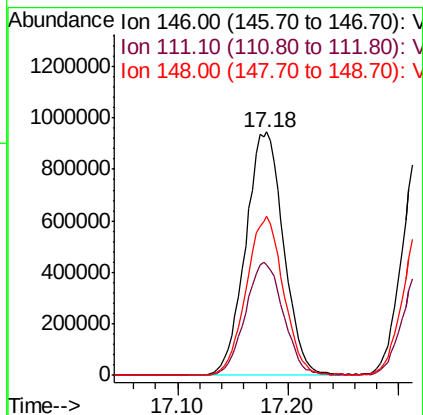
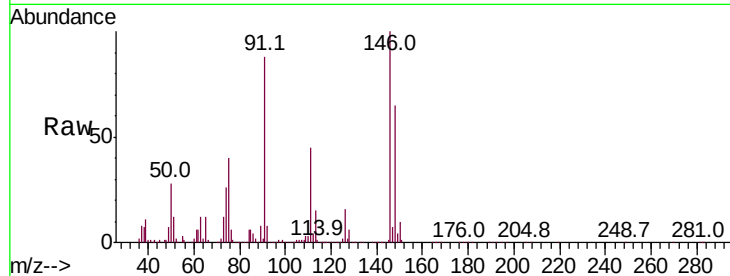




#75  
 1,3-Dichlorobenzene  
 Concen: 7.553 ppbv  
 RT: 17.18 min Scan# 4430  
 Delta R.T. 0.00 min  
 Lab File: VL032997.D  
 Acq: 17 Dec 2018 13:01

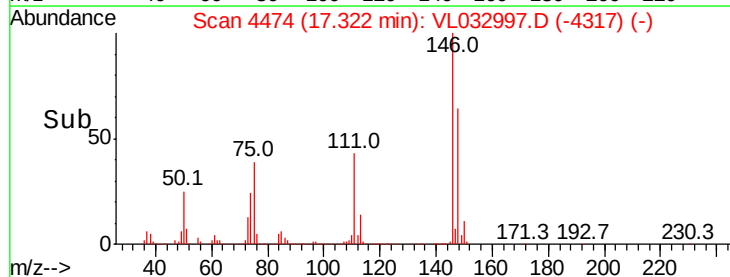
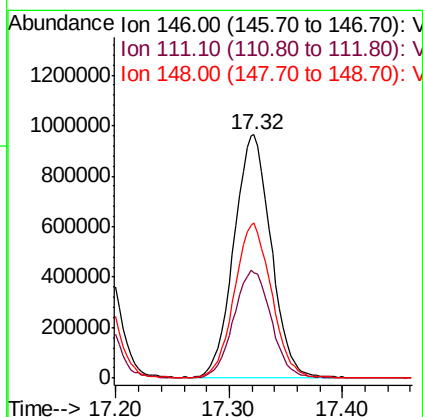
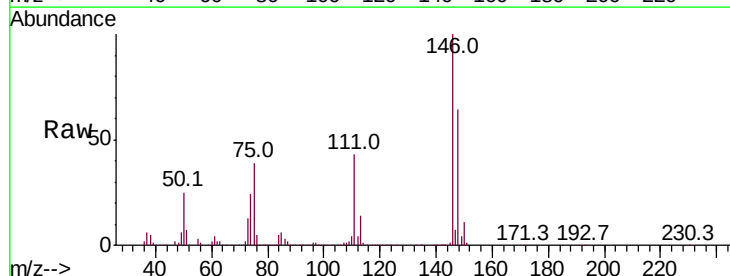
Instrument :  
 MSVOA\_L  
 ClientSampleId :

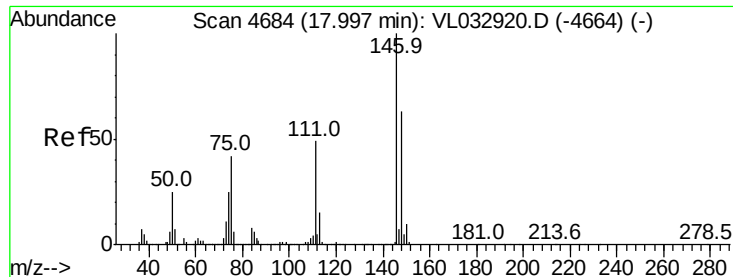
Tot Ion:146 Resp: 2254052  
 Ion Ratio Lower Upper  
 146 100  
 111 46.5 23.6 70.8  
 148 63.9 32.1 96.3



#76  
 1,4-Dichlorobenzene  
 Concen: 7.863 ppbv  
 RT: 17.32 min Scan# 4474  
 Delta R.T. 0.00 min  
 Lab File: VL032997.D  
 Acq: 17 Dec 2018 13:01

Tgt Ion:146 Resp: 2189794  
 Ion Ratio Lower Upper  
 146 100  
 111 45.0 22.8 68.4  
 148 64.3 32.0 96.2

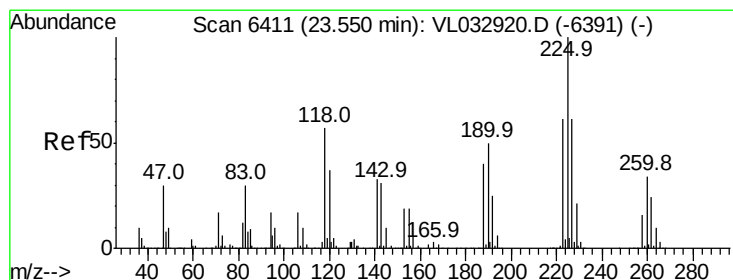
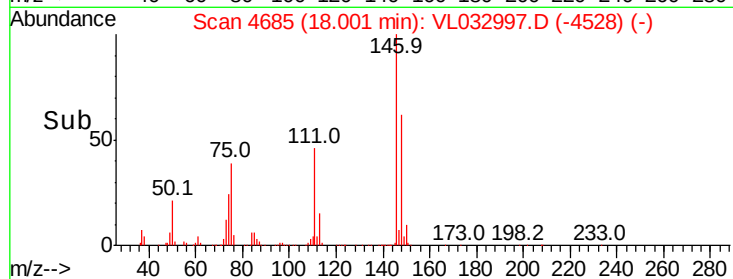
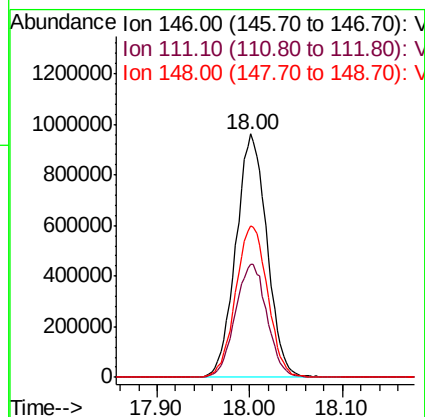
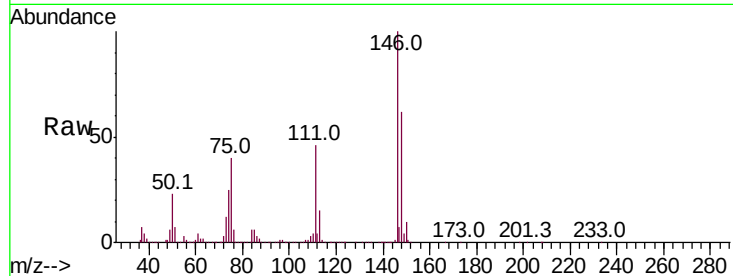




#77  
 1,2-Dichlorobenzene  
 Concen: 8.020 ppbv  
 RT: 18.00 min Scan# 4685  
 Delta R.T. 0.00 min  
 Lab File: VL032997.D  
 Acq: 17 Dec 2018 13:01

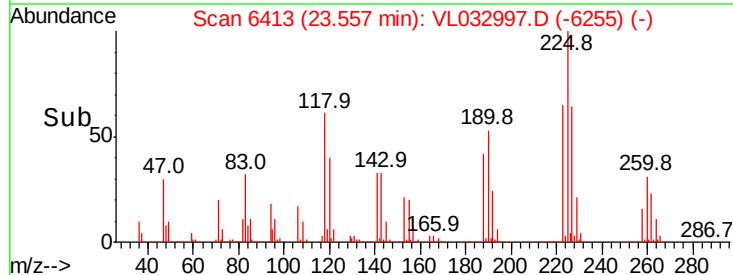
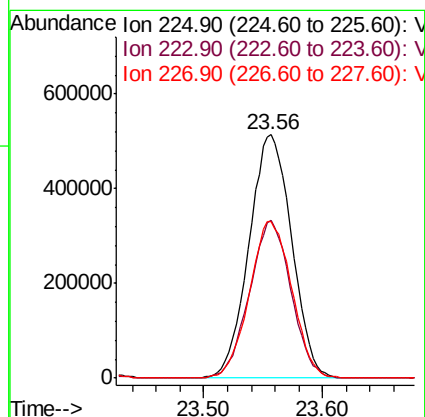
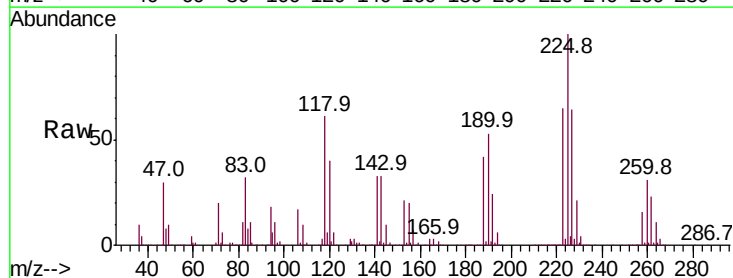
Instrument :  
 MSVOA\_L  
 ClientSampleId :

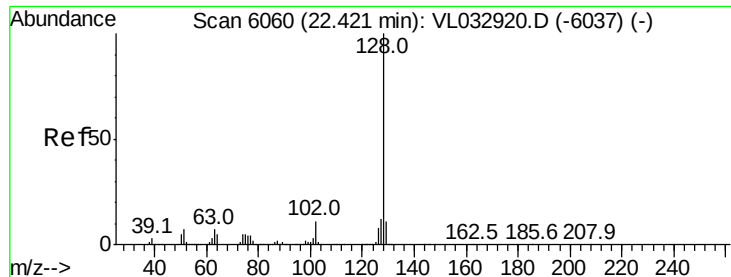
Tot Ion:146 Resp: 2235299  
 Ion Ratio Lower Upper  
 146 100  
 111 47.6 24.3 72.9  
 148 64.1 32.0 96.2



#78  
 Hexachloro-1,3-Butadiene  
 Concen: 8.316 ppbv  
 RT: 23.56 min Scan# 6413  
 Delta R.T. 0.01 min  
 Lab File: VL032997.D  
 Acq: 17 Dec 2018 13:01

Tgt Ion:225 Resp: 1274614  
 Ion Ratio Lower Upper  
 225 100  
 223 63.2 50.6 75.8  
 227 64.1 50.4 75.6





#79

Naphthalene

Concen: 8.615 ppbv

RT: 22.43 min Scan# 6062

Delta R.T. 0.01 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

Instrument :

MSVOA\_L

ClientSampleId :

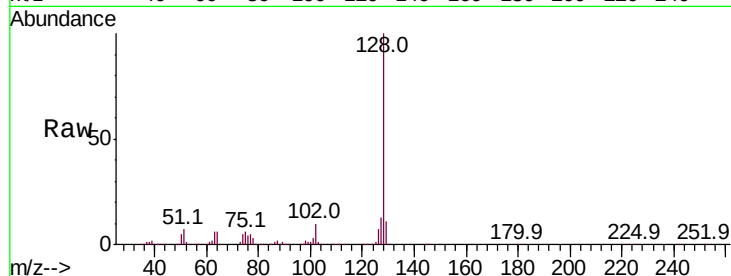
Tot Ion:128 Resp: 2818987

Ion Ratio Lower Upper

128 100

127 13.4 9.9 14.9

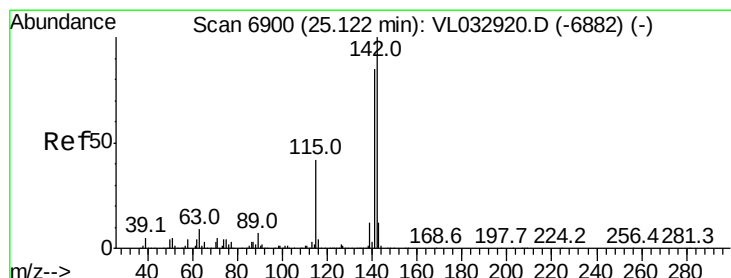
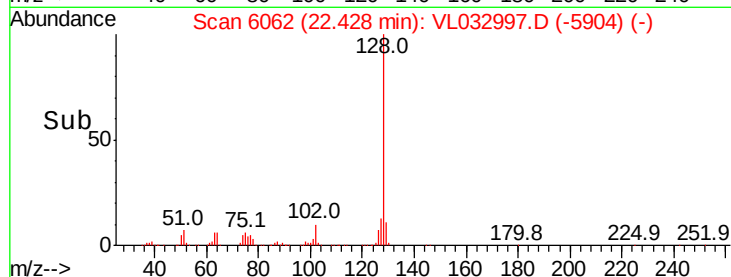
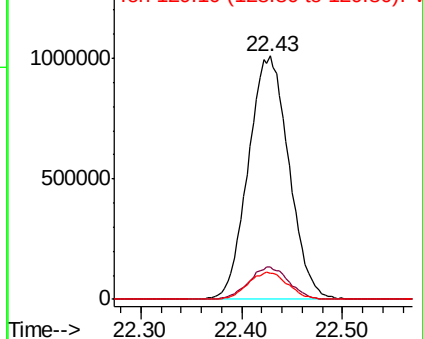
129 10.5 8.6 13.0



Abundance Ion 128.10 (127.80 to 128.80): V

Ion 127.10 (126.80 to 127.80): V

Ion 129.10 (128.80 to 129.80): V



#80

Naphthalene, 2-methyl-

Concen: 10.221 ppbv

RT: 25.13 min Scan# 6901

Delta R.T. 0.00 min

Lab File: VL032997.D

Acq: 17 Dec 2018 13:01

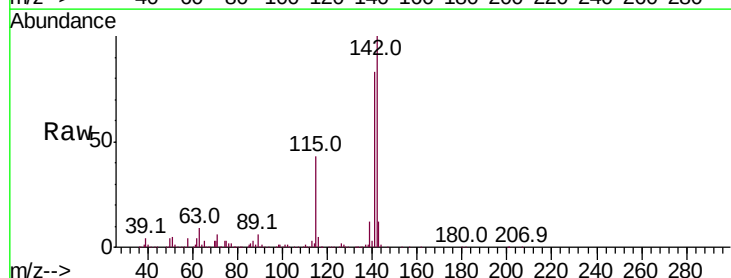
Tgt Ion:142 Resp: 714610

Ion Ratio Lower Upper

142 100

141 84.4 68.2 102.2

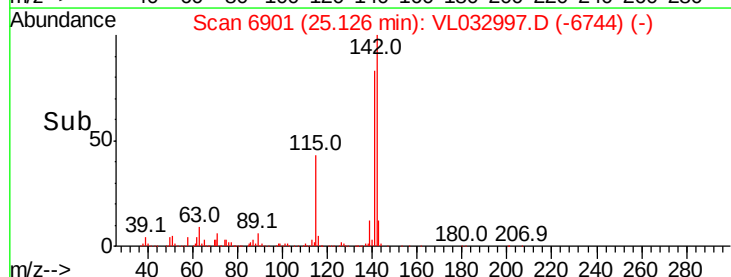
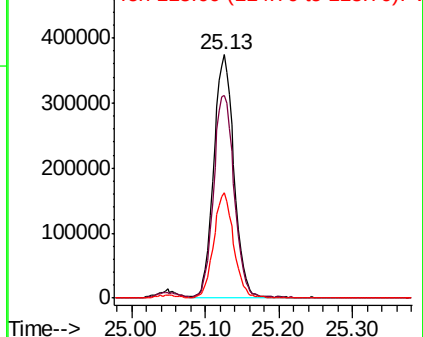
115 42.8 35.1 52.7

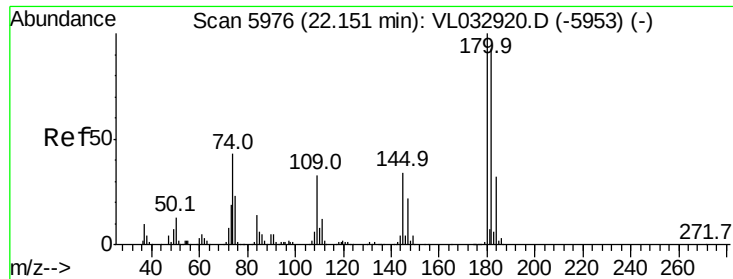


Abundance Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V

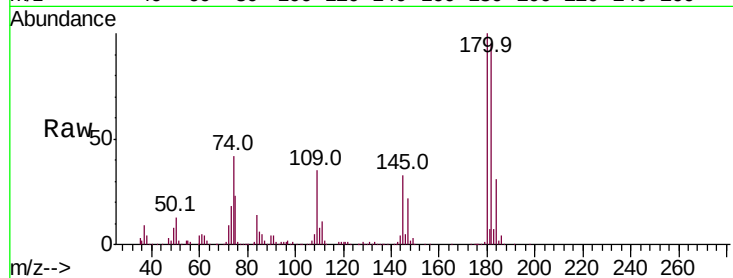




#81  
 1,2,4-Trichlorobenzene  
 Concen: 8.059 ppbv  
 RT: 22.15 min Scan# 5976  
 Delta R.T. 0.00 min  
 Lab File: VL032997.D  
 Acq: 17 Dec 2018 13:01

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion:180 Resp: 1398532  
 Ion Ratio Lower Upper  
 180 100  
 182 96.8 77.0 115.6  
 184 30.5 24.3 36.5



Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V

