

Data Path : Z:\VOASRV\HPCHEM1\MSVOA V\DATA\VV111419\  
 Data File : VV013619.D  
 Acq On : 14 Nov 2019 12:13  
 Operator : SY/MD  
 Sample : K5815-03MSD  
 Misc : 25.0mL/MSVOA V/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :

Quant Time: Nov 15 02:43:47 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR111319WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Fri Nov 15 02:40:46 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.68  | 114  | 326657   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.91  | 117  | 304161   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.29 | 152  | 125360   | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

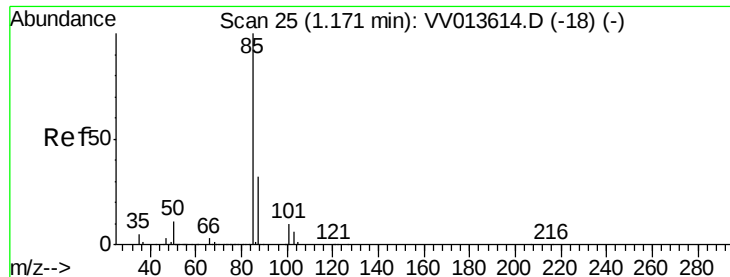
|                                |        |       |          |          |      |          |
|--------------------------------|--------|-------|----------|----------|------|----------|
| 4) Vinyl Chloride-d3           | 1.34   | 65    | 104544   | 4.98     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 99.60%   |
| 7) Chloroethane-d5             | 1.61   | 69    | 85180    | 5.09     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 101.80%  |
| 11) 1,1-Dichloroethene-d2      | 2.15   | 63    | 176308   | 4.91     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 98.20%   |
| 20) 2-Butanone-d5              | 4.02   | 46    | 240074   | 63.89    | ug/L | 0.00     |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 127.78%  |
| 24) Chloroform-d               | 4.42   | 84    | 183815   | 5.11     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 102.20%  |
| 26) 1,2-Dichloroethane-d4      | 5.10   | 65    | 91981    | 5.24     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 104.80%  |
| 32) Benzene-d6                 | 5.10   | 84    | 350343   | 4.78     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 95.60%   |
| 36) 1,2-Dichloropropane-d6     | 6.15   | 67    | 131143   | 5.22     | ug/L | 0.01     |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 104.40%  |
| 41) Toluene-d8                 | 7.39   | 98    | 316593   | 4.26     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 85.20%   |
| 43) trans-1,3-Dichloropropene- | 7.69   | 79    | 47270    | 5.05     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 101.00%  |
| 46) 2-Hexanone-d5              | 8.15   | 63    | 222889   | 59.73    | ug/L | 0.00     |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 119.46%  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 94414    | 5.35     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 107.00%  |
| 64) 1,2-Dichlorobenzene-d4     | 11.67  | 152   | 133662   | 6.04     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 120.80%# |

## Target Compounds

|                                |       |     |        |              | Ovalue |
|--------------------------------|-------|-----|--------|--------------|--------|
| 2) Dichlorodifluoromethane     | 1.25  | 85  | 3335   | 0.110 ug/L # | 79     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.15  | 101 | 2012   | 0.098 ug/L # | 17     |
| 12) 1,1-Dichloroethene         | 2.16  | 96  | 97157  | 5.117 ug/L   | 98     |
| 17) Methyl tert-butyl Ether    | 2.85  | 73  | 26957  | 0.607 ug/L   | 96     |
| 27) 1,2-Dichloroethane         | 5.14  | 62  | 3337   | 0.133 ug/L   | 98     |
| 33) Benzene                    | 5.15  | 78  | 408332 | 4.595 ug/L   | 100    |
| 34) Trichloroethene            | 5.97  | 95  | 120423 | 4.828 ug/L   | 100    |
| 35) Methylcyclohexane          | 6.15  | 83  | 33226  | 0.917 ug/L # | 17     |
| 37) 1,2-Dichloropropane        | 6.15  | 63  | 14369  | 0.626 ug/L # | 99     |
| 42) Toluene                    | 7.46  | 91  | 459840 | 4.765 ug/L   | 100    |
| 48) 2-Hexanone                 | 8.21  | 43  | 23108  | 2.560 ug/L # | 79     |
| 51) Chlorobenzene              | 8.94  | 112 | 323766 | 5.119 ug/L   | 100    |
| 69) Naphthalene                | 13.55 | 128 | 2998   | 0.094 ug/L # | 94     |

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





#2

Dichlorodifluoromethane

Concen: 0.110 ug/L

RT: 1.25 min Scan# 50

Delta R.T. 0.08 min

Lab File: VV013619.D

Acq: 14 Nov 2019 12:13

Instrument :

MSVOA\_V

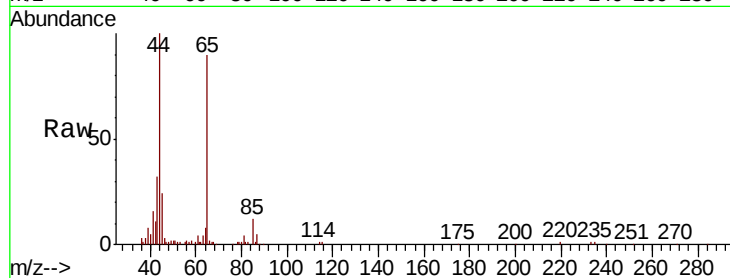
ClientSampleId :

Tot Ion: 85 Resp: 3335

Ion Ratio Lower Upper

85 100

87 43.5 25.5 38.3#



Abundance Ion 85.00 (84.70 to 85.70): VV013619.D (-18) (-)

Ion 87.00 (86.70 to 87.70): VV013619.D (-18) (-)

1.25

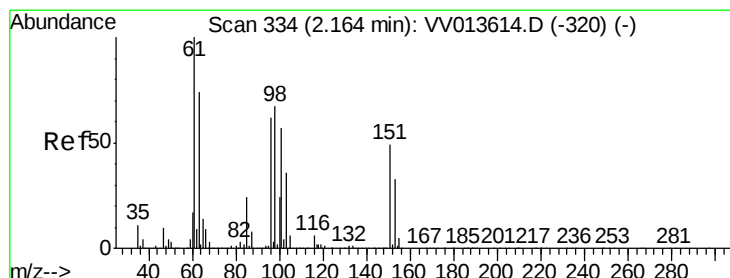
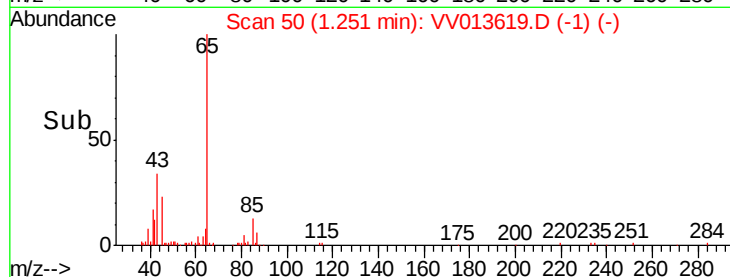
3000

2000

1000

0

Time-->



#10

1,1,2-Trichloro-1,2,2-trifluoroethane

Concen: 0.098 ug/L

RT: 2.15 min Scan# 330

Delta R.T. -0.01 min

Lab File: VV013619.D

Acq: 14 Nov 2019 12:13

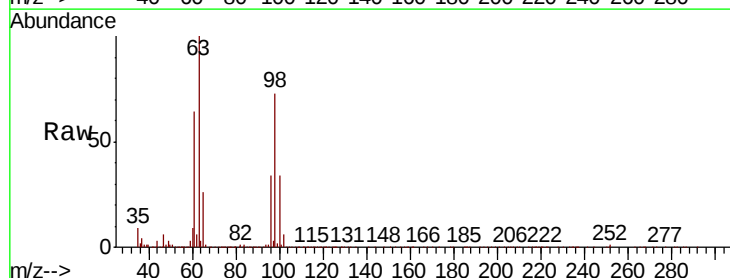
Tgt Ion: 101 Resp: 2012

Ion Ratio Lower Upper

101 100

85 3.8 33.1 49.7#

151 0.0 69.5 104.3#



Abundance Ion 101.00 (100.70 to 101.70): VV013619.D (-241) (-)

Ion 85.00 (84.70 to 85.70): VV013619.D (-241) (-)

Ion 151.00 (150.70 to 151.70): VV013619.D (-241) (-)

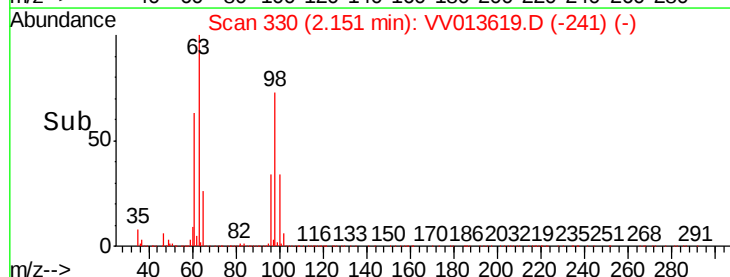
1500

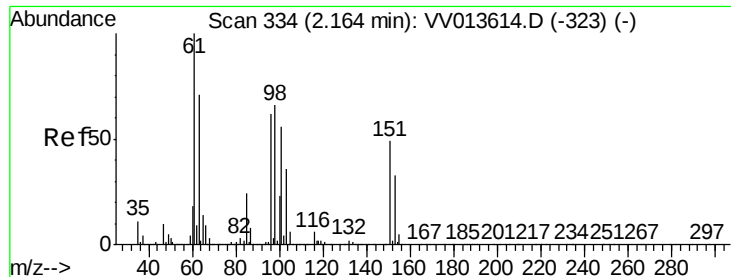
1000

500

0

Time-->

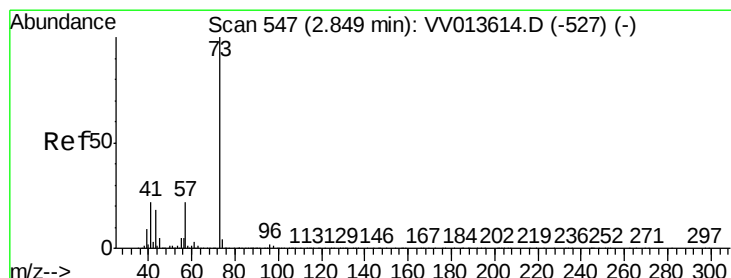
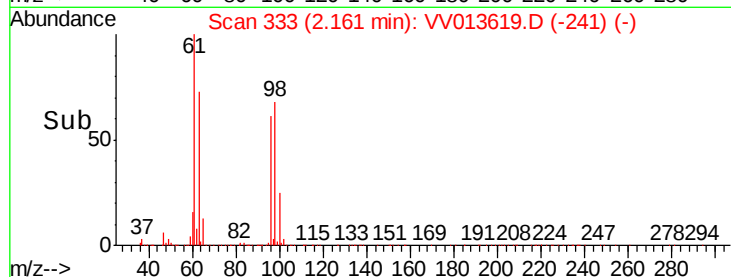
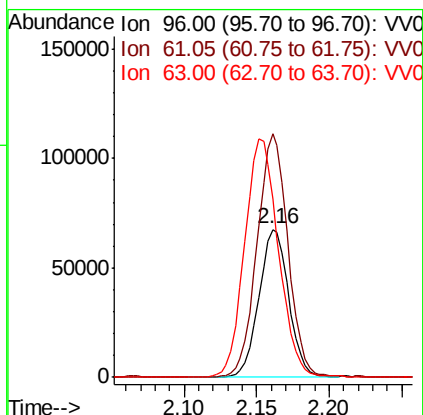
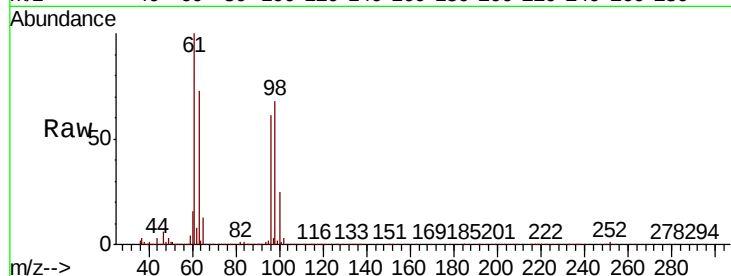




#12  
 1,1-Dichloroethene  
 Concen: 5.117 ug/L  
 RT: 2.16 min Scan# 333  
 Delta R.T. -0.00 min  
 Lab File: VV013619.D  
 Acq: 14 Nov 2019 12:13

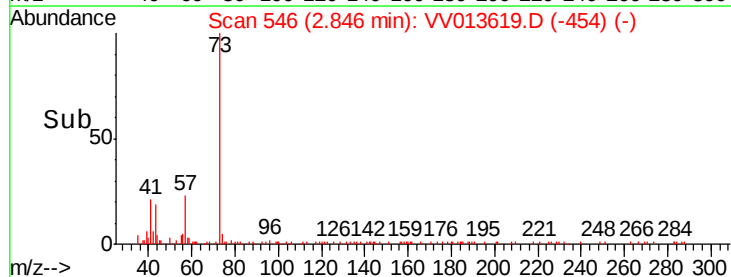
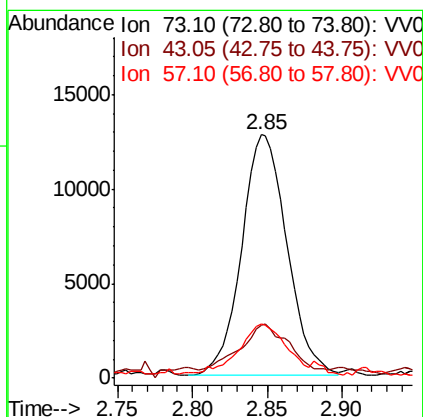
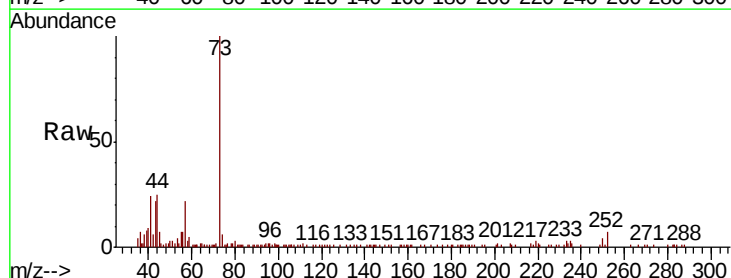
Instrument :  
 MSVOA\_V  
 ClientSampleID :

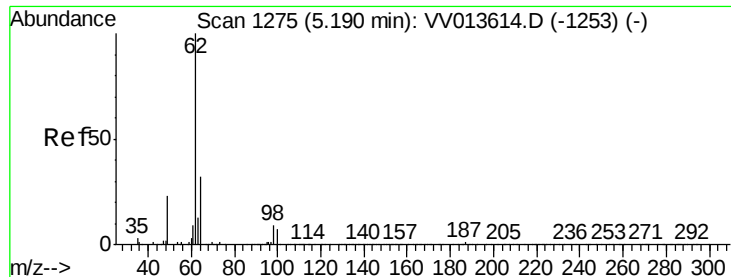
| Tot Ion   | 96    | Resp  | 97157 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 96        | 100   |       |       |
| 61        | 164.6 | 115.6 | 214.6 |
| 63        | 120.5 | 87.2  | 162.0 |



#17  
 Methyl tert-butyl Ether  
 Concen: 0.607 ug/L  
 RT: 2.85 min Scan# 546  
 Delta R.T. -0.00 min  
 Lab File: VV013619.D  
 Acq: 14 Nov 2019 12:13

| Tgt Ion   | 73    | Resp  | 26957 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 73        | 100   |       |       |
| 43        | 21.6  | 14.8  | 22.2  |
| 57        | 21.4  | 16.3  | 24.5  |

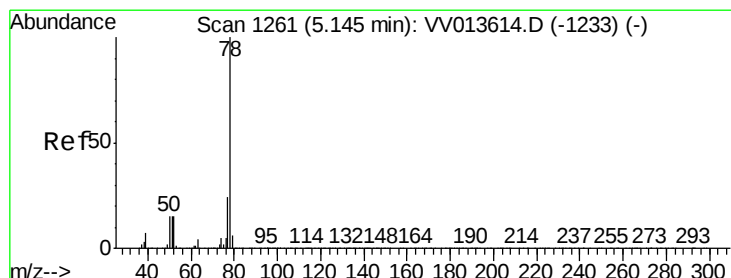
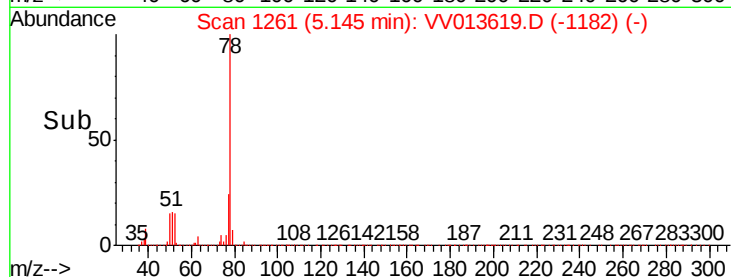
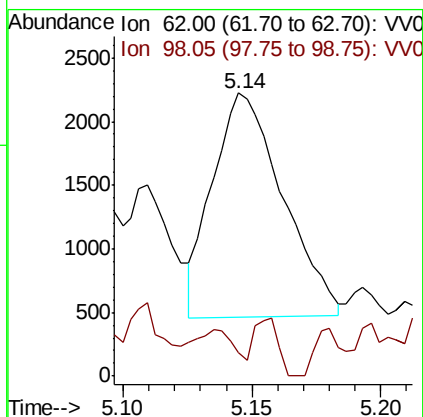
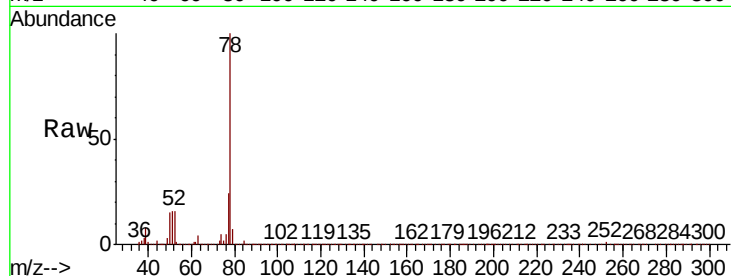




#27  
 1,2-Dichloroethane  
 Concen: 0.133 ug/L  
 RT: 5.14 min Scan# 1261  
 Delta R.T. -0.05 min  
 Lab File: VV013619.D  
 Acq: 14 Nov 2019 12:13

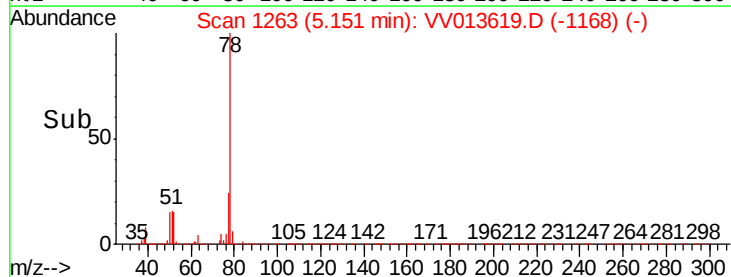
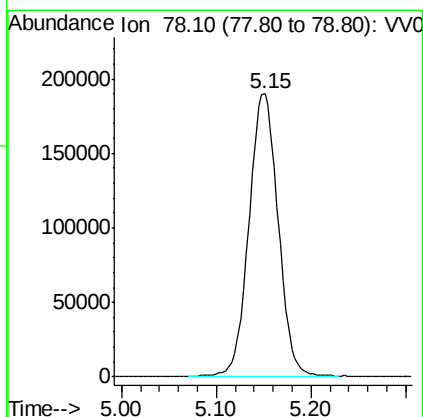
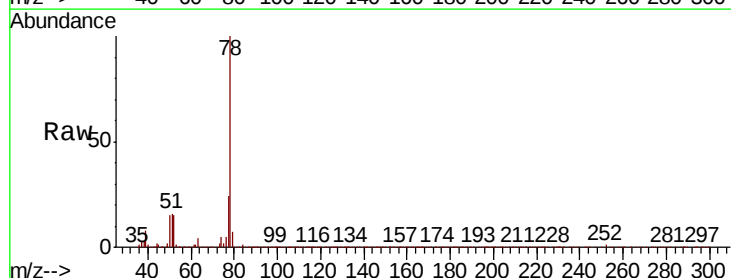
Instrument :  
 MSVOA\_V  
 ClientSampleId :

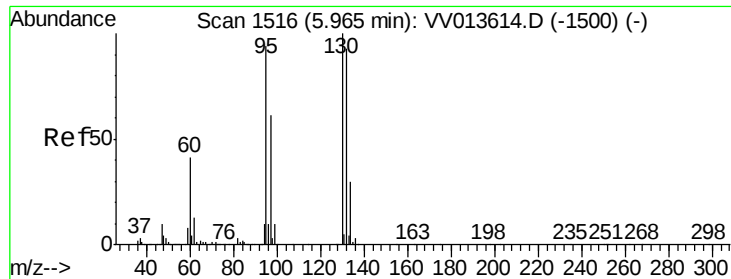
Tot Ion: 62 Resp: 3337  
 Ion Ratio Lower Upper  
 62 100  
 98 8.5 7.4 11.2



#33  
 Benzene  
 Concen: 4.595 ug/L  
 RT: 5.15 min Scan# 1263  
 Delta R.T. 0.01 min  
 Lab File: VV013619.D  
 Acq: 14 Nov 2019 12:13

Tgt Ion: 78 Resp: 408332





#34

Trichloroethene

Concen: 4.828 ug/L

RT: 5.97 min Scan# 1518

Delta R.T. 0.01 min

Lab File: VV013619.D

Acq: 14 Nov 2019 12:13

Instrument :  
MSVOA\_V  
ClientSampleId :

Tot Ion: 95 Resp: 120423

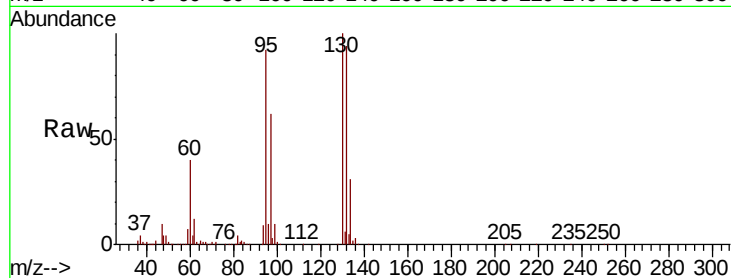
Ion Ratio Lower Upper

95 100

97 67.2 47.0 87.4

132 102.3 72.2 134.0

130 108.5 75.7 140.7

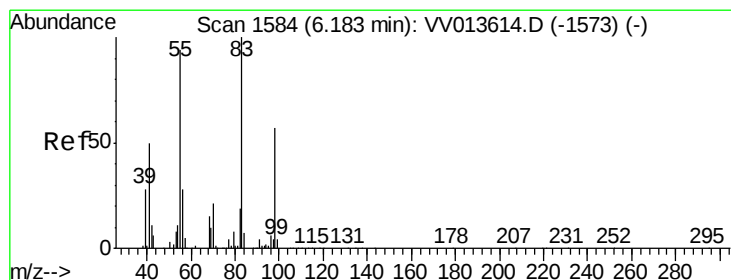
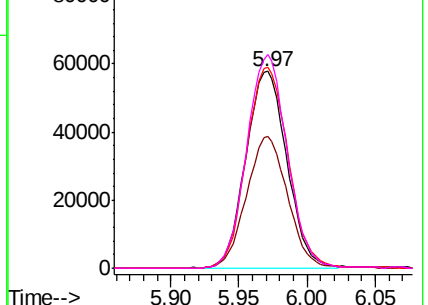
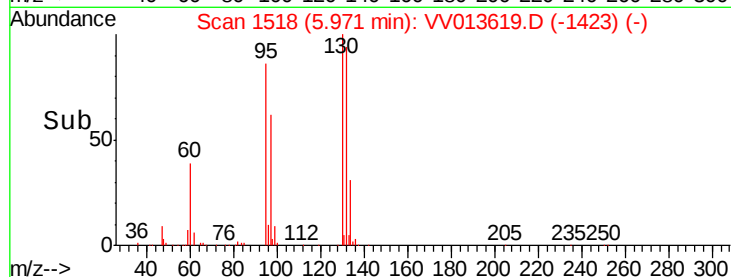


Abundance Ion 95.00 (94.70 to 95.70): VV013614.D (-1500) (-)

Ion 96.95 (96.65 to 97.65): VV013614.D (-1500) (-)

Ion 131.95 (131.65 to 132.65): VV013614.D (-1500) (-)

Ion 129.95 (129.65 to 130.65): VV013614.D (-1500) (-)



#35

Methylcyclohexane

Concen: 0.917 ug/L

RT: 6.15 min Scan# 1574

Delta R.T. -0.03 min

Lab File: VV013619.D

Acq: 14 Nov 2019 12:13

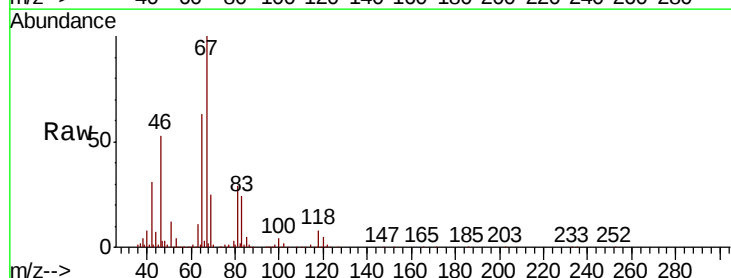
Tgt Ion: 83 Resp: 33226

Ion Ratio Lower Upper

83 100

55 0.8 67.0 100.4#

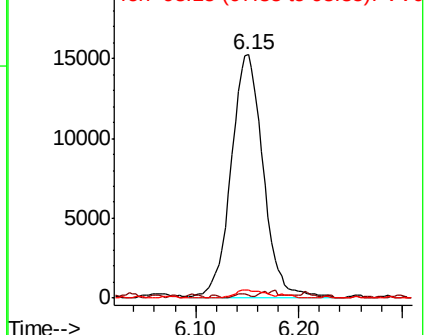
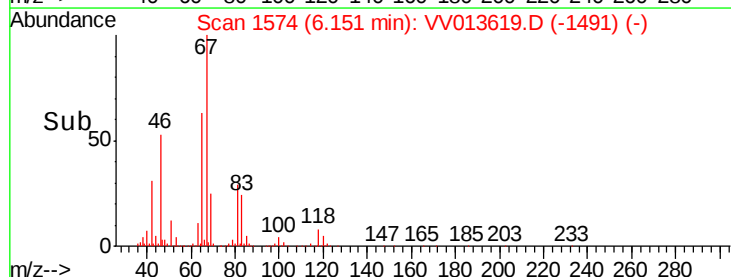
98 2.9 38.5 57.7#

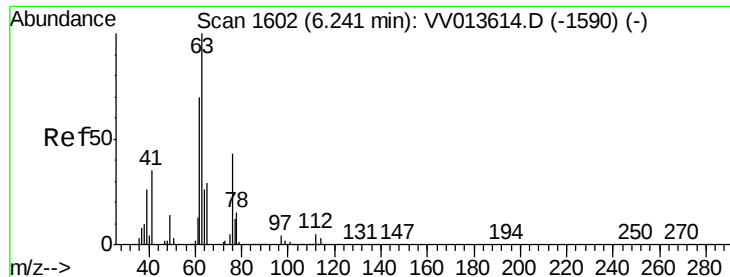


Abundance Ion 83.15 (82.85 to 83.85): VV013619.D (-1491) (-)

Ion 55.10 (54.80 to 55.80): VV013619.D (-1491) (-)

Ion 98.15 (97.85 to 98.85): VV013619.D (-1491) (-)





#37

1,2-Dichloropropane

Concen: 0.626 ug/L

RT: 6.15 min Scan# 1574

Delta R.T. -0.09 min

Lab File: VV013619.D

Acq: 14 Nov 2019 12:13

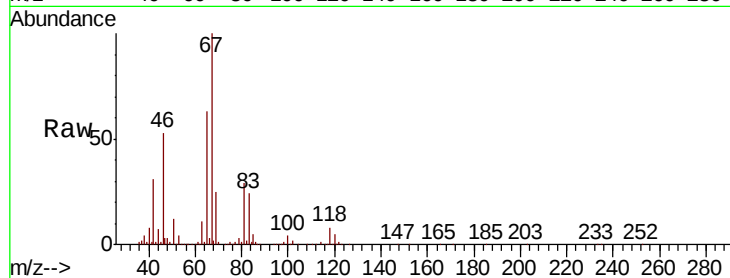
Instrument :  
MSVOA\_V  
ClientSampleId :

Tot Ion: 63 Resp: 14369

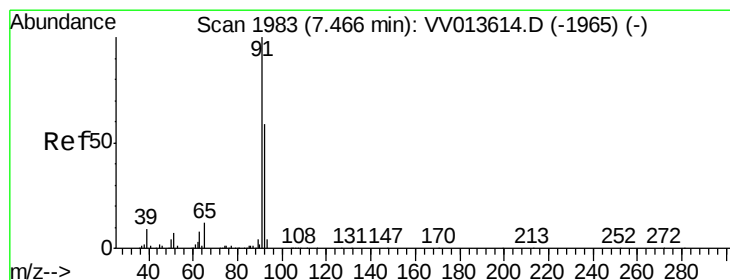
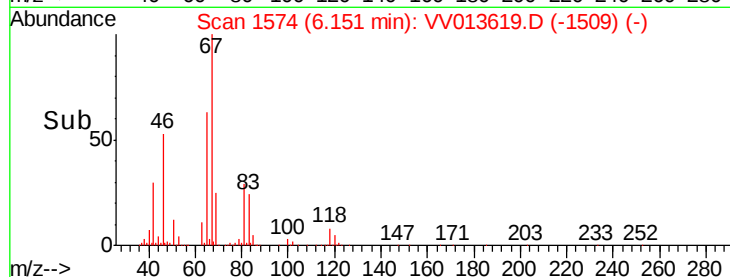
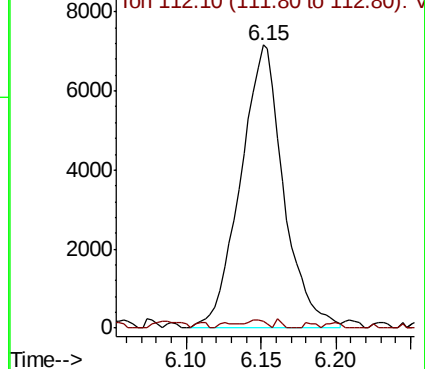
Ion Ratio Lower Upper

63 100

112 1.2 0.2 0.2#



Abundance Ion 63.10 (62.80 to 63.80): VV013614.D (-1590) (-)



#42

Toluene

Concen: 4.765 ug/L

RT: 7.46 min Scan# 1980

Delta R.T. -0.01 min

Lab File: VV013619.D

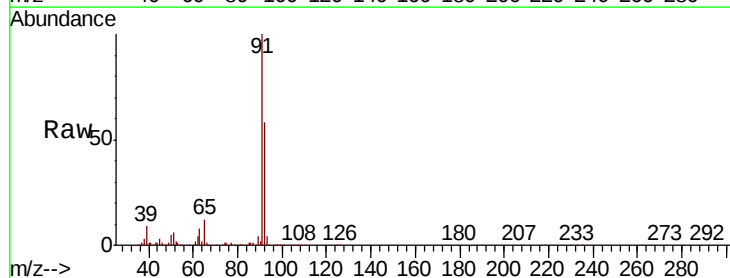
Acq: 14 Nov 2019 12:13

Tgt Ion: 91 Resp: 459840

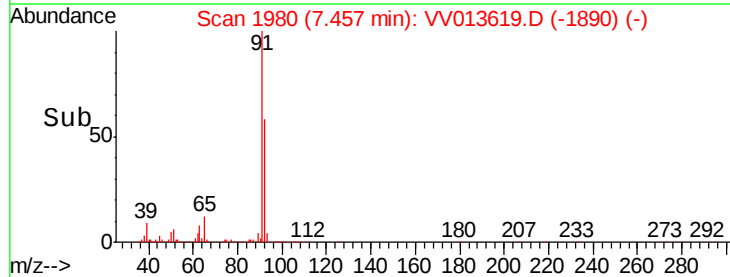
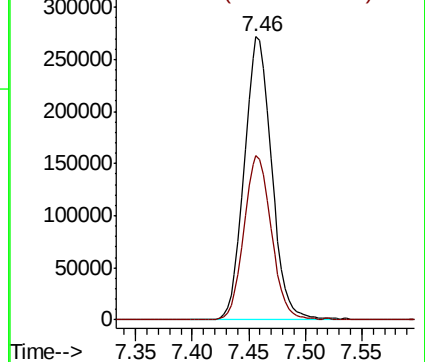
Ion Ratio Lower Upper

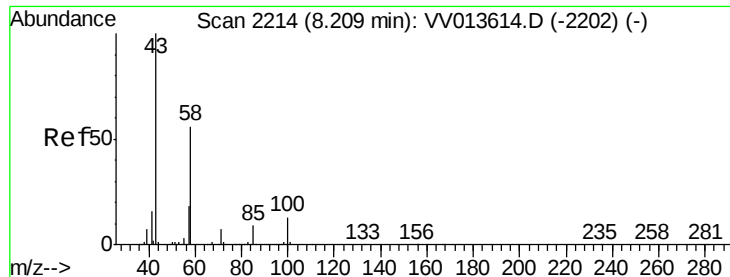
91 100

92 58.0 40.7 75.7



Abundance Ion 91.15 (90.85 to 91.85): VV013614.D (-1965) (-)

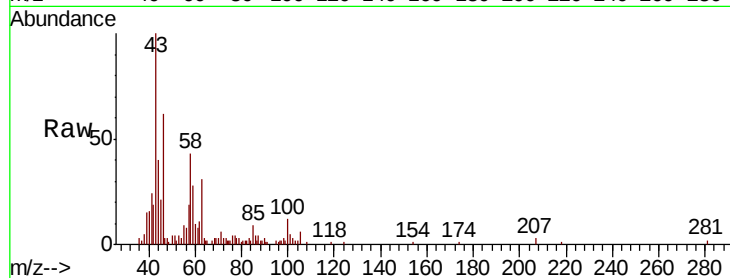




#48  
2-Hexanone  
Concen: 2.560 ug/L  
RT: 8.21 min Scan# 2214  
Delta R.T. -0.00 min  
Lab File: VV013619.D  
Acq: 14 Nov 2019 12:13

Instrument :  
MSVOA\_V  
ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 43    | Resp: | 23108 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 58       | 34.5  | 45.1  | 67.7# |
| 57       | 20.9  | 14.6  | 21.8  |
| 100      | 12.4  | 10.2  | 15.2  |



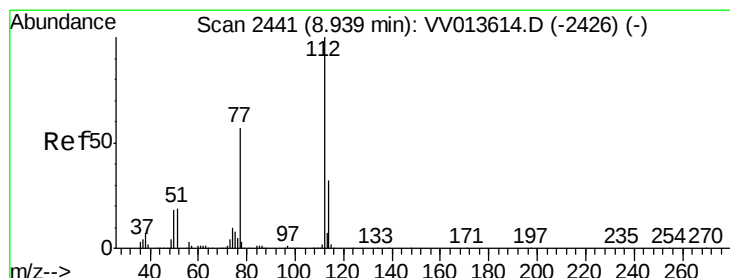
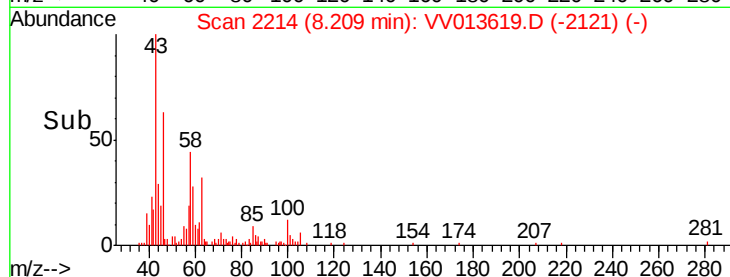
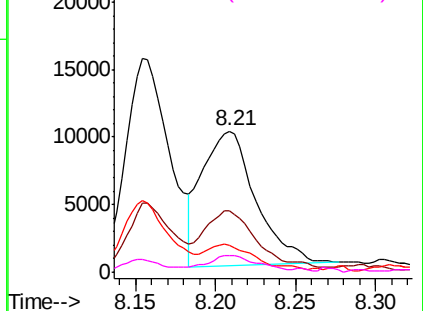
Abundance

Ion 43.05 (42.75 to 43.75): VV013619.D (-2202) (-)

Ion 58.05 (57.75 to 58.75): VV013619.D (-2202) (-)

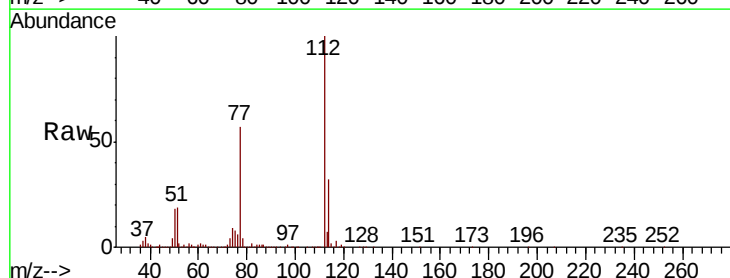
Ion 57.20 (56.90 to 57.90): VV013619.D (-2202) (-)

Ion 100.15 (99.85 to 100.85): VV013619.D (-2202) (-)



#51  
Chlorobenzene  
Concen: 5.119 ug/L  
RT: 8.94 min Scan# 2440  
Delta R.T. -0.00 min  
Lab File: VV013619.D  
Acq: 14 Nov 2019 12:13

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 112   | Resp: | 323766 |
| Ion      | Ratio | Lower | Upper  |
| 112      | 100   |       |        |
| 114      | 32.0  | 22.3  | 41.5   |
| 77       | 57.1  | 46.0  | 69.0   |

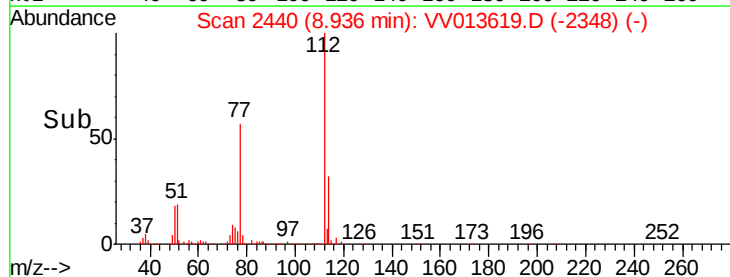
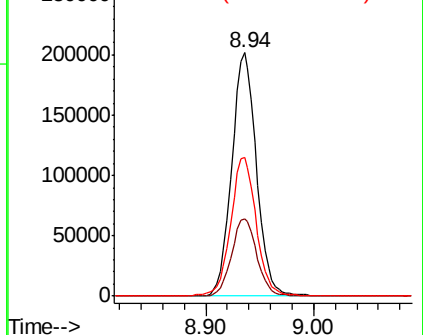


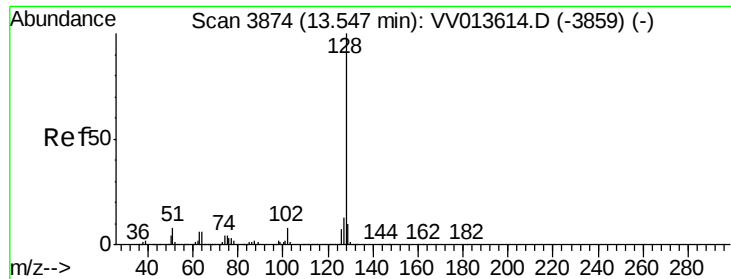
Abundance

Ion 112.10 (111.80 to 112.80): VV013619.D (-2348) (-)

Ion 114.05 (113.75 to 114.75): VV013619.D (-2348) (-)

Ion 77.10 (76.80 to 77.80): VV013619.D (-2348) (-)





#69

Naphthalene

Concen: 0.094 ug/L

RT: 13.55 min Scan# 3875

Delta R.T. 0.00 min

Lab File: VV013619.D

Acq: 14 Nov 2019 12:13

Instrument :

MSVOA\_V

ClientSampleId :

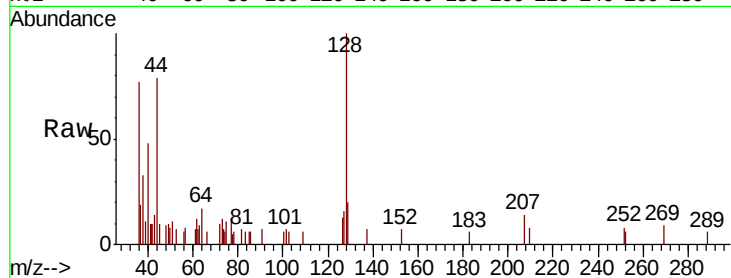
Tot Ion:128 Resp: 2998

Ion Ratio Lower Upper

128 100

129 11.7 8.2 12.4

127 17.2 11.2 16.8#



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V

