

Data File : VU033512.D  
Acq On : 31 Jul 2019 09:47  
Operator : JC/SP  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_U/WATER  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05041

Quant Time: Aug 01 07:14:20 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM073119WMA.M  
Quant Title : VOC Analysis  
QLast Update : Wed Jul 31 08:02:52 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.86  | 114  | 327475   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.07  | 117  | 326510   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.47 | 152  | 175077   | 50.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.39    | 65    | 108049   | 45.38    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 90.76%  |
| 7) Chloroethane-d5             | 1.67    | 69    | 107045   | 52.40    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 104.80% |
| 11) 1,1-Dichloroethene-d2      | 2.26    | 63    | 202700   | 46.91    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 93.82%  |
| 21) 2-Butanone-d5              | 4.16    | 46    | 165410   | 104.89   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 104.89% |
| 24) Chloroform-d               | 4.62    | 84    | 198748   | 49.80    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 99.60%  |
| 26) 1,2-Dichloroethane-d4      | 5.29    | 65    | 123537   | 48.88    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 97.76%  |
| 32) Benzene-d6                 | 5.32    | 84    | 393781   | 48.65    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 97.30%  |
| 36) 1,2-Dichloropropane-d6     | 6.31    | 67    | 123233   | 48.57    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 97.14%  |
| 41) Toluene-d8                 | 7.55    | 98    | 373300   | 49.22    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 98.44%  |
| 43) trans-1,3-Dichloropropene- | 7.83    | 79    | 60002    | 47.67    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 95.34%  |
| 47) 2-Hexanone-d5              | 8.30    | 63    | 123177   | 102.25   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 102.25% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.41   | 84    | 188001   | 48.05    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 96.10%  |
| 64) 1,2-Dichlorobenzene-d4     | 11.84   | 152   | 150472   | 46.93    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 93.86%  |

#### Target Compounds

|                                |      |     |        |         | Qvalue   |
|--------------------------------|------|-----|--------|---------|----------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 155930 | 50.493  | ug/L 99  |
| 3) Chloromethane               | 1.32 | 50  | 152282 | 48.955  | ug/L 99  |
| 5) Vinyl chloride              | 1.40 | 62  | 163146 | 48.924  | ug/L 99  |
| 6) Bromomethane                | 1.62 | 94  | 106673 | 36.256  | ug/L 98  |
| 8) Chloroethane                | 1.69 | 64  | 115051 | 56.779  | ug/L 97  |
| 9) Trichlorofluoromethane      | 1.87 | 101 | 221864 | 50.862  | ug/L 99  |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.27 | 101 | 112395 | 50.825  | ug/L 99  |
| 12) 1,1-Dichloroethene         | 2.27 | 96  | 103715 | 48.907  | ug/L 97  |
| 13) Acetone                    | 2.32 | 43  | 181609 | 112.564 | ug/L 99  |
| 14) Carbon disulfide           | 2.46 | 76  | 320002 | 48.110  | ug/L 99  |
| 15) Methyl Acetate             | 2.60 | 43  | 129418 | 50.385  | ug/L 100 |
| 16) Methylene chloride         | 2.68 | 84  | 119885 | 49.492  | ug/L 97  |
| 17) trans-1,2-Dichloroethene   | 2.96 | 96  | 107947 | 48.585  | ug/L 98  |
| 18) Methyl tert-butyl Ether    | 2.98 | 73  | 330699 | 48.809  | ug/L 99  |
| 19) 1,1-Dichloroethane         | 3.42 | 63  | 203830 | 48.875  | ug/L 99  |
| 20) cis-1,2-Dichloroethene     | 4.20 | 96  | 121062 | 48.545  | ug/L 96  |
| 22) 2-Butanone                 | 4.25 | 43  | 212482 | 110.317 | ug/L 97  |

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ClientSampleId :  
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Quant Time: Aug 01 07:14:20 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM073119WMA.M  
Quant Title : VOC Analysis  
QLast Update : Wed Jul 31 08:02:52 2019  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 23) Bromochloromethane         | 4.52  | 128  | 65112    | 50.041  | ug/L  | 95       |
| 25) Chloroform                 | 4.65  | 83   | 212745   | 48.475  | ug/L  | 100      |
| 27) 1,2-Dichloroethane         | 5.38  | 62   | 165515   | 48.978  | ug/L  | 100      |
| 29) Cyclohexane                | 4.97  | 56   | 175916   | 49.394  | ug/L  | 100      |
| 30) 1,1,1-Trichloroethane      | 4.89  | 97   | 183040   | 48.721  | ug/L  | 99       |
| 31) Carbon tetrachloride       | 5.11  | 117  | 163389   | 49.940  | ug/L  | 100      |
| 33) Benzene                    | 5.37  | 78   | 463708   | 49.230  | ug/L  | 100      |
| 34) Trichloroethene            | 6.16  | 95   | 119880   | 48.248  | ug/L  | 98       |
| 35) Methylcyclohexane          | 6.40  | 83   | 197804   | 51.016  | ug/L  | 99       |
| 37) 1,2-Dichloropropane        | 6.41  | 63   | 123207   | 48.867  | ug/L  | 99       |
| 38) Bromodichloromethane       | 6.74  | 83   | 159634   | 48.977  | ug/L  | 98       |
| 39) cis-1,3-Dichloropropene    | 7.25  | 75   | 192359   | 48.881  | ug/L  | 99       |
| 40) 4-Methyl-2-pentanone       | 7.44  | 43   | 352141   | 101.158 | ug/L  | 99       |
| 42) Toluene                    | 7.62  | 91   | 508639   | 50.219  | ug/L  | 99       |
| 44) trans-1,3-Dichloropropene  | 7.86  | 75   | 175524   | 49.355  | ug/L  | 99       |
| 45) 1,1,2-Trichloroethane      | 8.05  | 97   | 116063   | 48.490  | ug/L  | 97       |
| 46) Tetrachloroethene          | 8.21  | 164  | 100135   | 49.364  | ug/L  | 98       |
| 48) 2-Hexanone                 | 8.35  | 43   | 293053   | 104.149 | ug/L  | 98       |
| 49) Dibromochloromethane       | 8.46  | 129  | 134896   | 49.535  | ug/L  | 99       |
| 50) 1,2-Dibromoethane          | 8.57  | 107  | 130053   | 49.052  | ug/L  | 98       |
| 51) Chlorobenzene              | 9.10  | 112  | 322822   | 48.684  | ug/L  | 100      |
| 52) Ethylbenzene               | 9.23  | 91   | 543167   | 49.803  | ug/L  | 100      |
| 53) m,p-Xylene                 | 9.36  | 106  | 210667   | 50.315  | ug/L  | 97       |
| 54) o-xylene                   | 9.76  | 106  | 202173   | 49.777  | ug/L  | 96       |
| 55) Styrene                    | 9.77  | 104  | 353980   | 51.315  | ug/L  | 100      |
| 56) Isopropylbenzene           | 10.15 | 105  | 530393   | 49.980  | ug/L  | 100      |
| 58) 1,1,2,2-Tetrachloroethane  | 10.44 | 83   | 210013   | 48.647  | ug/L  | 99       |
| 59) 1,2,3-Trichloropropane     | 10.48 | 75   | 163225   | 49.046  | ug/L  | 100      |
| 61) Bromoform                  | 9.94  | 173  | 104067   | 49.208  | ug/L  | 99       |
| 62) 1,3-Dichlorobenzene        | 11.40 | 146  | 263899   | 49.081  | ug/L  | 99       |
| 63) 1,4-Dichlorobenzene        | 11.49 | 146  | 269778   | 48.294  | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene        | 11.86 | 146  | 265547   | 48.845  | ug/L  | 98       |
| 66) 1,2-Dibromo-3-chloropropan | 12.64 | 75   | 49926    | 49.705  | ug/L  | 98       |
| 67) 1,3,5-Trichlorobenzene     | 12.87 | 180  | 208441   | 48.052  | ug/L  | 98       |
| 68) 1,2,4-trichlorobenzene     | 13.49 | 180  | 179685   | 48.478  | ug/L  | 99       |
| 69) Naphthalene                | 13.73 | 128  | 519426   | 48.845  | ug/L  | 99       |
| 70) 1,2,3-Trichlorobenzene     | 13.97 | 180  | 188873   | 48.452  | ug/L  | 99       |

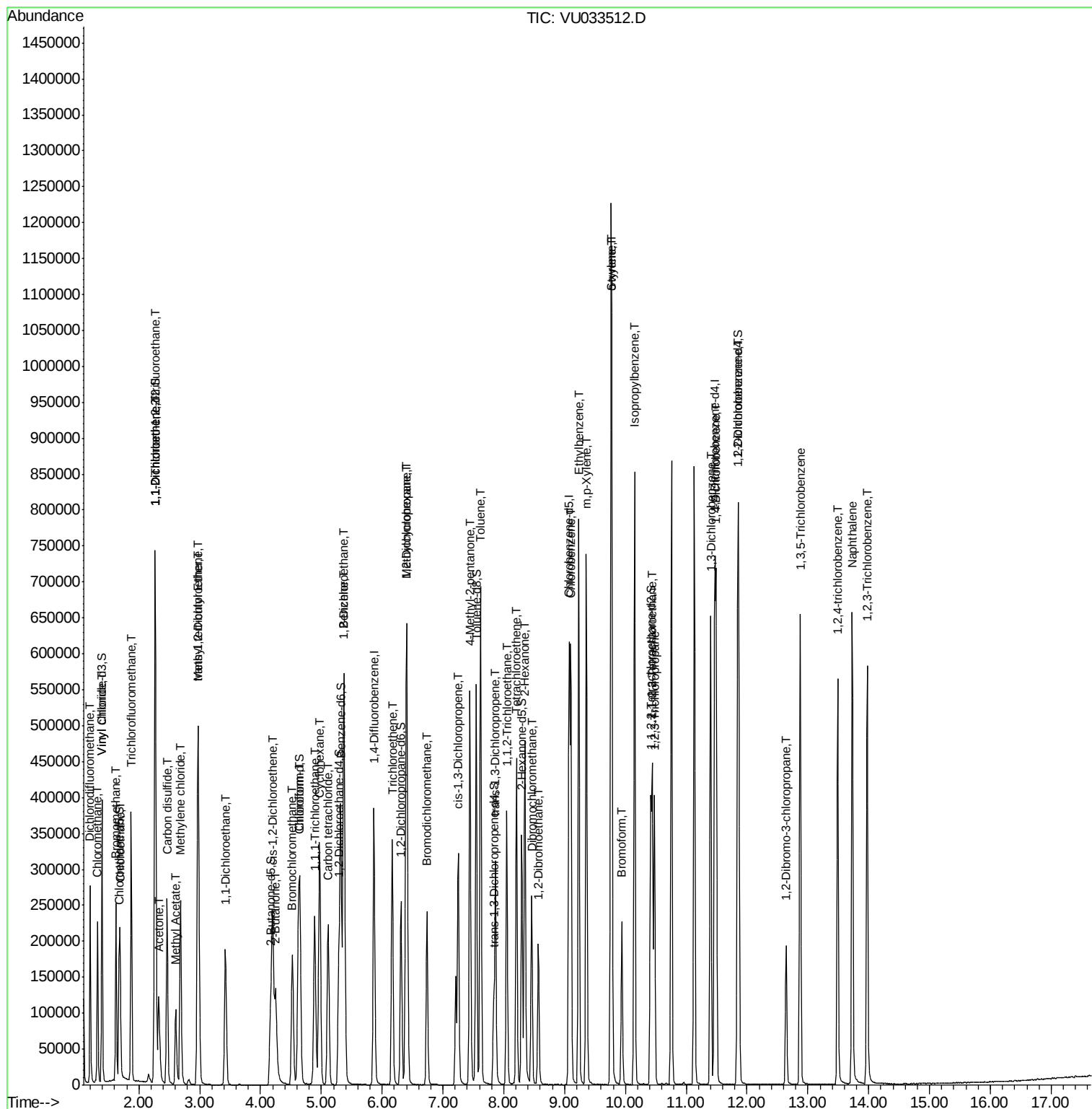
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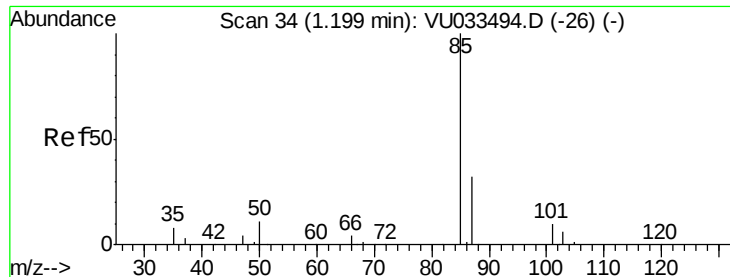
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```
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Sample       : VSTDCCC050
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ALS Vial     : 2      Sample Multiplier: 1
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**Instrument :**  
MSVOA\_U  
**ClientSampleId :**  
VSTD05041

Quant Time: Aug 01 07:14:20 2019  
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Quant Title : VOC Analysis  
QLast Update : Wed Jul 31 08:02:52 2019  
Response via : Initial Calibration





#2

Dichlorodifluoromethane

Concen: 50.493 ug/L

RT: 1.20 min Scan# 34

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

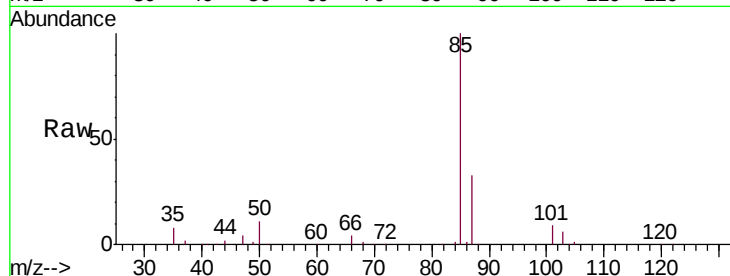
VSTD05041

Tgt Ion: 85 Resp: 155930

Ion Ratio Lower Upper

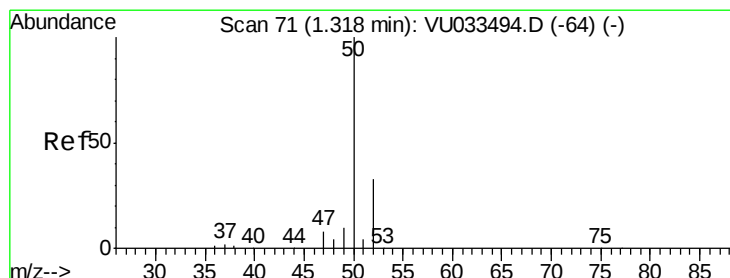
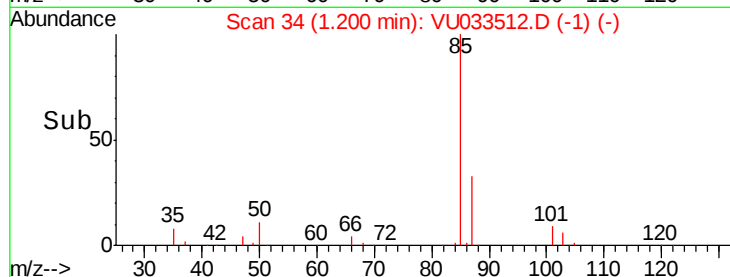
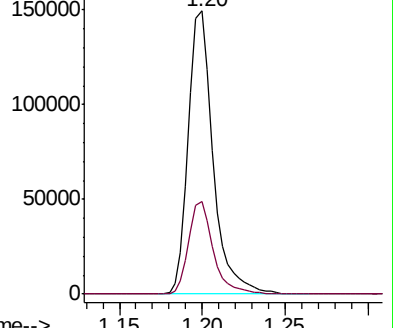
85 100

87 32.5 25.4 38.2



Abundance Ion 85.00 (84.70 to 85.70): VU033494.D (-26) (-)

Ion 87.00 (86.70 to 87.70): VU033494.D (-26) (-)



#3

Chloromethane

Concen: 48.955 ug/L

RT: 1.32 min Scan# 71

Delta R.T. 0.00 min

Lab File: VU033512.D

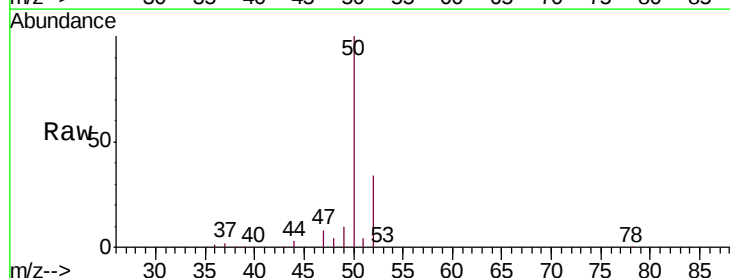
Acq: 31 Jul 2019 09:47

Tgt Ion: 50 Resp: 152282

Ion Ratio Lower Upper

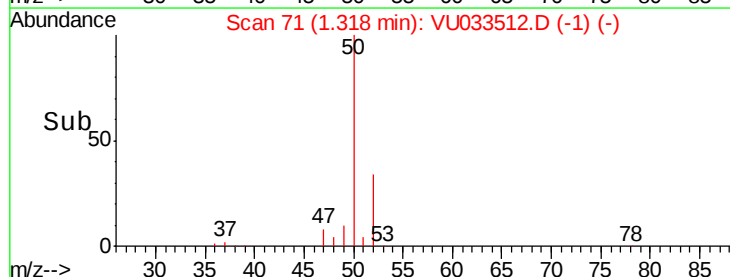
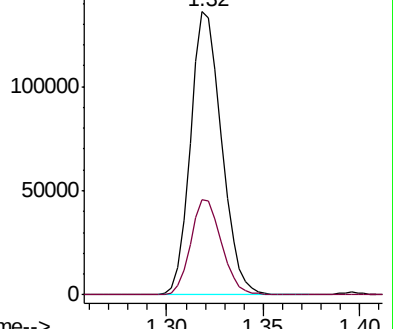
50 100

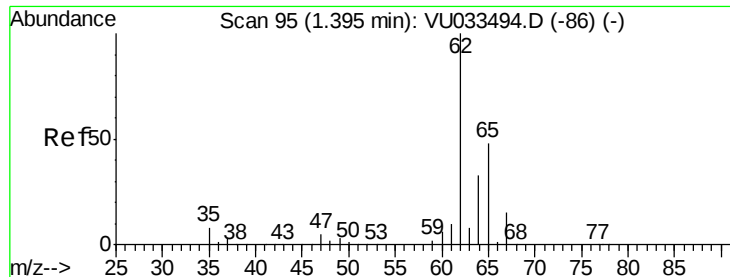
52 33.6 23.1 42.9



Abundance Ion 50.00 (49.70 to 50.70): VU033494.D (-64) (-)

Ion 52.00 (51.70 to 52.70): VU033494.D (-64) (-)





#5

Vinyl chloride

Concen: 48.924 ug/L

RT: 1.40 min Scan# 95

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

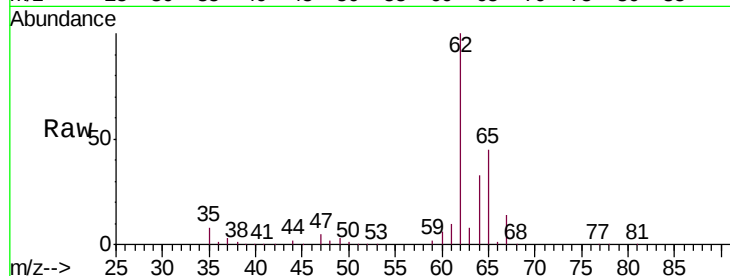
VSTD05041

Tgt Ion: 62 Resp: 163146

Ion Ratio Lower Upper

62 100

64 33.1 23.4 43.4



Abundance Ion 62.00 (61.70 to 62.70): VU033494.D (-86) (-)

Ion 64.00 (63.70 to 64.70): VU033494.D (-86) (-)

1.40

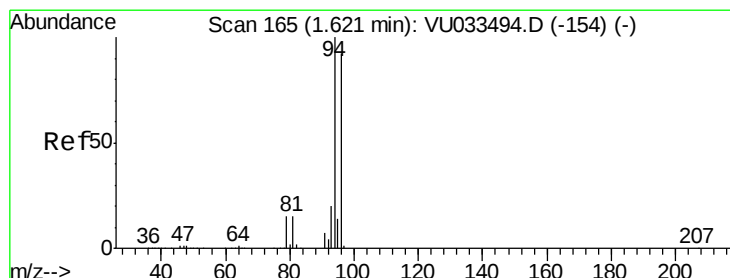
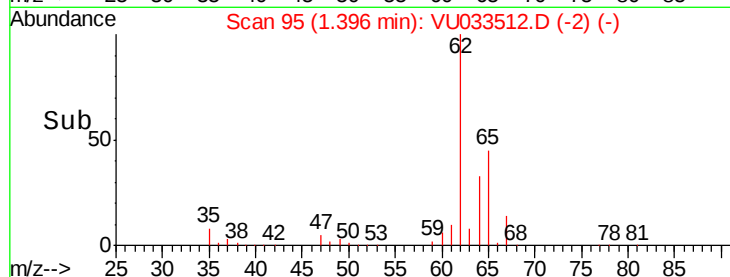
150000

100000

50000

0

Time-->



#6

Bromomethane

Concen: 36.256 ug/L

RT: 1.62 min Scan# 165

Delta R.T. 0.00 min

Lab File: VU033512.D

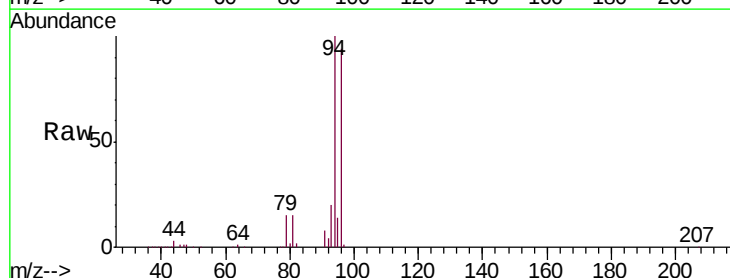
Acq: 31 Jul 2019 09:47

Tgt Ion: 94 Resp: 106673

Ion Ratio Lower Upper

94 100

96 94.4 64.4 119.6



Abundance Ion 94.00 (93.70 to 94.70): VU033494.D (-154) (-)

Ion 96.00 (95.70 to 96.70): VU033494.D (-154) (-)

1.62

100000

80000

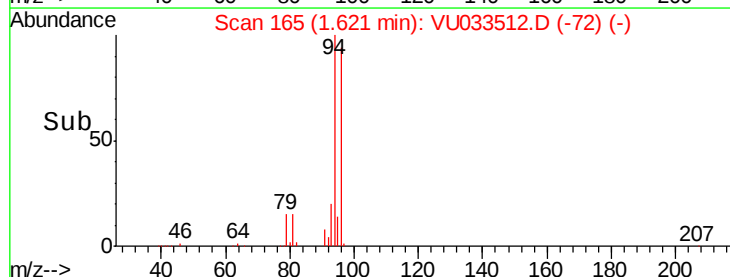
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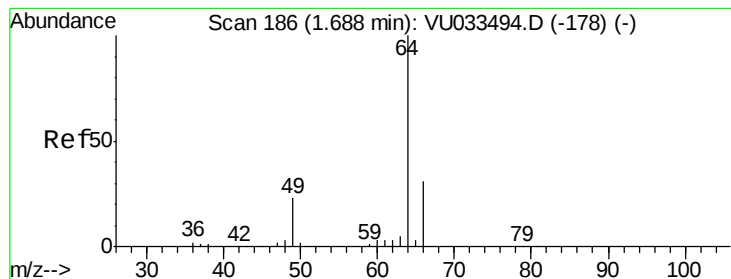
40000

20000

0

Time-->





#8

Chloroethane

Concen: 56.779 ug/L

RT: 1.69 min Scan# 187

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

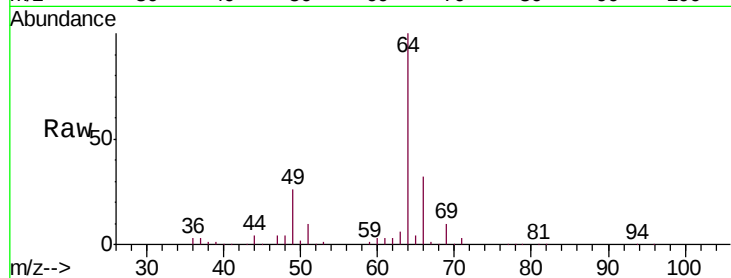
VSTD05041

Tgt Ion: 64 Resp: 115051

Ion Ratio Lower Upper

64 100

66 32.0 21.1 39.3



Abundance Ion 64.00 (63.70 to 64.70): VU033494.D (-178) (-)

Ion 66.00 (65.70 to 66.70): VU033494.D (-178) (-)

1.69

100000

80000

60000

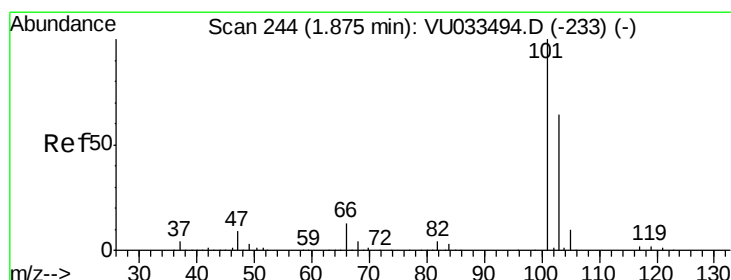
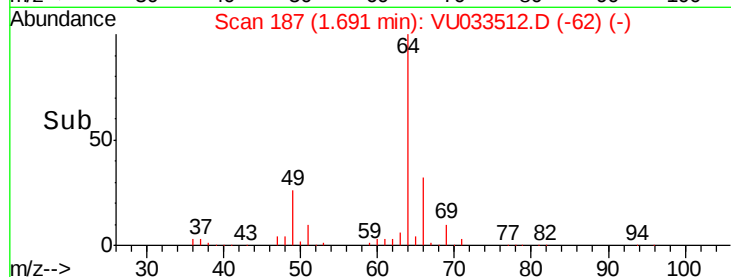
40000

20000

0

1.65 1.70 1.75

Time-->



#9

Trichlorofluoromethane

Concen: 50.862 ug/L

RT: 1.87 min Scan# 244

Delta R.T. 0.00 min

Lab File: VU033512.D

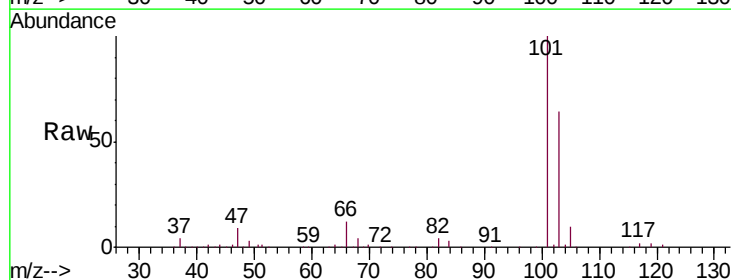
Acq: 31 Jul 2019 09:47

Tgt Ion: 101 Resp: 221864

Ion Ratio Lower Upper

101 100

103 65.1 51.6 77.4



Abundance Ion 101.00 (100.70 to 101.70): VU033494.D (-233) (-)

Ion 103.00 (102.70 to 103.70): VU033494.D (-233) (-)

1.87

150000

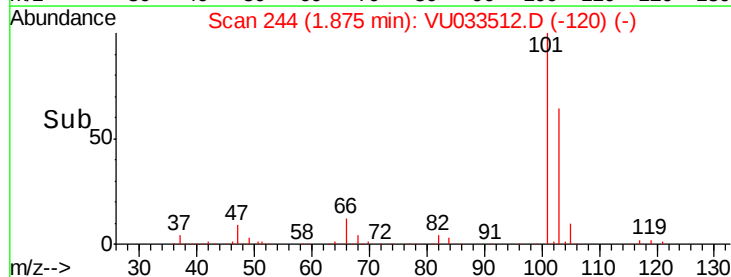
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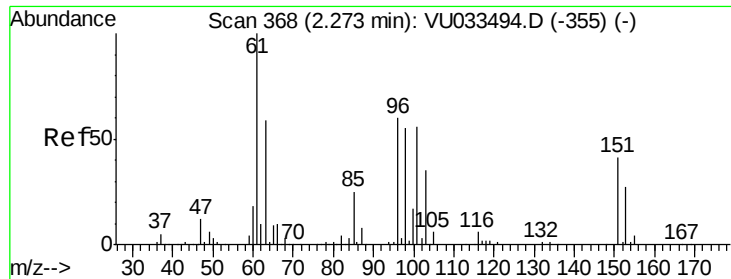
50000

0

1.80 1.85 1.90 1.95

Time-->





#10

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

Concen: 50.825 ug/L

RT: 2.27 min Scan# 368

Delta R.T. 0.00 min

Lab File: VU033512.D

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ClientSampleId :

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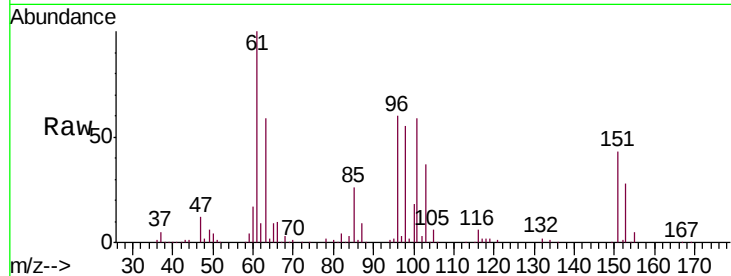
Tgt Ion:101 Resp: 112395

Ion Ratio Lower Upper

101 100

85 44.0 35.8 53.8

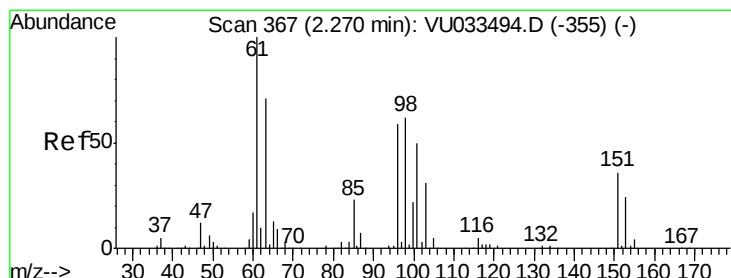
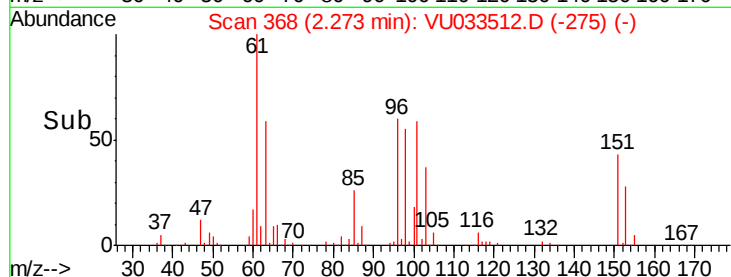
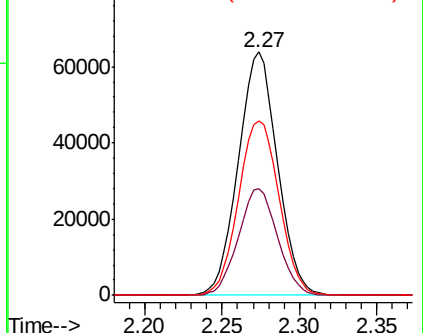
151 74.6 60.1 90.1



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VU0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 48.907 ug/L

RT: 2.27 min Scan# 367

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

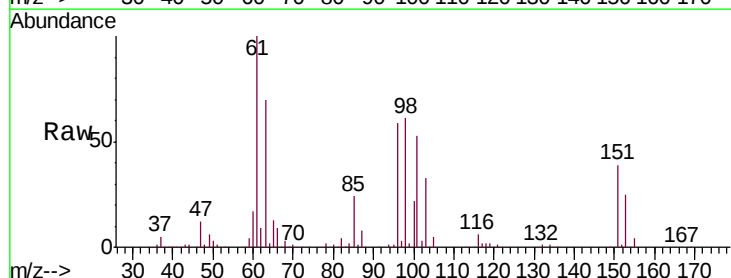
Tgt Ion: 96 Resp: 103715

Ion Ratio Lower Upper

96 100

61 168.6 119.3 221.5

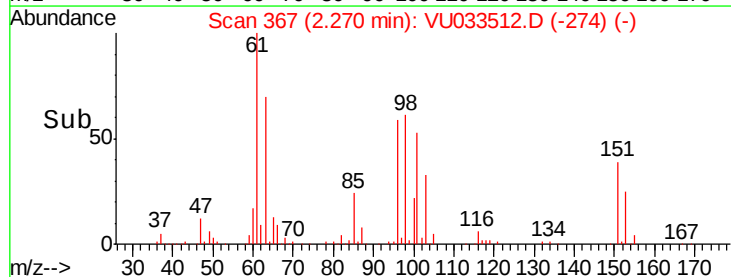
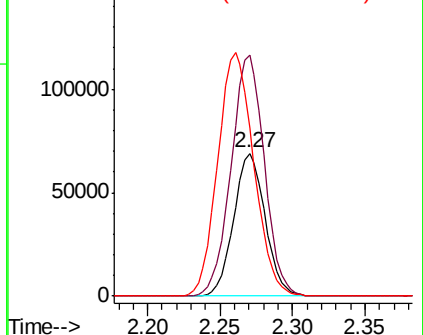
63 118.2 86.6 160.8

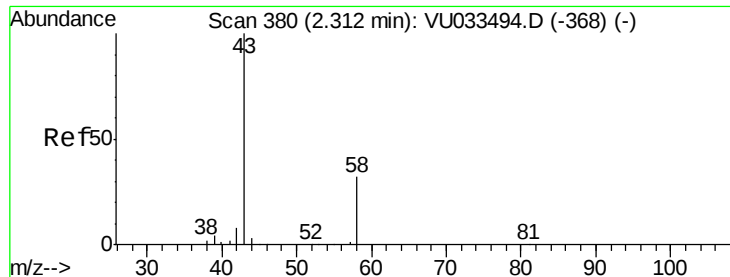


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 112.564 ug/L

RT: 2.32 min Scan# 384

Delta R.T. 0.01 min

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Instrument :

MSVOA\_U

ClientSampleId :

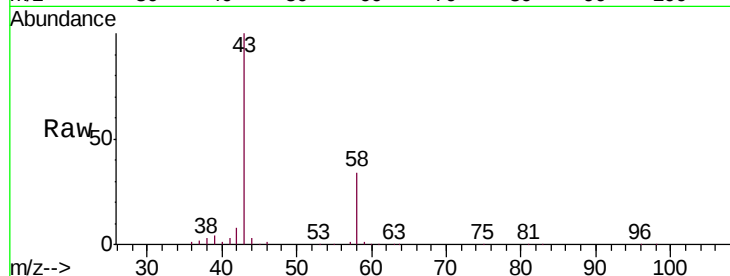
VSTD05041

Tgt Ion: 43 Resp: 181609

Ion Ratio Lower Upper

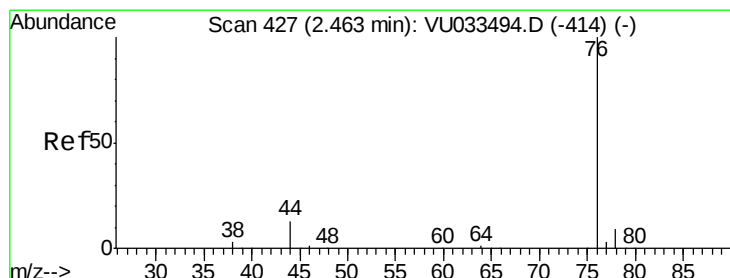
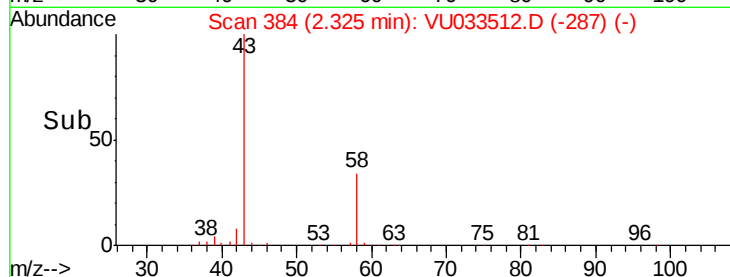
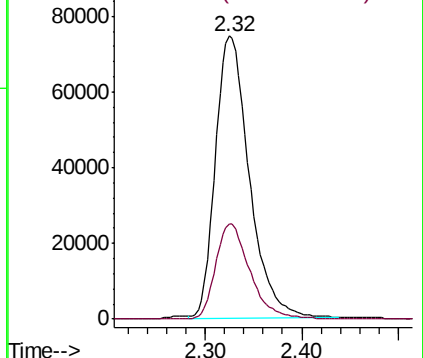
43 100

58 33.8 0.0 66.2



Abundance Ion 43.00 (42.70 to 43.70): VU033512.D (-287) (-)

Ion 58.00 (57.70 to 58.70): VU033512.D (-287) (-)



#14

Carbon disulfide

Concen: 48.110 ug/L

RT: 2.46 min Scan# 427

Delta R.T. 0.00 min

Lab File: VU033512.D

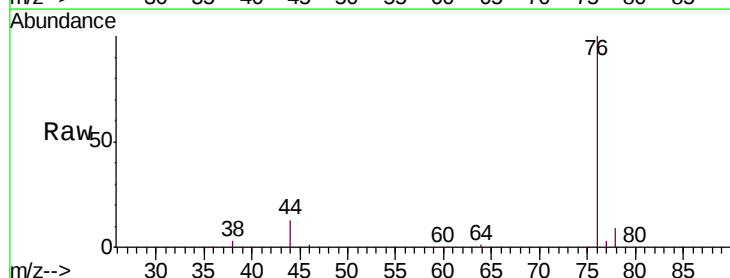
Acq: 31 Jul 2019 09:47

Tgt Ion: 76 Resp: 320002

Ion Ratio Lower Upper

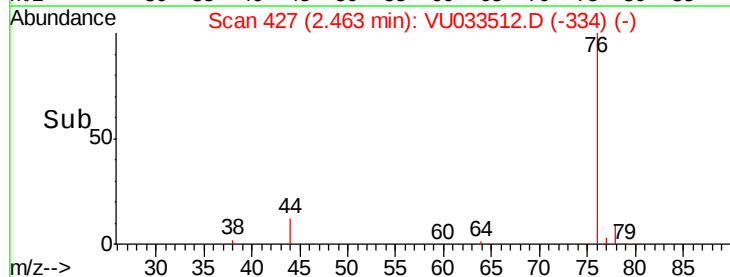
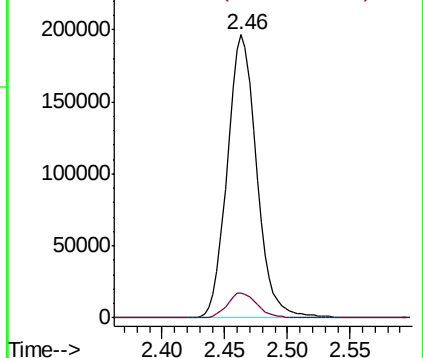
76 100

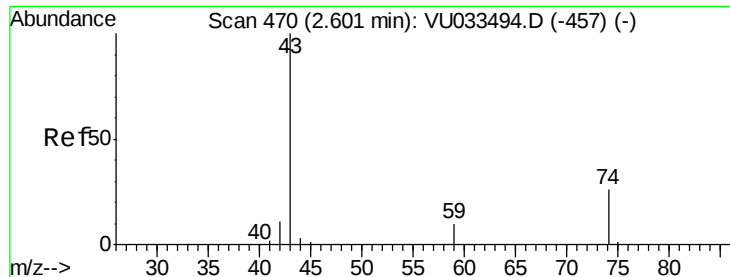
78 8.9 7.4 11.0



Abundance Ion 76.00 (75.70 to 76.70): VU033512.D (-334) (-)

Ion 78.00 (77.70 to 78.70): VU033512.D (-334) (-)

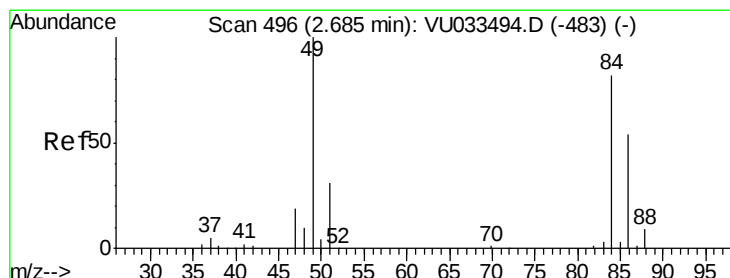
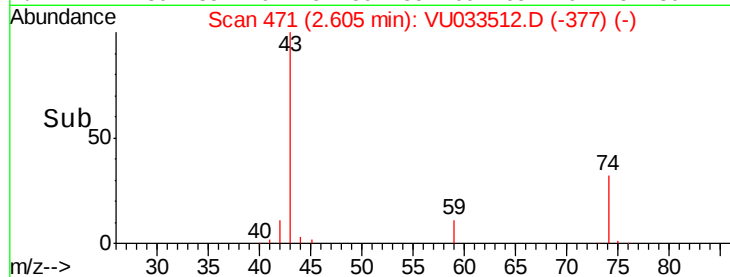
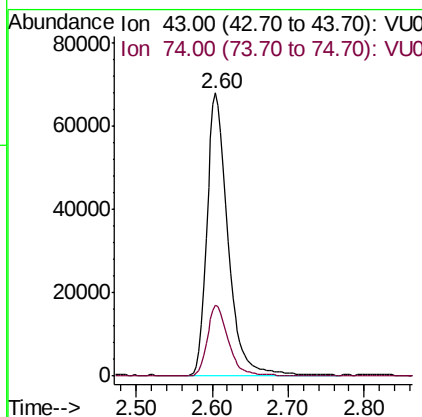
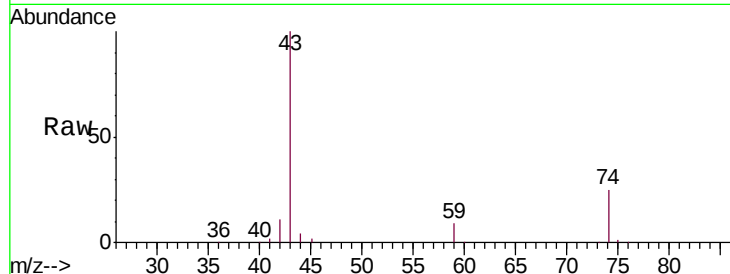




#15  
Methyl Acetate  
Concen: 50.385 ug/L  
RT: 2.60 min Scan# 471  
Delta R.T. 0.00 min  
Lab File: VU033512.D  
Acq: 31 Jul 2019 09:47

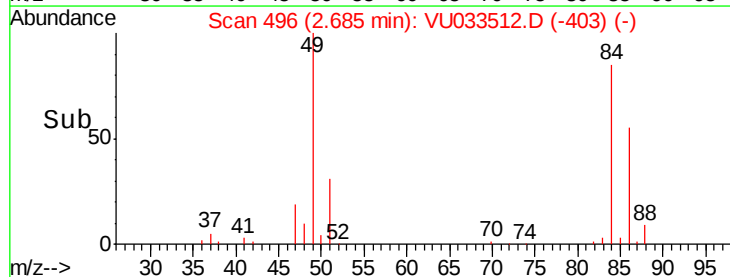
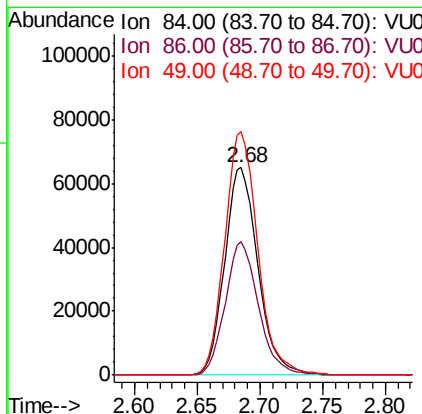
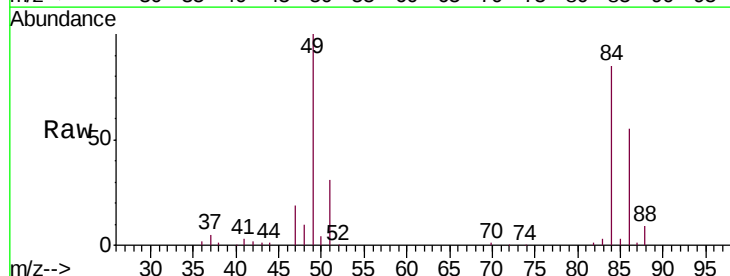
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05041

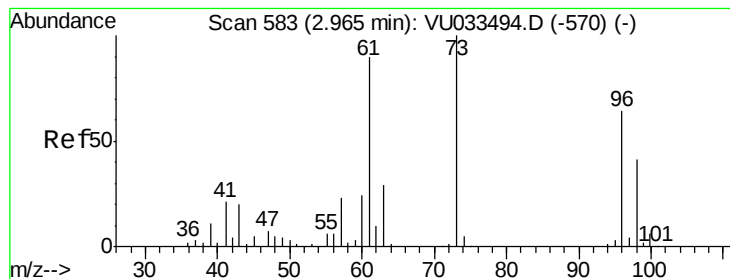
Tgt Ion: 43 Resp: 129418  
Ion Ratio Lower Upper  
43 100  
74 25.0 20.1 30.1



#16  
Methylene chloride  
Concen: 49.492 ug/L  
RT: 2.68 min Scan# 496  
Delta R.T. 0.00 min  
Lab File: VU033512.D  
Acq: 31 Jul 2019 09:47

Tgt Ion: 84 Resp: 119885  
Ion Ratio Lower Upper  
84 100  
86 64.4 45.7 84.9  
49 117.3 85.0 158.0





#17

trans-1,2-Dichloroethene

Concen: 48.585 ug/L

RT: 2.96 min Scan# 583

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05041

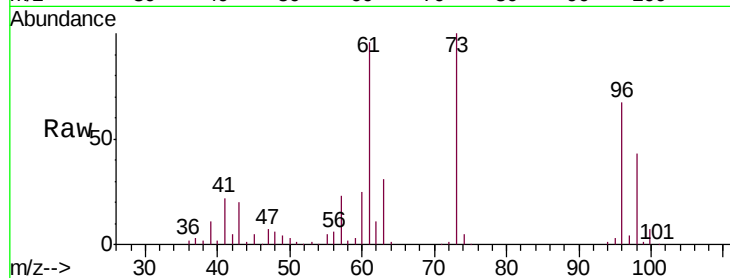
Tgt Ion: 96 Resp: 107947

Ion Ratio Lower Upper

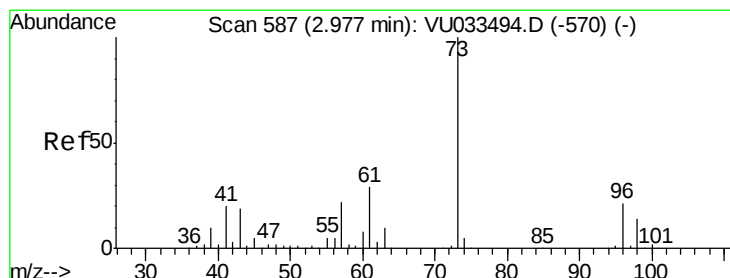
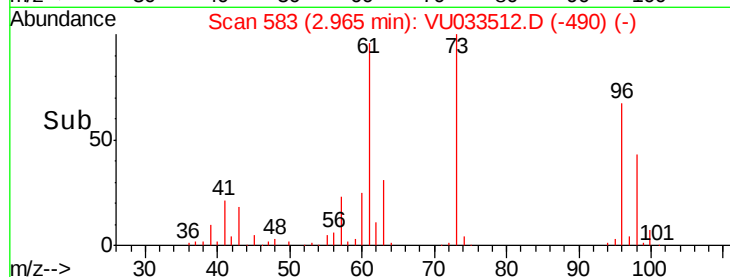
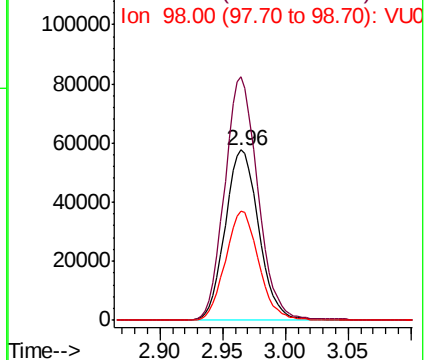
96 100

61 142.8 98.3 182.5

98 64.4 44.3 82.3



Abundance Ion 96.00 (95.70 to 96.70): VU0  
Ion 61.00 (60.70 to 61.70): VU0  
Ion 98.00 (97.70 to 98.70): VU0



#18

Methyl tert-butyl Ether

Concen: 48.809 ug/L

RT: 2.98 min Scan# 588

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

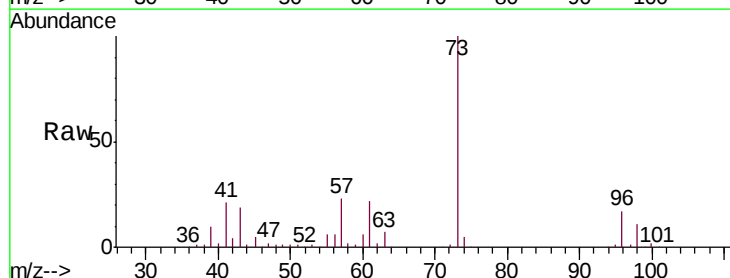
Tgt Ion: 73 Resp: 330699

Ion Ratio Lower Upper

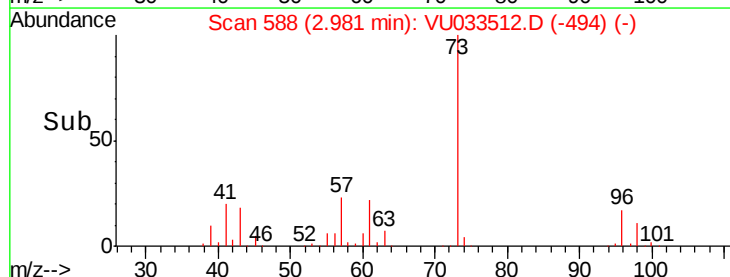
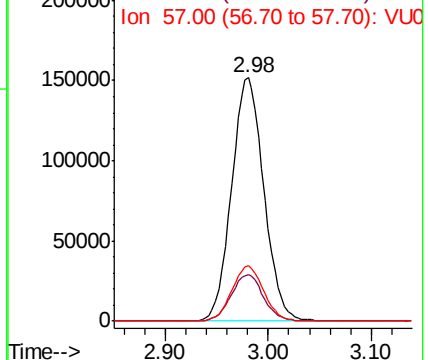
73 100

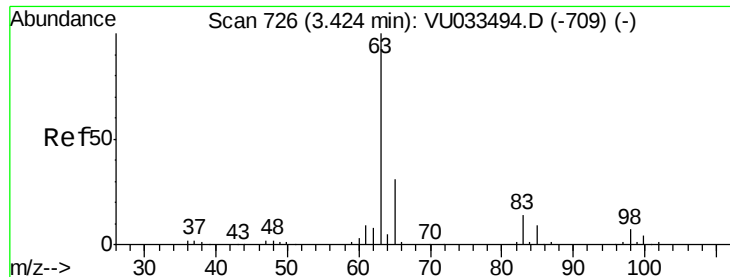
43 18.8 15.4 23.2

57 22.2 17.4 26.2



Abundance Ion 73.00 (72.70 to 73.70): VU0  
Ion 43.00 (42.70 to 43.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0

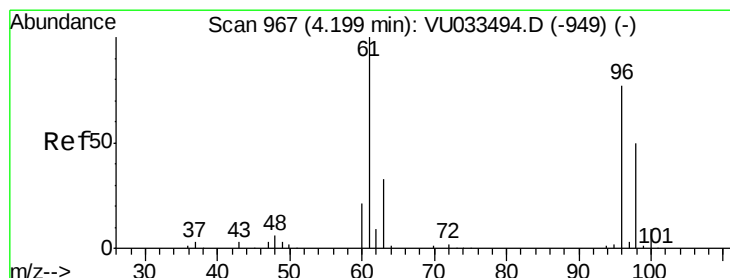
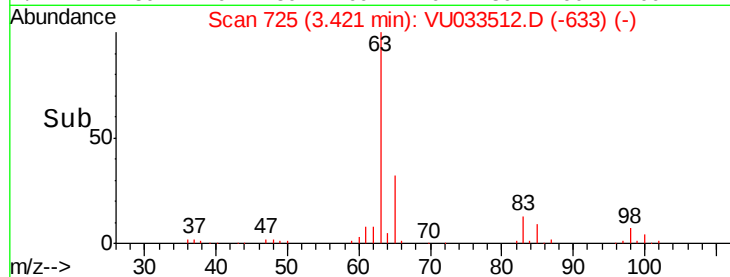
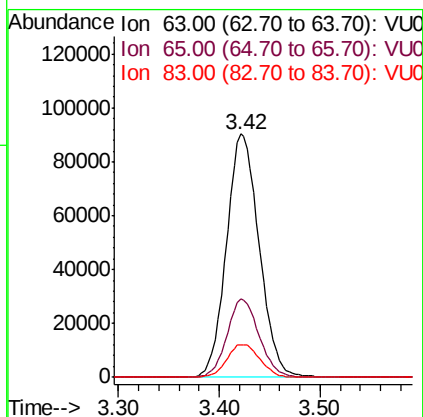
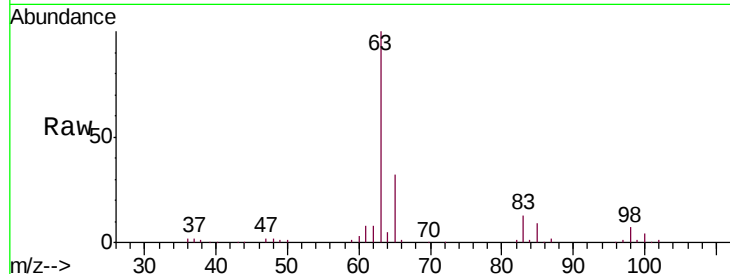




#19  
 1,1-Dichloroethane  
 Concen: 48.875 ug/L  
 RT: 3.42 min Scan# 725  
 Delta R.T. -0.00 min  
 Lab File: VU033512.D  
 Acq: 31 Jul 2019 09:47

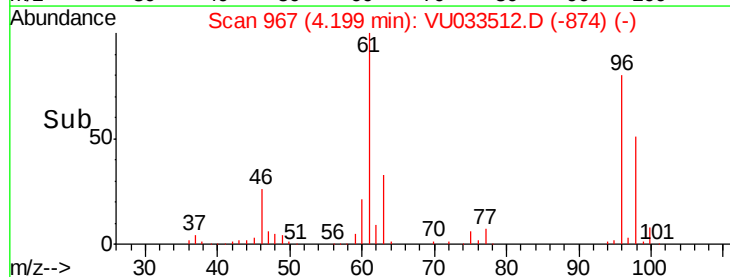
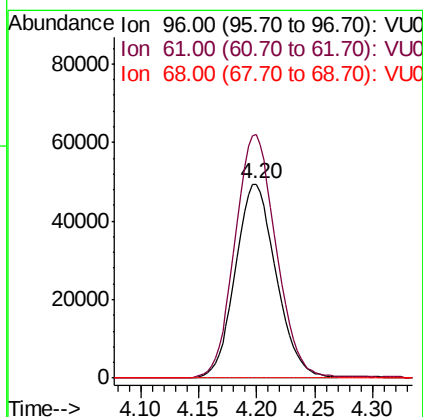
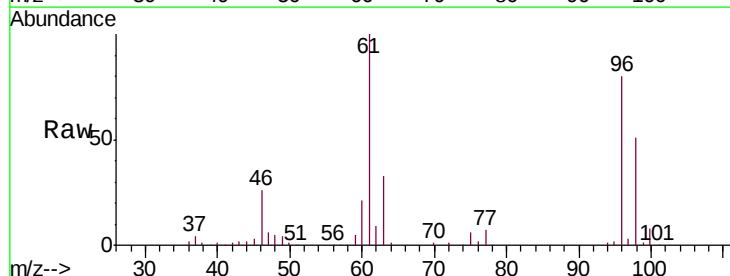
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05041

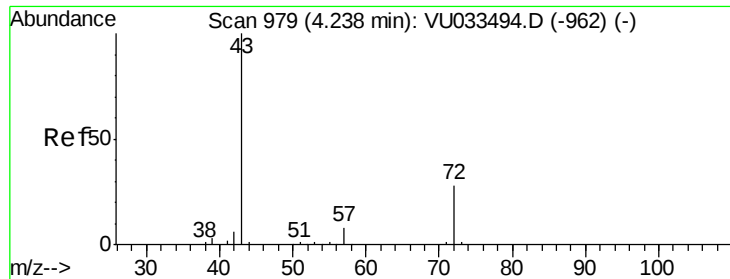
Tgt Ion: 63 Resp: 203830  
 Ion Ratio Lower Upper  
 63 100  
 65 32.1 22.0 40.8  
 83 13.4 9.5 17.7



#20  
 cis-1,2-Dichloroethene  
 Concen: 48.545 ug/L  
 RT: 4.20 min Scan# 967  
 Delta R.T. 0.00 min  
 Lab File: VU033512.D  
 Acq: 31 Jul 2019 09:47

Tgt Ion: 96 Resp: 121062  
 Ion Ratio Lower Upper  
 96 100  
 61 125.6 91.3 169.6  
 68 0.0 0.0 0.0





#22

2-Butanone

Concen: 110.317 ug/L

RT: 4.25 min Scan# 982

Delta R.T. 0.01 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

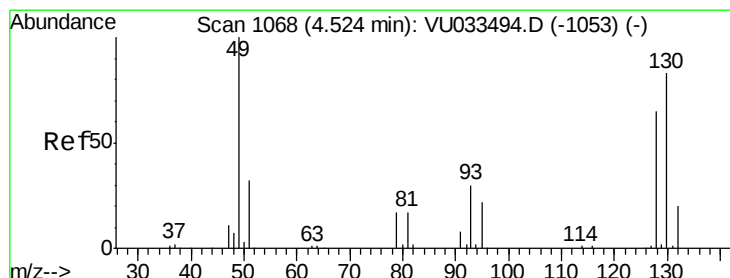
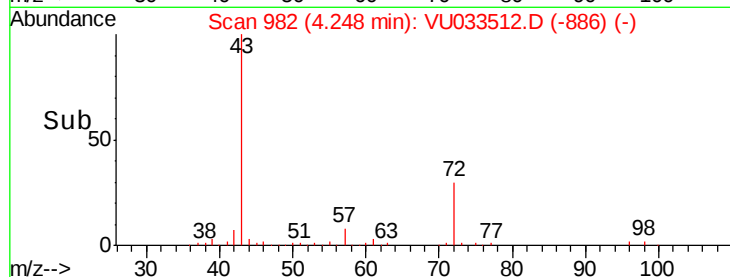
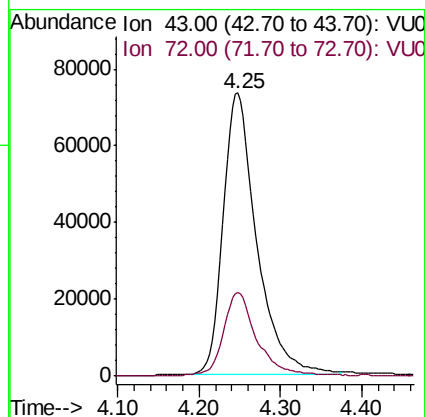
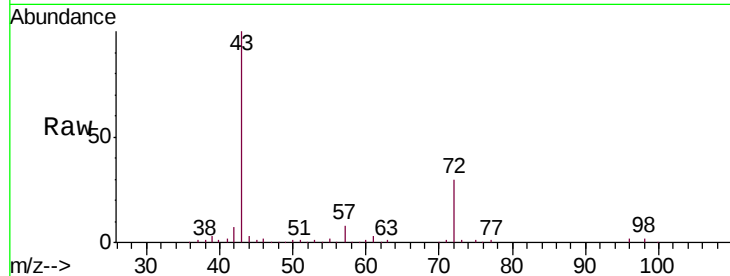
VSTD05041

Tgt Ion: 43 Resp: 212482

Ion Ratio Lower Upper

43 100

72 29.7 14.2 42.6



#23

Bromochloromethane

Concen: 50.041 ug/L

RT: 4.52 min Scan# 1068

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Tgt Ion: 128 Resp: 65112

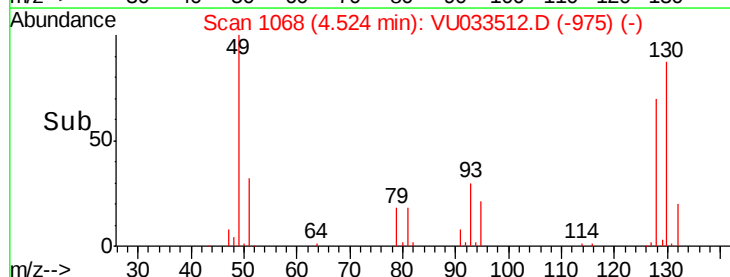
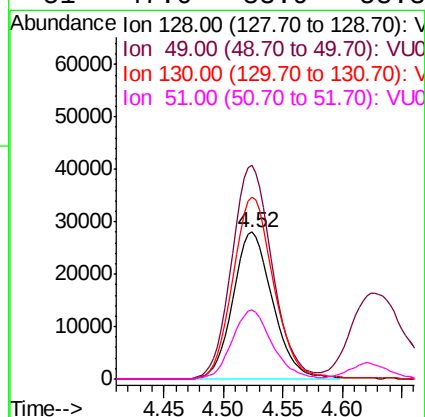
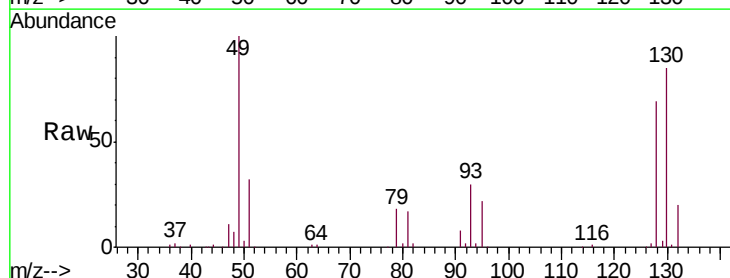
Ion Ratio Lower Upper

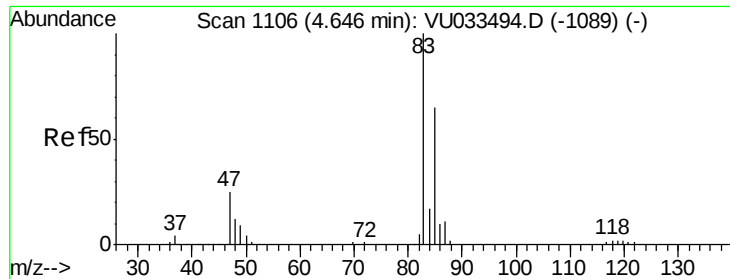
128 100

49 145.4 108.4 201.2

130 123.8 89.7 166.5

51 47.0 38.9 58.3





#25

Chloroform

Concen: 48.475 ug/L

RT: 4.65 min Scan# 1106

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

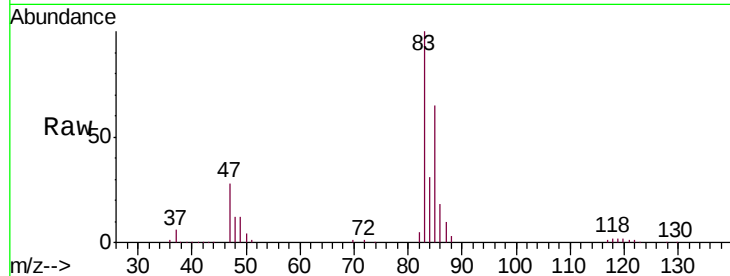
VSTD05041

Tgt Ion: 83 Resp: 212745

Ion Ratio Lower Upper

83 100

85 65.5 45.6 84.8

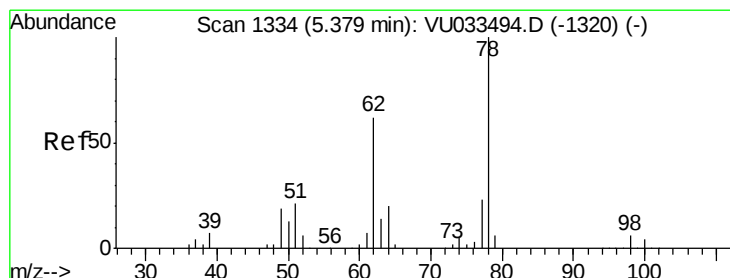
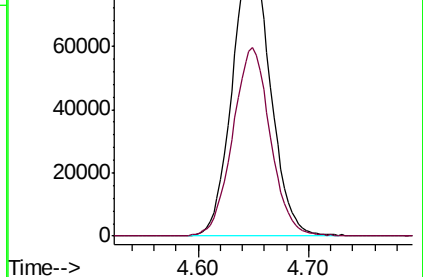
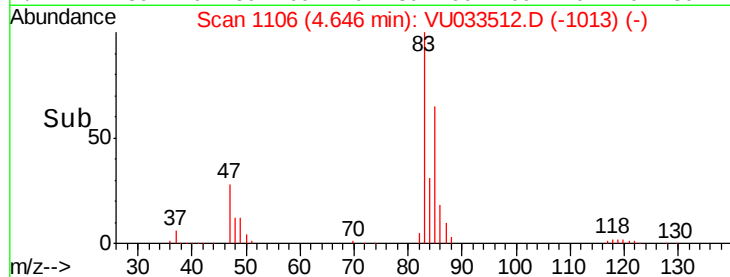


Abundance Ion 83.00 (82.70 to 83.70): VU033494.D (-1089) (-)

Ion 85.00 (84.70 to 85.70): VU033494.D (-1089) (-)

4.65

Time-->



#27

1,2-Dichloroethane

Concen: 48.978 ug/L

RT: 5.38 min Scan# 1335

Delta R.T. 0.00 min

Lab File: VU033512.D

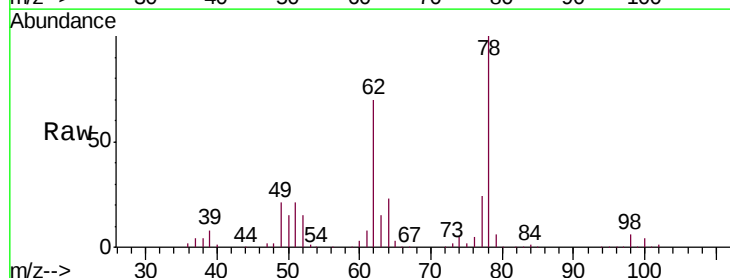
Acq: 31 Jul 2019 09:47

Tgt Ion: 62 Resp: 165515

Ion Ratio Lower Upper

62 100

98 9.0 7.2 10.8

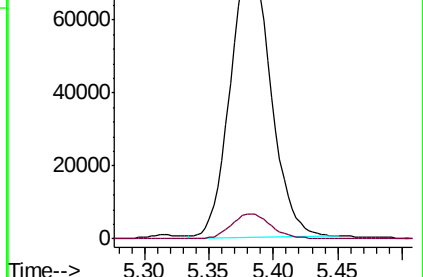
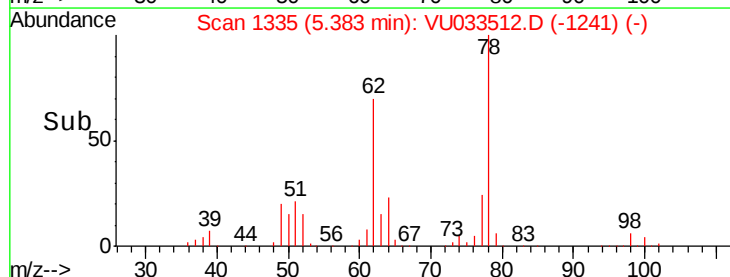


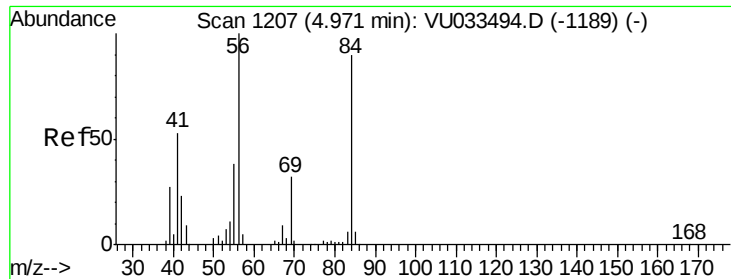
Abundance Ion 62.00 (61.70 to 62.70): VU033494.D (-1320) (-)

Ion 98.00 (97.70 to 98.70): VU033494.D (-1320) (-)

5.38

Time-->

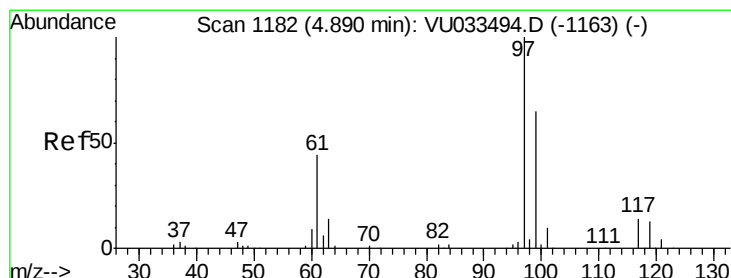
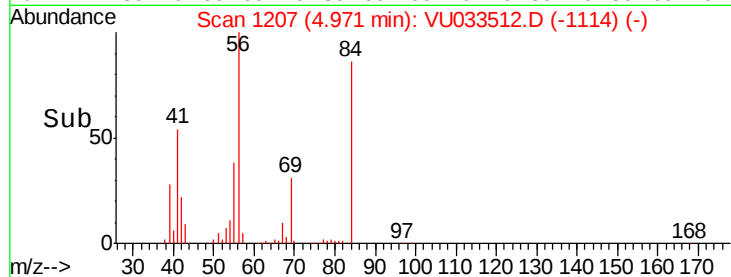
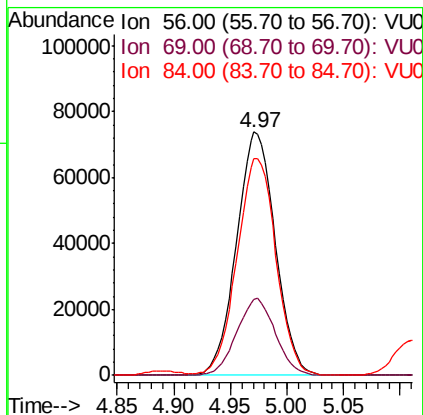
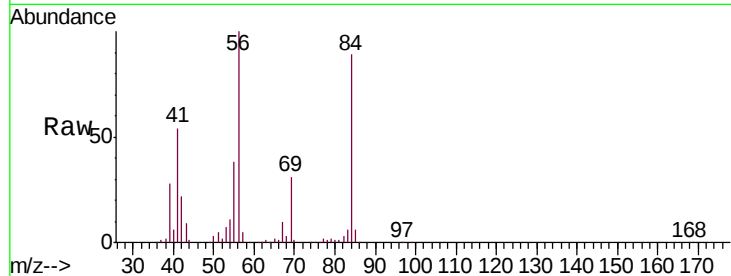




#29  
Cyclohexane  
Concen: 49.394 ug/L  
RT: 4.97 min Scan# 1207  
Delta R.T. 0.00 min  
Lab File: VU033512.D  
Acq: 31 Jul 2019 09:47

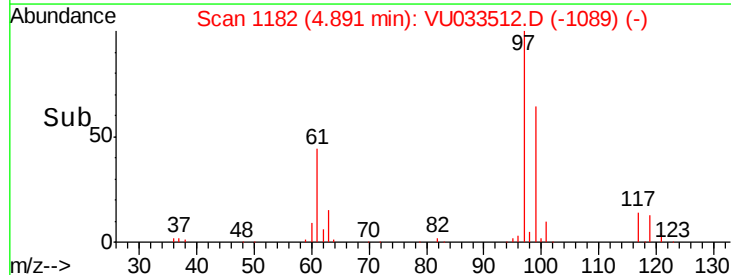
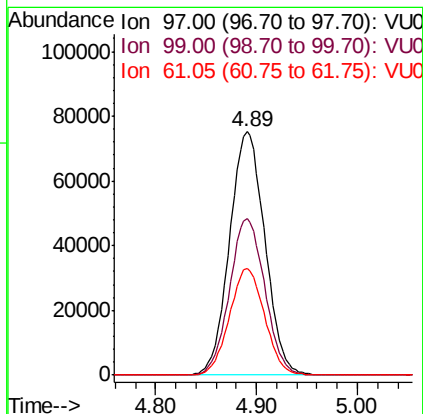
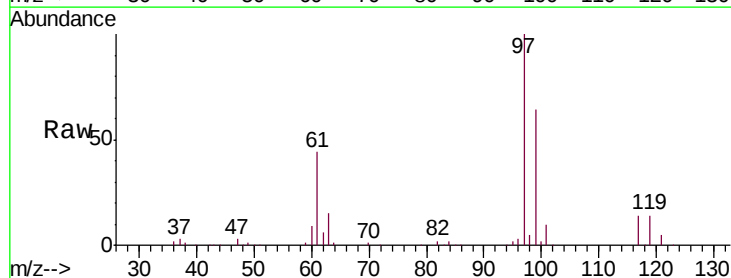
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05041

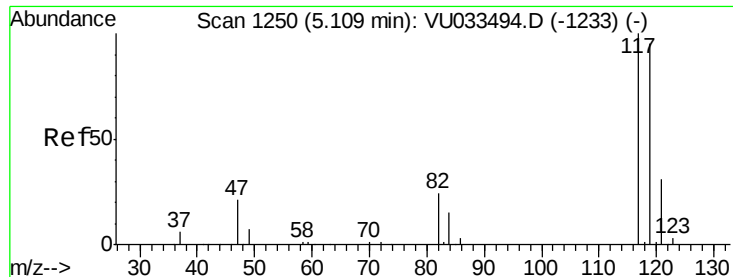
Tgt Ion: 56 Resp: 175916  
Ion Ratio Lower Upper  
56 100  
69 31.4 25.0 37.6  
84 90.0 71.6 107.4



#30  
1,1,1-Trichloroethane  
Concen: 48.721 ug/L  
RT: 4.89 min Scan# 1182  
Delta R.T. 0.00 min  
Lab File: VU033512.D  
Acq: 31 Jul 2019 09:47

Tgt Ion: 97 Resp: 183040  
Ion Ratio Lower Upper  
97 100  
99 64.1 51.1 76.7  
61 43.6 35.5 53.3





#31

Carbon tetrachloride

Concen: 49.940 ug/L

RT: 5.11 min Scan# 1251

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

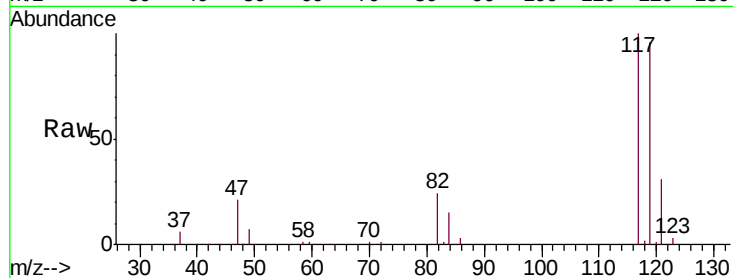
VSTD05041

Tgt Ion:117 Resp: 163389

Ion Ratio Lower Upper

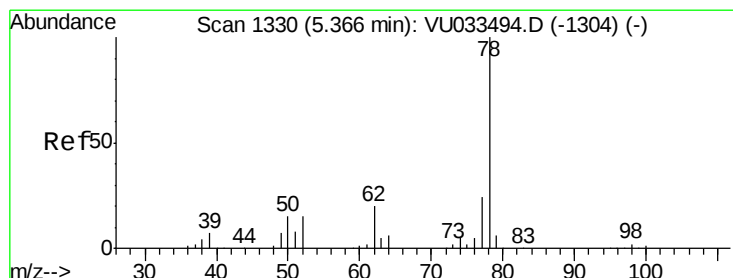
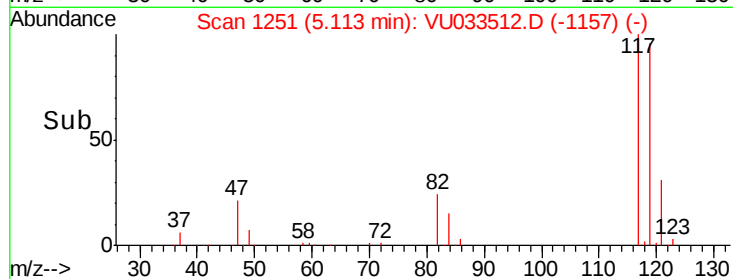
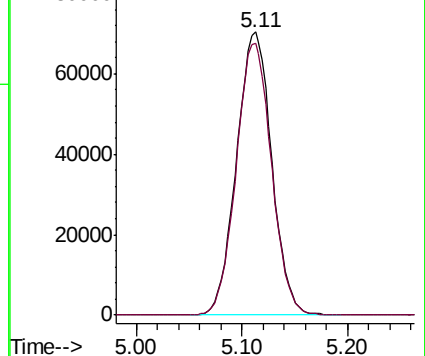
117 100

119 96.2 77.0 115.4



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V



#33

Benzene

Concen: 49.230 ug/L

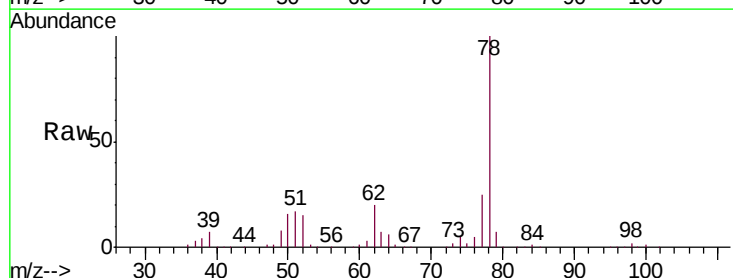
RT: 5.37 min Scan# 1330

Delta R.T. 0.00 min

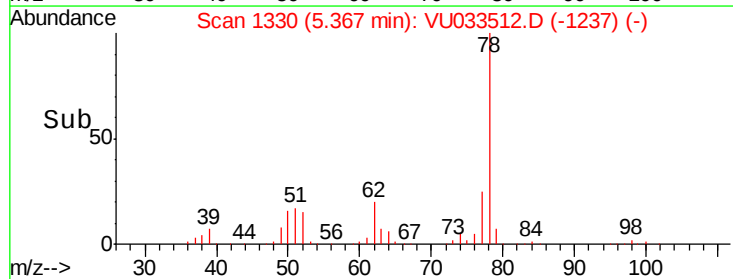
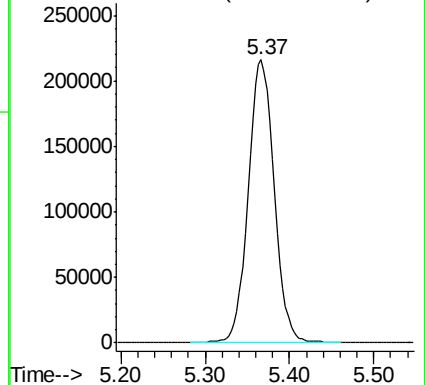
Lab File: VU033512.D

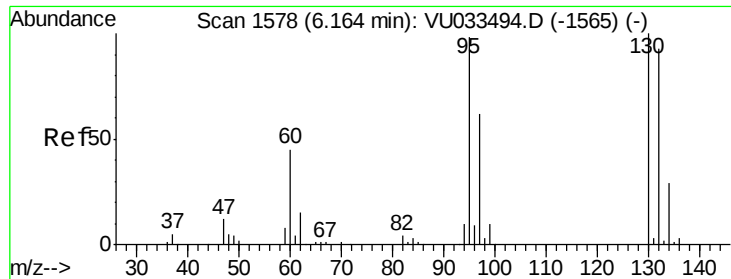
Acq: 31 Jul 2019 09:47

Tgt Ion: 78 Resp: 463708



Abundance Ion 78.00 (77.70 to 78.70): VU0





#34

Trichloroethene

Concen: 48.248 ug/L

RT: 6.16 min Scan# 1578

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05041

Tgt Ion: 95 Resp: 119880

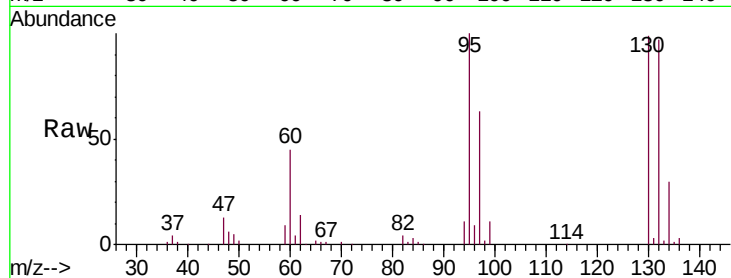
Ion Ratio Lower Upper

95 100

97 62.9 44.7 83.1

132 97.0 66.8 124.0

130 98.9 71.6 133.0

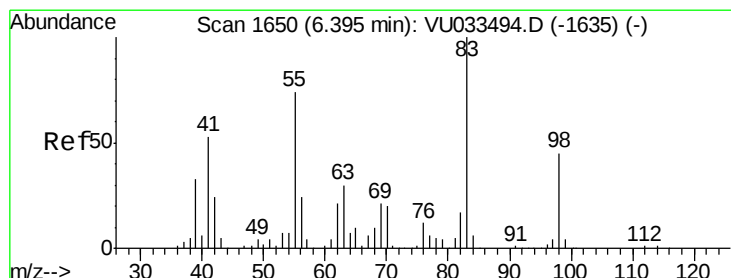
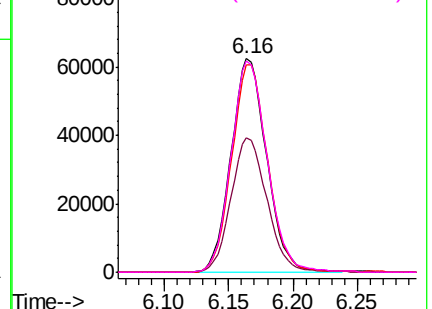
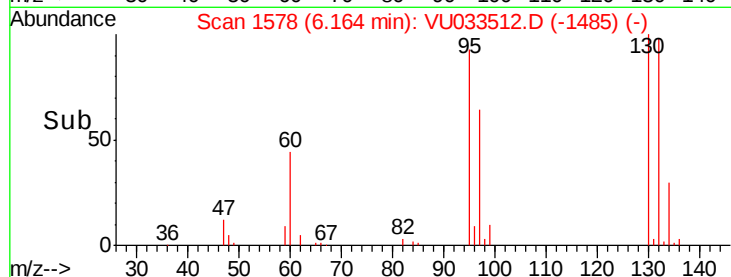


Abundance Ion 95.00 (94.70 to 95.70): VU0

Ion 97.00 (96.70 to 97.70): VU0

Ion 132.00 (131.70 to 132.70): V

Ion 130.00 (129.70 to 130.70): V



#35

Methylcyclohexane

Concen: 51.016 ug/L

RT: 6.40 min Scan# 1650

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

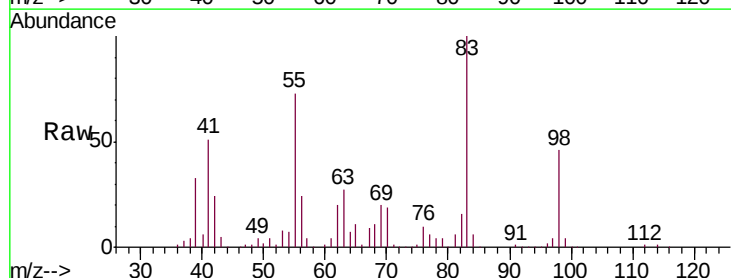
Tgt Ion: 83 Resp: 197804

Ion Ratio Lower Upper

83 100

55 73.9 60.2 90.4

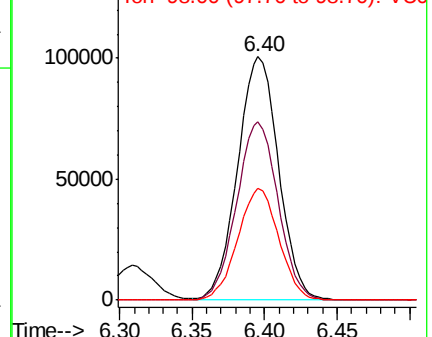
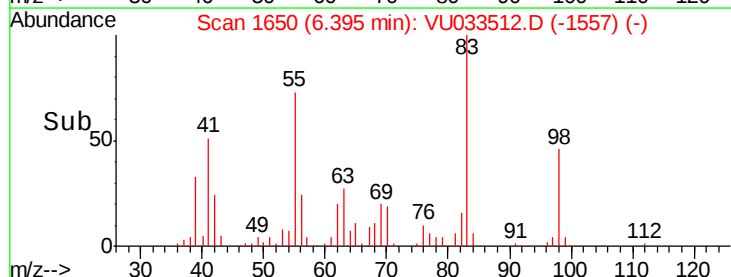
98 45.9 36.5 54.7

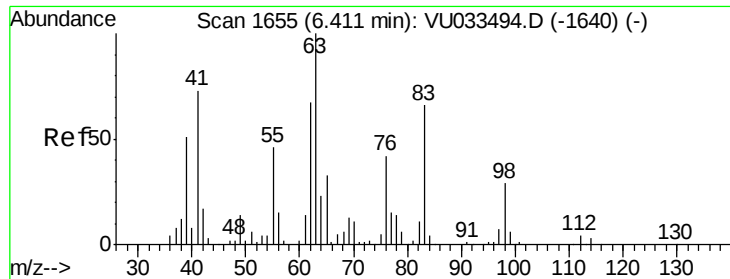


Abundance Ion 83.00 (82.70 to 83.70): VU0

Ion 55.00 (54.70 to 55.70): VU0

Ion 98.00 (97.70 to 98.70): VU0

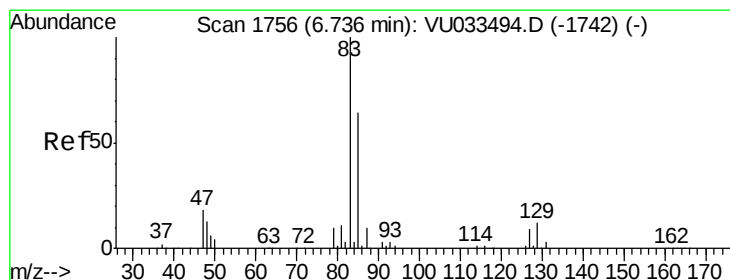
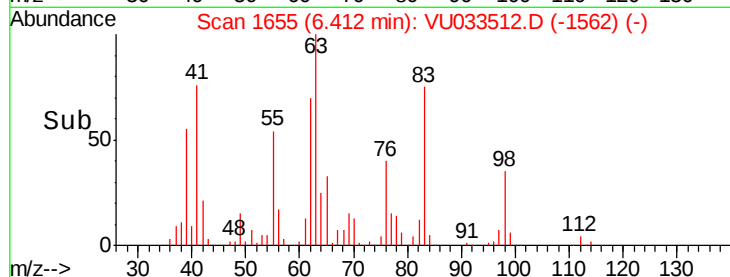
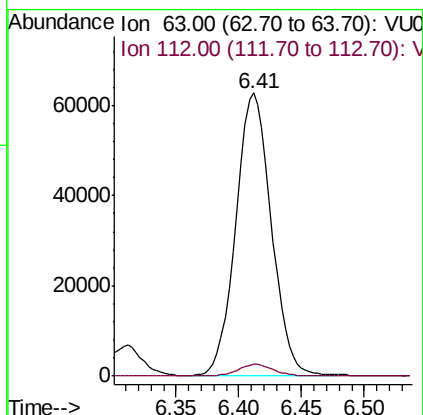
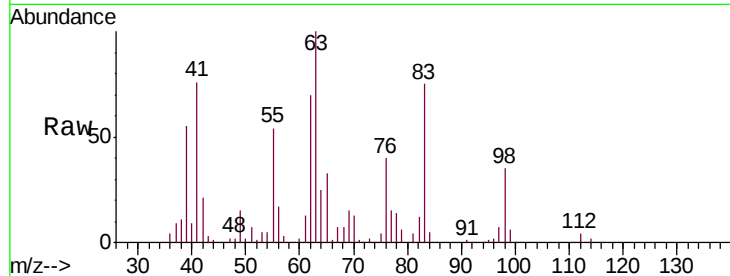




#37  
 1,2-Dichloropropane  
 Concen: 48.867 ug/L  
 RT: 6.41 min Scan# 1655  
 Delta R.T. 0.00 min  
 Lab File: VU033512.D  
 Acq: 31 Jul 2019 09:47

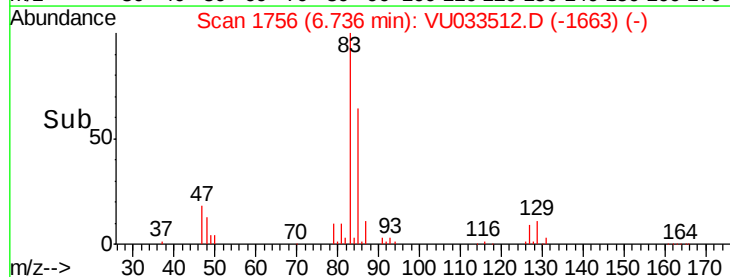
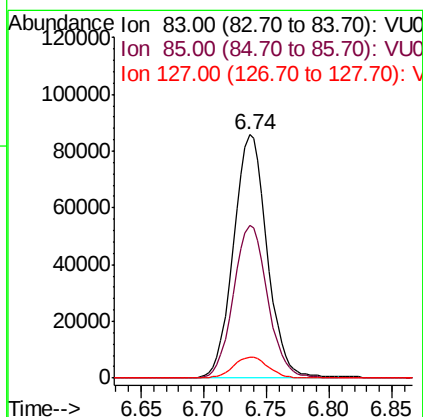
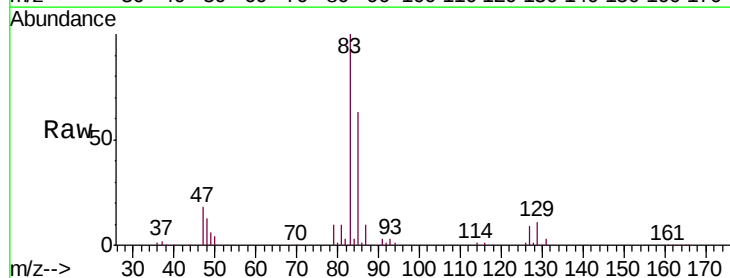
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05041

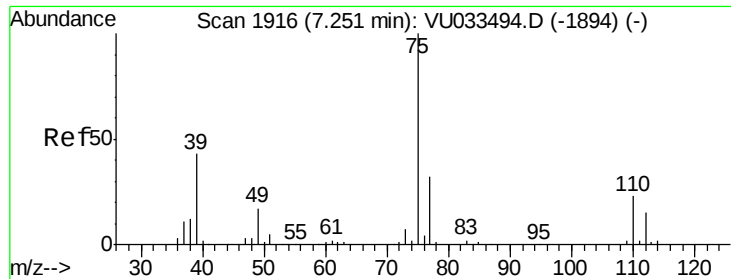
Tgt Ion: 63 Resp: 123207  
 Ion Ratio Lower Upper  
 63 100  
 112 4.2 3.0 4.6



#38  
 Bromodichloromethane  
 Concen: 48.977 ug/L  
 RT: 6.74 min Scan# 1756  
 Delta R.T. 0.00 min  
 Lab File: VU033512.D  
 Acq: 31 Jul 2019 09:47

Tgt Ion: 83 Resp: 159634  
 Ion Ratio Lower Upper  
 83 100  
 85 62.9 45.1 83.9  
 127 8.6 7.2 10.8

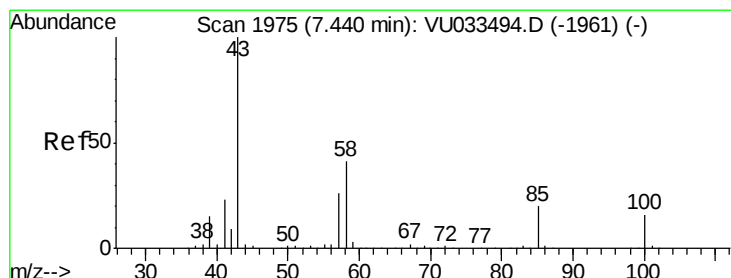
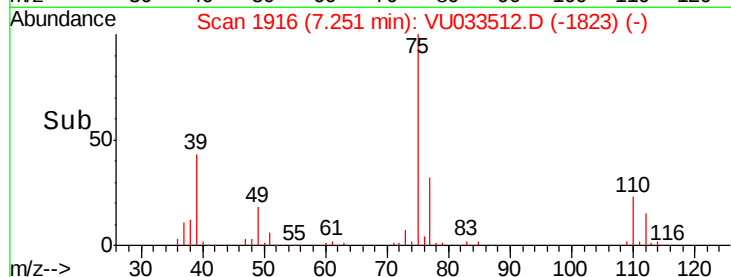
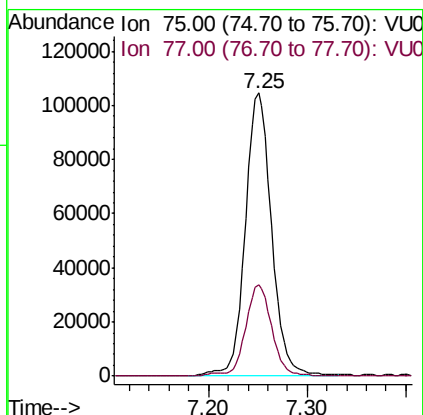
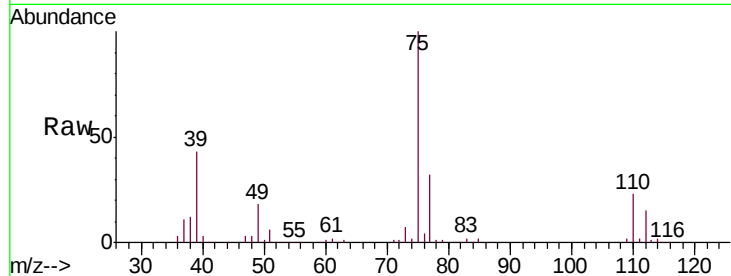




#39  
 cis-1,3-Dichloropropene  
 Concen: 48.881 ug/L  
 RT: 7.25 min Scan# 1916  
 Delta R.T. 0.00 min  
 Lab File: VU033512.D  
 Acq: 31 Jul 2019 09:47

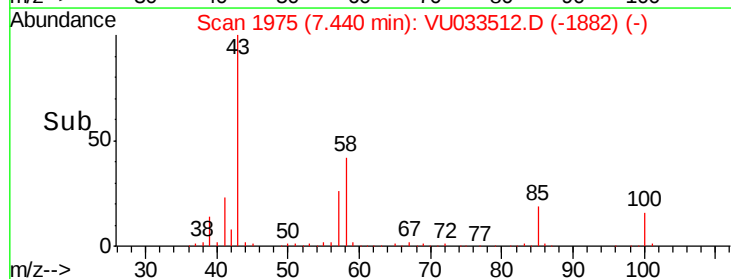
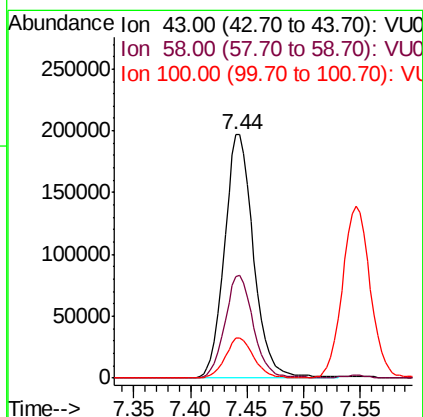
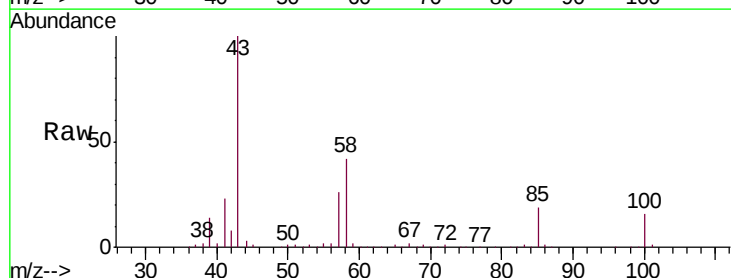
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05041

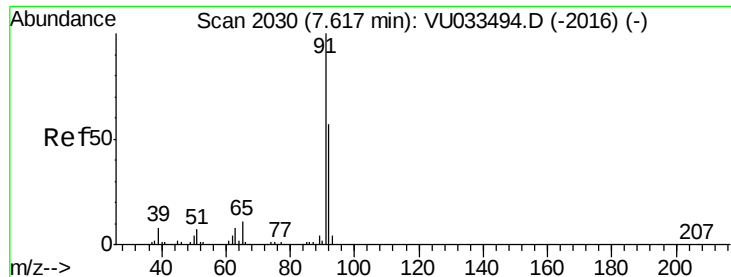
Tgt Ion: 75 Resp: 192359  
 Ion Ratio Lower Upper  
 75 100  
 77 32.3 22.3 41.5



#40  
 4-Methyl-2-pentanone  
 Concen: 101.158 ug/L  
 RT: 7.44 min Scan# 1975  
 Delta R.T. 0.00 min  
 Lab File: VU033512.D  
 Acq: 31 Jul 2019 09:47

Tgt Ion: 43 Resp: 352141  
 Ion Ratio Lower Upper  
 43 100  
 58 41.4 32.8 49.2  
 100 16.2 12.9 19.3





#42

Toluene

Concen: 50.219 ug/L

RT: 7.62 min Scan# 2030

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

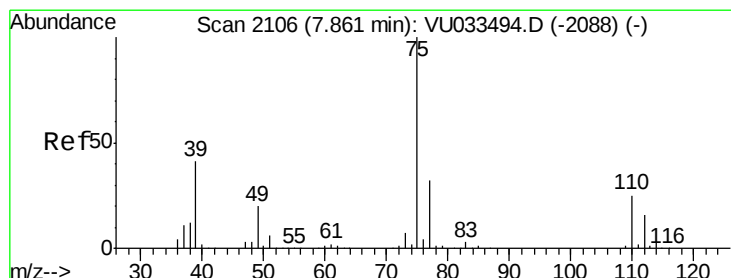
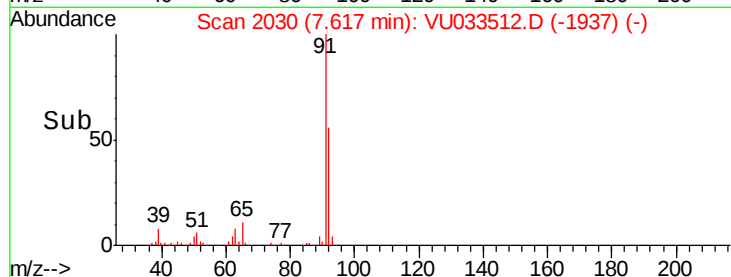
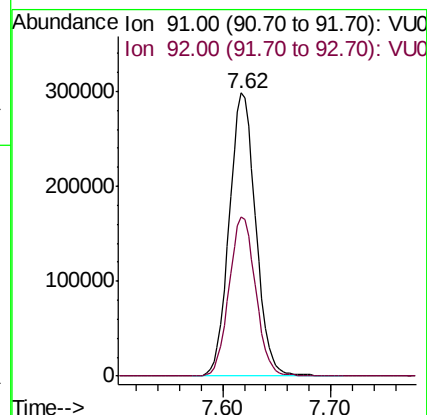
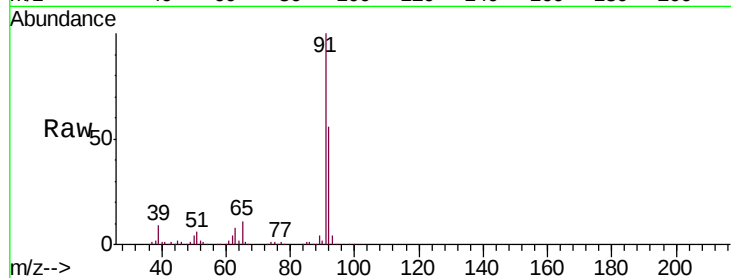
VSTD05041

Tgt Ion: 91 Resp: 508639

Ion Ratio Lower Upper

91 100

92 56.3 40.2 74.6



#44

trans-1,3-Dichloropropene

Concen: 49.355 ug/L

RT: 7.86 min Scan# 2106

Delta R.T. 0.00 min

Lab File: VU033512.D

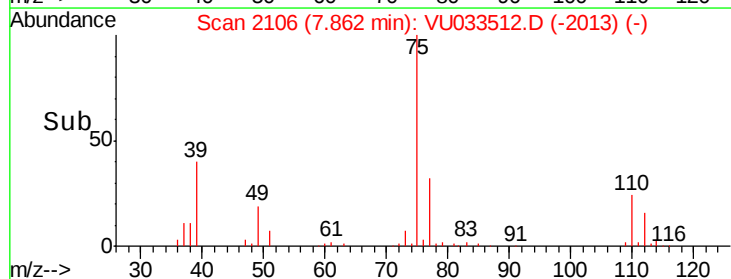
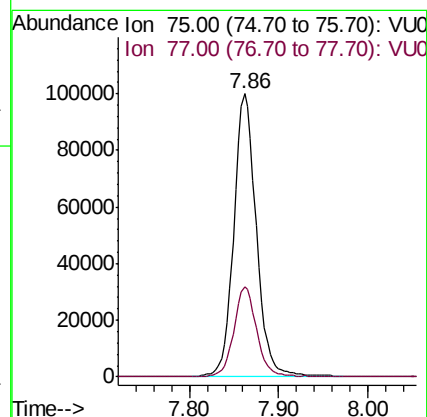
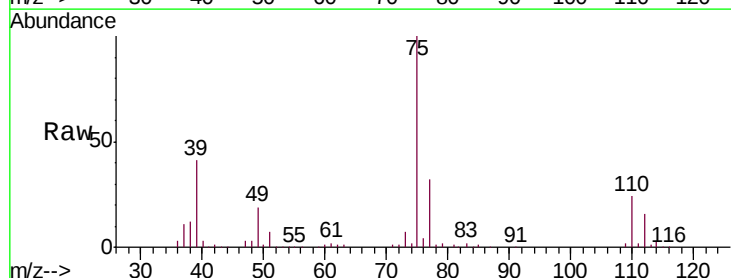
Acq: 31 Jul 2019 09:47

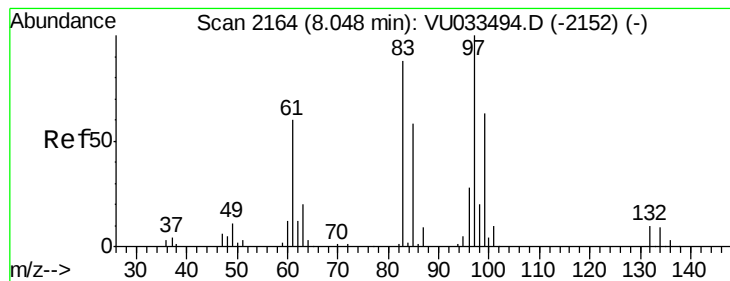
Tgt Ion: 75 Resp: 175524

Ion Ratio Lower Upper

75 100

77 31.7 22.7 42.1





#45

1,1,2-Trichloroethane

Concen: 48.490 ug/L

RT: 8.05 min Scan# 2164

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05041

Tgt Ion: 97 Resp: 116063

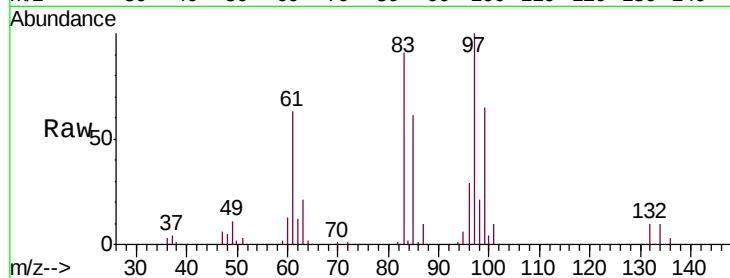
Ion Ratio Lower Upper

97 100

99 65.2 44.4 82.4

83 91.2 61.5 114.1

85 60.6 40.4 75.0

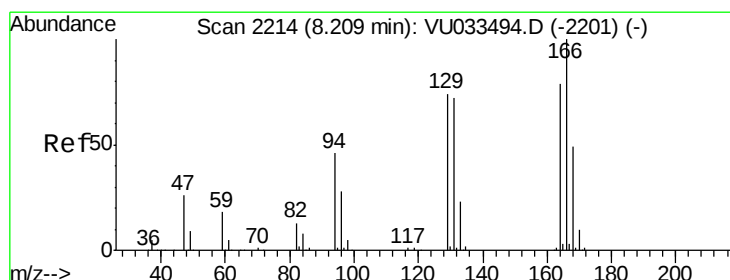
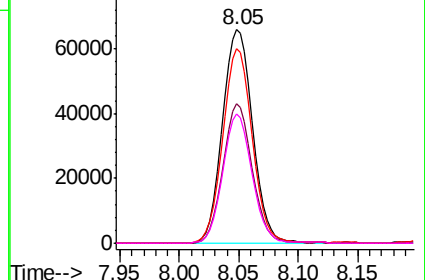
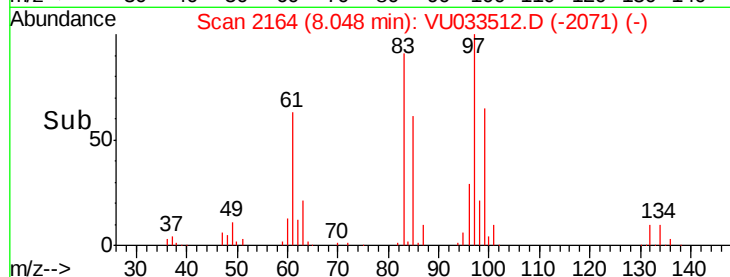


Abundance Ion 97.00 (96.70 to 97.70): VU0

Ion 99.00 (98.70 to 99.70): VU0

Ion 83.00 (82.70 to 83.70): VU0

Ion 85.00 (84.70 to 85.70): VU0



#46

Tetrachloroethene

Concen: 49.364 ug/L

RT: 8.21 min Scan# 2214

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Tgt Ion: 164 Resp: 100135

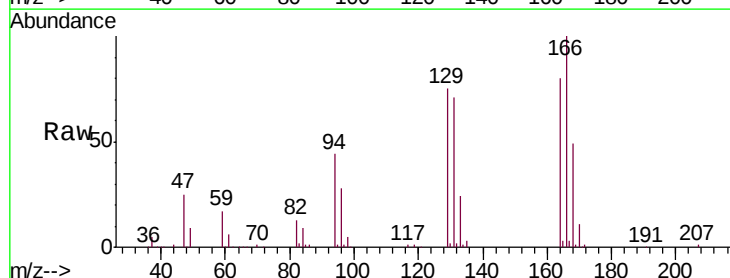
Ion Ratio Lower Upper

164 100

129 92.9 65.5 121.7

131 87.7 63.3 117.7

166 124.2 88.2 163.8

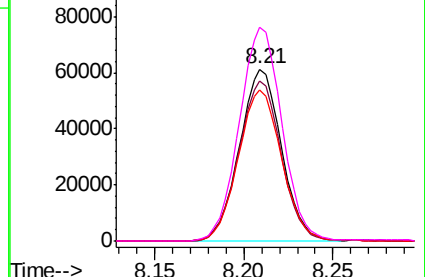
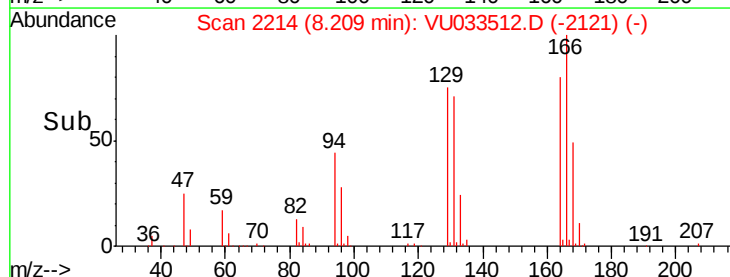


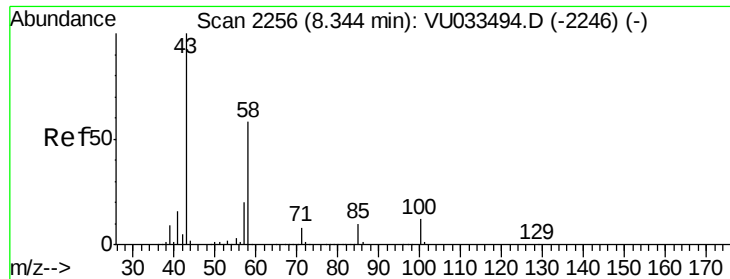
Abundance Ion 164.00 (163.70 to 164.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V

Ion 166.00 (165.70 to 166.70): V

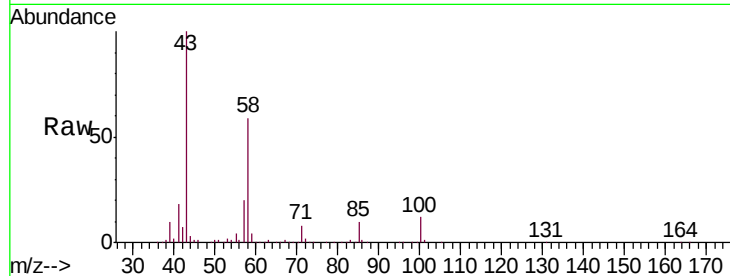




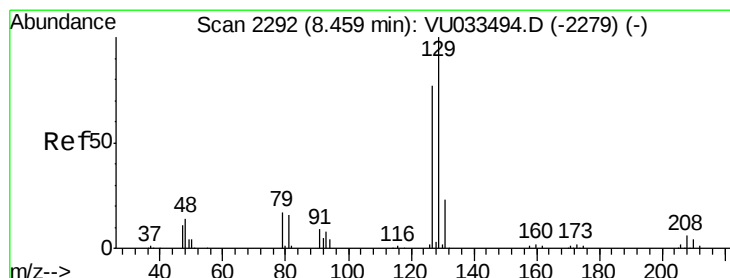
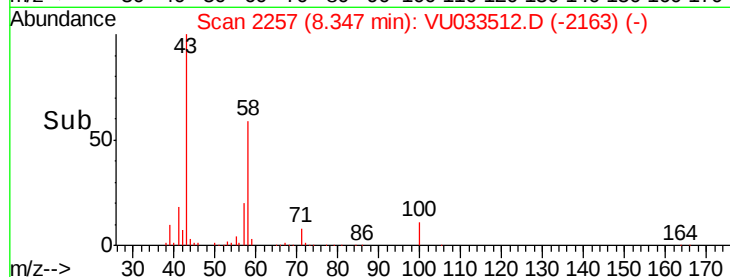
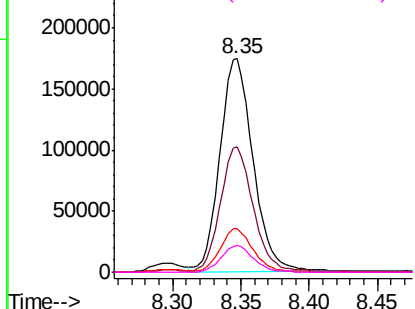
#48  
2-Hexanone  
Concen: 104.149 ug/L  
RT: 8.35 min Scan# 2257  
Delta R.T. 0.00 min  
Lab File: VU033512.D  
Acq: 31 Jul 2019 09:47

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05041

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 293053 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 58.6  | 45.8  | 68.6   |
| 57       | 20.0  | 15.8  | 23.6   |
| 100      | 12.3  | 9.4   | 14.2   |

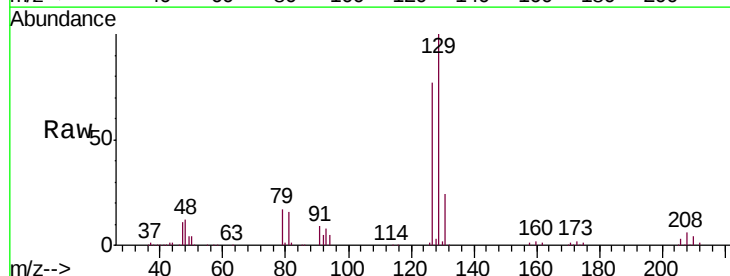


Abundance Ion 43.00 (42.70 to 43.70): VU0  
Ion 58.00 (57.70 to 58.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0  
Ion 100.00 (99.70 to 100.70): VU0

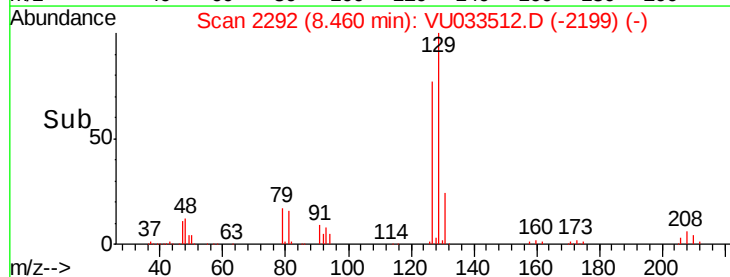
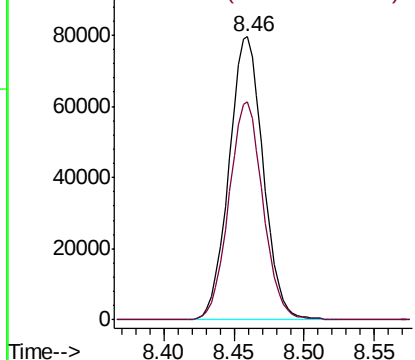


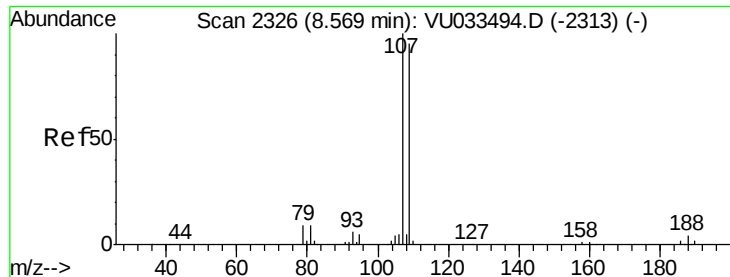
#49  
Dibromochloromethane  
Concen: 49.535 ug/L  
RT: 8.46 min Scan# 2292  
Delta R.T. 0.00 min  
Lab File: VU033512.D  
Acq: 31 Jul 2019 09:47

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 129   | Resp: | 134896 |
| Ion      | Ratio | Lower | Upper  |
| 129      | 100   |       |        |
| 127      | 77.3  | 53.8  | 99.8   |



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

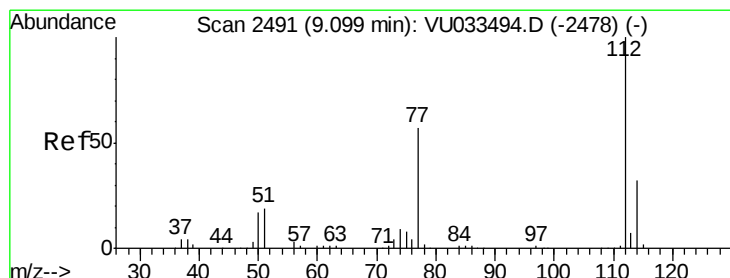
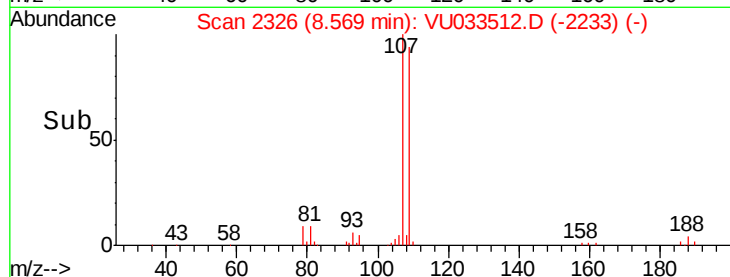
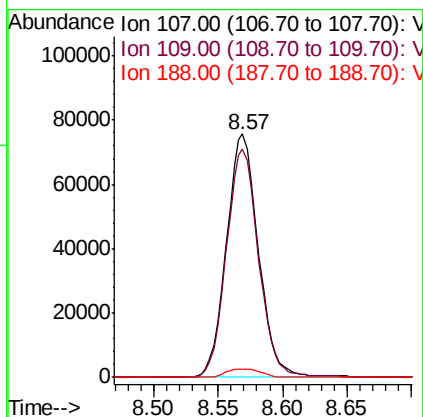
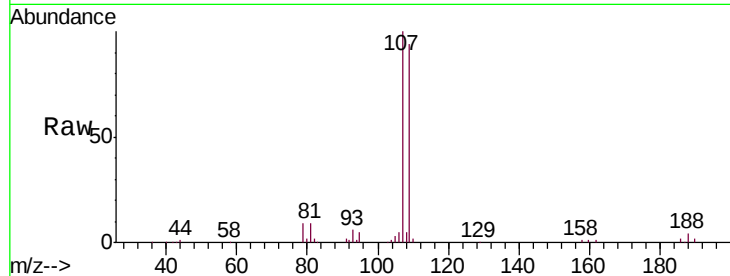




#50  
1,2-Dibromoethane  
Concen: 49.052 ug/L  
RT: 8.57 min Scan# 2326  
Delta R.T. 0.00 min  
Lab File: VU033512.D  
Acq: 31 Jul 2019 09:47

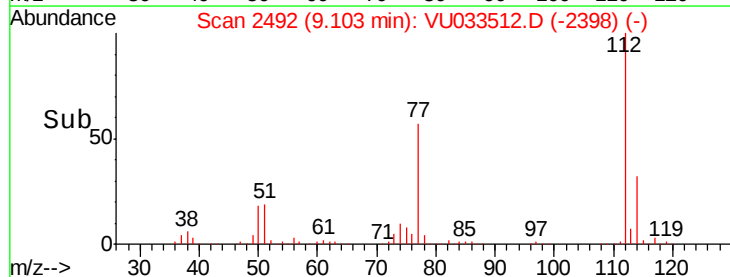
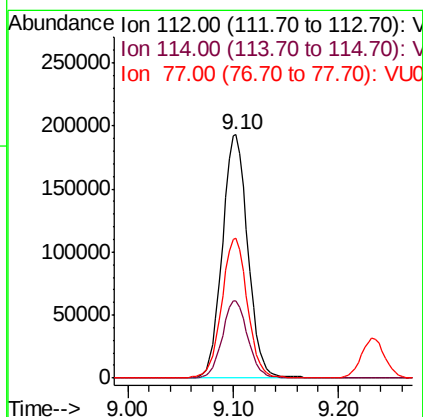
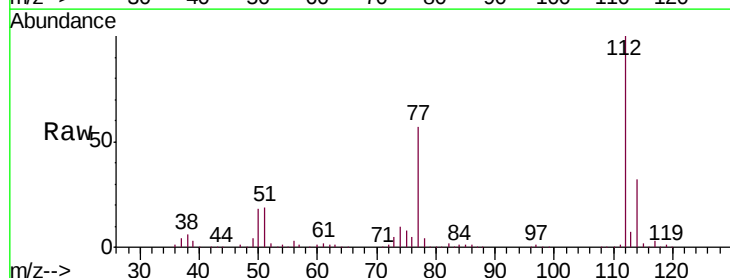
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05041

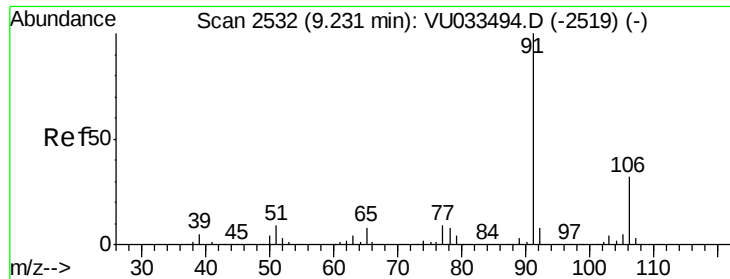
Tgt Ion:107 Resp: 130053  
Ion Ratio Lower Upper  
107 100  
109 93.5 66.8 124.0  
188 3.6 3.0 4.4



#51  
Chlorobenzene  
Concen: 48.684 ug/L  
RT: 9.10 min Scan# 2492  
Delta R.T. 0.00 min  
Lab File: VU033512.D  
Acq: 31 Jul 2019 09:47

Tgt Ion:112 Resp: 322822  
Ion Ratio Lower Upper  
112 100  
114 31.8 22.3 41.5  
77 57.2 45.6 68.4





#52

Ethylbenzene

Concen: 49.803 ug/L

RT: 9.23 min Scan# 2532

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

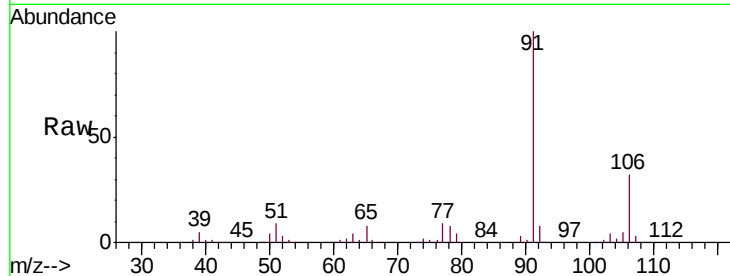
VSTD05041

Tgt Ion: 91 Resp: 543167

Ion Ratio Lower Upper

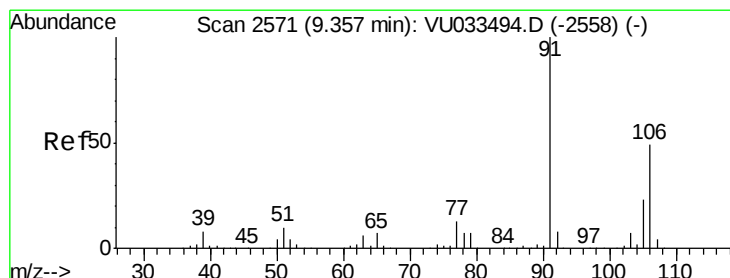
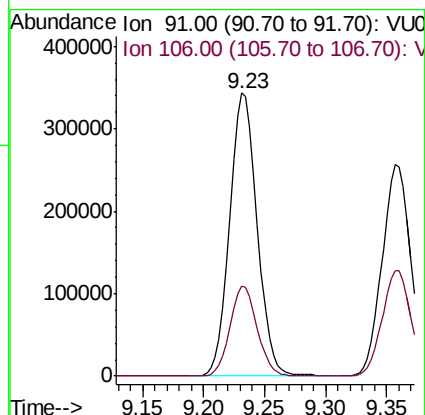
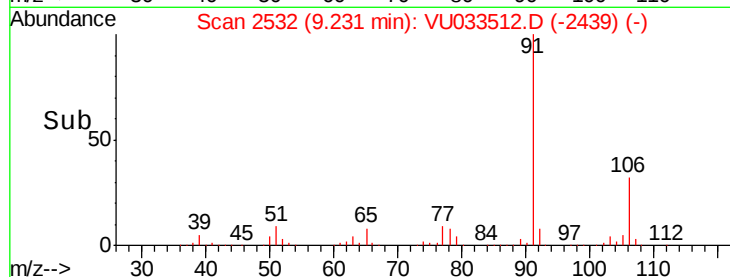
91 100

106 31.9 22.2 41.2



Abundance Ion 91.00 (90.70 to 91.70): VU033512.D (-2439) (-)

Ion 106.00 (105.70 to 106.70): VU033512.D (-2439) (-)



#53

m,p-Xylene

Concen: 50.315 ug/L

RT: 9.36 min Scan# 2571

Delta R.T. 0.00 min

Lab File: VU033512.D

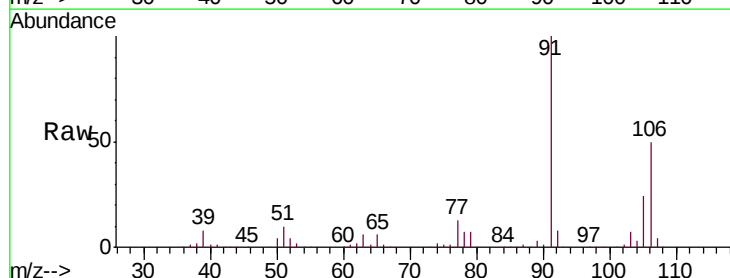
Acq: 31 Jul 2019 09:47

Tgt Ion: 106 Resp: 210667

Ion Ratio Lower Upper

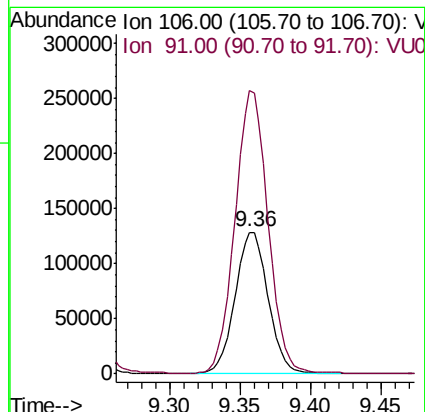
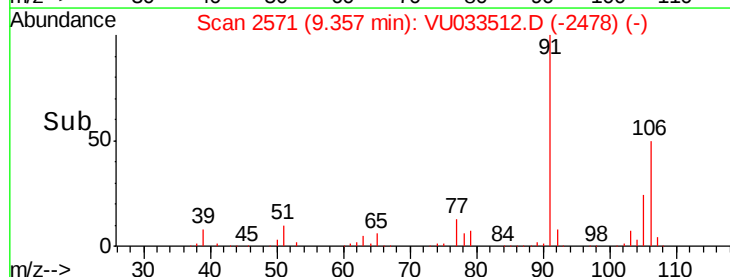
106 100

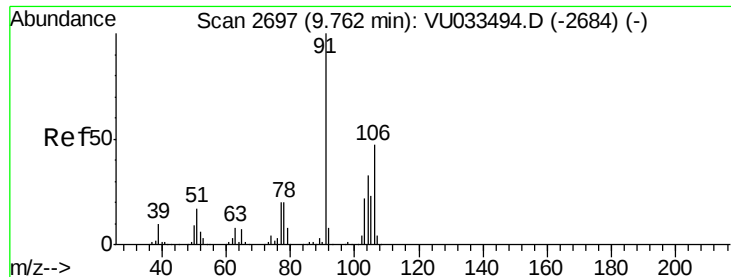
91 199.8 143.0 265.6



Abundance Ion 106.00 (105.70 to 106.70): VU033512.D (-2478) (-)

Ion 91.00 (90.70 to 91.70): VU033512.D (-2478) (-)





#54

o-xylene

Concen: 49.777 ug/L

RT: 9.76 min Scan# 2697

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

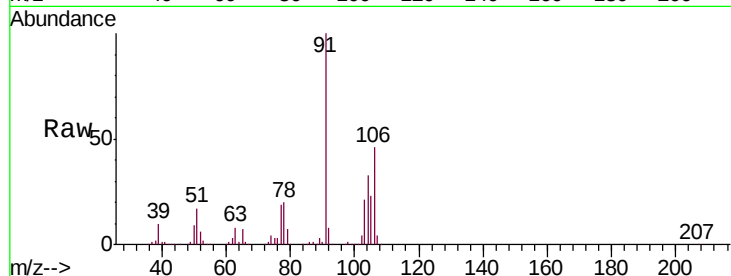
VSTD05041

Tgt Ion:106 Resp: 202173

Ion Ratio Lower Upper

106 100

91 218.9 148.4 275.6



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0

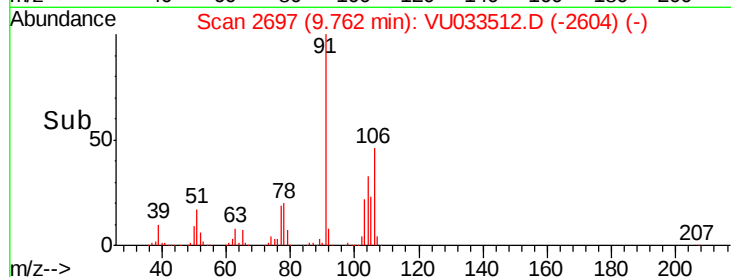
300000

200000

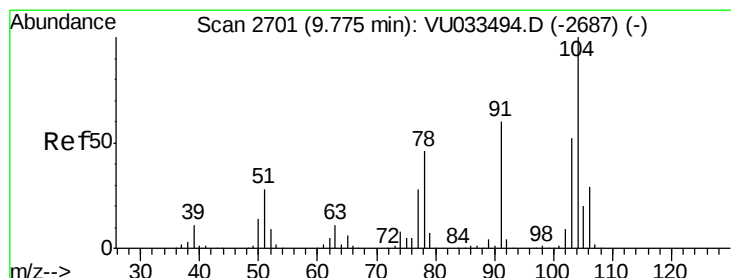
100000

0

9.70 9.75 9.80



Time-->



#55

Styrene

Concen: 51.315 ug/L

RT: 9.77 min Scan# 2701

Delta R.T. 0.00 min

Lab File: VU033512.D

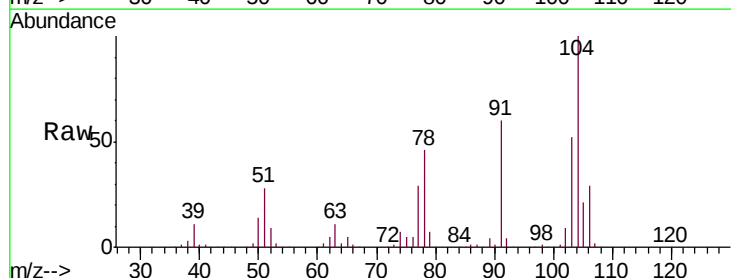
Acq: 31 Jul 2019 09:47

Tgt Ion:104 Resp: 353980

Ion Ratio Lower Upper

104 100

78 45.8 32.2 59.8



Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VU0

250000

200000

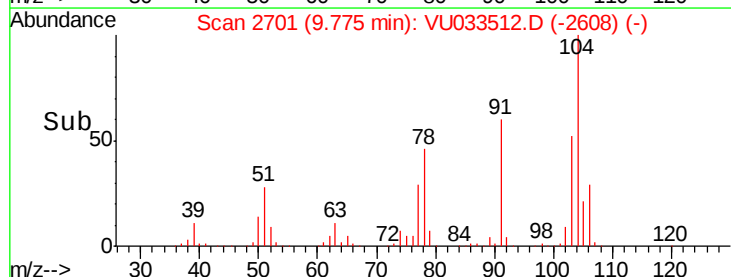
150000

100000

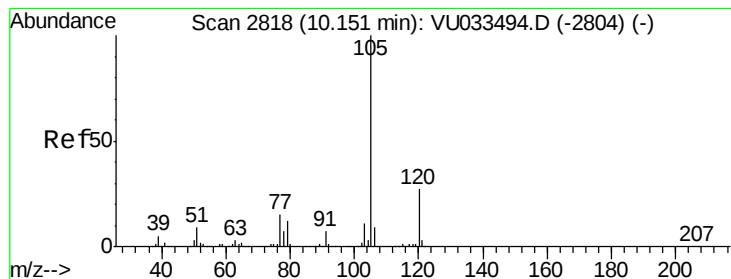
50000

0

9.70 9.75 9.80 9.85 9.90



Time-->



#56

Isopropylbenzene

Concen: 49.980 ug/L

RT: 10.15 min Scan# 2818

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05041

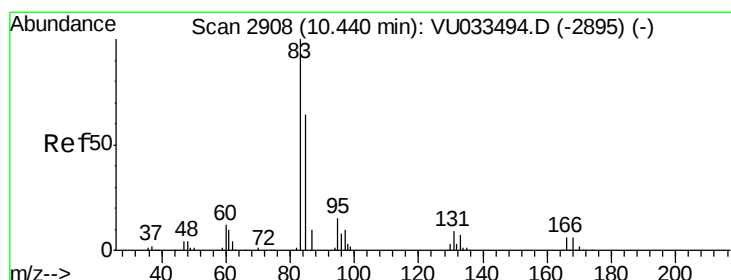
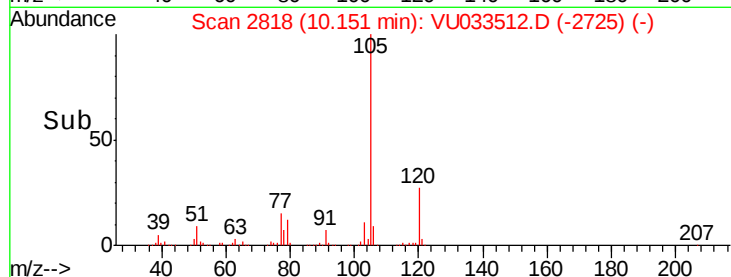
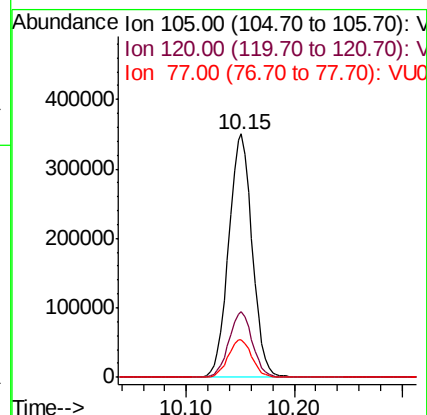
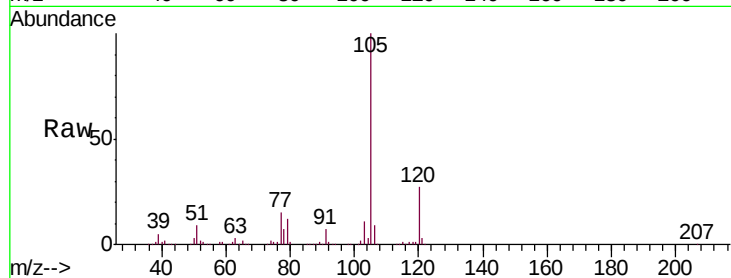
Tgt Ion: 105 Resp: 530393

Ion Ratio Lower Upper

105 100

120 27.0 21.4 32.0

77 15.7 12.5 18.7



#58

1,1,2,2-Tetrachloroethane

Concen: 48.647 ug/L

RT: 10.44 min Scan# 2908

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

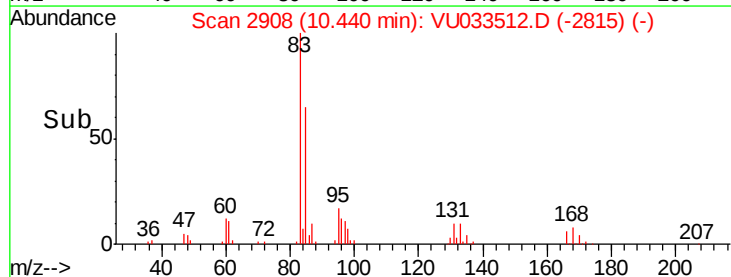
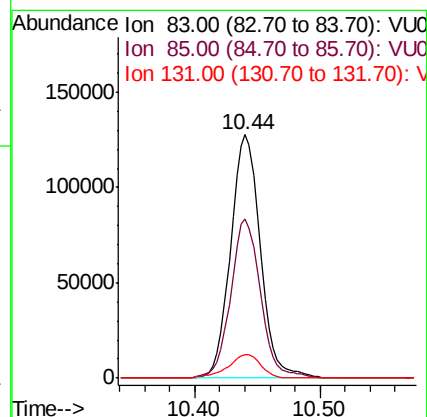
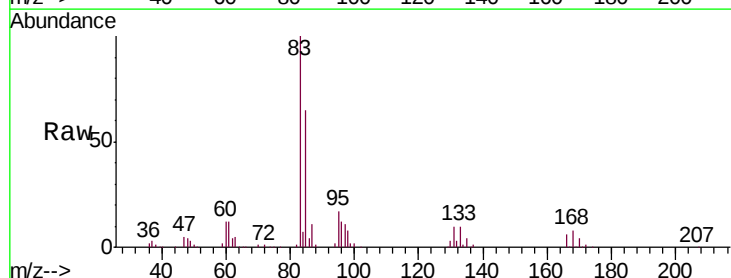
Tgt Ion: 83 Resp: 210013

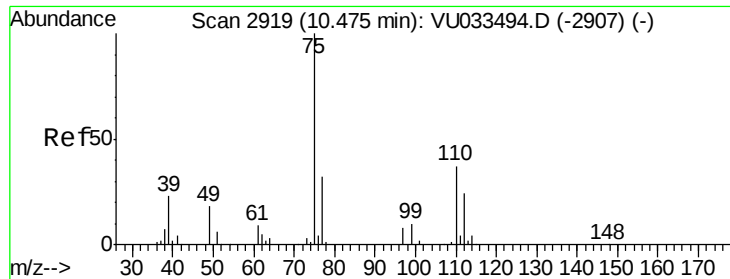
Ion Ratio Lower Upper

83 100

85 65.4 45.4 84.4

131 9.5 7.9 11.9





#59

1,2,3-Trichloropropane

Concen: 49.046 ug/L

RT: 10.48 min Scan# 2919

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

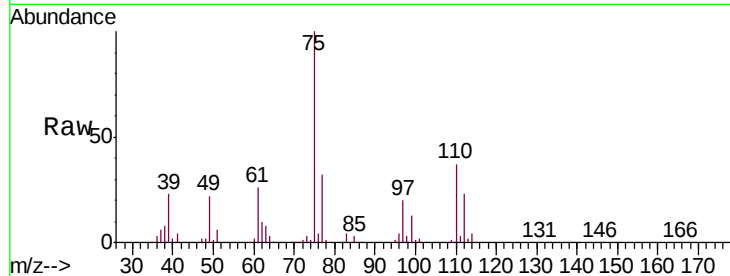
VSTD05041

Tgt Ion: 75 Resp: 163225

Ion Ratio Lower Upper

75 100

77 32.2 25.8 38.6



Abundance Ion 75.00 (74.70 to 75.70): VU033494.D (-2907) (-)

Ion 77.00 (76.70 to 77.70): VU033494.D (-2907) (-)

10.48

120000

100000

80000

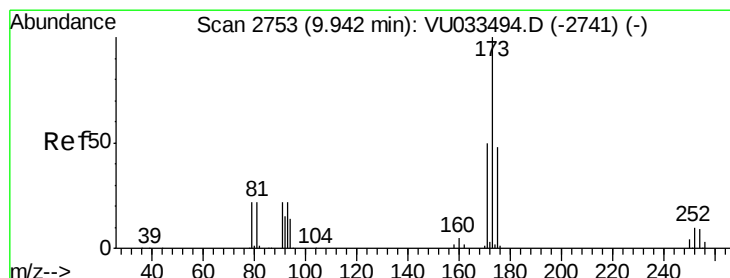
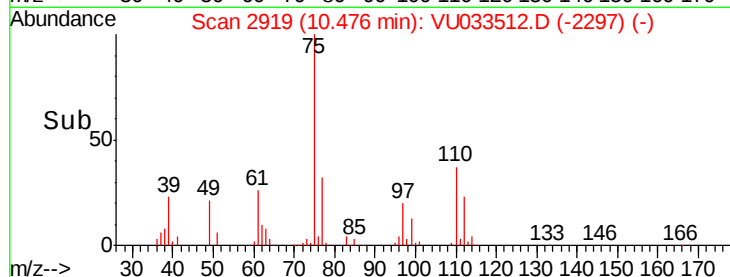
60000

40000

20000

0

Time-->



#61

Bromoform

Concen: 49.208 ug/L

RT: 9.94 min Scan# 2753

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

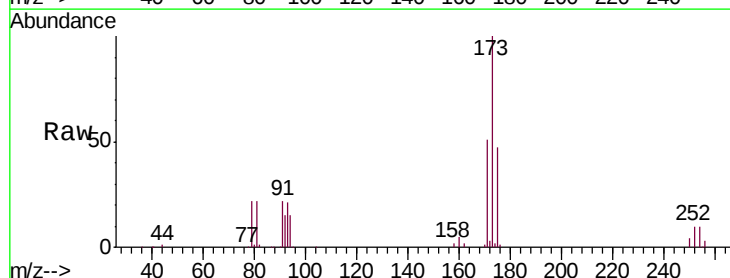
Tgt Ion: 173 Resp: 104067

Ion Ratio Lower Upper

173 100

175 47.7 38.7 58.1

254 9.4 7.5 11.3



Abundance Ion 173.00 (172.70 to 173.70): VU033494.D (-2741) (-)

Ion 175.00 (174.70 to 175.70): VU033494.D (-2741) (-)

Ion 254.00 (253.70 to 254.70): VU033494.D (-2741) (-)

9.94

80000

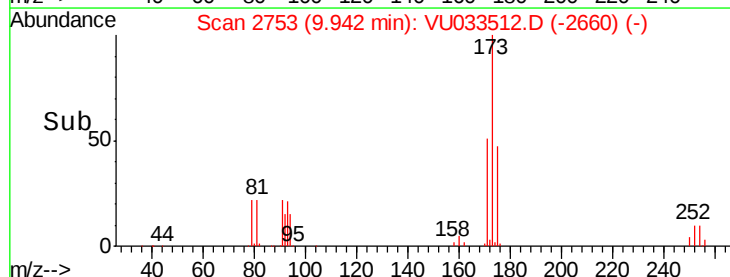
60000

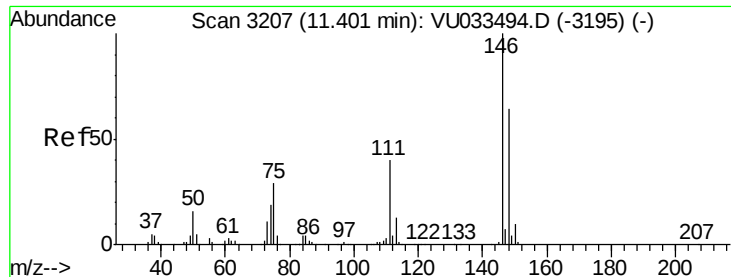
40000

20000

0

Time-->

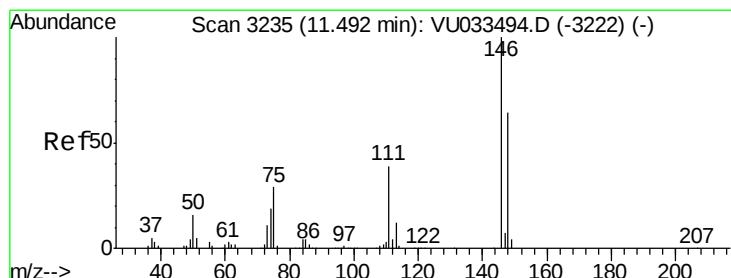
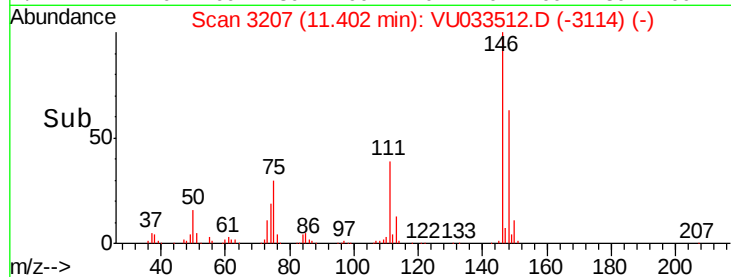
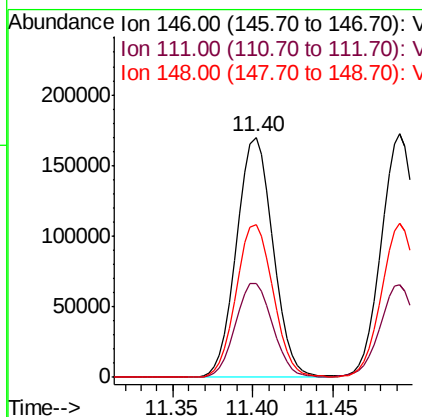
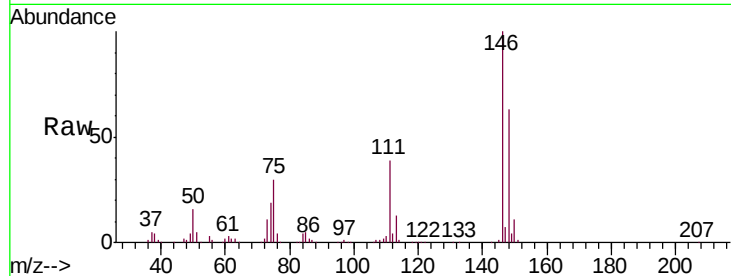




#62  
 1,3-Dichlorobenzene  
 Concen: 49.081 ug/L  
 RT: 11.40 min Scan# 3207  
 Delta R.T. 0.00 min  
 Lab File: VU033512.D  
 Acq: 31 Jul 2019 09:47

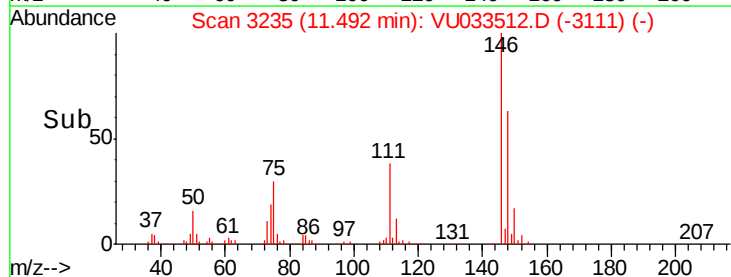
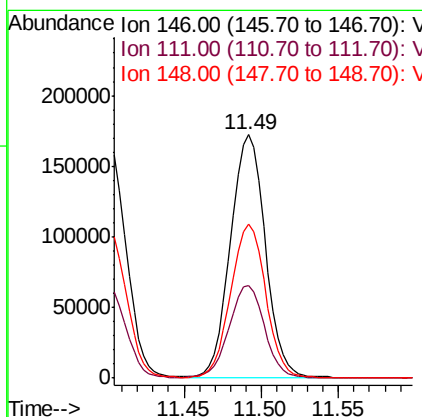
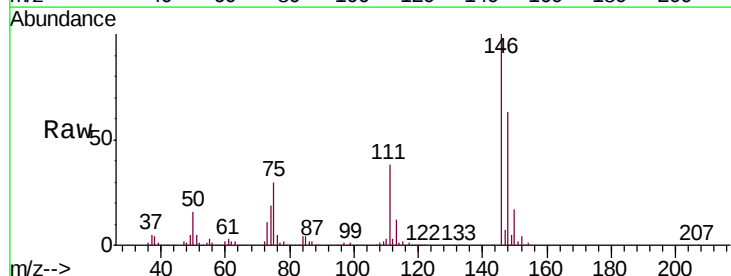
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05041

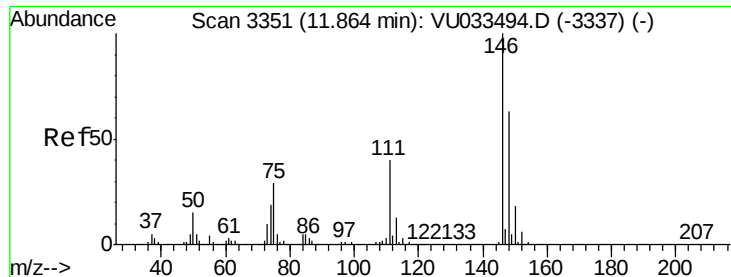
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 39.3  | 28.1  | 52.1  |
| 148     | 63.4  | 45.0  | 83.6  |



#63  
 1,4-Dichlorobenzene  
 Concen: 48.294 ug/L  
 RT: 11.49 min Scan# 3235  
 Delta R.T. 0.00 min  
 Lab File: VU033512.D  
 Acq: 31 Jul 2019 09:47

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 38.2  | 27.2  | 50.4  |
| 148     | 63.1  | 44.5  | 82.7  |

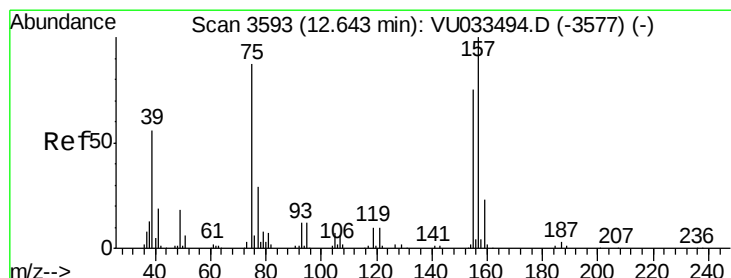
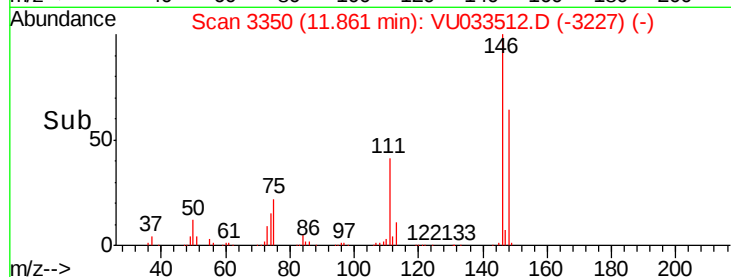
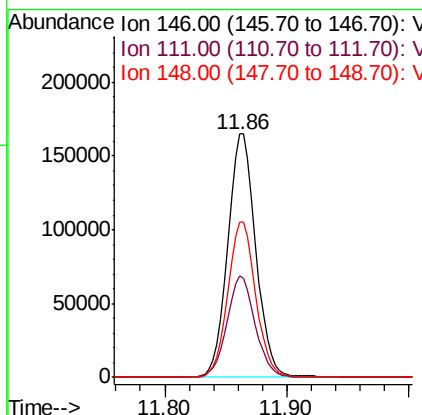
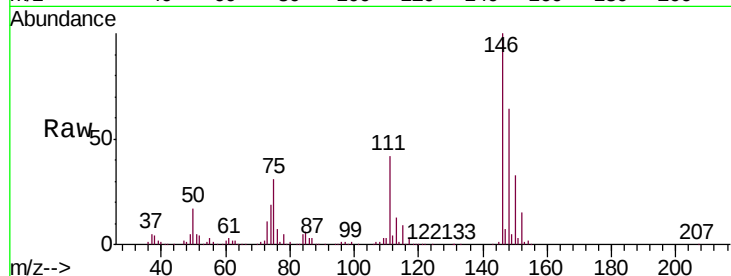




#65  
 1,2-Dichlorobenzene  
 Concen: 48.845 ug/L  
 RT: 11.86 min Scan# 3350  
 Delta R.T. -0.00 min  
 Lab File: VU033512.D  
 Acq: 31 Jul 2019 09:47

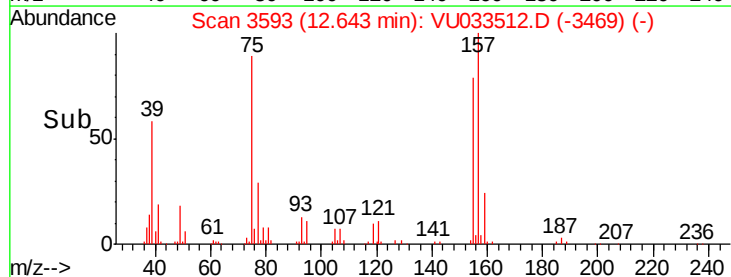
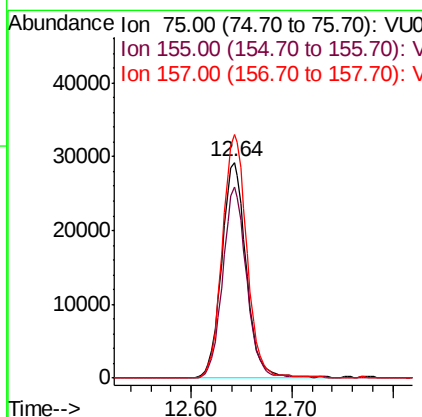
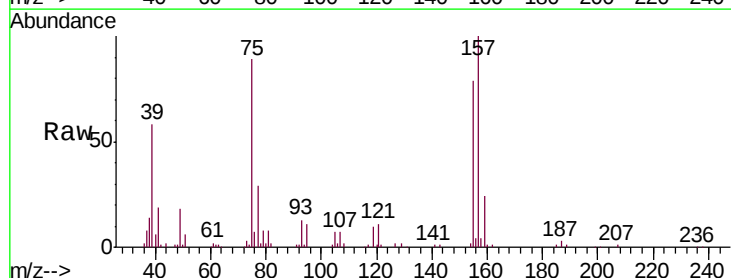
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05041

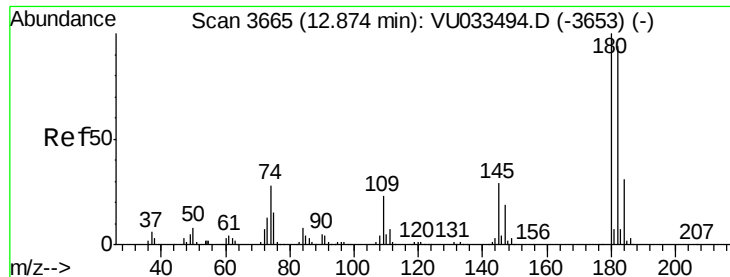
Tgt Ion: 146 Resp: 265547  
 Ion Ratio Lower Upper  
 146 100  
 111 41.6 31.7 47.5  
 148 64.0 50.3 75.5



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 49.705 ug/L  
 RT: 12.64 min Scan# 3593  
 Delta R.T. 0.00 min  
 Lab File: VU033512.D  
 Acq: 31 Jul 2019 09:47

Tgt Ion: 75 Resp: 49926  
 Ion Ratio Lower Upper  
 75 100  
 155 88.7 69.4 104.0  
 157 112.9 91.8 137.8

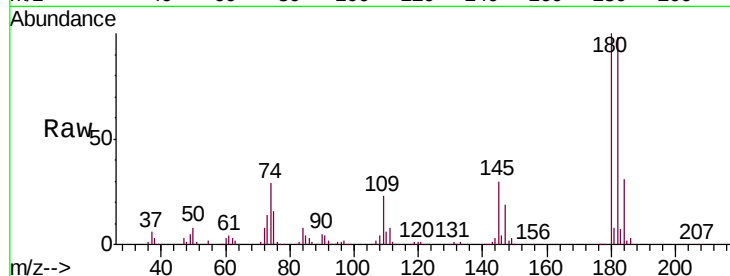




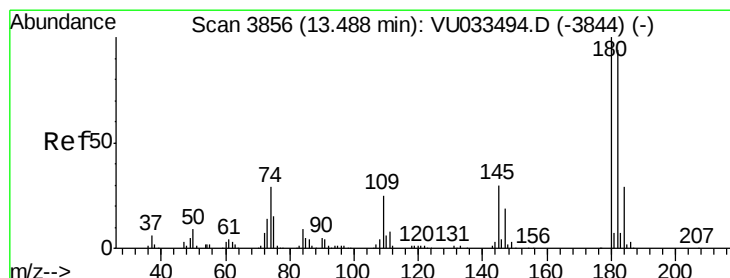
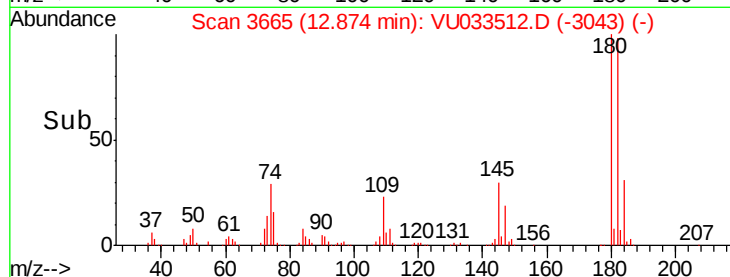
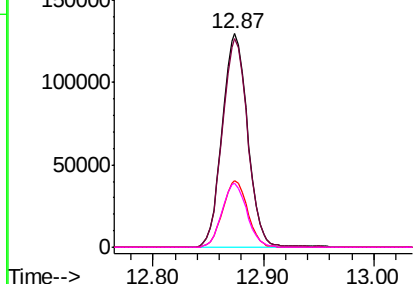
#67  
 1,3,5-Trichlorobenzene  
 Concen: 48.052 ug/L  
 RT: 12.87 min Scan# 3665  
 Delta R.T. 0.00 min  
 Lab File: VU033512.D  
 Acq: 31 Jul 2019 09:47

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05041

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.9  | 75.6  | 113.4 |
| 184     | 30.5  | 24.2  | 36.2  |
| 145     | 29.2  | 22.7  | 34.1  |

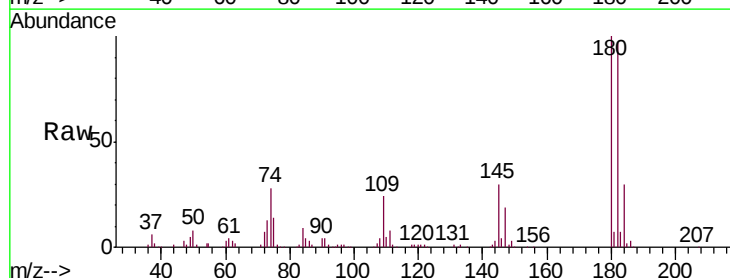


Abundance Ion 180.00 (179.70 to 180.70): V  
 200000 Ion 182.00 (181.70 to 182.70): V  
 150000 Ion 184.00 (183.70 to 184.70): V  
 100000 Ion 145.00 (144.70 to 145.70): V  
 50000  
 0

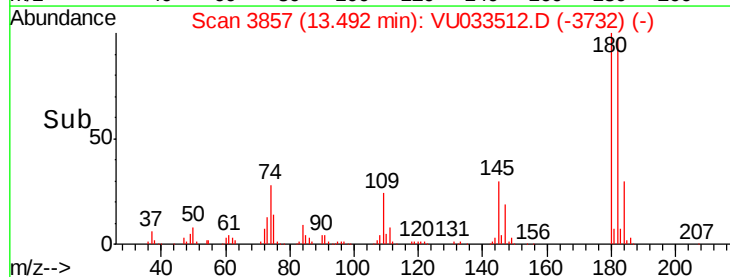
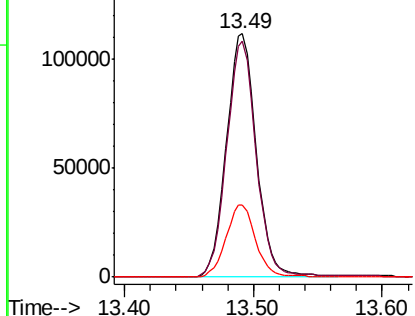


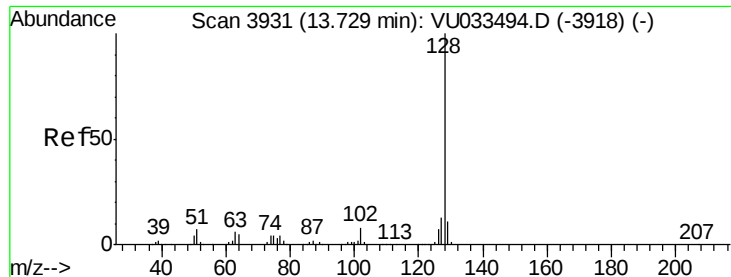
#68  
 1,2,4-trichlorobenzene  
 Concen: 48.478 ug/L  
 RT: 13.49 min Scan# 3857  
 Delta R.T. 0.00 min  
 Lab File: VU033512.D  
 Acq: 31 Jul 2019 09:47

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.5  | 75.8  | 113.8 |
| 145     | 29.1  | 24.3  | 36.5  |



Abundance Ion 180.00 (179.70 to 180.70): V  
 150000 Ion 182.00 (181.70 to 182.70): V  
 100000 Ion 145.00 (144.70 to 145.70): V  
 50000  
 0





#69

Naphthalene

Concen: 48.845 ug/L

RT: 13.73 min Scan# 3931

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05041

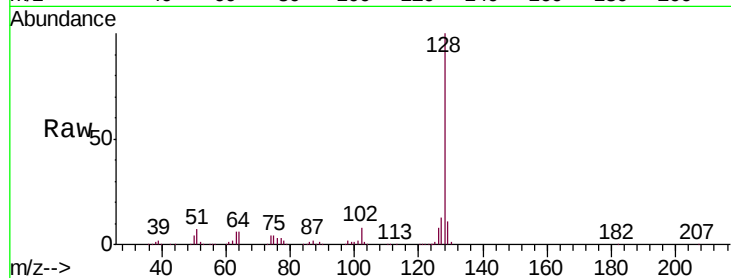
Tgt Ion:128 Resp: 519426

Ion Ratio Lower Upper

128 100

127 13.2 10.8 16.2

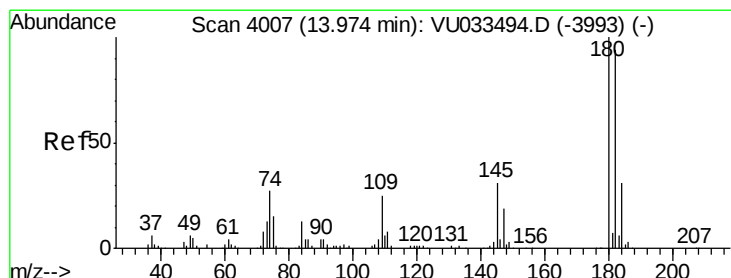
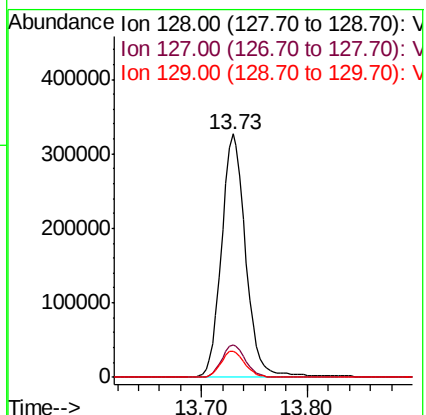
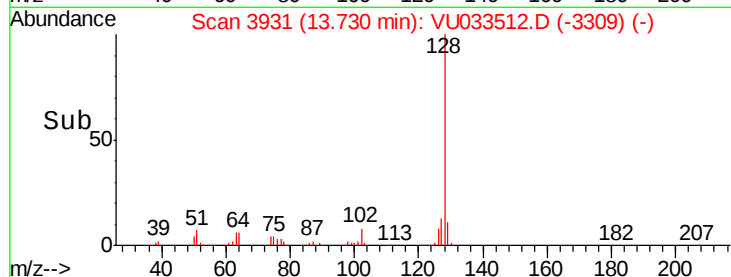
129 10.6 8.7 13.1



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V



#70

1,2,3-Trichlorobenzene

Concen: 48.452 ug/L

RT: 13.97 min Scan# 4007

Delta R.T. 0.00 min

Lab File: VU033512.D

Acq: 31 Jul 2019 09:47

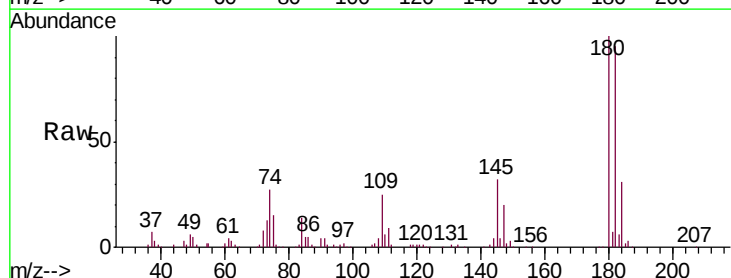
Tgt Ion:180 Resp: 188873

Ion Ratio Lower Upper

180 100

182 95.2 75.5 113.3

145 31.4 24.4 36.6



Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V

