

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_U\DATA\VU080319\  
 Data File : VU033583.D  
 Acq On : 03 Aug 2019 11:18  
 Operator : JC/SP  
 Sample : VSTD05031  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05031

Quant Time: Aug 05 05:29:52 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM080319WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Mon Aug 05 05:25:49 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.86  | 114  | 314788   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.07  | 117  | 314577   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.47 | 152  | 167763   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |        |      |      |
|--------------------------------|-------|-----|--------|--------|------|------|
| 4) Vinyl Chloride-d3           | 1.39  | 65  | 104845 | 46.35  | ug/L | 0.00 |
| 7) Chloroethane-d5             | 1.67  | 69  | 99523  | 50.66  | ug/L | 0.00 |
| 11) 1,1-Dichloroethene-d2      | 2.26  | 63  | 197783 | 47.63  | ug/L | 0.00 |
| 21) 2-Butanone-d5              | 4.15  | 46  | 170368 | 109.76 | ug/L | 0.00 |
| 24) Chloroform-d               | 4.62  | 84  | 198028 | 50.97  | ug/L | 0.00 |
| 26) 1,2-Dichloroethane-d4      | 5.29  | 65  | 123082 | 50.30  | ug/L | 0.00 |
| 32) Benzene-d6                 | 5.32  | 84  | 395199 | 50.30  | ug/L | 0.00 |
| 36) 1,2-Dichloropropane-d6     | 6.31  | 67  | 122713 | 49.89  | ug/L | 0.00 |
| 41) Toluene-d8                 | 7.55  | 98  | 370536 | 50.41  | ug/L | 0.00 |
| 43) trans-1,3-Dichloropropene- | 7.83  | 79  | 60711  | 49.65  | ug/L | 0.00 |
| 47) 2-Hexanone-d5              | 8.29  | 63  | 124855 | 106.28 | ug/L | 0.00 |
| 57) 1,1,2,2-Tetrachloroethane- | 10.41 | 84  | 190836 | 49.99  | ug/L | 0.00 |
| 64) 1,2-Dichlorobenzene-d4     | 11.85 | 152 | 147946 | 47.81  | ug/L | 0.00 |

## Target Compounds

|                                |      |     |        |         |      | Qvalue |
|--------------------------------|------|-----|--------|---------|------|--------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 136893 | 46.930  | ug/L | 100    |
| 3) Chloromethane               | 1.32 | 50  | 142973 | 48.486  | ug/L | 100    |
| 5) Vinyl chloride              | 1.40 | 62  | 151363 | 47.810  | ug/L | 100    |
| 6) Bromomethane                | 1.62 | 94  | 133544 | 47.519  | ug/L | 100    |
| 8) Chloroethane                | 1.69 | 64  | 96836  | 50.322  | ug/L | 100    |
| 9) Trichlorofluoromethane      | 1.87 | 101 | 203586 | 49.037  | ug/L | 100    |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.27 | 101 | 102393 | 48.474  | ug/L | 100    |
| 12) 1,1-Dichloroethene         | 2.27 | 96  | 95342  | 47.379  | ug/L | 100    |
| 13) Acetone                    | 2.31 | 43  | 164267 | 105.812 | ug/L | 100    |
| 14) Carbon disulfide           | 2.46 | 76  | 283250 | 45.222  | ug/L | 100    |
| 15) Methyl Acetate             | 2.60 | 43  | 130889 | 52.640  | ug/L | 100    |
| 16) Methylene chloride         | 2.68 | 84  | 114236 | 49.367  | ug/L | 100    |
| 17) trans-1,2-Dichloroethene   | 2.96 | 96  | 101373 | 48.015  | ug/L | 100    |
| 18) Methyl tert-butyl Ether    | 2.98 | 73  | 328395 | 50.675  | ug/L | 100    |
| 19) 1,1-Dichloroethane         | 3.42 | 63  | 199629 | 50.041  | ug/L | 100    |
| 20) cis-1,2-Dichloroethene     | 4.20 | 96  | 118173 | 49.504  | ug/L | 100    |
| 22) 2-Butanone                 | 4.24 | 43  | 206188 | 110.968 | ug/L | 100    |
| 23) Bromochloromethane         | 4.52 | 128 | 60509  | 48.984  | ug/L | 100    |
| 25) Chloroform                 | 4.65 | 83  | 210923 | 50.345  | ug/L | 100    |
| 27) 1,2-Dichloroethane         | 5.38 | 62  | 164048 | 50.700  | ug/L | 100    |
| 29) Cyclohexane                | 4.97 | 56  | 164355 | 48.498  | ug/L | 100    |
| 30) 1,1,1-Trichloroethane      | 4.89 | 97  | 175155 | 48.746  | ug/L | 100    |
| 31) Carbon tetrachloride       | 5.11 | 117 | 155726 | 49.640  | ug/L | 100    |
| 33) Benzene                    | 5.37 | 78  | 446444 | 49.603  | ug/L | 100    |
| 34) Trichloroethene            | 6.16 | 95  | 112113 | 47.281  | ug/L | 100    |
| 35) Methylcyclohexane          | 6.40 | 83  | 179575 | 48.631  | ug/L | 100    |
| 37) 1,2-Dichloropropane        | 6.41 | 63  | 122956 | 50.583  | ug/L | 100    |
| 38) Bromodichloromethane       | 6.74 | 83  | 156002 | 49.851  | ug/L | 100    |
| 39) cis-1,3-Dichloropropene    | 7.25 | 75  | 187461 | 49.729  | ug/L | 100    |
| 40) 4-Methyl-2-pentanone       | 7.44 | 43  | 357646 | 105.994 | ug/L | 100    |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_U\DATA\VU080319\  
 Data File : VU033583.D  
 Acq On : 03 Aug 2019 11:18  
 Operator : JC/SP  
 Sample : VSTD05031  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 5 Sample Multiplier: 1

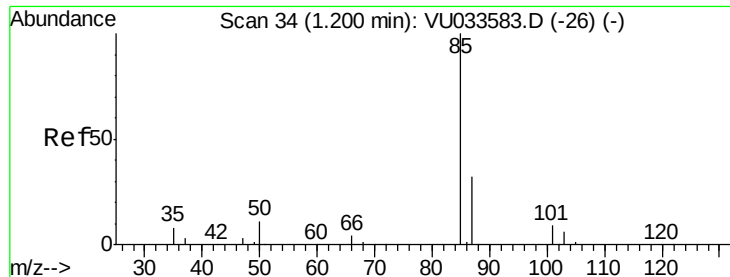
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05031

Quant Time: Aug 05 05:29:52 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM080319WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Mon Aug 05 05:25:49 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 42) Toluene                    | 7.62  | 91   | 480266   | 49.720  | ug/L  | 100      |
| 44) trans-1,3-Dichloropropene  | 7.86  | 75   | 167277   | 49.289  | ug/L  | 100      |
| 45) 1,1,2-Trichloroethane      | 8.05  | 97   | 114440   | 49.823  | ug/L  | 100      |
| 46) Tetrachloroethene          | 8.21  | 164  | 91807    | 47.627  | ug/L  | 100      |
| 48) 2-Hexanone                 | 8.34  | 43   | 289062   | 106.391 | ug/L  | 100      |
| 49) Dibromochloromethane       | 8.46  | 129  | 129987   | 49.835  | ug/L  | 100      |
| 50) 1,2-Dibromoethane          | 8.57  | 107  | 123807   | 48.954  | ug/L  | 100      |
| 51) Chlorobenzene              | 9.10  | 112  | 305106   | 48.276  | ug/L  | 100      |
| 52) Ethylbenzene               | 9.23  | 91   | 516168   | 49.624  | ug/L  | 100      |
| 53) m,p-Xylene                 | 9.36  | 106  | 198911   | 49.682  | ug/L  | 100      |
| 54) o-xylene                   | 9.76  | 106  | 194319   | 50.316  | ug/L  | 100      |
| 55) Styrene                    | 9.77  | 104  | 334572   | 50.967  | ug/L  | 100      |
| 56) Isopropylbenzene           | 10.15 | 105  | 505011   | 49.933  | ug/L  | 100      |
| 58) 1,1,2,2-Tetrachloroethane  | 10.44 | 83   | 208015   | 50.117  | ug/L  | 100      |
| 59) 1,2,3-Trichloropropane     | 10.48 | 75   | 163753   | 51.043  | ug/L  | 100      |
| 61) Bromoform                  | 9.94  | 173  | 98831    | 49.141  | ug/L  | 100      |
| 62) 1,3-Dichlorobenzene        | 11.40 | 146  | 245594   | 48.112  | ug/L  | 100      |
| 63) 1,4-Dichlorobenzene        | 11.49 | 146  | 252735   | 47.580  | ug/L  | 100      |
| 65) 1,2-Dichlorobenzene        | 11.86 | 146  | 249637   | 48.355  | ug/L  | 100      |
| 66) 1,2-Dibromo-3-chloropropan | 12.64 | 75   | 49412    | 51.039  | ug/L  | 100      |
| 67) 1,3,5-Trichlorobenzene     | 12.87 | 180  | 190036   | 46.358  | ug/L  | 100      |
| 68) 1,2,4-trichlorobenzene     | 13.49 | 180  | 165014   | 47.211  | ug/L  | 100      |
| 69) Naphthalene                | 13.73 | 128  | 498597   | 49.617  | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene     | 13.97 | 180  | 174185   | 47.405  | ug/L  | 100      |

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





#2

Dichlorodifluoromethane

Concen: 46.930 ug/L

RT: 1.20 min Scan# 34

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

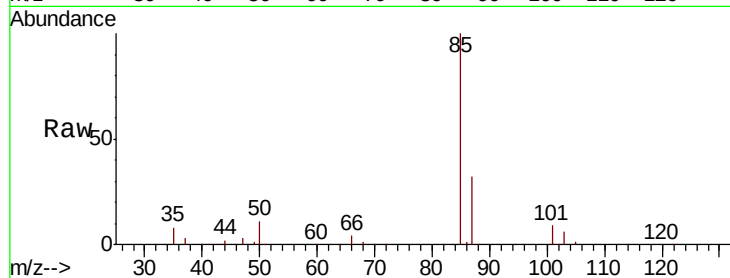
VSTD05031

Tgt Ion: 85 Resp: 136893

Ion Ratio Lower Upper

85 100

87 32.4 25.9 38.9



Abundance Ion 85.00 (84.70 to 85.70): VU033583.D (-26) (-)

Ion 87.00 (86.70 to 87.70): VU033583.D (-26) (-)

1.20

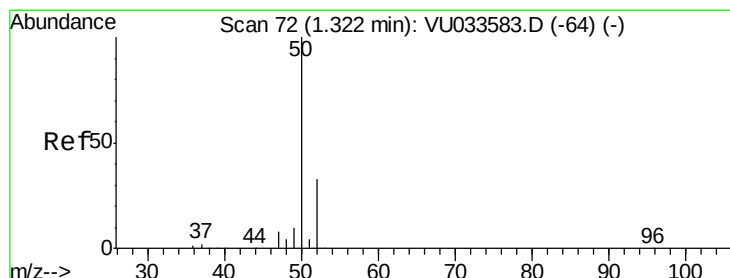
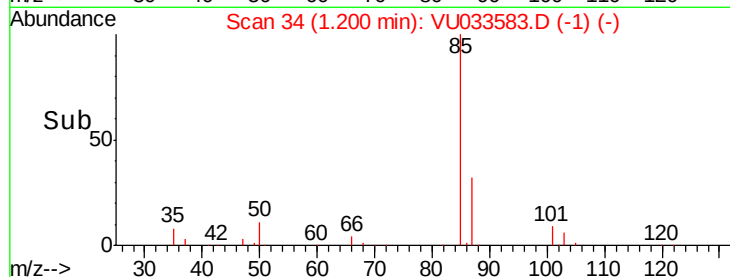
150000

100000

50000

0

Time-->



#3

Chloromethane

Concen: 48.486 ug/L

RT: 1.32 min Scan# 72

Delta R.T. 0.00 min

Lab File: VU033583.D

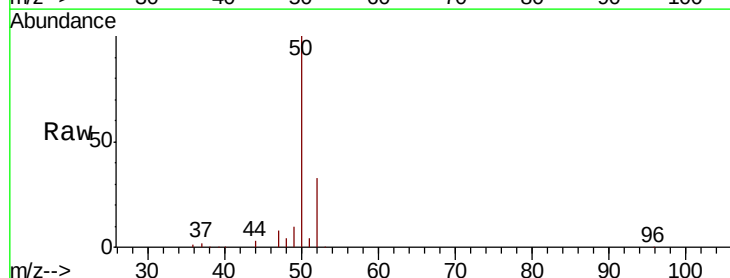
Acq: 03 Aug 2019 11:18

Tgt Ion: 50 Resp: 142973

Ion Ratio Lower Upper

50 100

52 33.0 23.1 42.9



Abundance Ion 50.00 (49.70 to 50.70): VU033583.D (-64) (-)

Ion 52.00 (51.70 to 52.70): VU033583.D (-64) (-)

1.32

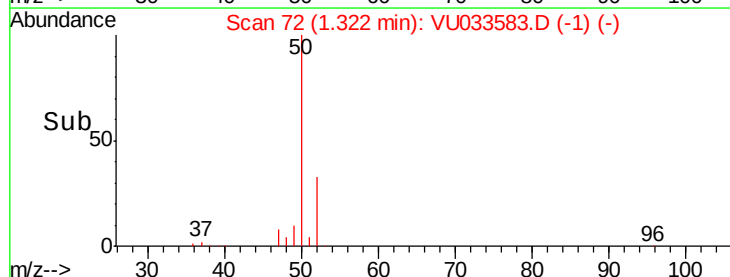
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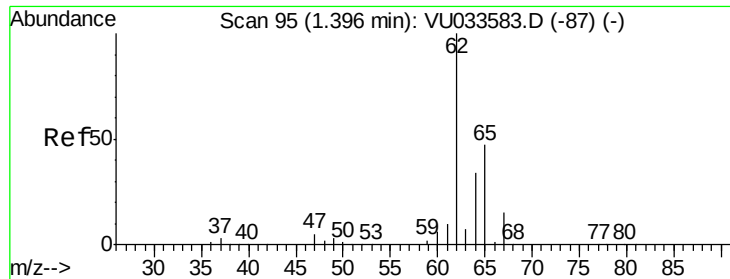
100000

50000

0

Time-->





#5

Vinyl chloride

Concen: 47.810 ug/L

RT: 1.40 min Scan# 95

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

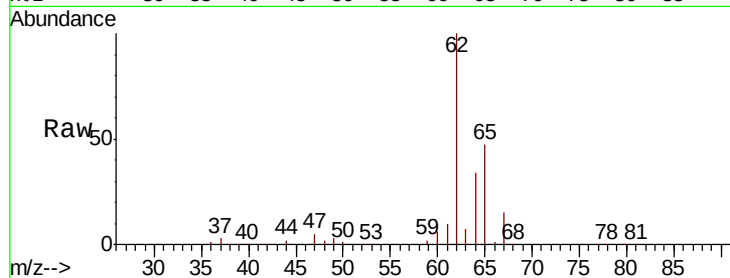
VSTD05031

Tgt Ion: 62 Resp: 151363

Ion Ratio Lower Upper

62 100

64 33.6 23.5 43.7



Abundance Ion 62.00 (61.70 to 62.70): VU033583.D (-87) (-)

Ion 64.00 (63.70 to 64.70): VU033583.D (-87) (-)

150000

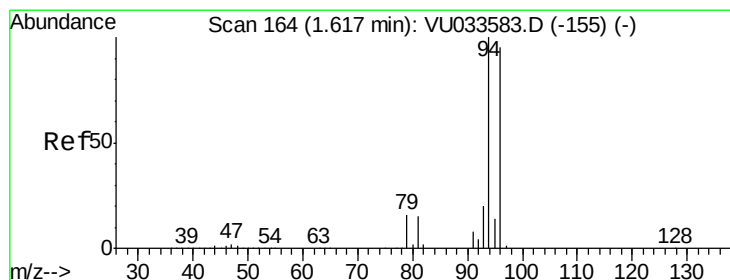
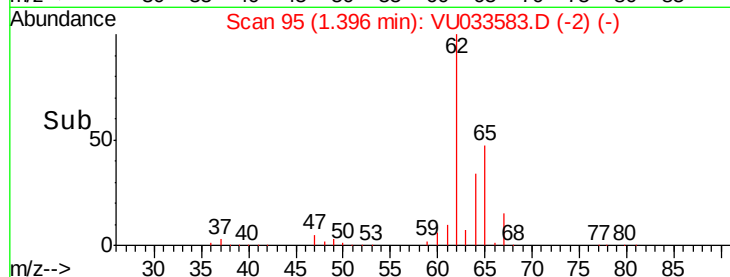
100000

50000

0

1.35 1.40 1.45

Time-->



#6

Bromomethane

Concen: 47.519 ug/L

RT: 1.62 min Scan# 164

Delta R.T. 0.00 min

Lab File: VU033583.D

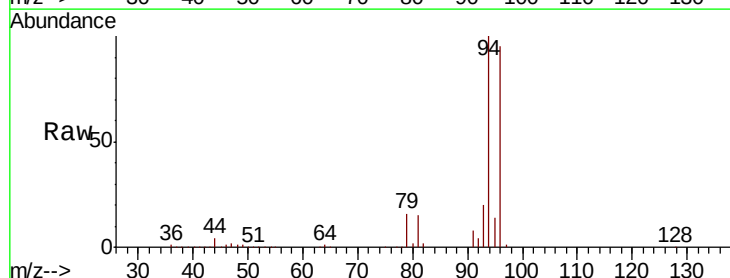
Acq: 03 Aug 2019 11:18

Tgt Ion: 94 Resp: 133544

Ion Ratio Lower Upper

94 100

96 94.6 66.2 123.0



Abundance Ion 94.00 (93.70 to 94.70): VU033583.D (-155) (-)

Ion 96.00 (95.70 to 96.70): VU033583.D (-155) (-)

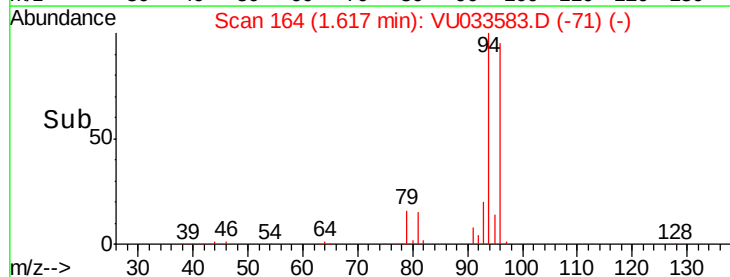
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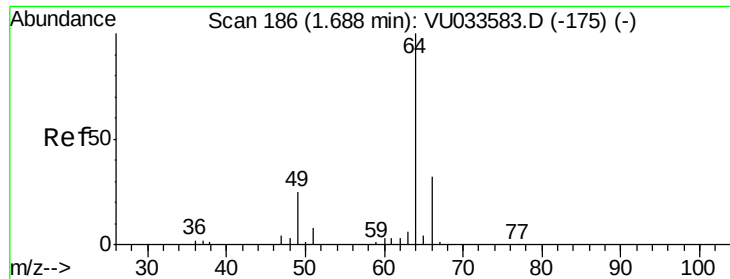
50000

0

1.55 1.60 1.65

Time-->





#8

Chloroethane

Concen: 50.322 ug/L

RT: 1.69 min Scan# 186

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

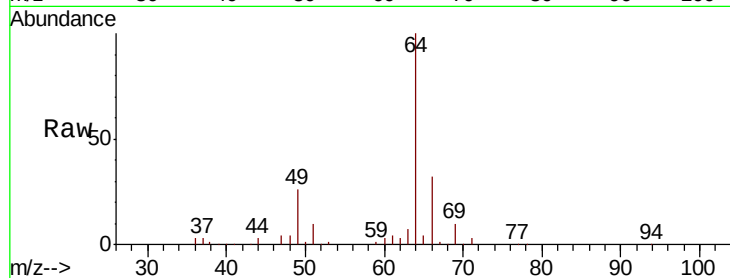
VSTD05031

Tgt Ion: 64 Resp: 96836

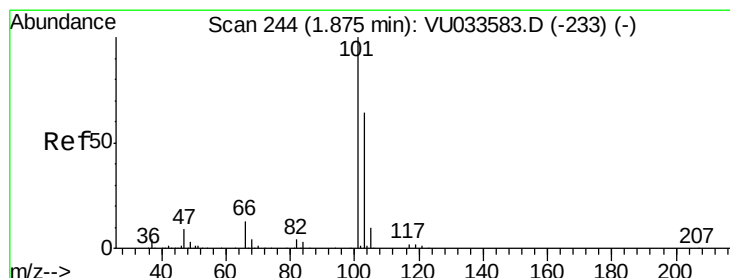
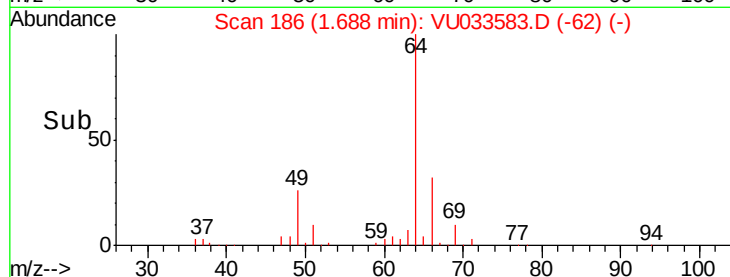
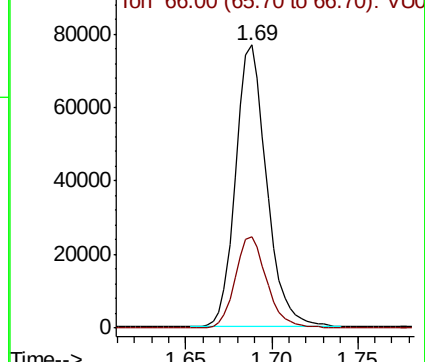
Ion Ratio Lower Upper

64 100

66 32.3 22.6 42.0



Abundance Ion 64.00 (63.70 to 64.70): VU033583.D (-175) (-)



#9

Trichlorofluoromethane

Concen: 49.037 ug/L

RT: 1.87 min Scan# 244

Delta R.T. 0.00 min

Lab File: VU033583.D

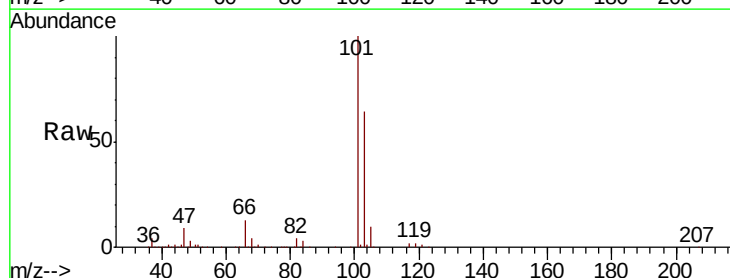
Acq: 03 Aug 2019 11:18

Tgt Ion: 101 Resp: 203586

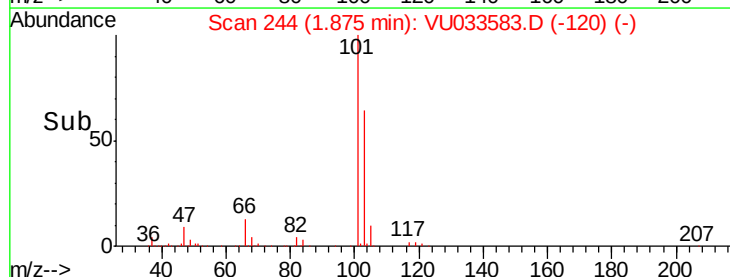
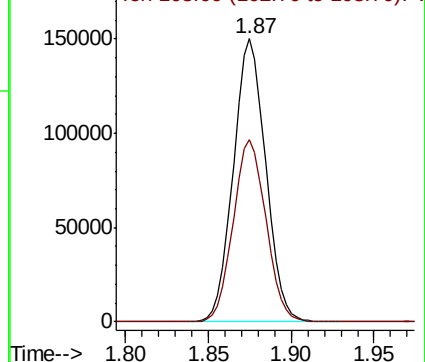
Ion Ratio Lower Upper

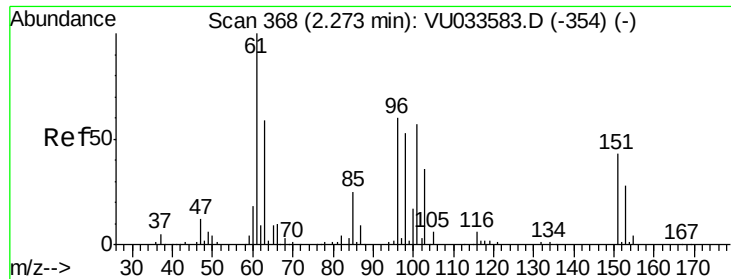
101 100

103 65.2 52.2 78.2



Abundance Ion 101.00 (100.70 to 101.70): VU033583.D (-233) (-)





#10

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

Concen: 48.474 ug/L

RT: 2.27 min Scan# 368

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05031

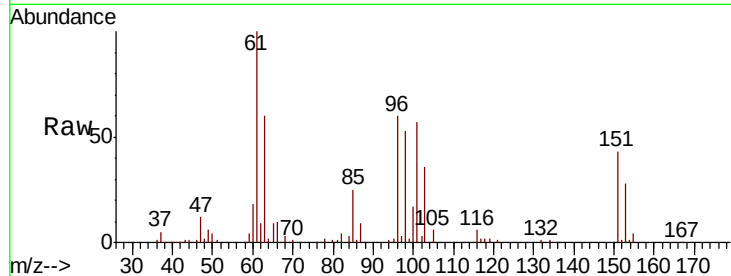
Tgt Ion: 101 Resp: 102393

Ion Ratio Lower Upper

101 100

85 44.4 35.5 53.3

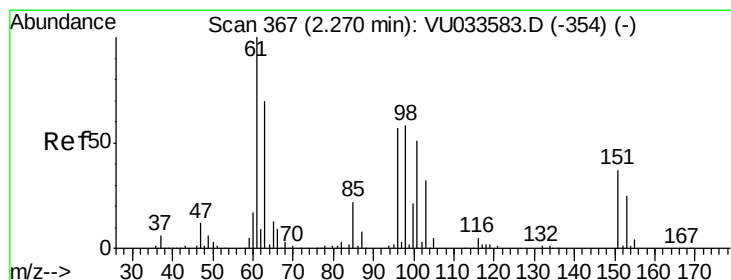
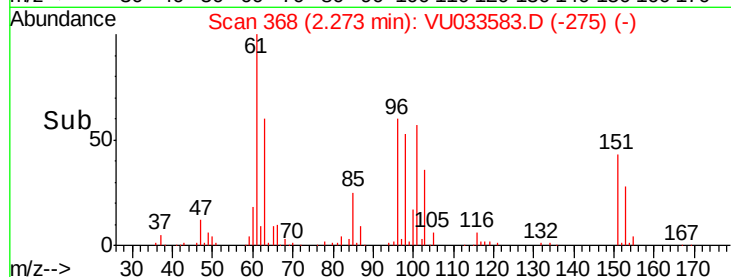
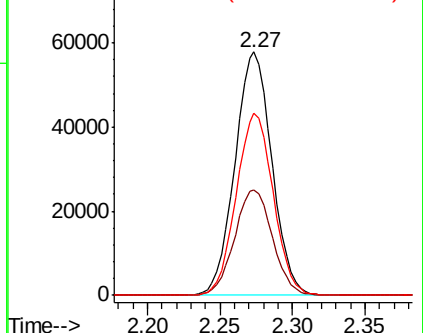
151 74.9 59.9 89.9



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: 47.379 ug/L

RT: 2.27 min Scan# 367

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

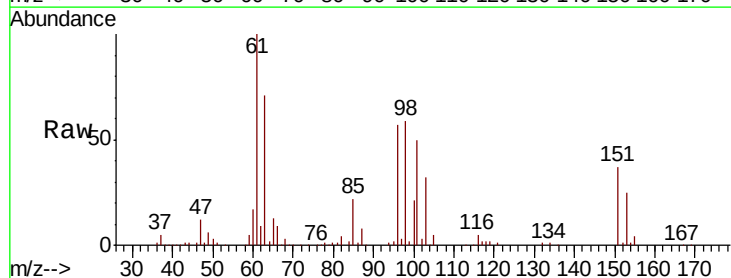
Tgt Ion: 96 Resp: 95342

Ion Ratio Lower Upper

96 100

61 175.4 122.8 228.0

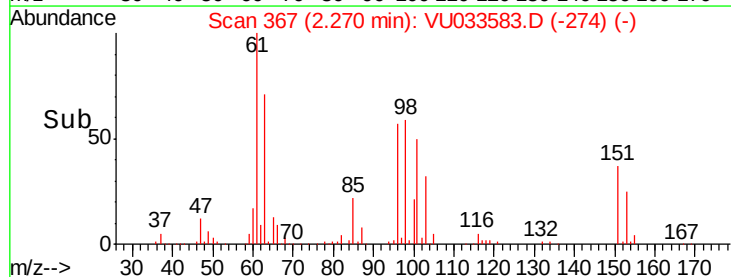
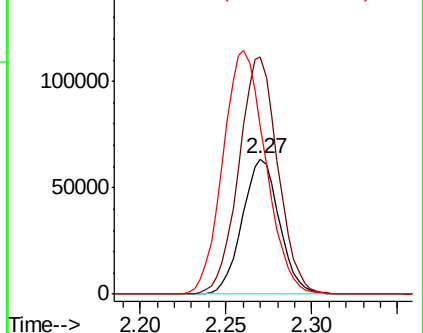
63 124.4 87.1 161.7

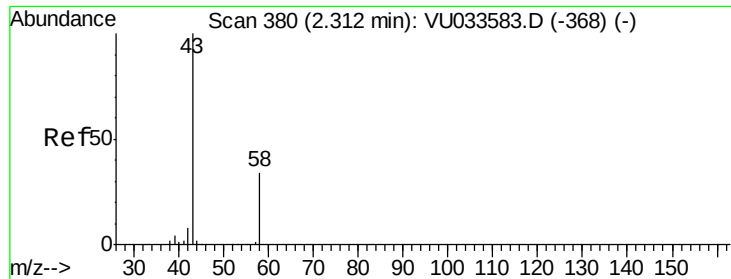


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 105.812 ug/L

RT: 2.31 min Scan# 380

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

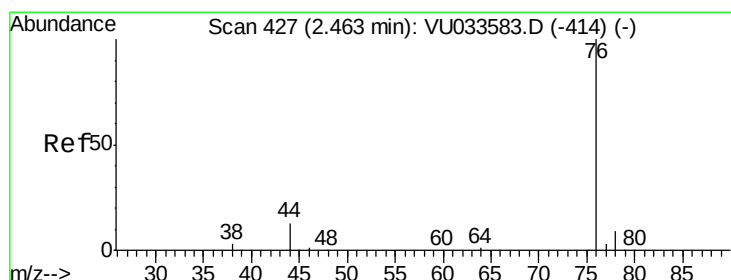
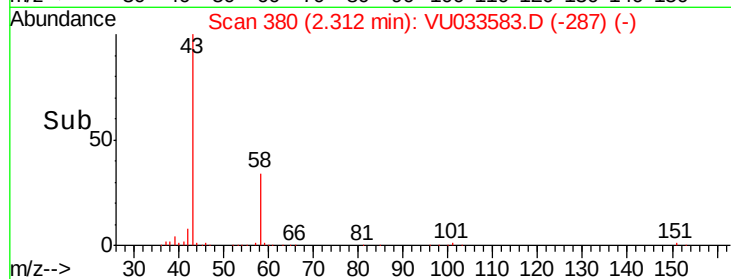
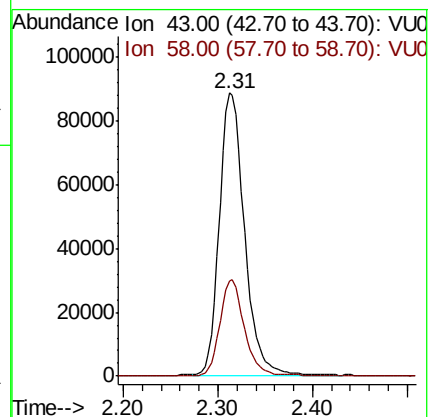
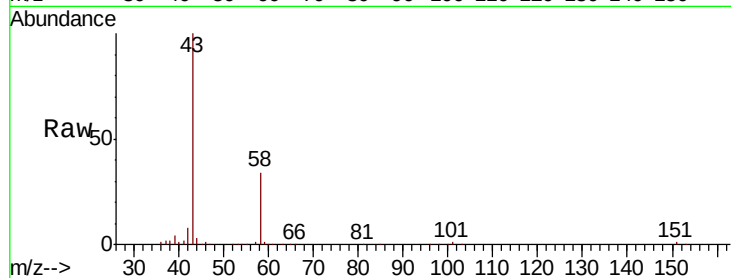
VSTD05031

Tgt Ion: 43 Resp: 164267

Ion Ratio Lower Upper

43 100

58 33.0 0.0 66.0



#14

Carbon disulfide

Concen: 45.222 ug/L

RT: 2.46 min Scan# 427

Delta R.T. 0.00 min

Lab File: VU033583.D

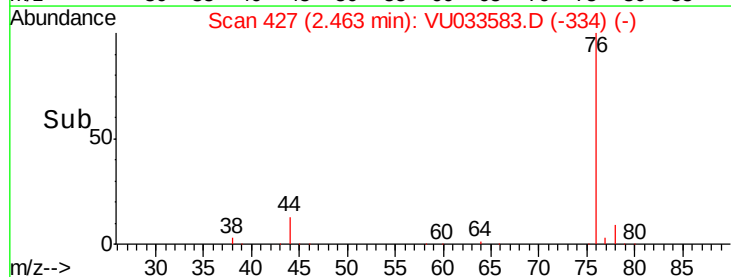
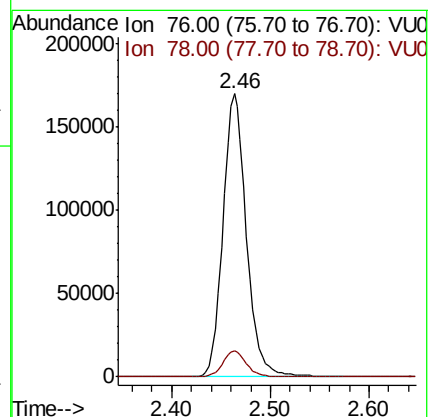
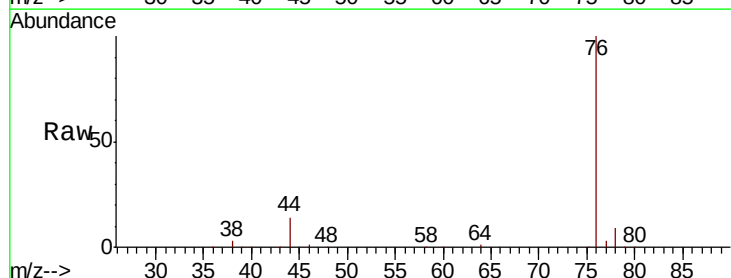
Acq: 03 Aug 2019 11:18

Tgt Ion: 76 Resp: 283250

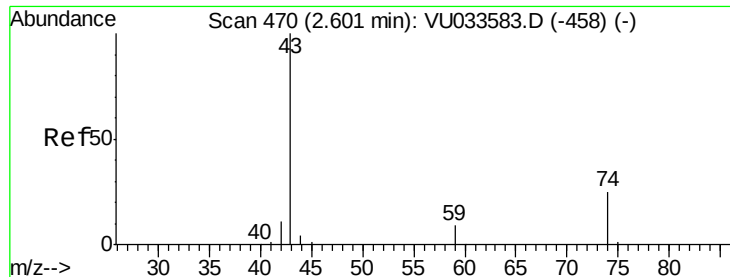
Ion Ratio Lower Upper

76 100

78 9.4 7.5 11.3



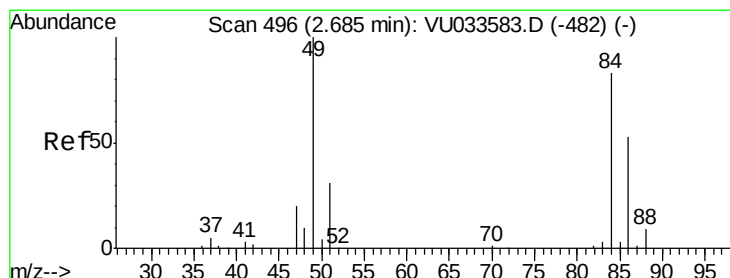
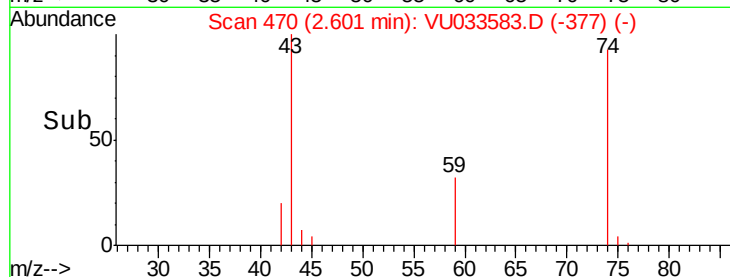
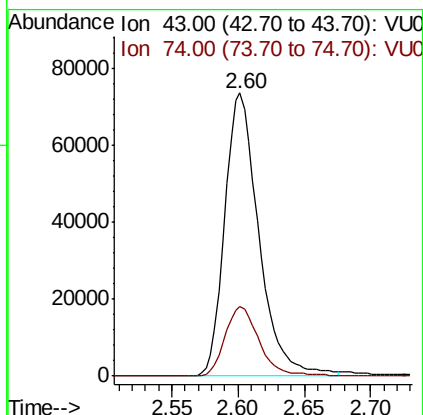
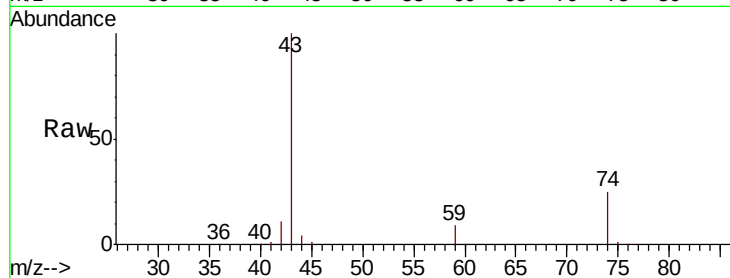




#15  
Methyl Acetate  
Concen: 52.640 ug/L  
RT: 2.60 min Scan# 470  
Delta R.T. 0.00 min  
Lab File: VU033583.D  
Acq: 03 Aug 2019 11:18

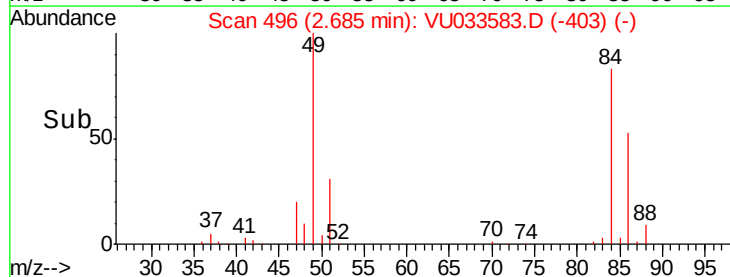
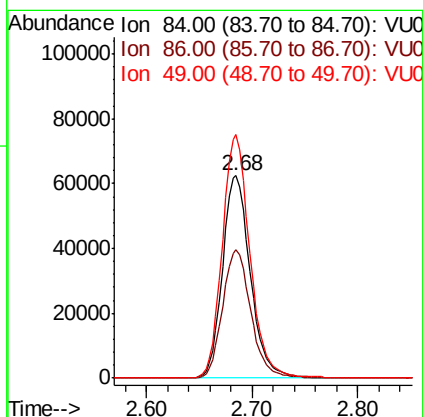
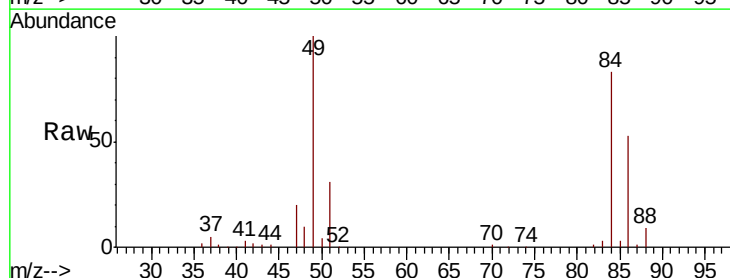
Instrument :  
MSVOA\_U  
ClientSampled :  
VSTD05031

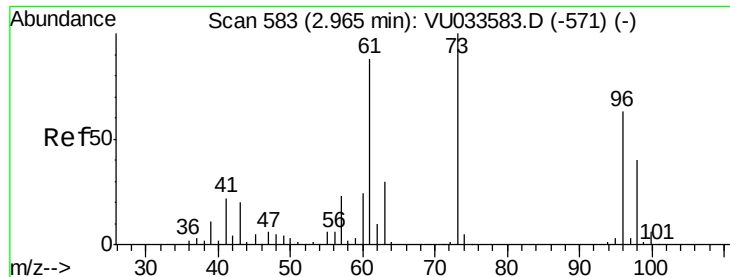
Tgt Ion: 43 Resp: 130889  
Ion Ratio Lower Upper  
43 100  
74 24.9 19.9 29.9



#16  
Methylene chloride  
Concen: 49.367 ug/L  
RT: 2.68 min Scan# 496  
Delta R.T. 0.00 min  
Lab File: VU033583.D  
Acq: 03 Aug 2019 11:18

Tgt Ion: 84 Resp: 114236  
Ion Ratio Lower Upper  
84 100  
86 63.6 44.5 82.7  
49 120.3 84.2 156.4





#17

trans-1,2-Dichloroethene

Concen: 48.015 ug/L

RT: 2.96 min Scan# 583

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05031

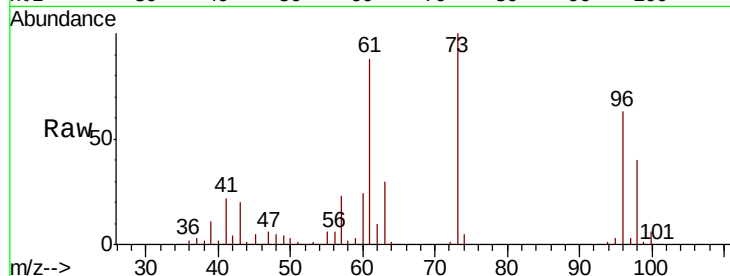
Tgt Ion: 96 Resp: 101373

Ion Ratio Lower Upper

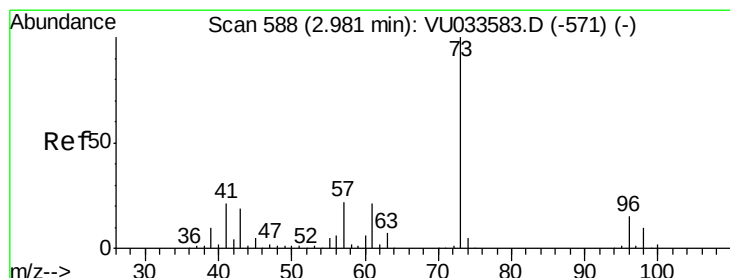
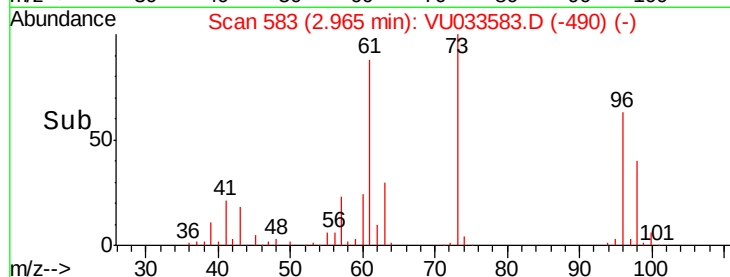
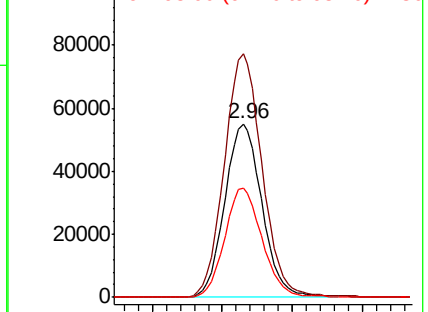
96 100

61 140.2 98.1 182.3

98 63.2 44.2 82.2



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: 50.675 ug/L

RT: 2.98 min Scan# 588

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

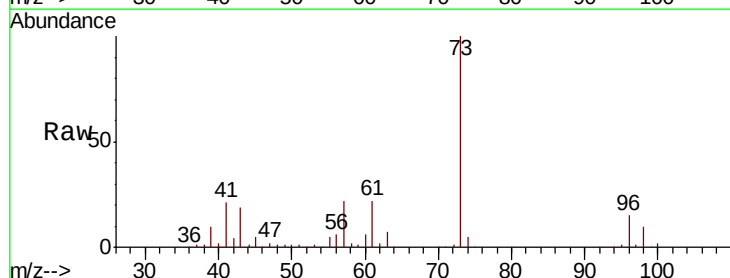
Tgt Ion: 73 Resp: 328395

Ion Ratio Lower Upper

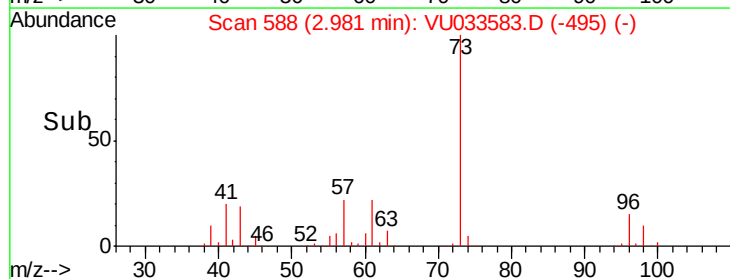
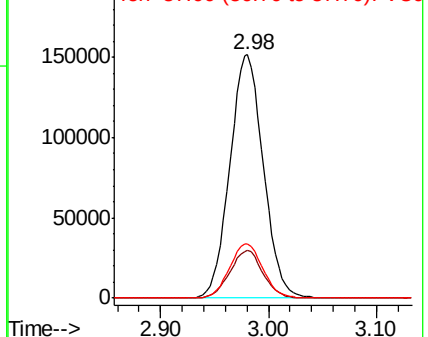
73 100

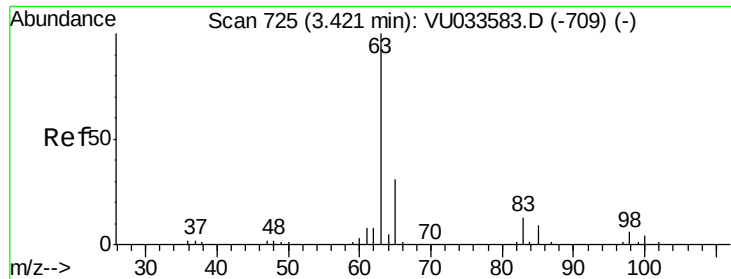
43 19.4 15.5 23.3

57 22.2 17.8 26.6



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

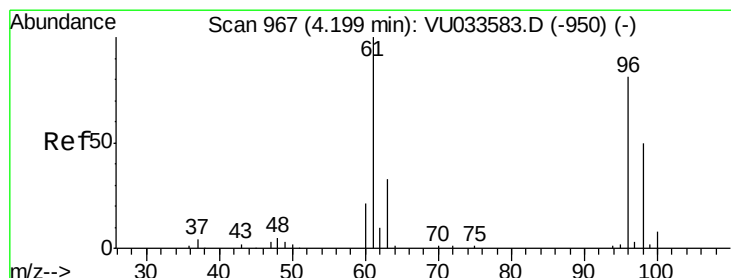
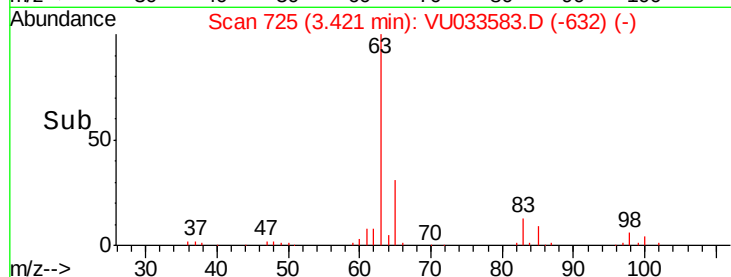
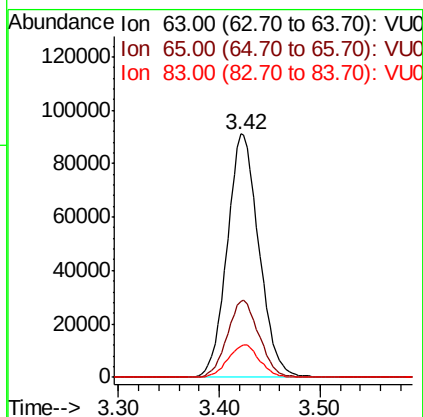
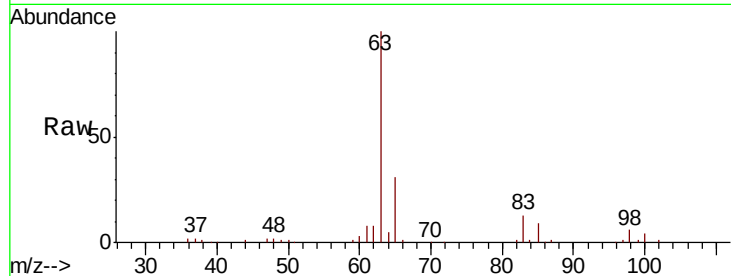




#19  
 1,1-Dichloroethane  
 Concen: 50.041 ug/L  
 RT: 3.42 min Scan# 725  
 Delta R.T. 0.00 min  
 Lab File: VU033583.D  
 Acq: 03 Aug 2019 11:18

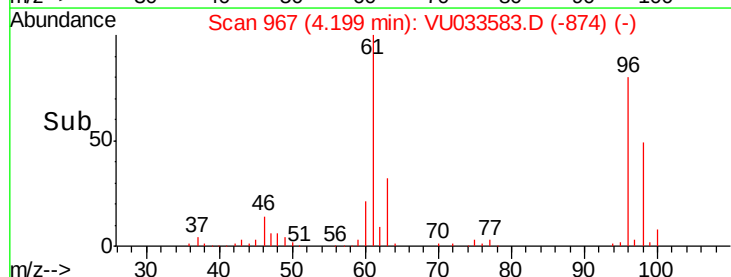
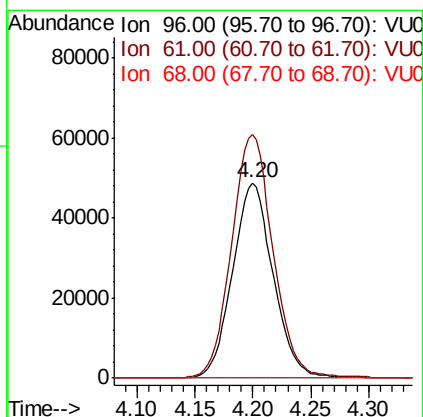
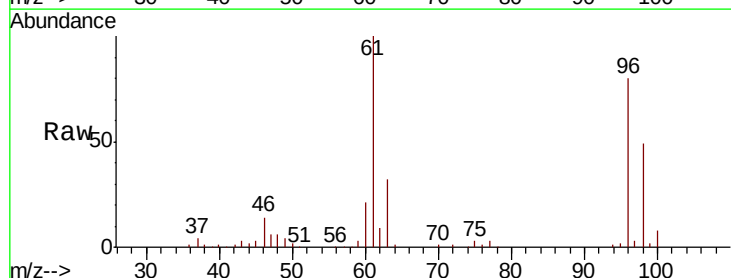
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05031

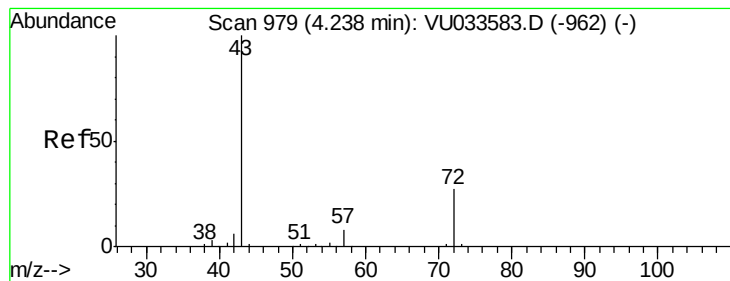
Tgt Ion: 63 Resp: 199629  
 Ion Ratio Lower Upper  
 63 100  
 65 31.4 22.0 40.8  
 83 12.7 8.9 16.5



#20  
 cis-1,2-Dichloroethene  
 Concen: 49.504 ug/L  
 RT: 4.20 min Scan# 967  
 Delta R.T. 0.00 min  
 Lab File: VU033583.D  
 Acq: 03 Aug 2019 11:18

Tgt Ion: 96 Resp: 118173  
 Ion Ratio Lower Upper  
 96 100  
 61 124.9 87.4 162.4  
 68 0.0 0.0 0.0





#22

2-Butanone

Concen: 110.968 ug/L

RT: 4.24 min Scan# 979

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

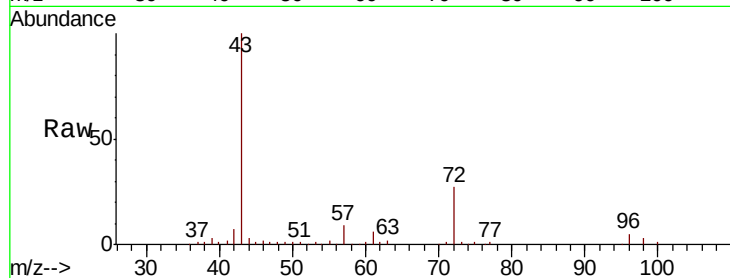
VSTD05031

Tgt Ion: 43 Resp: 206188

Ion Ratio Lower Upper

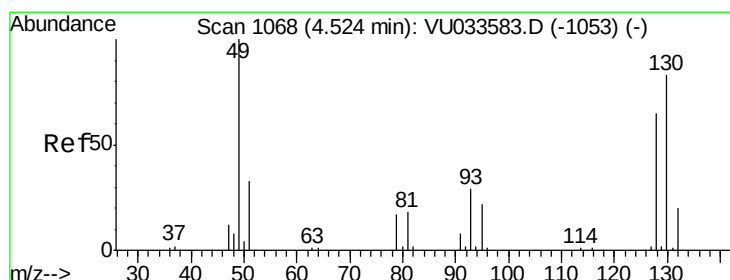
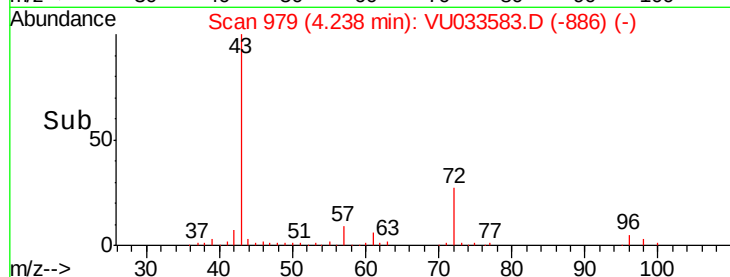
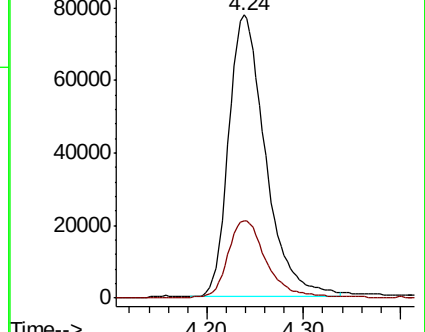
43 100

72 28.9 14.4 43.4



Abundance Ion 43.00 (42.70 to 43.70): VU033583.D (-962) (-)

Ion 72.00 (71.70 to 72.70): VU033583.D (-962) (-)



#23

Bromochloromethane

Concen: 48.984 ug/L

RT: 4.52 min Scan# 1068

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Tgt Ion: 128 Resp: 60509

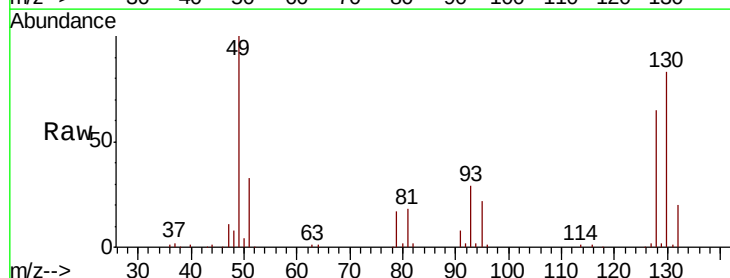
Ion Ratio Lower Upper

128 100

49 154.1 107.9 200.3

130 127.8 89.5 166.1

51 50.3 40.2 60.4

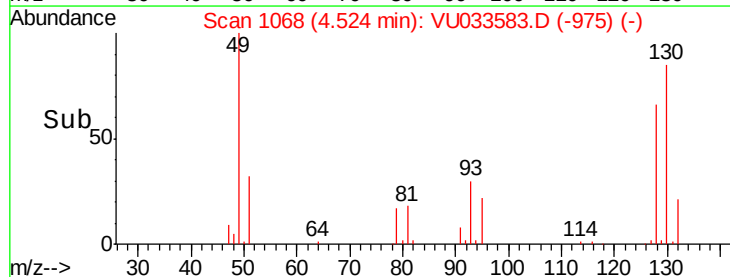
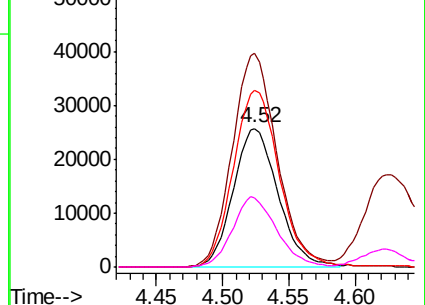


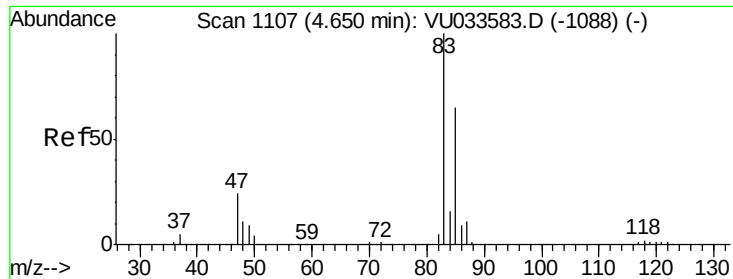
Abundance Ion 128.00 (127.70 to 128.70): VU033583.D (-1053) (-)

Ion 49.00 (48.70 to 49.70): VU033583.D (-1053) (-)

Ion 130.00 (129.70 to 130.70): VU033583.D (-1053) (-)

Ion 51.00 (50.70 to 51.70): VU033583.D (-1053) (-)

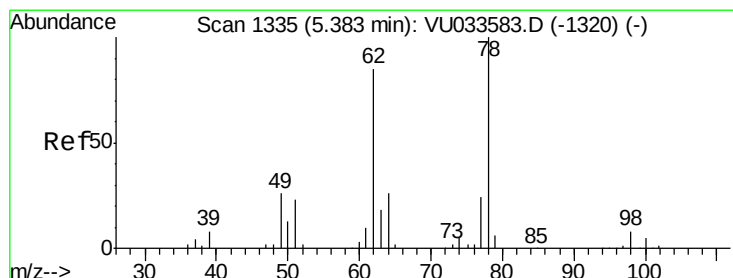
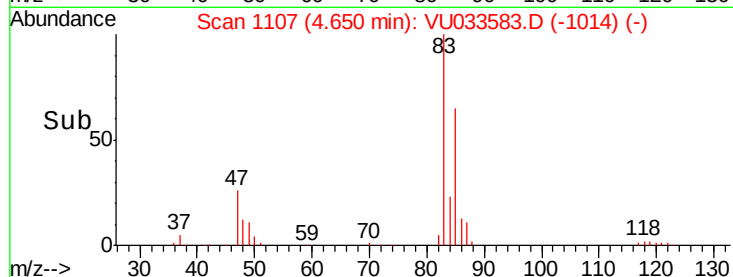
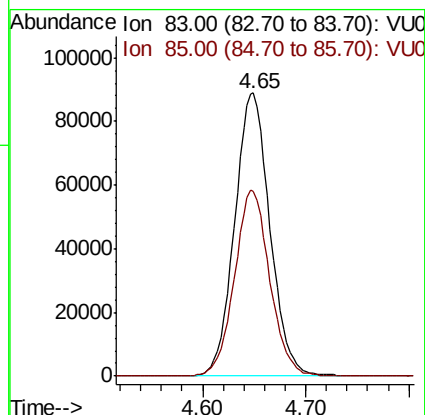
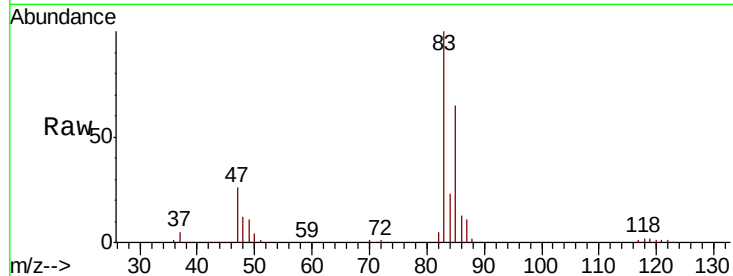




#25  
Chloroform  
Concen: 50.345 ug/L  
RT: 4.65 min Scan# 1107  
Delta R.T. 0.00 min  
Lab File: VU033583.D  
Acq: 03 Aug 2019 11:18

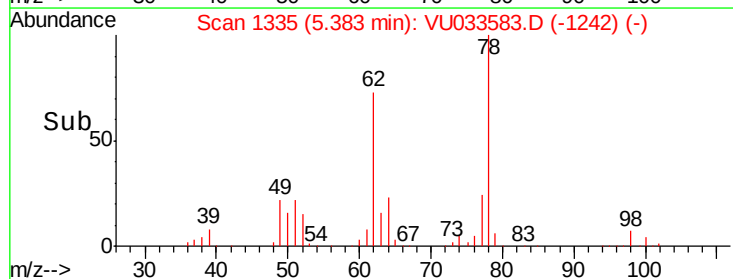
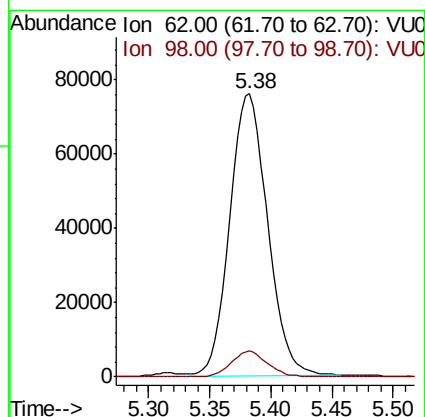
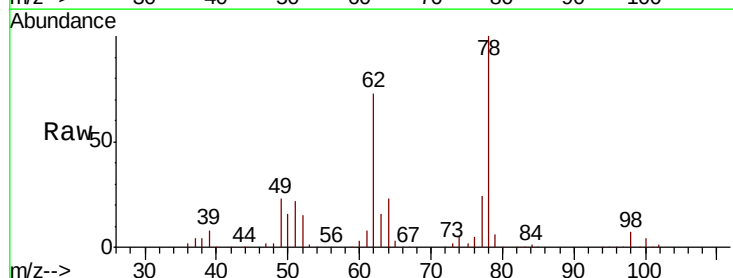
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05031

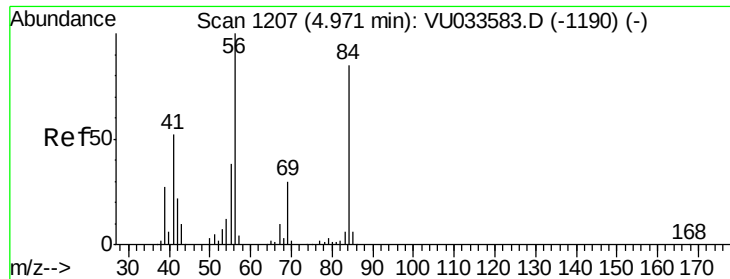
Tgt Ion: 83 Resp: 210923  
Ion Ratio Lower Upper  
83 100  
85 65.2 45.6 84.8



#27  
1,2-Dichloroethane  
Concen: 50.700 ug/L  
RT: 5.38 min Scan# 1335  
Delta R.T. 0.00 min  
Lab File: VU033583.D  
Acq: 03 Aug 2019 11:18

Tgt Ion: 62 Resp: 164048  
Ion Ratio Lower Upper  
62 100  
98 9.2 7.4 11.0

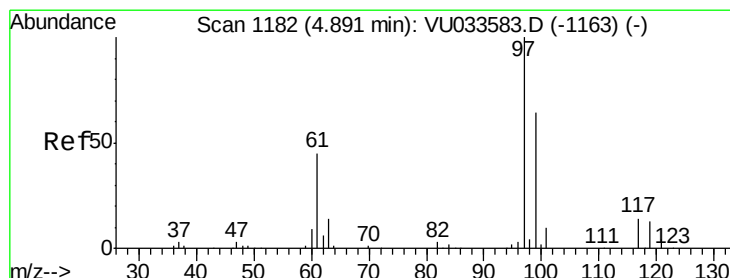
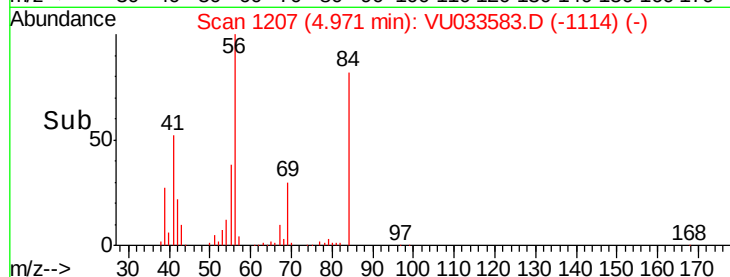
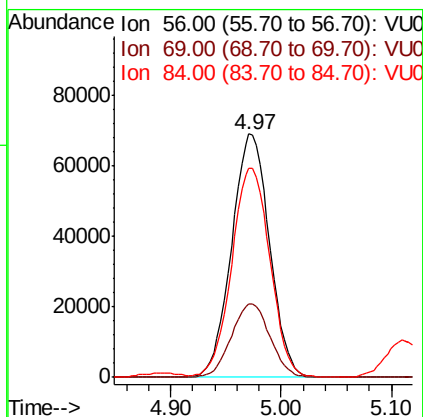
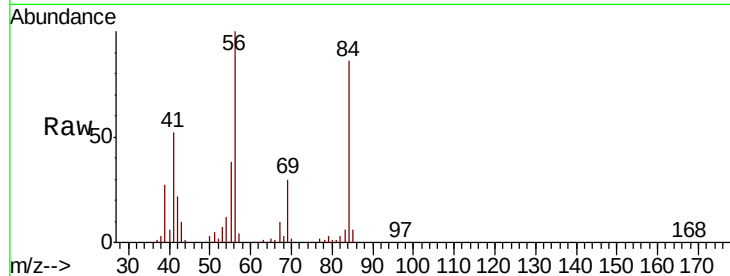




#29  
Cyclohexane  
Concen: 48.498 ug/L  
RT: 4.97 min Scan# 1207  
Delta R.T. 0.00 min  
Lab File: VU033583.D  
Acq: 03 Aug 2019 11:18

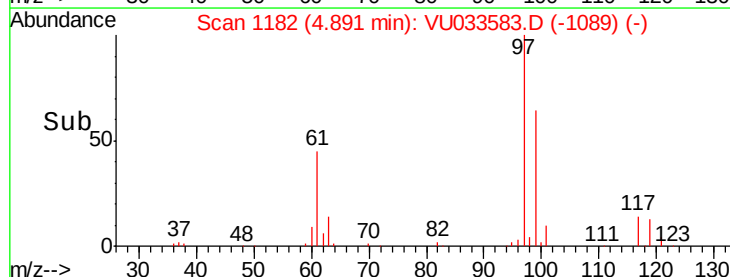
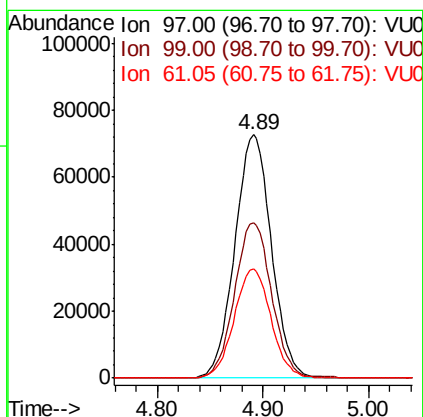
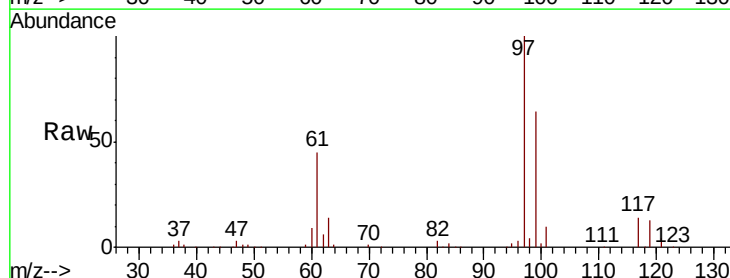
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05031

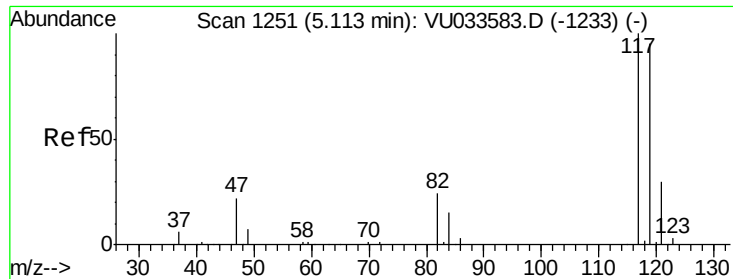
Tgt Ion: 56 Resp: 164355  
Ion Ratio Lower Upper  
56 100  
69 30.7 24.6 36.8  
84 87.2 69.8 104.6



#30  
1,1,1-Trichloroethane  
Concen: 48.746 ug/L  
RT: 4.89 min Scan# 1182  
Delta R.T. 0.00 min  
Lab File: VU033583.D  
Acq: 03 Aug 2019 11:18

Tgt Ion: 97 Resp: 175155  
Ion Ratio Lower Upper  
97 100  
99 64.4 51.5 77.3  
61 45.1 36.1 54.1





#31

Carbon tetrachloride

Concen: 49.640 ug/L

RT: 5.11 min Scan# 1251

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

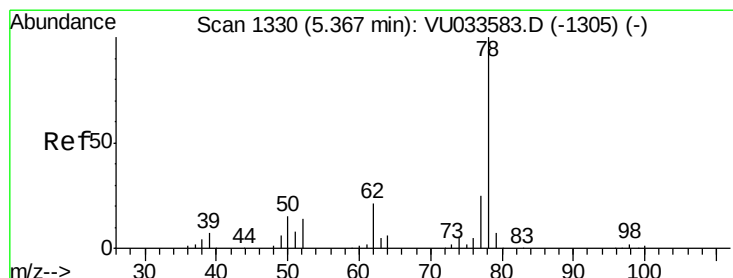
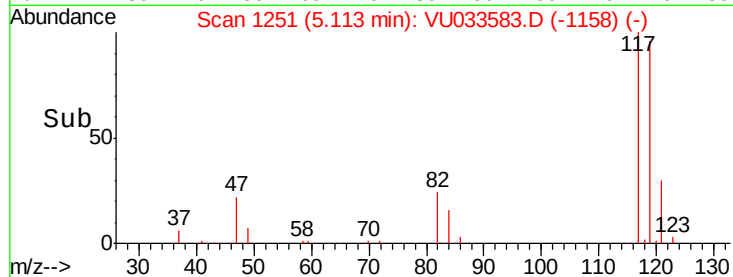
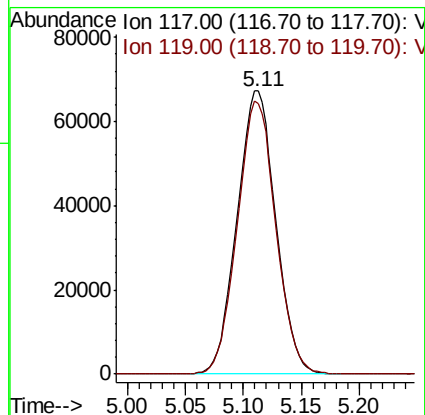
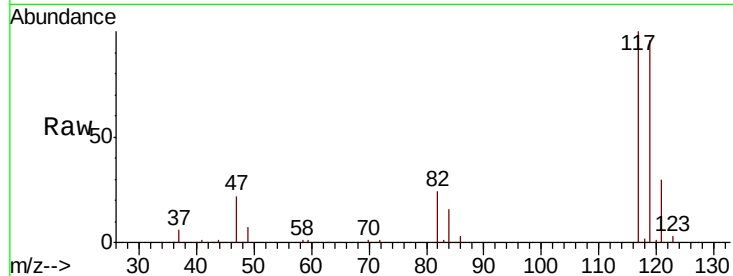
VSTD05031

Tgt Ion:117 Resp: 155726

Ion Ratio Lower Upper

117 100

119 96.1 76.9 115.3



#33

Benzene

Concen: 49.603 ug/L

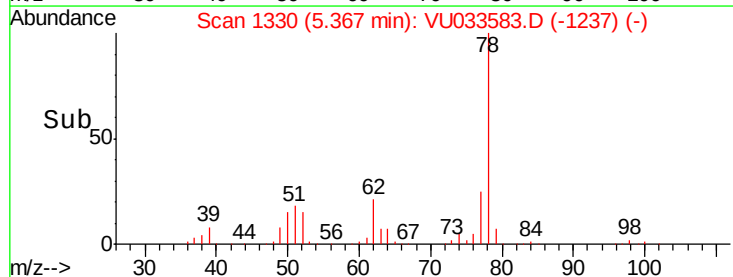
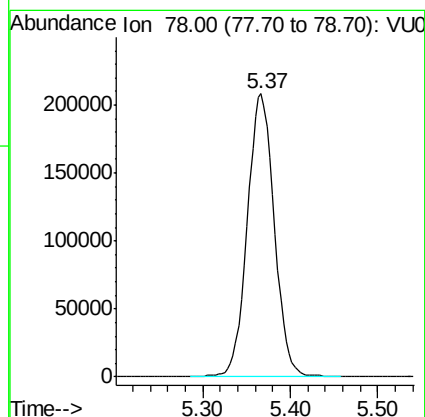
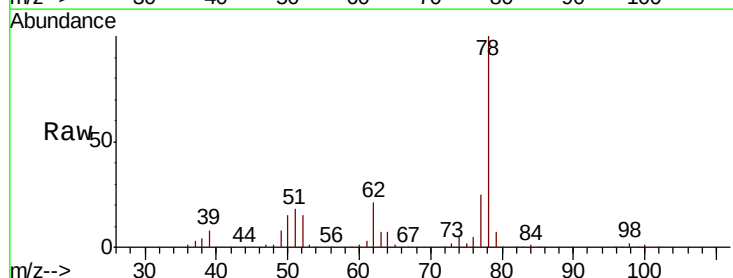
RT: 5.37 min Scan# 1330

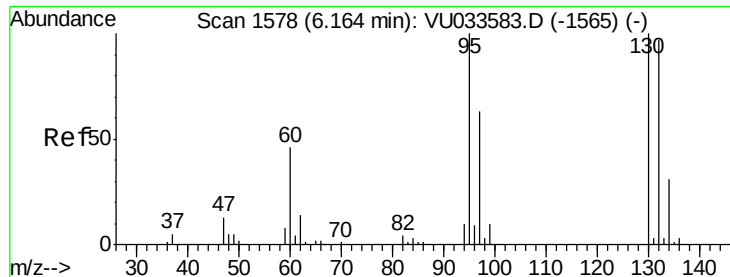
Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Tgt Ion: 78 Resp: 446444





#34

Trichloroethene

Concen: 47.281 ug/L

RT: 6.16 min Scan# 1578

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05031

Tgt Ion: 95 Resp: 112113

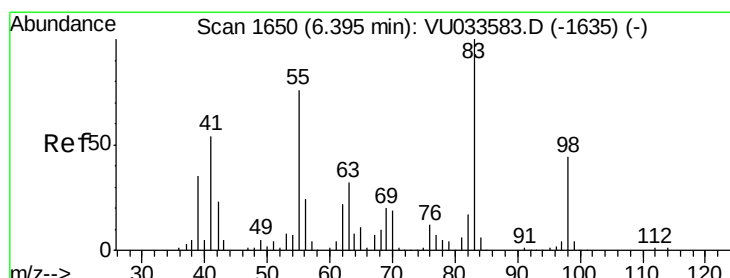
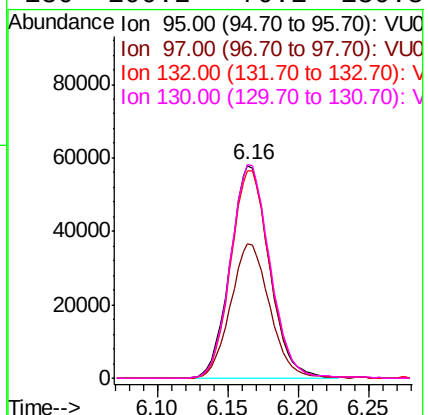
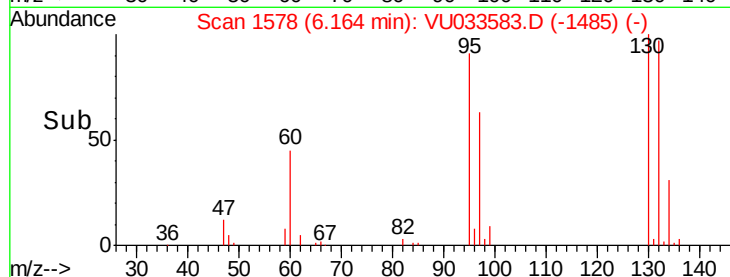
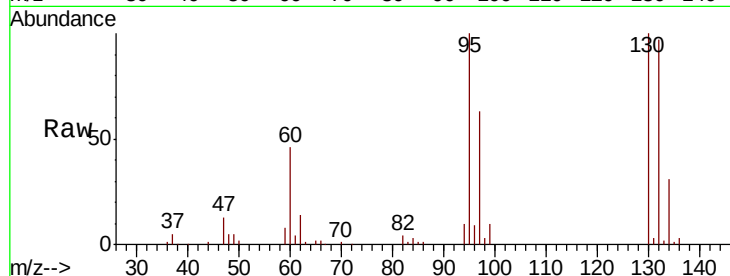
Ion Ratio Lower Upper

95 100

97 63.2 44.2 82.2

132 97.5 68.3 126.8

130 100.2 70.1 130.3



#35

Methylcyclohexane

Concen: 48.631 ug/L

RT: 6.40 min Scan# 1650

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

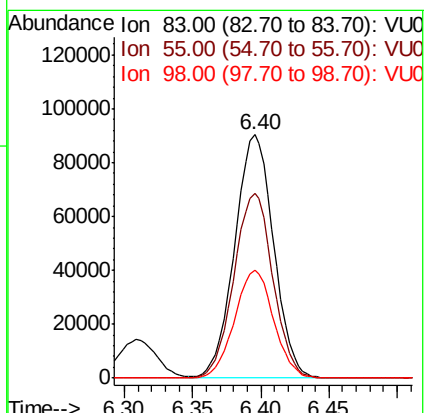
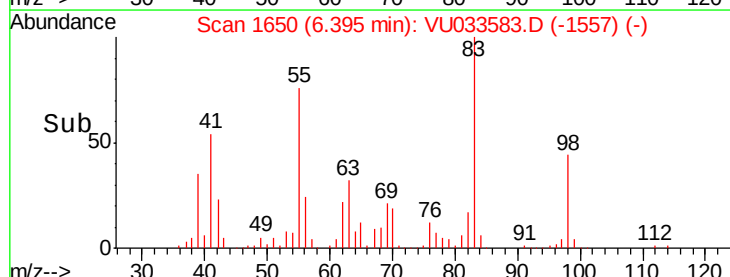
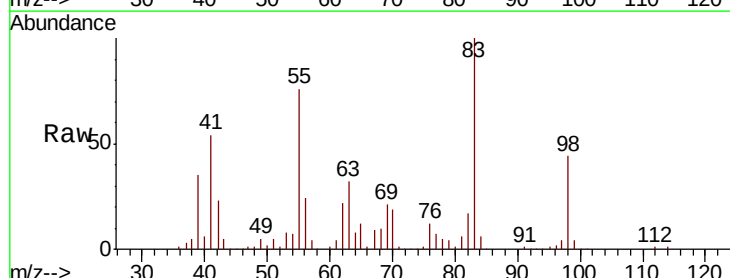
Tgt Ion: 83 Resp: 179575

Ion Ratio Lower Upper

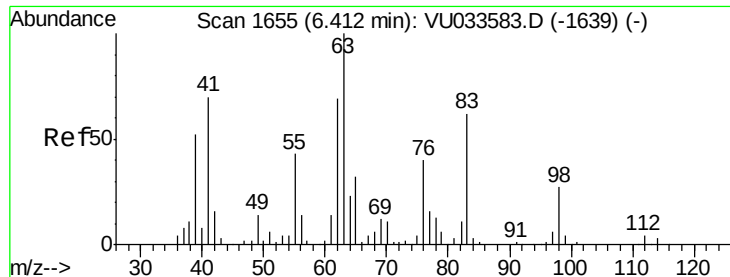
83 100

55 75.9 60.7 91.1

98 44.3 35.4 53.2



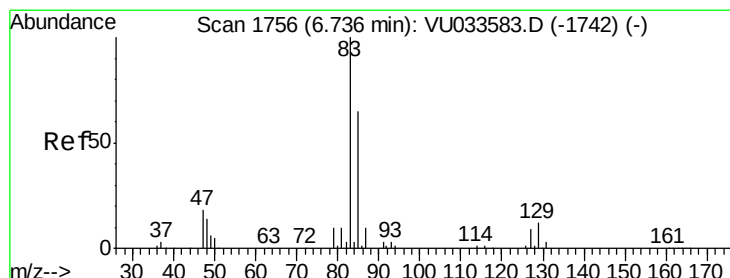
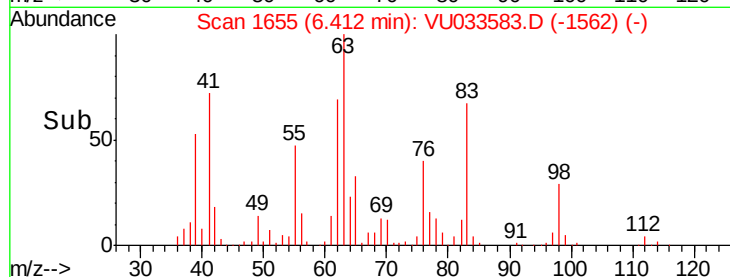
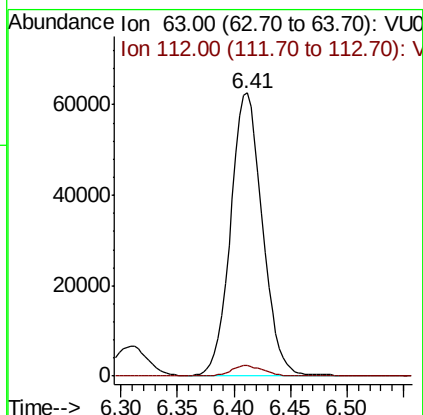
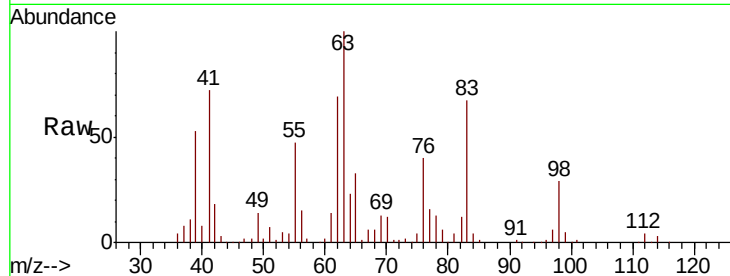




#37  
 1,2-Dichloropropane  
 Concen: 50.583 ug/L  
 RT: 6.41 min Scan# 1655  
 Delta R.T. 0.00 min  
 Lab File: VU033583.D  
 Acq: 03 Aug 2019 11:18

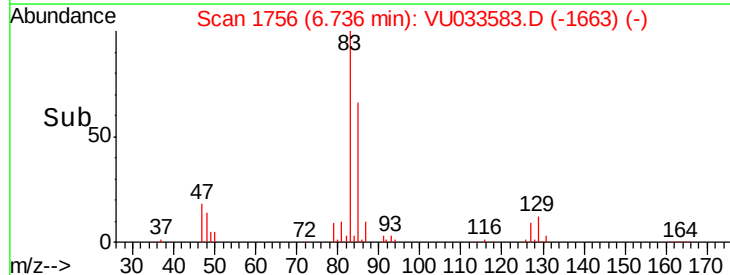
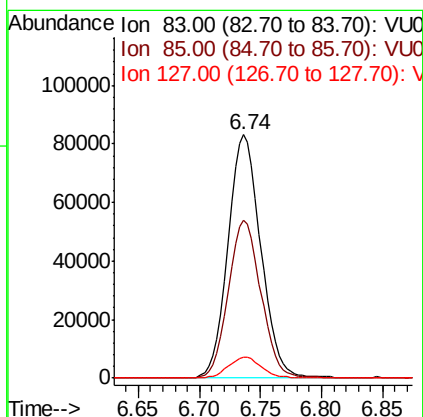
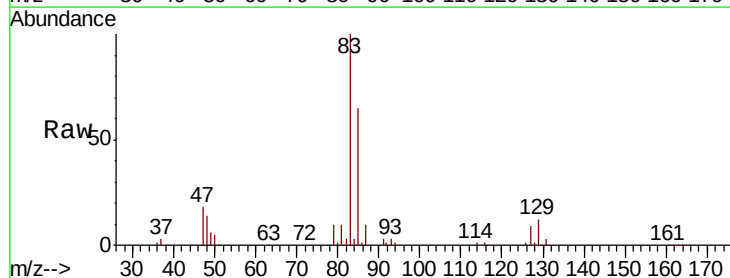
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05031

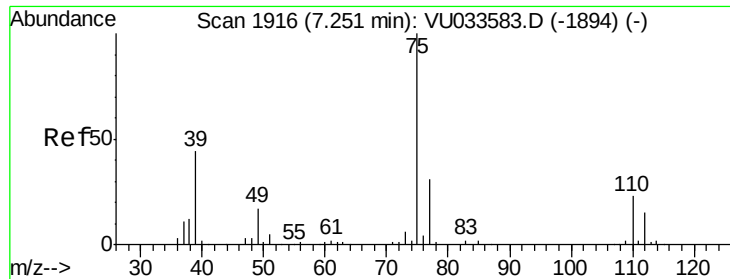
Tgt Ion: 63 Resp: 122956  
 Ion Ratio Lower Upper  
 63 100  
 112 3.7 3.0 4.4



#38  
 Bromodichloromethane  
 Concen: 49.851 ug/L  
 RT: 6.74 min Scan# 1756  
 Delta R.T. 0.00 min  
 Lab File: VU033583.D  
 Acq: 03 Aug 2019 11:18

Tgt Ion: 83 Resp: 156002  
 Ion Ratio Lower Upper  
 83 100  
 85 65.0 45.5 84.5  
 127 8.6 6.9 10.3

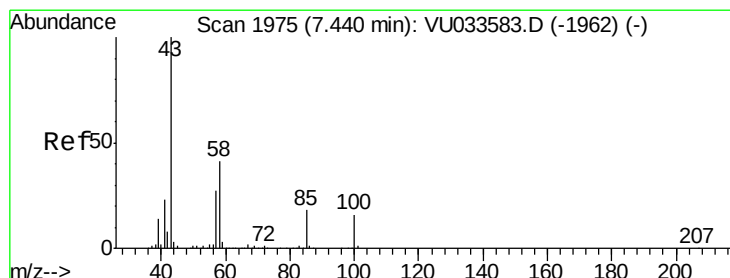
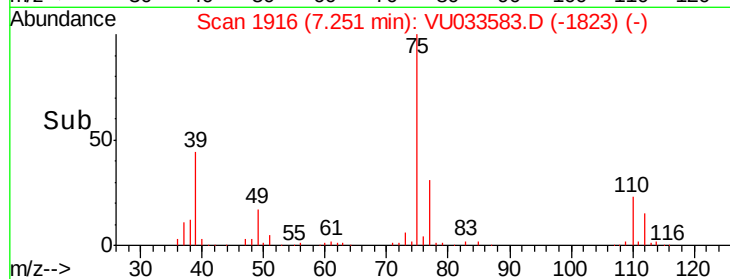
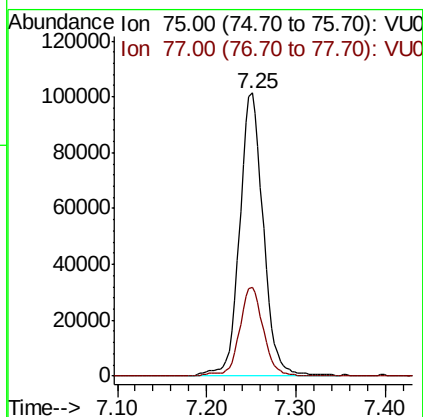
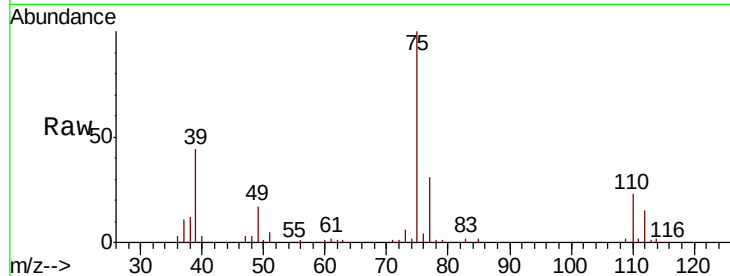




#39  
 cis-1,3-Dichloropropene  
 Concen: 49.729 ug/L  
 RT: 7.25 min Scan# 1916  
 Delta R.T. 0.00 min  
 Lab File: VU033583.D  
 Acq: 03 Aug 2019 11:18

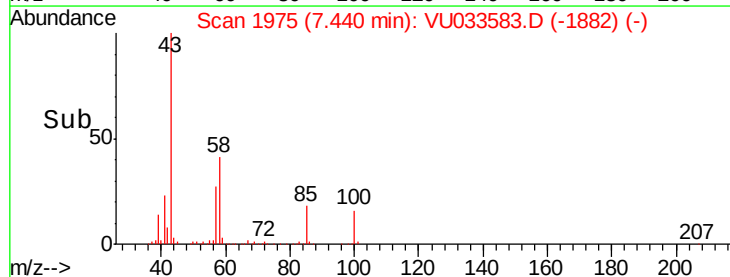
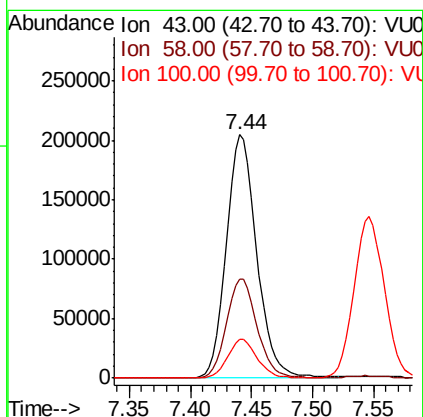
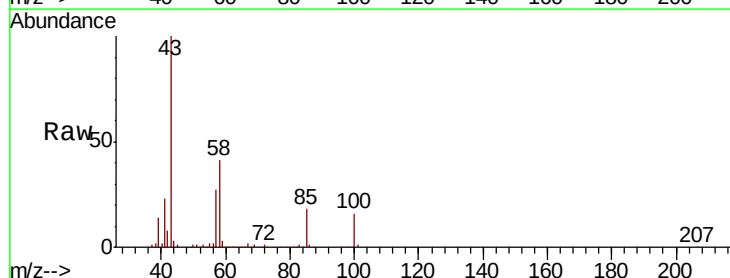
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05031

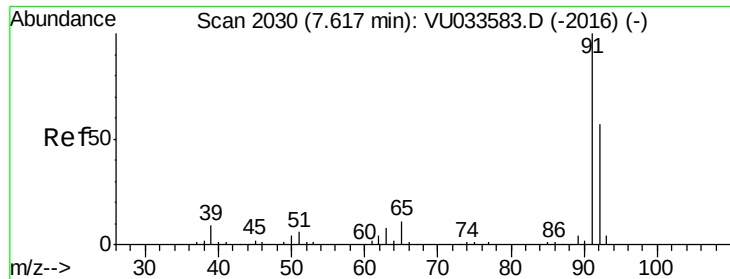
Tgt Ion: 75 Resp: 187461  
 Ion Ratio Lower Upper  
 75 100  
 77 31.3 21.9 40.7



#40  
 4-Methyl-2-pentanone  
 Concen: 105.994 ug/L  
 RT: 7.44 min Scan# 1975  
 Delta R.T. 0.00 min  
 Lab File: VU033583.D  
 Acq: 03 Aug 2019 11:18

Tgt Ion: 43 Resp: 357646  
 Ion Ratio Lower Upper  
 43 100  
 58 41.2 33.0 49.4  
 100 15.5 12.4 18.6





#42

Toluene

Concen: 49.720 ug/L

RT: 7.62 min Scan# 2030

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

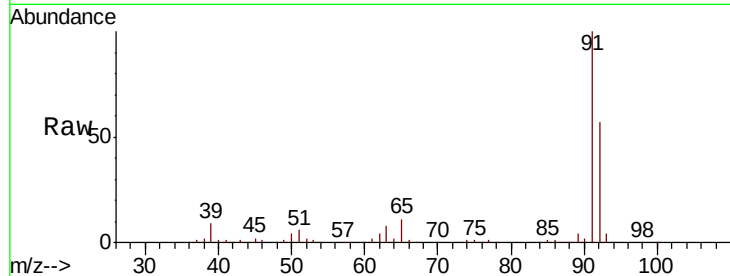
VSTD05031

Tgt Ion: 91 Resp: 480266

Ion Ratio Lower Upper

91 100

92 57.4 40.2 74.6



Abundance Ion 91.00 (90.70 to 91.70): VU033583.D (-2016) (-)

Ion 92.00 (91.70 to 92.70): VU033583.D (-2016) (-)

7.62

300000

250000

200000

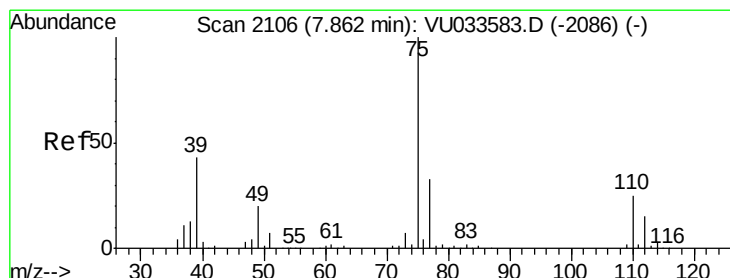
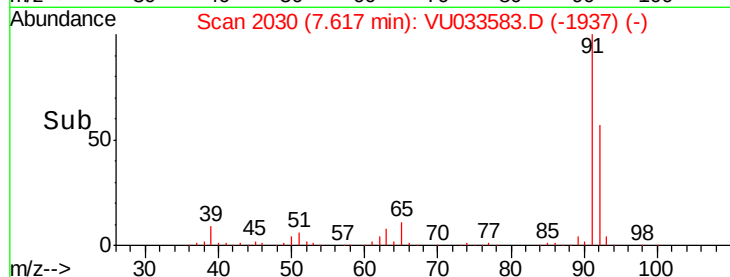
150000

100000

50000

0

Time-->



#44

trans-1,3-Dichloropropene

Concen: 49.289 ug/L

RT: 7.86 min Scan# 2106

Delta R.T. 0.00 min

Lab File: VU033583.D

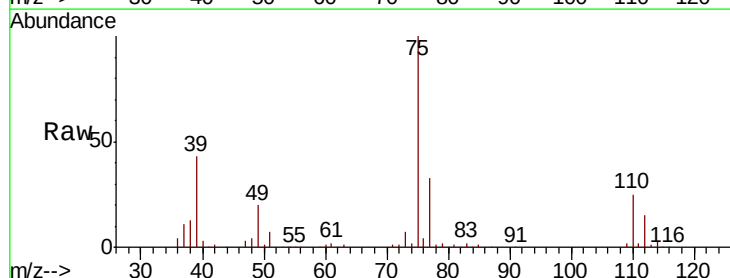
Acq: 03 Aug 2019 11:18

Tgt Ion: 75 Resp: 167277

Ion Ratio Lower Upper

75 100

77 33.4 23.4 43.4



Abundance Ion 75.00 (74.70 to 75.70): VU033583.D (-2086) (-)

Ion 77.00 (76.70 to 77.70): VU033583.D (-2086) (-)

7.86

100000

80000

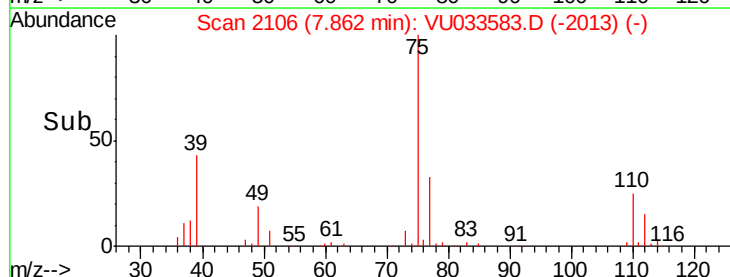
60000

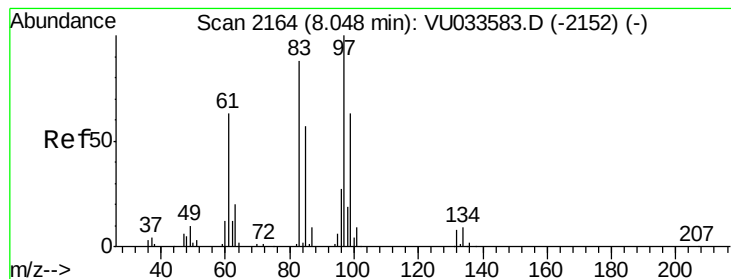
40000

20000

0

Time-->





#45

1,1,2-Trichloroethane

Concen: 49.823 ug/L

RT: 8.05 min Scan# 2164

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05031

Tgt Ion: 97 Resp: 114440

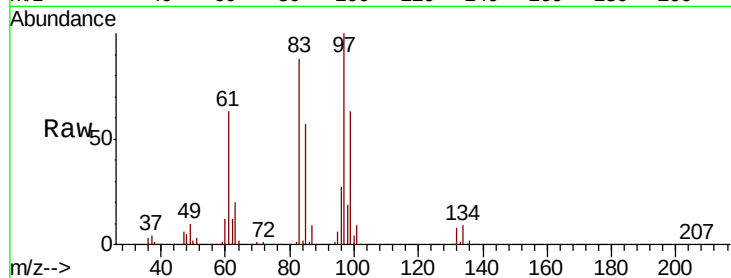
Ion Ratio Lower Upper

97 100

99 62.7 43.9 81.5

83 88.4 61.9 114.9

85 56.8 39.8 73.8

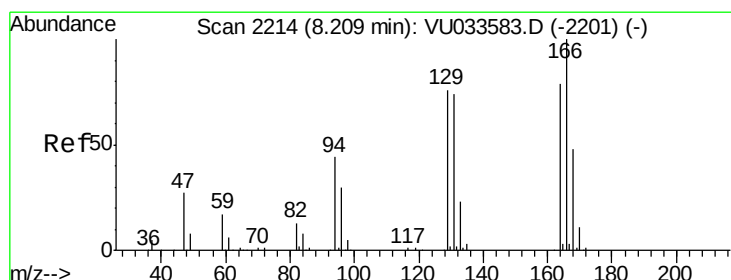
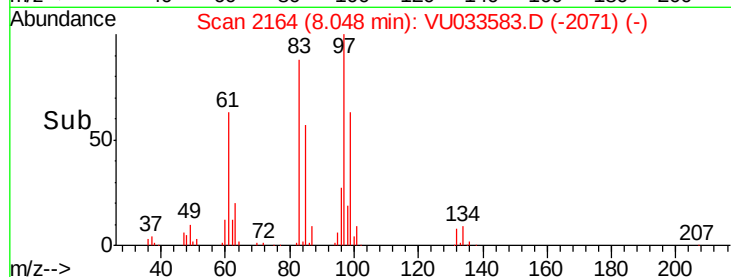
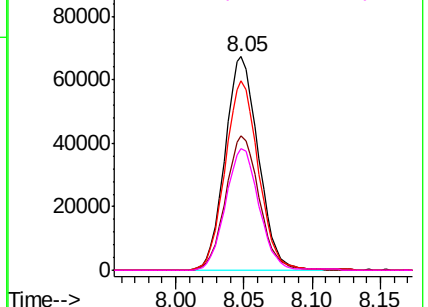


Abundance Ion 97.00 (96.70 to 97.70): VU0

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: 47.627 ug/L

RT: 8.21 min Scan# 2214

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Tgt Ion: 164 Resp: 91807

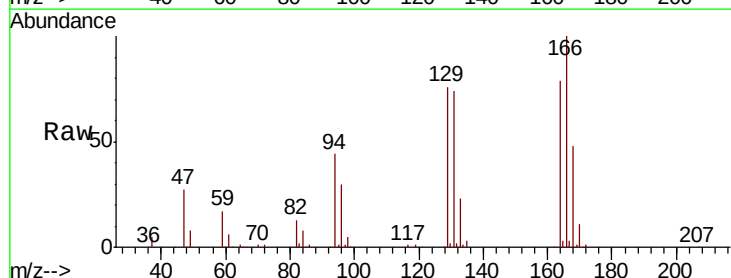
Ion Ratio Lower Upper

164 100

129 95.7 67.0 124.4

131 92.8 65.0 120.6

166 125.9 88.1 163.7

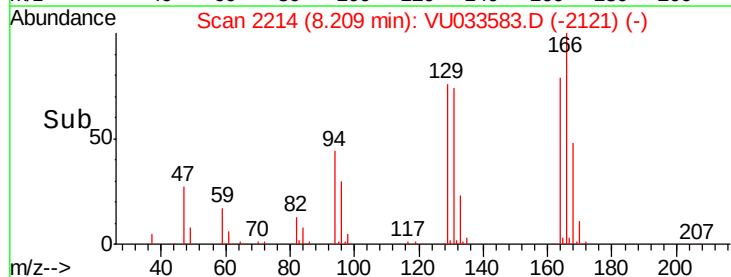
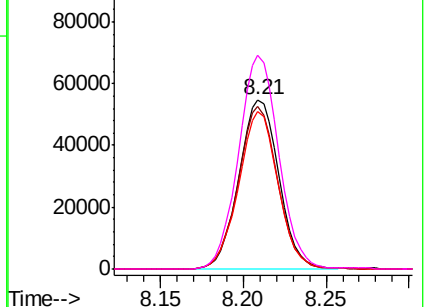


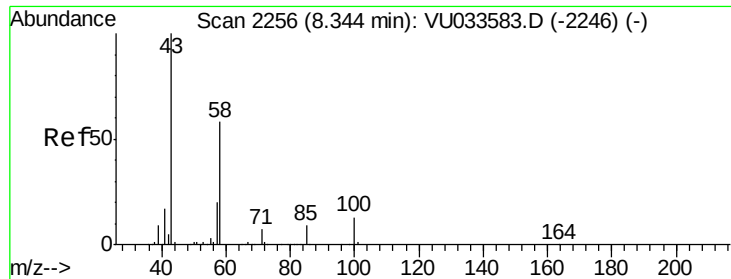
Abundance Ion 164.00 (163.70 to 164.70): V

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

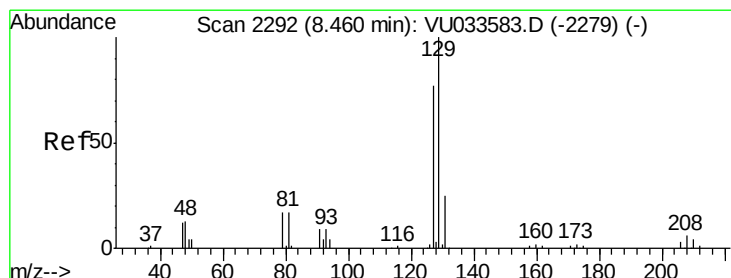
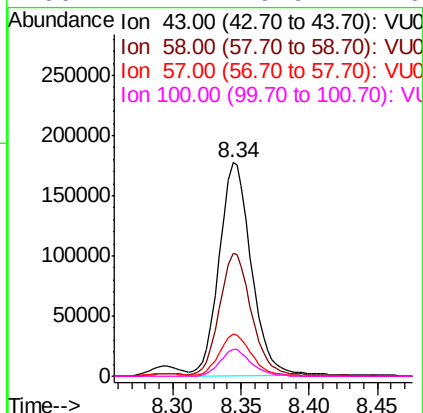
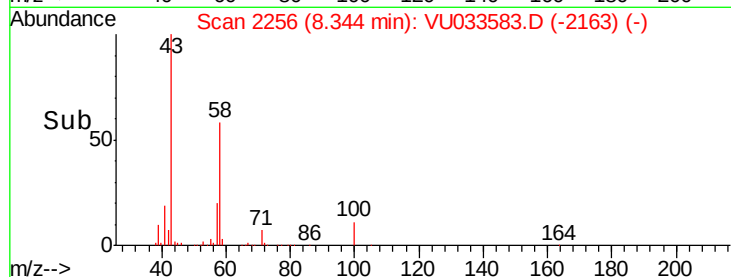
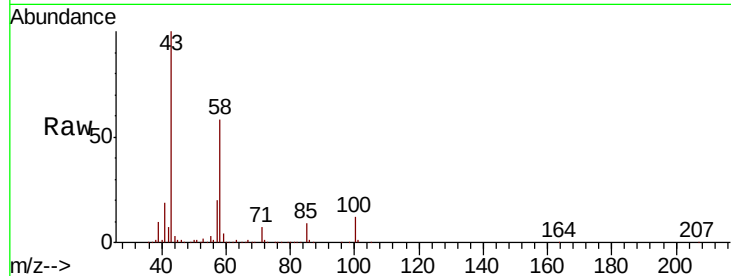




#48  
2-Hexanone  
Concen: 106.391 ug/L  
RT: 8.34 min Scan# 2256  
Delta R.T. 0.00 min  
Lab File: VU033583.D  
Acq: 03 Aug 2019 11:18

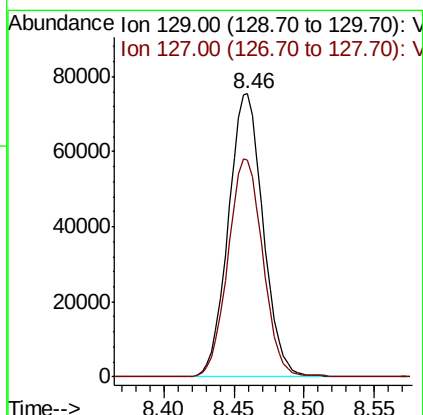
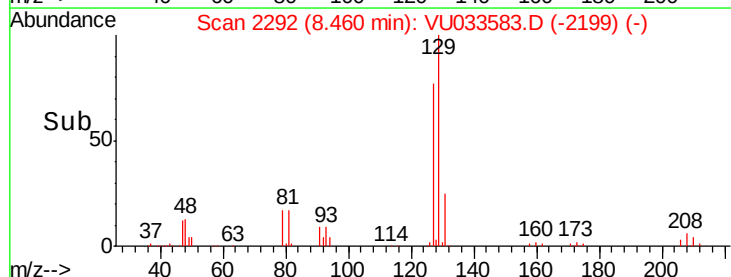
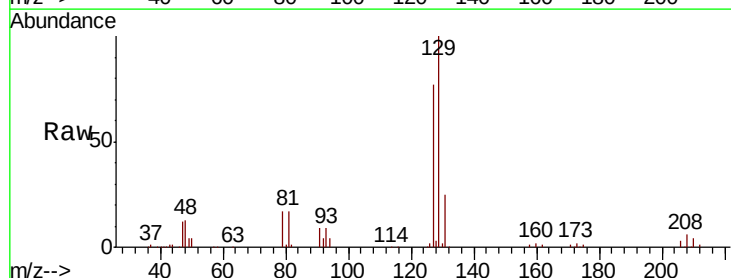
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05031

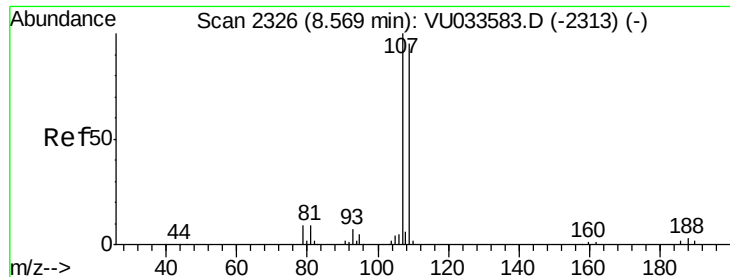
Tgt Ion: 43 Resp: 289062  
Ion Ratio Lower Upper  
43 100  
58 57.4 45.9 68.9  
57 20.2 16.2 24.2  
100 12.4 9.9 14.9



#49  
Dibromochloromethane  
Concen: 49.835 ug/L  
RT: 8.46 min Scan# 2292  
Delta R.T. 0.00 min  
Lab File: VU033583.D  
Acq: 03 Aug 2019 11:18

Tgt Ion: 129 Resp: 129987  
Ion Ratio Lower Upper  
129 100  
127 76.7 53.7 99.7

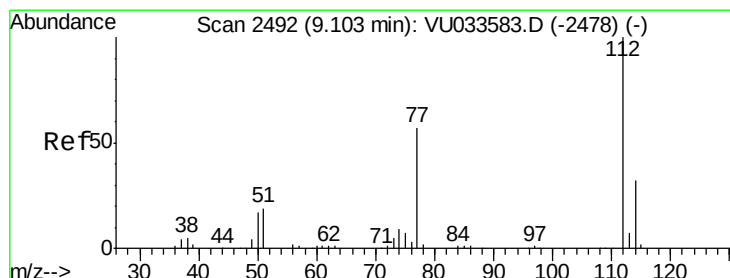
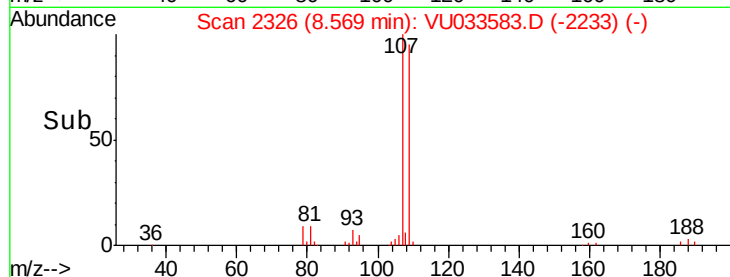
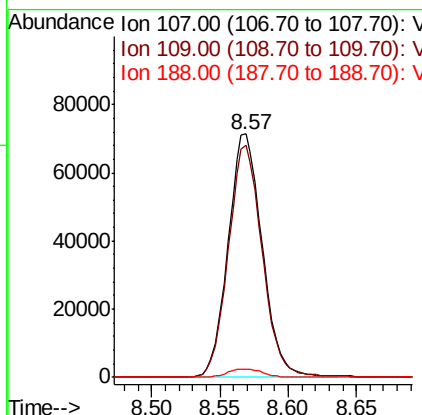
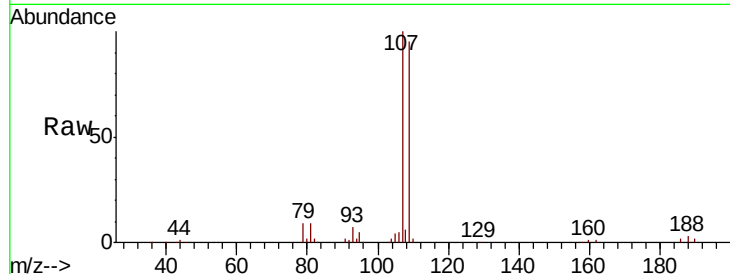




#50  
1,2-Dibromoethane  
Concen: 48.954 ug/L  
RT: 8.57 min Scan# 2326  
Delta R.T. 0.00 min  
Lab File: VU033583.D  
Acq: 03 Aug 2019 11:18

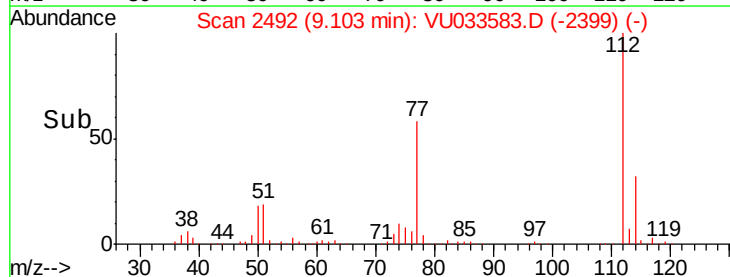
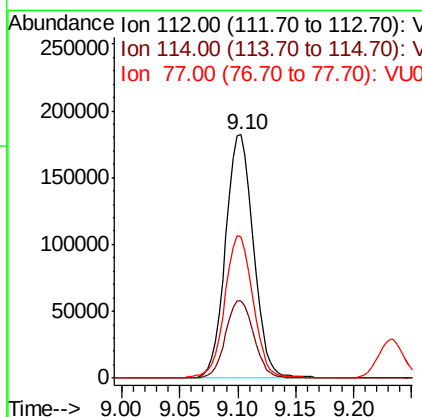
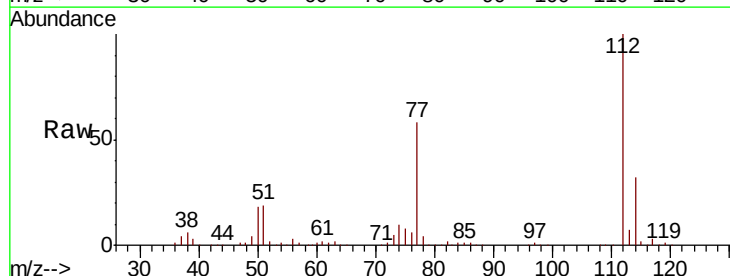
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05031

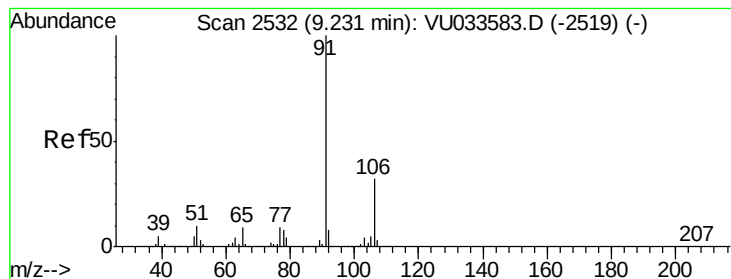
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 109     | 95.1  | 66.6  | 123.6 |
| 188     | 3.3   | 2.6   | 4.0   |



#51  
Chlorobenzene  
Concen: 48.276 ug/L  
RT: 9.10 min Scan# 2492  
Delta R.T. 0.00 min  
Lab File: VU033583.D  
Acq: 03 Aug 2019 11:18

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 114     | 31.8  | 22.3  | 41.3  |
| 77      | 57.9  | 46.3  | 69.5  |





#52

Ethylbenzene

Concen: 49.624 ug/L

RT: 9.23 min Scan# 2532

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

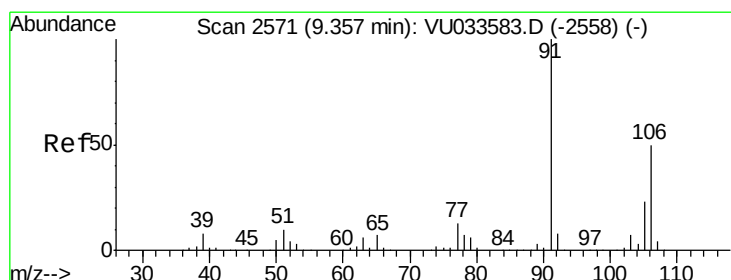
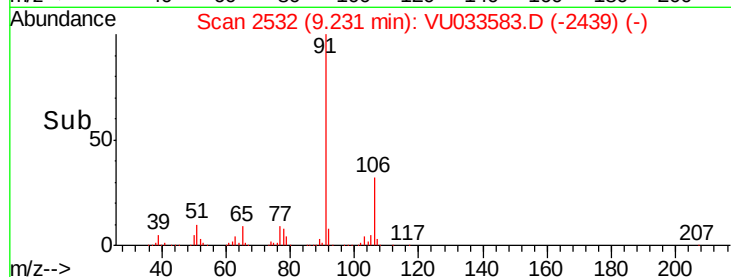
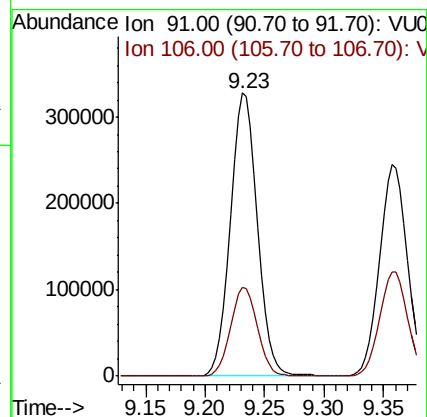
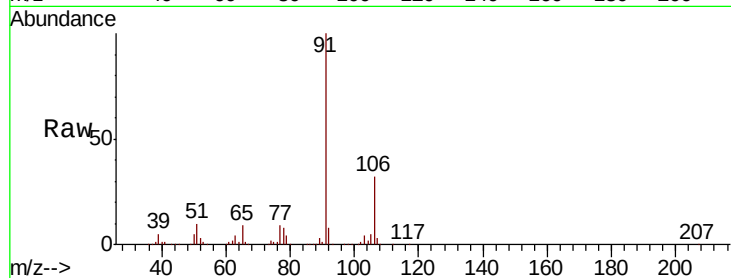
VSTD05031

Tgt Ion: 91 Resp: 516168

Ion Ratio Lower Upper

91 100

106 31.6 22.1 41.1



#53

m,p-Xylene

Concen: 49.682 ug/L

RT: 9.36 min Scan# 2571

Delta R.T. 0.00 min

Lab File: VU033583.D

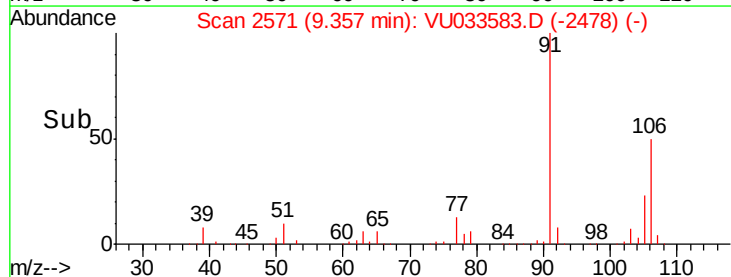
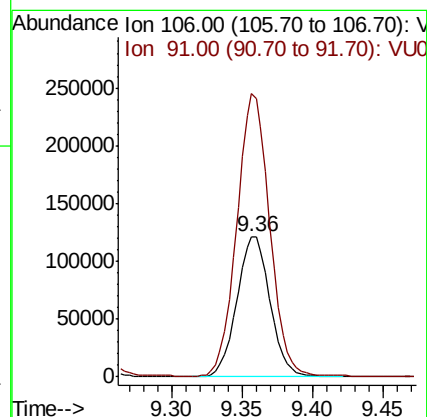
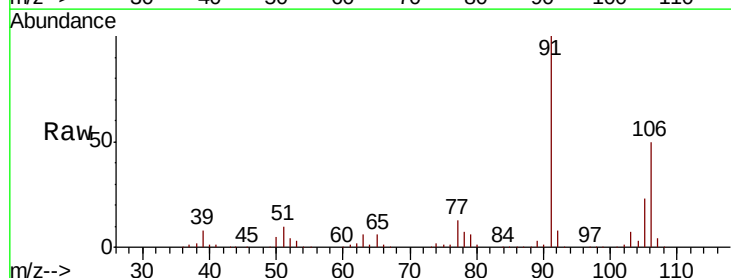
Acq: 03 Aug 2019 11:18

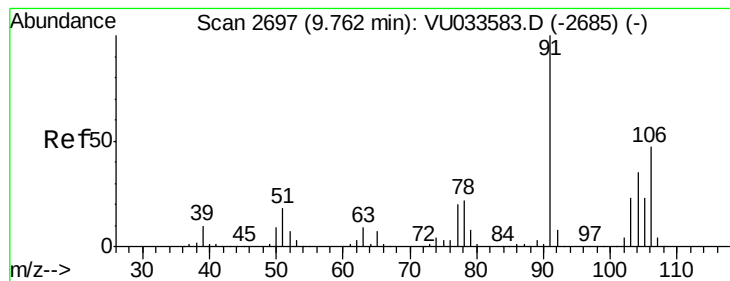
Tgt Ion: 106 Resp: 198911

Ion Ratio Lower Upper

106 100

91 201.7 141.2 262.2





#54

o-xylene

Concen: 50.316 ug/L

RT: 9.76 min Scan# 2697

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

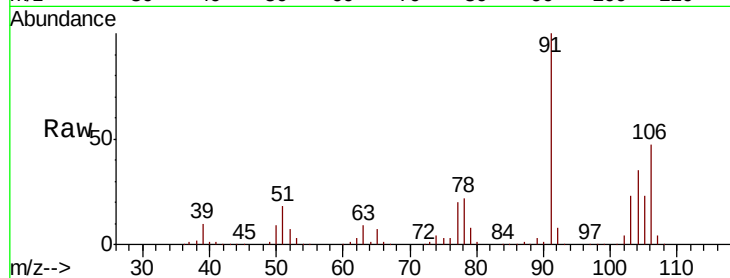
VSTD05031

Tgt Ion:106 Resp: 194319

Ion Ratio Lower Upper

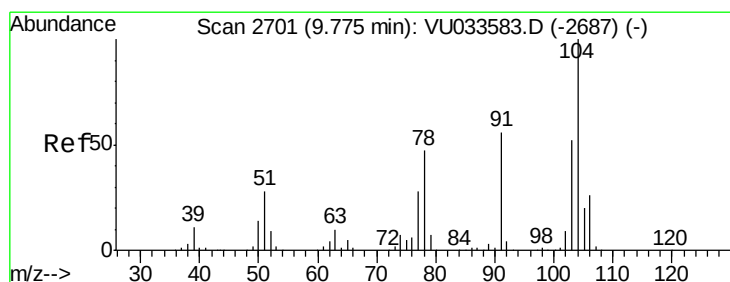
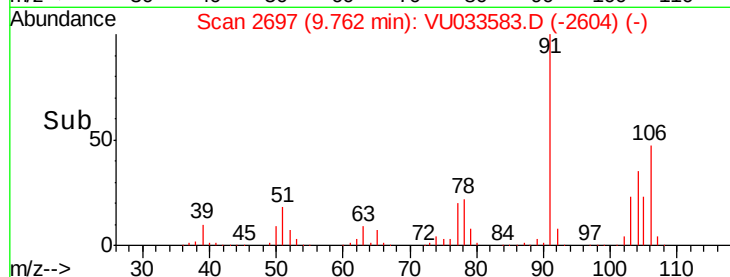
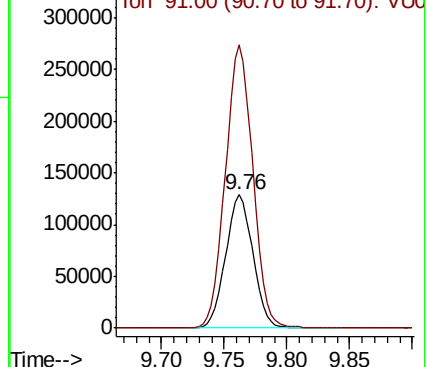
106 100

91 212.7 148.9 276.5



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0



#55

Styrene

Concen: 50.967 ug/L

RT: 9.77 min Scan# 2701

Delta R.T. 0.00 min

Lab File: VU033583.D

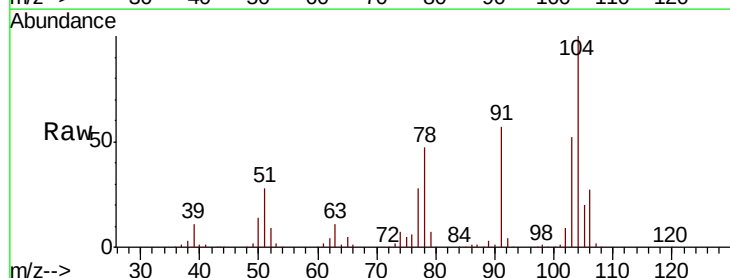
Acq: 03 Aug 2019 11:18

Tgt Ion:104 Resp: 334572

Ion Ratio Lower Upper

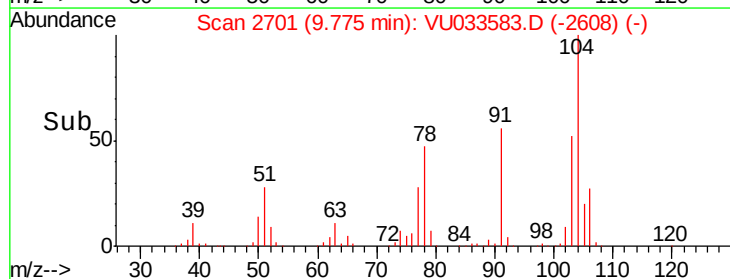
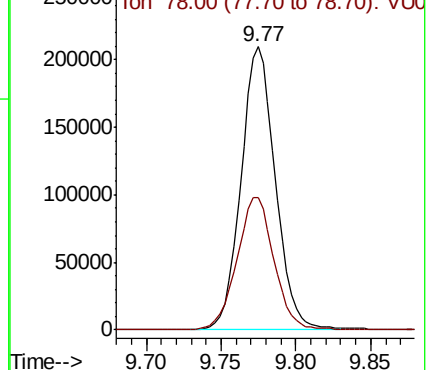
104 100

78 46.8 32.8 60.8

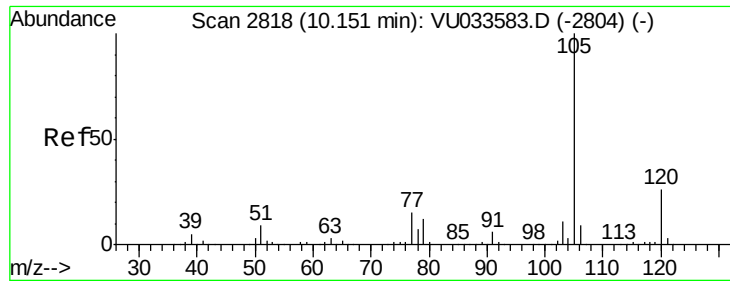


Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VU0







#56

Isopropylbenzene

Concen: 49.933 ug/L

RT: 10.15 min Scan# 2818

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05031

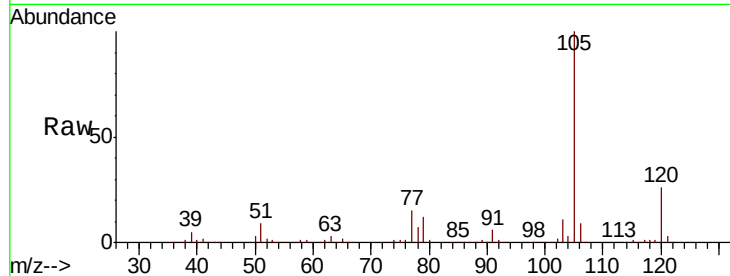
Tgt Ion: 105 Resp: 505011

Ion Ratio Lower Upper

105 100

120 26.4 21.1 31.7

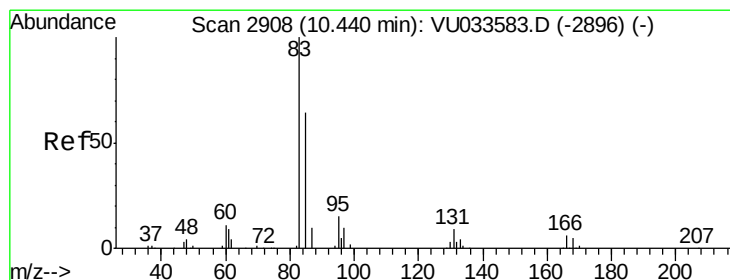
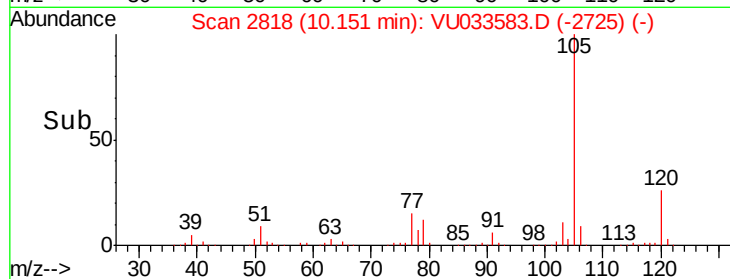
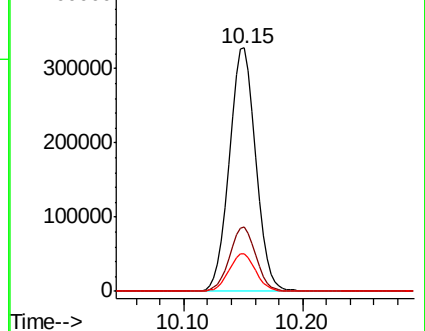
77 15.7 12.6 18.8



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

Ion 77.00 (76.70 to 77.70): V



#58

1,1,2,2-Tetrachloroethane

Concen: 50.117 ug/L

RT: 10.44 min Scan# 2908

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

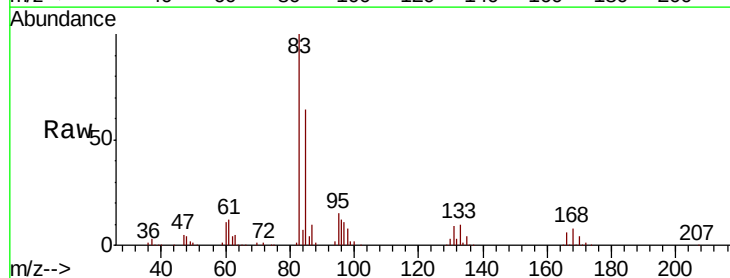
Tgt Ion: 83 Resp: 208015

Ion Ratio Lower Upper

83 100

85 64.5 45.1 83.9

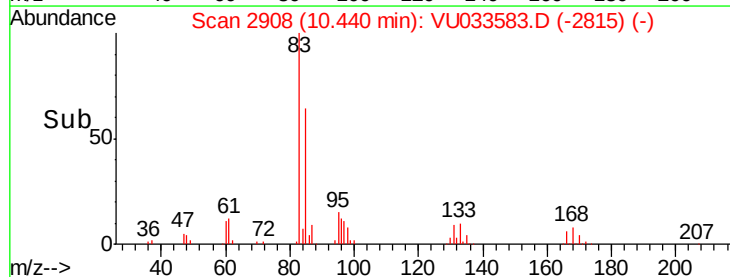
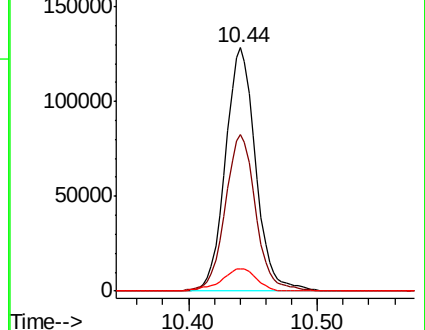
131 9.3 7.4 11.2

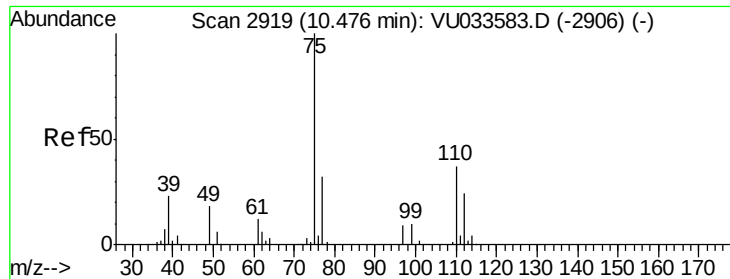


Abundance Ion 83.00 (82.70 to 83.70): V

Ion 85.00 (84.70 to 85.70): V

Ion 131.00 (130.70 to 131.70): V





#59

1,2,3-Trichloropropane

Concen: 51.043 ug/L

RT: 10.48 min Scan# 2919

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

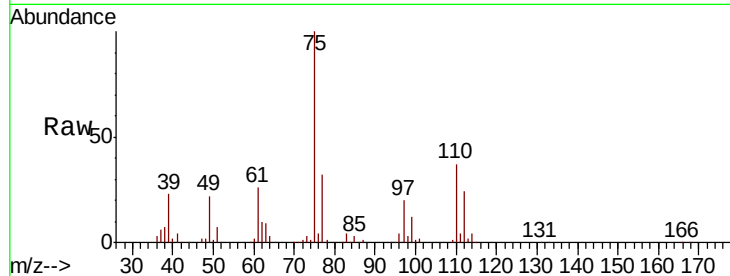
VSTD05031

Tgt Ion: 75 Resp: 163753

Ion Ratio Lower Upper

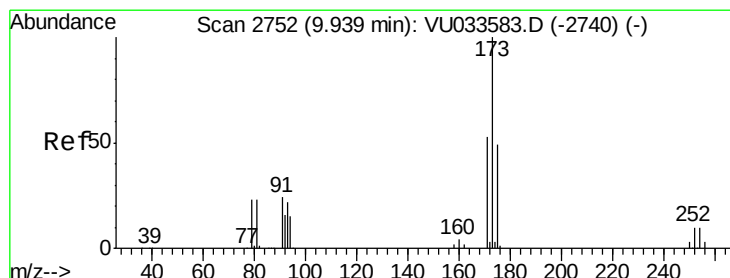
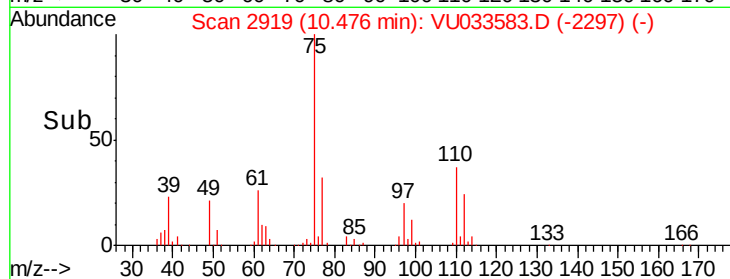
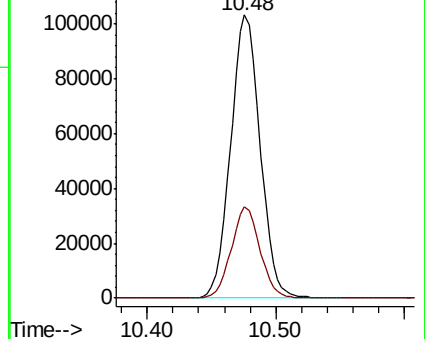
75 100

77 31.4 25.1 37.7



Abundance Ion 75.00 (74.70 to 75.70): VU033583.D (-2906) (-)

Ion 77.00 (76.70 to 77.70): VU033583.D (-2906) (-)



#61

Bromoform

Concen: 49.141 ug/L

RT: 9.94 min Scan# 2752

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

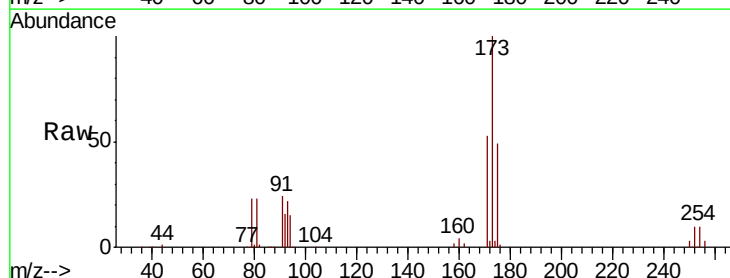
Tgt Ion: 173 Resp: 98831

Ion Ratio Lower Upper

173 100

175 49.4 39.5 59.3

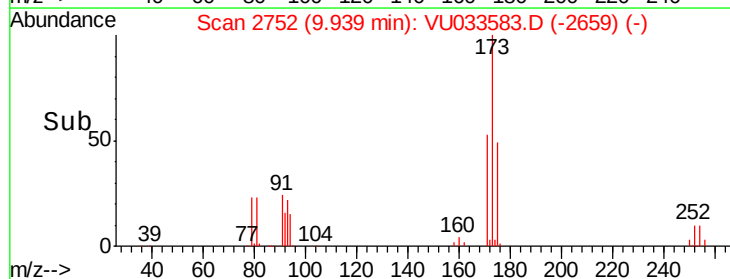
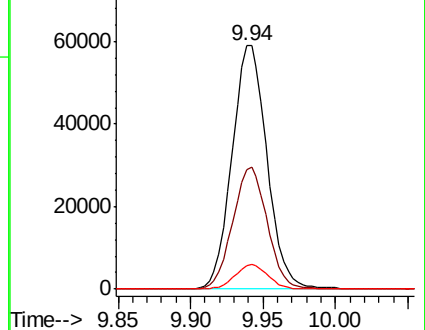
254 9.4 7.5 11.3

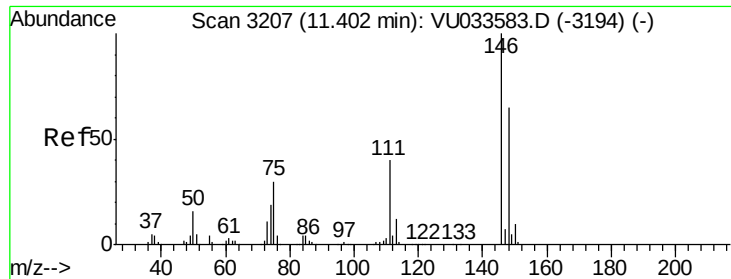


Abundance Ion 173.00 (172.70 to 173.70): VU033583.D (-2740) (-)

Ion 175.00 (174.70 to 175.70): VU033583.D (-2740) (-)

Ion 254.00 (253.70 to 254.70): VU033583.D (-2740) (-)





#62

1,3-Dichlorobenzene

Concen: 48.112 ug/L

RT: 11.40 min Scan# 3207

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05031

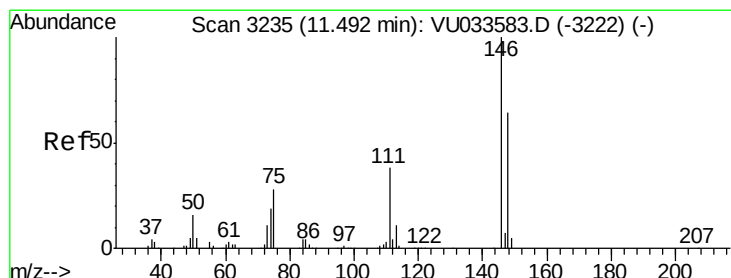
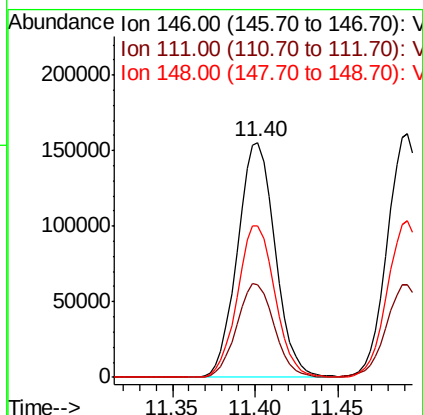
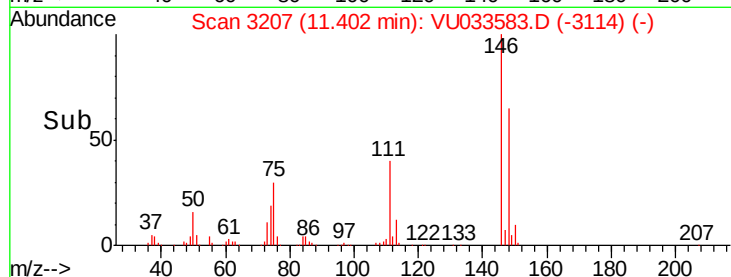
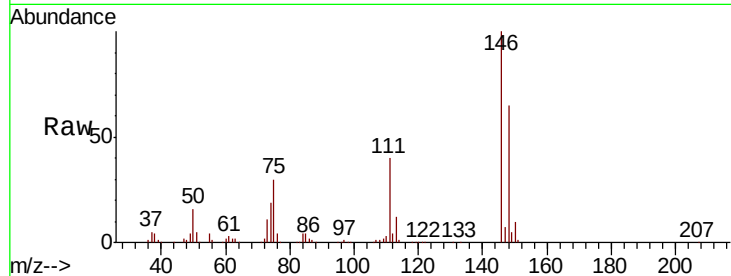
Tgt Ion:146 Resp: 245594

Ion Ratio Lower Upper

146 100

111 39.6 27.7 51.5

148 64.6 45.2 84.0



#63

1,4-Dichlorobenzene

Concen: 47.580 ug/L

RT: 11.49 min Scan# 3235

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

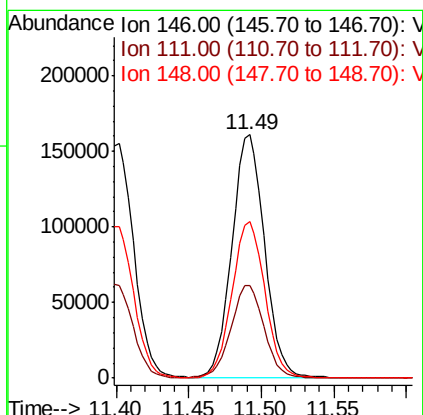
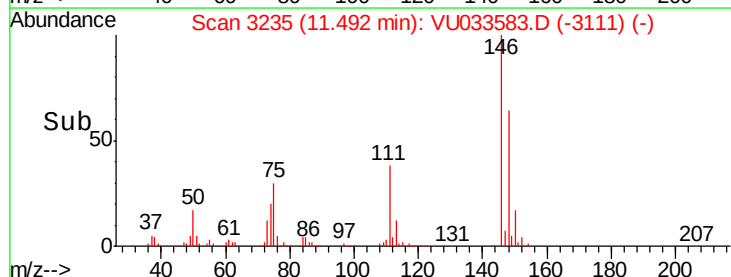
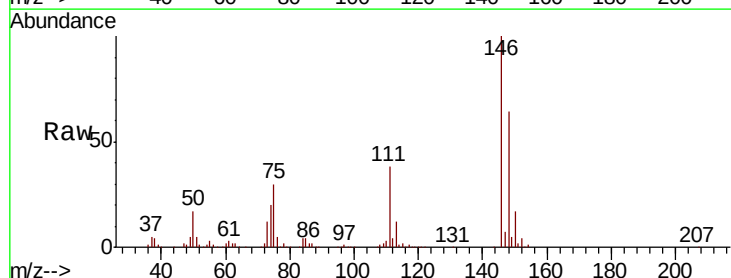
Tgt Ion:146 Resp: 252735

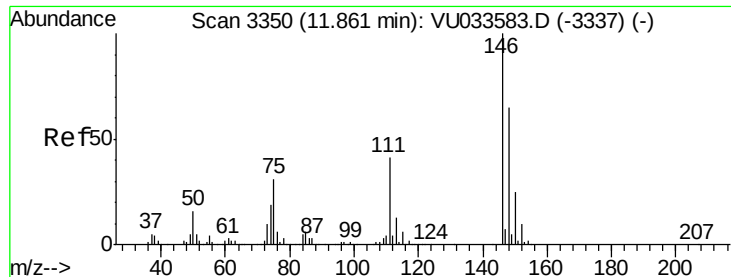
Ion Ratio Lower Upper

146 100

111 38.3 26.8 49.8

148 64.3 45.0 83.6





#65

1,2-Dichlorobenzene

Concen: 48.355 ug/L

RT: 11.86 min Scan# 3350

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05031

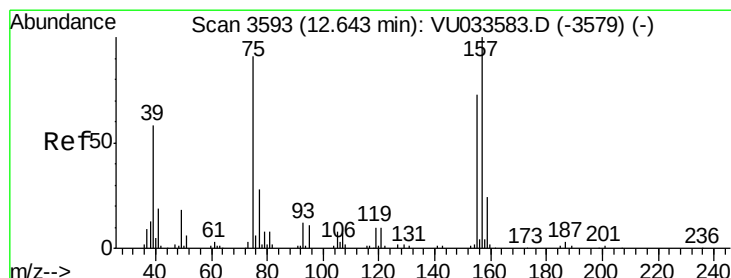
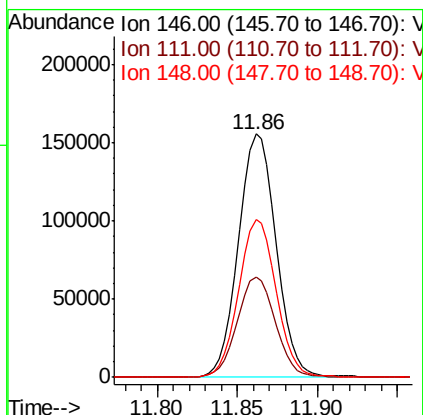
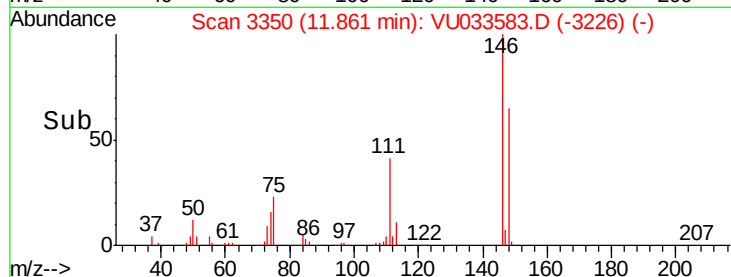
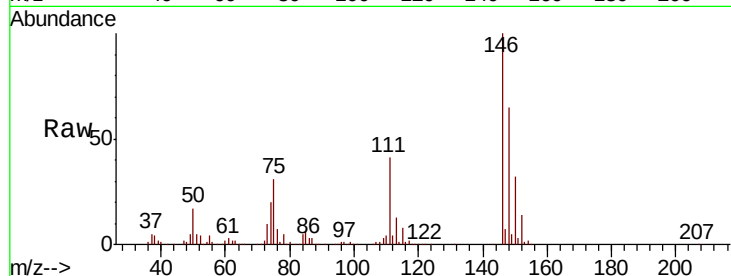
Tgt Ion:146 Resp: 249637

Ion Ratio Lower Upper

146 100

111 41.4 33.1 49.7

148 65.1 52.1 78.1



#66

1,2-Dibromo-3-chloropropane

Concen: 51.039 ug/L

RT: 12.64 min Scan# 3593

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

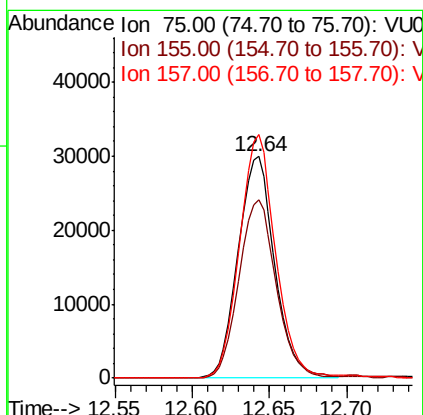
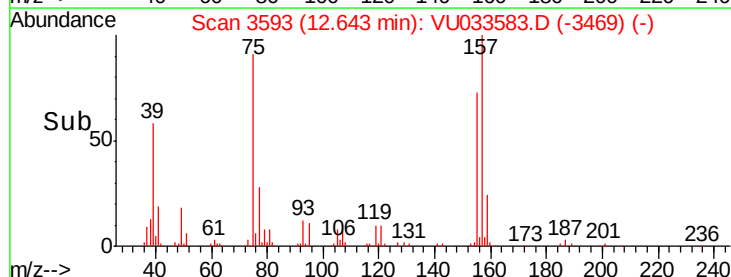
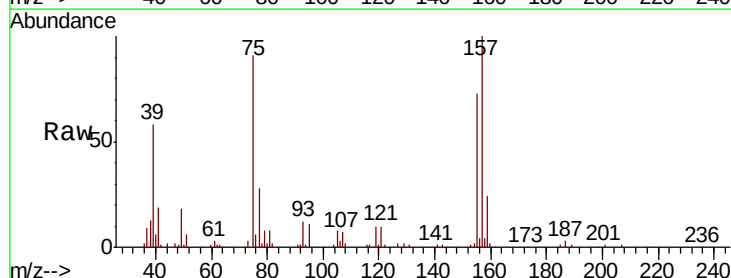
Tgt Ion: 75 Resp: 49412

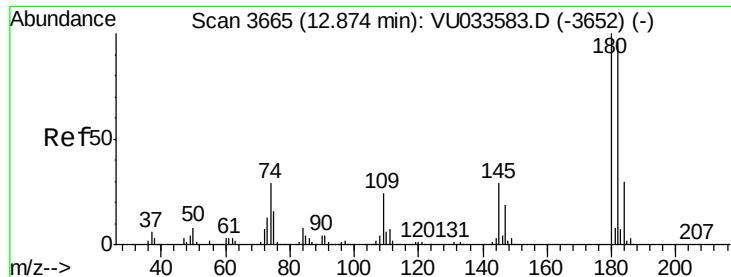
Ion Ratio Lower Upper

75 100

155 80.4 64.3 96.5

157 110.0 88.0 132.0

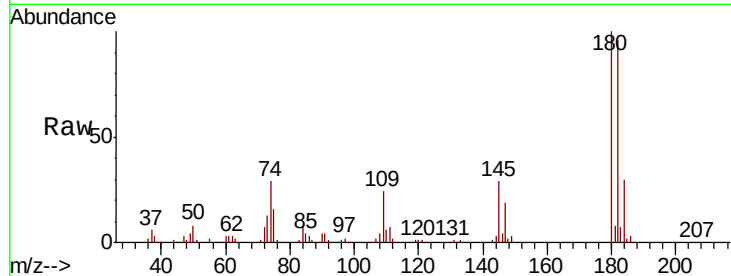




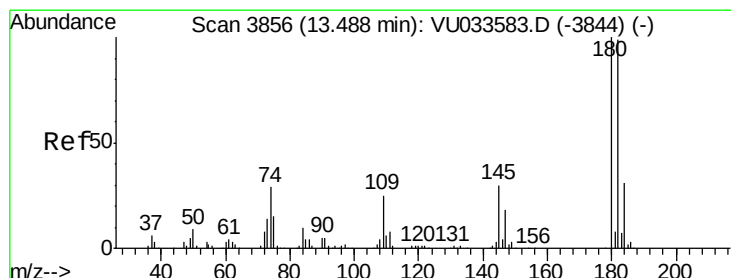
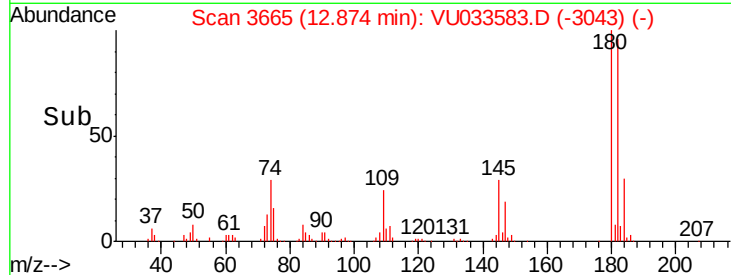
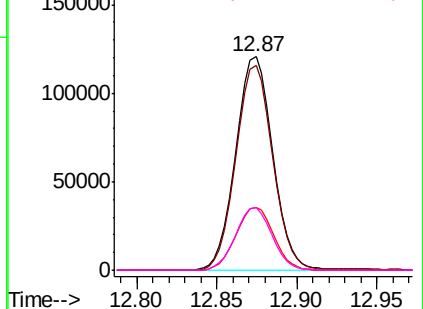
#67  
 1,3,5-Trichlorobenzene  
 Concen: 46.358 ug/L  
 RT: 12.87 min Scan# 3665  
 Delta R.T. 0.00 min  
 Lab File: VU033583.D  
 Acq: 03 Aug 2019 11:18

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05031

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 180   | Resp: | 190036 |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 96.0  | 76.8  | 115.2  |
| 184      | 29.9  | 23.9  | 35.9   |
| 145      | 29.1  | 23.3  | 34.9   |

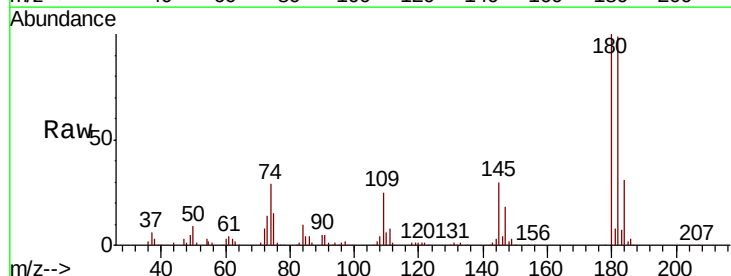


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

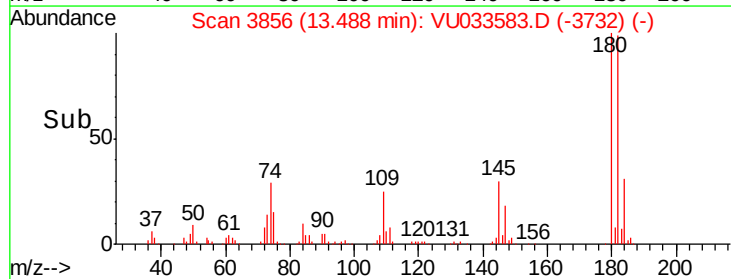
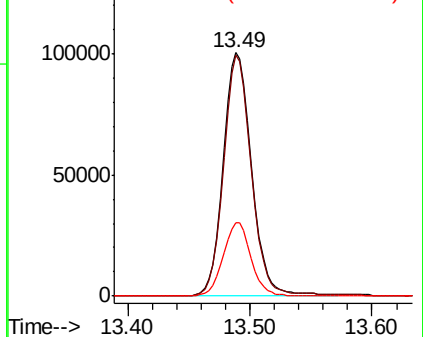


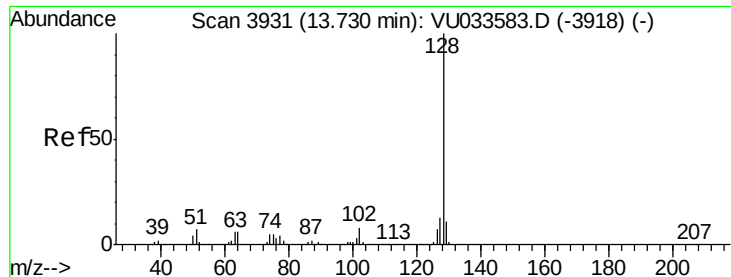
#68  
 1,2,4-trichlorobenzene  
 Concen: 47.211 ug/L  
 RT: 13.49 min Scan# 3856  
 Delta R.T. 0.00 min  
 Lab File: VU033583.D  
 Acq: 03 Aug 2019 11:18

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 180   | Resp: | 165014 |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 96.5  | 77.2  | 115.8  |
| 145      | 29.5  | 23.6  | 35.4   |



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





#69

Naphthalene

Concen: 49.617 ug/L

RT: 13.73 min Scan# 3931

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05031

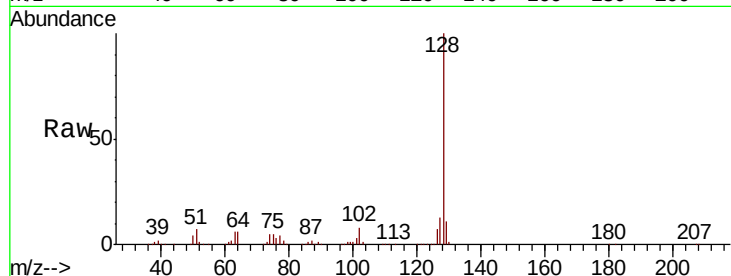
Tgt Ion:128 Resp: 498597

Ion Ratio Lower Upper

128 100

127 13.3 10.6 16.0

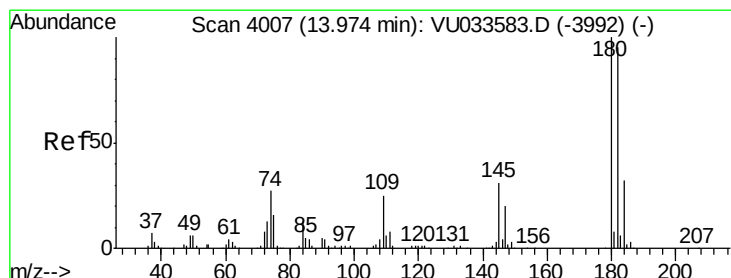
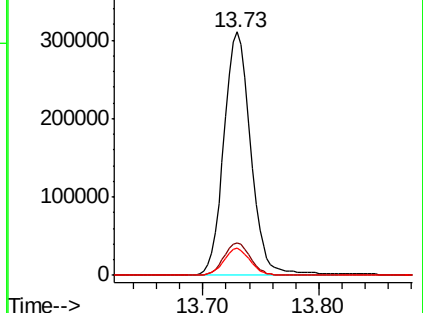
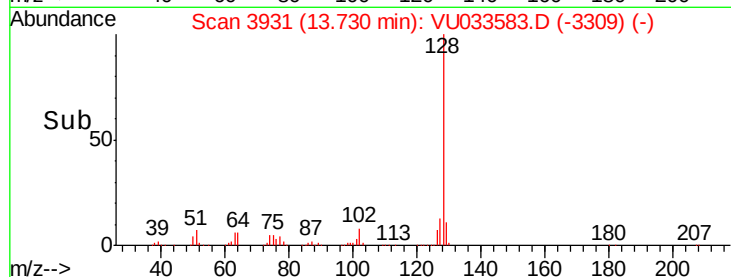
129 11.1 8.9 13.3



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: 47.405 ug/L

RT: 13.97 min Scan# 4007

Delta R.T. 0.00 min

Lab File: VU033583.D

Acq: 03 Aug 2019 11:18

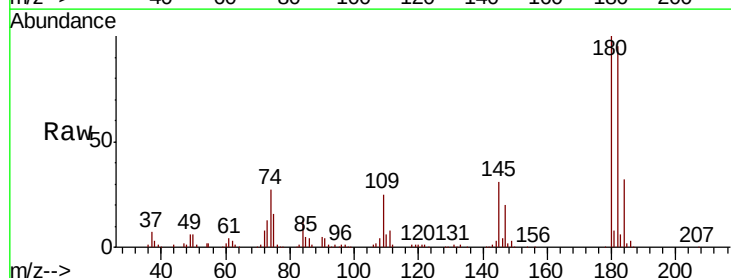
Tgt Ion:180 Resp: 174185

Ion Ratio Lower Upper

180 100

182 95.6 76.5 114.7

145 30.9 24.7 37.1



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

