

Data File : VU032144.D  
Acq On : 18 May 2019 10:49  
Operator : JC/SP  
Sample : VSTDCCC005EC  
Misc : 25.0mL/MSVOA\_U/WATER  
ALS Vial : 50 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00506

Quant Time: May 20 05:01:25 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR051619WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Mon May 20 04:57:10 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.88  | 114  | 360106   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 363261   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 165321   | 5.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |        |       |          |          |      |        |
|--------------------------------|--------|-------|----------|----------|------|--------|
| 4) Vinyl Chloride-d3           | 1.40   | 65    | 114623   | 3.78     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 75.60% |
| 7) Chloroethane-d5             | 1.68   | 69    | 103427   | 3.99     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 79.80% |
| 11) 1,1-Dichloroethene-d2      | 2.27   | 63    | 191013   | 3.95     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 79.00% |
| 20) 2-Butanone-d5              | 4.20   | 46    | 270237   | 45.38    | ug/L | 0.00   |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 90.76% |
| 24) Chloroform-d               | 4.64   | 84    | 247021   | 4.63     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 92.60% |
| 26) 1,2-Dichloroethane-d4      | 5.31   | 65    | 118352   | 4.30     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 86.00% |
| 32) Benzene-d6                 | 5.33   | 84    | 481440   | 4.34     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 86.80% |
| 36) 1,2-Dichloropropane-d6     | 6.33   | 67    | 139713   | 4.31     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 86.20% |
| 41) Toluene-d8                 | 7.56   | 98    | 435360   | 4.46     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 89.20% |
| 43) trans-1,3-Dichloropropene- | 7.85   | 79    | 47047    | 4.03     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 80.60% |
| 46) 2-Hexanone-d5              | 8.31   | 63    | 256552   | 48.72    | ug/L | 0.00   |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 97.44% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43  | 84    | 127730   | 4.82     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 96.40% |
| 64) 1,2-Dichlorobenzene-d4     | 11.86  | 152   | 164259   | 4.69     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 93.80% |

#### Target Compounds

|                                |      |     |        |             | Qvalue |
|--------------------------------|------|-----|--------|-------------|--------|
| 2) Dichlorodifluoromethane     | 1.21 | 85  | 80590  | 4.471 ug/L  | 99     |
| 3) Chloromethane               | 1.32 | 50  | 68633  | 3.968 ug/L  | 97     |
| 5) Vinyl chloride              | 1.40 | 62  | 79675  | 4.384 ug/L  | 97     |
| 6) Bromomethane                | 1.63 | 94  | 48193  | 4.601 ug/L  | 98     |
| 8) Chloroethane                | 1.70 | 64  | 47235  | 4.191 ug/L  | 94     |
| 9) Trichlorofluoromethane      | 1.88 | 101 | 110652 | 4.963 ug/L  | 99     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.28 | 101 | 64778  | 4.385 ug/L  | 93     |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 70607  | 4.883 ug/L  | 79     |
| 13) Acetone                    | 2.34 | 43  | 81524  | 41.699 ug/L | 100    |
| 14) Carbon disulfide           | 2.47 | 76  | 201720 | 4.373 ug/L  | 97     |
| 15) Methyl Acetate             | 2.62 | 43  | 21304  | 3.800 ug/L  | 99     |
| 16) Methylene chloride         | 2.69 | 84  | 76469  | 4.430 ug/L  | 95     |
| 17) Methyl tert-butyl Ether    | 3.00 | 73  | 158565 | 4.664 ug/L  | 97     |
| 18) trans-1,2-Dichloroethene   | 2.97 | 96  | 75130  | 4.854 ug/L  | 95     |
| 19) 1,1-Dichloroethane         | 3.44 | 63  | 114200 | 4.651 ug/L  | 98     |
| 21) 2-Butanone                 | 4.29 | 43  | 123601 | 44.045 ug/L | 96     |
| 22) cis-1,2-Dichloroethene     | 4.22 | 96  | 74395  | 4.885 ug/L  | 90     |

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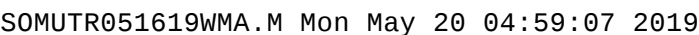
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00506

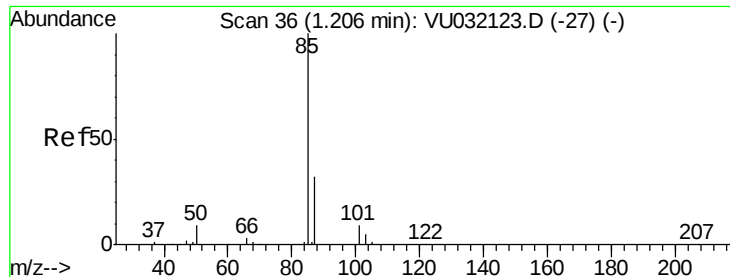
Quant Time: May 20 05:01:25 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR051619WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Mon May 20 04:57:10 2019  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 23) Bromochloromethane         | 4.54  | 128  | 35136    | 5.377  | ug/L   | 90       |
| 25) Chloroform                 | 4.67  | 83   | 128856   | 4.907  | ug/L   | 97       |
| 27) 1,2-Dichloroethane         | 5.40  | 62   | 72785    | 4.800  | ug/L   | 100      |
| 29) 1,1,1-Trichloroethane      | 4.91  | 97   | 102972   | 4.859  | ug/L   | 98       |
| 30) Cyclohexane                | 4.98  | 56   | 81168    | 4.165  | ug/L   | 95       |
| 31) Carbon tetrachloride       | 5.12  | 117  | 89655    | 4.975  | ug/L   | 95       |
| 33) Benzene                    | 5.38  | 78   | 273270   | 4.899  | ug/L   | 100      |
| 34) Trichloroethene            | 6.18  | 95   | 71151    | 4.703  | ug/L   | 93       |
| 35) Methylcyclohexane          | 6.41  | 83   | 89217    | 4.095  | ug/L   | 97       |
| 37) 1,2-Dichloropropane        | 6.43  | 63   | 62299    | 4.568  | ug/L   | 98       |
| 38) Bromodichloromethane       | 6.75  | 83   | 85494    | 4.901  | ug/L   | 99       |
| 39) cis-1,3-Dichloropropene    | 7.27  | 75   | 78431    | 4.159  | ug/L   | 99       |
| 40) 4-Methyl-2-pentanone       | 7.46  | 43   | 278146   | 43.995 | ug/L   | 95       |
| 42) Toluene                    | 7.63  | 91   | 293202   | 5.019  | ug/L   | 99       |
| 44) trans-1,3-Dichloropropene  | 7.88  | 75   | 63851    | 4.355  | ug/L   | 95       |
| 45) 1,1,2-Trichloroethane      | 8.06  | 97   | 51964    | 5.158  | ug/L   | 96       |
| 47) Tetrachloroethene          | 8.22  | 164  | 57360    | 5.071  | ug/L   | 96       |
| 48) 2-Hexanone                 | 8.36  | 43   | 225842   | 46.053 | ug/L   | 96       |
| 49) Dibromochloromethane       | 8.47  | 129  | 60957    | 5.250  | ug/L   | 93       |
| 50) 1,2-Dibromoethane          | 8.59  | 107  | 46894    | 4.857  | ug/L # | 98       |
| 51) Chlorobenzene              | 9.12  | 112  | 191645   | 5.194  | ug/L   | 91       |
| 52) Ethylbenzene               | 9.24  | 91   | 284272   | 4.851  | ug/L   | 98       |
| 53) m,p-Xylene                 | 9.37  | 106  | 113598   | 5.103  | ug/L   | 95       |
| 54) o-Xylene                   | 9.77  | 106  | 108945   | 5.077  | ug/L   | 89       |
| 55) Styrene                    | 9.79  | 104  | 184845   | 5.080  | ug/L   | 98       |
| 56) Isopropylbenzene           | 10.16 | 105  | 267147   | 4.871  | ug/L   | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.45 | 83   | 60898    | 4.845  | ug/L   | 100      |
| 59) 1,2,3-Trichloropropane     | 10.49 | 75   | 40381    | 4.662  | ug/L   | 98       |
| 61) Bromoform                  | 9.95  | 173  | 33118    | 5.220  | ug/L   | 98       |
| 62) 1,3-Dichlorobenzene        | 11.41 | 146  | 136369   | 5.177  | ug/L   | 95       |
| 63) 1,4-Dichlorobenzene        | 11.50 | 146  | 137231   | 5.006  | ug/L   | 96       |
| 65) 1,2-Dichlorobenzene        | 11.87 | 146  | 137233   | 5.135  | ug/L   | 97       |
| 66) 1,2-Dibromo-3-chloropropan | 12.65 | 75   | 8832     | 5.064  | ug/L   | 92       |
| 67) 1,3,5-Trichlorobenzene     | 12.88 | 180  | 99365    | 5.068  | ug/L   | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.50 | 180  | 74506    | 5.497  | ug/L   | 99       |
| 69) Naphthalene                | 13.74 | 128  | 103050   | 4.888  | ug/L   | 96       |
| 70) 1,2,3-Trichlorobenzene     | 13.98 | 180  | 78589    | 5.712  | ug/L   | 99       |

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

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QLast Update : Mon May 20 04:57:10 2019  
Response via : Initial Calibration





#2

Dichlorodifluoromethane

Concen: 4.471 ug/L

RT: 1.21 min Scan# 36

Delta R.T. 0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

Instrument :

MSVOA\_U

ClientSampleId :

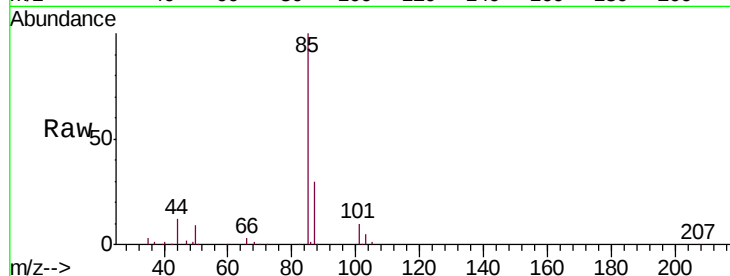
VSTD00506

Tgt Ion: 85 Resp: 80590

Ion Ratio Lower Upper

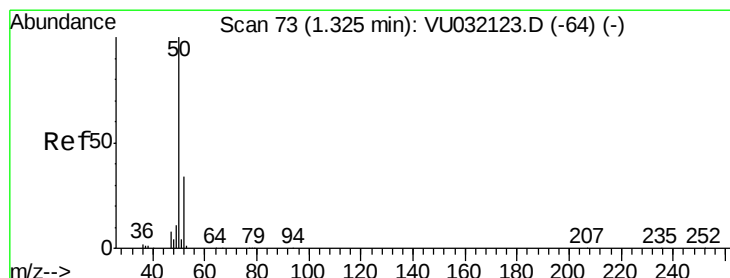
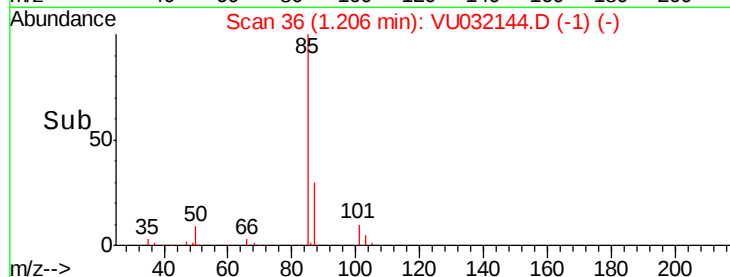
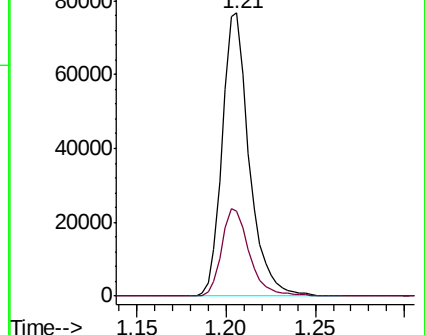
85 100

87 31.7 24.8 37.2



Abundance Ion 85.00 (84.70 to 85.70): VU032123.D (-27) (-)

Ion 87.00 (86.70 to 87.70): VU032123.D (-27) (-)



#3

Chloromethane

Concen: 3.968 ug/L

RT: 1.32 min Scan# 73

Delta R.T. 0.00 min

Lab File: VU032144.D

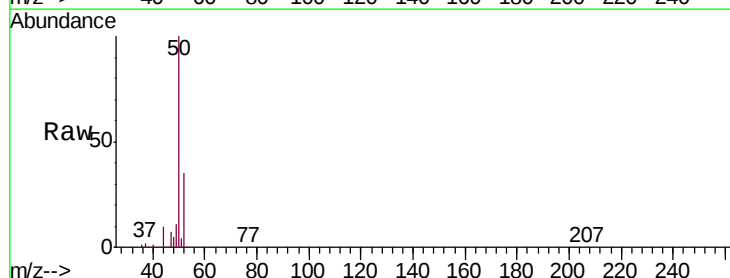
Acq: 18 May 2019 10:49

Tgt Ion: 50 Resp: 68633

Ion Ratio Lower Upper

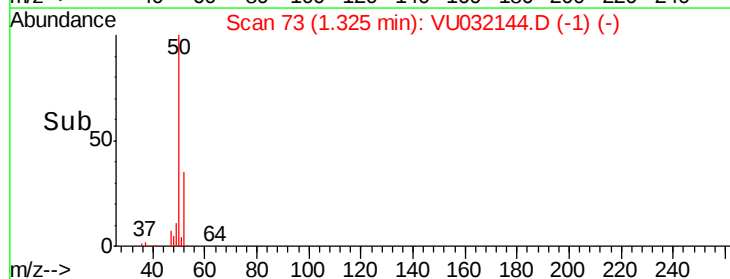
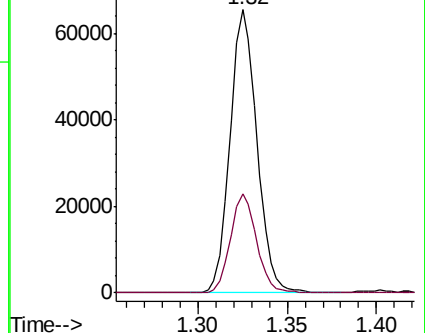
50 100

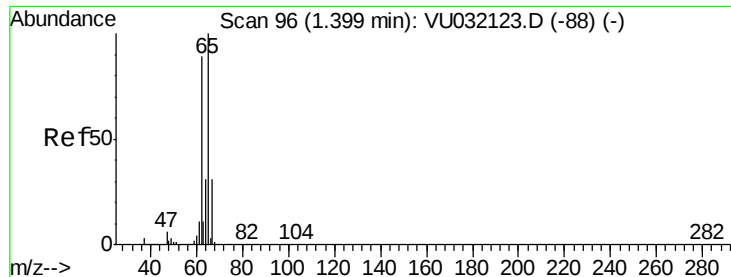
52 34.8 23.2 43.0



Abundance Ion 50.05 (49.75 to 50.75): VU032123.D (-64) (-)

Ion 52.05 (51.75 to 52.75): VU032123.D (-64) (-)





#5

Vinyl chloride

Concen: 4.384 ug/L

RT: 1.40 min Scan# 97

Delta R.T. 0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

Instrument :

MSVOA\_U

ClientSampleId :

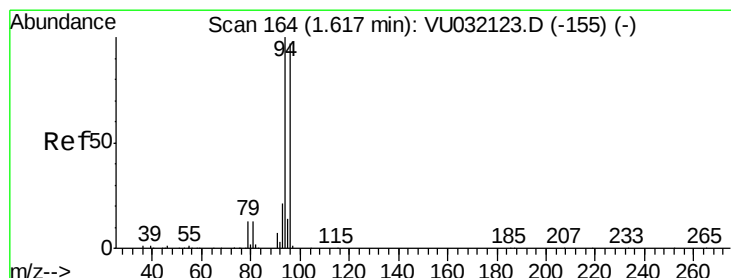
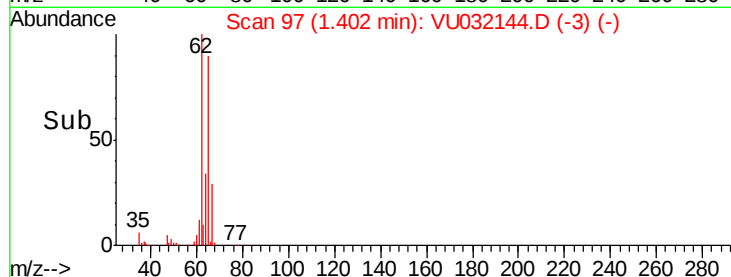
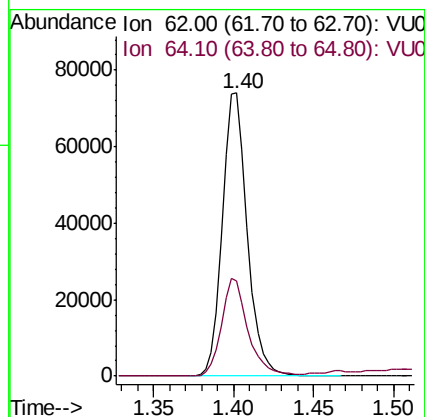
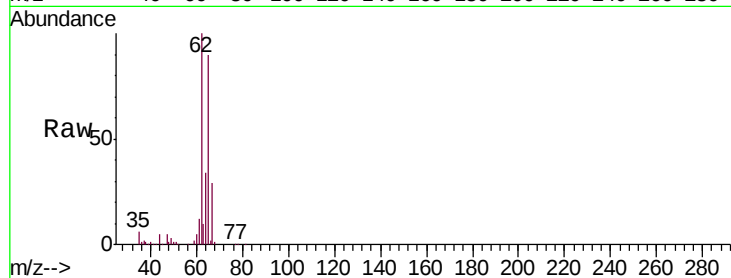
VSTD00506

Tgt Ion: 62 Resp: 79675

Ion Ratio Lower Upper

62 100

64 33.5 24.8 46.1



#6

Bromomethane

Concen: 4.601 ug/L

RT: 1.63 min Scan# 168

Delta R.T. 0.01 min

Lab File: VU032144.D

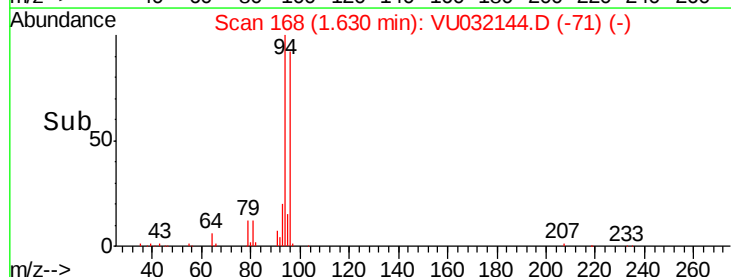
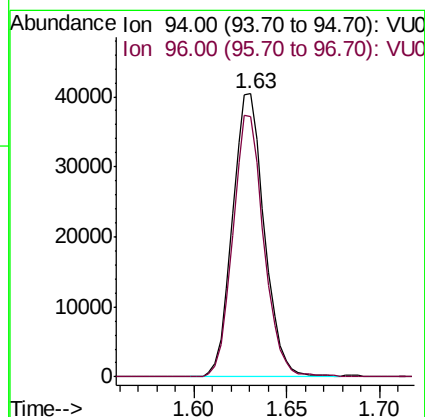
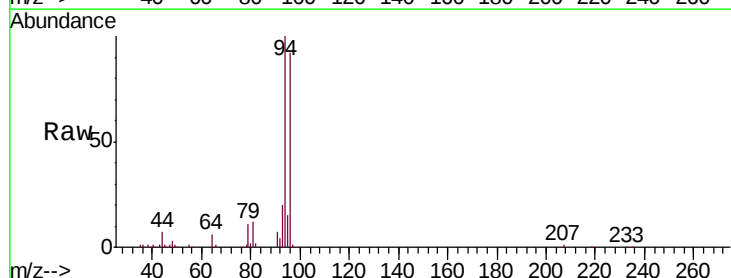
Acq: 18 May 2019 10:49

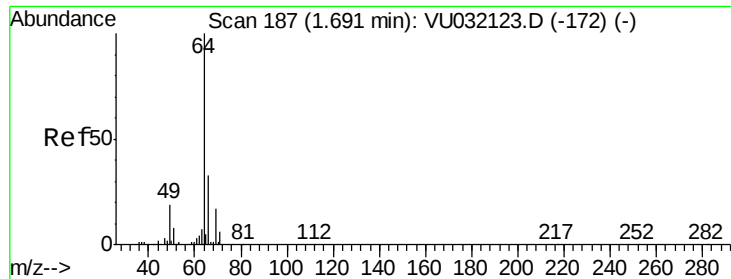
Tgt Ion: 94 Resp: 48193

Ion Ratio Lower Upper

94 100

96 92.1 63.3 117.7

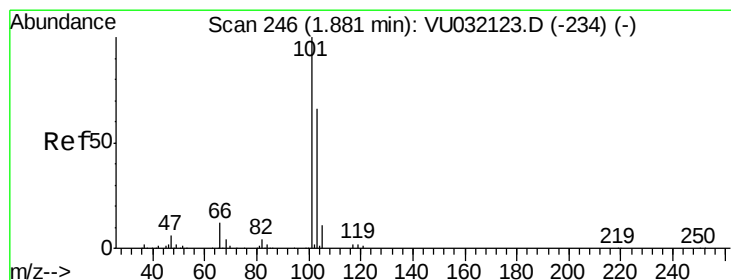
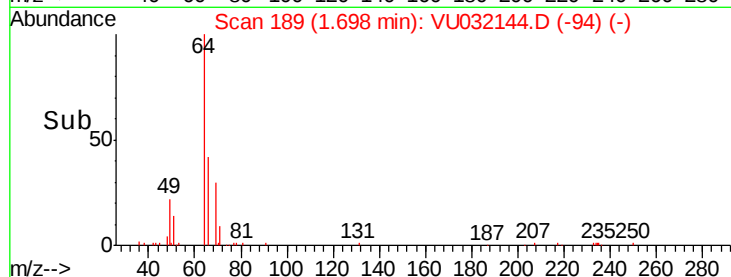
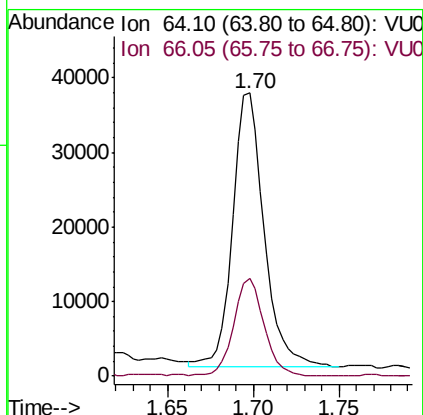
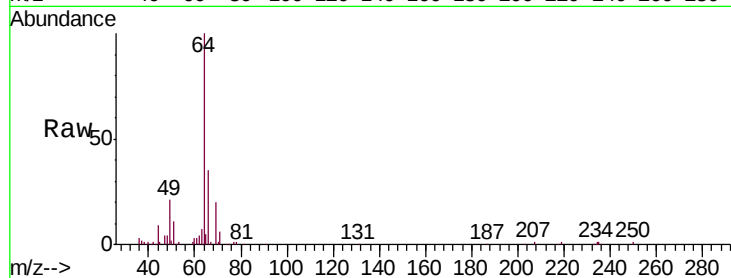




#8  
Chloroethane  
Concen: 4.191 ug/L  
RT: 1.70 min Scan# 189  
Delta R.T. 0.01 min  
Lab File: VU032144.D  
Acq: 18 May 2019 10:49

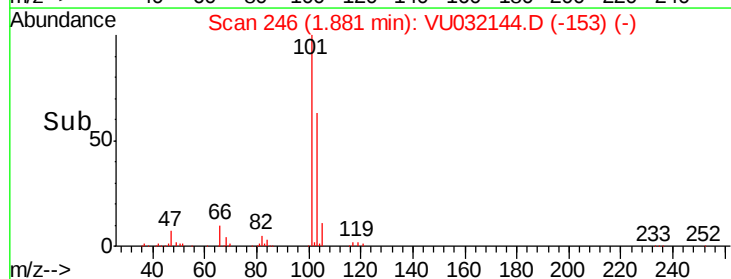
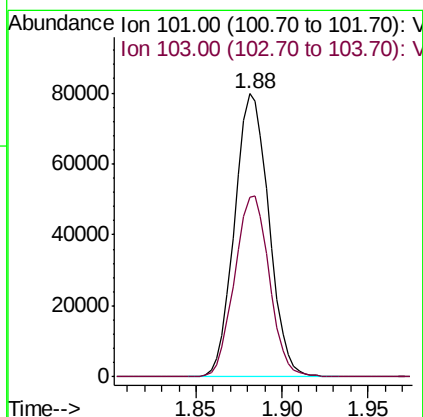
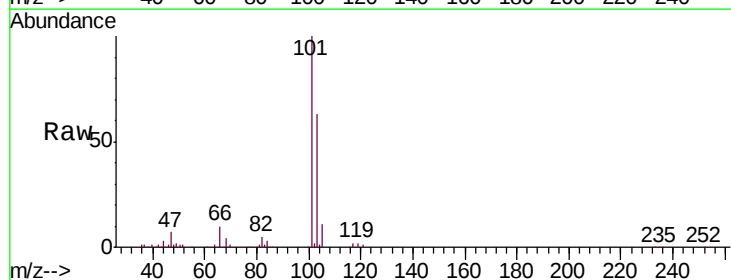
Instrument :  
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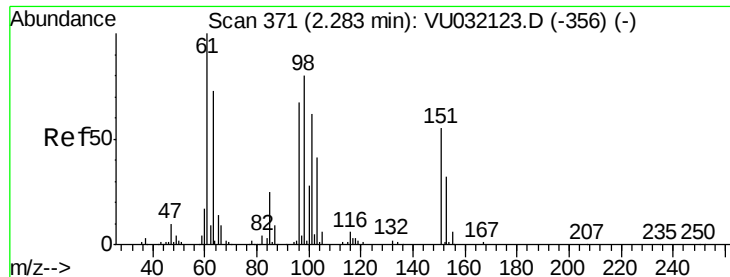
Tgt Ion: 64 Resp: 47235  
Ion Ratio Lower Upper  
64 100  
66 34.6 22.0 41.0



#9  
Trichlorofluoromethane  
Concen: 4.963 ug/L  
RT: 1.88 min Scan# 246  
Delta R.T. 0.00 min  
Lab File: VU032144.D  
Acq: 18 May 2019 10:49

Tgt Ion: 101 Resp: 110652  
Ion Ratio Lower Upper  
101 100  
103 64.8 51.4 77.0





#10

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

Concen: 4.385 ug/L

RT: 2.28 min Scan# 371

Delta R.T. -0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00506

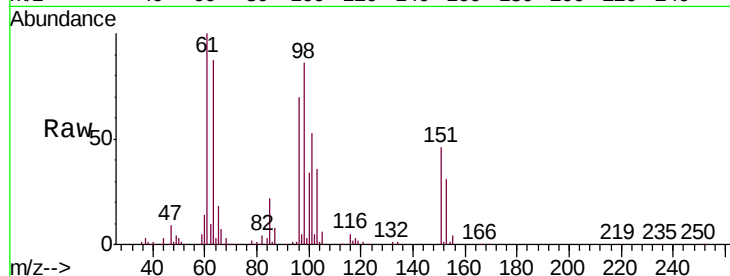
Tgt Ion:101 Resp: 64778

Ion Ratio Lower Upper

101 100

85 42.1 33.8 50.8

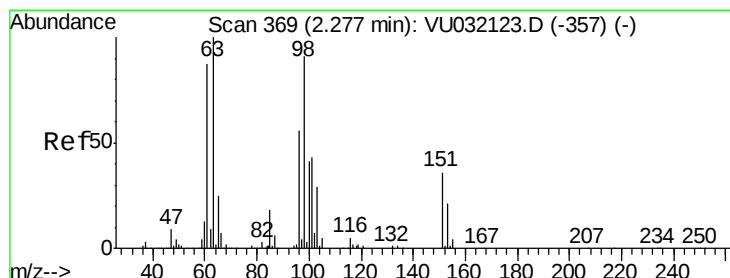
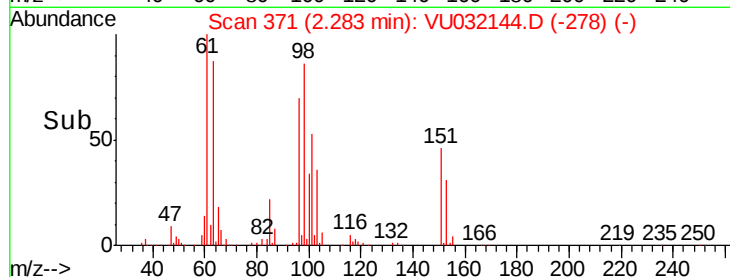
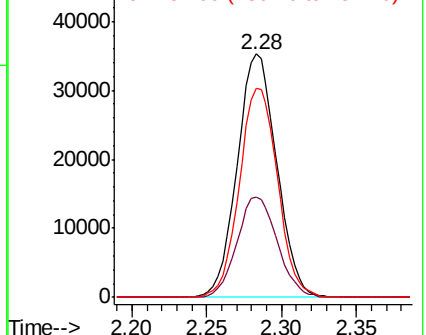
151 83.3 59.4 89.2



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: 4.883 ug/L

RT: 2.28 min Scan# 370

Delta R.T. 0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

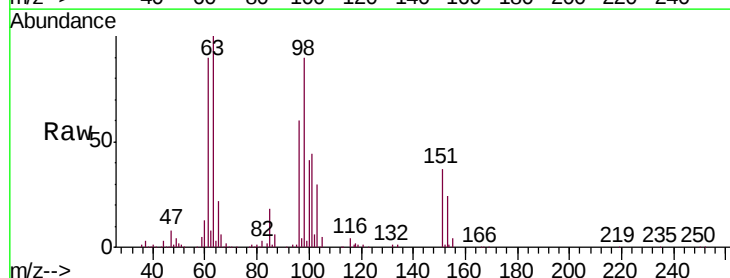
Tgt Ion: 96 Resp: 70607

Ion Ratio Lower Upper

96 100

61 150.3 111.7 207.5

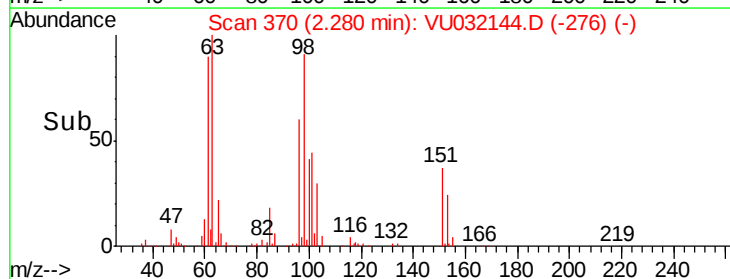
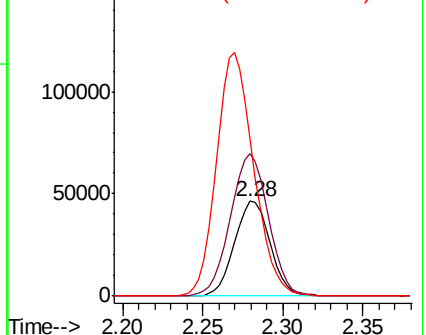
63 166.7 152.2 282.6

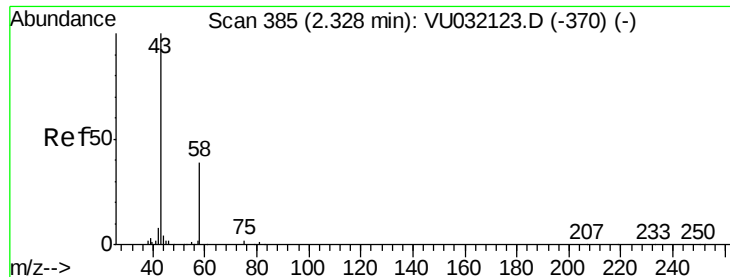


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.05 (60.75 to 61.75): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 41.699 ug/L

RT: 2.34 min Scan# 388

Delta R.T. 0.01 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

Instrument :

MSVOA\_U

ClientSampleId :

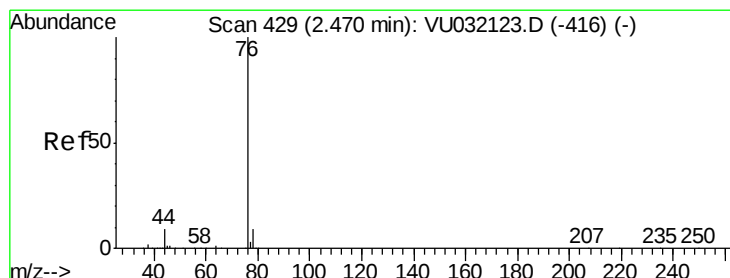
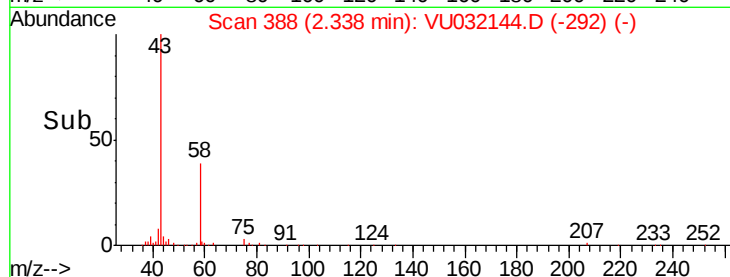
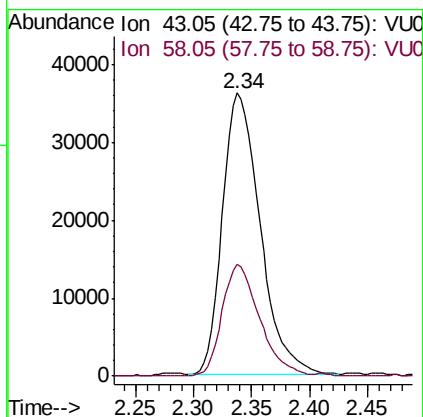
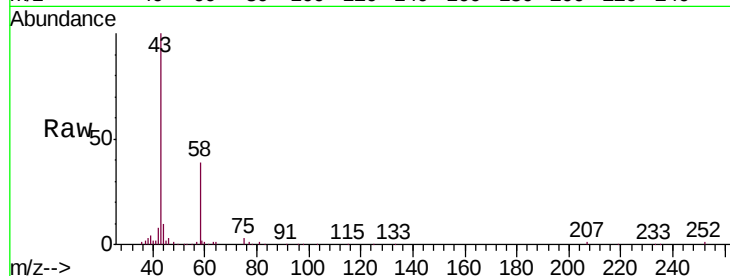
VSTD00506

Tgt Ion: 43 Resp: 81524

Ion Ratio Lower Upper

43 100

58 39.4 0.0 78.8



#14

Carbon disulfide

Concen: 4.373 ug/L

RT: 2.47 min Scan# 430

Delta R.T. 0.00 min

Lab File: VU032144.D

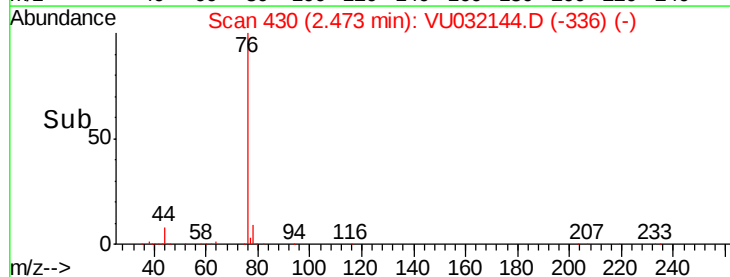
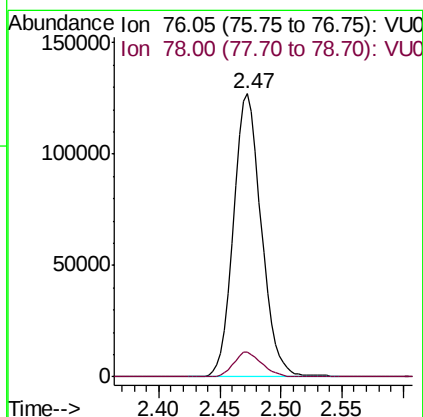
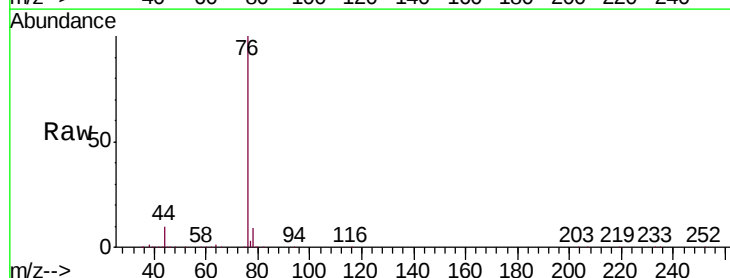
Acq: 18 May 2019 10:49

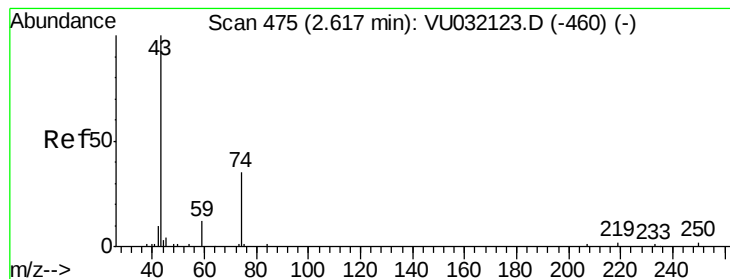
Tgt Ion: 76 Resp: 201720

Ion Ratio Lower Upper

76 100

78 8.7 7.8 11.6





#15

Methyl Acetate

Concen: 3.800 ug/L

RT: 2.62 min Scan# 476

Delta R.T. 0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

Instrument :

MSVOA\_U

ClientSampleId :

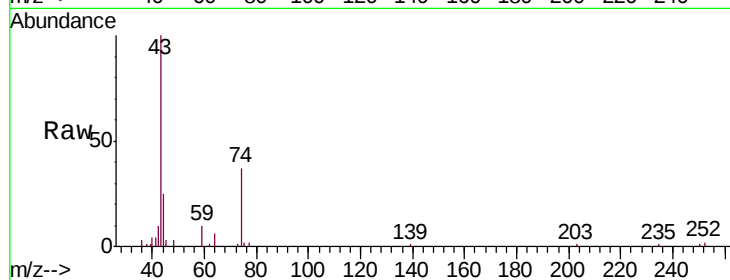
VSTD00506

Tgt Ion: 43 Resp: 21304

Ion Ratio Lower Upper

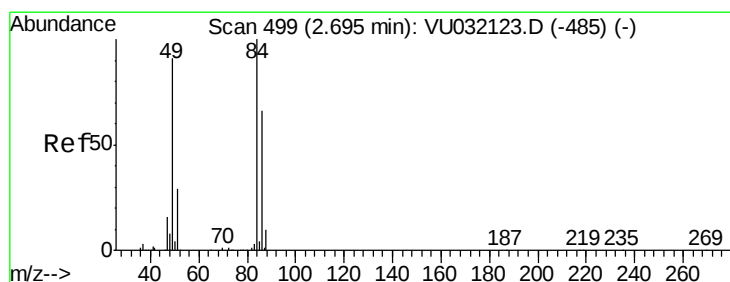
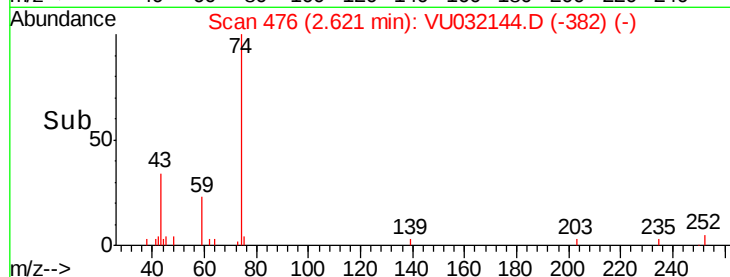
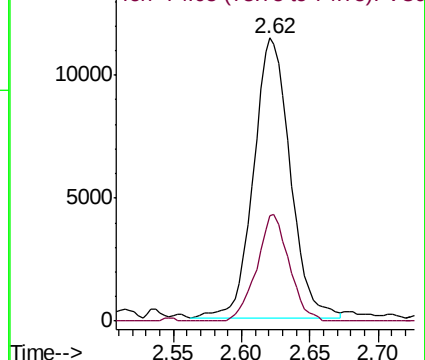
43 100

74 33.5 26.4 39.6



Abundance Ion 43.05 (42.75 to 43.75): VU032123.D (-460) (-)

Ion 74.05 (73.75 to 74.75): VU032123.D (-460) (-)



#16

Methylene chloride

Concen: 4.430 ug/L

RT: 2.69 min Scan# 499

Delta R.T. 0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

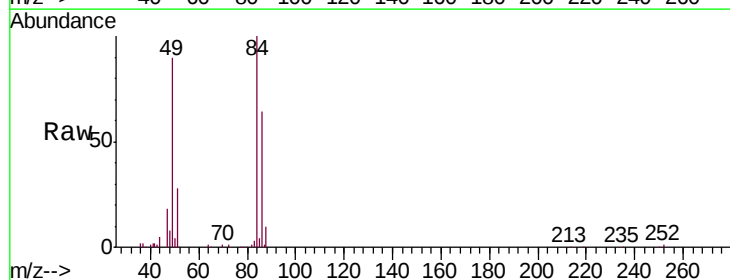
Tgt Ion: 84 Resp: 76469

Ion Ratio Lower Upper

84 100

86 63.7 43.1 80.1

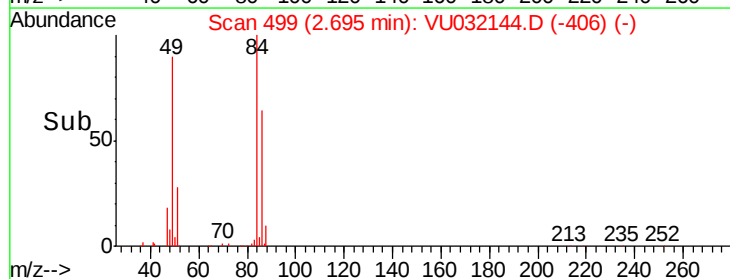
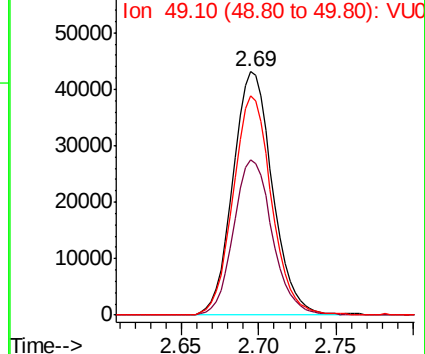
49 90.2 67.7 125.7

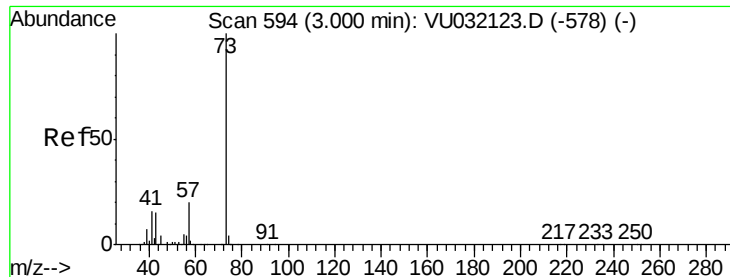


Abundance Ion 84.05 (83.75 to 84.75): VU032123.D (-485) (-)

Ion 86.00 (85.70 to 86.70): VU032123.D (-485) (-)

Ion 49.10 (48.80 to 49.80): VU032123.D (-485) (-)





#17

Methyl tert-butyl Ether

Concen: 4.664 ug/L

RT: 3.00 min Scan# 595

Delta R.T. 0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00506

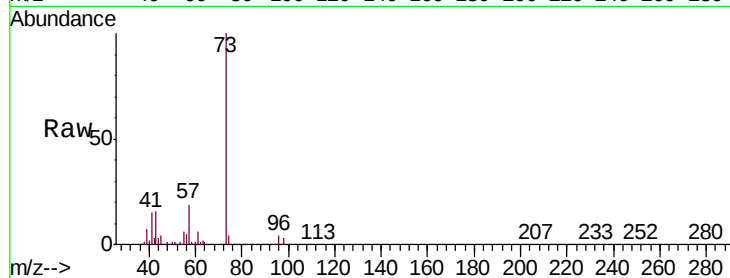
Tgt Ion: 73 Resp: 158565

Ion Ratio Lower Upper

73 100

43 16.5 13.0 19.6

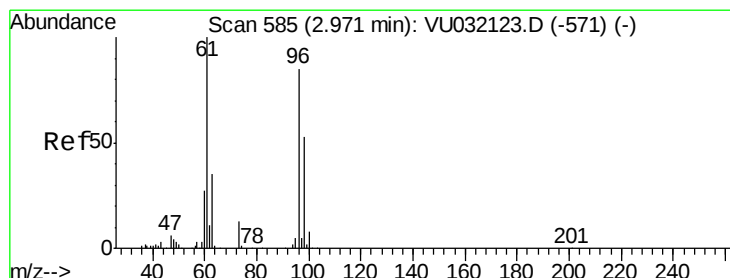
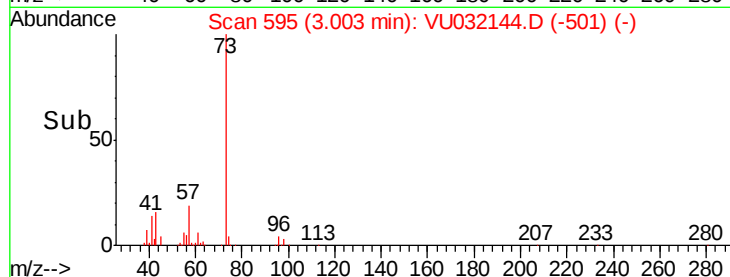
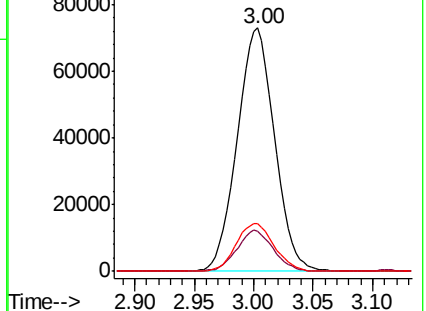
57 19.9 17.9 26.9



Abundance Ion 73.10 (72.80 to 73.80): VU032123.D (-578) (-)

Ion 43.05 (42.75 to 43.75): VU032123.D (-578) (-)

Ion 57.10 (56.80 to 57.80): VU032123.D (-578) (-)



#18

trans-1,2-Dichloroethene

Concen: 4.854 ug/L

RT: 2.97 min Scan# 586

Delta R.T. 0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

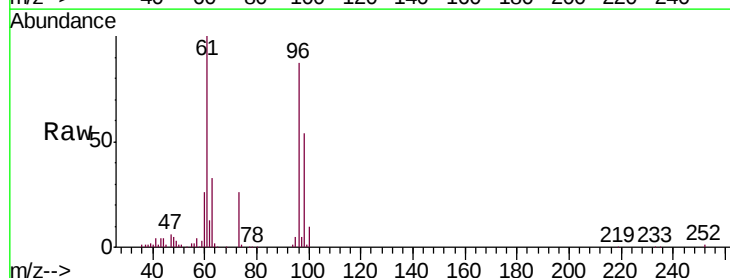
Tgt Ion: 96 Resp: 75130

Ion Ratio Lower Upper

96 100

61 114.5 86.5 160.7

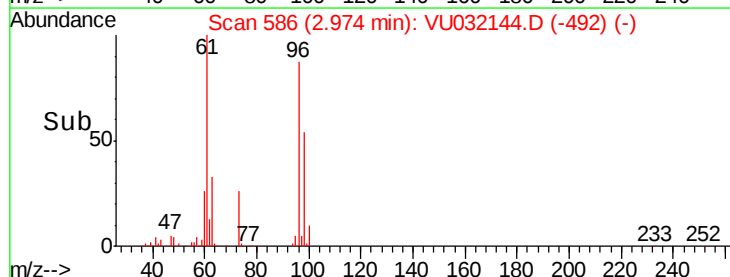
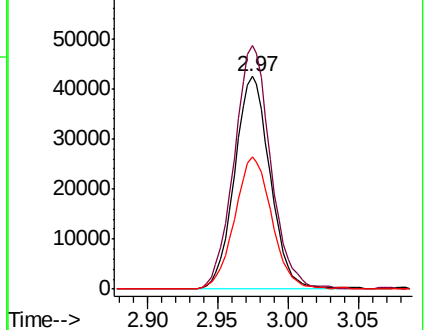
98 62.0 43.5 80.9

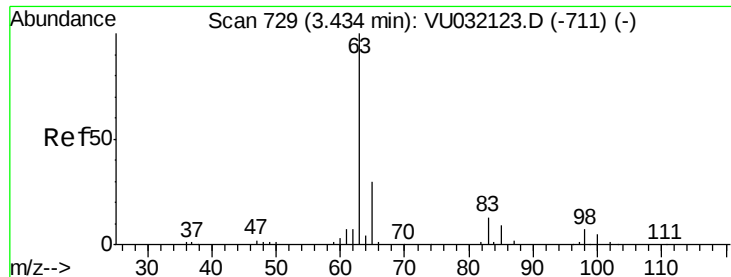


Abundance Ion 96.00 (95.70 to 96.70): VU032123.D (-571) (-)

Ion 61.05 (60.75 to 61.75): VU032123.D (-571) (-)

Ion 97.95 (97.65 to 98.65): VU032123.D (-571) (-)

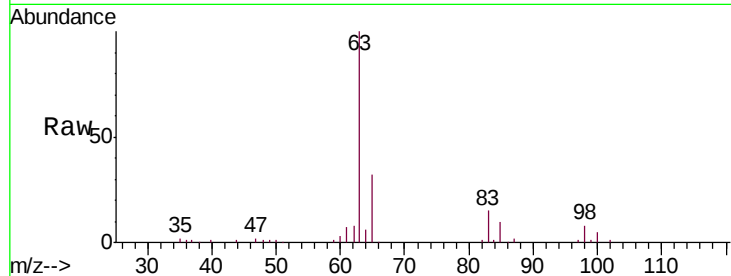




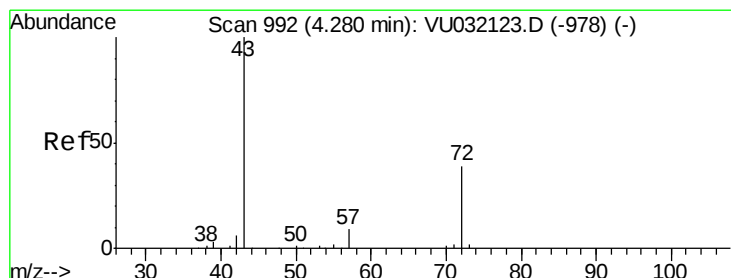
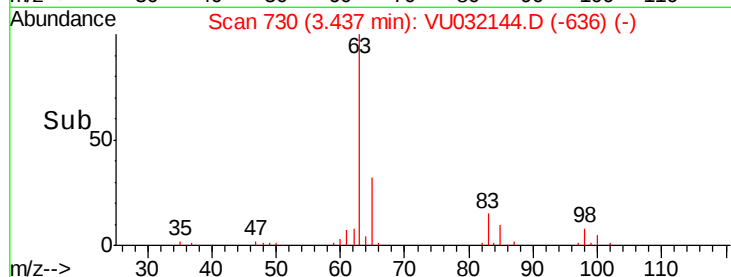
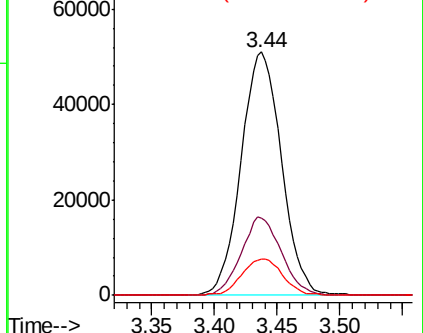
#19  
 1,1-Dichloroethane  
 Concen: 4.651 ug/L  
 RT: 3.44 min Scan# 730  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00506

Tgt Ion: 63 Resp: 114200  
 Ion Ratio Lower Upper  
 63 100  
 65 31.9 23.0 42.6  
 83 14.9 9.3 17.3

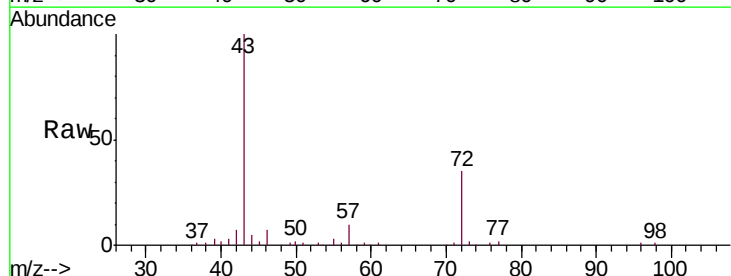


Abundance Ion 63.10 (62.80 to 63.80): VU0  
 Ion 65.10 (64.80 to 65.80): VU0  
 Ion 83.05 (82.75 to 83.75): VU0

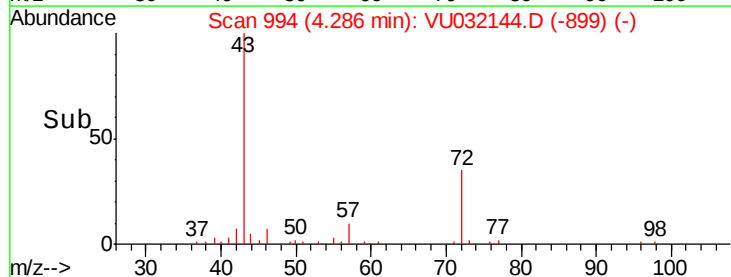
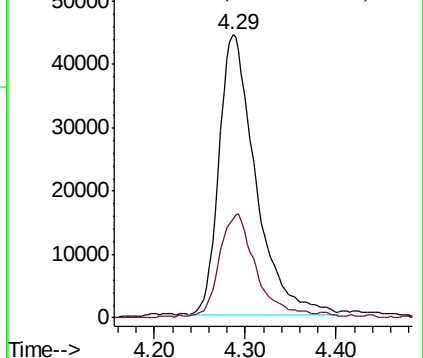


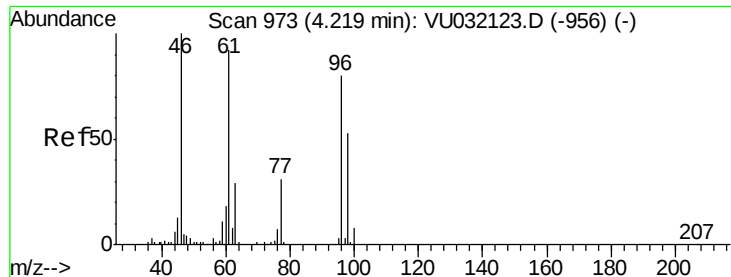
#21  
 2-Butanone  
 Concen: 44.045 ug/L  
 RT: 4.29 min Scan# 994  
 Delta R.T. 0.01 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Tgt Ion: 43 Resp: 123601  
 Ion Ratio Lower Upper  
 43 100  
 72 36.0 16.8 50.3



Abundance Ion 43.05 (42.75 to 43.75): VU0  
 Ion 72.10 (71.80 to 72.80): VU0



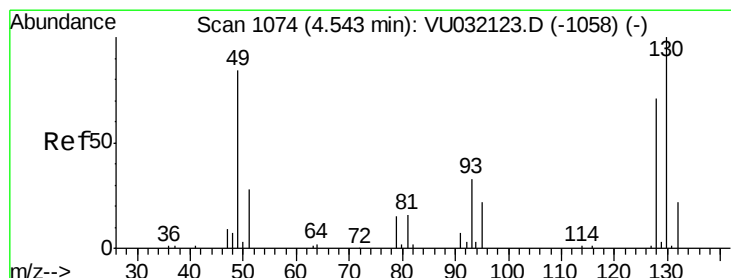
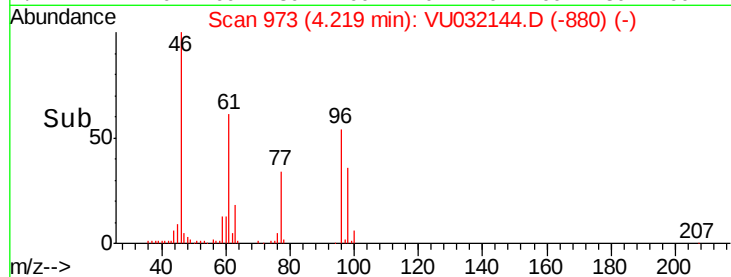
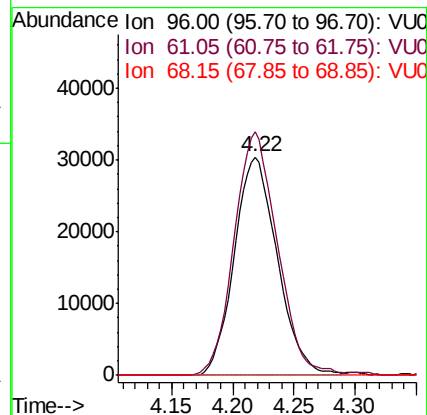
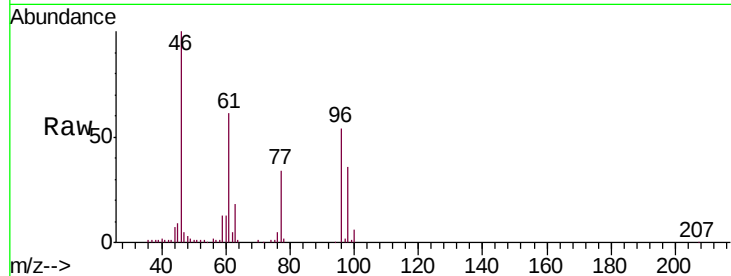


#22

cis-1,2-Dichloroethene  
 Concen: 4.885 ug/L  
 RT: 4.22 min Scan# 973  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00506

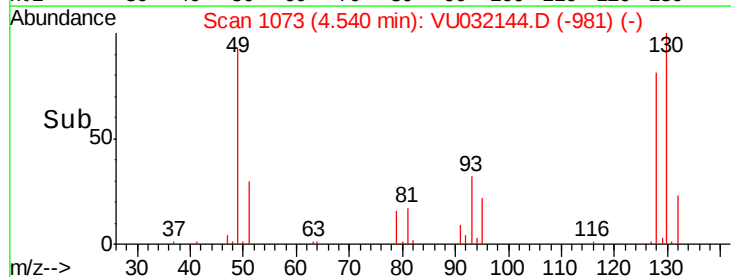
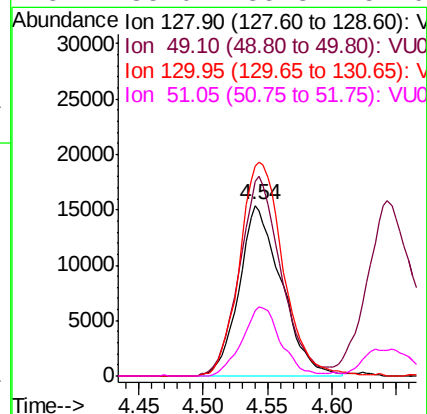
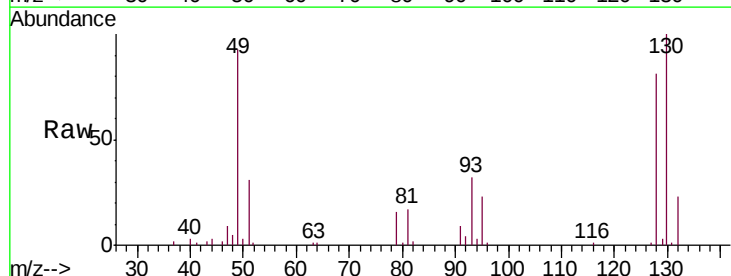
Tgt Ion: 96 Resp: 74395  
 Ion Ratio Lower Upper  
 96 100  
 61 111.6 85.8 159.4  
 68 0.0 0.0 0.0

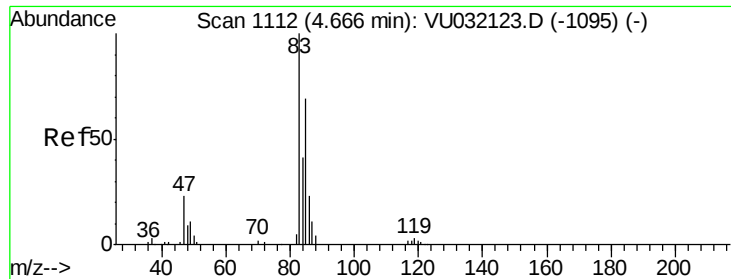


#23

Bromochloromethane  
 Concen: 5.377 ug/L  
 RT: 4.54 min Scan# 1073  
 Delta R.T. -0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Tgt Ion: 128 Resp: 35136  
 Ion Ratio Lower Upper  
 128 100  
 49 114.4 92.2 171.2  
 130 123.4 90.3 167.7  
 51 38.0 35.3 52.9





#25

Chloroform

Concen: 4.907 ug/L

RT: 4.67 min Scan# 1113

Delta R.T. 0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

Instrument :

MSVOA\_U

ClientSampleId :

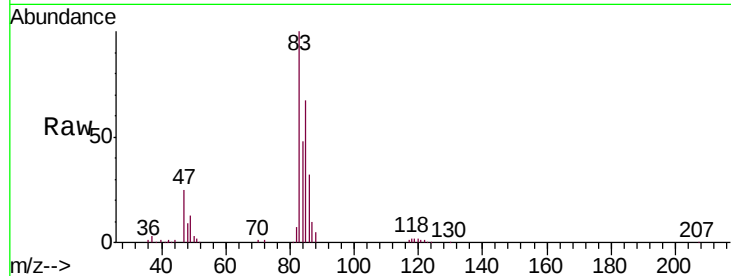
VSTD00506

Tgt Ion: 83 Resp: 128856

Ion Ratio Lower Upper

83 100

85 66.6 44.9 83.3

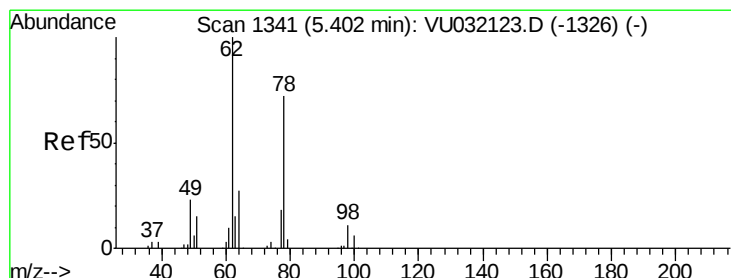
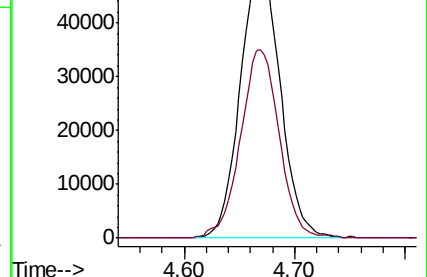
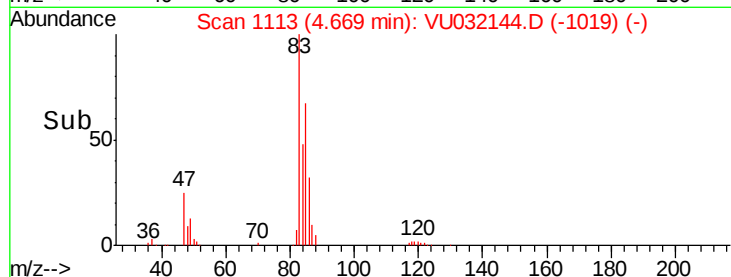


Abundance Ion 83.05 (82.75 to 83.75): VU032123.D (-1095) (-)

Ion 85.00 (84.70 to 85.70): VU032123.D (-1095) (-)

4.67

Time-->



#27

1,2-Dichloroethane

Concen: 4.800 ug/L

RT: 5.40 min Scan# 1341

Delta R.T. 0.00 min

Lab File: VU032144.D

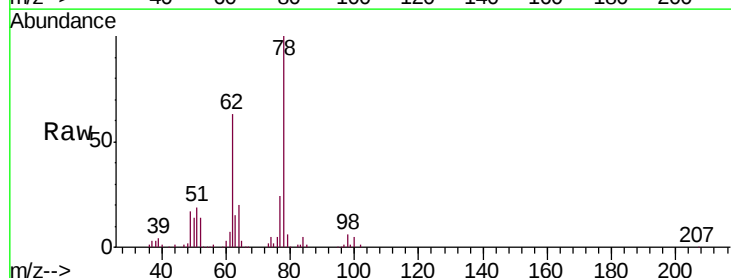
Acq: 18 May 2019 10:49

Tgt Ion: 62 Resp: 72785

Ion Ratio Lower Upper

62 100

98 10.1 8.0 12.0

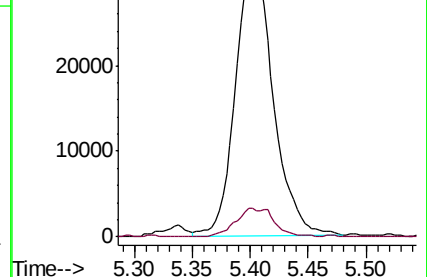
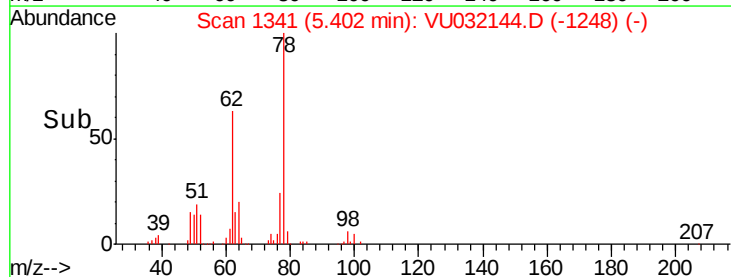


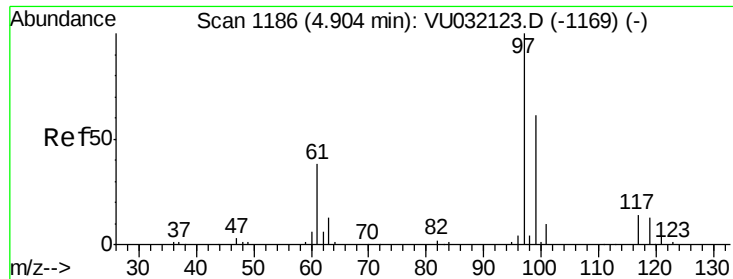
Abundance Ion 62.00 (61.70 to 62.70): VU032123.D (-1326) (-)

Ion 98.05 (97.75 to 98.75): VU032123.D (-1326) (-)

5.40

Time-->

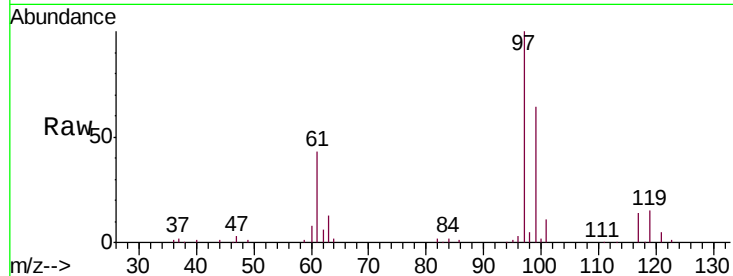




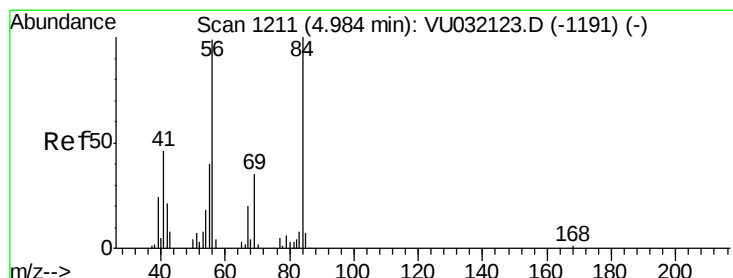
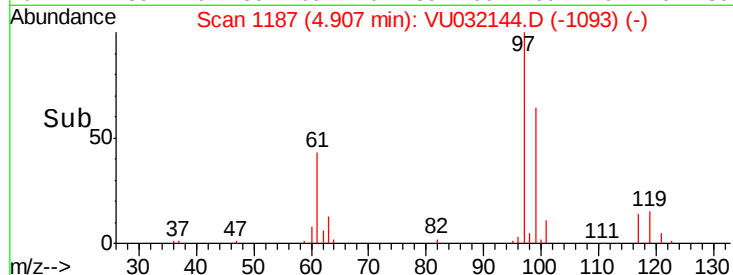
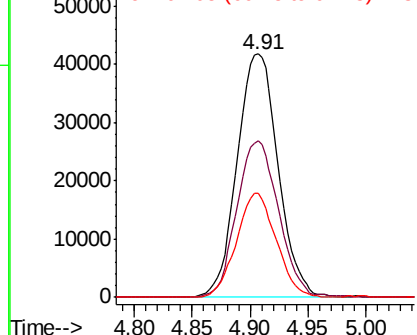
#29  
1,1,1-Trichloroethane  
Concen: 4.859 ug/L  
RT: 4.91 min Scan# 1187  
Delta R.T. 0.00 min  
Lab File: VU032144.D  
Acq: 18 May 2019 10:49

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00506

Tgt Ion: 97 Resp: 102972  
Ion Ratio Lower Upper  
97 100  
99 65.6 53.7 80.5  
61 41.3 34.2 51.4

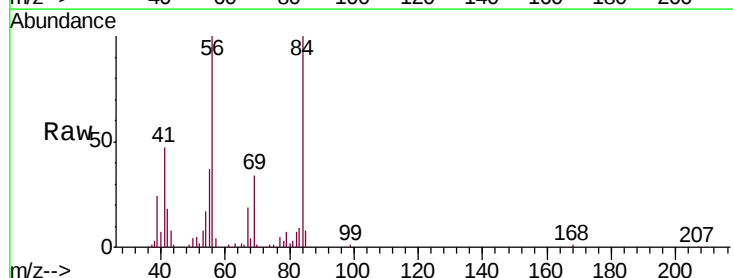


Abundance Ion 96.95 (96.65 to 97.65): VU0  
Ion 99.05 (98.75 to 99.75): VU0  
Ion 61.05 (60.75 to 61.75): VU0

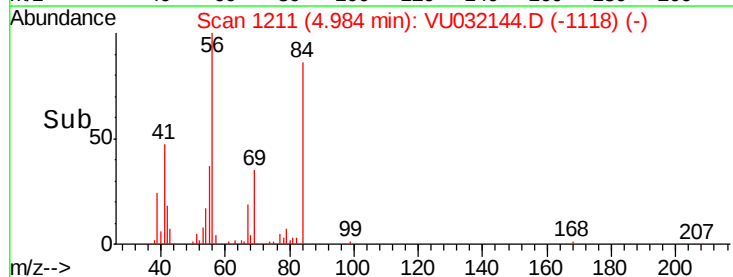
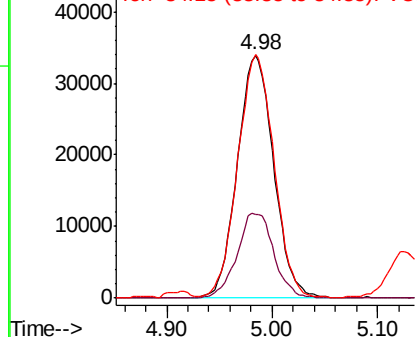


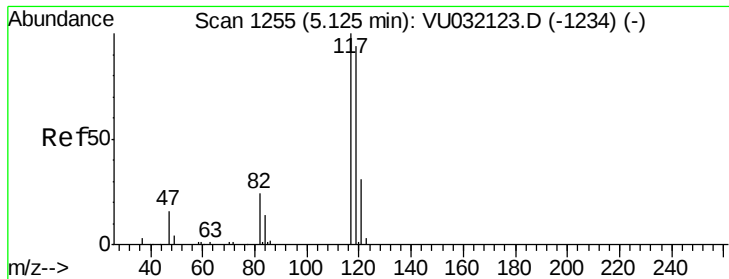
#30  
Cyclohexane  
Concen: 4.165 ug/L  
RT: 4.98 min Scan# 1211  
Delta R.T. 0.00 min  
Lab File: VU032144.D  
Acq: 18 May 2019 10:49

Tgt Ion: 56 Resp: 81168  
Ion Ratio Lower Upper  
56 100  
69 35.4 26.9 40.3  
84 100.7 76.6 115.0



Abundance Ion 56.10 (55.80 to 56.80): VU0  
Ion 69.15 (68.85 to 69.85): VU0  
Ion 84.15 (83.85 to 84.85): VU0





#31

Carbon tetrachloride

Concen: 4.975 ug/L

RT: 5.12 min Scan# 1254

Delta R.T. -0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

Instrument :

MSVOA\_U

ClientSampleId :

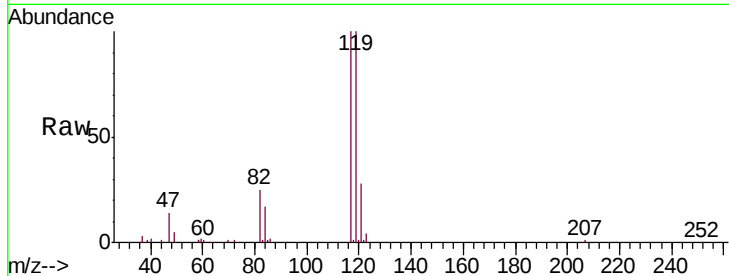
VSTD00506

Tgt Ion:117 Resp: 89655

Ion Ratio Lower Upper

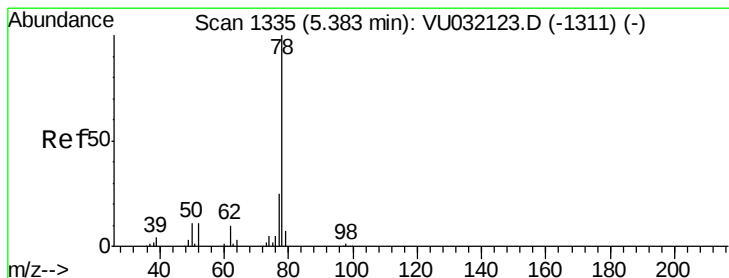
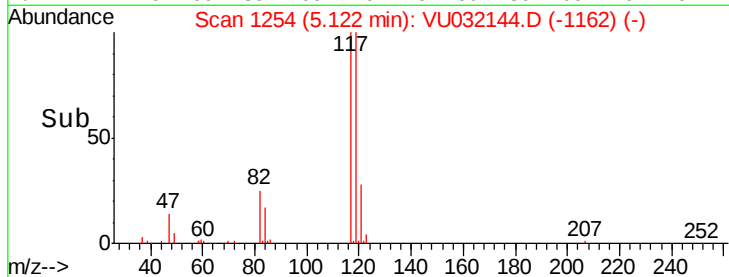
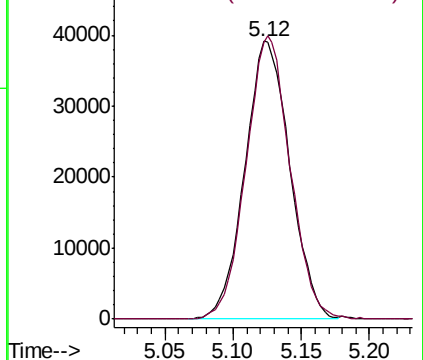
117 100

119 99.6 75.8 113.6



Abundance Ion 116.90 (116.60 to 117.60): V

Ion 118.90 (118.60 to 119.60): V



#33

Benzene

Concen: 4.899 ug/L

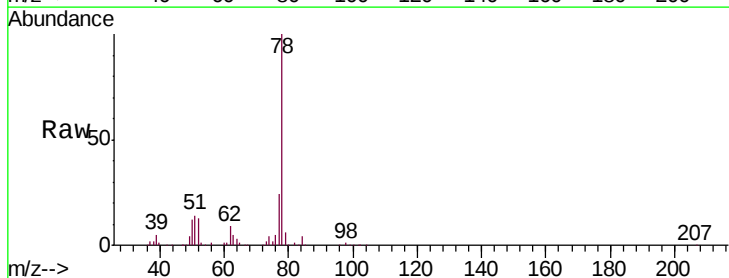
RT: 5.38 min Scan# 1335

Delta R.T. 0.00 min

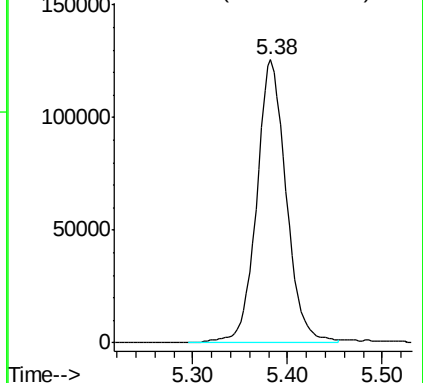
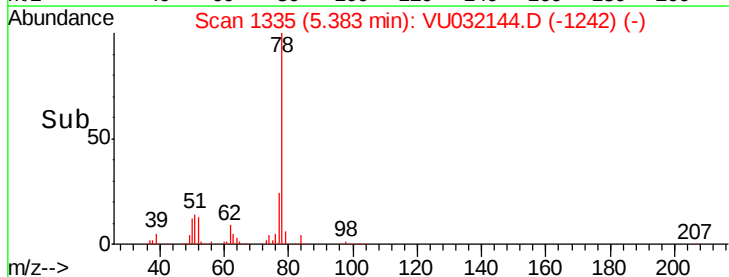
Lab File: VU032144.D

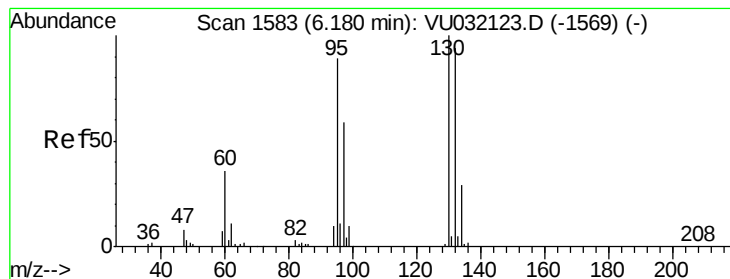
Acq: 18 May 2019 10:49

Tgt Ion: 78 Resp: 273270



Abundance Ion 78.10 (77.80 to 78.80): VU0





#34

Trichloroethene

Concen: 4.703 ug/L

RT: 6.18 min Scan# 1584

Delta R.T. 0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

Instrument :

MSVOA\_U

ClientSampled :

VSTD00506

Tgt Ion: 95 Resp: 71151

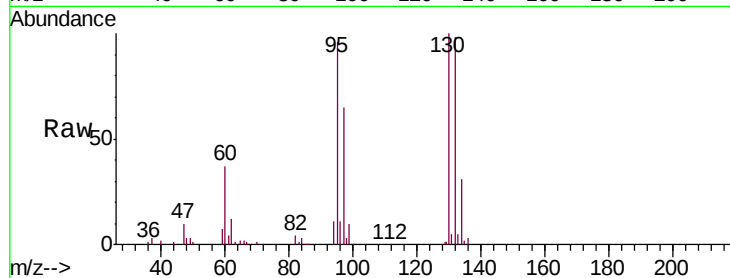
Ion Ratio Lower Upper

95 100

97 67.8 45.2 84.0

132 102.0 66.1 122.7

130 104.5 66.7 123.9

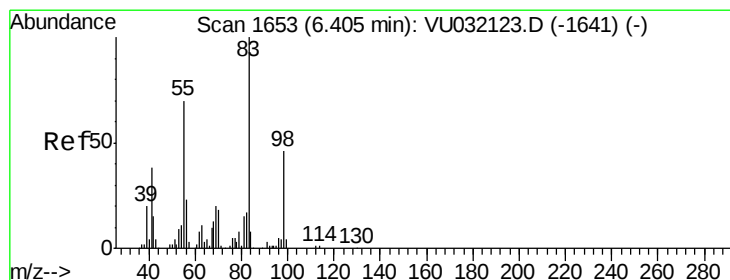
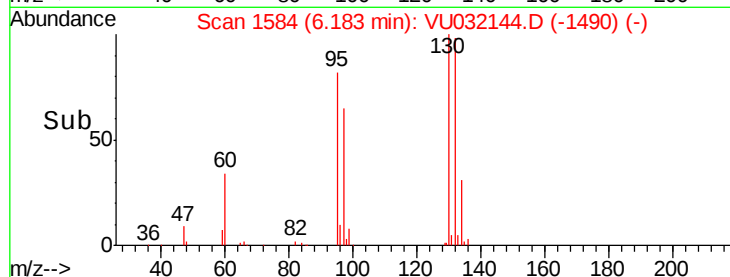
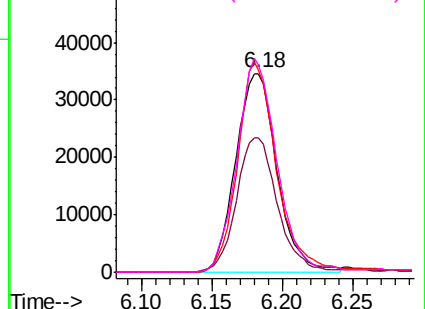


Abundance Ion 95.00 (94.70 to 95.70): VU0

Ion 96.95 (96.65 to 97.65): VU0

Ion 131.95 (131.65 to 132.65): V

Ion 129.95 (129.65 to 130.65): V



#35

Methylcyclohexane

Concen: 4.095 ug/L

RT: 6.41 min Scan# 1654

Delta R.T. 0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

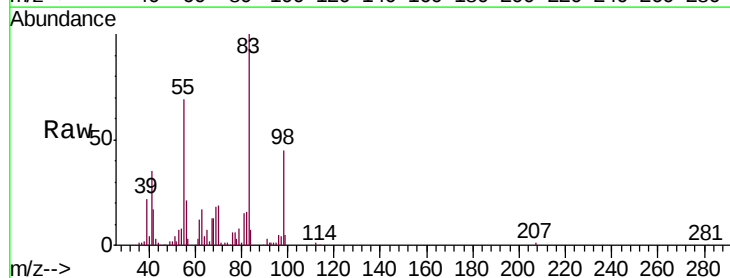
Tgt Ion: 83 Resp: 89217

Ion Ratio Lower Upper

83 100

55 73.7 59.7 89.5

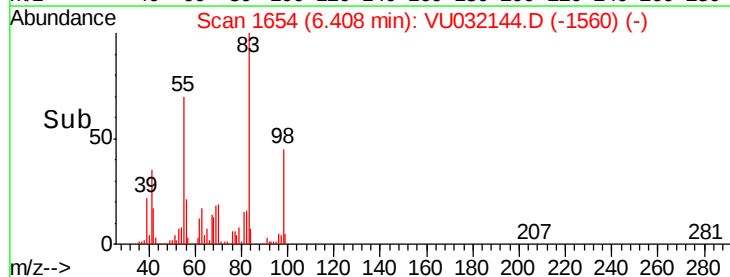
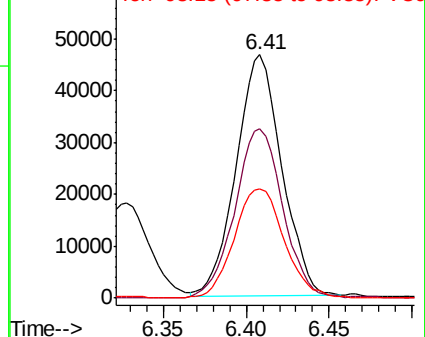
98 49.9 36.8 55.2

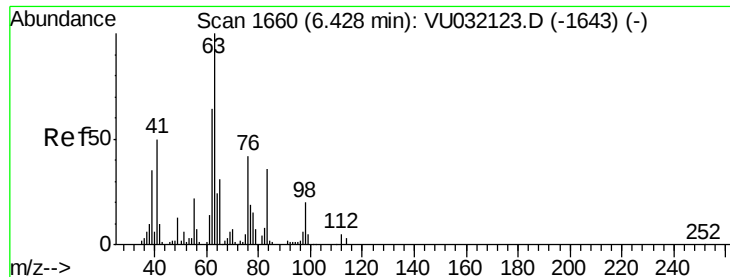


Abundance Ion 83.15 (82.85 to 83.85): VU0

Ion 55.10 (54.80 to 55.80): VU0

Ion 98.15 (97.85 to 98.85): VU0

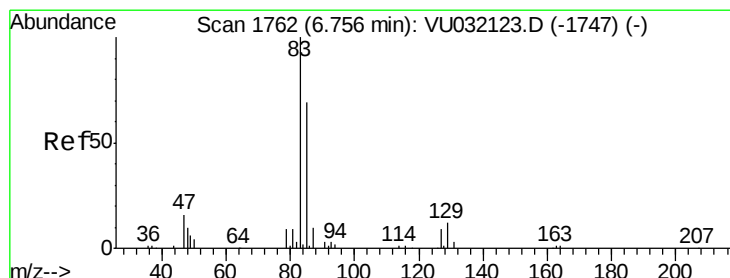
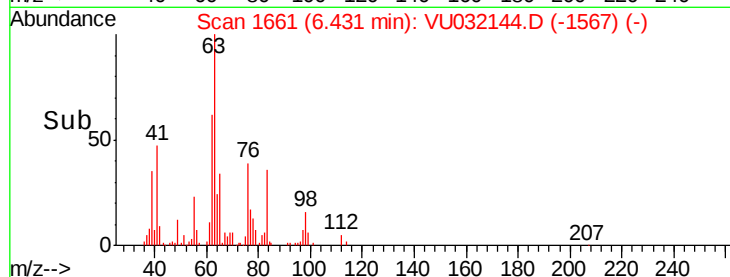
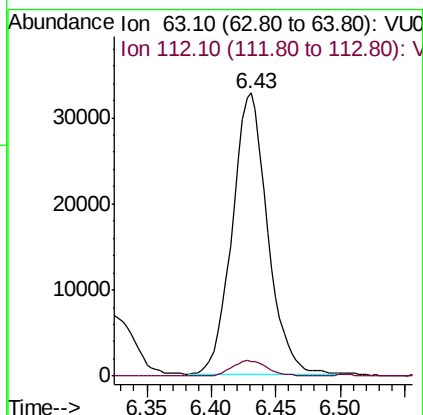
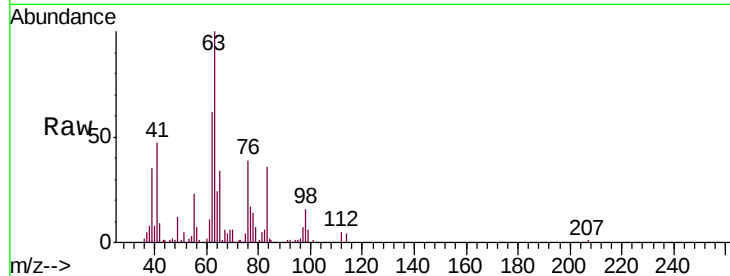




#37  
 1,2-Dichloropropane  
 Concen: 4.568 ug/L  
 RT: 6.43 min Scan# 1661  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

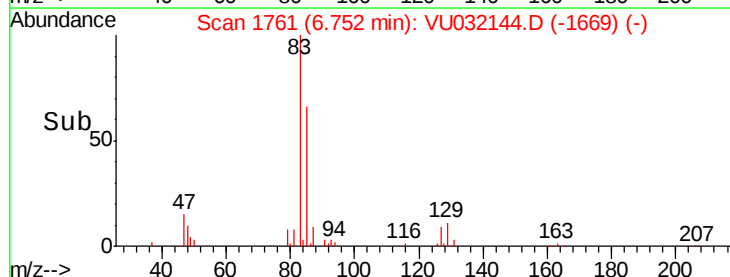
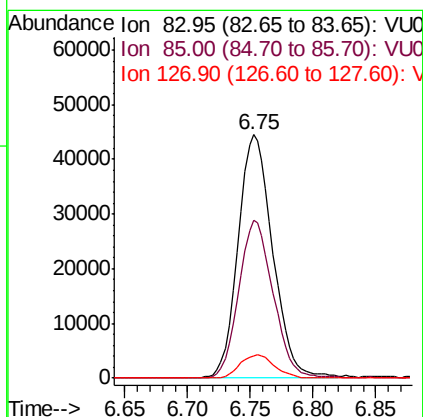
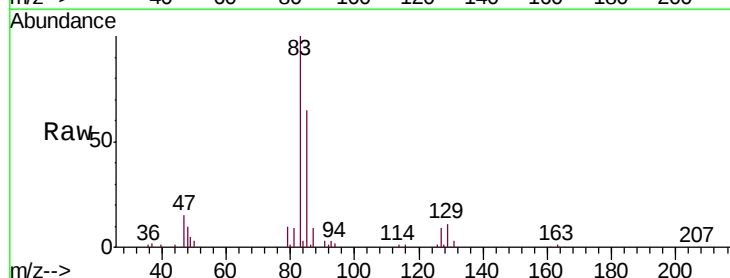
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00506

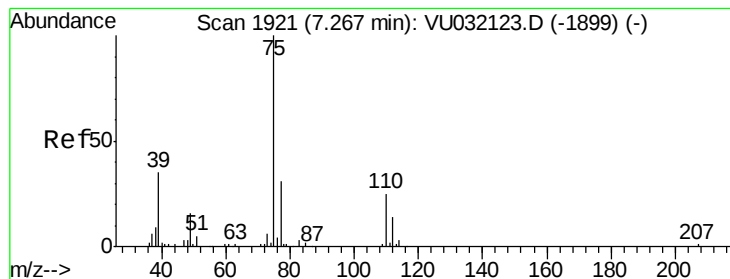
Tgt Ion: 63 Resp: 62299  
 Ion Ratio Lower Upper  
 63 100  
 112 5.4 3.8 5.6



#38  
 Bromodichloromethane  
 Concen: 4.901 ug/L  
 RT: 6.75 min Scan# 1761  
 Delta R.T. -0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Tgt Ion: 83 Resp: 85494  
 Ion Ratio Lower Upper  
 83 100  
 85 64.8 45.5 84.5  
 127 9.2 6.3 9.5



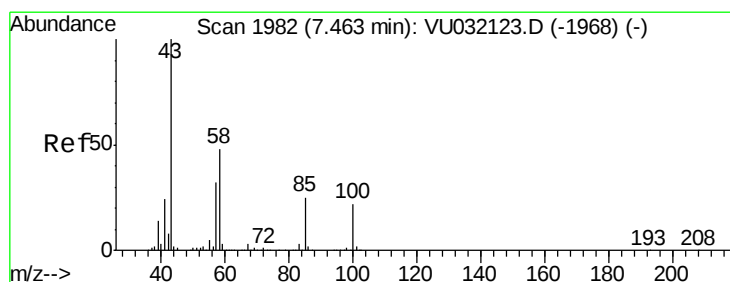
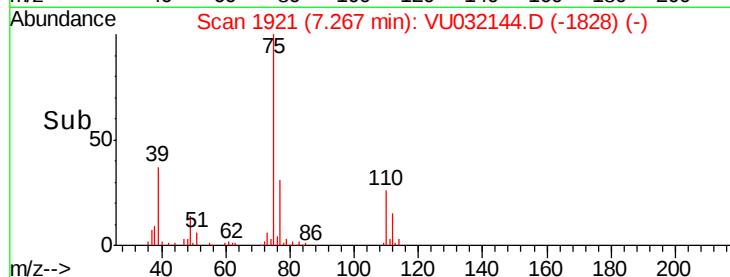
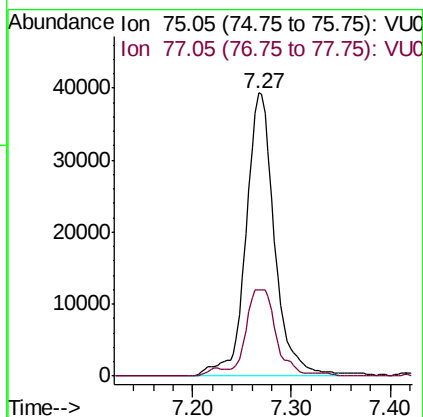
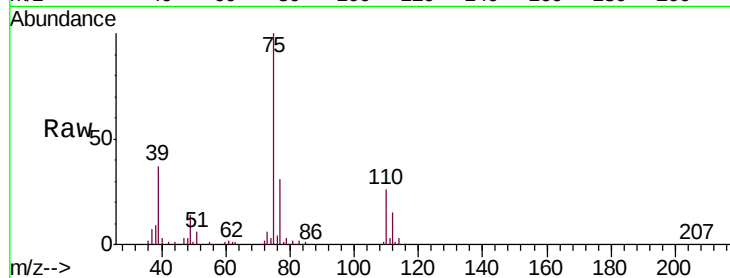


#39

cis-1,3-Dichloropropene  
 Concen: 4.159 ug/L  
 RT: 7.27 min Scan# 1921  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00506

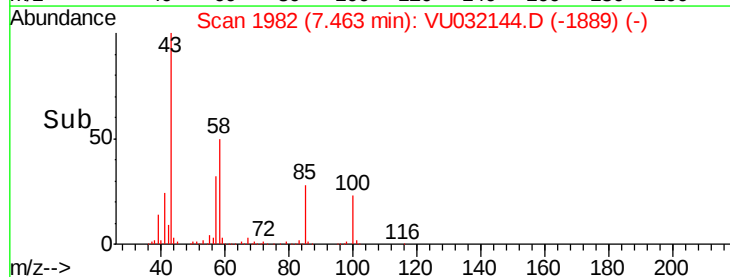
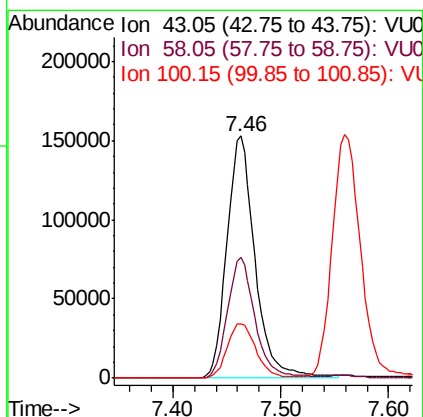
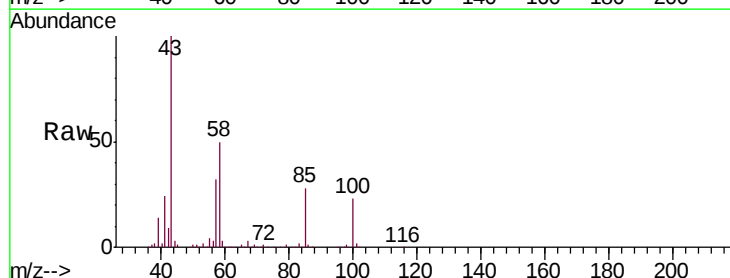
Tgt Ion: 75 Resp: 78431  
 Ion Ratio Lower Upper  
 75 100  
 77 30.6 21.7 40.3

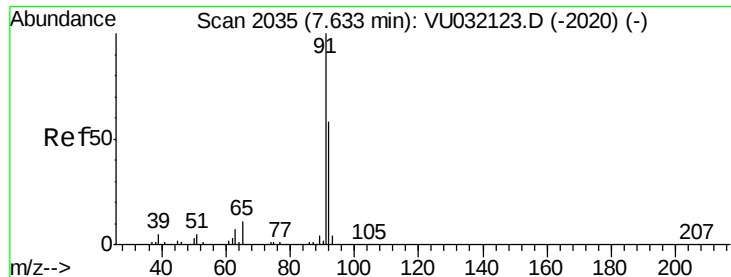


#40

4-Methyl-2-pentanone  
 Concen: 43.995 ug/L  
 RT: 7.46 min Scan# 1982  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Tgt Ion: 43 Resp: 278146  
 Ion Ratio Lower Upper  
 43 100  
 58 48.9 37.3 55.9  
 100 22.8 15.5 23.3





#42

Toluene

Concen: 5.019 ug/L

RT: 7.63 min Scan# 2035

Delta R.T. -0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

Instrument :

MSVOA\_U

ClientSampleId :

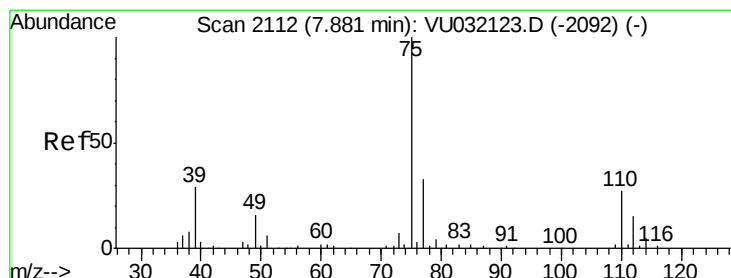
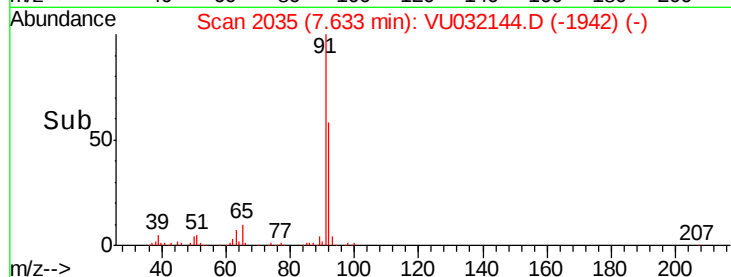
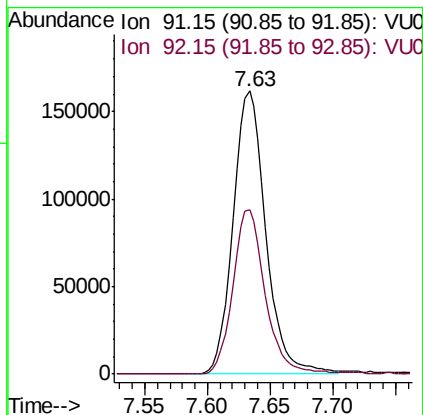
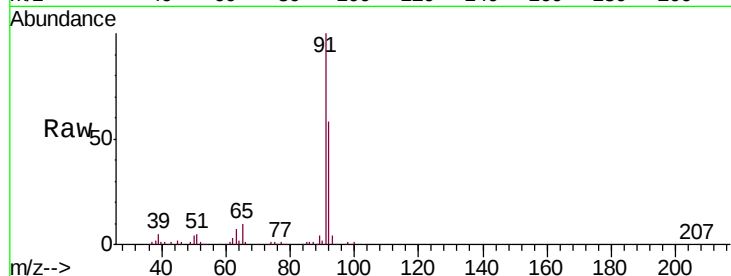
VSTD00506

Tgt Ion: 91 Resp: 293202

Ion Ratio Lower Upper

91 100

92 58.2 40.2 74.6



#44

trans-1,3-Dichloropropene

Concen: 4.355 ug/L

RT: 7.88 min Scan# 2111

Delta R.T. -0.00 min

Lab File: VU032144.D

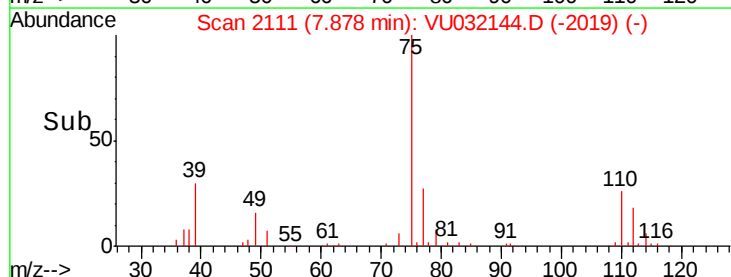
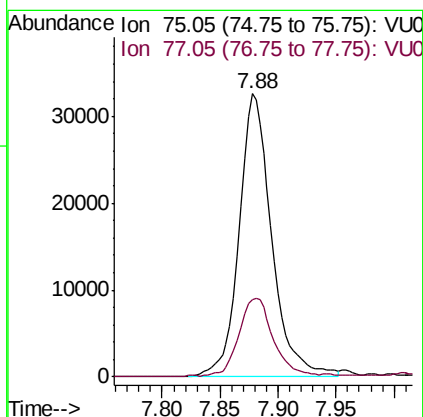
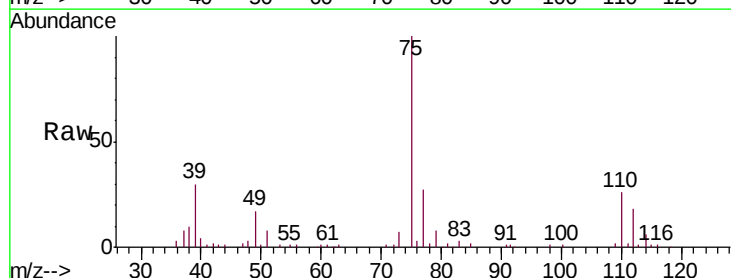
Acq: 18 May 2019 10:49

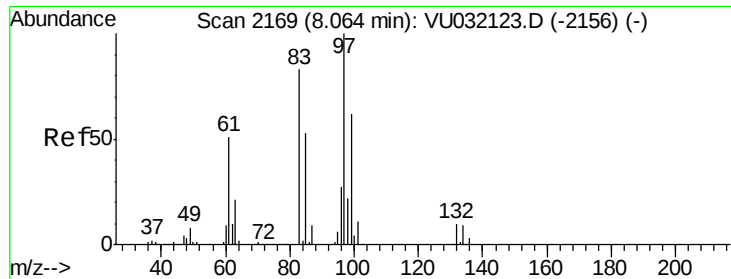
Tgt Ion: 75 Resp: 63851

Ion Ratio Lower Upper

75 100

77 27.4 21.0 39.0

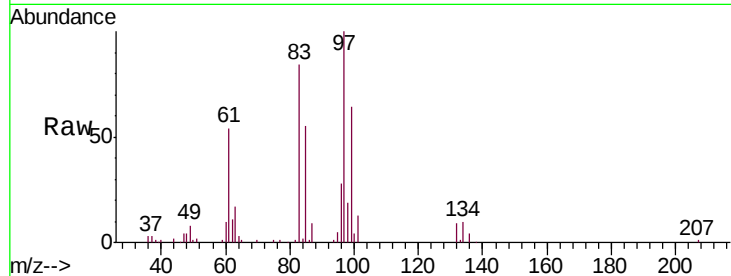




#45  
 1,1,2-Trichloroethane  
 Concen: 5.158 ug/L  
 RT: 8.06 min Scan# 2169  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00506

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 97    | Resp: | 51964 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 99       | 64.3  | 40.7  | 75.7  |
| 83       | 83.9  | 59.6  | 110.8 |
| 85       | 54.6  | 37.3  | 69.3  |



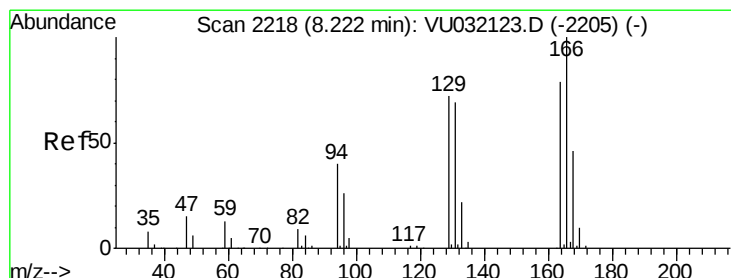
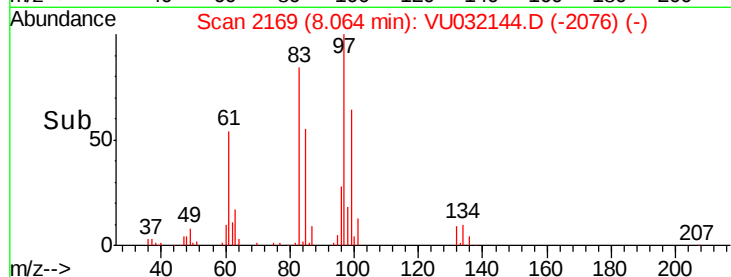
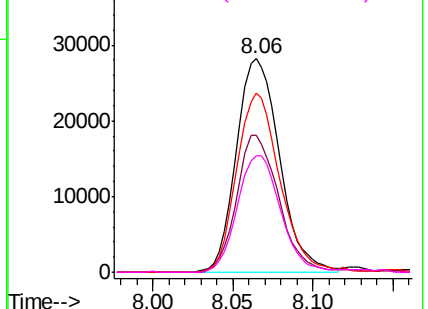
Abundance

Ion 96.95 (96.65 to 97.65): VU0

Ion 99.05 (98.75 to 99.75): VU0

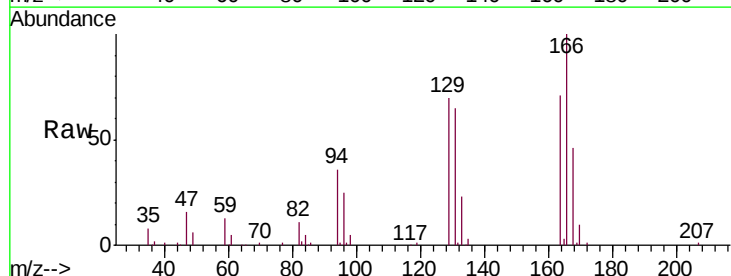
Ion 82.95 (82.65 to 83.65): VU0

Ion 85.00 (84.70 to 85.70): VU0



#47  
 Tetrachloroethene  
 Concen: 5.071 ug/L  
 RT: 8.22 min Scan# 2218  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 57360 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 98.4  | 70.3  | 130.5 |
| 131      | 91.1  | 64.5  | 119.9 |
| 166      | 140.0 | 92.3  | 171.5 |



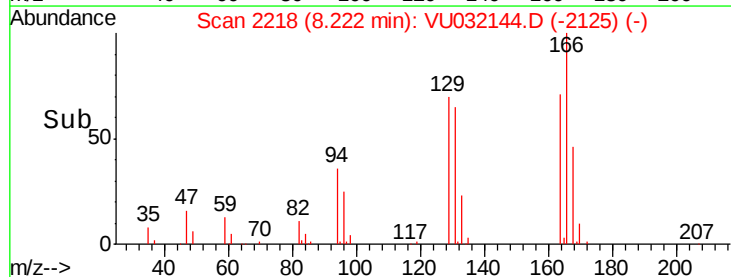
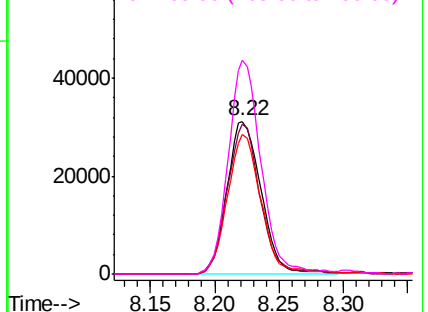
Abundance

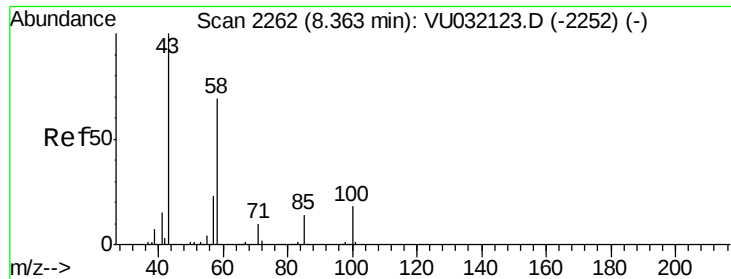
Ion 163.90 (163.60 to 164.60): V

Ion 128.95 (128.65 to 129.65): V

Ion 130.95 (130.65 to 131.65): V

Ion 165.90 (165.60 to 166.60): V

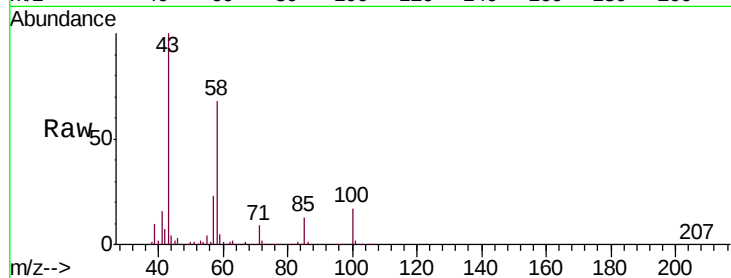




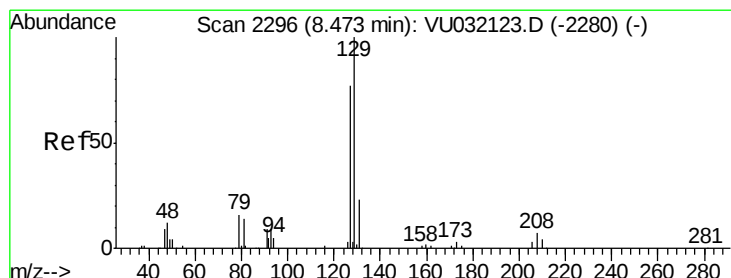
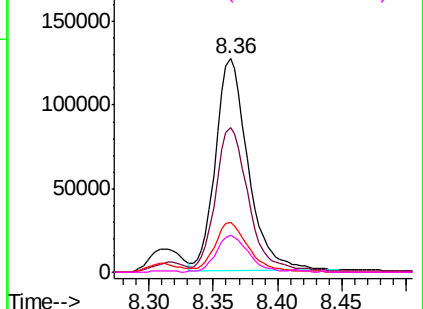
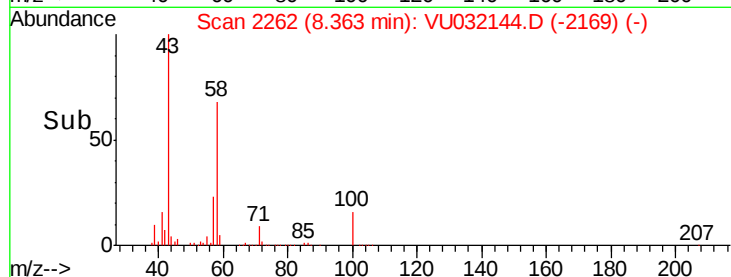
#48  
2-Hexanone  
Concen: 46.053 ug/L  
RT: 8.36 min Scan# 2262  
Delta R.T. 0.00 min  
Lab File: VU032144.D  
Acq: 18 May 2019 10:49

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00506

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 225842 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 67.8  | 51.6  | 77.4   |
| 57       | 24.5  | 18.4  | 27.6   |
| 100      | 16.4  | 12.2  | 18.4   |

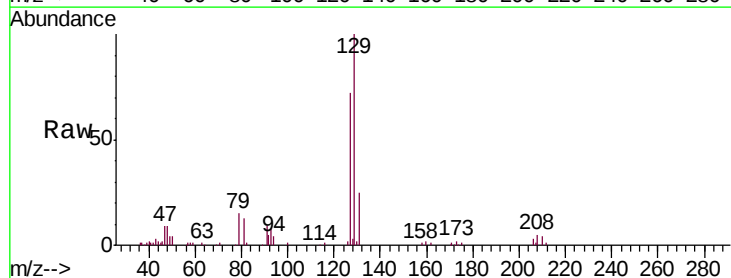


Abundance Ion 43.05 (42.75 to 43.75): VU032144.D (-2169) (-)  
Ion 58.05 (57.75 to 58.75): VU032144.D (-2169) (-)  
Ion 57.20 (56.90 to 57.90): VU032144.D (-2169) (-)  
Ion 100.15 (99.85 to 100.85): VU032144.D (-2169) (-)

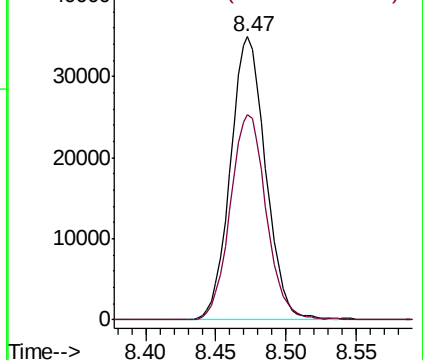
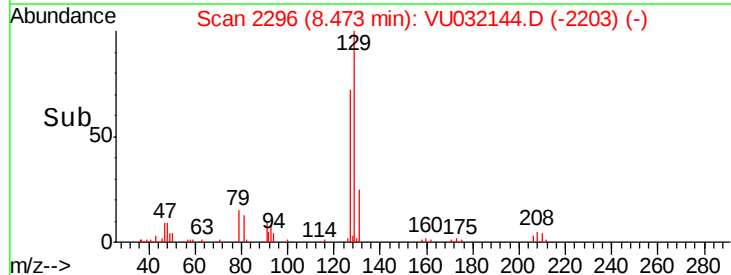


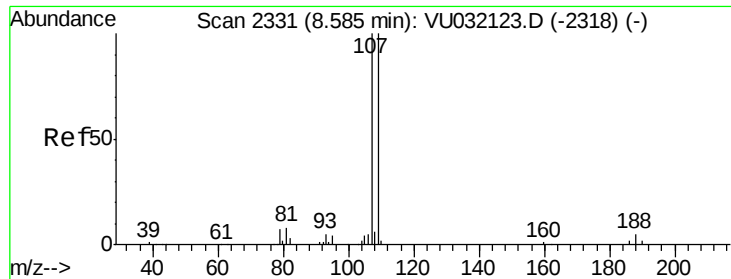
#49  
Dibromochloromethane  
Concen: 5.250 ug/L  
RT: 8.47 min Scan# 2296  
Delta R.T. 0.00 min  
Lab File: VU032144.D  
Acq: 18 May 2019 10:49

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 129   | Resp: | 60957 |
| Ion      | Ratio | Lower | Upper |
| 129      | 100   |       |       |
| 127      | 72.4  | 55.2  | 102.6 |



Abundance Ion 128.95 (128.65 to 129.65): VU032144.D (-2203) (-)  
Ion 126.90 (126.60 to 127.60): VU032144.D (-2203) (-)

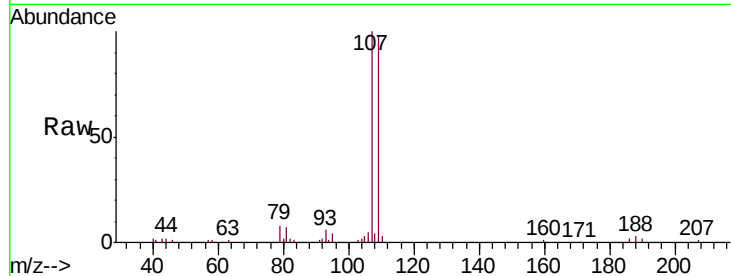




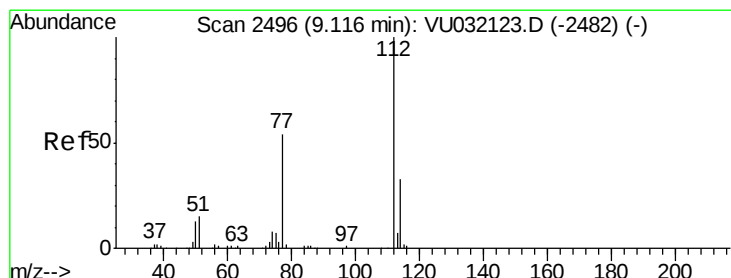
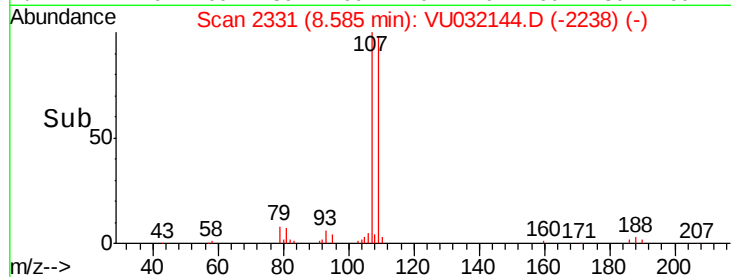
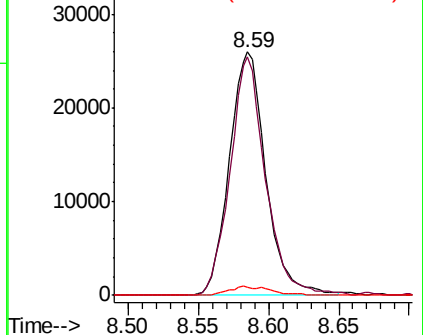
#50  
 1,2-Dibromoethane  
 Concen: 4.857 ug/L  
 RT: 8.59 min Scan# 2331  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00506

Tgt Ion:107 Resp: 46894  
 Ion Ratio Lower Upper  
 107 100  
 109 98.2 67.8 125.8  
 188 3.3 3.5 5.3#

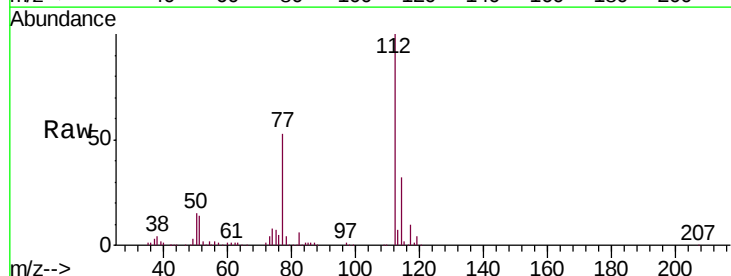


Abundance Ion 106.95 (106.65 to 107.65): V  
 Ion 109.00 (108.70 to 109.70): V  
 Ion 187.90 (187.60 to 188.60): V

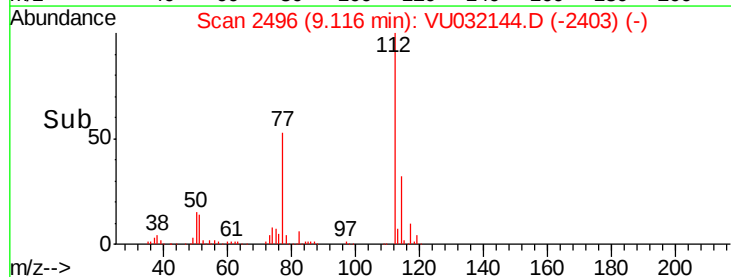
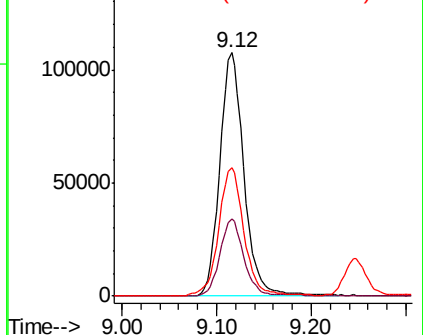


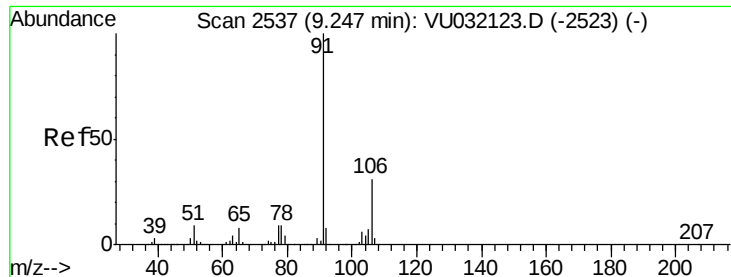
#51  
 Chlorobenzene  
 Concen: 5.194 ug/L  
 RT: 9.12 min Scan# 2496  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Tgt Ion:112 Resp: 191645  
 Ion Ratio Lower Upper  
 112 100  
 114 31.8 21.6 40.2  
 77 52.8 50.3 75.5



Abundance Ion 112.10 (111.80 to 112.80): V  
 Ion 114.05 (113.75 to 114.75): V  
 Ion 77.10 (76.80 to 77.80): VU





#52

Ethylbenzene

Concen: 4.851 ug/L

RT: 9.24 min Scan# 2536

Delta R.T. -0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

Instrument :

MSVOA\_U

ClientSampleId :

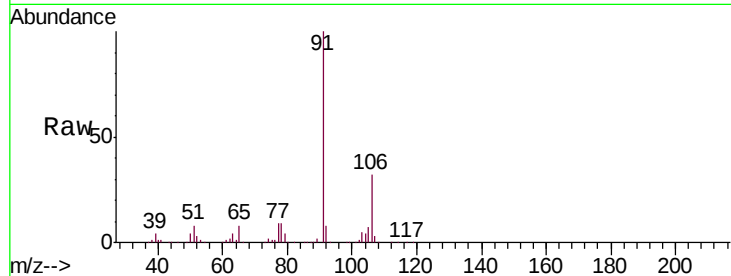
VSTD00506

Tgt Ion: 91 Resp: 284272

Ion Ratio Lower Upper

91 100

106 31.7 21.3 39.6



Abundance Ion 91.15 (90.85 to 91.85): VU032123.D (-2523) (-)

Ion 106.15 (105.85 to 106.85): VU032123.D (-2523) (-)

200000

150000

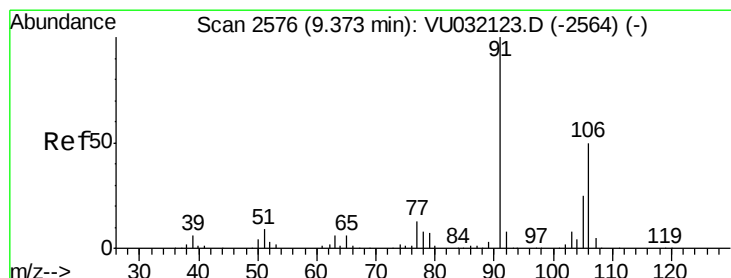
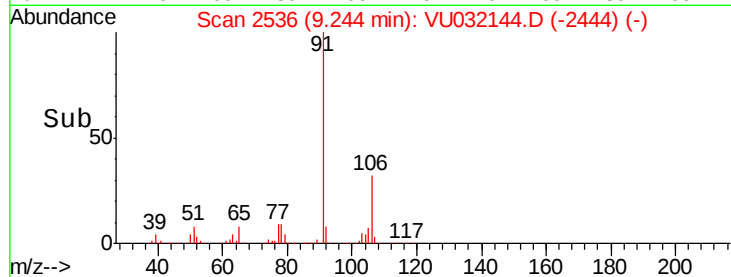
100000

50000

0

9.20 9.25 9.30

Time-->



#53

m,p-Xylene

Concen: 5.103 ug/L

RT: 9.37 min Scan# 2576

Delta R.T. 0.00 min

Lab File: VU032144.D

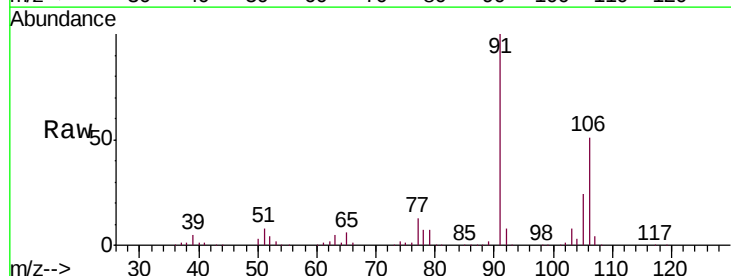
Acq: 18 May 2019 10:49

Tgt Ion: 106 Resp: 113598

Ion Ratio Lower Upper

106 100

91 197.1 143.1 265.9



Abundance Ion 106.15 (105.85 to 106.85): VU032123.D (-2564) (-)

Ion 91.15 (90.85 to 91.85): VU032123.D (-2564) (-)

150000

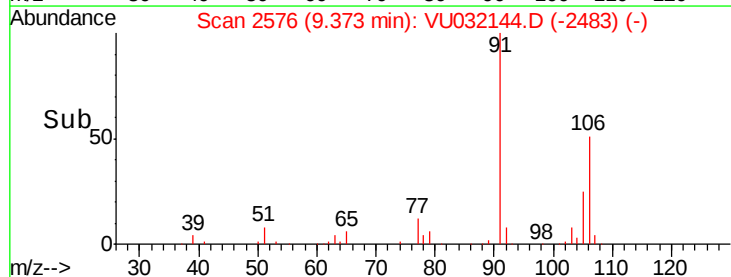
100000

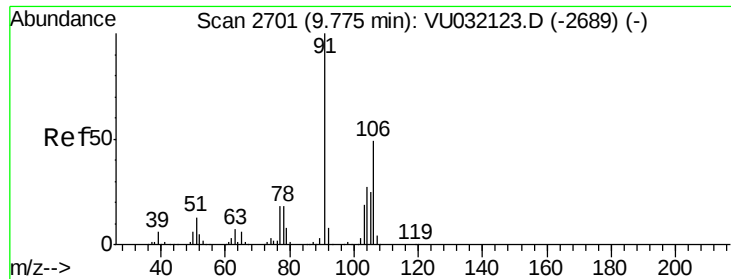
50000

0

9.30 9.35 9.40 9.45

Time-->

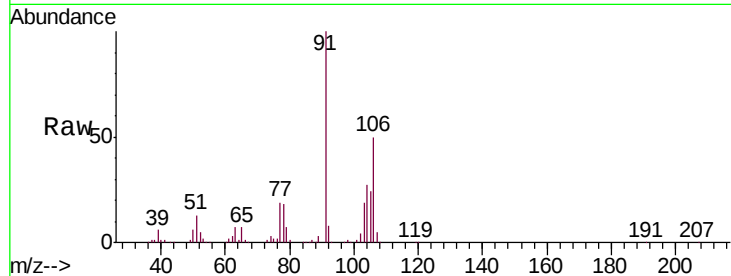




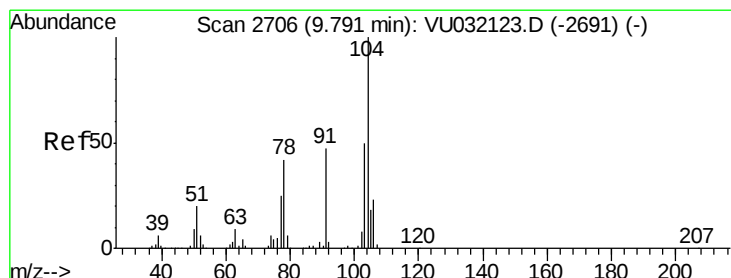
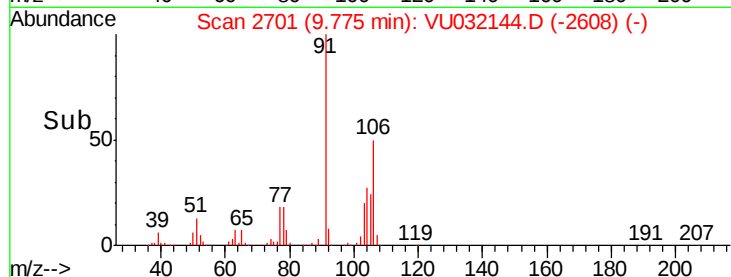
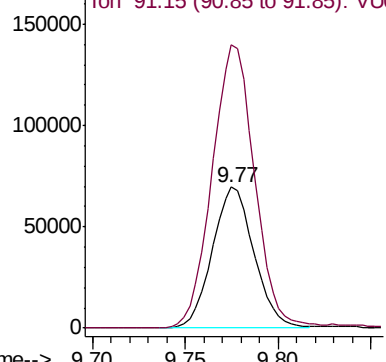
#54  
o-Xylene  
Concen: 5.077 ug/L  
RT: 9.77 min Scan# 2701  
Delta R.T. 0.00 min  
Lab File: VU032144.D  
Acq: 18 May 2019 10:49

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00506

Tgt Ion:106 Resp: 108945  
Ion Ratio Lower Upper  
106 100  
91 200.4 152.9 283.9

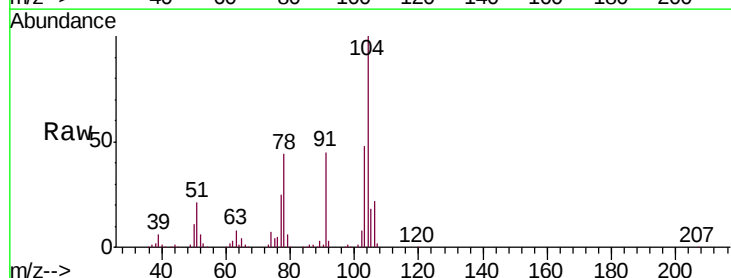


Abundance Ion 106.15 (105.85 to 106.85): V  
Ion 91.15 (90.85 to 91.85): VU0

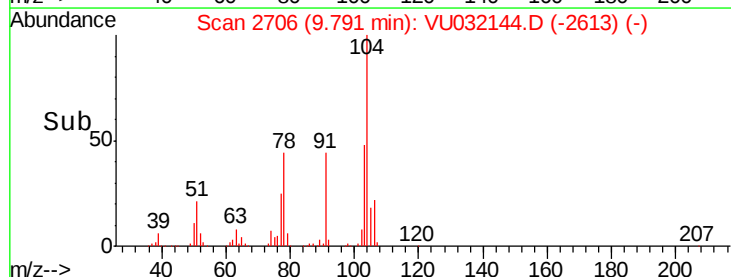
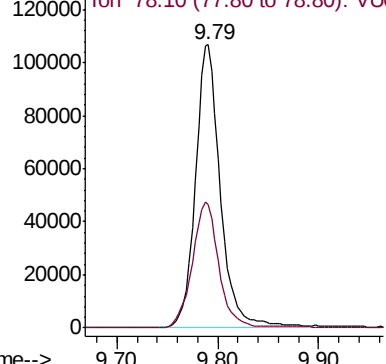


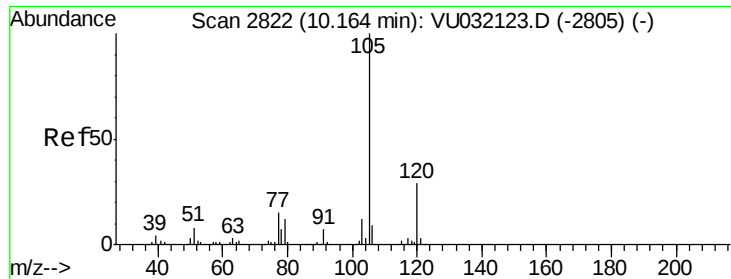
#55  
Styrene  
Concen: 5.080 ug/L  
RT: 9.79 min Scan# 2706  
Delta R.T. 0.00 min  
Lab File: VU032144.D  
Acq: 18 May 2019 10:49

Tgt Ion:104 Resp: 184845  
Ion Ratio Lower Upper  
104 100  
78 43.5 31.2 58.0



Abundance Ion 104.10 (103.80 to 104.80): V  
Ion 78.10 (77.80 to 78.80): VU0





#56

Isopropylbenzene

Concen: 4.871 ug/L

RT: 10.16 min Scan# 2822

Delta R.T. 0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00506

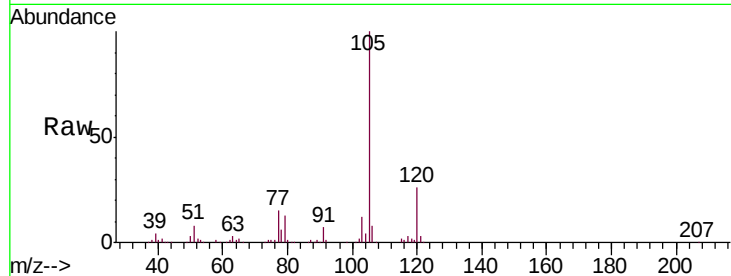
Tgt Ion: 105 Resp: 267147

Ion Ratio Lower Upper

105 100

120 26.2 20.7 31.1

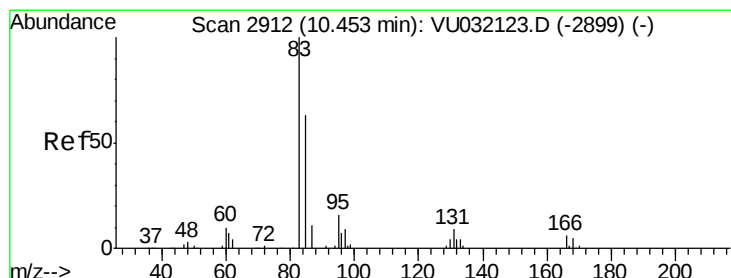
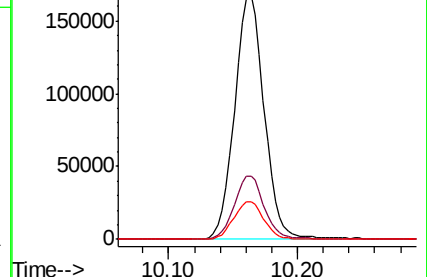
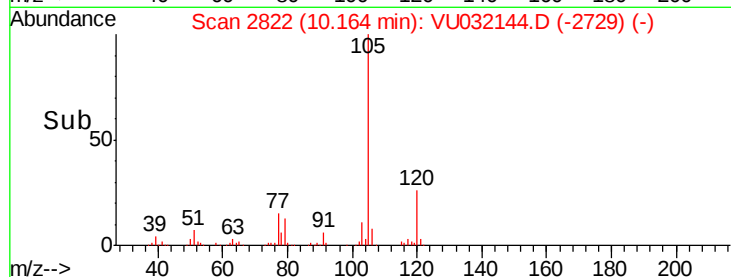
77 15.7 12.3 18.5



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.10 (119.80 to 120.80): V

Ion 77.10 (76.80 to 77.80): V



#58

1,1,2,2-Tetrachloroethane

Concen: 4.845 ug/L

RT: 10.45 min Scan# 2912

Delta R.T. 0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

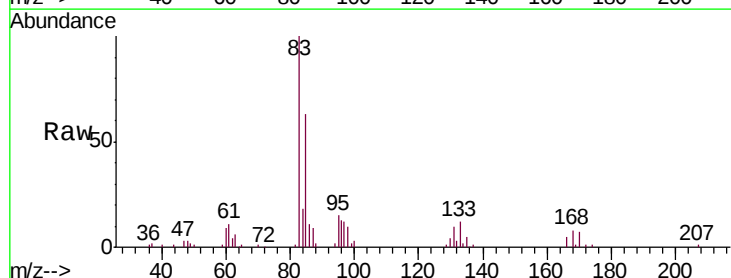
Tgt Ion: 83 Resp: 60898

Ion Ratio Lower Upper

83 100

85 63.3 44.3 82.3

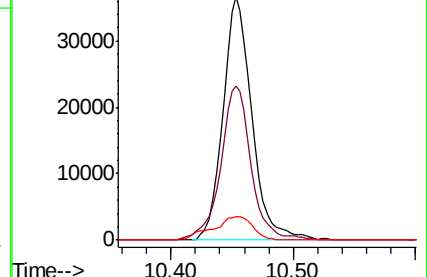
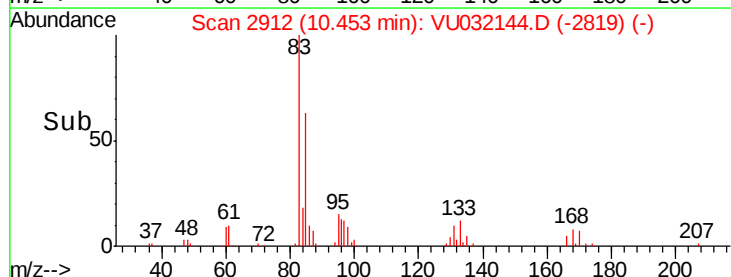
131 9.7 7.4 11.2

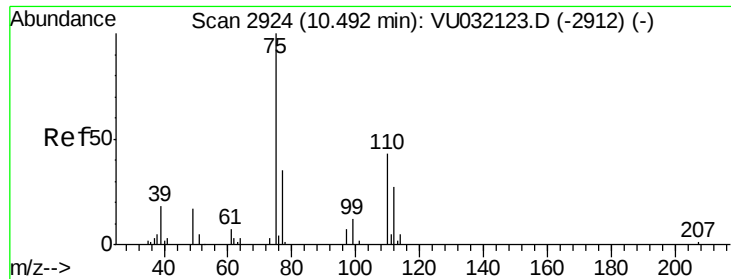


Abundance Ion 82.95 (82.65 to 83.65): V

Ion 85.00 (84.70 to 85.70): V

Ion 130.95 (130.65 to 131.65): V

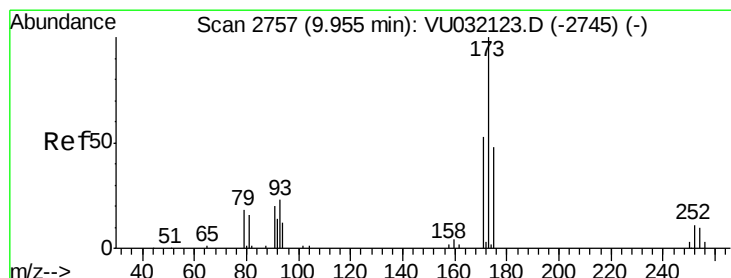
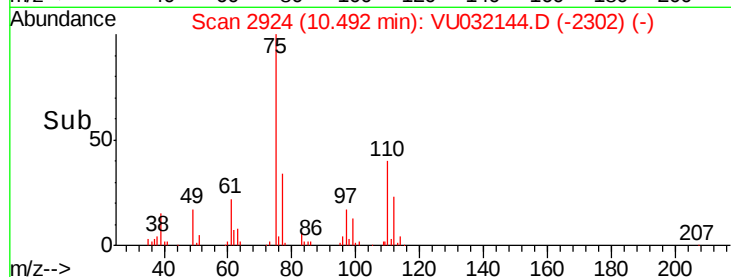
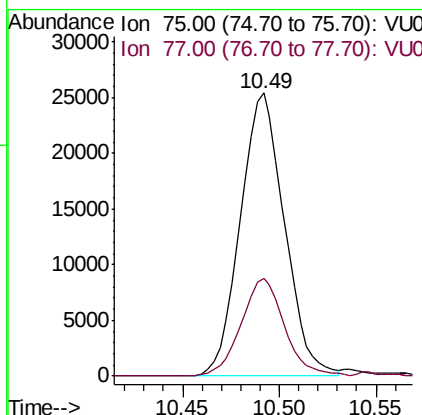
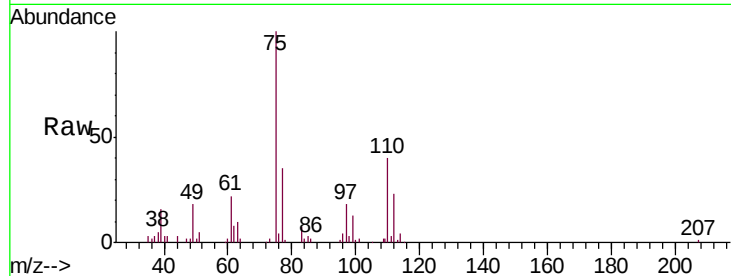




#59  
 1,2,3-Trichloropropane  
 Concen: 4.662 ug/L  
 RT: 10.49 min Scan# 2924  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

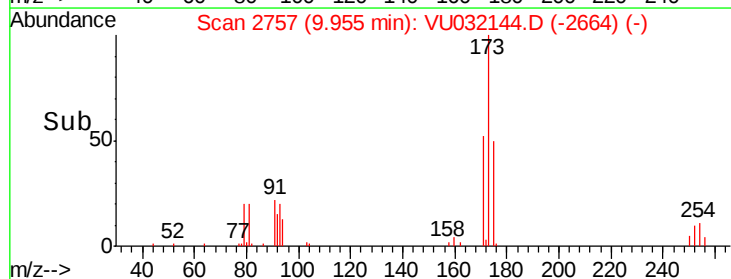
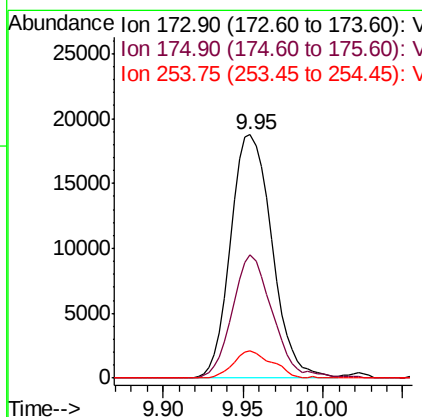
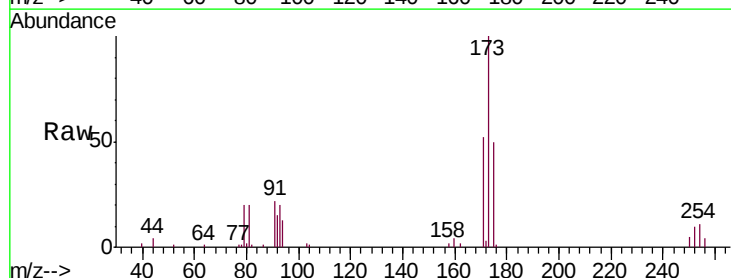
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00506

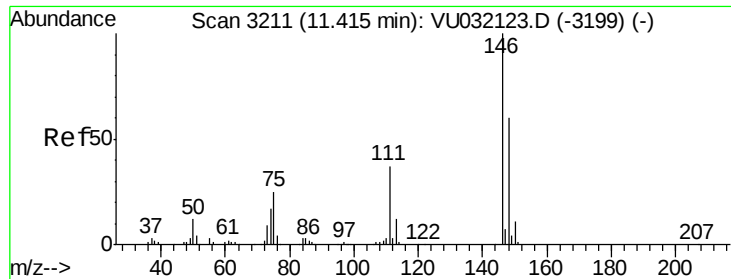
Tgt Ion: 75 Resp: 40381  
 Ion Ratio Lower Upper  
 75 100  
 77 34.1 26.2 39.2



#61  
 Bromoform  
 Concen: 5.220 ug/L  
 RT: 9.95 min Scan# 2757  
 Delta R.T. -0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Tgt Ion: 173 Resp: 33118  
 Ion Ratio Lower Upper  
 173 100  
 175 49.2 38.0 57.0  
 254 10.3 7.8 11.6

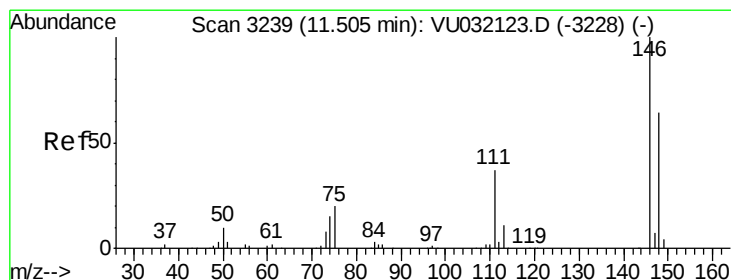
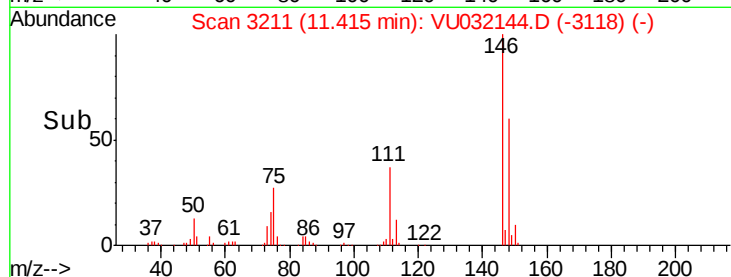
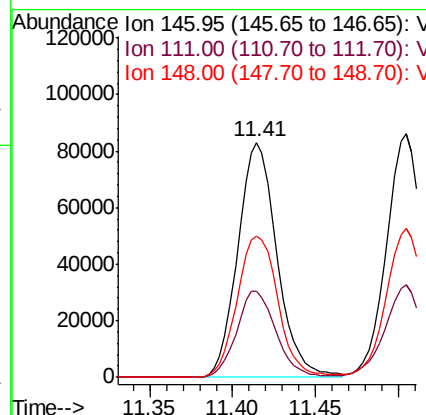
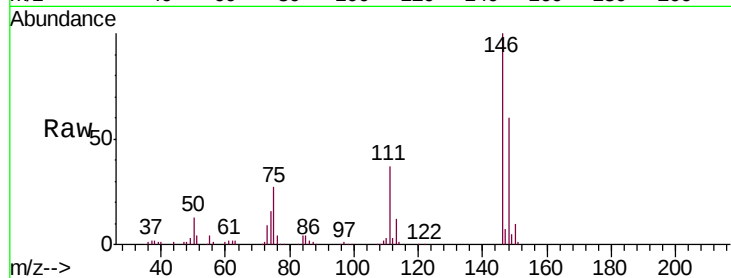




#62  
 1,3-Dichlorobenzene  
 Concen: 5.177 ug/L  
 RT: 11.41 min Scan# 3211  
 Delta R.T. -0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

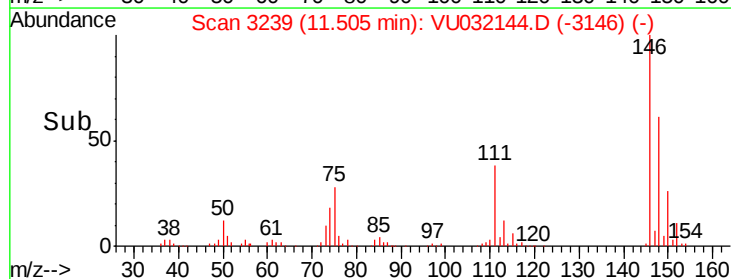
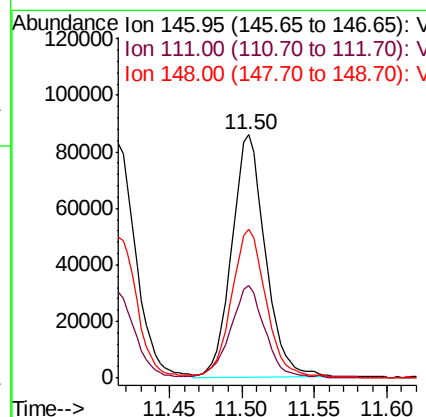
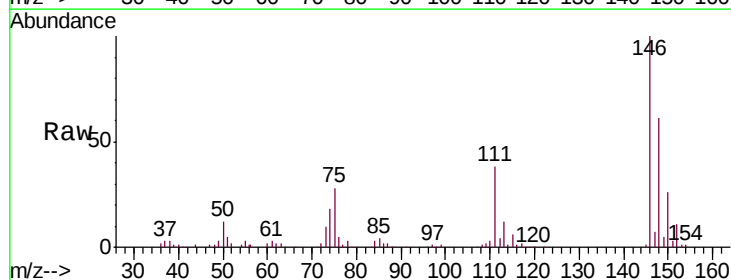
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00506

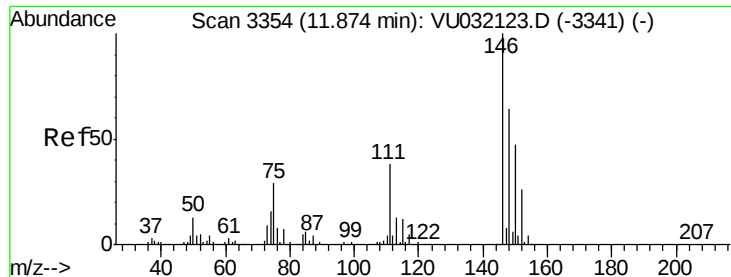
Tgt Ion:146 Resp: 136369  
 Ion Ratio Lower Upper  
 146 100  
 111 36.8 27.7 51.5  
 148 60.2 44.9 83.3



#63  
 1,4-Dichlorobenzene  
 Concen: 5.006 ug/L  
 RT: 11.50 min Scan# 3239  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Tgt Ion:146 Resp: 137231  
 Ion Ratio Lower Upper  
 146 100  
 111 38.0 27.1 50.3  
 148 60.9 45.4 84.4

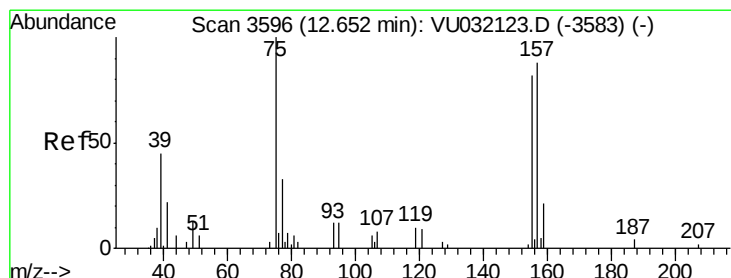
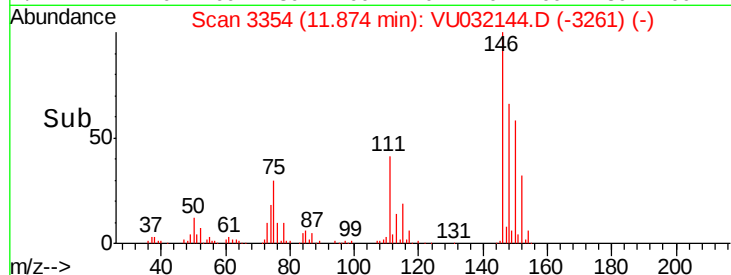
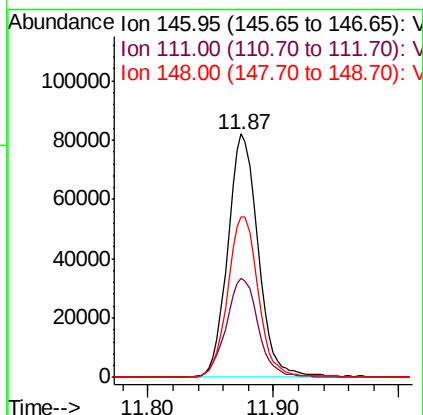
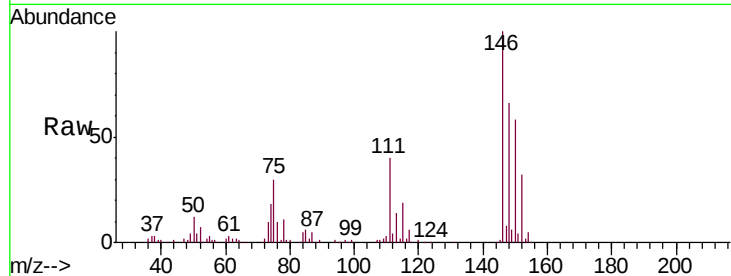




#65  
 1,2-Dichlorobenzene  
 Concen: 5.135 ug/L  
 RT: 11.87 min Scan# 3354  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

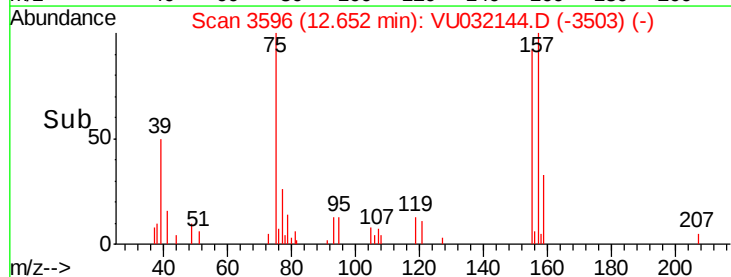
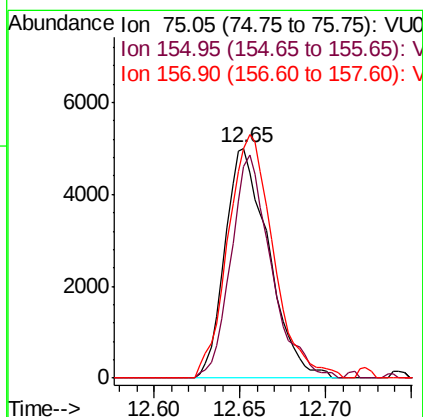
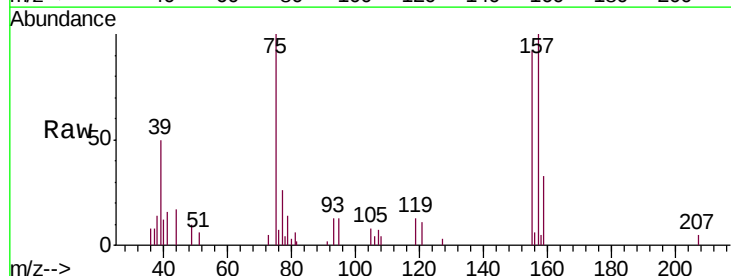
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00506

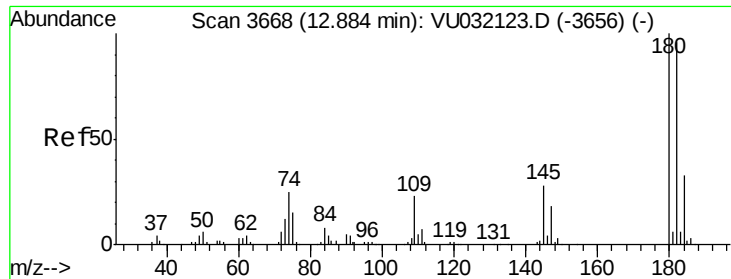
Tgt Ion: 146 Resp: 137233  
 Ion Ratio Lower Upper  
 146 100  
 111 40.4 33.5 50.3  
 148 66.0 50.2 75.4



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 5.064 ug/L  
 RT: 12.65 min Scan# 3596  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Tgt Ion: 75 Resp: 8832  
 Ion Ratio Lower Upper  
 75 100  
 155 92.0 65.0 97.6  
 157 100.1 84.3 126.5

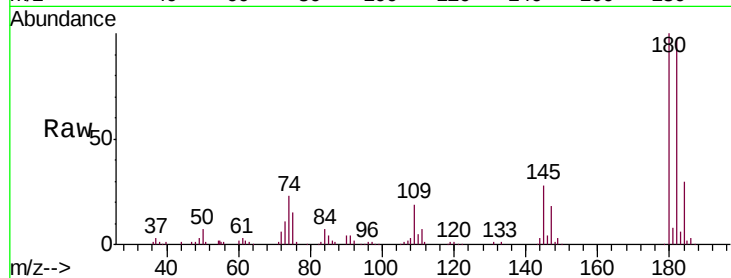




#67  
 1,3,5-Trichlorobenzene  
 Concen: 5.068 ug/L  
 RT: 12.88 min Scan# 3668  
 Delta R.T. 0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00506

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 97.9  | 77.3  | 115.9 |
| 184     | 30.8  | 24.5  | 36.7  |
| 145     | 28.2  | 23.2  | 34.8  |



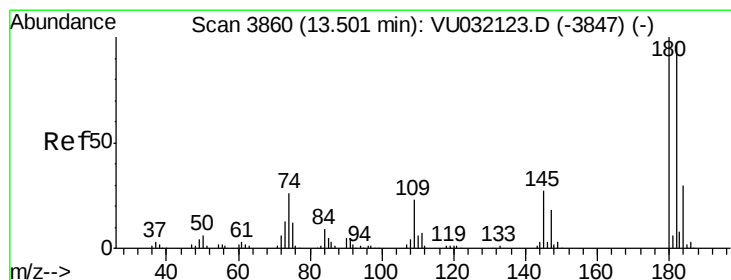
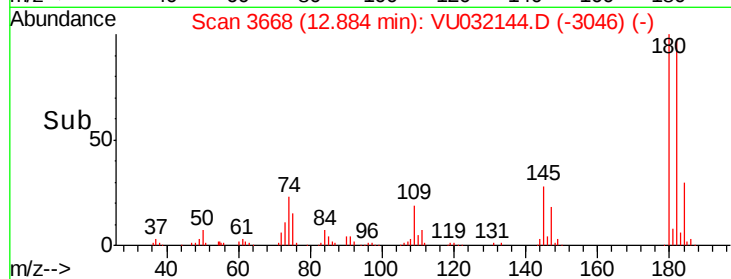
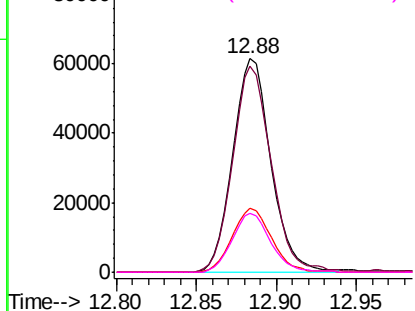
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

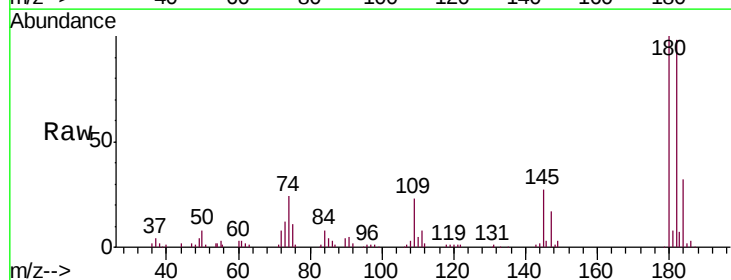
Ion 184.00 (183.70 to 184.70): V

Ion 145.00 (144.70 to 145.70): V



#68  
 1,2,4-trichlorobenzene  
 Concen: 5.497 ug/L  
 RT: 13.50 min Scan# 3860  
 Delta R.T. -0.00 min  
 Lab File: VU032144.D  
 Acq: 18 May 2019 10:49

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 98.9  | 78.4  | 117.6 |
| 145     | 28.0  | 23.5  | 35.3  |

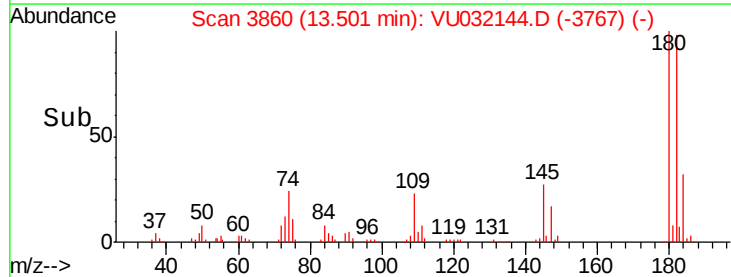
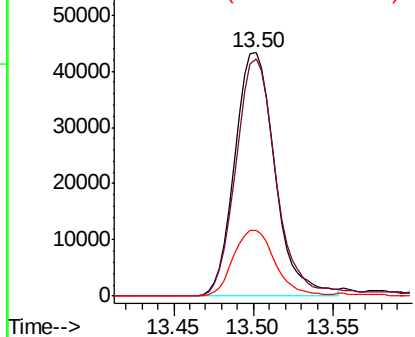


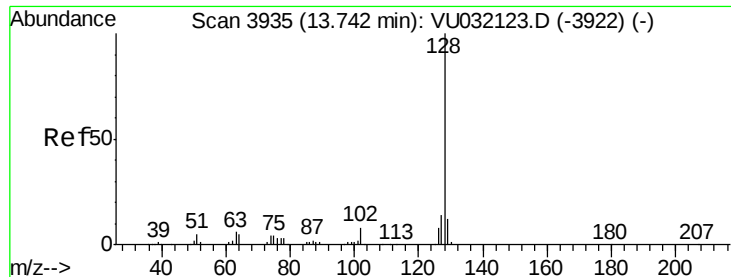
Abundance

Ion 179.90 (179.60 to 180.60): V

Ion 182.00 (181.70 to 182.70): V

Ion 144.95 (144.65 to 145.65): V





#69

Naphthalene

Concen: 4.888 ug/L

RT: 13.74 min Scan# 3935

Delta R.T. 0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00506

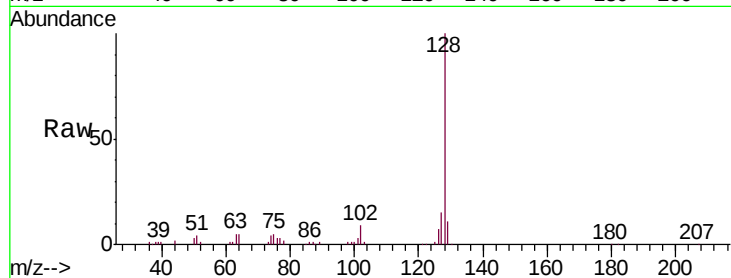
Tgt Ion:128 Resp: 103050

Ion Ratio Lower Upper

128 100

129 11.1 8.0 12.0

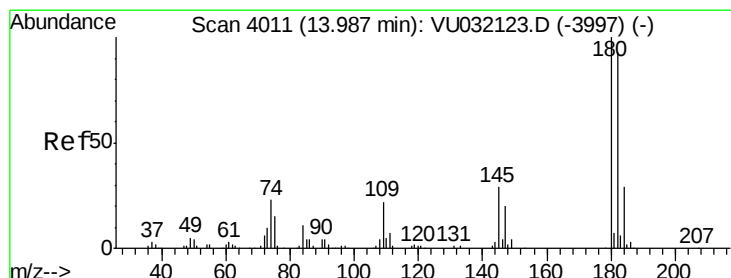
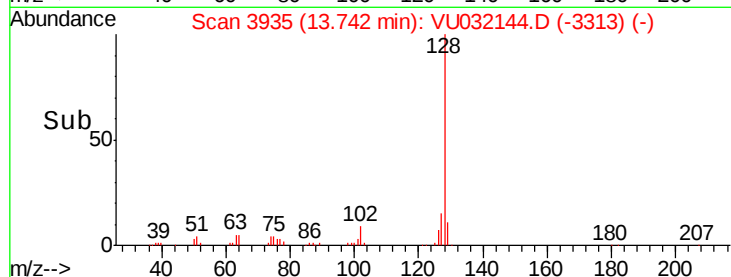
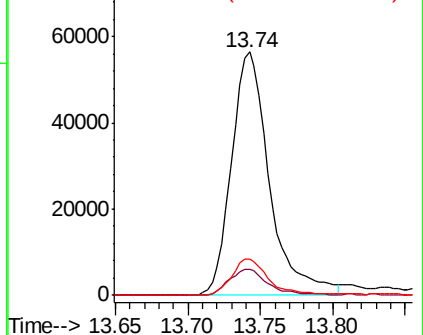
127 14.4 10.1 15.1



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V



#70

1,2,3-Trichlorobenzene

Concen: 5.712 ug/L

RT: 13.98 min Scan# 4010

Delta R.T. -0.00 min

Lab File: VU032144.D

Acq: 18 May 2019 10:49

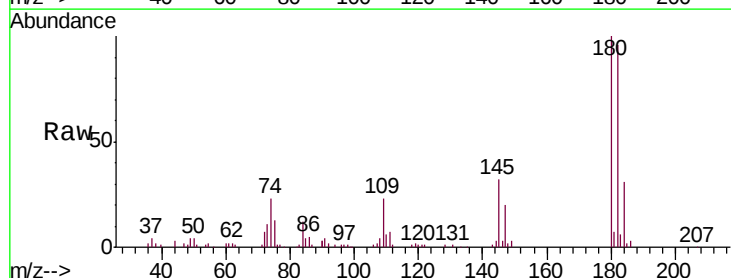
Tgt Ion:180 Resp: 78589

Ion Ratio Lower Upper

180 100

182 94.1 75.3 112.9

145 30.1 25.2 37.8



Abundance Ion 179.90 (179.60 to 180.60): V

Ion 181.90 (181.60 to 182.60): V

Ion 144.95 (144.65 to 145.65): V

