

Data File : VU033844.D  
Acq On : 20 Aug 2019 10:51  
Operator : JC/SP  
Sample : VSTD00501  
Misc : 25.0mL/MSVOA\_U/WATER  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00501

Quant Time: Aug 21 05:10:46 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR082019WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Wed Aug 21 05:04:59 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.87  | 114  | 182219   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.07  | 117  | 192693   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.47 | 152  | 105444   | 5.00 | ug/L  | 0.00     |

System Monitoring Compounds

|                                |       |     |        |       |      |      |
|--------------------------------|-------|-----|--------|-------|------|------|
| 4) Vinyl Chloride-d3           | 1.39  | 65  | 77043  | 4.96  | ug/L | 0.00 |
| 7) Chloroethane-d5             | 1.67  | 69  | 68199  | 4.92  | ug/L | 0.00 |
| 11) 1,1-Dichloroethene-d2      | 2.26  | 63  | 157814 | 5.07  | ug/L | 0.00 |
| 20) 2-Butanone-d5              | 4.16  | 46  | 157160 | 51.05 | ug/L | 0.00 |
| 24) Chloroform-d               | 4.62  | 84  | 132120 | 5.11  | ug/L | 0.00 |
| 26) 1,2-Dichloroethane-d4      | 5.29  | 65  | 68980  | 4.94  | ug/L | 0.00 |
| 32) Benzene-d6                 | 5.32  | 84  | 248470 | 5.15  | ug/L | 0.00 |
| 36) 1,2-Dichloropropane-d6     | 6.31  | 67  | 77217  | 4.91  | ug/L | 0.00 |
| 41) Toluene-d8                 | 7.55  | 98  | 238759 | 5.31  | ug/L | 0.00 |
| 43) trans-1,3-Dichloropropene- | 7.83  | 79  | 32336  | 5.35  | ug/L | 0.00 |
| 46) 2-Hexanone-d5              | 8.30  | 63  | 115239 | 53.46 | ug/L | 0.00 |
| 57) 1,1,2,2-Tetrachloroethane- | 10.41 | 84  | 68594  | 5.06  | ug/L | 0.00 |
| 64) 1,2-Dichlorobenzene-d4     | 11.84 | 152 | 91342  | 4.99  | ug/L | 0.00 |

Target Compounds

|                                |      |     |        |             | Qvalue |
|--------------------------------|------|-----|--------|-------------|--------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 82432  | 4.992 ug/L  | 100    |
| 3) Chloromethane               | 1.32 | 50  | 80757  | 5.037 ug/L  | 100    |
| 5) Vinyl chloride              | 1.39 | 62  | 88421  | 4.902 ug/L  | 100    |
| 6) Bromomethane                | 1.62 | 94  | 55067  | 4.662 ug/L  | 100    |
| 8) Chloroethane                | 1.69 | 64  | 53189  | 5.024 ug/L  | 100    |
| 9) Trichlorofluoromethane      | 1.87 | 101 | 114831 | 5.008 ug/L  | 100    |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.27 | 101 | 65985  | 4.971 ug/L  | 100    |
| 12) 1,1-Dichloroethene         | 2.27 | 96  | 62522  | 4.961 ug/L  | 100    |
| 13) Acetone                    | 2.31 | 43  | 117053 | 49.735 ug/L | 100    |
| 14) Carbon disulfide           | 2.46 | 76  | 215482 | 4.975 ug/L  | 100    |
| 15) Methyl Acetate             | 2.60 | 43  | 30432  | 5.161 ug/L  | 100    |
| 16) Methylene chloride         | 2.68 | 84  | 71246  | 4.817 ug/L  | 100    |
| 17) Methyl tert-butyl Ether    | 2.98 | 73  | 156734 | 4.957 ug/L  | 100    |
| 18) trans-1,2-Dichloroethene   | 2.96 | 96  | 68348  | 4.922 ug/L  | 100    |
| 19) 1,1-Dichloroethane         | 3.42 | 63  | 101865 | 5.058 ug/L  | 100    |
| 21) 2-Butanone                 | 4.25 | 43  | 133120 | 52.748 ug/L | 100    |
| 22) cis-1,2-Dichloroethene     | 4.20 | 96  | 56029  | 5.130 ug/L  | 100    |
| 23) Bromochloromethane         | 4.52 | 128 | 26893  | 5.093 ug/L  | 100    |
| 25) Chloroform                 | 4.65 | 83  | 106473 | 4.677 ug/L  | 100    |
| 27) 1,2-Dichloroethane         | 5.38 | 62  | 65116  | 5.037 ug/L  | 100    |
| 29) 1,1,1-Trichloroethane      | 4.89 | 97  | 86313  | 4.942 ug/L  | 100    |
| 30) Cyclohexane                | 4.97 | 56  | 71424  | 4.842 ug/L  | 100    |
| 31) Carbon tetrachloride       | 5.11 | 117 | 78924  | 5.012 ug/L  | 100    |
| 33) Benzene                    | 5.36 | 78  | 215319 | 5.092 ug/L  | 100    |
| 34) Trichloroethene            | 6.16 | 95  | 55163  | 4.863 ug/L  | 100    |
| 35) Methylcyclohexane          | 6.39 | 83  | 78320  | 4.941 ug/L  | 100    |
| 37) 1,2-Dichloropropane        | 6.41 | 63  | 56965  | 5.091 ug/L  | 100    |
| 38) Bromodichloromethane       | 6.74 | 83  | 71210  | 4.942 ug/L  | 100    |
| 39) cis-1,3-Dichloropropene    | 7.25 | 75  | 74726  | 5.054 ug/L  | 100    |
| 40) 4-Methyl-2-pentanone       | 7.45 | 43  | 310767 | 52.445 ug/L | 100    |

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Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00501

Quant Time: Aug 21 05:10:46 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR082019WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Wed Aug 21 05:04:59 2019  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 42) Toluene                    | 7.62  | 91   | 234635   | 5.417  | ug/L  | 100      |
| 44) trans-1,3-Dichloropropene  | 7.87  | 75   | 63907    | 5.169  | ug/L  | 100      |
| 45) 1,1,2-Trichloroethane      | 8.05  | 97   | 41313    | 5.159  | ug/L  | 100      |
| 47) Tetrachloroethene          | 8.21  | 164  | 46420    | 4.988  | ug/L  | 100      |
| 48) 2-Hexanone                 | 8.35  | 43   | 232125   | 53.612 | ug/L  | 100      |
| 49) Dibromochloromethane       | 8.46  | 129  | 50639    | 5.065  | ug/L  | 100      |
| 50) 1,2-Dibromoethane          | 8.57  | 107  | 39499    | 5.161  | ug/L  | 100      |
| 51) Chlorobenzene              | 9.10  | 112  | 143878   | 5.023  | ug/L  | 100      |
| 52) Ethylbenzene               | 9.23  | 91   | 222836   | 5.140  | ug/L  | 100      |
| 53) m,p-Xylene                 | 9.36  | 106  | 84877    | 5.215  | ug/L  | 100      |
| 54) o-Xylene                   | 9.76  | 106  | 80664    | 5.169  | ug/L  | 100      |
| 55) Styrene                    | 9.77  | 104  | 141720   | 5.240  | ug/L  | 100      |
| 56) Isopropylbenzene           | 10.15 | 105  | 212007   | 5.250  | ug/L  | 100      |
| 58) 1,1,2,2-Tetrachloroethane  | 10.44 | 83   | 51549    | 5.128  | ug/L  | 100      |
| 59) 1,2,3-Trichloropropane     | 10.48 | 75   | 37367    | 5.096  | ug/L  | 100      |
| 61) Bromoform                  | 9.94  | 173  | 28721    | 4.931  | ug/L  | 100      |
| 62) 1,3-Dichlorobenzene        | 11.40 | 146  | 117007   | 4.995  | ug/L  | 100      |
| 63) 1,4-Dichlorobenzene        | 11.49 | 146  | 118022   | 4.900  | ug/L  | 100      |
| 65) 1,2-Dichlorobenzene        | 11.86 | 146  | 112998   | 4.985  | ug/L  | 100      |
| 66) 1,2-Dibromo-3-chloropropan | 12.64 | 75   | 8004     | 4.991  | ug/L  | 100      |
| 67) 1,3,5-Trichlorobenzene     | 12.87 | 180  | 86600    | 4.871  | ug/L  | 100      |
| 68) 1,2,4-trichlorobenzene     | 13.49 | 180  | 64601    | 4.992  | ug/L  | 100      |
| 69) Naphthalene                | 13.73 | 128  | 89605    | 5.060  | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene     | 13.97 | 180  | 62964    | 5.179  | ug/L  | 100      |

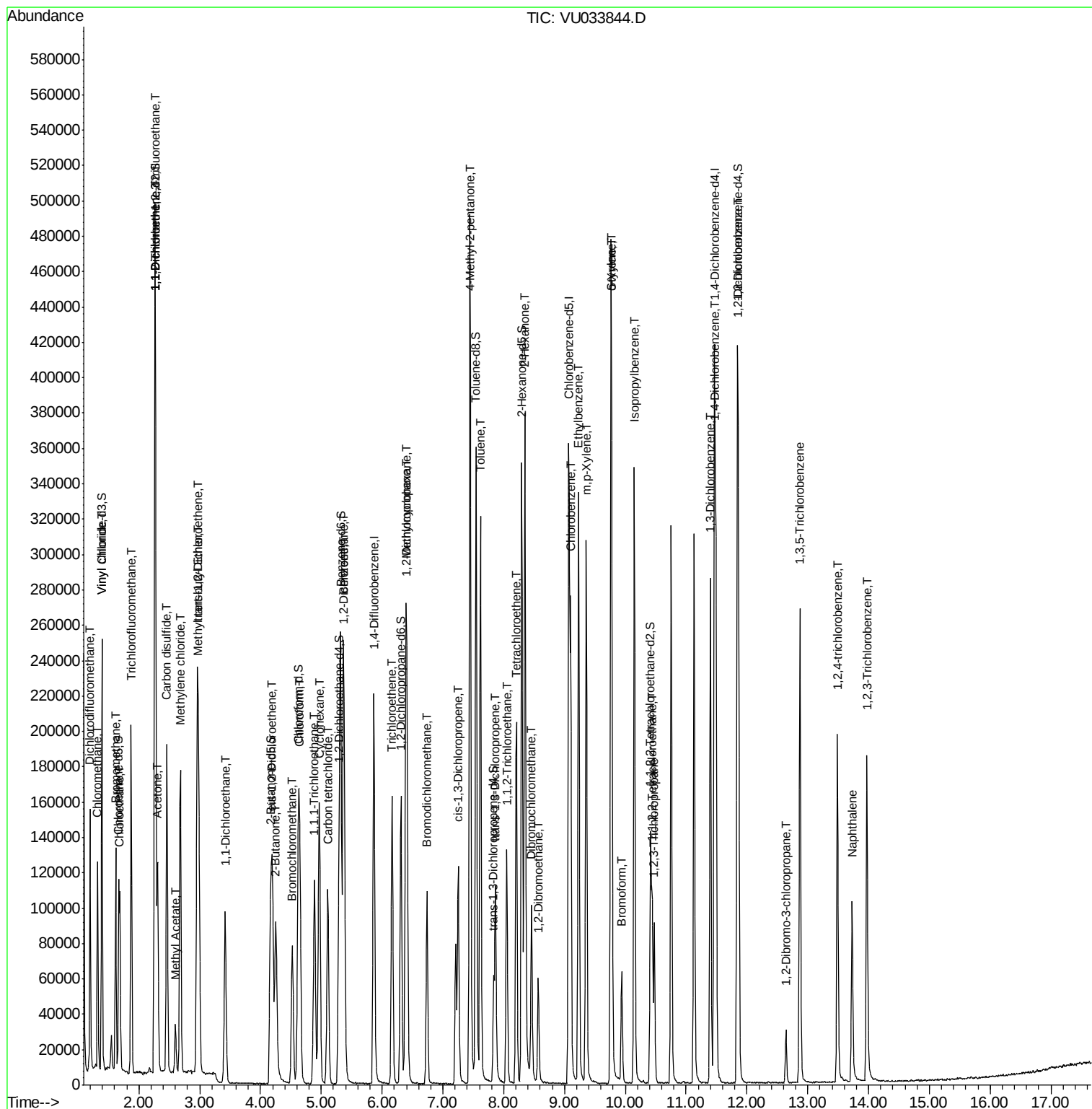
(#) = qualifier out of range (m) = manual integration (+) = signals summed

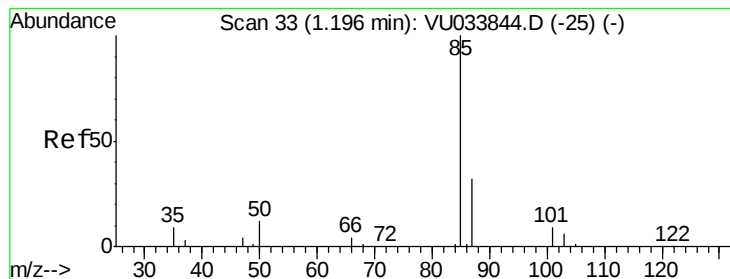
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MSVOA\_U  
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VSTD00501

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#2

Dichlorodifluoromethane

Concen: 4.992 ug/L

RT: 1.20 min Scan# 33

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

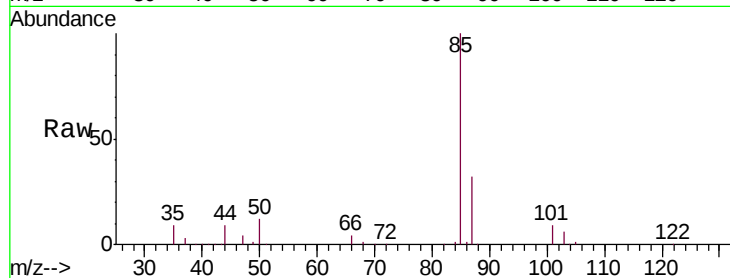
VSTD00501

Tgt Ion: 85 Resp: 82432

Ion Ratio Lower Upper

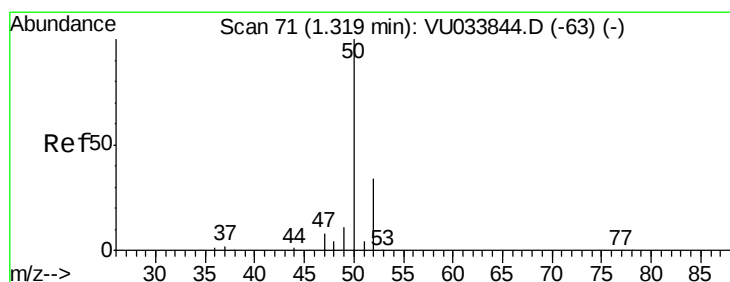
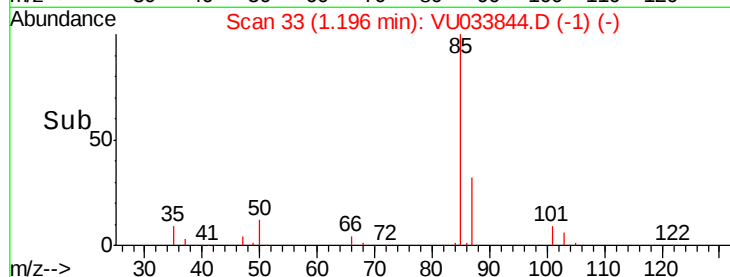
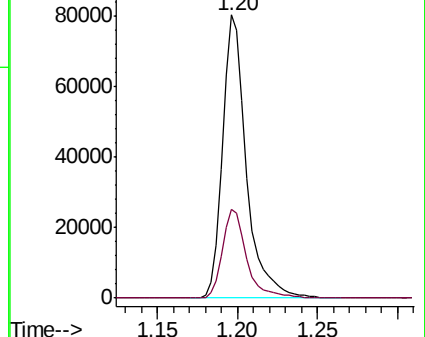
85 100

87 31.9 25.5 38.3



Abundance Ion 85.00 (84.70 to 85.70): VU033844.D (-25) (-)

Ion 87.00 (86.70 to 87.70): VU033844.D (-25) (-)



#3

Chloromethane

Concen: 5.037 ug/L

RT: 1.32 min Scan# 71

Delta R.T. 0.00 min

Lab File: VU033844.D

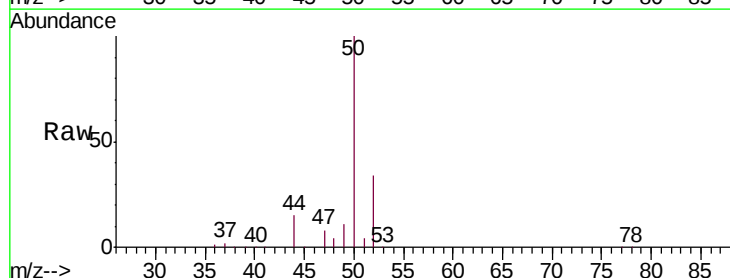
Acq: 20 Aug 2019 10:51

Tgt Ion: 50 Resp: 80757

Ion Ratio Lower Upper

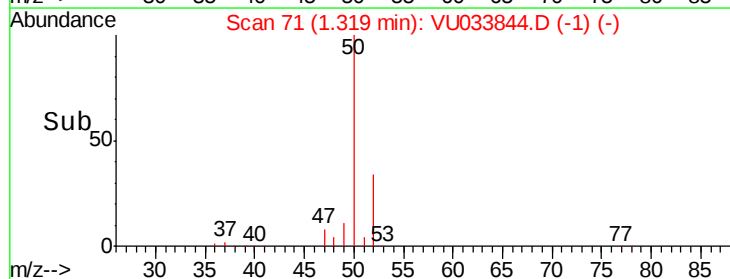
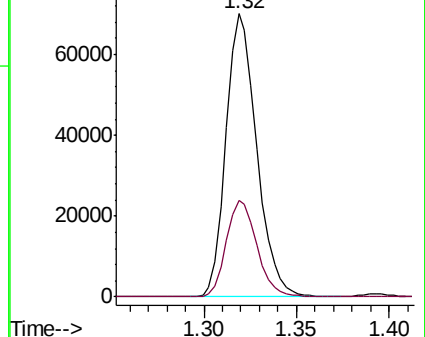
50 100

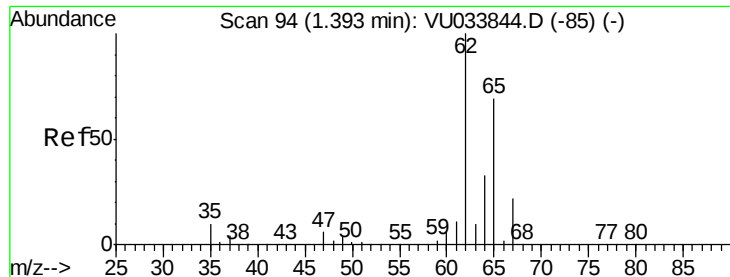
52 34.0 23.8 44.2



Abundance Ion 50.05 (49.75 to 50.75): VU033844.D (-63) (-)

Ion 52.05 (51.75 to 52.75): VU033844.D (-63) (-)





#5

Vinyl chloride

Concen: 4.902 ug/L

RT: 1.39 min Scan# 94

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

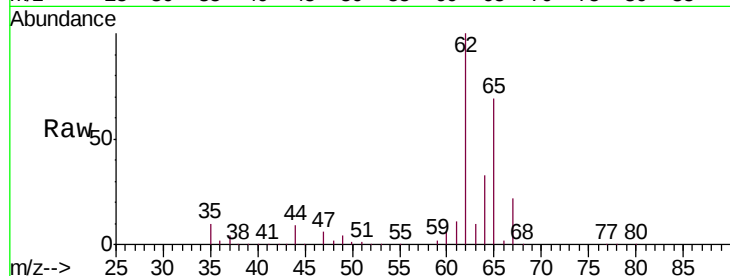
VSTD00501

Tgt Ion: 62 Resp: 88421

Ion Ratio Lower Upper

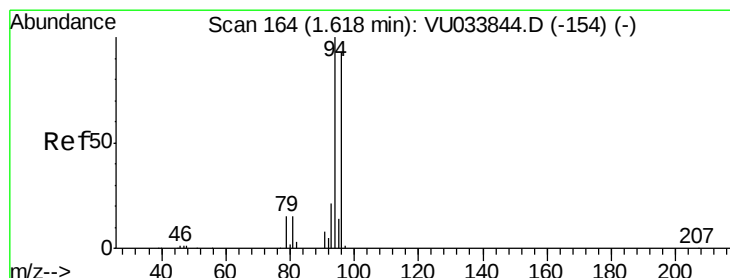
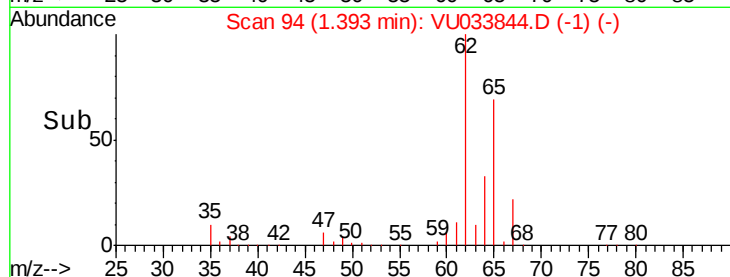
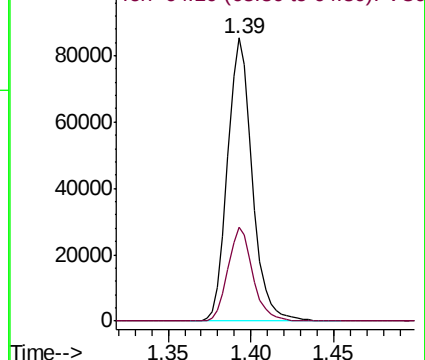
62 100

64 33.0 23.1 42.9



Abundance Ion 62.00 (61.70 to 62.70): VU033844.D (-85) (-)

Ion 64.10 (63.80 to 64.80): VU033844.D (-85) (-)



#6

Bromomethane

Concen: 4.662 ug/L

RT: 1.62 min Scan# 164

Delta R.T. 0.00 min

Lab File: VU033844.D

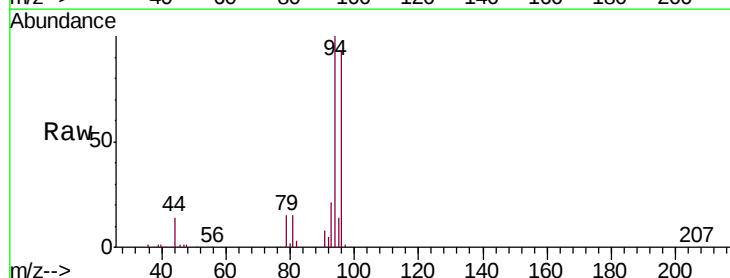
Acq: 20 Aug 2019 10:51

Tgt Ion: 94 Resp: 55067

Ion Ratio Lower Upper

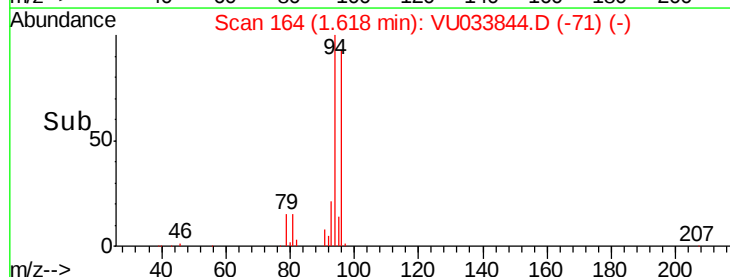
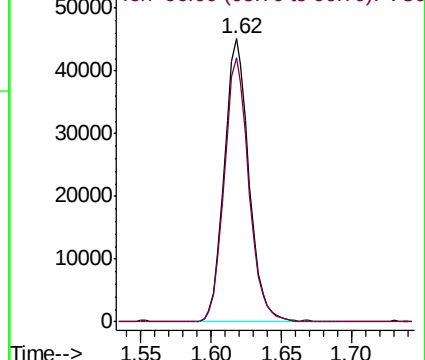
94 100

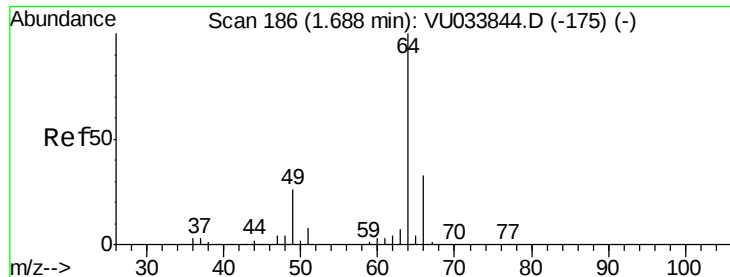
96 93.1 65.2 121.0



Abundance Ion 94.00 (93.70 to 94.70): VU033844.D (-154) (-)

Ion 96.00 (95.70 to 96.70): VU033844.D (-154) (-)





#8

Chloroethane

Concen: 5.024 ug/L

RT: 1.69 min Scan# 186

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

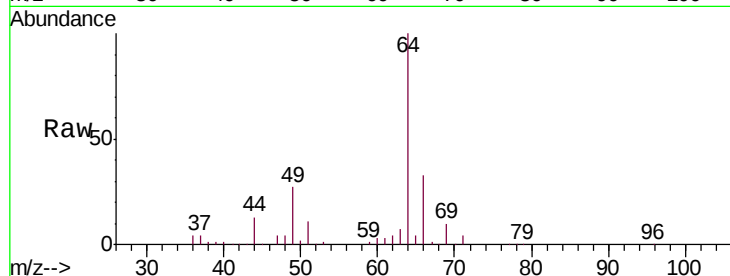
VSTD00501

Tgt Ion: 64 Resp: 53189

Ion Ratio Lower Upper

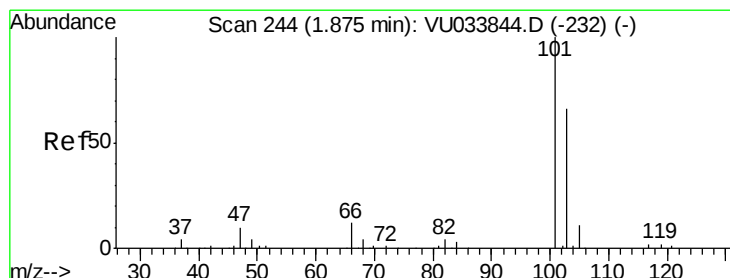
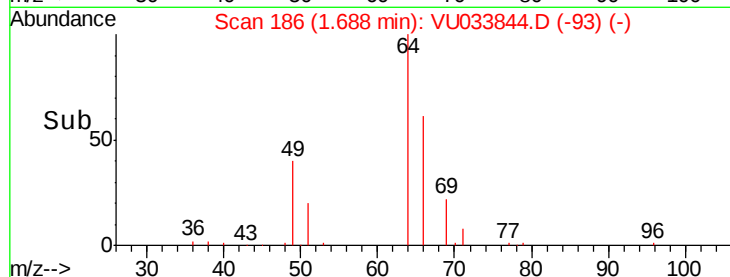
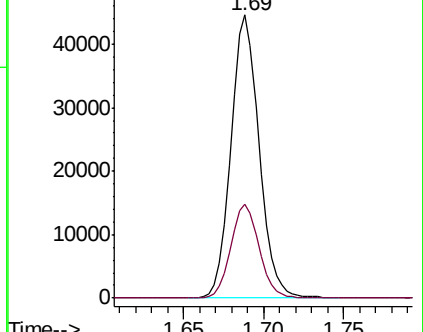
64 100

66 33.3 23.3 43.3



Abundance Ion 64.10 (63.80 to 64.80): VU033844.D (-175) (-)

Ion 66.05 (65.75 to 66.75): VU033844.D (-175) (-)



#9

Trichlorofluoromethane

Concen: 5.008 ug/L

RT: 1.87 min Scan# 244

Delta R.T. 0.00 min

Lab File: VU033844.D

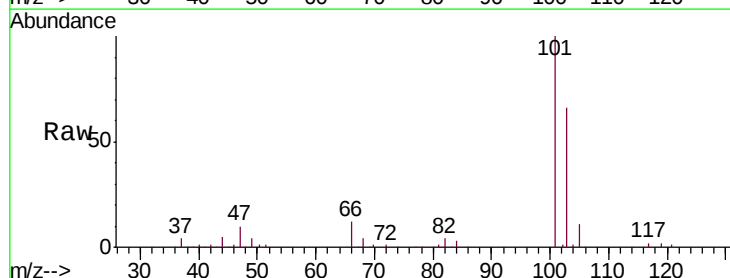
Acq: 20 Aug 2019 10:51

Tgt Ion: 101 Resp: 114831

Ion Ratio Lower Upper

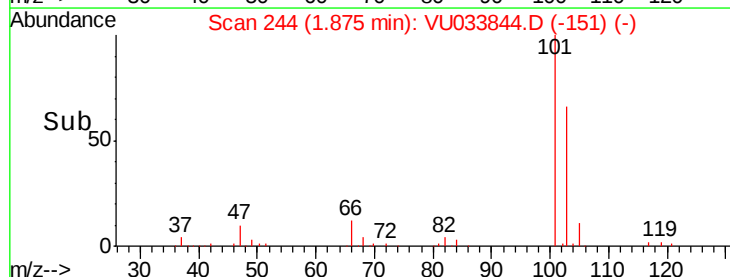
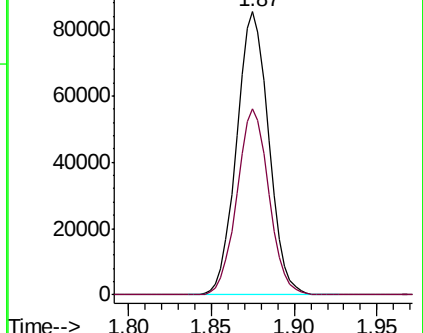
101 100

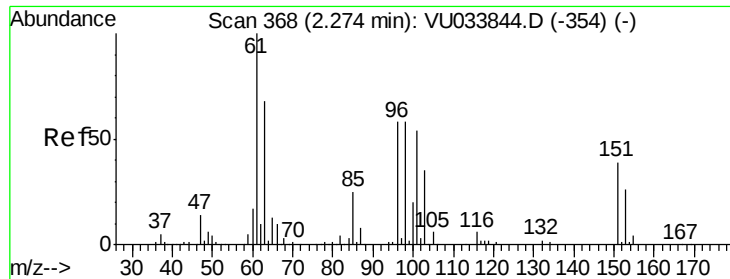
103 65.2 52.2 78.2



Abundance Ion 101.00 (100.70 to 101.70): VU033844.D (-232) (-)

Ion 103.00 (102.70 to 103.70): VU033844.D (-232) (-)





#10

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

Concen: 4.971 ug/L

RT: 2.27 min Scan# 368

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00501

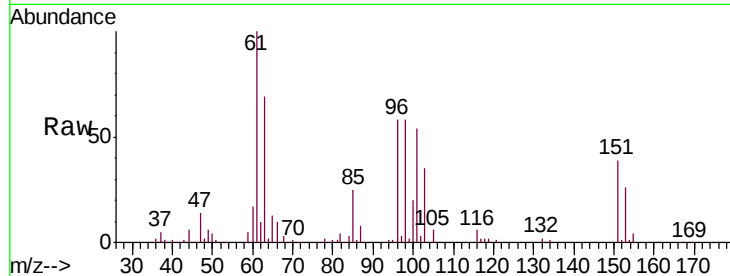
Tgt Ion: 101 Resp: 65985

Ion Ratio Lower Upper

101 100

85 44.6 35.7 53.5

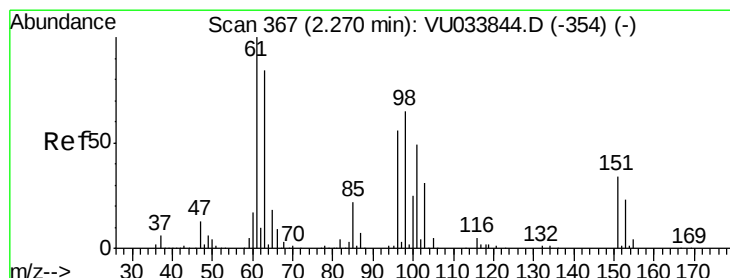
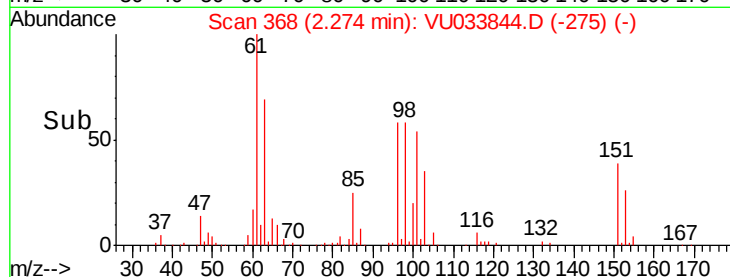
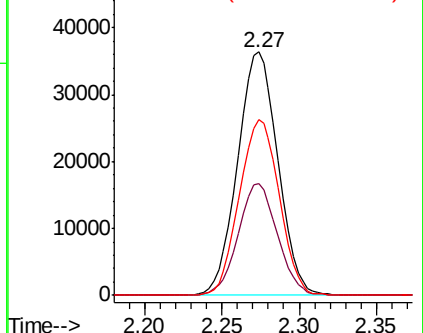
151 71.5 57.2 85.8



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: 4.961 ug/L

RT: 2.27 min Scan# 367

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

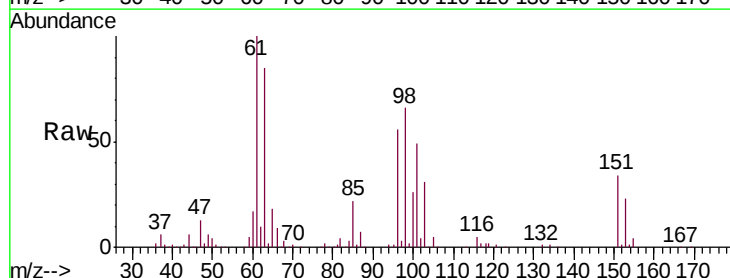
Tgt Ion: 96 Resp: 62522

Ion Ratio Lower Upper

96 100

61 177.6 124.3 230.9

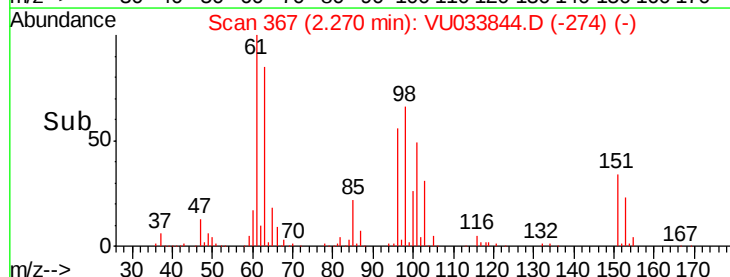
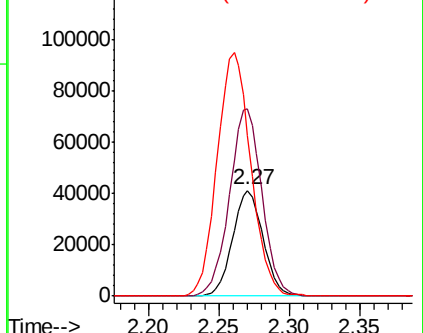
63 151.8 106.3 197.3

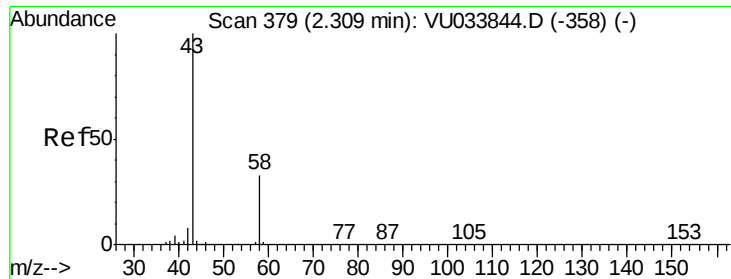


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.05 (60.75 to 61.75): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 49.735 ug/L

RT: 2.31 min Scan# 379

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

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MSVOA\_U

ClientSampleId :

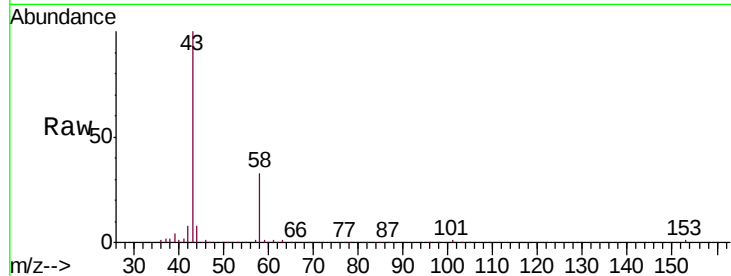
VSTD00501

Tgt Ion: 43 Resp: 117053

Ion Ratio Lower Upper

43 100

58 32.7 0.0 65.4



Abundance Ion 43.05 (42.75 to 43.75): VU033844.D (-358) (-)

Ion 58.05 (57.75 to 58.75): VU033844.D (-358) (-)

2.31

80000

60000

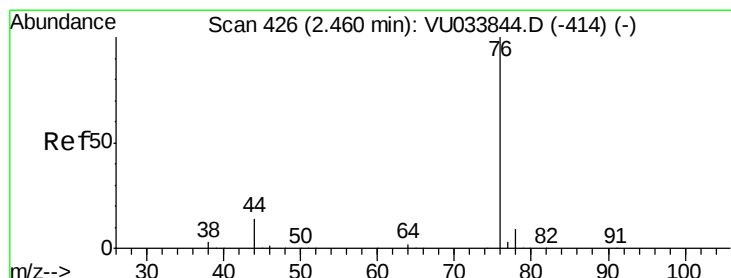
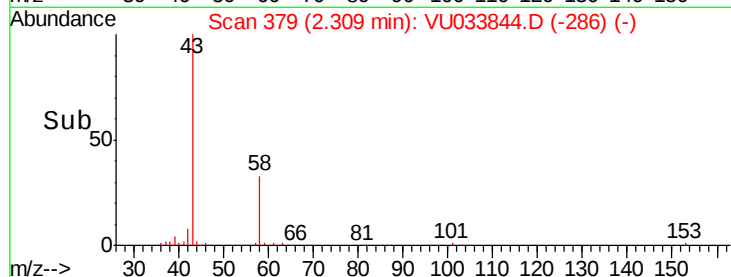
40000

20000

0

Time-->

2.20 2.30 2.40



#14

Carbon disulfide

Concen: 4.975 ug/L

RT: 2.46 min Scan# 426

Delta R.T. 0.00 min

Lab File: VU033844.D

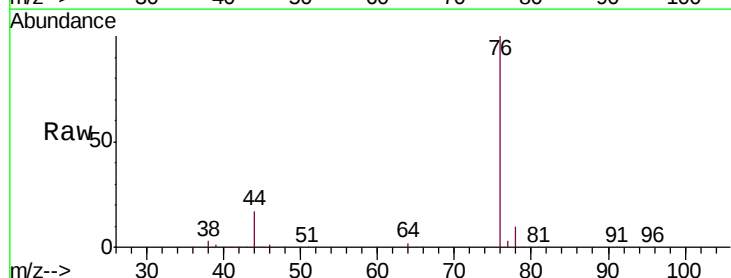
Acq: 20 Aug 2019 10:51

Tgt Ion: 76 Resp: 215482

Ion Ratio Lower Upper

76 100

78 9.6 7.7 11.5



Abundance Ion 76.05 (75.75 to 76.75): VU033844.D (-414) (-)

Ion 78.00 (77.70 to 78.70): VU033844.D (-414) (-)

2.46

150000

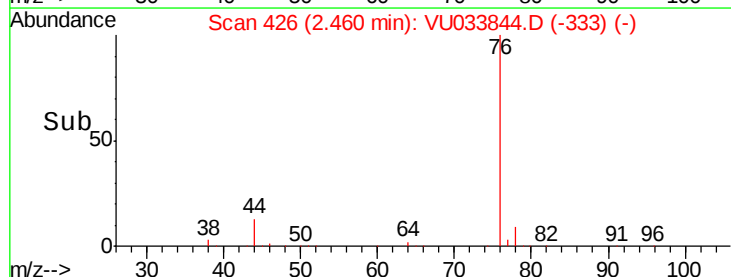
100000

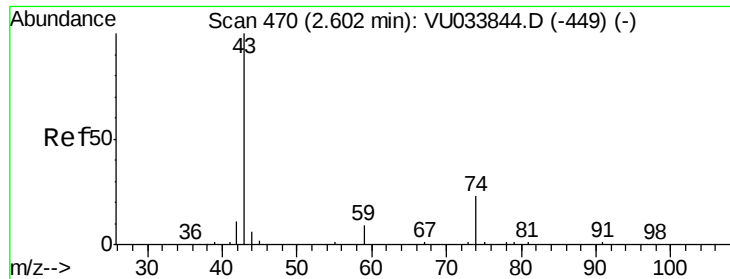
50000

0

Time-->

2.40 2.45 2.50 2.55

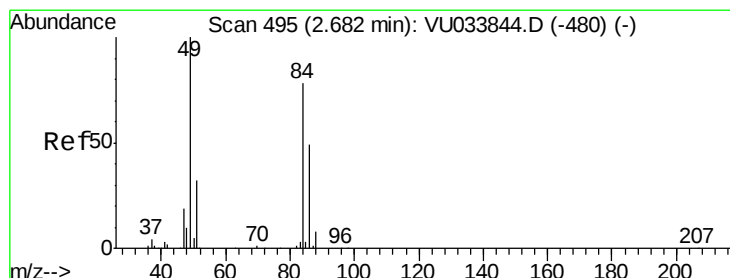
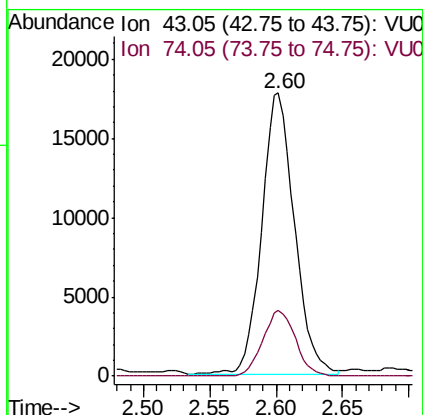
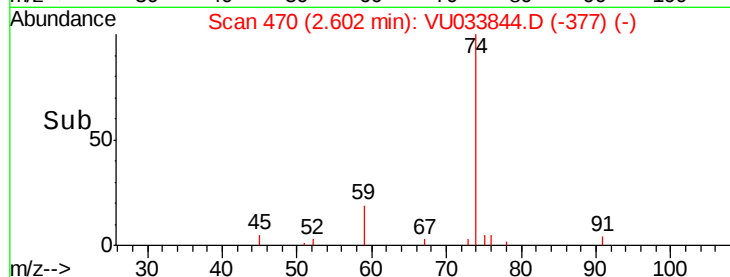
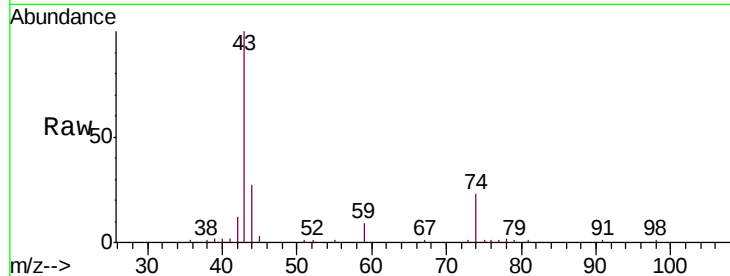




#15  
Methyl Acetate  
Concen: 5.161 ug/L  
RT: 2.60 min Scan# 470  
Delta R.T. 0.00 min  
Lab File: VU033844.D  
Acq: 20 Aug 2019 10:51

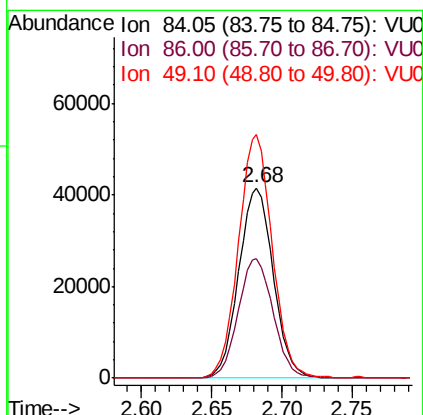
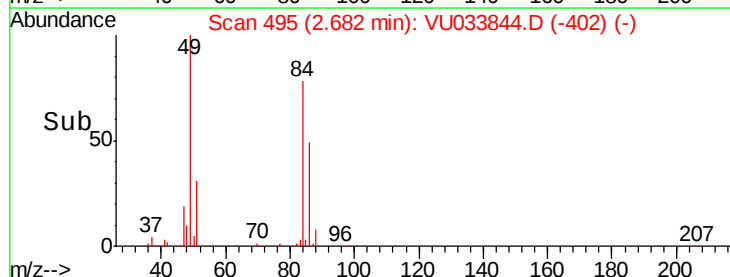
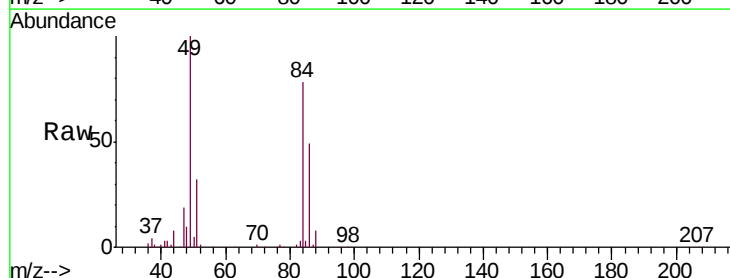
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00501

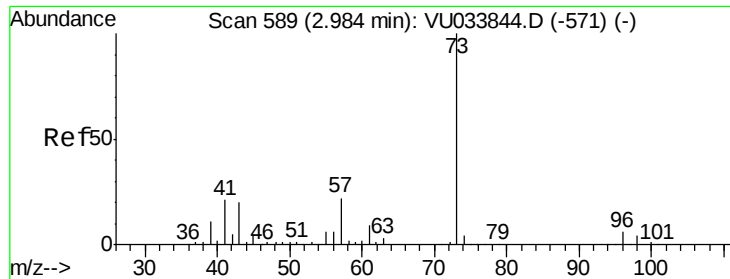
Tgt Ion: 43 Resp: 30432  
Ion Ratio Lower Upper  
43 100  
74 23.3 18.6 28.0



#16  
Methylene chloride  
Concen: 4.817 ug/L  
RT: 2.68 min Scan# 495  
Delta R.T. 0.00 min  
Lab File: VU033844.D  
Acq: 20 Aug 2019 10:51

Tgt Ion: 84 Resp: 71246  
Ion Ratio Lower Upper  
84 100  
86 62.5 43.8 81.3  
49 127.9 89.5 166.3

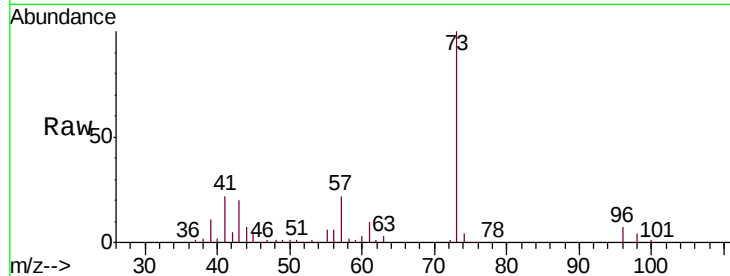




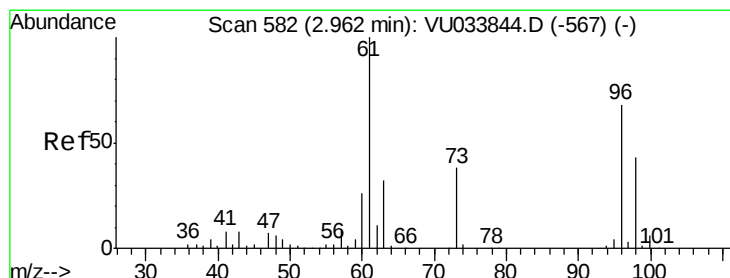
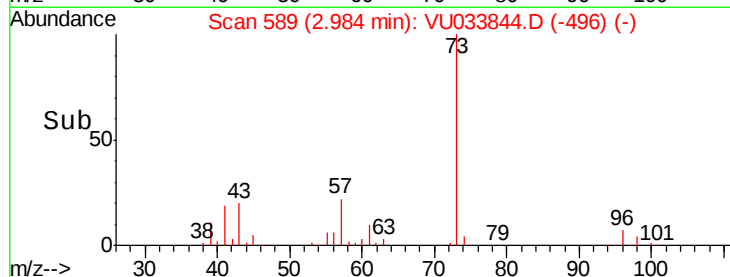
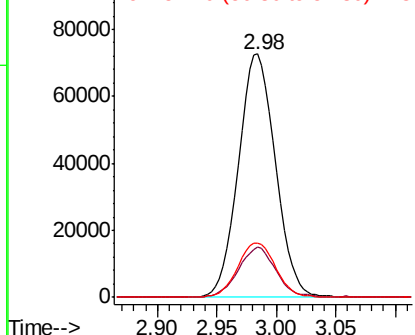
#17  
Methyl tert-butyl Ether  
Concen: 4.957 ug/L  
RT: 2.98 min Scan# 589  
Delta R.T. 0.00 min  
Lab File: VU033844.D  
Acq: 20 Aug 2019 10:51

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00501

Tgt Ion: 73 Resp: 156734  
Ion Ratio Lower Upper  
73 100  
43 19.9 15.9 23.9  
57 22.9 18.3 27.5

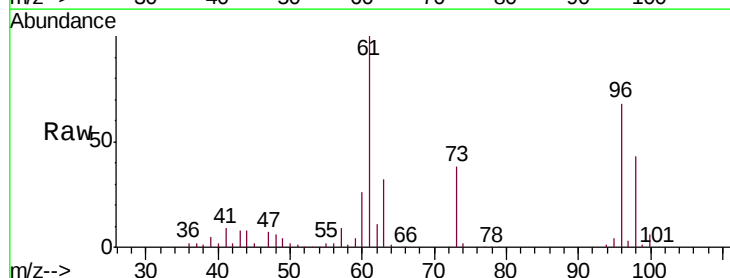


Abundance Ion 73.10 (72.80 to 73.80): VU0  
Ion 43.05 (42.75 to 43.75): VU0  
Ion 57.10 (56.80 to 57.80): VU0

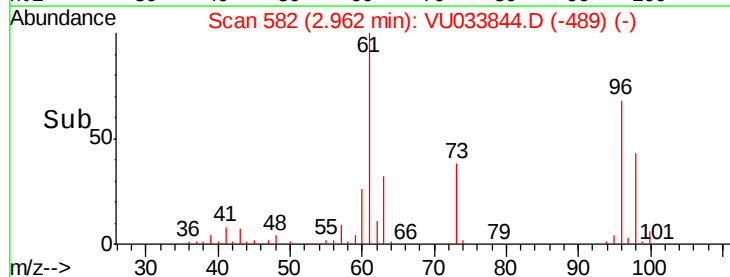
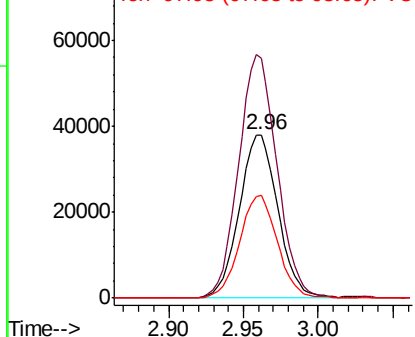


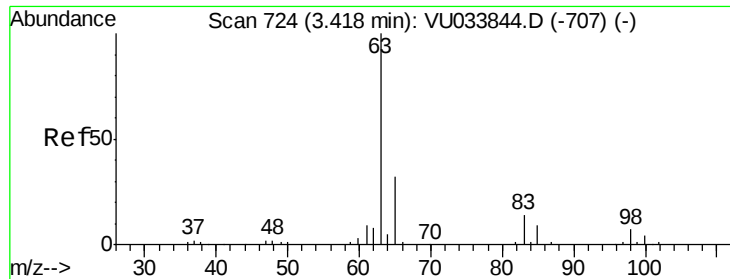
#18  
trans-1,2-Dichloroethene  
Concen: 4.922 ug/L  
RT: 2.96 min Scan# 582  
Delta R.T. 0.00 min  
Lab File: VU033844.D  
Acq: 20 Aug 2019 10:51

Tgt Ion: 96 Resp: 68348  
Ion Ratio Lower Upper  
96 100  
61 147.0 102.9 191.1  
98 62.6 43.8 81.4



Abundance Ion 96.00 (95.70 to 96.70): VU0  
Ion 61.05 (60.75 to 61.75): VU0  
Ion 97.95 (97.65 to 98.65): VU0

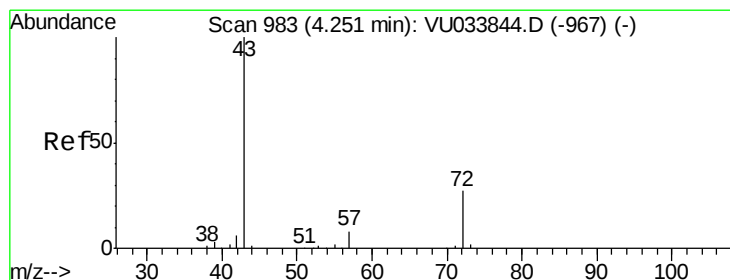
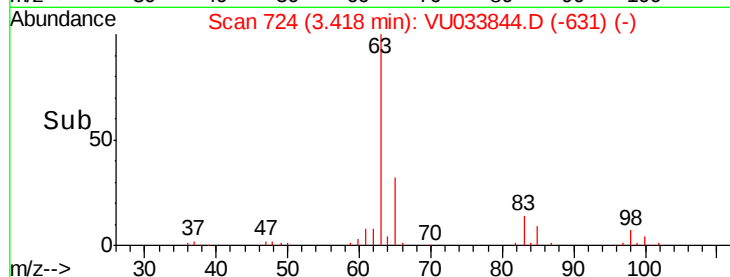
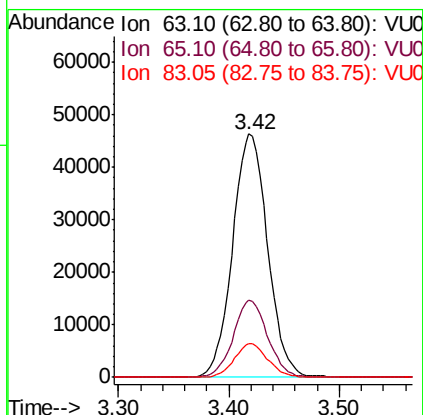
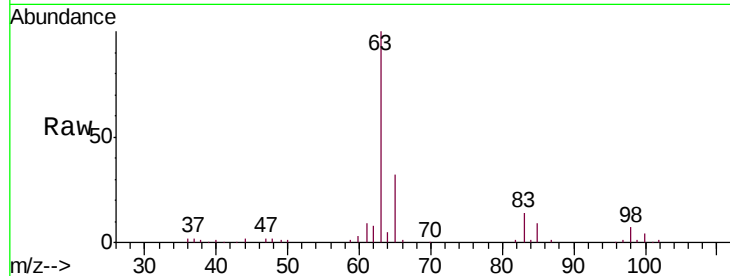




#19  
 1,1-Dichloroethane  
 Concen: 5.058 ug/L  
 RT: 3.42 min Scan# 724  
 Delta R.T. 0.00 min  
 Lab File: VU033844.D  
 Acq: 20 Aug 2019 10:51

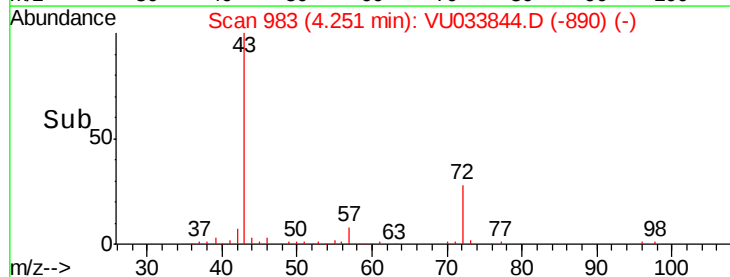
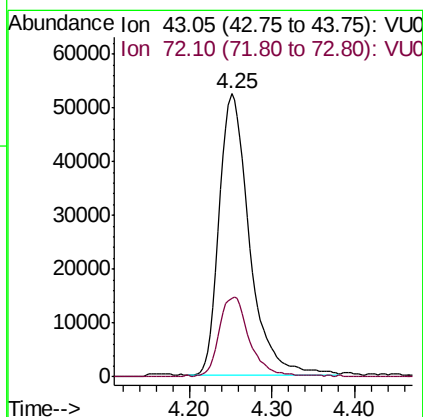
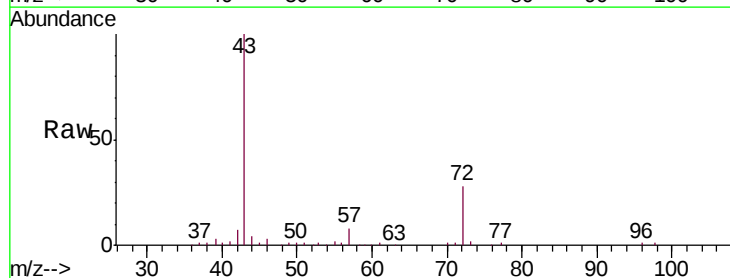
Instrument :  
 MSVOA\_U  
 ClientSampled :  
 VSTD00501

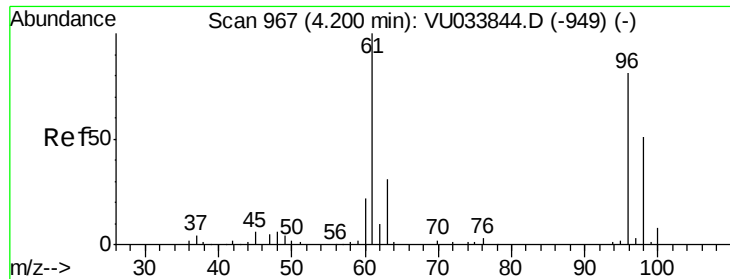
Tgt Ion: 63 Resp: 101865  
 Ion Ratio Lower Upper  
 63 100  
 65 31.7 22.2 41.2  
 83 14.0 9.8 18.2



#21  
 2-Butanone  
 Concen: 52.748 ug/L  
 RT: 4.25 min Scan# 983  
 Delta R.T. 0.00 min  
 Lab File: VU033844.D  
 Acq: 20 Aug 2019 10:51

Tgt Ion: 43 Resp: 133120  
 Ion Ratio Lower Upper  
 43 100  
 72 27.3 13.7 41.0



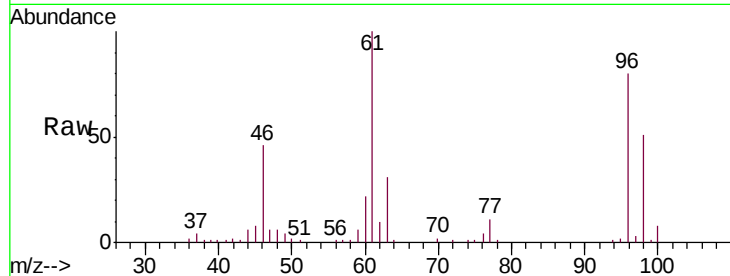


#22

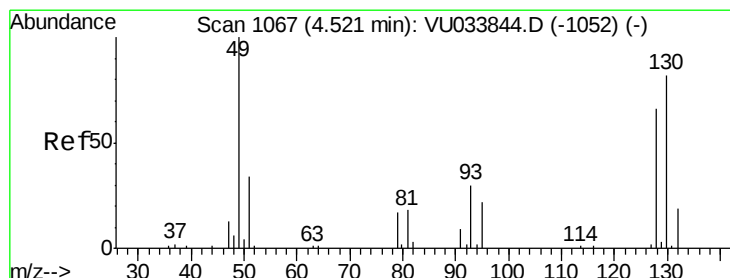
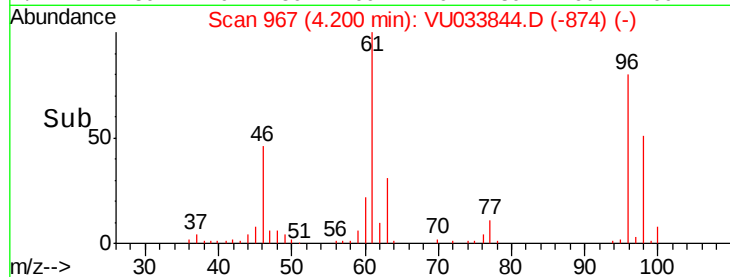
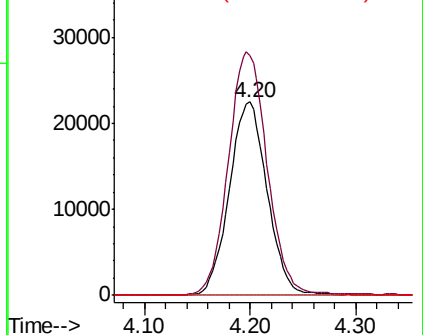
cis-1,2-Dichloroethene  
Concen: 5.130 ug/L  
RT: 4.20 min Scan# 967  
Delta R.T. 0.00 min  
Lab File: VU033844.D  
Acq: 20 Aug 2019 10:51

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00501

Tgt Ion: 96 Resp: 56029  
Ion Ratio Lower Upper  
96 100  
61 124.5 87.2 161.9  
68 0.0 0.0 0.0



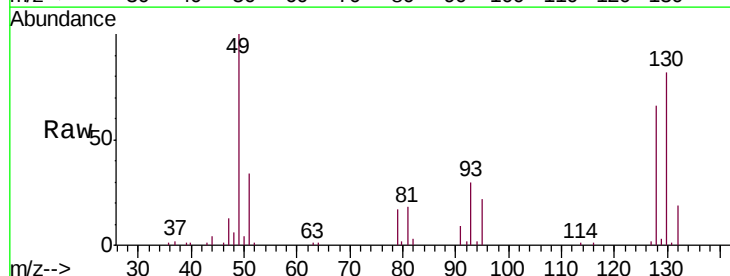
Abundance Ion 96.00 (95.70 to 96.70): VU0  
Ion 61.05 (60.75 to 61.75): VU0  
Ion 68.15 (67.85 to 68.85): VU0



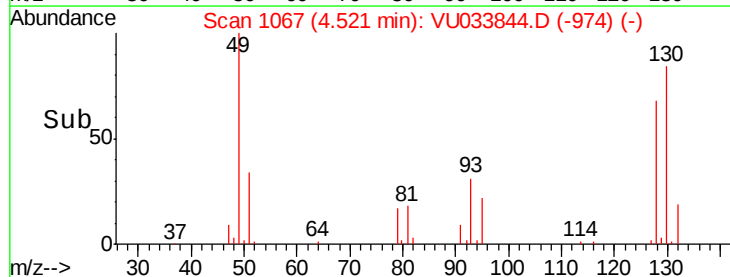
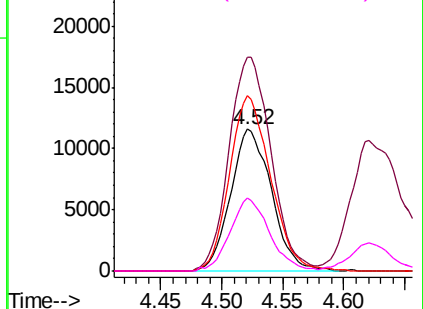
#23

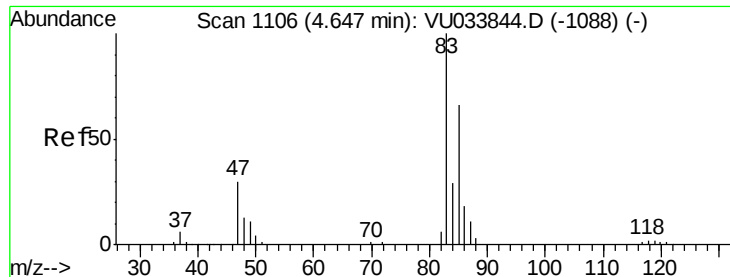
Bromochloromethane  
Concen: 5.093 ug/L  
RT: 4.52 min Scan# 1067  
Delta R.T. 0.00 min  
Lab File: VU033844.D  
Acq: 20 Aug 2019 10:51

Tgt Ion: 128 Resp: 26893  
Ion Ratio Lower Upper  
128 100  
49 150.8 105.6 196.0  
130 123.5 86.5 160.6  
51 51.2 41.0 61.4



Abundance Ion 127.90 (127.60 to 128.60): V  
Ion 49.10 (48.80 to 49.80): VU0  
Ion 129.95 (129.65 to 130.65): V  
Ion 51.05 (50.75 to 51.75): VU0

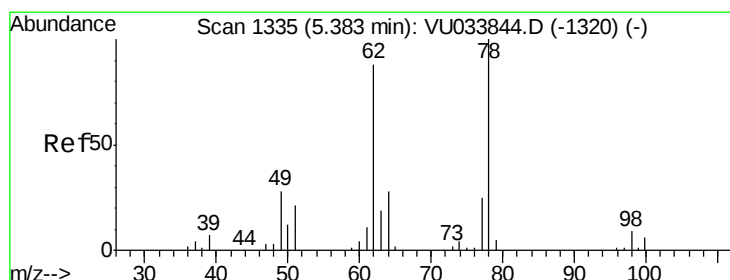
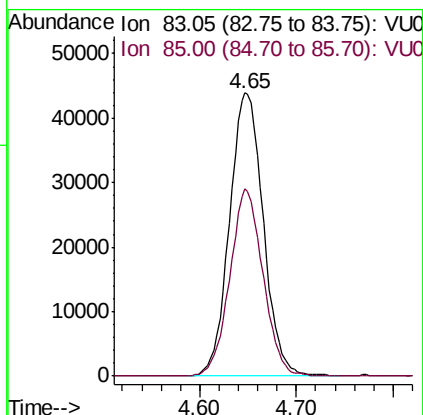
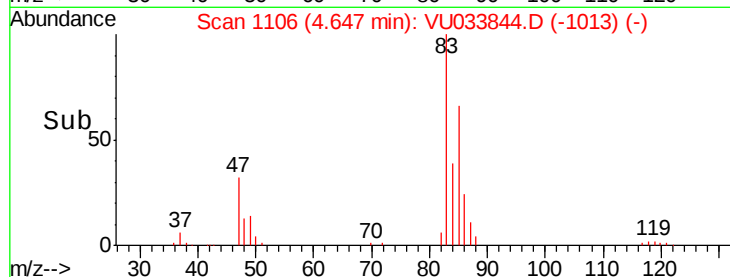
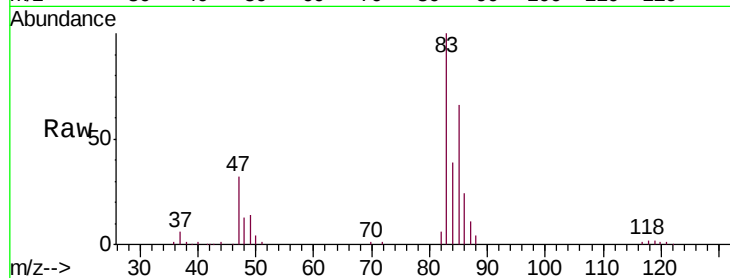




#25  
Chloroform  
Concen: 4.677 ug/L  
RT: 4.65 min Scan# 1106  
Delta R.T. 0.00 min  
Lab File: VU033844.D  
Acq: 20 Aug 2019 10:51

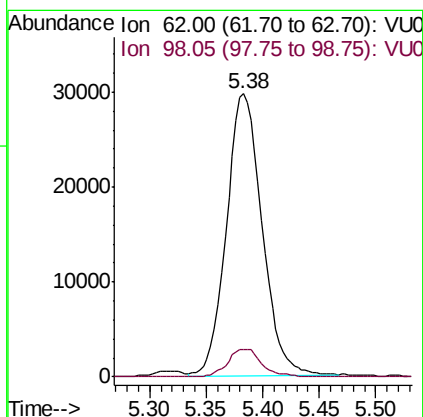
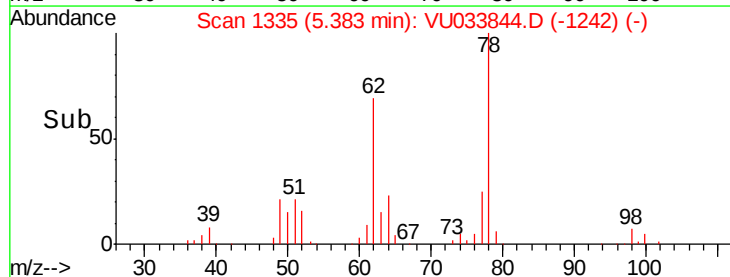
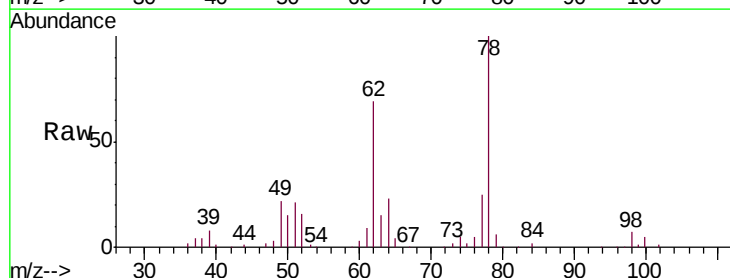
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00501

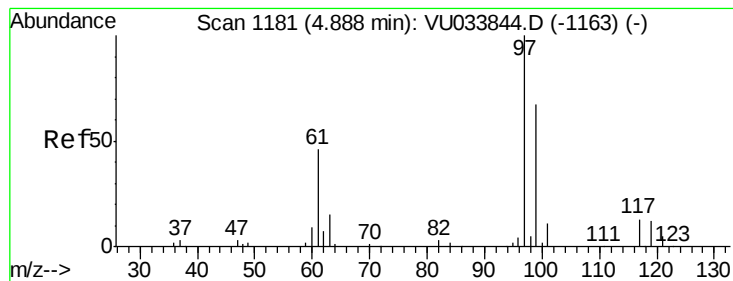
Tgt Ion: 83 Resp: 106473  
Ion Ratio Lower Upper  
83 100  
85 66.1 46.3 85.9



#27  
1,2-Dichloroethane  
Concen: 5.037 ug/L  
RT: 5.38 min Scan# 1335  
Delta R.T. 0.00 min  
Lab File: VU033844.D  
Acq: 20 Aug 2019 10:51

Tgt Ion: 62 Resp: 65116  
Ion Ratio Lower Upper  
62 100  
98 9.9 7.9 11.9





#29

1,1,1-Trichloroethane

Concen: 4.942 ug/L

RT: 4.89 min Scan# 1181

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00501

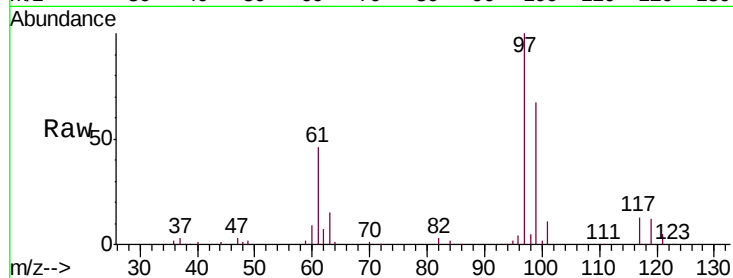
Tgt Ion: 97 Resp: 86313

Ion Ratio Lower Upper

97 100

99 66.7 53.4 80.0

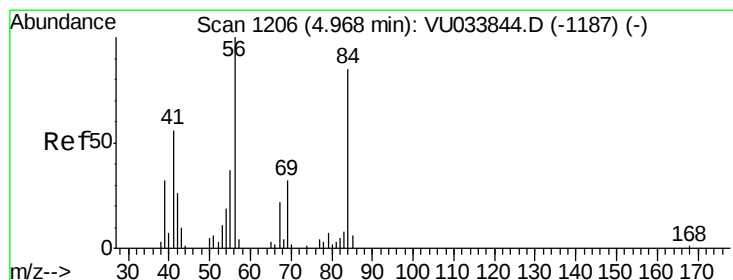
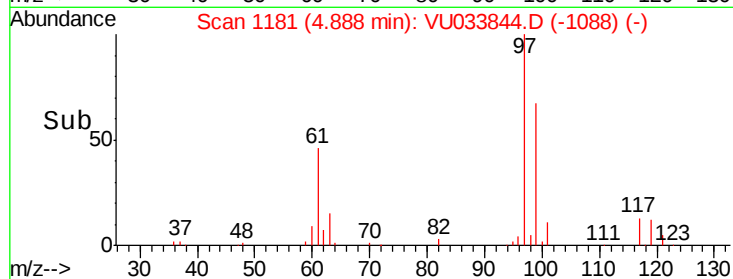
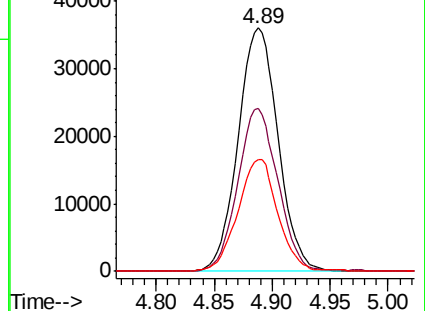
61 45.8 36.6 55.0



Abundance Ion 96.95 (96.65 to 97.65): VU033844.D (-1163) (-)

Ion 99.05 (98.75 to 99.75): VU033844.D (-1163) (-)

Ion 61.05 (60.75 to 61.75): VU033844.D (-1163) (-)



#30

Cyclohexane

Concen: 4.842 ug/L

RT: 4.97 min Scan# 1206

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

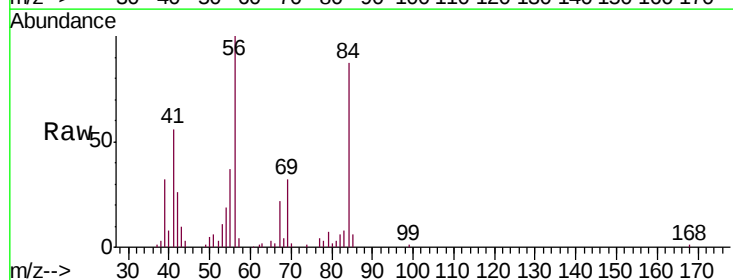
Tgt Ion: 56 Resp: 71424

Ion Ratio Lower Upper

56 100

69 31.4 25.1 37.7

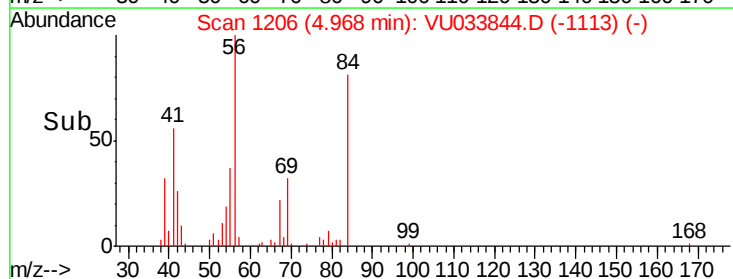
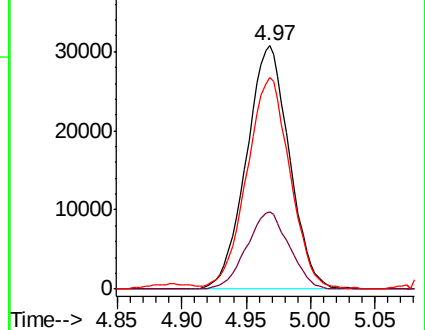
84 86.9 69.5 104.3

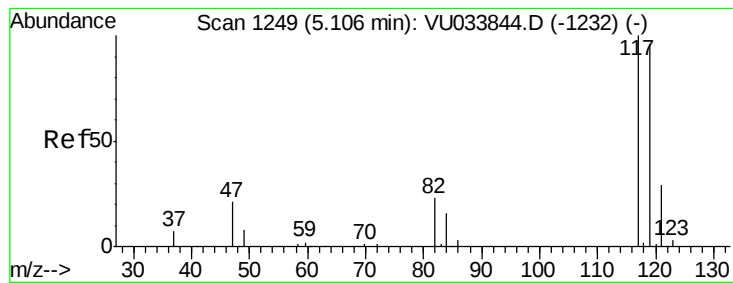


Abundance Ion 56.10 (55.80 to 56.80): VU033844.D (-1187) (-)

Ion 69.15 (68.85 to 69.85): VU033844.D (-1187) (-)

Ion 84.15 (83.85 to 84.85): VU033844.D (-1187) (-)





#31

Carbon tetrachloride

Concen: 5.012 ug/L

RT: 5.11 min Scan# 1249

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

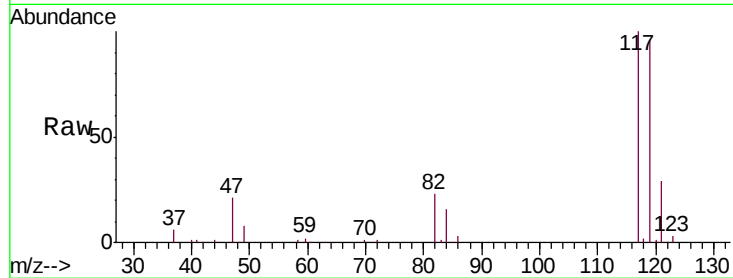
VSTD00501

Tgt Ion:117 Resp: 78924

Ion Ratio Lower Upper

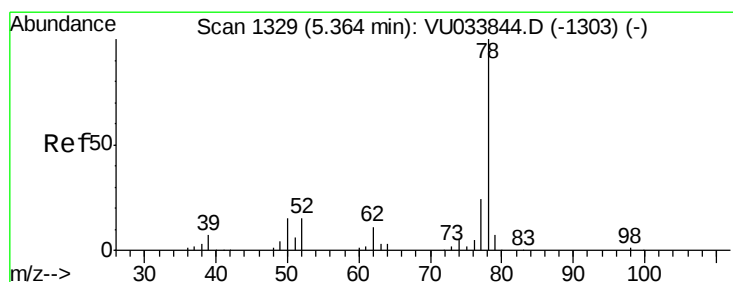
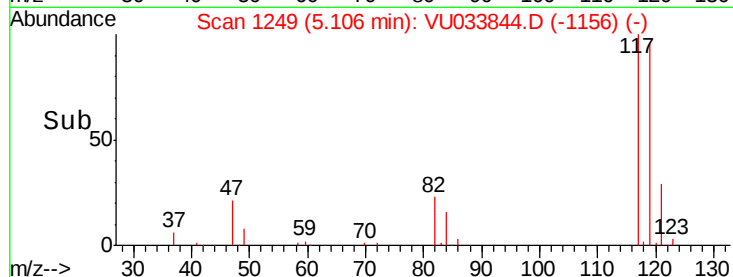
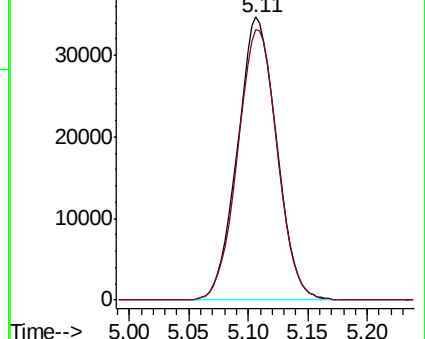
117 100

119 97.0 77.6 116.4



Abundance Ion 116.90 (116.60 to 117.60): V

Ion 118.90 (118.60 to 119.60): V



#33

Benzene

Concen: 5.092 ug/L

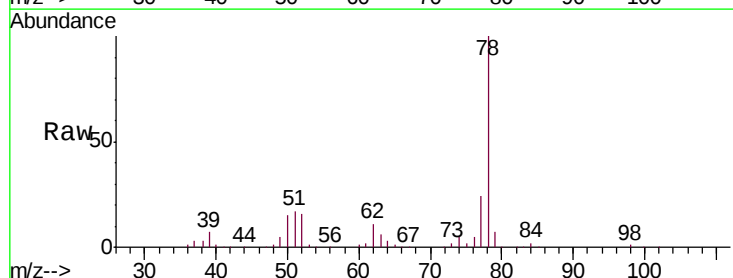
RT: 5.36 min Scan# 1329

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Tgt Ion: 78 Resp: 215319



Abundance Ion 78.10 (77.80 to 78.80): VU0

120000

100000

80000

60000

40000

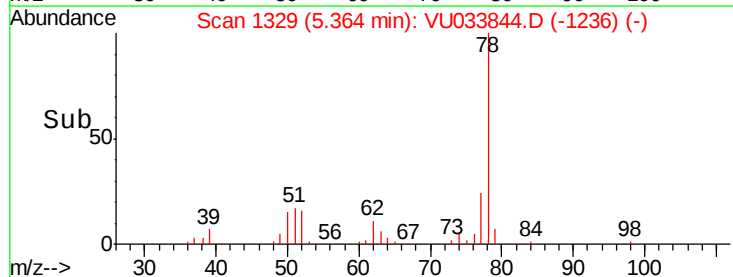
20000

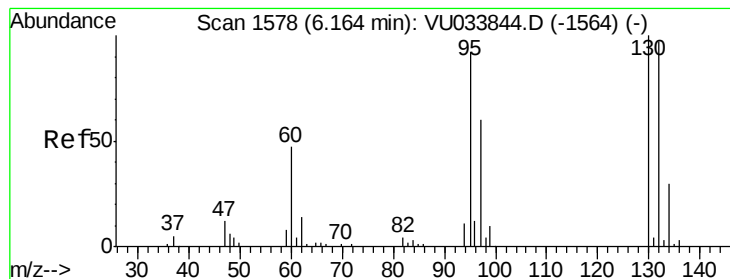
0

5.30

5.40

Time-->





#34

Trichloroethene

Concen: 4.863 ug/L

RT: 6.16 min Scan# 1578

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00501

Tgt Ion: 95 Resp: 55163

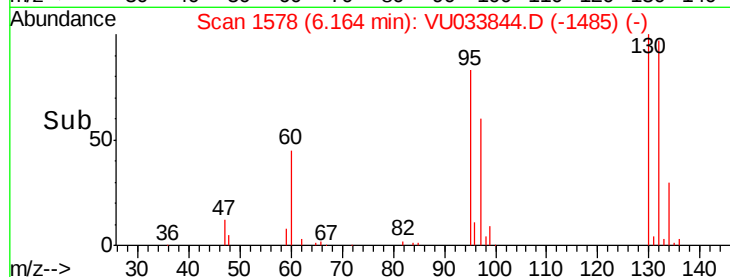
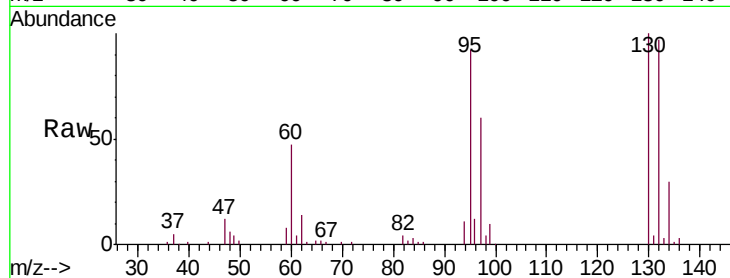
Ion Ratio Lower Upper

95 100

97 65.2 45.6 84.8

132 105.0 73.5 136.5

130 108.5 75.9 141.1

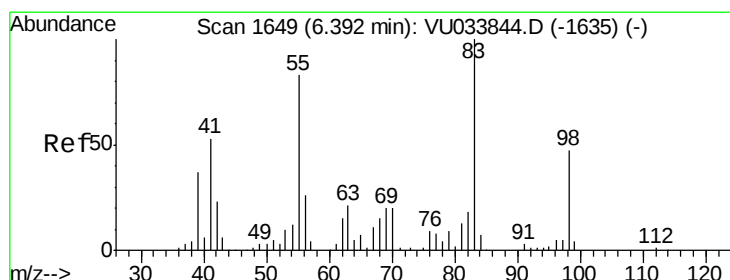
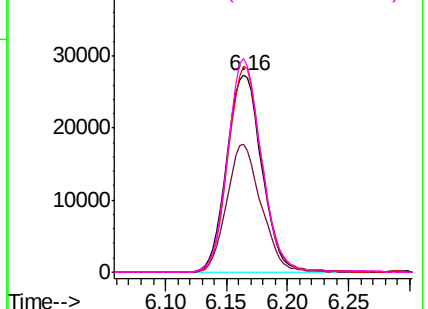


Abundance Ion 95.00 (94.70 to 95.70): VU0

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: 4.941 ug/L

RT: 6.39 min Scan# 1649

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

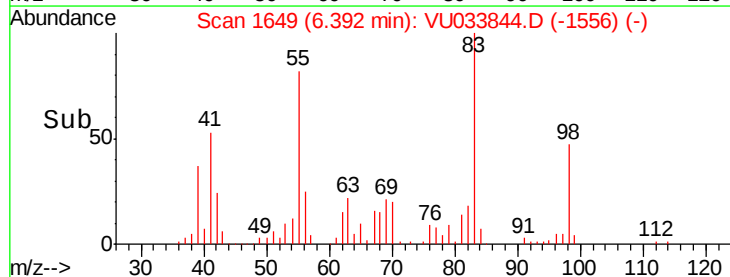
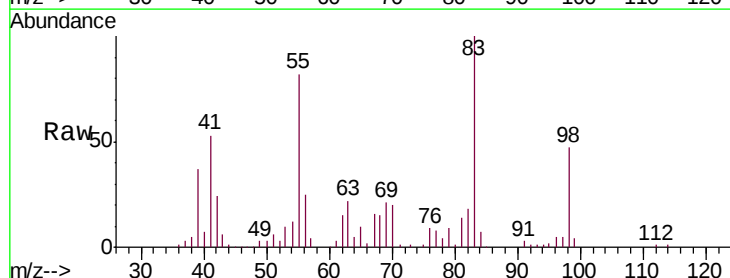
Tgt Ion: 83 Resp: 78320

Ion Ratio Lower Upper

83 100

55 80.4 64.3 96.5

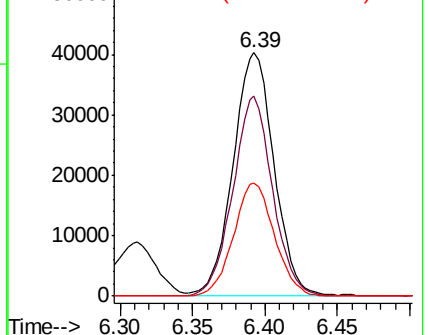
98 46.7 37.4 56.0

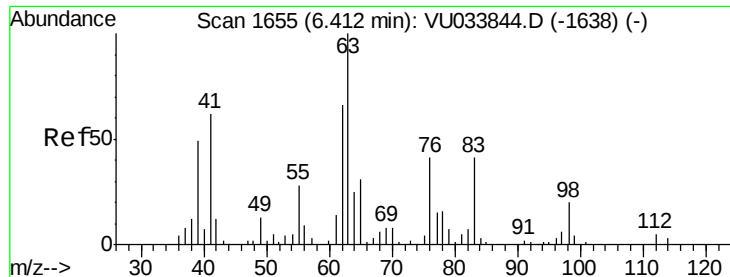


Abundance Ion 83.15 (82.85 to 83.85): VU0

Ion 55.10 (54.80 to 55.80): VU0

Ion 98.15 (97.85 to 98.85): VU0

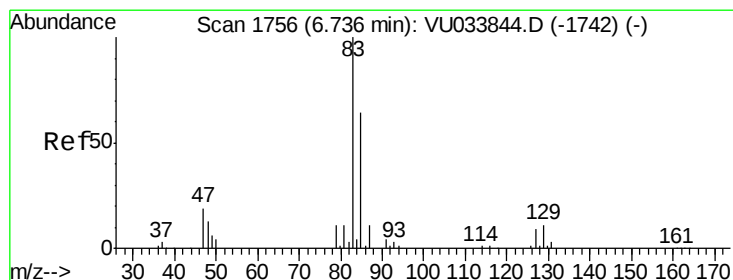
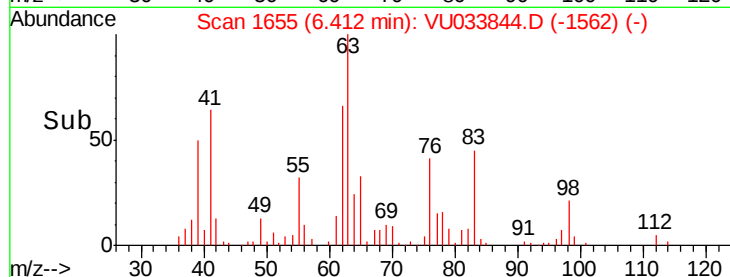
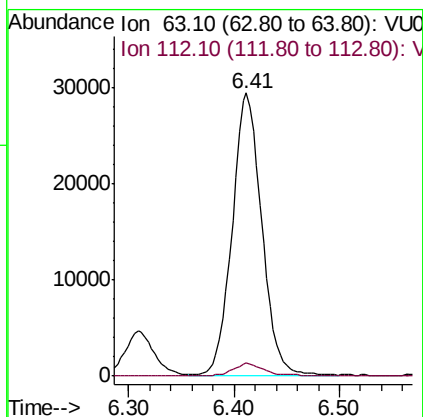
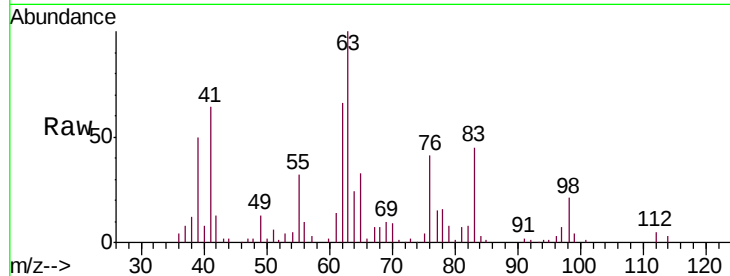




#37  
 1,2-Dichloropropane  
 Concen: 5.091 ug/L  
 RT: 6.41 min Scan# 1655  
 Delta R.T. 0.00 min  
 Lab File: VU033844.D  
 Acq: 20 Aug 2019 10:51

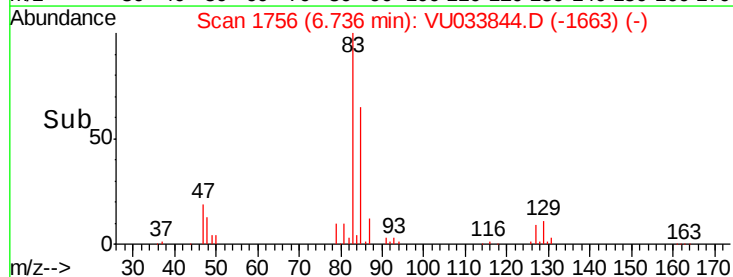
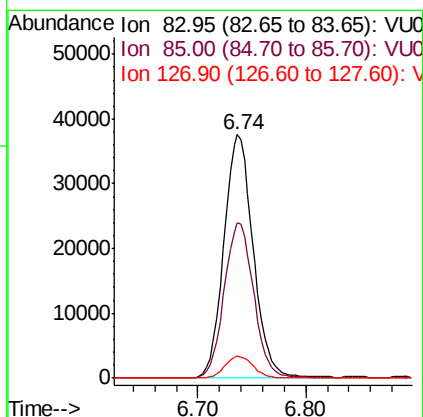
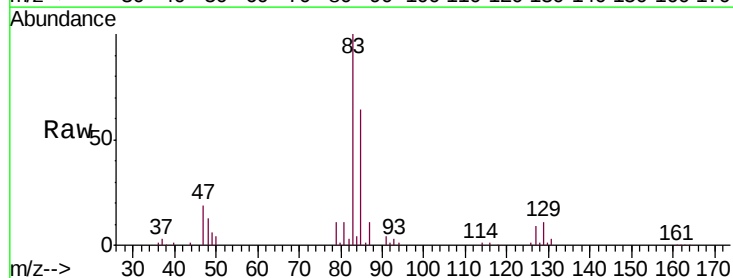
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00501

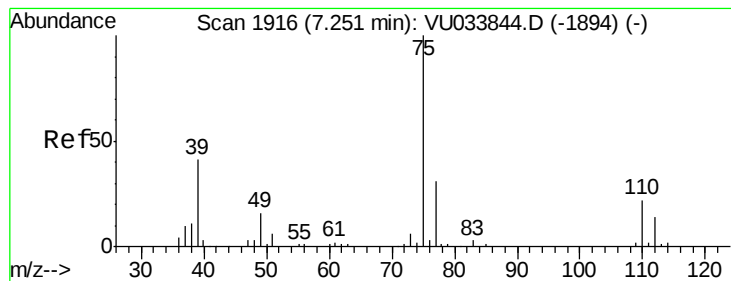
Tgt Ion: 63 Resp: 56965  
 Ion Ratio Lower Upper  
 63 100  
 112 4.4 3.5 5.3



#38  
 Bromodichloromethane  
 Concen: 4.942 ug/L  
 RT: 6.74 min Scan# 1756  
 Delta R.T. 0.00 min  
 Lab File: VU033844.D  
 Acq: 20 Aug 2019 10:51

Tgt Ion: 83 Resp: 71210  
 Ion Ratio Lower Upper  
 83 100  
 85 63.9 44.7 83.1  
 127 8.9 7.1 10.7



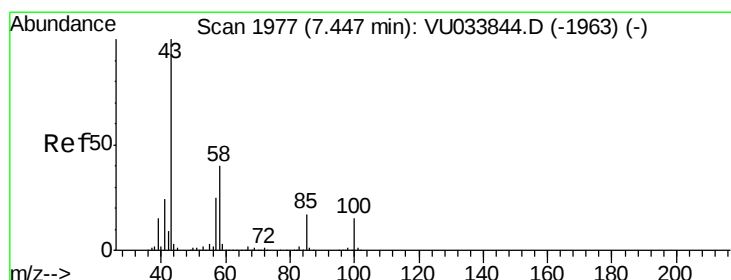
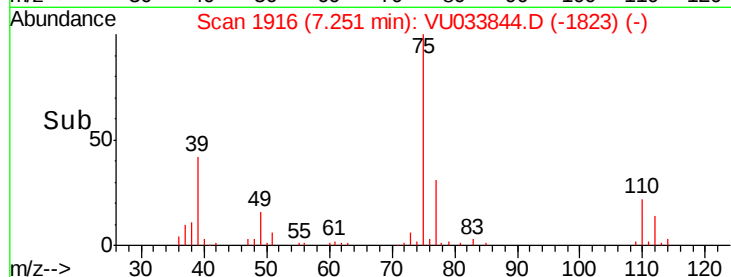
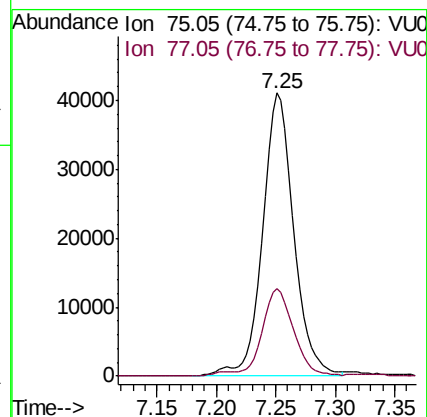
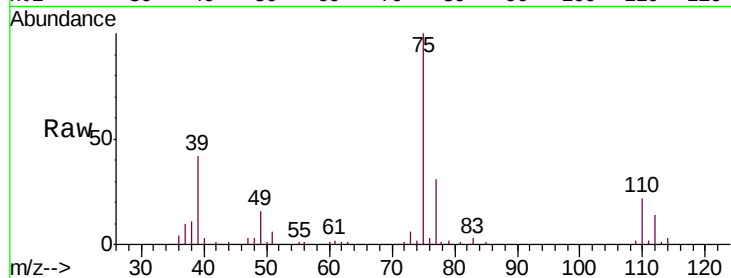


#39

cis-1,3-Dichloropropene  
 Concen: 5.054 ug/L  
 RT: 7.25 min Scan# 1916  
 Delta R.T. 0.00 min  
 Lab File: VU033844.D  
 Acq: 20 Aug 2019 10:51

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00501

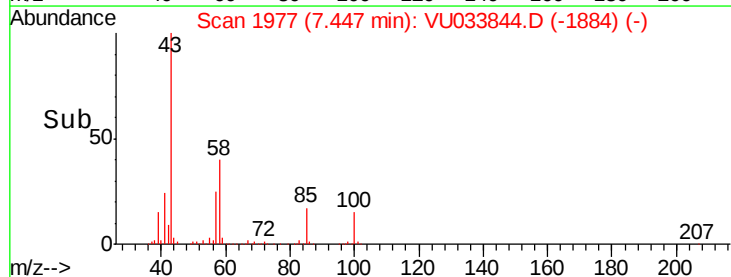
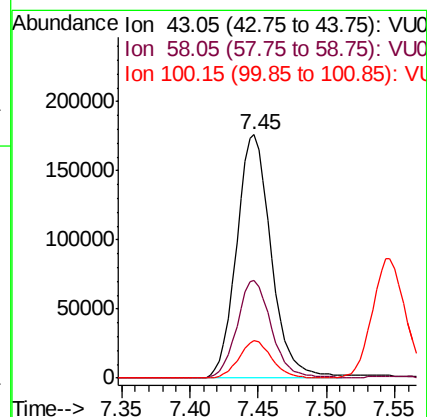
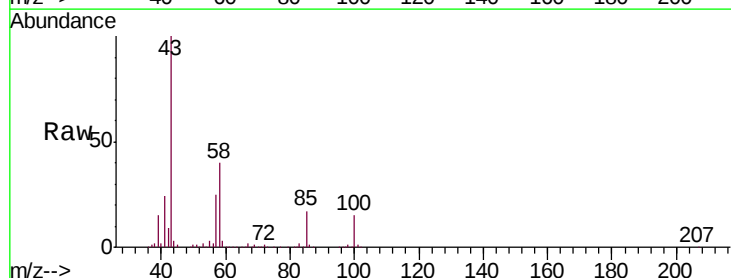
Tgt Ion: 75 Resp: 74726  
 Ion Ratio Lower Upper  
 75 100  
 77 30.9 21.6 40.2

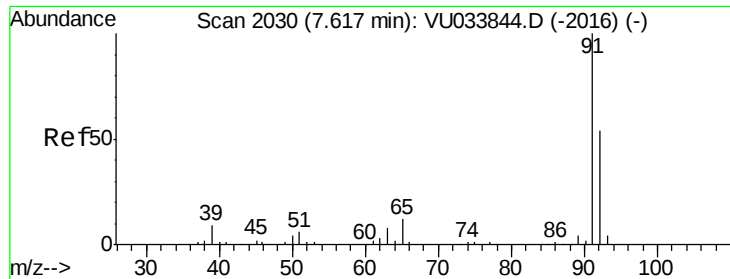


#40

4-Methyl-2-pentanone  
 Concen: 52.445 ug/L  
 RT: 7.45 min Scan# 1977  
 Delta R.T. 0.00 min  
 Lab File: VU033844.D  
 Acq: 20 Aug 2019 10:51

Tgt Ion: 43 Resp: 310767  
 Ion Ratio Lower Upper  
 43 100  
 58 40.0 32.0 48.0  
 100 14.7 11.8 17.6





#42

Toluene

Concen: 5.417 ug/L

RT: 7.62 min Scan# 2030

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

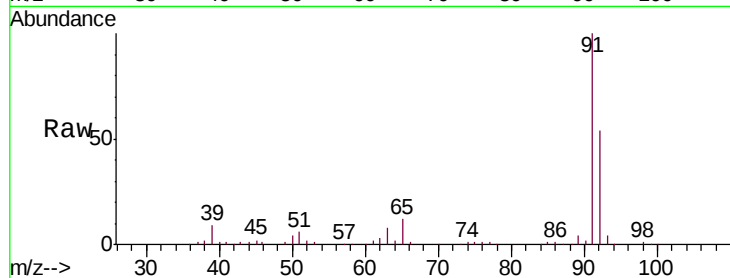
VSTD00501

Tgt Ion: 91 Resp: 234635

Ion Ratio Lower Upper

91 100

92 54.4 38.1 70.7



Abundance Ion 91.15 (90.85 to 91.85): VU033844.D (-2016) (-)

Ion 92.15 (91.85 to 92.85): VU033844.D (-2016) (-)

7.62

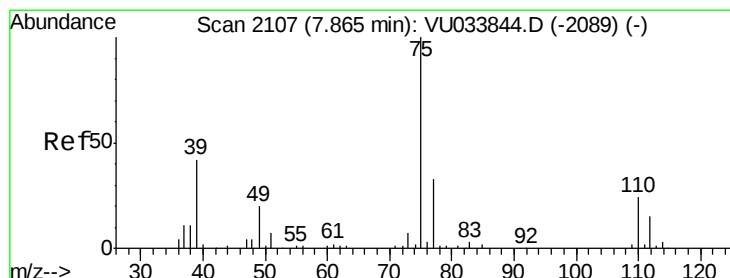
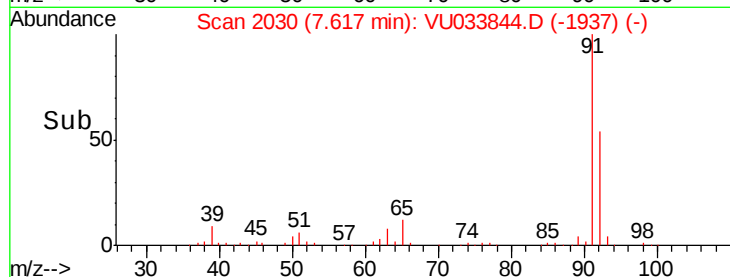
150000

100000

50000

0

Time--> 7.50 7.60 7.70



#44

trans-1,3-Dichloropropene

Concen: 5.169 ug/L

RT: 7.87 min Scan# 2107

Delta R.T. 0.00 min

Lab File: VU033844.D

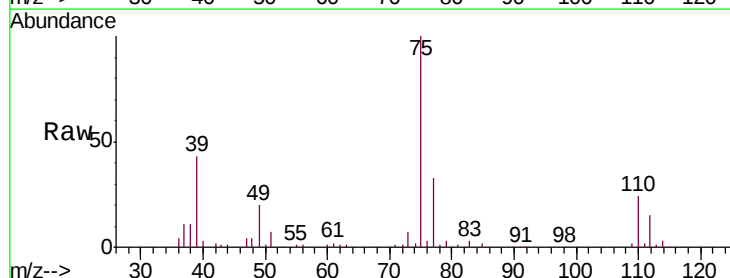
Acq: 20 Aug 2019 10:51

Tgt Ion: 75 Resp: 63907

Ion Ratio Lower Upper

75 100

77 32.8 23.0 42.6



Abundance Ion 75.05 (74.75 to 75.75): VU033844.D (-2089) (-)

Ion 77.05 (76.75 to 77.75): VU033844.D (-2089) (-)

7.87

40000

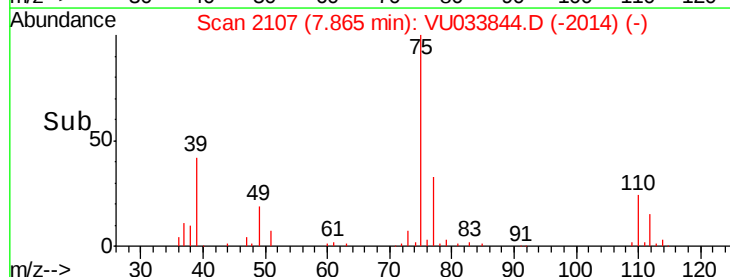
30000

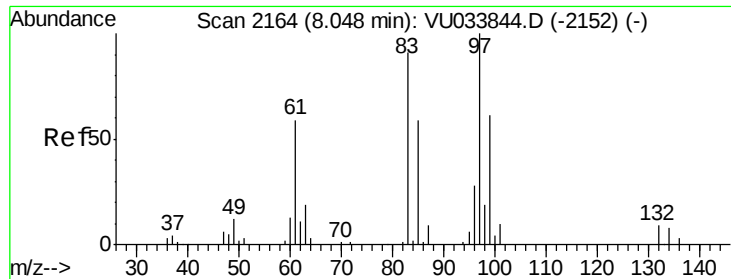
20000

10000

0

Time--> 7.75 7.80 7.85 7.90 7.95

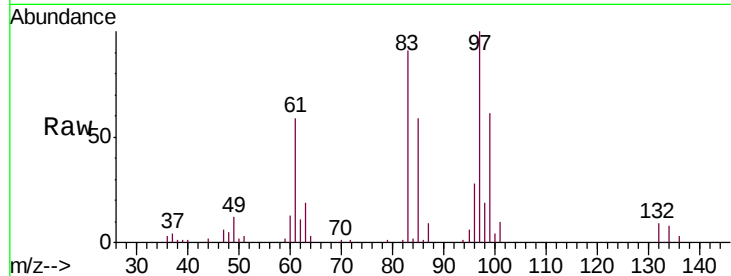




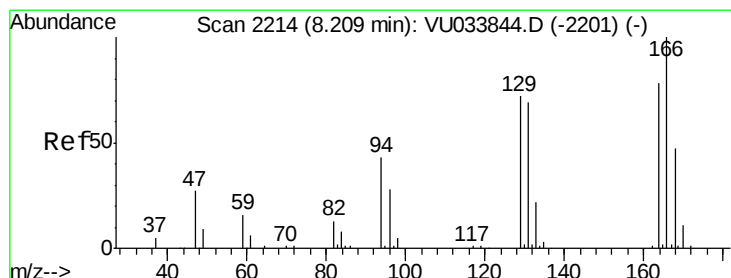
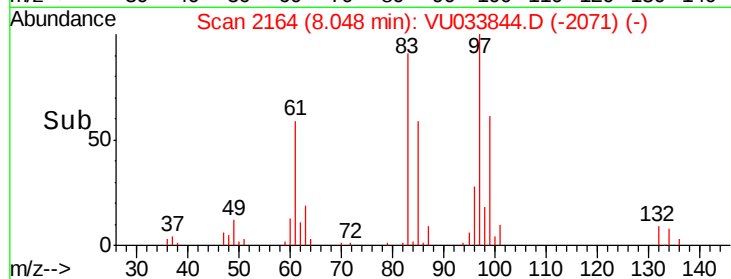
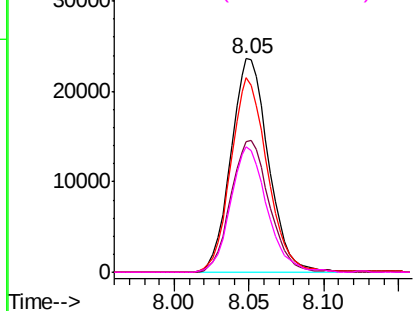
#45  
 1,1,2-Trichloroethane  
 Concen: 5.159 ug/L  
 RT: 8.05 min Scan# 2164  
 Delta R.T. 0.00 min  
 Lab File: VU033844.D  
 Acq: 20 Aug 2019 10:51

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00501

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 97    | Resp: | 41313 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 99       | 61.2  | 42.8  | 79.6  |
| 83       | 90.8  | 63.6  | 118.0 |
| 85       | 58.9  | 41.2  | 76.6  |

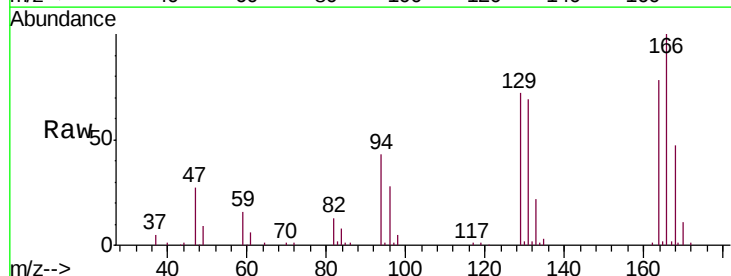


Abundance Ion 96.95 (96.65 to 97.65): VU0  
 Ion 99.05 (98.75 to 99.75): VU0  
 Ion 82.95 (82.65 to 83.65): VU0  
 Ion 85.00 (84.70 to 85.70): VU0

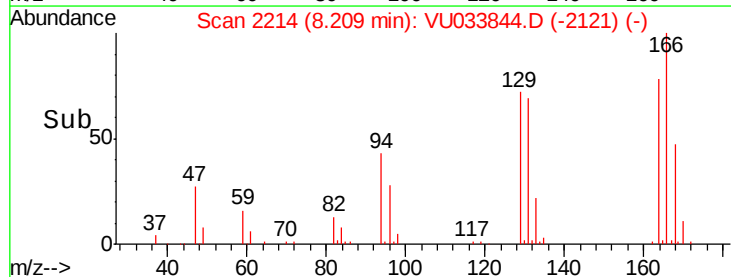
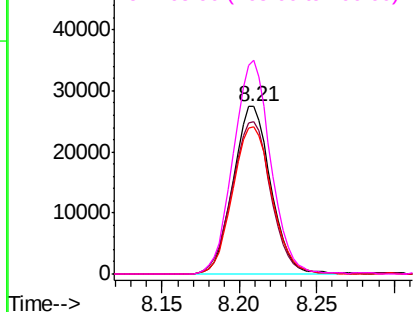


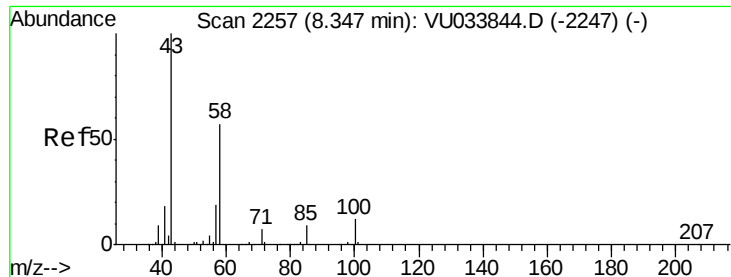
#47  
 Tetrachloroethene  
 Concen: 4.988 ug/L  
 RT: 8.21 min Scan# 2214  
 Delta R.T. 0.00 min  
 Lab File: VU033844.D  
 Acq: 20 Aug 2019 10:51

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 46420 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 91.3  | 63.9  | 118.7 |
| 131      | 87.8  | 61.5  | 114.1 |
| 166      | 127.4 | 89.2  | 165.6 |



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

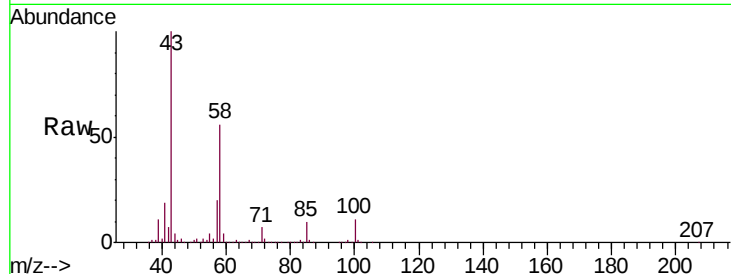




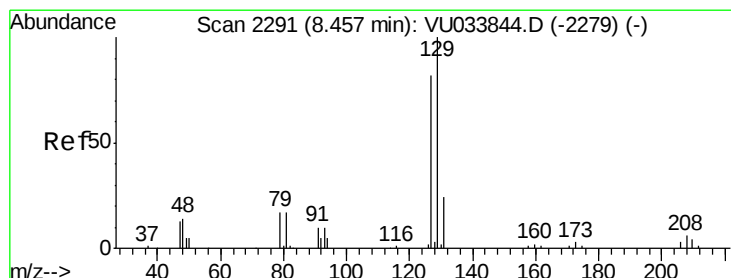
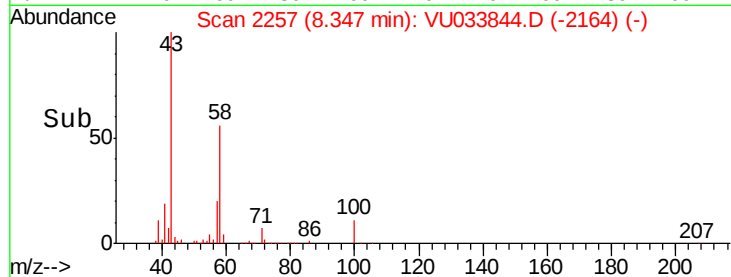
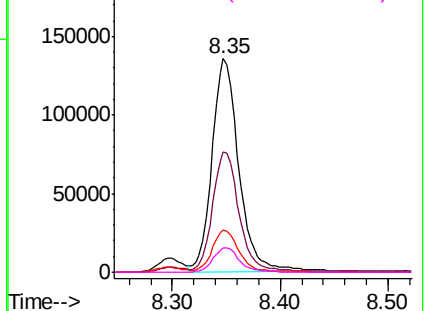
#48  
2-Hexanone  
Concen: 53.612 ug/L  
RT: 8.35 min Scan# 2257  
Delta R.T. 0.00 min  
Lab File: VU033844.D  
Acq: 20 Aug 2019 10:51

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00501

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 232125 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 56.4  | 45.1  | 67.7   |
| 57       | 19.2  | 15.4  | 23.0   |
| 100      | 11.1  | 8.9   | 13.3   |

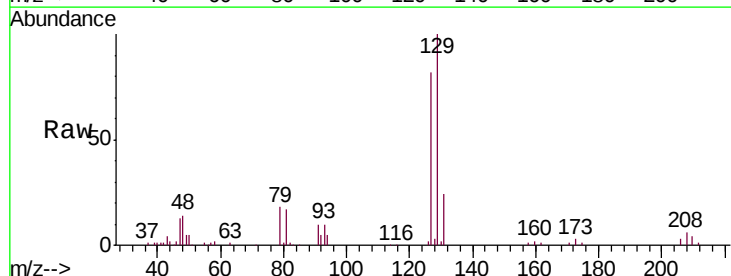


Abundance Ion 43.05 (42.75 to 43.75): VU0  
Ion 58.05 (57.75 to 58.75): VU0  
Ion 57.20 (56.90 to 57.90): VU0  
Ion 100.15 (99.85 to 100.85): VU0

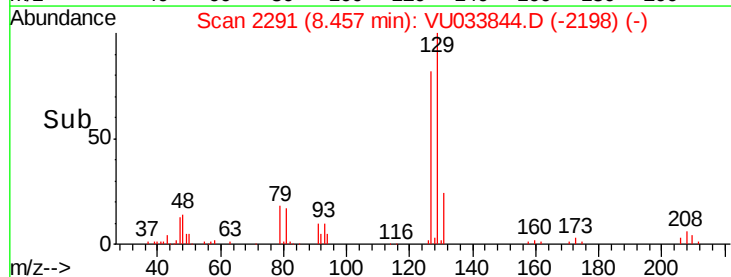
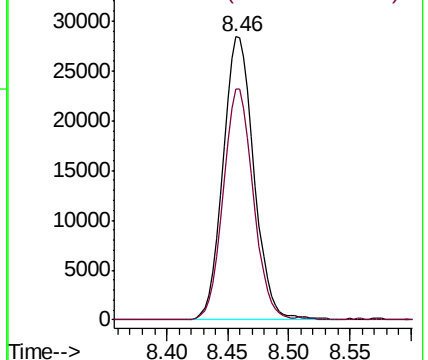


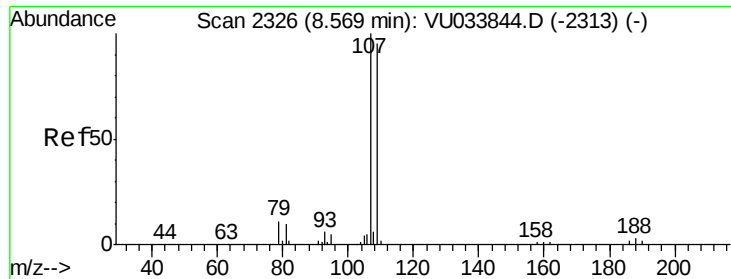
#49  
Dibromochloromethane  
Concen: 5.065 ug/L  
RT: 8.46 min Scan# 2291  
Delta R.T. 0.00 min  
Lab File: VU033844.D  
Acq: 20 Aug 2019 10:51

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 129   | Resp: | 50639 |
| Ion      | Ratio | Lower | Upper |
| 129      | 100   |       |       |
| 127      | 81.6  | 57.1  | 106.1 |



Abundance Ion 128.95 (128.65 to 129.65): V  
Ion 126.90 (126.60 to 127.60): V

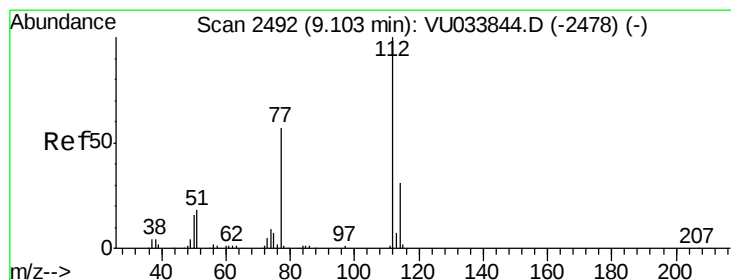
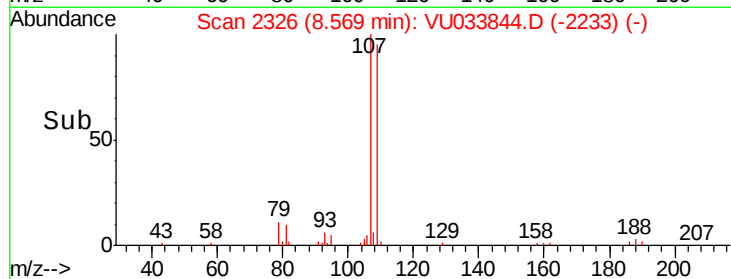
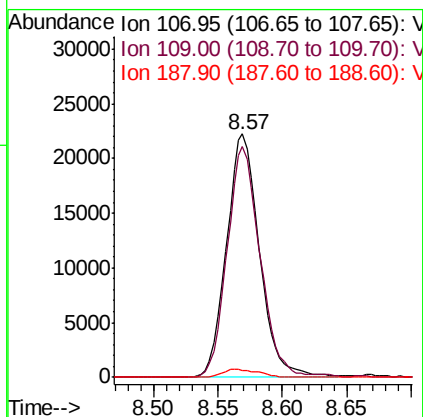
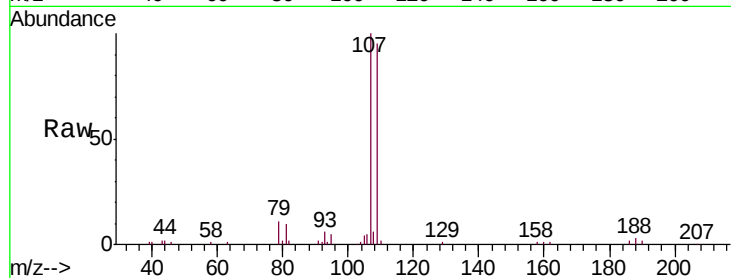




#50  
 1,2-Dibromoethane  
 Concen: 5.161 ug/L  
 RT: 8.57 min Scan# 2326  
 Delta R.T. 0.00 min  
 Lab File: VU033844.D  
 Acq: 20 Aug 2019 10:51

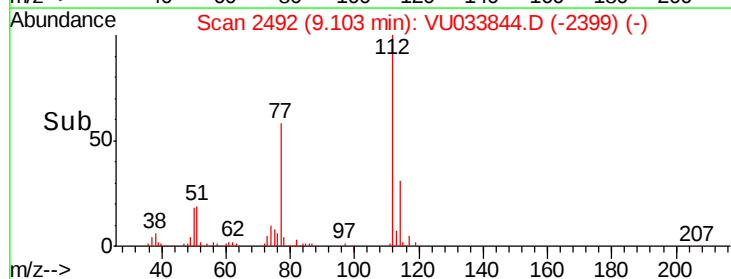
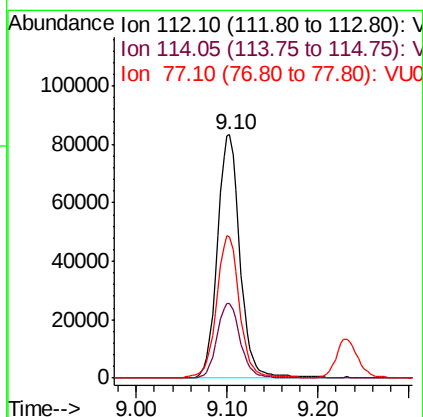
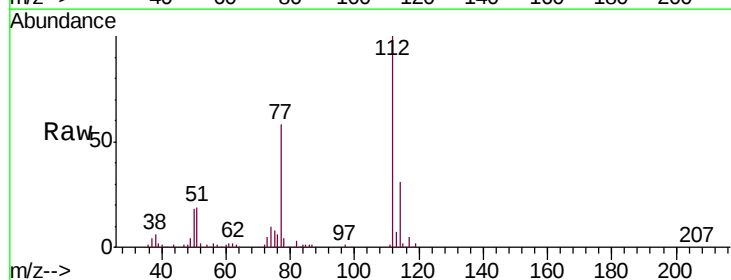
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00501

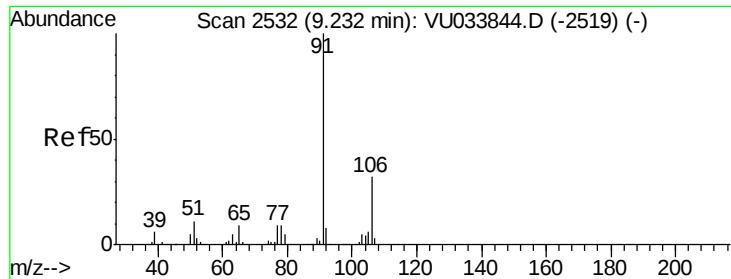
Tgt Ion:107 Resp: 39499  
 Ion Ratio Lower Upper  
 107 100  
 109 94.7 66.3 123.1  
 188 3.0 2.4 3.6



#51  
 Chlorobenzene  
 Concen: 5.023 ug/L  
 RT: 9.10 min Scan# 2492  
 Delta R.T. 0.00 min  
 Lab File: VU033844.D  
 Acq: 20 Aug 2019 10:51

Tgt Ion:112 Resp: 143878  
 Ion Ratio Lower Upper  
 112 100  
 114 30.5 21.3 39.6  
 77 58.2 46.6 69.8





#52

Ethylbenzene

Concen: 5.140 ug/L

RT: 9.23 min Scan# 2532

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

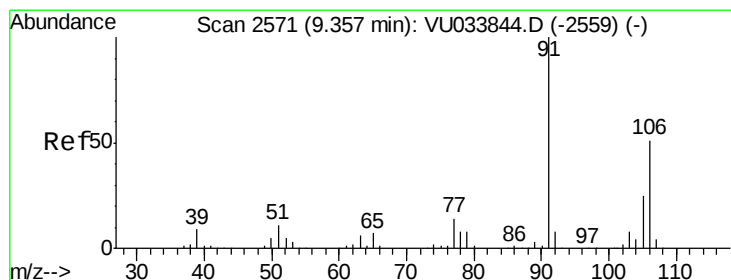
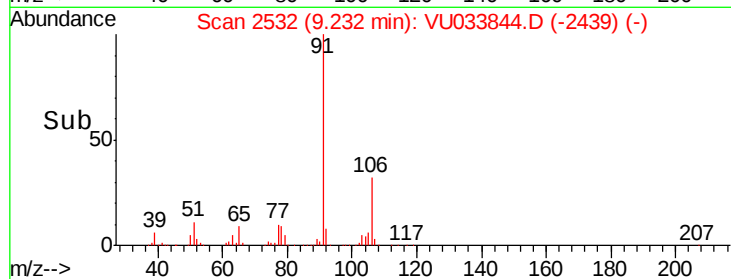
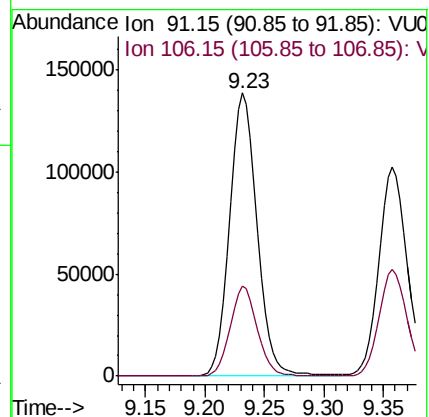
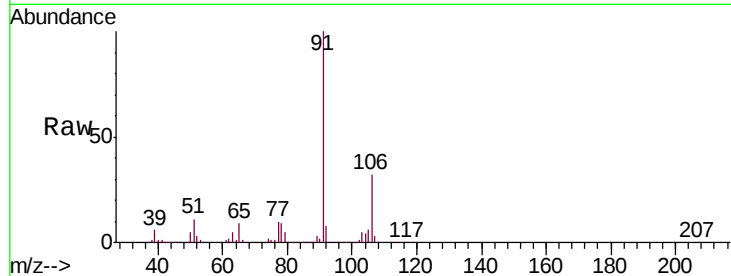
VSTD00501

Tgt Ion: 91 Resp: 222836

Ion Ratio Lower Upper

91 100

106 31.8 22.3 41.3



#53

m,p-Xylene

Concen: 5.215 ug/L

RT: 9.36 min Scan# 2571

Delta R.T. 0.00 min

Lab File: VU033844.D

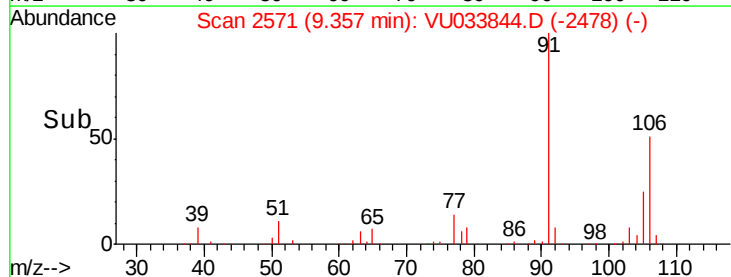
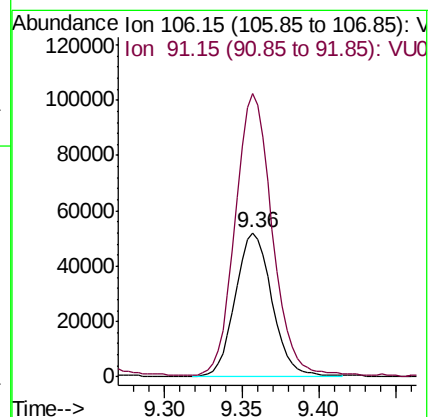
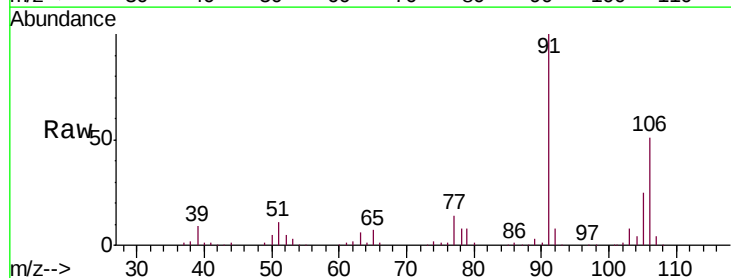
Acq: 20 Aug 2019 10:51

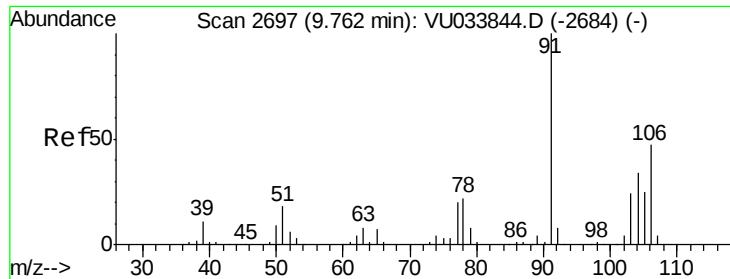
Tgt Ion: 106 Resp: 84877

Ion Ratio Lower Upper

106 100

91 196.7 137.7 255.7

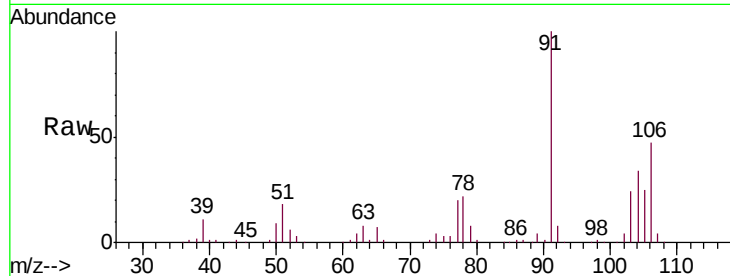




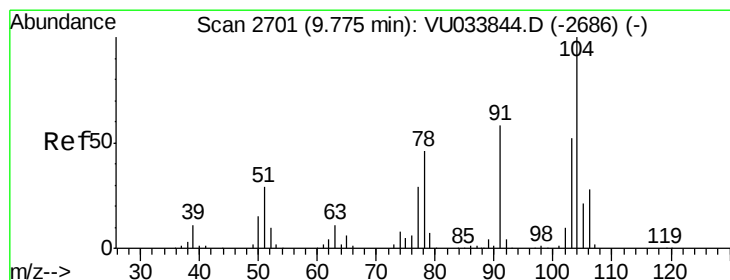
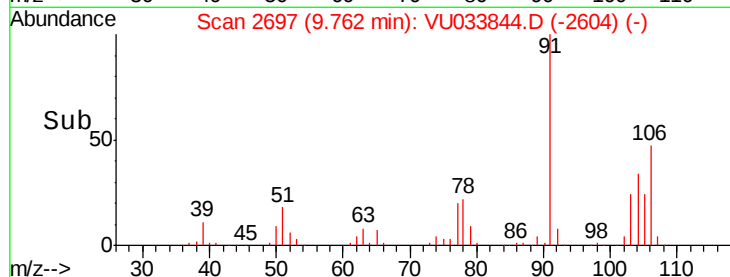
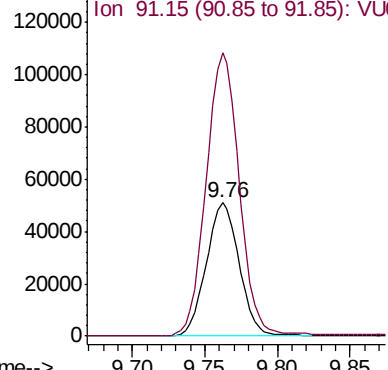
#54  
o-Xylene  
Concen: 5.169 ug/L  
RT: 9.76 min Scan# 2697  
Delta R.T. 0.00 min  
Lab File: VU033844.D  
Acq: 20 Aug 2019 10:51

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00501

Tgt Ion:106 Resp: 80664  
Ion Ratio Lower Upper  
106 100  
91 212.3 148.6 276.0

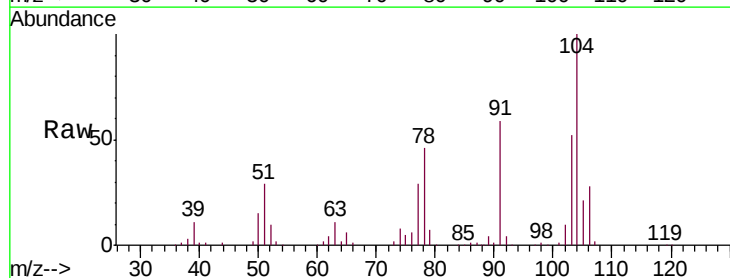


Abundance Ion 106.15 (105.85 to 106.85): V  
Ion 91.15 (90.85 to 91.85): VU0

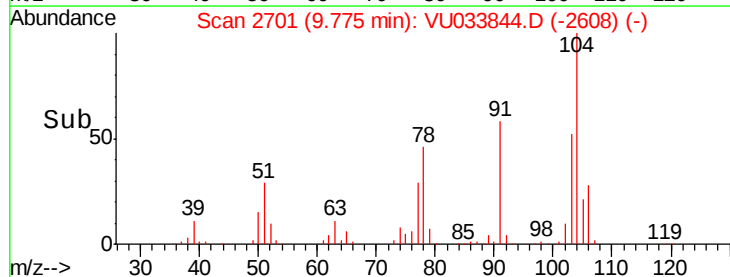
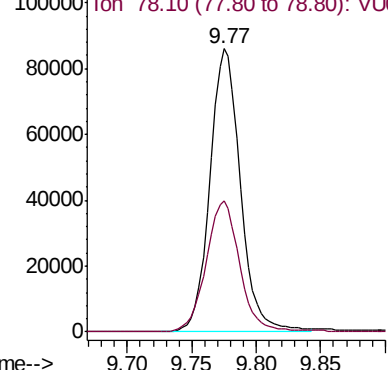


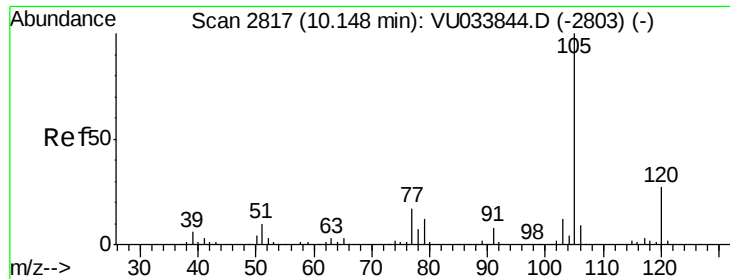
#55  
Styrene  
Concen: 5.240 ug/L  
RT: 9.77 min Scan# 2701  
Delta R.T. 0.00 min  
Lab File: VU033844.D  
Acq: 20 Aug 2019 10:51

Tgt Ion:104 Resp: 141720  
Ion Ratio Lower Upper  
104 100  
78 46.1 32.3 59.9



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





#56

Isopropylbenzene

Concen: 5.250 ug/L

RT: 10.15 min Scan# 2817

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00501

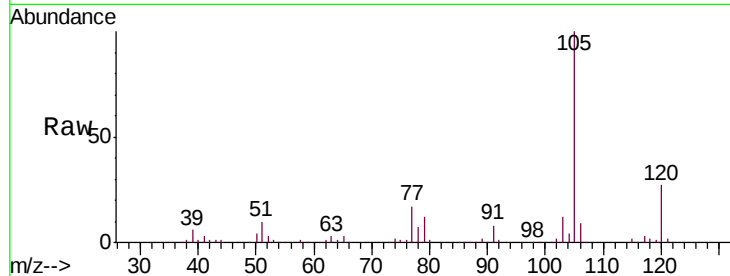
Tgt Ion: 105 Resp: 212007

Ion Ratio Lower Upper

105 100

120 26.5 21.2 31.8

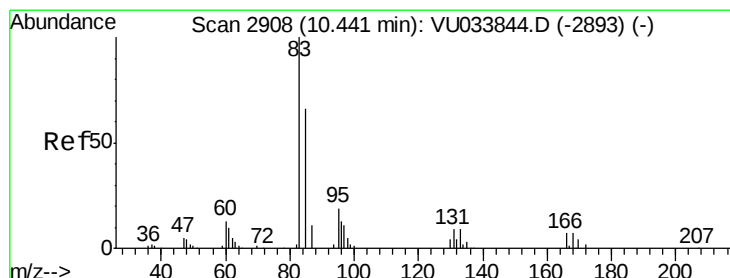
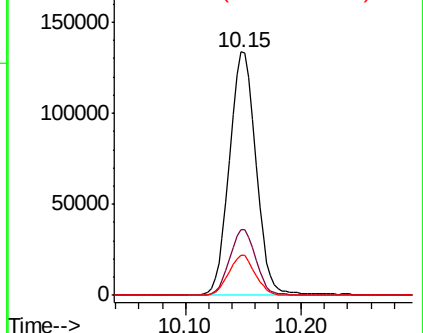
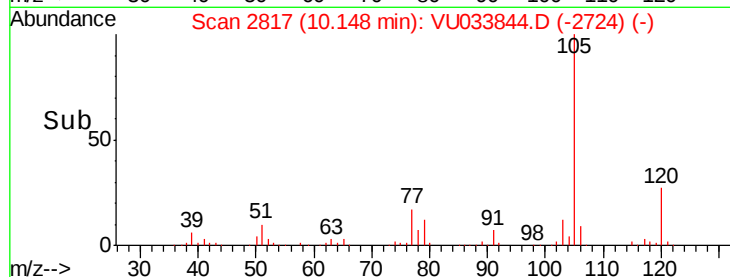
77 16.4 13.1 19.7



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: 5.128 ug/L

RT: 10.44 min Scan# 2908

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

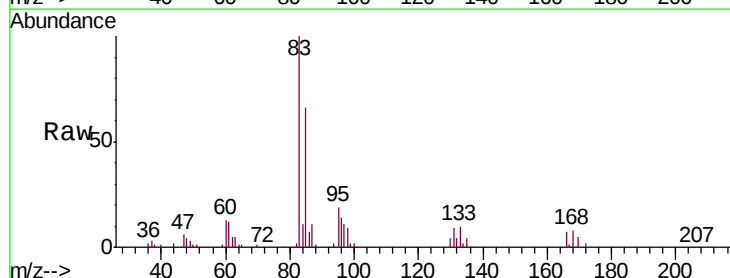
Tgt Ion: 83 Resp: 51549

Ion Ratio Lower Upper

83 100

85 66.4 46.5 86.3

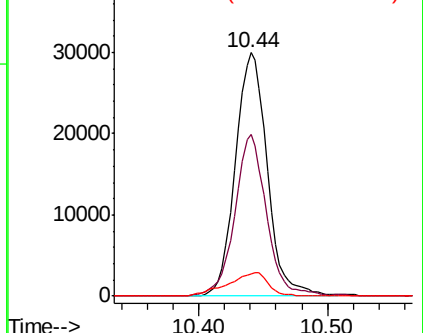
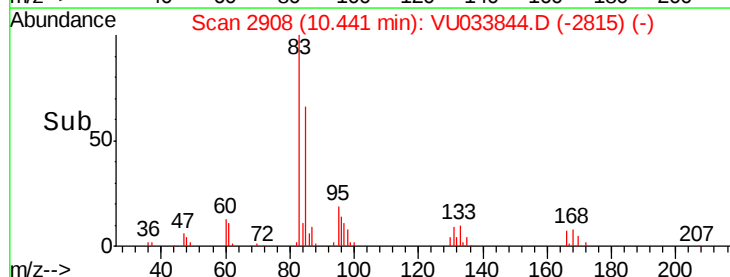
131 8.9 7.1 10.7

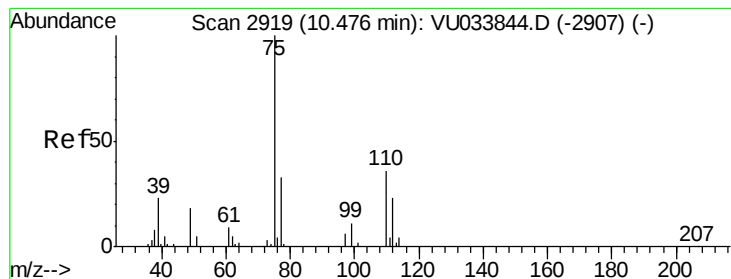


Abundance Ion 82.95 (82.65 to 83.65): V

Ion 85.00 (84.70 to 85.70): V

Ion 130.95 (130.65 to 131.65): V





#59

1,2,3-Trichloropropane

Concen: 5.096 ug/L

RT: 10.48 min Scan# 2919

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

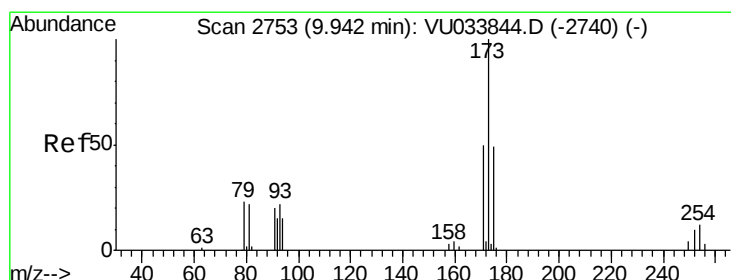
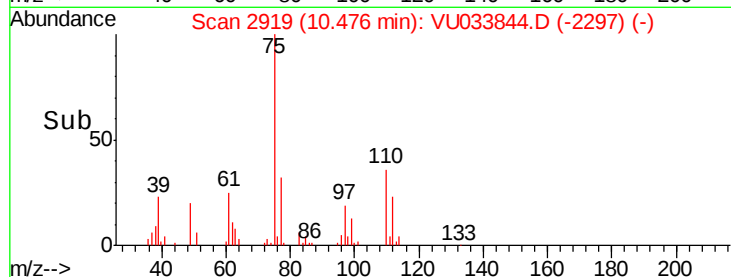
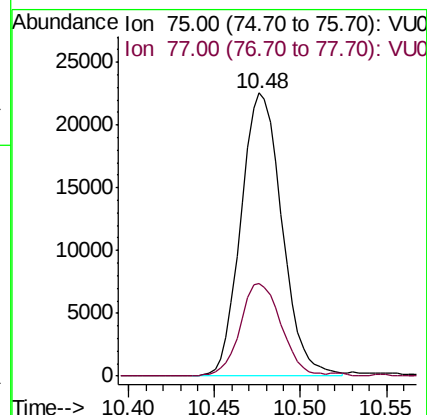
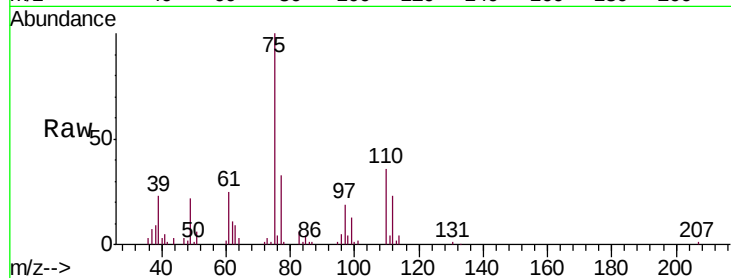
VSTD00501

Tgt Ion: 75 Resp: 37367

Ion Ratio Lower Upper

75 100

77 32.9 26.3 39.5



#61

Bromoform

Concen: 4.931 ug/L

RT: 9.94 min Scan# 2753

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

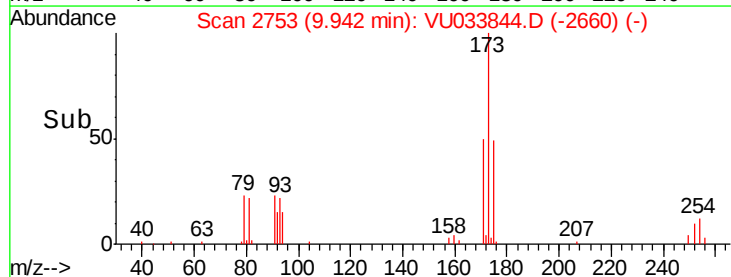
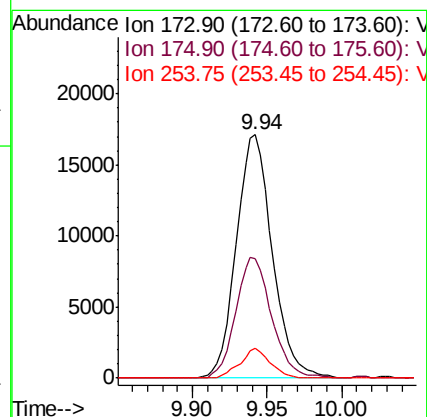
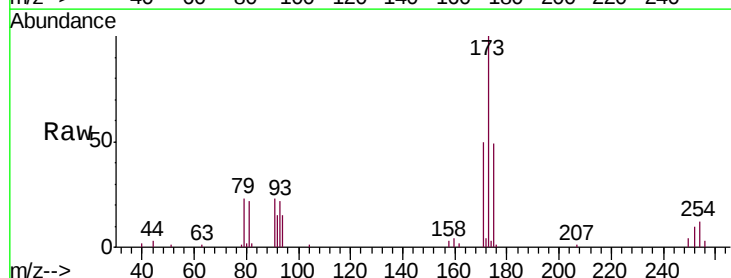
Tgt Ion: 173 Resp: 28721

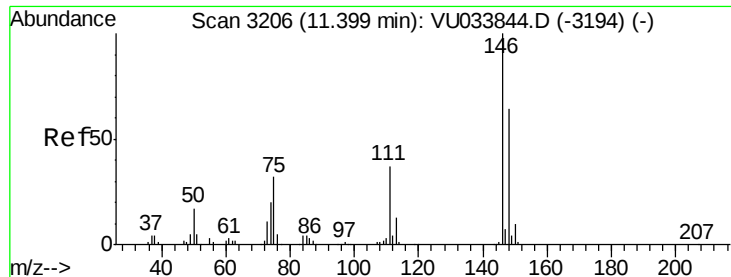
Ion Ratio Lower Upper

173 100

175 49.1 39.3 58.9

254 10.1 8.1 12.1





#62

1,3-Dichlorobenzene

Concen: 4.995 ug/L

RT: 11.40 min Scan# 3206

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00501

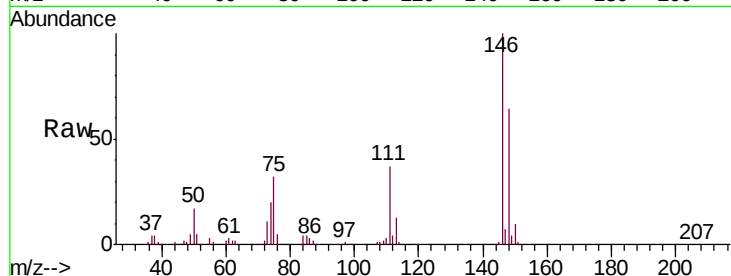
Tgt Ion:146 Resp: 117007

Ion Ratio Lower Upper

146 100

111 37.0 25.9 48.1

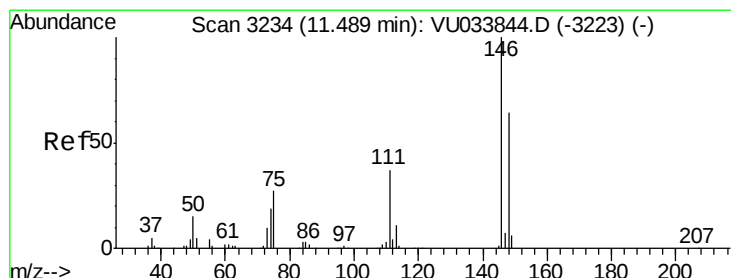
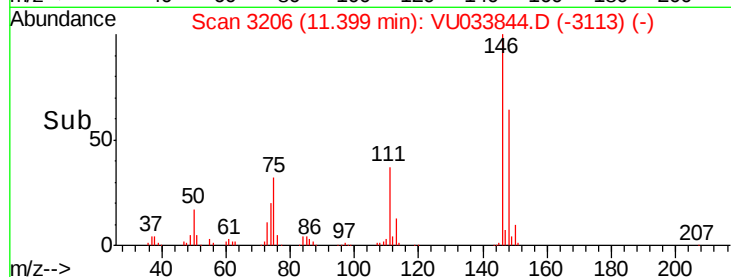
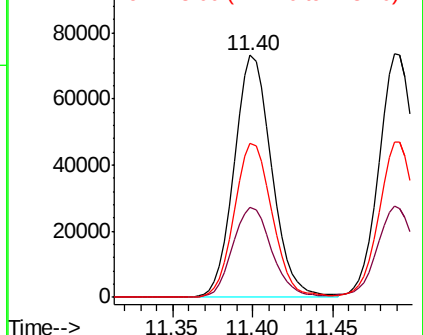
148 63.9 44.7 83.1



Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#63

1,4-Dichlorobenzene

Concen: 4.900 ug/L

RT: 11.49 min Scan# 3234

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

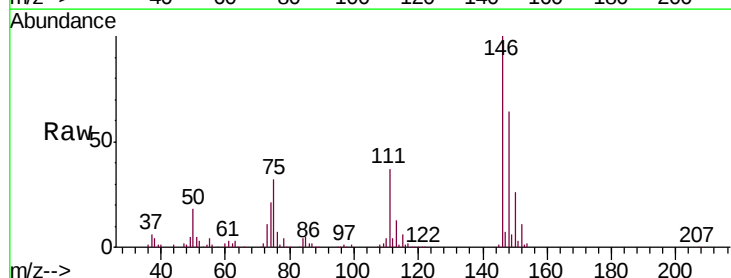
Tgt Ion:146 Resp: 118022

Ion Ratio Lower Upper

146 100

111 37.4 26.2 48.6

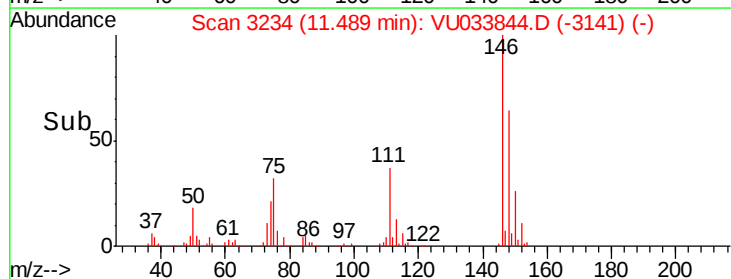
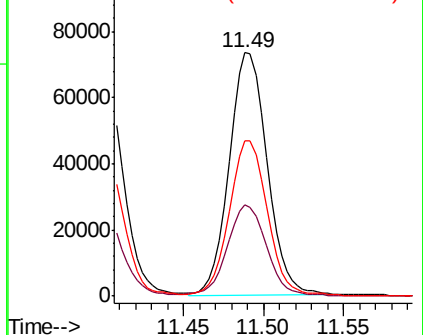
148 63.9 44.7 83.1

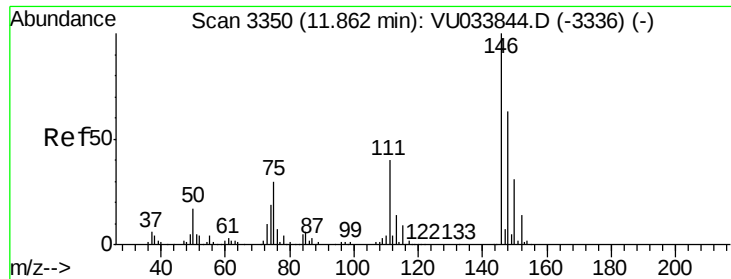


Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V





#65

1,2-Dichlorobenzene

Concen: 4.985 ug/L

RT: 11.86 min Scan# 3350

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00501

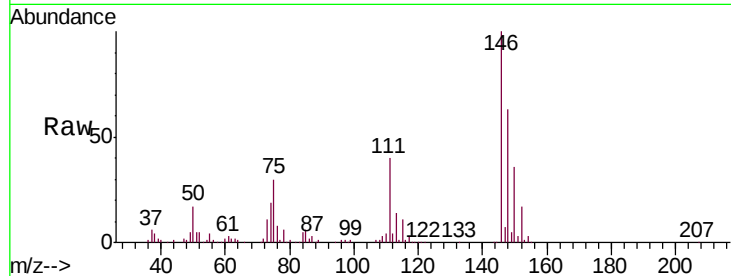
Tgt Ion:146 Resp: 112998

Ion Ratio Lower Upper

146 100

111 39.9 31.9 47.9

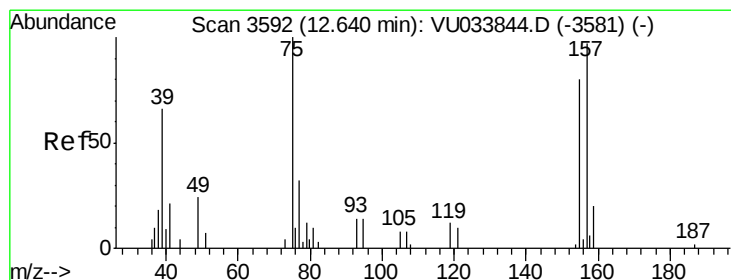
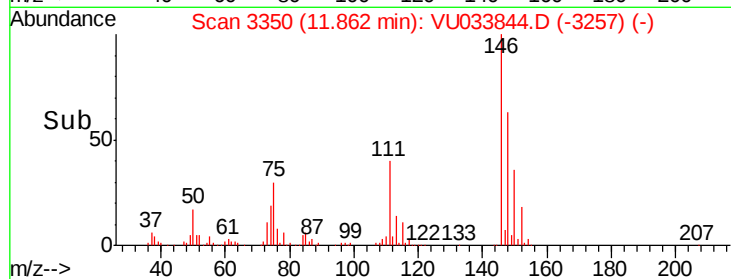
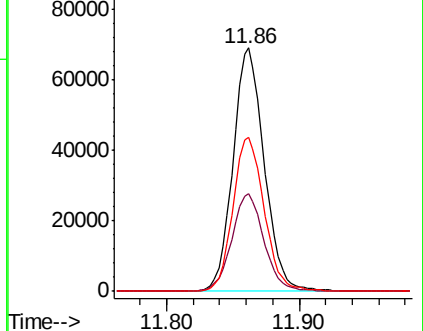
148 63.3 50.6 76.0



Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#66

1,2-Dibromo-3-chloropropane

Concen: 4.991 ug/L

RT: 12.64 min Scan# 3592

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

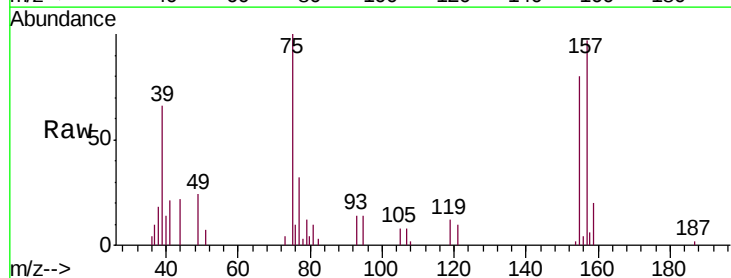
Tgt Ion: 75 Resp: 8004

Ion Ratio Lower Upper

75 100

155 80.1 64.1 96.1

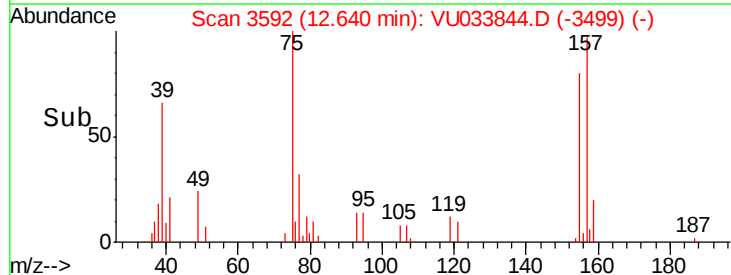
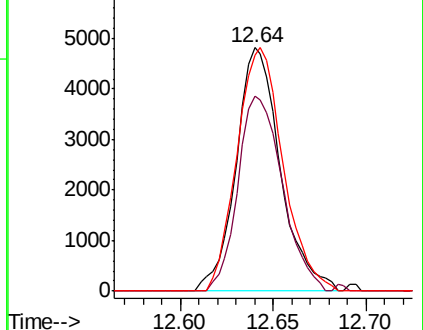
157 96.9 77.5 116.3

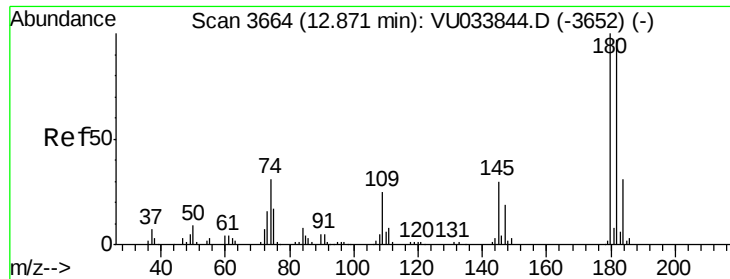


Abundance Ion 75.05 (74.75 to 75.75): VU0

Ion 154.95 (154.65 to 155.65): V

Ion 156.90 (156.60 to 157.60): V

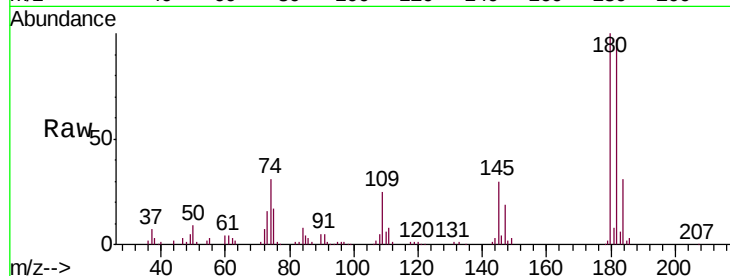




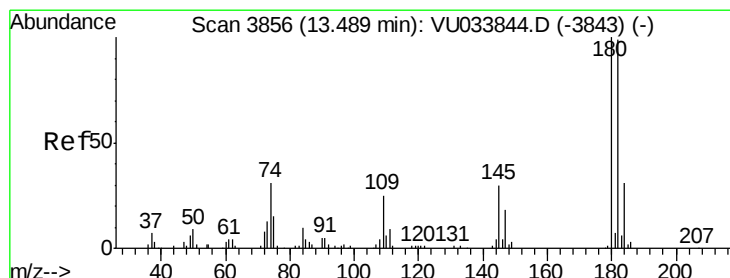
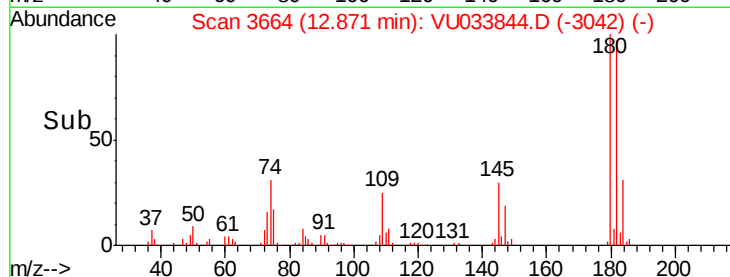
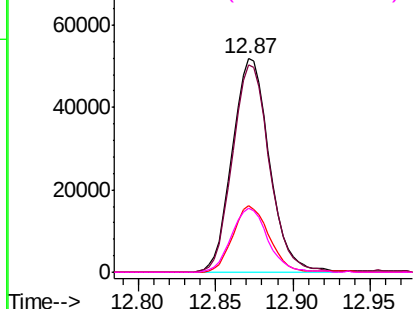
#67  
 1,3,5-Trichlorobenzene  
 Concen: 4.871 ug/L  
 RT: 12.87 min Scan# 3664  
 Delta R.T. 0.00 min  
 Lab File: VU033844.D  
 Acq: 20 Aug 2019 10:51

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00501

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 180   | Resp: | 86600 |
| Ion      | Ratio | Lower | Upper |
| 180      | 100   |       |       |
| 182      | 96.9  | 77.5  | 116.3 |
| 184      | 30.3  | 24.2  | 36.4  |
| 145      | 29.3  | 23.4  | 35.2  |

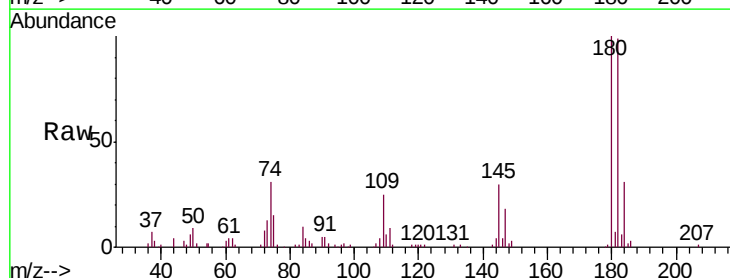


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

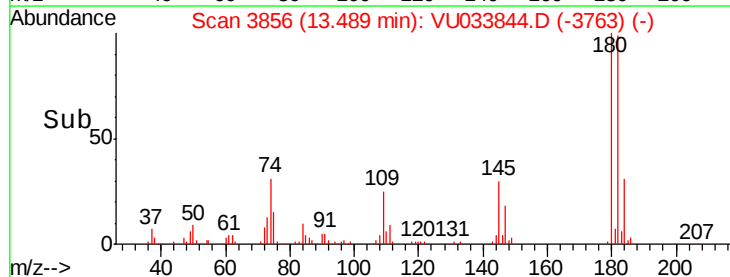
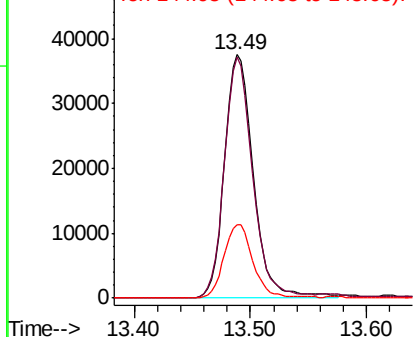


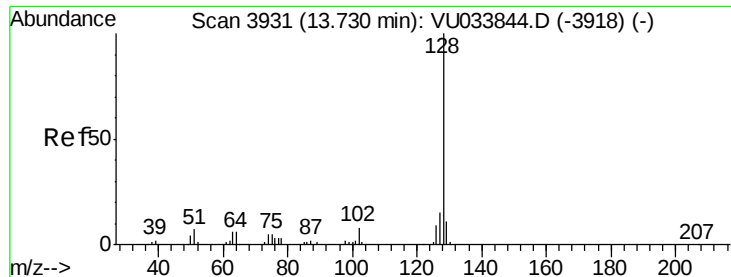
#68  
 1,2,4-trichlorobenzene  
 Concen: 4.992 ug/L  
 RT: 13.49 min Scan# 3856  
 Delta R.T. 0.00 min  
 Lab File: VU033844.D  
 Acq: 20 Aug 2019 10:51

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 180   | Resp: | 64601 |
| Ion      | Ratio | Lower | Upper |
| 180      | 100   |       |       |
| 182      | 97.0  | 77.6  | 116.4 |
| 145      | 30.5  | 24.4  | 36.6  |



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: 5.060 ug/L

RT: 13.73 min Scan# 3931

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00501

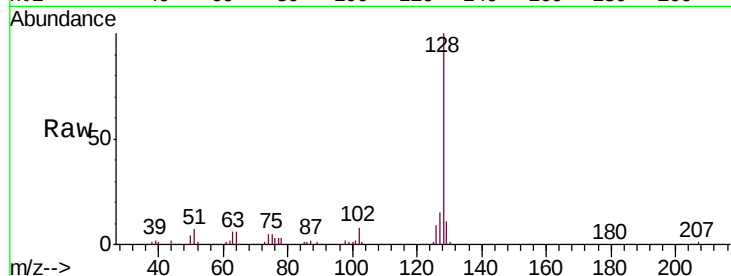
Tgt Ion:128 Resp: 89605

Ion Ratio Lower Upper

128 100

129 11.3 9.0 13.6

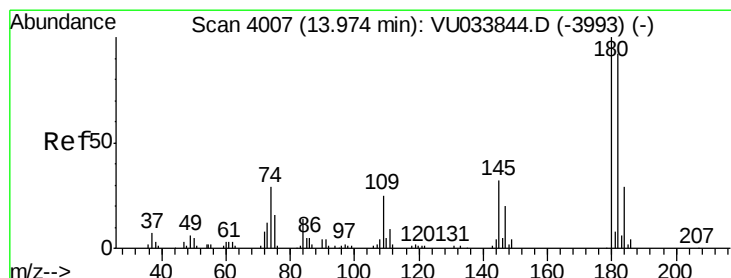
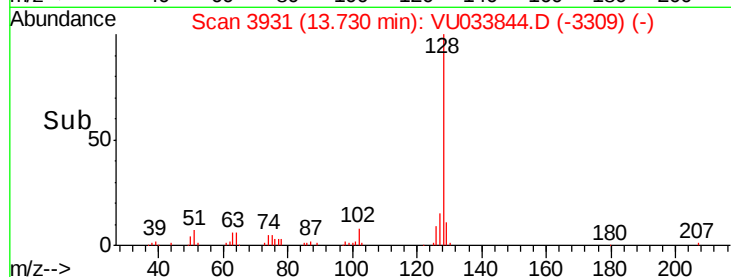
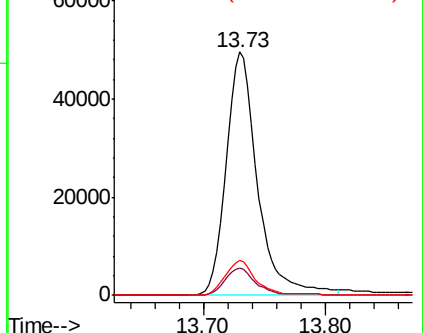
127 13.6 10.9 16.3



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: 5.179 ug/L

RT: 13.97 min Scan# 4007

Delta R.T. 0.00 min

Lab File: VU033844.D

Acq: 20 Aug 2019 10:51

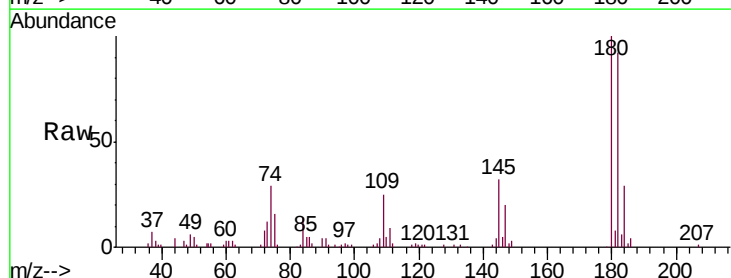
Tgt Ion:180 Resp: 62964

Ion Ratio Lower Upper

180 100

182 96.1 76.9 115.3

145 30.7 24.6 36.8



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

