

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\U100220\  
 Data File : VU040461.D  
 Acq On : 02 Oct 2020 15:19  
 Operator : SY/MD  
 Sample : L4240-08DL 10X  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BG3S5DL

Manual Integrations  
 APPROVED

MMDadoda  
 10/6/2020 9:04:16 AM

Quant Time: Oct 03 02:18:59 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR092920WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Sat Oct 03 00:09:31 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.26  | 114  | 133912   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.42  | 117  | 125735   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.81 | 152  | 67353    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.60   | 65    | 33652    | 5.08     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 101.60% |
| 7) Chloroethane-d5             | 1.92   | 69    | 27721    | 4.78     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 95.60%  |
| 11) 1,1-Dichloroethene-d2      | 2.58   | 63    | 52772    | 3.31     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 66.20%  |
| 20) 2-Butanone-d5              | 4.65   | 46    | 140375   | 42.63    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 85.26%  |
| 24) Chloroform-d               | 5.08   | 84    | 70736    | 4.48     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 89.60%  |
| 26) 1,2-Dichloroethane-d4      | 5.72   | 65    | 43827    | 4.56     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 91.20%  |
| 32) Benzene-d6                 | 5.75   | 84    | 137844   | 5.45     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 109.00% |
| 36) 1,2-Dichloropropane-d6     | 6.70   | 67    | 45902    | 4.96     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 99.20%  |
| 41) Toluene-d8                 | 7.91   | 98    | 116614   | 5.31     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 106.20% |
| 43) trans-1,3-Dichloropropene- | 8.19   | 79    | 19103    | 5.06     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 101.20% |
| 46) 2-Hexanone-d5              | 8.64   | 63    | 97679    | 44.01    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 88.02%  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.75  | 84    | 39915    | 4.44     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 88.80%  |
| 64) 1,2-Dichlorobenzene-d4     | 12.19  | 152   | 52600    | 5.15     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 103.00% |

## Target Compounds

| Target Compounds           | R.T.  | QIon | Response | Conc   | Units | Ovalue |
|----------------------------|-------|------|----------|--------|-------|--------|
| 8) Chloroethane            | 1.94  | 64   | 2695m    | 0.351  | ug/L  |        |
| 14) Carbon disulfide       | 2.80  | 76   | 2893     | 0.090  | ug/L  | # 90   |
| 19) 1,1-Dichloroethane     | 3.89  | 63   | 7736     | 0.357  | ug/L  | 99     |
| 22) cis-1,2-Dichloroethene | 4.69  | 96   | 1385     | 0.119  | ug/L  | # 87   |
| 29) 1,1,1-Trichloroethane  | 5.34  | 97   | 12666    | 0.737  | ug/L  | 98     |
| 30) Cyclohexane            | 5.41  | 56   | 699274   | 39.354 | ug/L  | 99     |
| 35) Methylcyclohexane      | 6.78  | 83   | 8322     | 0.507  | ug/L  | 93     |
| 42) Toluene                | 7.98  | 91   | 66532    | 1.539  | ug/L  | 99     |
| 48) 2-Hexanone             | 8.69  | 43   | 3785     | 0.559  | ug/L  | # 91   |
| 51) Chlorobenzene          | 9.45  | 112  | 2256     | 0.081  | ug/L  | 93     |
| 52) Ethylbenzene           | 9.57  | 91   | 21880    | 0.466  | ug/L  | 98     |
| 53) m,p-Xylene             | 9.69  | 106  | 22159    | 1.268  | ug/L  | 92     |
| 54) o-Xylene               | 10.10 | 106  | 5489     | 0.334  | ug/L  | 95     |
| 56) Isopropylbenzene       | 10.48 | 105  | 55659    | 1.255  | ug/L  | 100    |
| 62) 1,3-Dichlorobenzene    | 11.74 | 146  | 1972     | 0.088  | ug/L  | 88     |
| 63) 1,4-Dichlorobenzene    | 11.83 | 146  | 10380    | 0.448  | ug/L  | 97     |
| 65) 1,2-Dichlorobenzene    | 12.21 | 146  | 3498     | 0.161  | ug/L  | 98     |

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Misc : 25.0mL/MSVOA U/WATER  
ALS Vial : 13 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BG3S5DL

Manual Integrations  
APPROVED

MMDadoda  
10/6/2020 9:04:16 AM

Quant Time: Oct 03 02:18:59 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR092920WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Sat Oct 03 00:09:31 2020  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 68) 1,2,4-trichlorobenzene | 13.83 | 180  | 213476   | 16.689 | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene | 14.32 | 180  | 45826    | 3.915  | ug/L  | 100      |

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

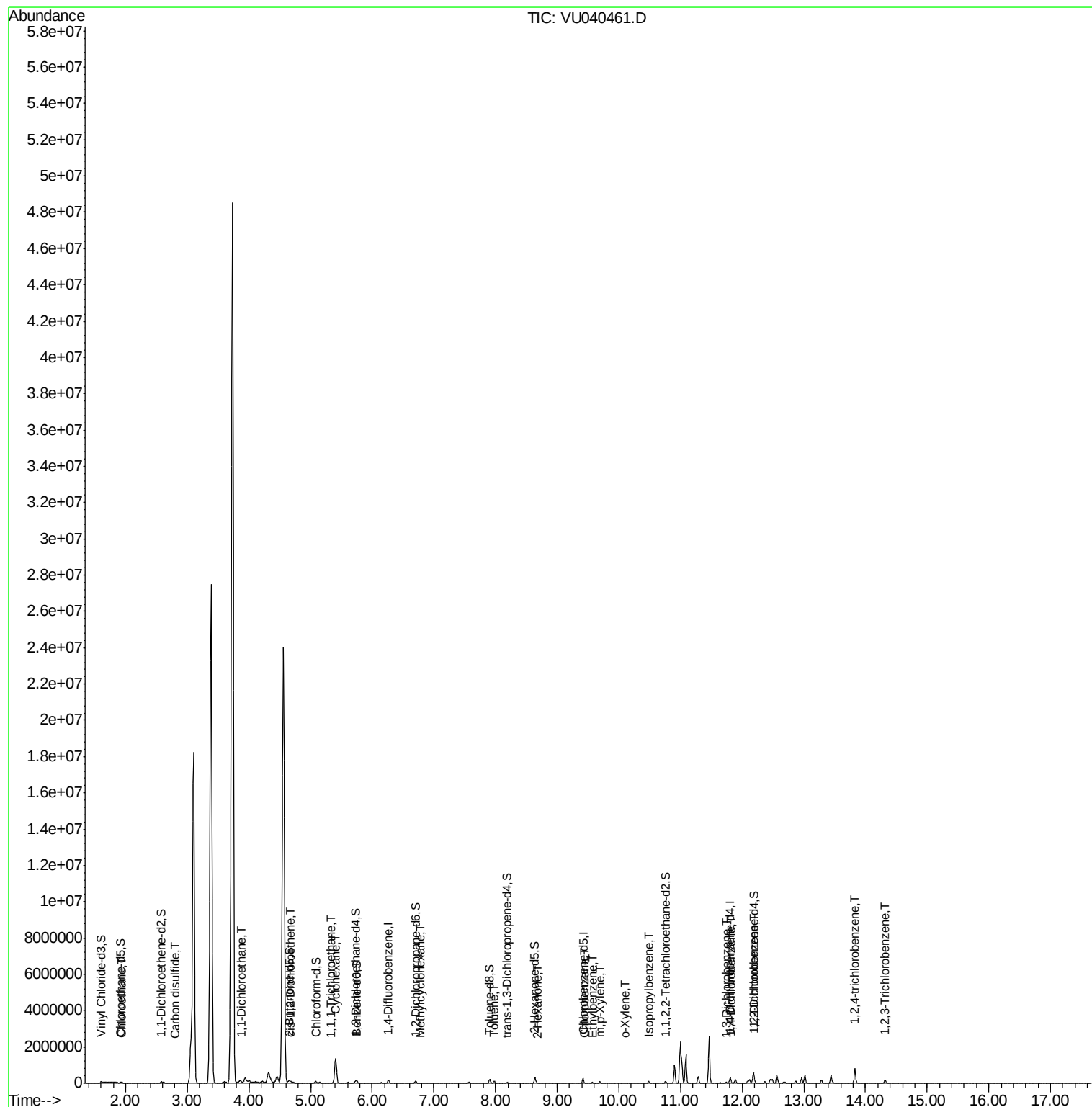
Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU100220\  
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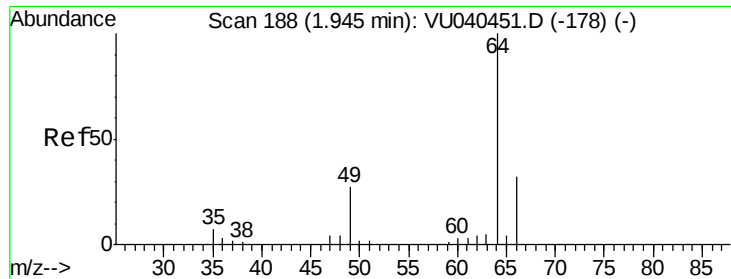
Instrument :  
MSVOA\_U  
ClientSampleId :  
BG3S5DL

Manual Integrations  
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Quant Title : TRACE VOA SOM01.0  
QLast Update : Sat Oct 03 00:09:31 2020  
Response via : Initial Calibration





#8

Chloroethane

Concen: 0.351 ug/L m

RT: 1.94 min Scan# 188

Delta R.T. 0.00 min

Lab File: VU040461.D

Acq: 02 Oct 2020 15:19

Instrument :

MSVOA\_U

ClientSampleId :

BG3S5DL

Tot Ion: 64 Resp: 2695

Ion Ratio Lower Upper

64 100

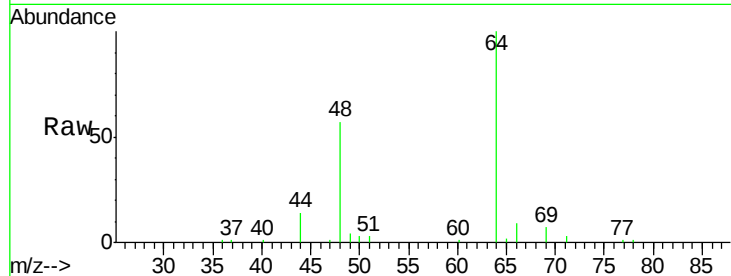
66 9.4 21.3 39.6#

Manual Integrations

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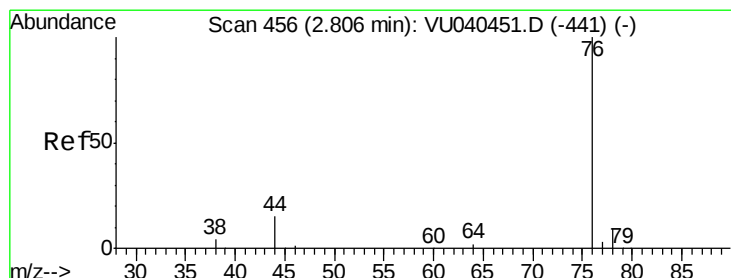
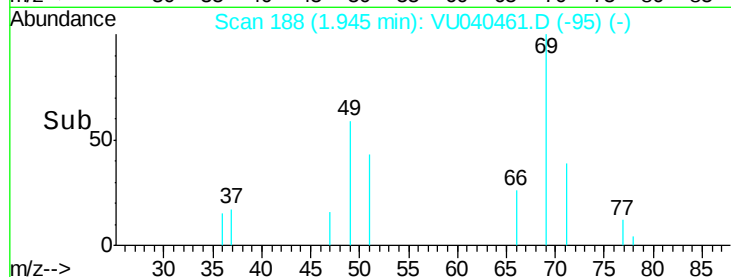
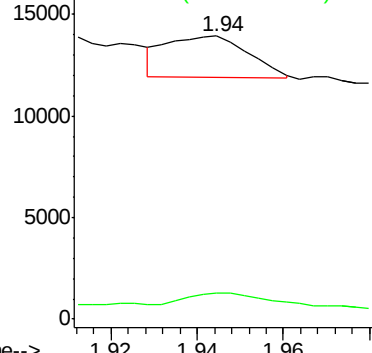
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Abundance Ion 64.10 (63.80 to 64.80): VU0

Ion 66.05 (65.75 to 66.75): VU0



#14

Carbon disulfide

Concen: 0.090 ug/L

RT: 2.80 min Scan# 455

Delta R.T. -0.00 min

Lab File: VU040461.D

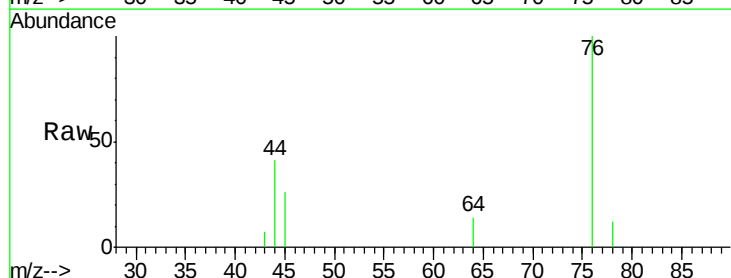
Acq: 02 Oct 2020 15:19

Tgt Ion: 76 Resp: 2893

Ion Ratio Lower Upper

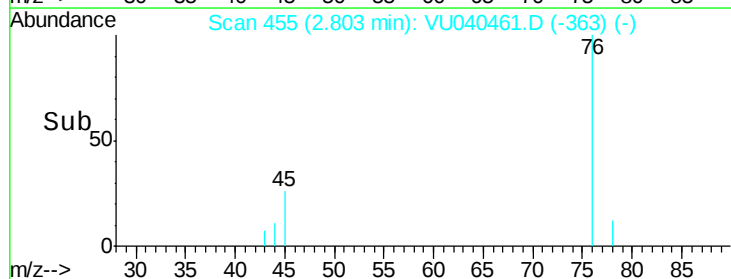
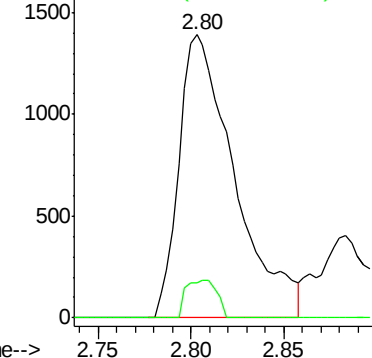
76 100

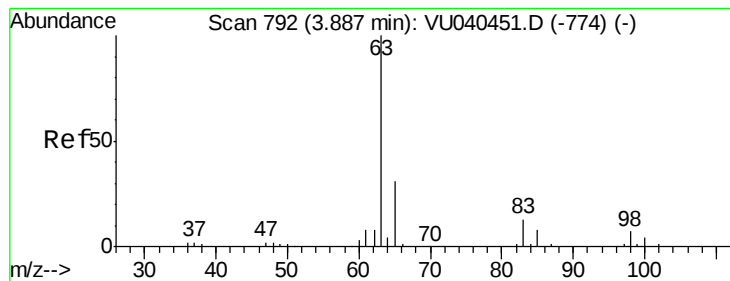
78 12.4 7.2 10.8#



Abundance Ion 76.05 (75.75 to 76.75): VU0

Ion 78.00 (77.70 to 78.70): VU0





#19

1,1-Dichloroethane

Concen: 0.357 ug/L

RT: 3.89 min Scan# 793

Delta R.T. 0.00 min

Lab File: VU040461.D

Acq: 02 Oct 2020 15:19

Instrument :

MSVOA\_U

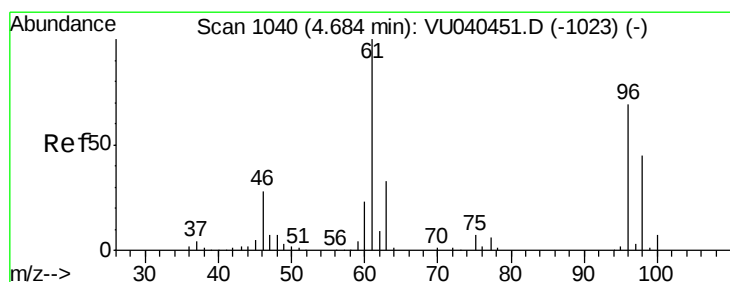
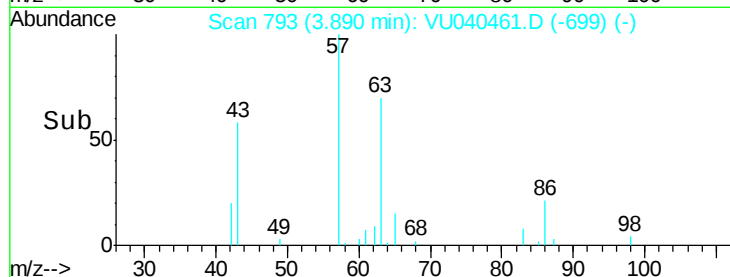
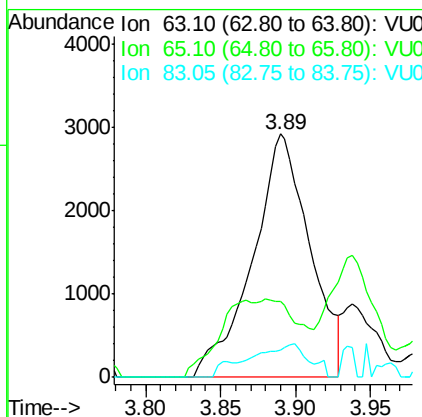
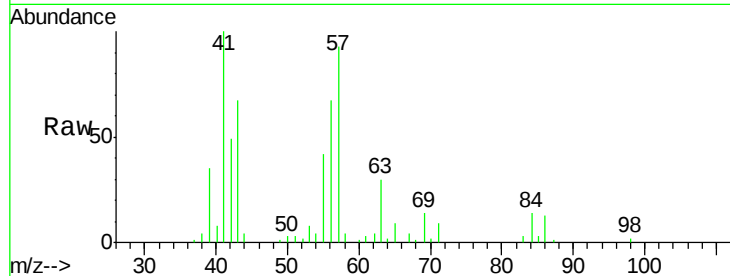
ClientSampleId :

BG3S5DL

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 63    | Resp: | 7736  |
| Ion      | Ratio | Lower | Upper |
| 63       | 100   |       |       |
| 65       | 31.0  | 21.7  | 40.3  |
| 83       | 11.0  | 9.1   | 16.9  |

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#22

cis-1,2-Dichloroethene

Concen: 0.119 ug/L

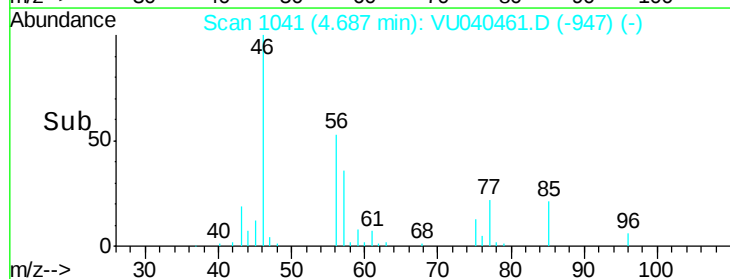
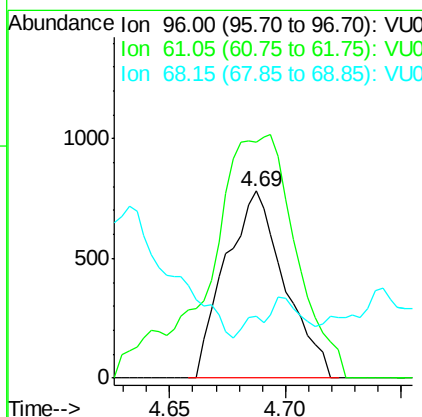
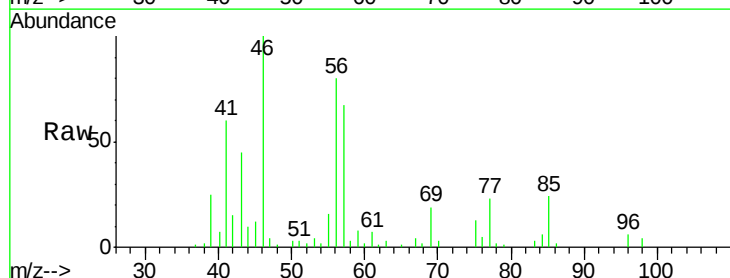
RT: 4.69 min Scan# 1041

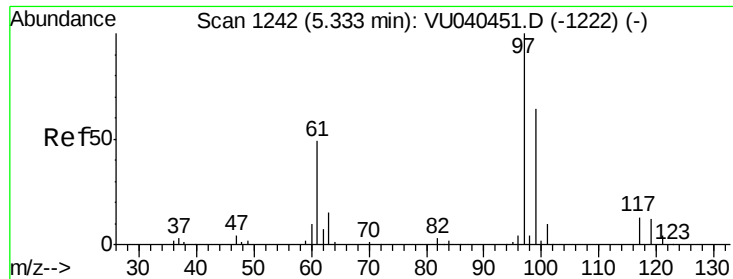
Delta R.T. 0.00 min

Lab File: VU040461.D

Acq: 02 Oct 2020 15:19

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 96    | Resp: | 1385  |
| Ion      | Ratio | Lower | Upper |
| 96       | 100   |       |       |
| 61       | 125.8 | 99.3  | 184.5 |
| 68       | 33.2  | 0.0   | 0.0#  |





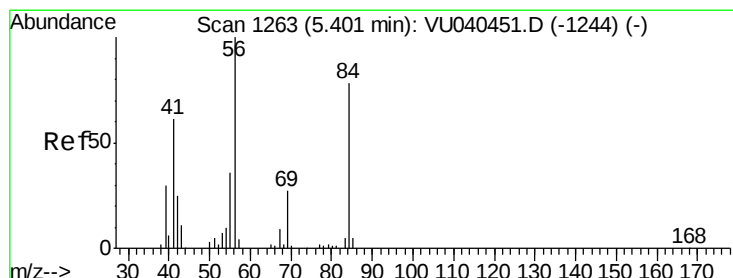
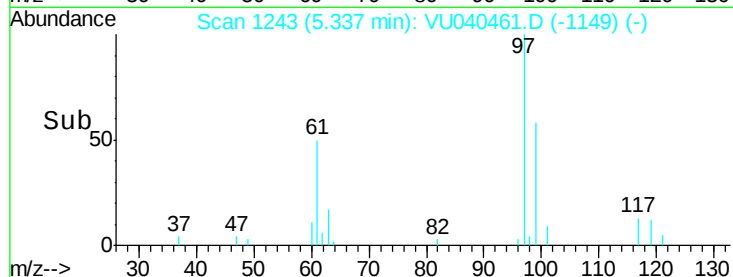
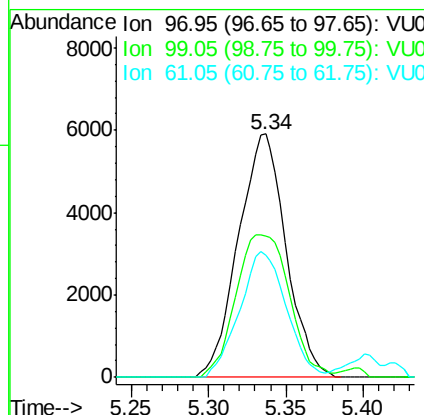
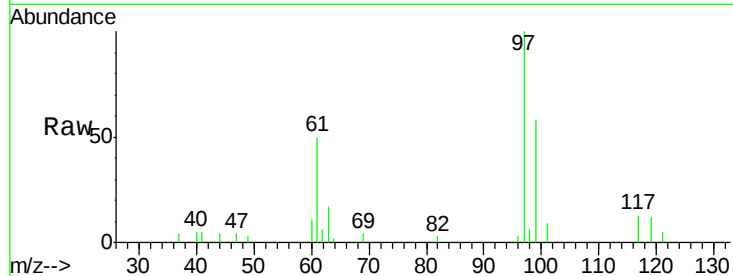
#29  
 1,1,1-Trichloroethane  
 Concen: 0.737 ug/L  
 RT: 5.34 min Scan# 1243  
 Delta R.T. 0.00 min  
 Lab File: VU040461.D  
 Acq: 02 Oct 2020 15:19

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BG3S5DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 65.8  | 50.7  | 76.1  |
| 61      | 50.6  | 39.7  | 59.5  |

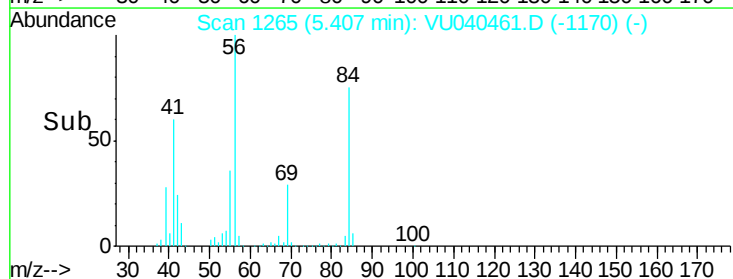
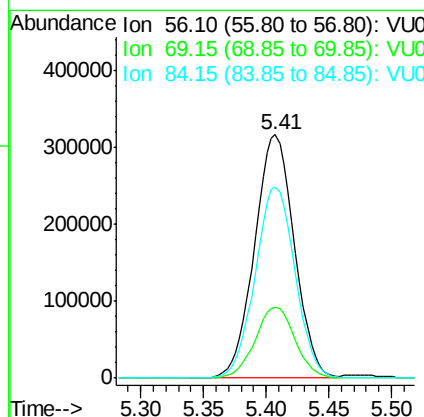
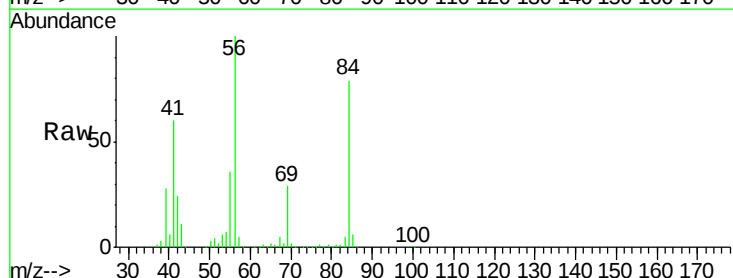
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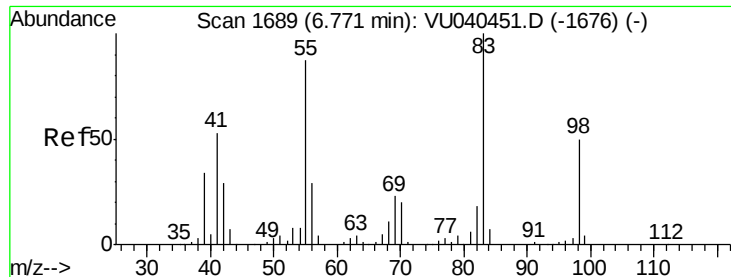
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#30  
 Cyclohexane  
 Concen: 39.354 ug/L  
 RT: 5.41 min Scan# 1265  
 Delta R.T. 0.01 min  
 Lab File: VU040461.D  
 Acq: 02 Oct 2020 15:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 56      | 100   |       |       |
| 69      | 29.3  | 23.3  | 34.9  |
| 84      | 78.8  | 64.2  | 96.4  |





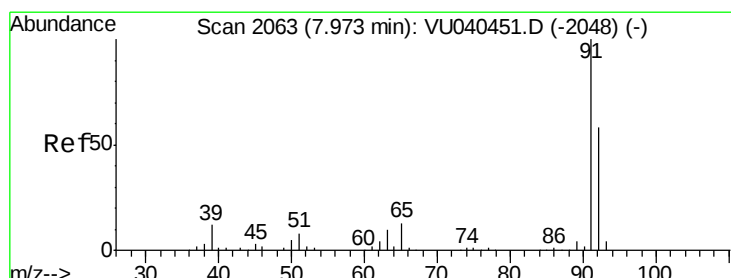
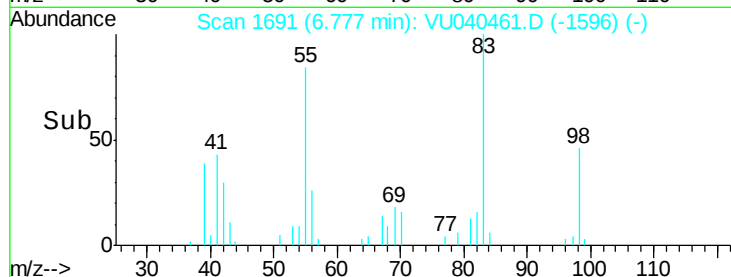
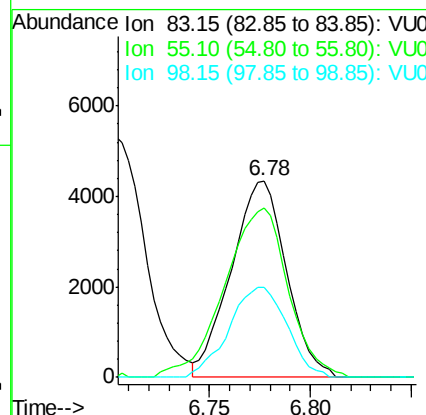
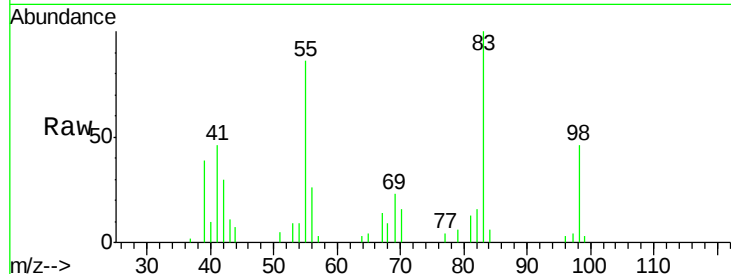
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Methvlcvclohexane  
Concen: 0.507 ug/L  
RT: 6.78 min Scan# 1691  
Delta R.T. 0.01 min  
Lab File: VU040461.D  
Acq: 02 Oct 2020 15:19

Instrument :  
MSVOA\_U  
ClientSampleId :  
BG3S5DL

| Tot Ion   | 83   | Resp  | 8322  |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 83        | 100  | 71.4  | 107.2 |
| 55        | 98.9 | 38.5  | 57.7  |
| 98        | 47.7 |       |       |

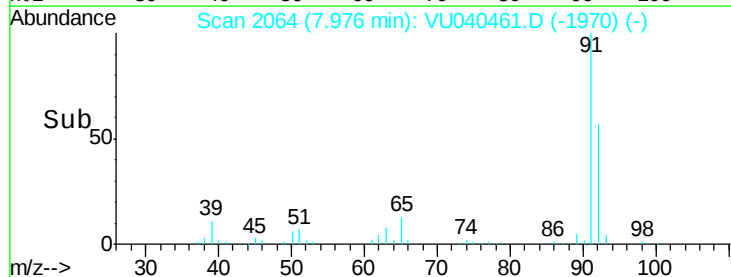
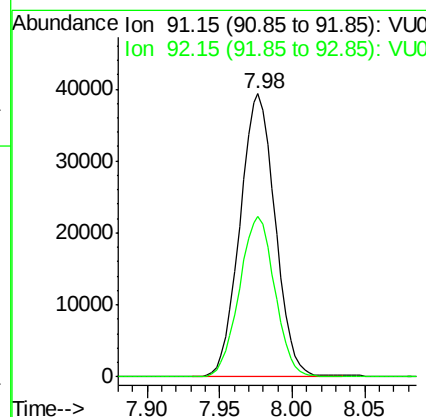
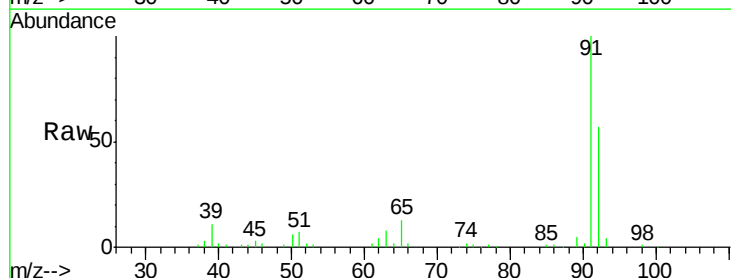
Manual Integrations  
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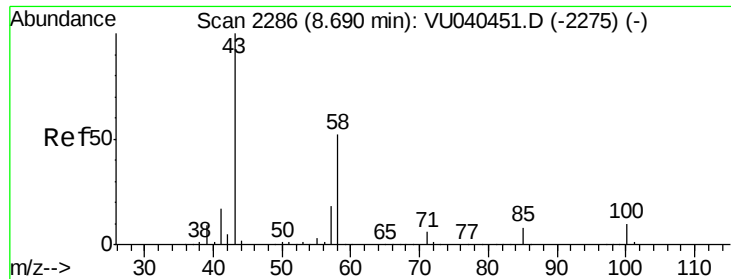
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10/6/2020 9:04:16 AM



#42  
Toluene  
Concen: 1.539 ug/L  
RT: 7.98 min Scan# 2064  
Delta R.T. 0.00 min  
Lab File: VU040461.D  
Acq: 02 Oct 2020 15:19

| Tgt Ion   | 91   | Resp  | 66532 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 91        | 100  | 40.0  | 74.4  |
| 92        | 56.7 |       |       |





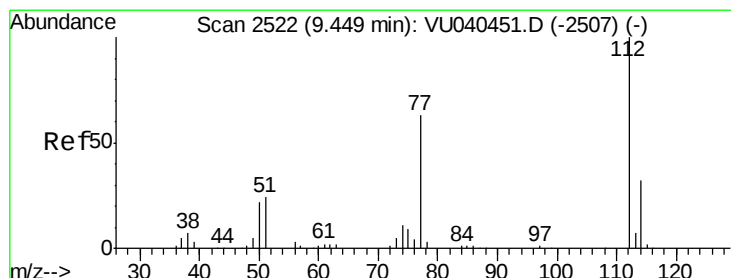
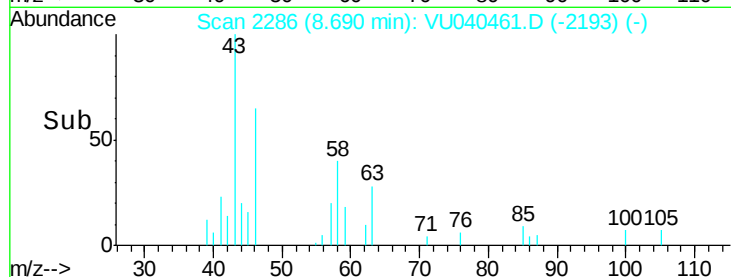
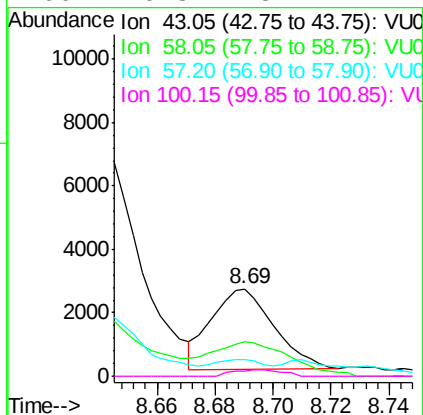
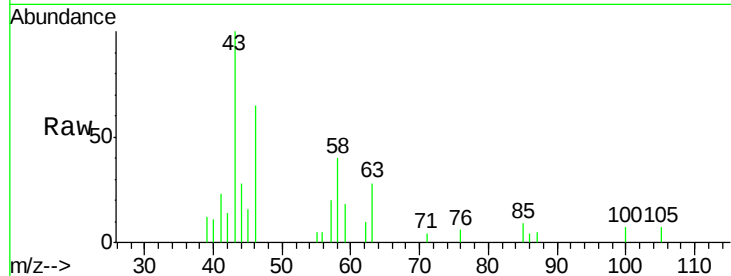
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2-Hexanone  
Concen: 0.559 ug/L  
RT: 8.69 min Scan# 2286  
Delta R.T. 0.00 min  
Lab File: VU040461.D  
Acq: 02 Oct 2020 15:19

Instrument :  
MSVOA\_U  
ClientSampleId :  
BG3S5DL

| Tot Ion   | 43    | Resp  | 3785  |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 43        | 100   |       |       |
| 58        | 55.0  | 41.0  | 61.4  |
| 57        | 10.5  | 14.6  | 22.0# |
| 100       | 6.3   | 8.2   | 12.4# |

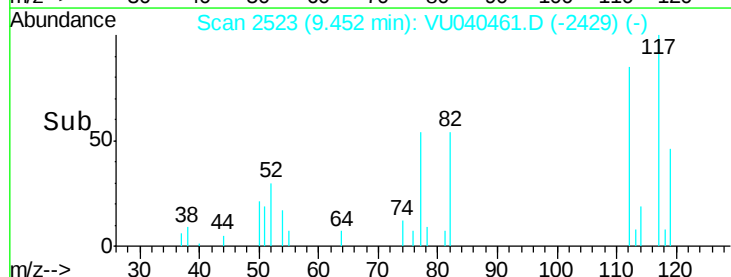
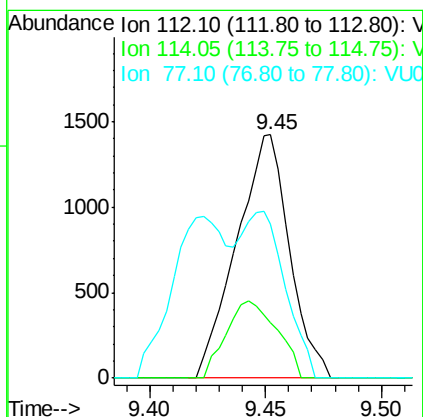
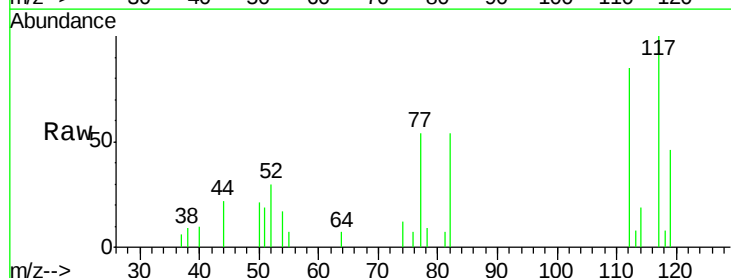
Manual Integrations  
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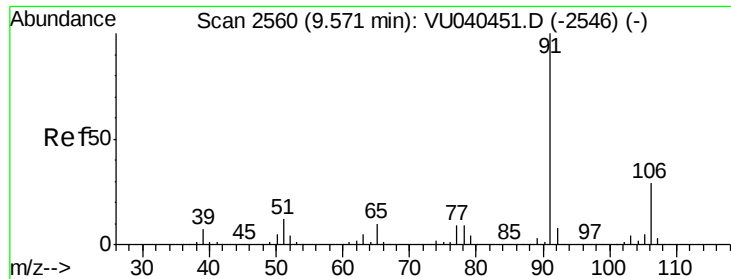
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#51  
Chlorobenzene  
Concen: 0.081 ug/L  
RT: 9.45 min Scan# 2523  
Delta R.T. 0.00 min  
Lab File: VU040461.D  
Acq: 02 Oct 2020 15:19

| Tgt Ion   | 112   | Resp  | 2256 |
|-----------|-------|-------|------|
| Ion Ratio | Lower | Upper |      |
| 112       | 100   |       |      |
| 114       | 22.5  | 22.0  | 40.8 |
| 77        | 63.3  | 49.5  | 74.3 |





#52

Ethylbenzene

Concen: 0.466 ug/L

RT: 9.57 min Scan# 2560

Delta R.T. 0.00 min

Lab File: VU040461.D

Acq: 02 Oct 2020 15:19

Tot Ion: 91 Resp: 21880

Ion Ratio Lower Upper

91 100

106 31.0 21.1 39.3

Instrument :

MSVOA\_U

ClientSampleId :

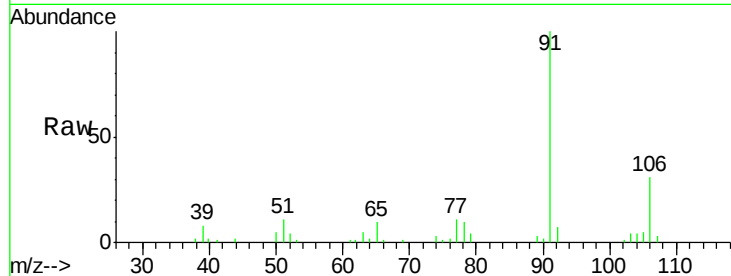
BG3S5DL

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Abundance Ion 91.15 (90.85 to 91.85): VU040461.D (-2546) (-)

Ion 106.15 (105.85 to 106.85): VU040461.D (-2546) (-)

9.57

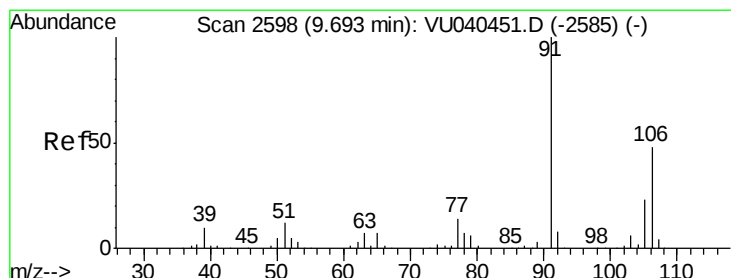
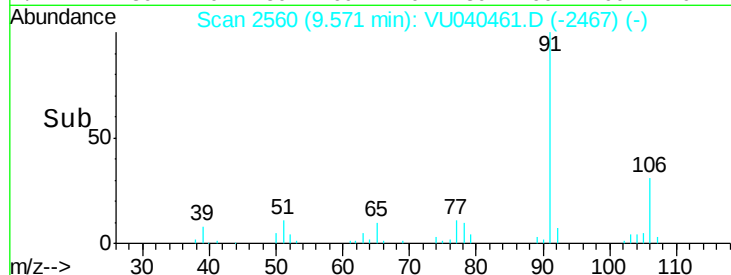
15000

10000

5000

0

Time-->



#53

m,p-Xylene

Concen: 1.268 ug/L

RT: 9.69 min Scan# 2598

Delta R.T. 0.00 min

Lab File: VU040461.D

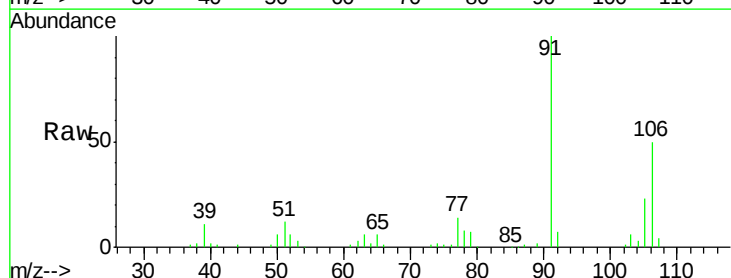
Acq: 02 Oct 2020 15:19

Tgt Ion: 106 Resp: 22159

Ion Ratio Lower Upper

106 100

91 200.1 149.0 276.6



Abundance Ion 106.15 (105.85 to 106.85): VU040461.D (-2598) (-)

Ion 91.15 (90.85 to 91.85): VU040461.D (-2598) (-)

9.69

30000

25000

20000

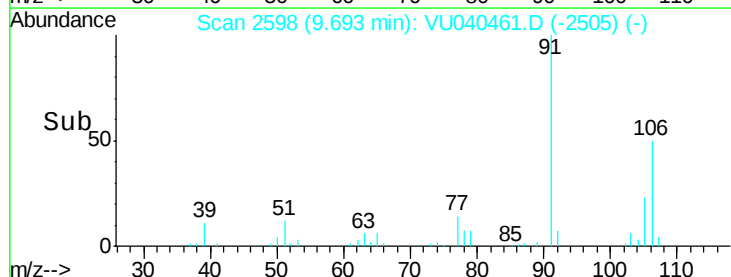
15000

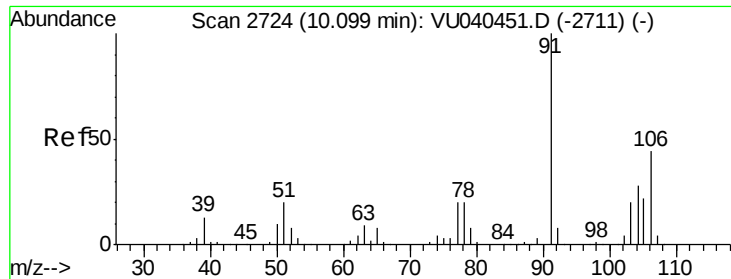
10000

5000

0

Time-->





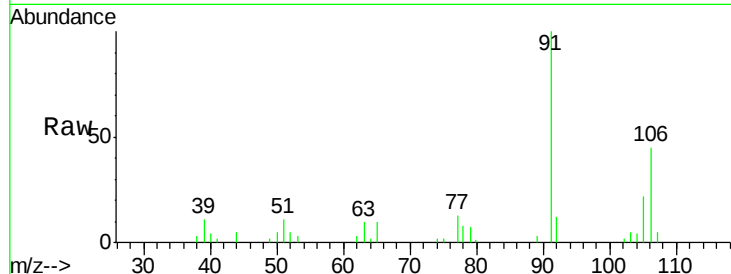
#54  
o-Xylene  
Concen: 0.334 ug/L  
RT: 10.10 min Scan# 2724  
Delta R.T. 0.00 min  
Lab File: VU040461.D  
Acq: 02 Oct 2020 15:19

Instrument :  
MSVOA\_U  
ClientSampleId :  
BG3S5DL

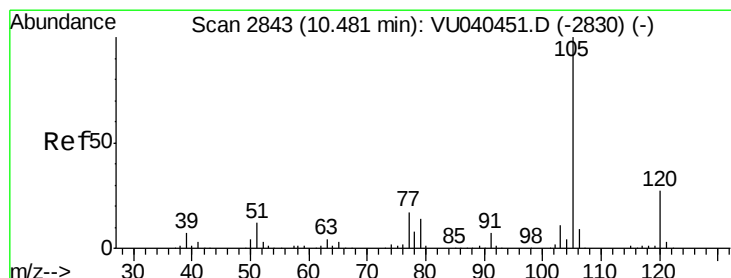
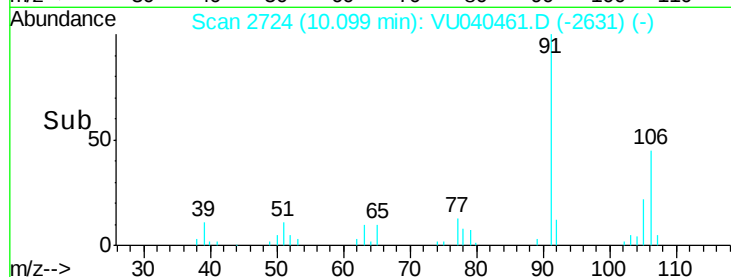
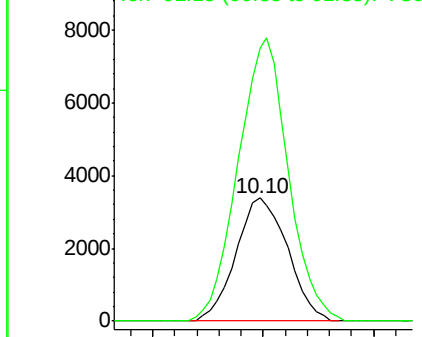
Tot Ion:106 Resp: 5489  
Ion Ratio Lower Upper  
106 100  
91 221.4 160.9 298.9

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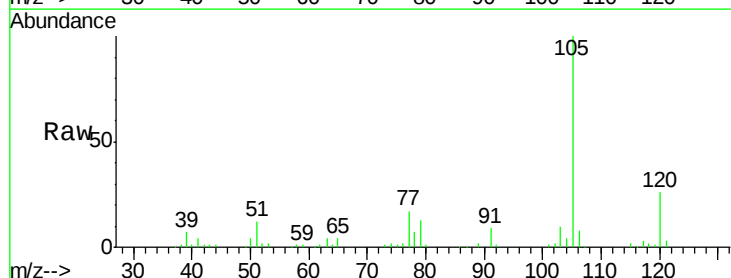


Abundance Ion 106.15 (105.85 to 106.85): V  
Ion 91.15 (90.85 to 91.85): VU0

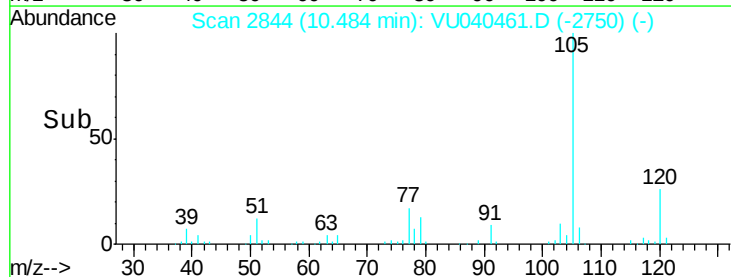
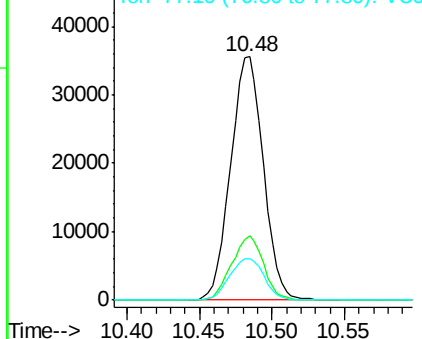


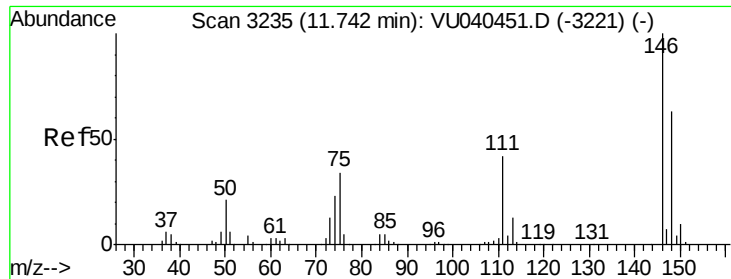
#56  
Isopropylbenzene  
Concen: 1.255 ug/L  
RT: 10.48 min Scan# 2844  
Delta R.T. 0.00 min  
Lab File: VU040461.D  
Acq: 02 Oct 2020 15:19

Tgt Ion:105 Resp: 55659  
Ion Ratio Lower Upper  
105 100  
120 25.5 20.6 30.8  
77 17.9 14.3 21.5



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): VU0





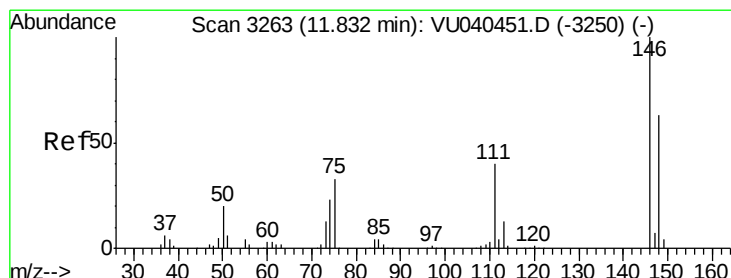
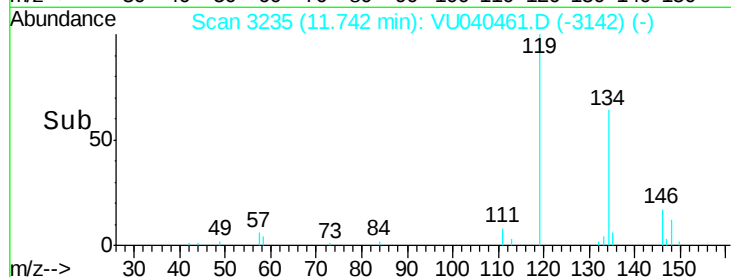
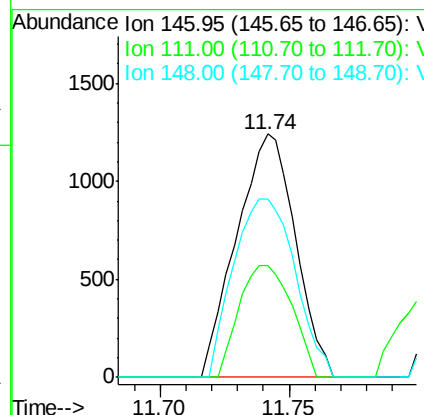
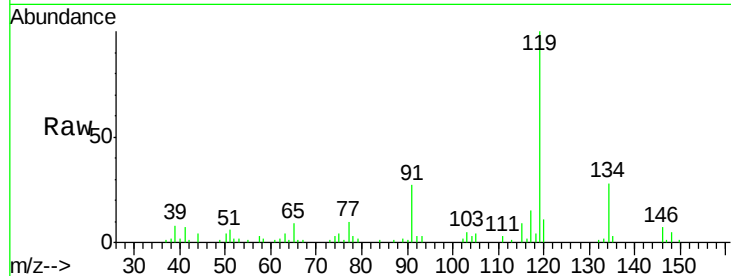
#62  
 1,3-Dichlorobenzene  
 Concen: 0.088 ug/L  
 RT: 11.74 min Scan# 3235  
 Delta R.T. 0.00 min  
 Lab File: VU040461.D  
 Acq: 02 Oct 2020 15:19

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BG3S5DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 46.1  | 28.6  | 53.0  |
| 148     | 73.2  | 43.4  | 80.6  |

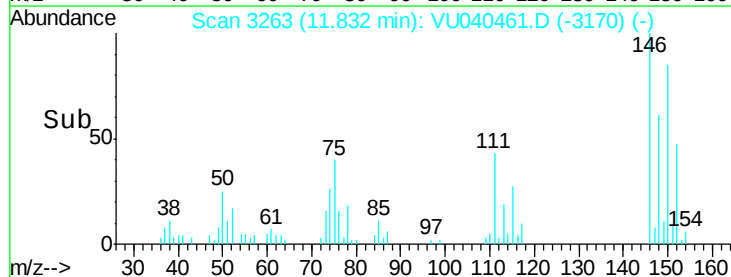
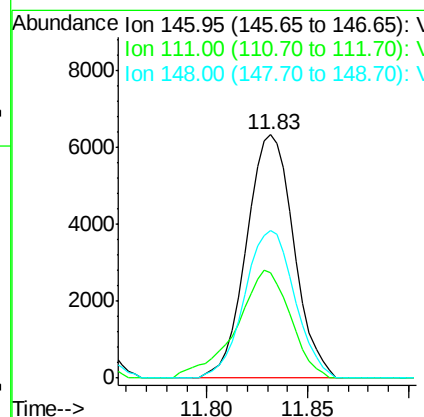
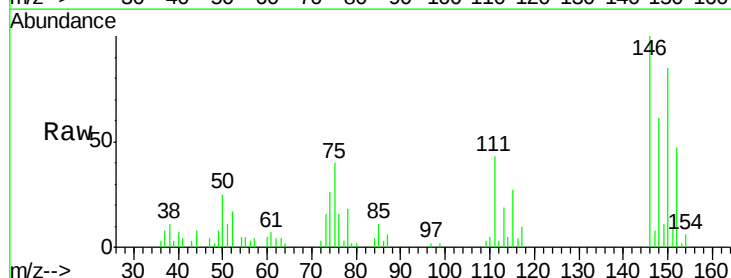
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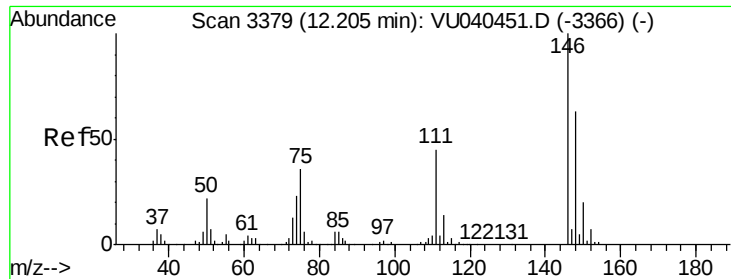
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#63  
 1,4-Dichlorobenzene  
 Concen: 0.448 ug/L  
 RT: 11.83 min Scan# 3263  
 Delta R.T. 0.00 min  
 Lab File: VU040461.D  
 Acq: 02 Oct 2020 15:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 43.4  | 29.2  | 54.2  |
| 148     | 60.6  | 44.4  | 82.4  |





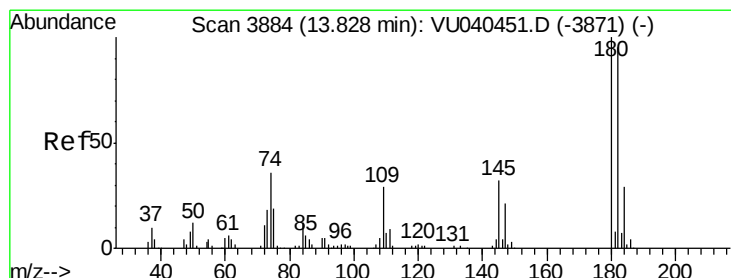
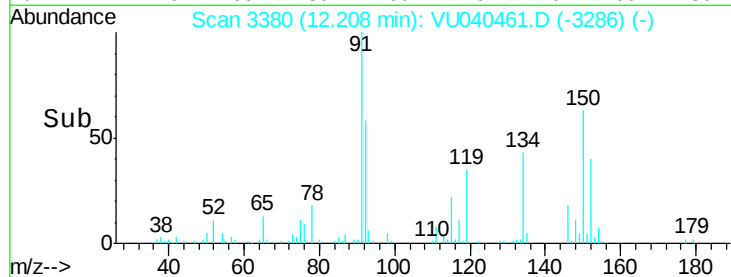
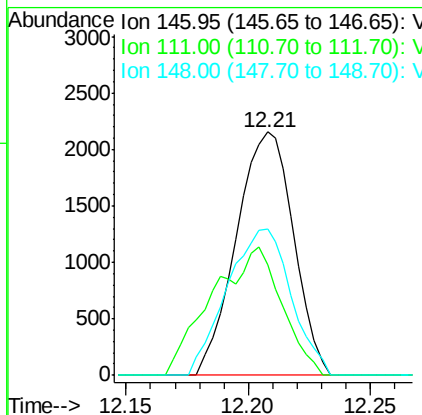
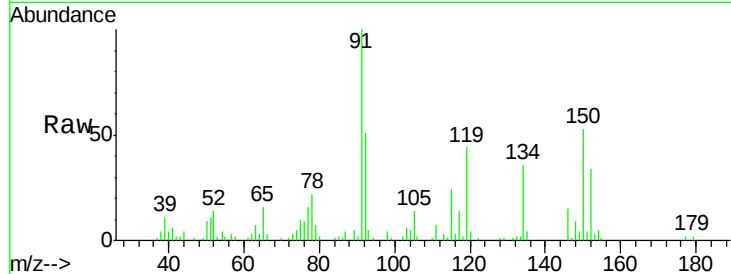
#65  
 1,2-Dichlorobenzene  
 Concen: 0.161 ug/L  
 RT: 12.21 min Scan# 3380  
 Delta R.T. 0.00 min  
 Lab File: VU040461.D  
 Acq: 02 Oct 2020 15:19

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BG3S5DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 45.4  | 35.6  | 53.4  |
| 148     | 60.2  | 49.8  | 74.6  |

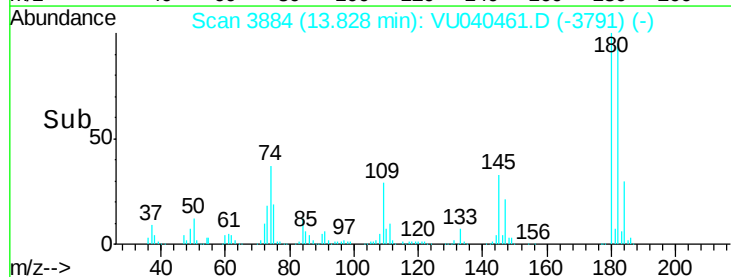
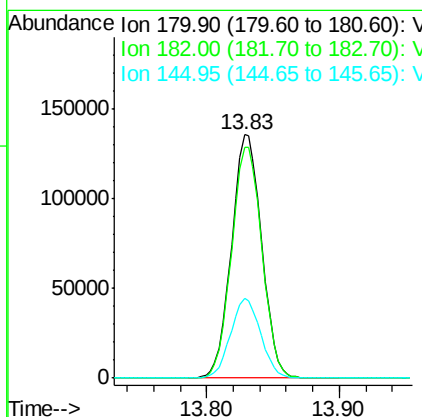
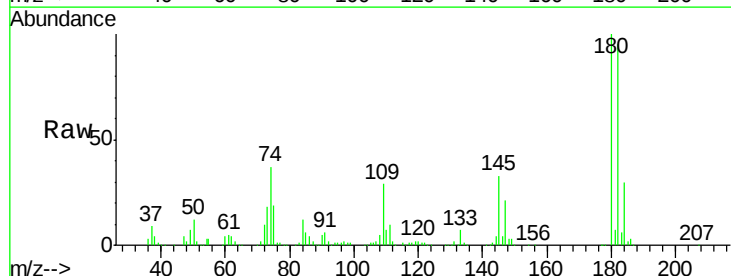
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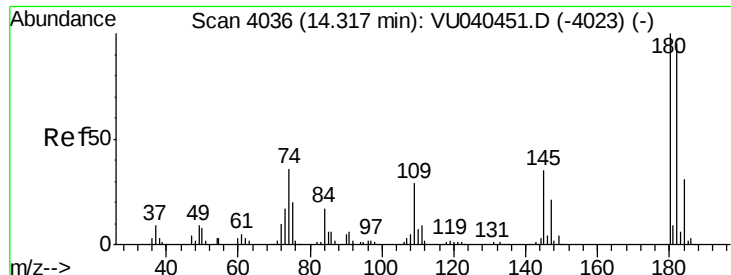
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#68  
 1,2,4-trichlorobenzene  
 Concen: 16.689 ug/L  
 RT: 13.83 min Scan# 3884  
 Delta R.T. 0.00 min  
 Lab File: VU040461.D  
 Acq: 02 Oct 2020 15:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.1  | 76.6  | 115.0 |
| 145     | 32.7  | 26.3  | 39.5  |





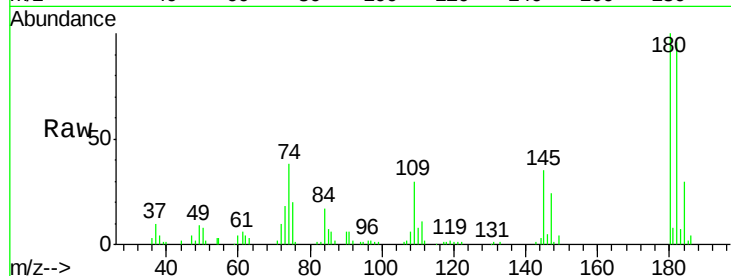
#70  
 1,2,3-Trichlorobenzene  
 Concen: 3.915 ug/L  
 RT: 14.32 min Scan# 4036  
 Delta R.T. 0.00 min  
 Lab File: VU040461.D  
 Acq: 02 Oct 2020 15:19

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BG3S5DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.0  | 76.6  | 115.0 |
| 145     | 34.8  | 27.8  | 41.6  |

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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

