

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN082824\  
 Data File : VN083544.D  
 Acq On : 28 Aug 2024 18:33  
 Operator : JC\MD  
 Sample : P3715-01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VOA-240821073-02

Quant Time: Aug 29 00:53:58 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N082824W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Wed Aug 28 12:23:16 2024  
 Response via : Initial Calibration

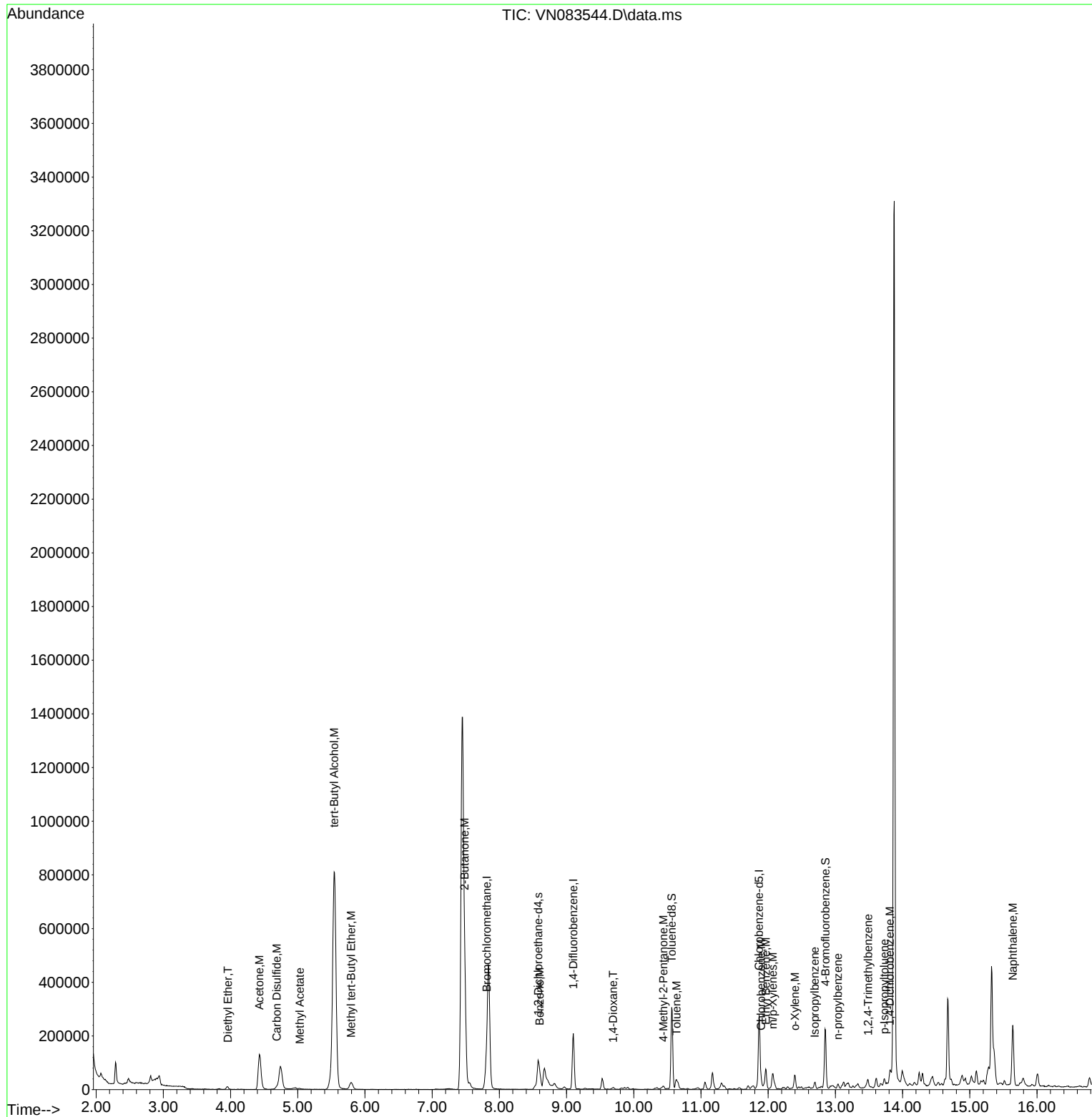
| Compound                    | R.T.           | QIon | Response            | Conc     | Units  | Dev(Min) |
|-----------------------------|----------------|------|---------------------|----------|--------|----------|
| -----                       |                |      |                     |          |        |          |
| Internal Standards          |                |      |                     |          |        |          |
| 1) Bromochloromethane       | 7.812          | 128  | 28526               | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene     | 9.100          | 114  | 169820              | 30.000   | ug/l   | 0.00     |
| 57) Chlorobenzene-d5        | 11.865         | 117  | 148007              | 30.000   | ug/l   | 0.00     |
|                             |                |      |                     |          |        |          |
| System Monitoring Compounds |                |      |                     |          |        |          |
| 27) 1,2-Dichloroethane-d4   | 8.577          | 65   | 80600               | 31.436   | ug/l   | 0.00     |
| Spiked Amount 30.000        | Range 91 - 110 |      | Recovery = 104.800% |          |        |          |
| 60) 4-Bromofluorobenzene    | 12.853         | 95   | 77881               | 29.722   | ug/l   | 0.00     |
| Spiked Amount 30.000        | Range 63 - 112 |      | Recovery = 99.067%  |          |        |          |
| 63) Toluene-d8              | 10.565         | 98   | 206255              | 30.186   | ug/l   | 0.00     |
| Spiked Amount 30.000        | Range 91 - 112 |      | Recovery = 100.633% |          |        |          |
|                             |                |      |                     |          |        |          |
| Target Compounds            |                |      |                     |          |        |          |
|                             |                |      |                     |          | Qvalue |          |
| 8) Diethyl Ether            | 3.959          | 74   | 5846                | 4.868    | ug/l   | 97       |
| 12) Methyl Acetate          | 5.030          | 43   | 4881                | 1.590    | ug/l # | 87       |
| 15) Acetone                 | 4.430          | 58   | 57686               | 204.553  | ug/l # | 68       |
| 16) Carbon Disulfide        | 4.689          | 76   | 23933               | 4.967    | ug/l   | 100      |
| 23) tert-Butyl Alcohol      | 5.542          | 59   | 1638256             | 4073.868 | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether | 5.795          | 73   | 42634               | 6.437    | ug/l # | 81       |
| 30) 2-Butanone              | 7.483          | 43   | 683024              | 499.730  | ug/l   | 92       |
| 34) Benzene                 | 8.600          | 78   | 38322               | 4.740    | ug/l # | 78       |
| 45) 1,4-Dioxane             | 9.694          | 88   | 4171                | 103.712  | ug/l # | 92       |
| 58) 4-Methyl-2-Pentanone    | 10.441         | 43   | 10462               | 3.986    | ug/l # | 69       |
| 62) Toluene                 | 10.635         | 91   | 22604               | 2.640    | ug/l   | 100      |
| 64) Chlorobenzene           | 11.894         | 112  | 16225               | 3.059    | ug/l   | 94       |
| 66) Ethyl Benzene           | 11.965         | 91   | 47791               | 4.948    | ug/l   | 98       |
| 67) m/p-Xylenes             | 12.071         | 106  | 18297               | 5.111    | ug/l   | 100      |
| 68) o-Xylene                | 12.400         | 106  | 11913               | 3.389    | ug/l   | 91       |
| 70) Isopropylbenzene        | 12.694         | 105  | 13077               | 1.408    | ug/l   | 97       |
| 74) n-propylbenzene         | 13.035         | 91   | 6969                | 0.648    | ug/l   | 97       |
| 80) 1,2,4-Trimethylbenzene  | 13.488         | 105  | 15048               | 1.904    | ug/l   | 99       |
| 82) p-Isopropyltoluene      | 13.729         | 119  | 12918               | 1.633    | ug/l   | 95       |
| 84) 1,4-Dichlorobenzene     | 13.812         | 146  | 12837               | 3.113    | ug/l   | 96       |
| 91) Naphthalene             | 15.641         | 128  | 205993              | 26.900   | ug/l   | 99       |
| -----                       |                |      |                     |          |        |          |

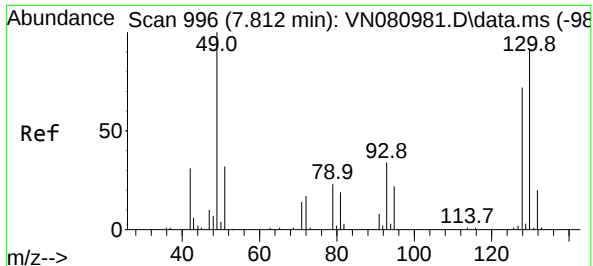
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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VOA-240821073-02

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Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N082824W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Wed Aug 28 12:23:16 2024  
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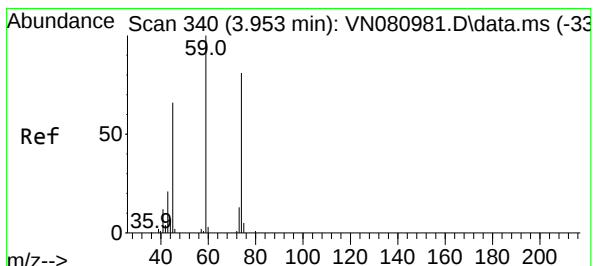
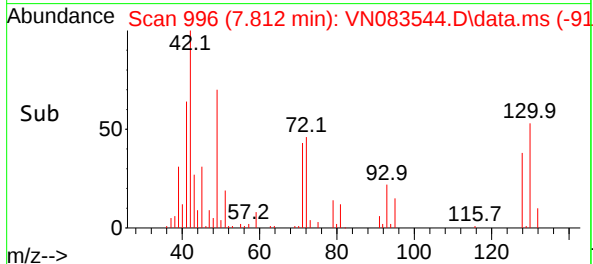
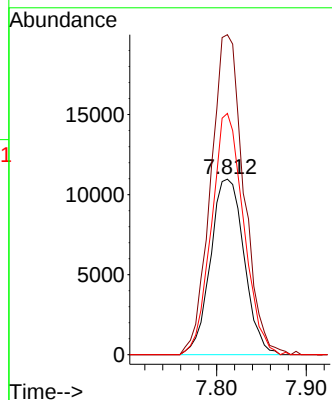
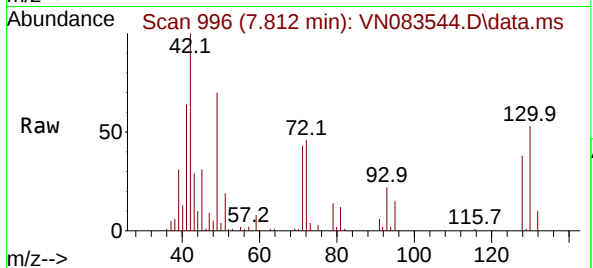




#1  
Bromochloromethane  
Concen: 30.000 ug/l  
RT: 7.812 min Scan# 996  
Delta R.T. 0.000 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

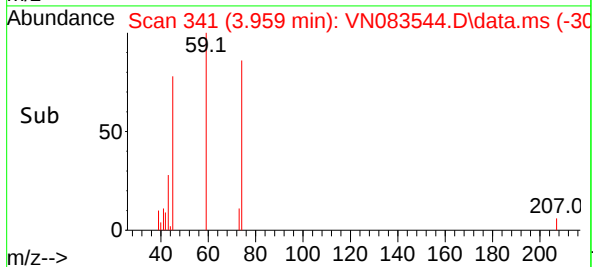
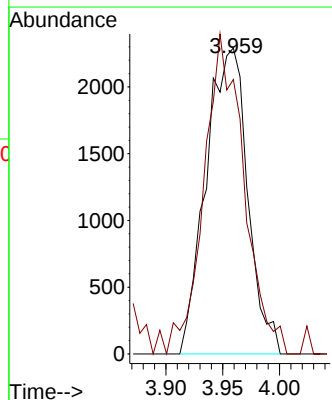
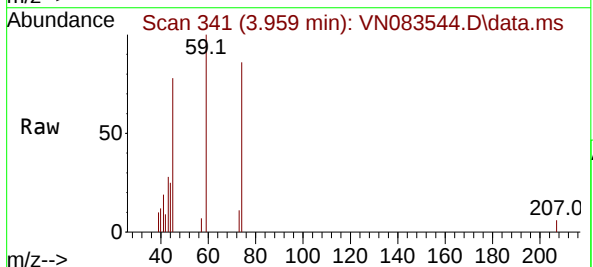
Instrument :  
MSVOA\_N  
ClientSampleId :  
VOA-240821073-02

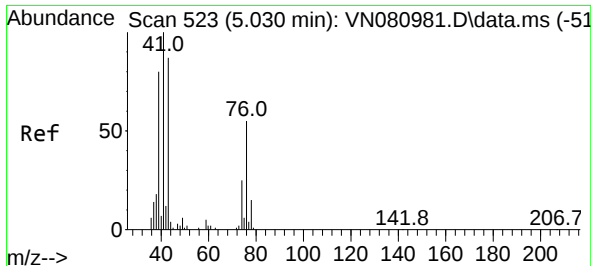
Tgt Ion:128 Resp: 28526  
Ion Ratio Lower Upper  
128 100  
49 179.3 0.0 403.7  
130 131.5 0.0 323.3



#8  
Diethyl Ether  
Concen: 4.868 ug/l  
RT: 3.959 min Scan# 341  
Delta R.T. 0.006 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

Tgt Ion: 74 Resp: 5846  
Ion Ratio Lower Upper  
74 100  
45 85.0 16.4 147.4

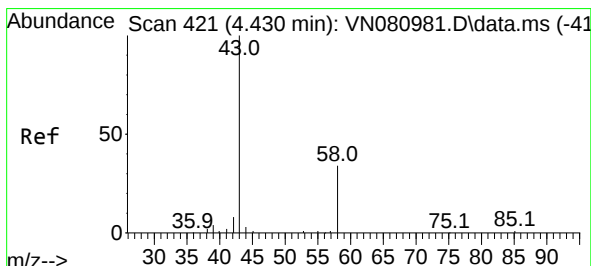
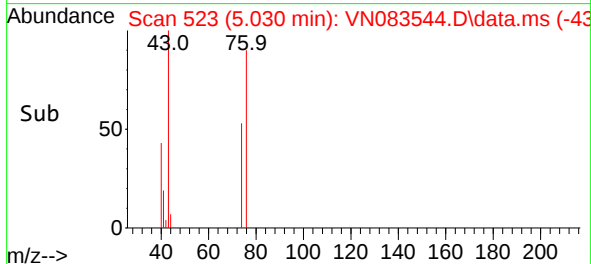
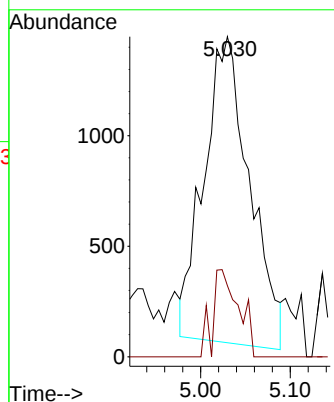
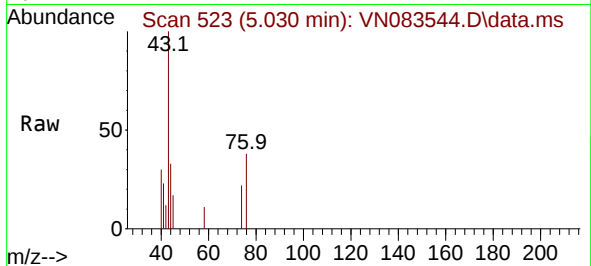




#12  
Methyl Acetate  
Concen: 1.590 ug/l  
RT: 5.030 min Scan# 51  
Delta R.T. 0.000 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

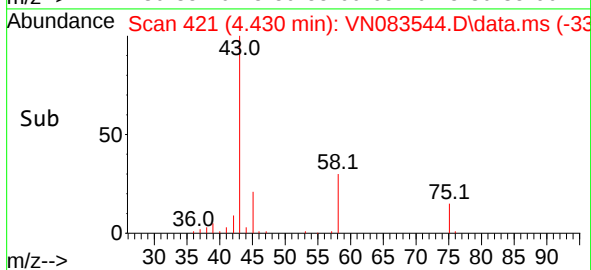
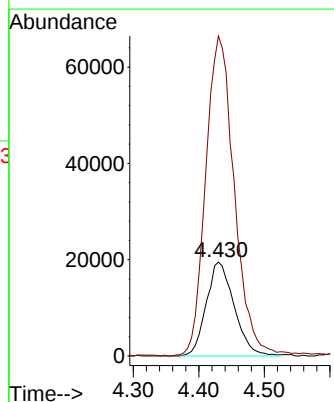
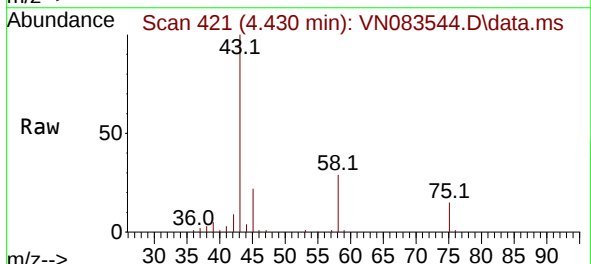
Instrument :  
MSVOA\_N  
ClientSampleId :  
VOA-240821073-02

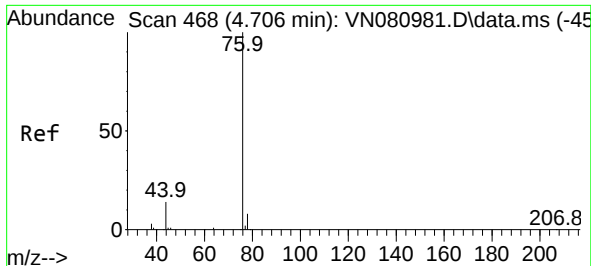
Tgt Ion: 43 Resp: 4881  
Ion Ratio Lower Upper  
43 100  
74 26.9 27.7 41.5#



#15  
Acetone  
Concen: 204.553 ug/l  
RT: 4.430 min Scan# 421  
Delta R.T. 0.000 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

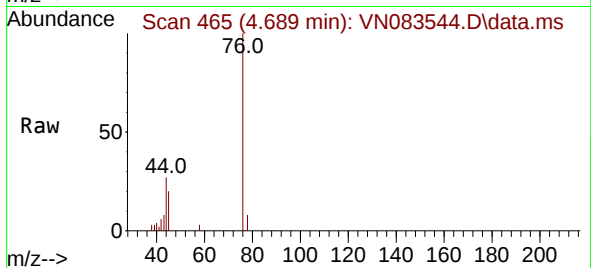
Tgt Ion: 58 Resp: 57686  
Ion Ratio Lower Upper  
58 100  
43 339.3 223.1 334.7#



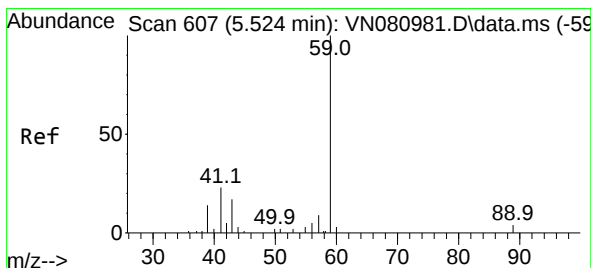
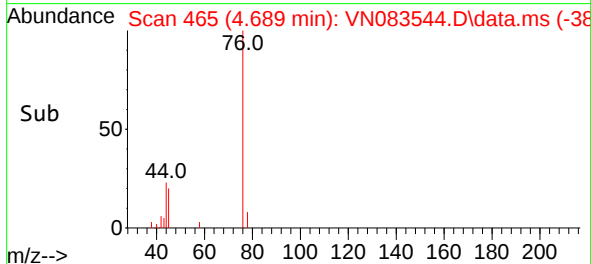
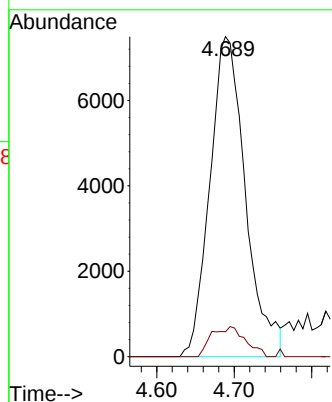


#16  
Carbon Disulfide  
Concen: 4.967 ug/l  
RT: 4.689 min Scan# 41  
Delta R.T. -0.018 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

Instrument :  
MSVOA\_N  
ClientSampleId :  
VOA-240821073-02

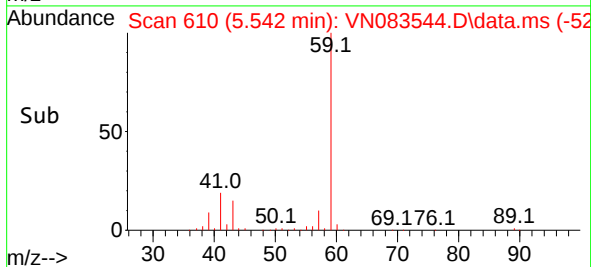
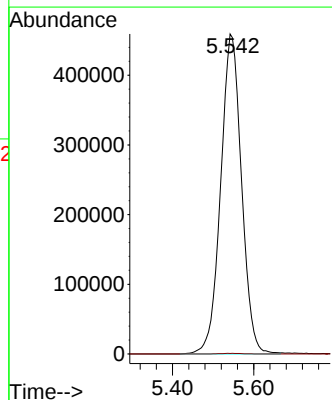
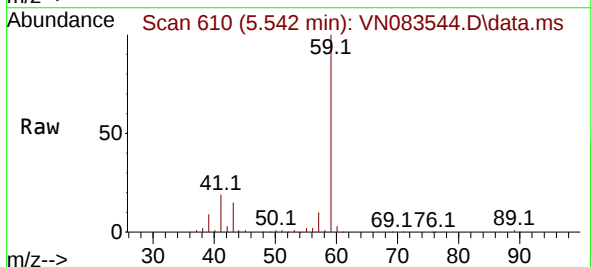


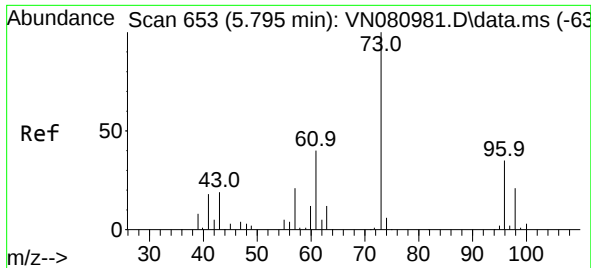
Tgt Ion: 76 Resp: 23933  
Ion Ratio Lower Upper  
76 100  
78 7.8 6.3 9.5



#23  
tert-Butyl Alcohol  
Concen: 4073.868 ug/l  
RT: 5.542 min Scan# 610  
Delta R.T. 0.018 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

Tgt Ion: 59 Resp: 1638256  
Ion Ratio Lower Upper  
59 100  
52 0.1 0.0 0.0#

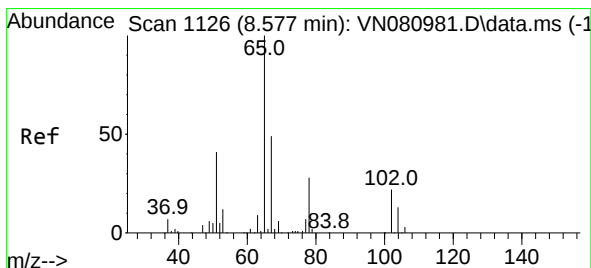
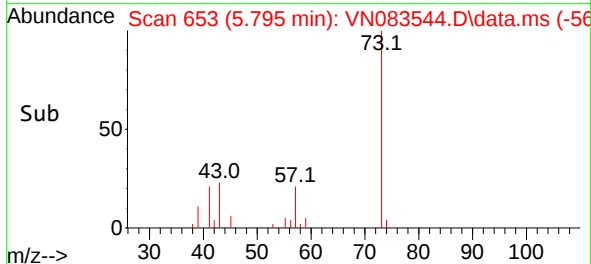
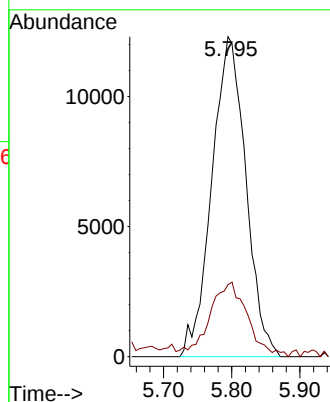
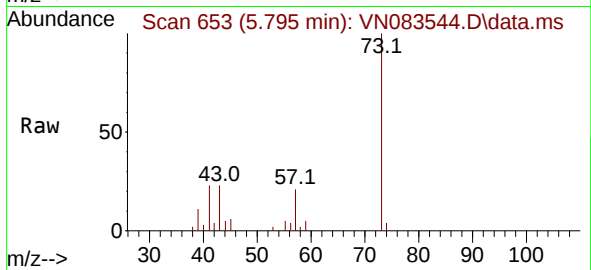




#24  
Methyl tert-Butyl Ether  
Concen: 6.437 ug/l  
RT: 5.795 min Scan# 61  
Delta R.T. 0.000 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

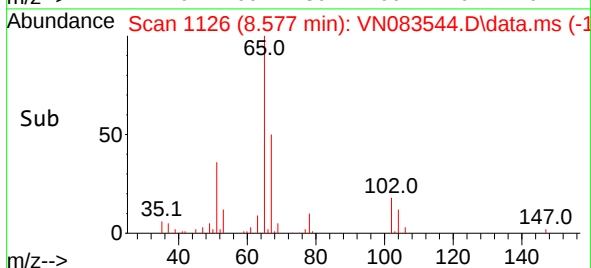
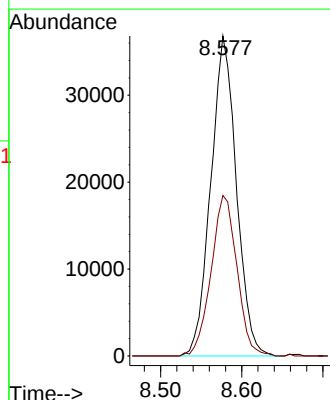
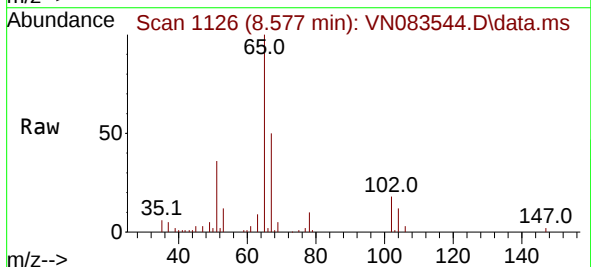
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ClientSampleId :  
VOA-240821073-02

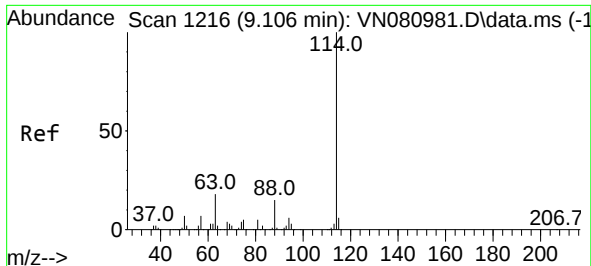
Tgt Ion: 73 Resp: 42634  
Ion Ratio Lower Upper  
73 100  
43 24.8 13.4 20.2#



#27  
1,2-Dichloroethane-d4  
Concen: 31.436 ug/l  
RT: 8.577 min Scan# 1126  
Delta R.T. 0.000 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

Tgt Ion: 65 Resp: 80600  
Ion Ratio Lower Upper  
65 100  
67 50.7 43.2 64.8





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.100 min Scan# 11

Delta R.T. -0.006 min

Lab File: VN083544.D

Acq: 28 Aug 2024 18:33

Instrument :

MSVOA\_N

ClientSampleId :

VOA-240821073-02

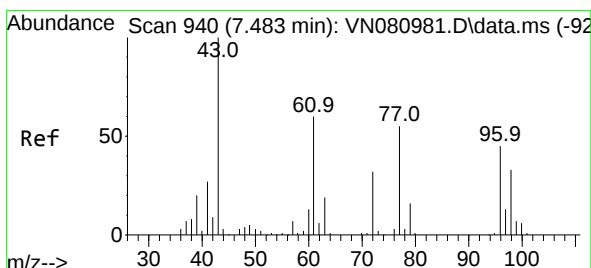
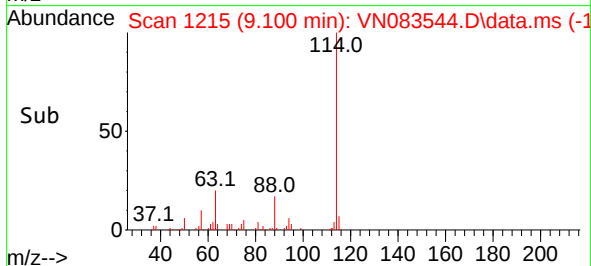
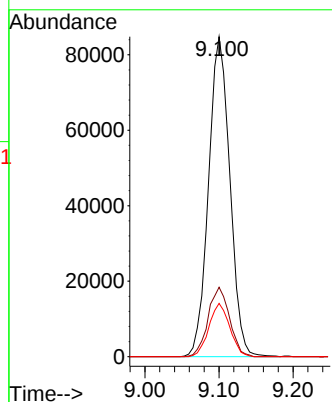
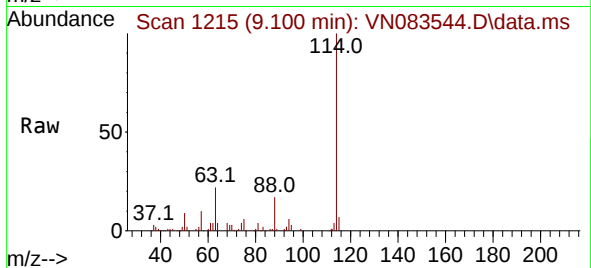
Tgt Ion:114 Resp: 169820

Ion Ratio Lower Upper

114 100

63 21.8 15.9 23.9

88 16.3 12.7 19.1



#30

2-Butanone

Concen: 499.730 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.000 min

Lab File: VN083544.D

Acq: 28 Aug 2024 18:33

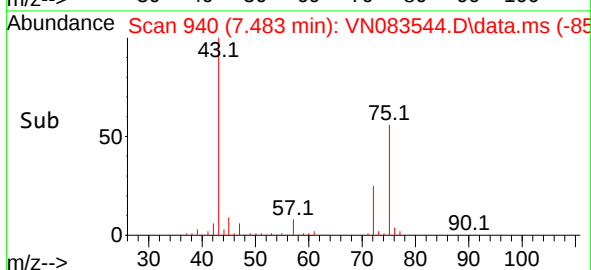
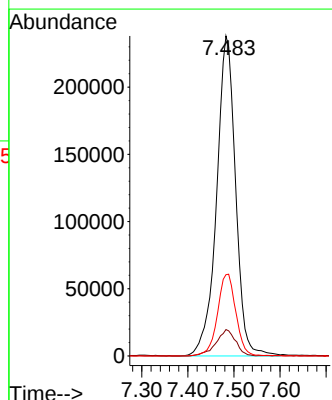
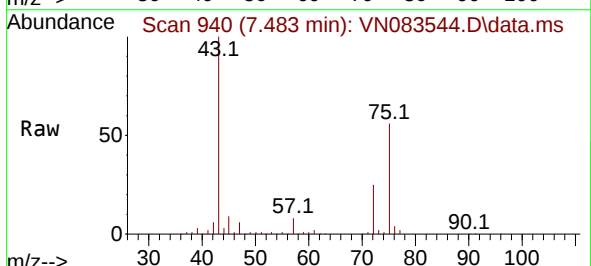
Tgt Ion: 43 Resp: 683024

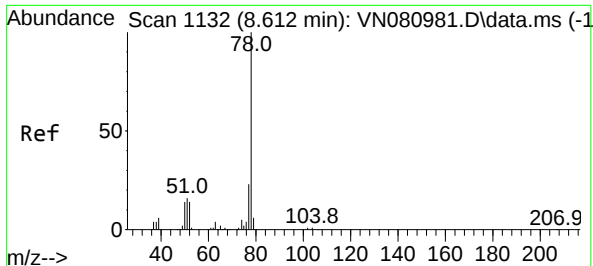
Ion Ratio Lower Upper

43 100

57 8.5 6.7 10.1

72 24.7 24.0 36.0





#34

Benzene

Concen: 4.740 ug/l

RT: 8.600 min Scan# 1132

Delta R.T. -0.012 min

Lab File: VN083544.D

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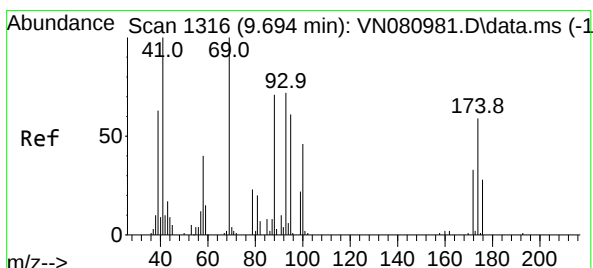
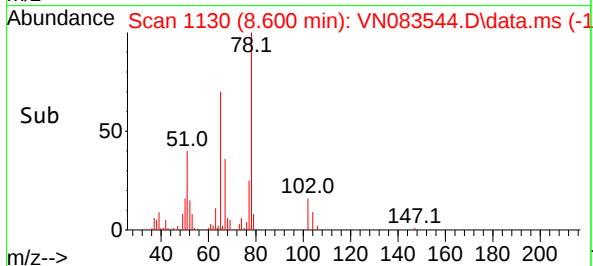
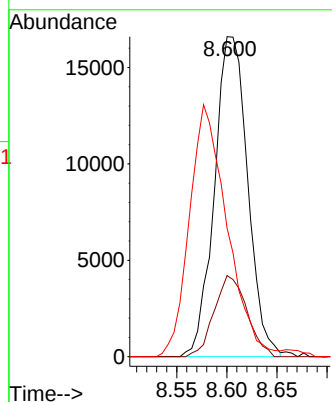
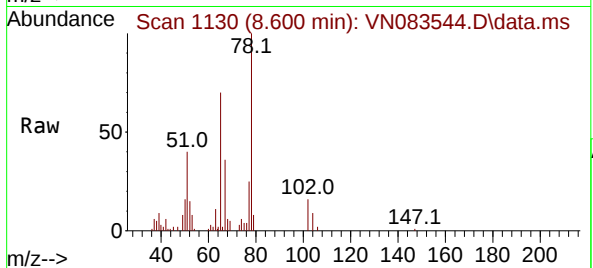
Tgt Ion: 78 Resp: 38322

Ion Ratio Lower Upper

78 100

77 25.3 19.2 28.8

51 38.4 13.3 19.9#



#45

1,4-Dioxane

Concen: 103.712 ug/l

RT: 9.694 min Scan# 1316

Delta R.T. 0.000 min

Lab File: VN083544.D

Acq: 28 Aug 2024 18:33

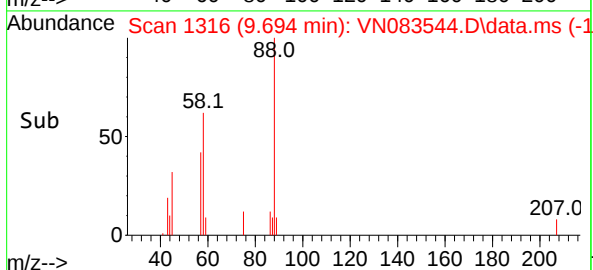
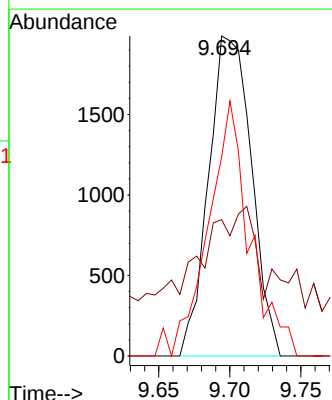
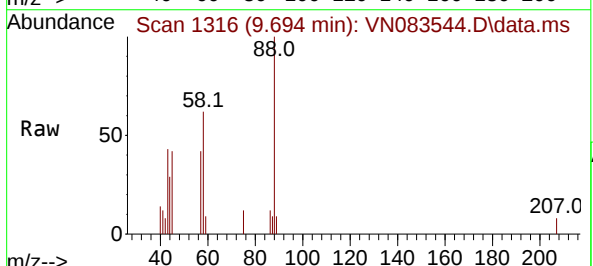
Tgt Ion: 88 Resp: 4171

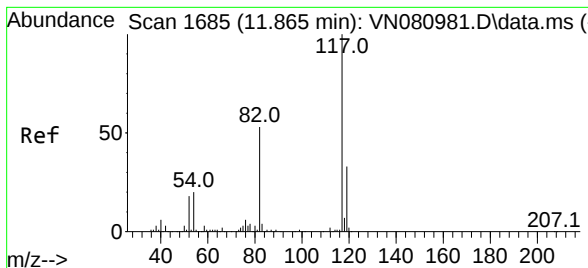
Ion Ratio Lower Upper

88 100

43 10.5 19.8 29.6#

58 70.2 55.4 83.0

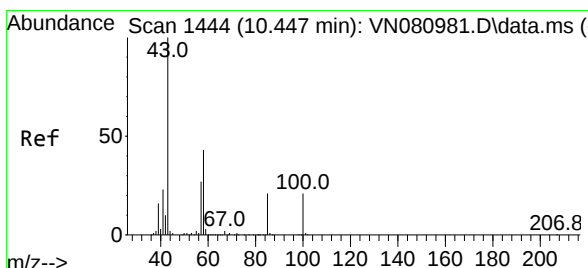
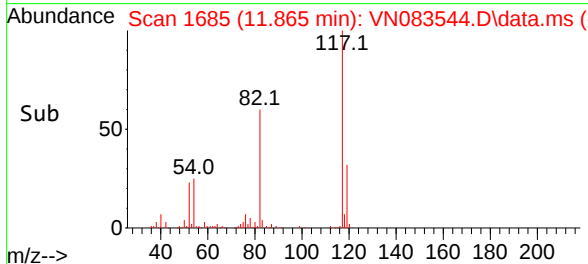
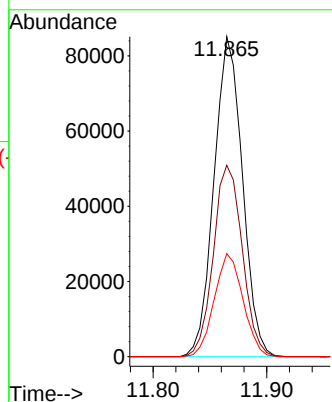
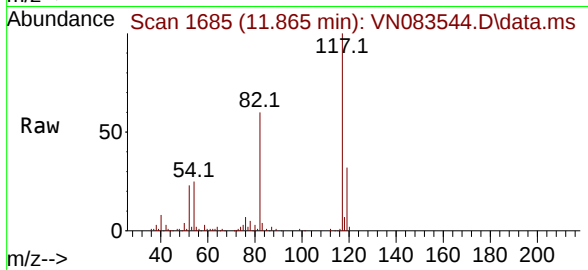




#57  
Chlorobenzene-d5  
Concen: 30.000 ug/l  
RT: 11.865 min Scan# 117  
Delta R.T. 0.000 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

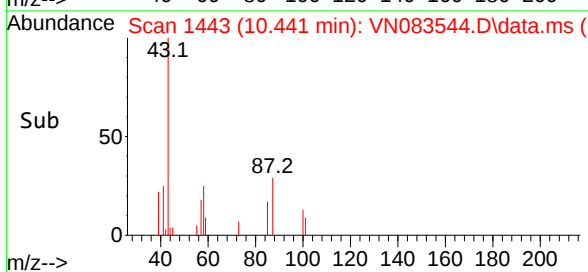
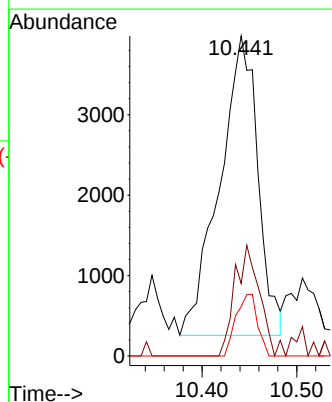
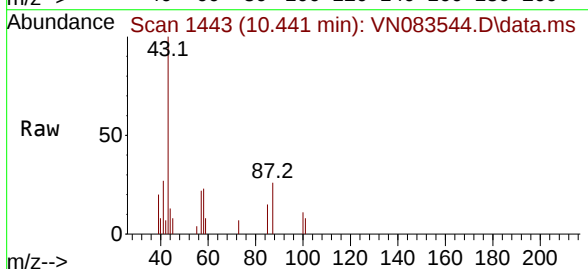
Instrument :  
MSVOA\_N  
ClientSampleId :  
VOA-240821073-02

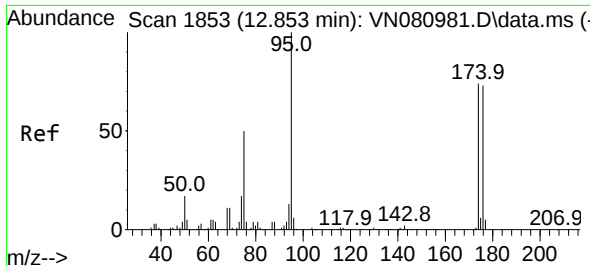
Tgt Ion:117 Resp: 148007  
Ion Ratio Lower Upper  
117 100  
82 60.9 46.6 69.8  
119 32.5 25.4 38.2



#58  
4-Methyl-2-Pentanone  
Concen: 3.986 ug/l  
RT: 10.441 min Scan# 1443  
Delta R.T. -0.006 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

Tgt Ion: 43 Resp: 10462  
Ion Ratio Lower Upper  
43 100  
58 23.5 36.5 54.7#  
85 11.5 19.5 29.3#

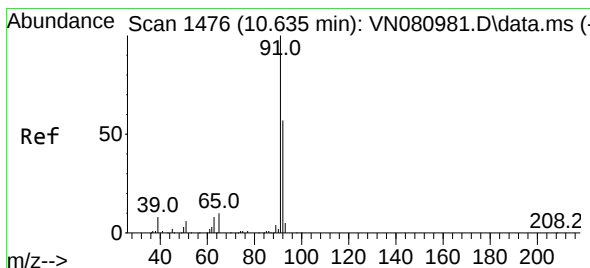
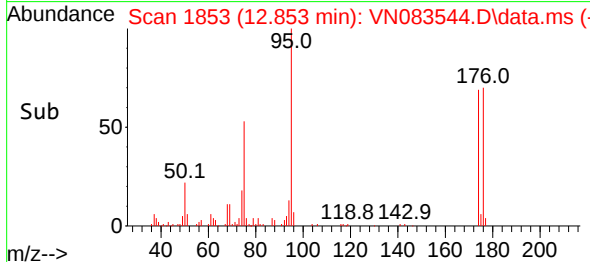
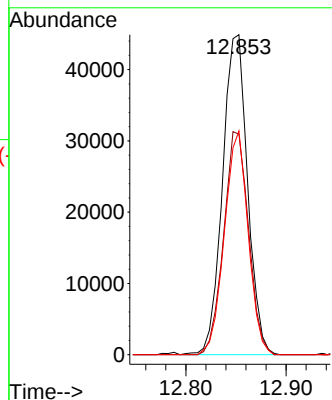
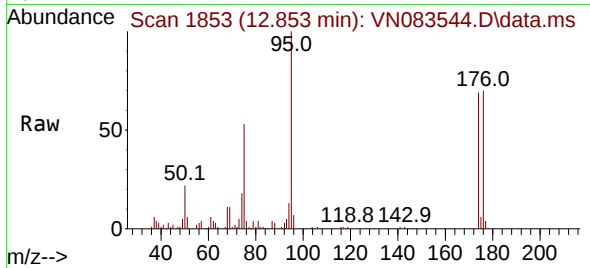




#60  
4-Bromofluorobenzene  
Concen: 29.722 ug/l  
RT: 12.853 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

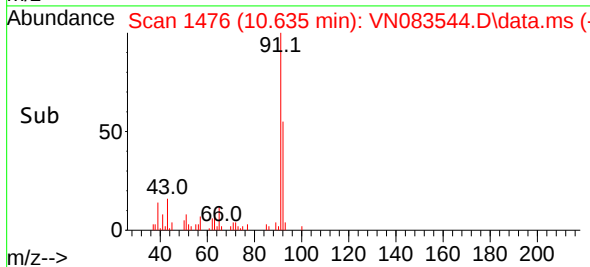
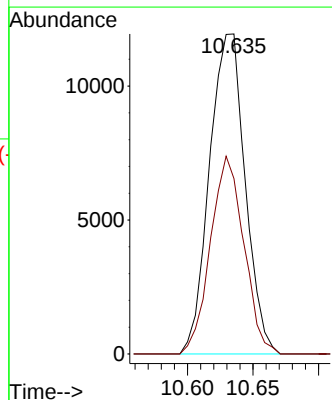
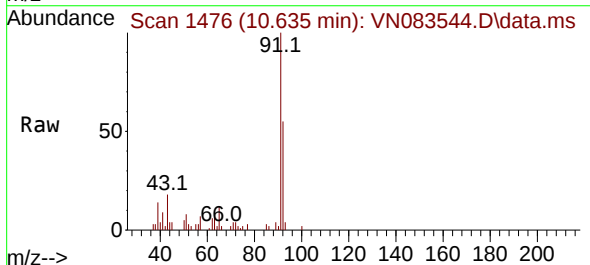
Instrument :  
MSVOA\_N  
ClientSampleId :  
VOA-240821073-02

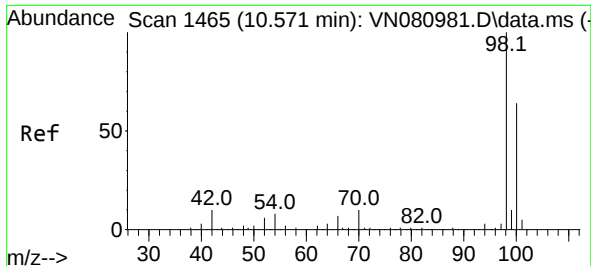
Tgt Ion: 95 Resp: 77881  
Ion Ratio Lower Upper  
95 100  
174 69.4 60.5 90.7  
176 66.1 57.8 86.6



#62  
Toluene  
Concen: 2.640 ug/l  
RT: 10.635 min Scan# 1476  
Delta R.T. 0.000 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

Tgt Ion: 91 Resp: 22604  
Ion Ratio Lower Upper  
91 100  
92 57.8 46.5 69.7

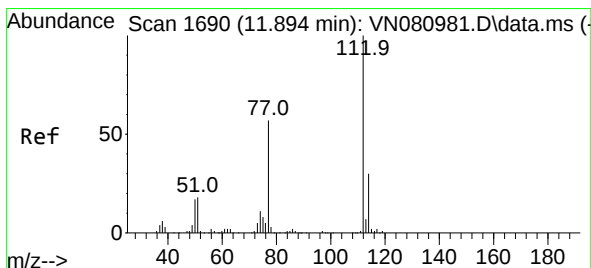
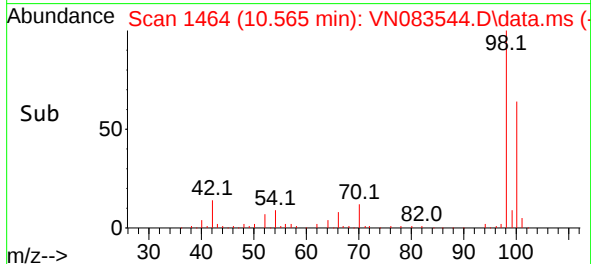
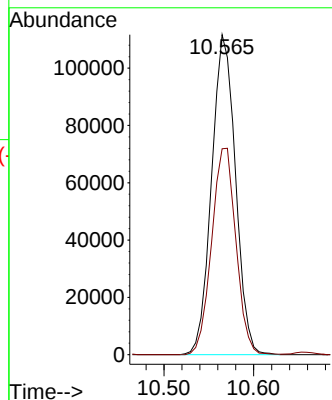
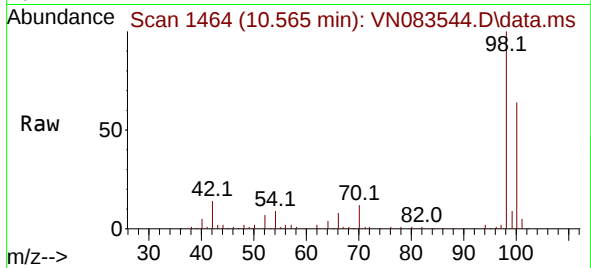




#63  
Toluene-d8  
Concen: 30.186 ug/l  
RT: 10.565 min Scan# 1464  
Delta R.T. -0.006 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

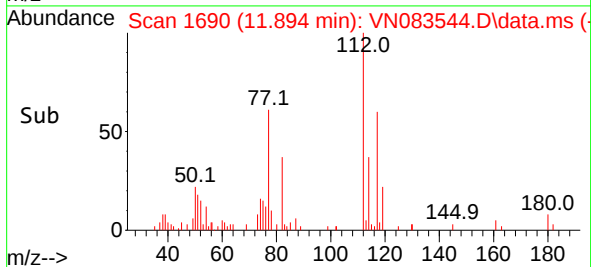
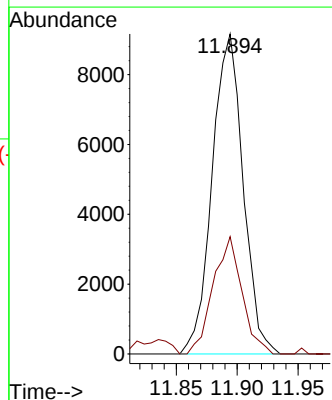
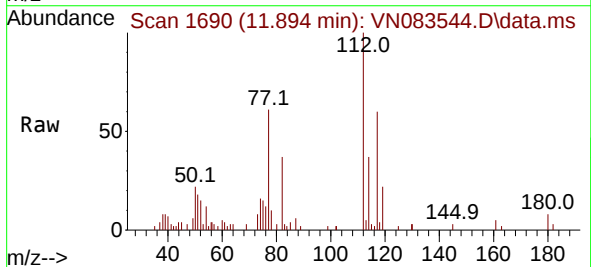
Instrument :  
MSVOA\_N  
ClientSampleId :  
VOA-240821073-02

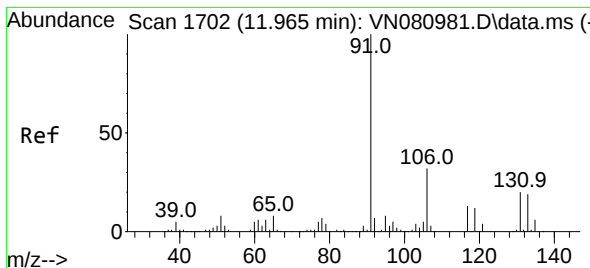
Tgt Ion: 98 Resp: 206255  
Ion Ratio Lower Upper  
98 100  
100 65.7 52.7 79.1



#64  
Chlorobenzene  
Concen: 3.059 ug/l  
RT: 11.894 min Scan# 1690  
Delta R.T. 0.000 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

Tgt Ion: 112 Resp: 16225  
Ion Ratio Lower Upper  
112 100  
114 36.7 26.6 39.8

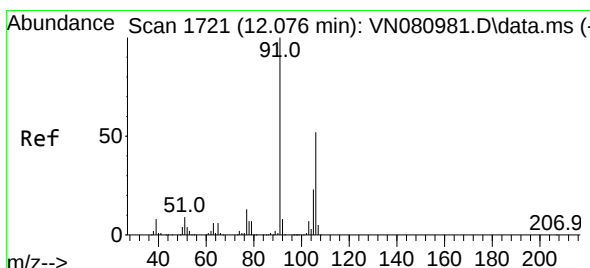
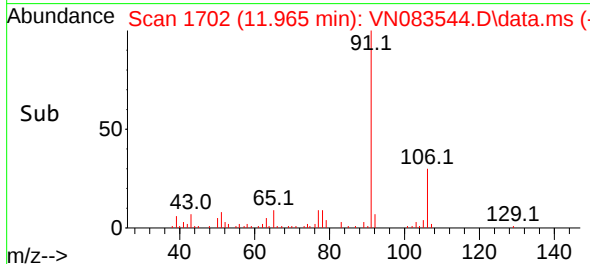
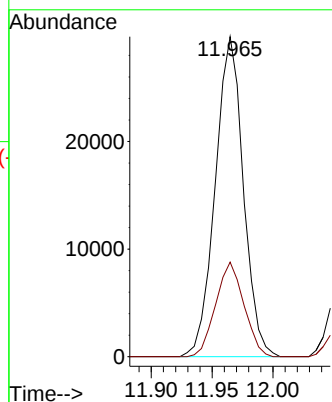
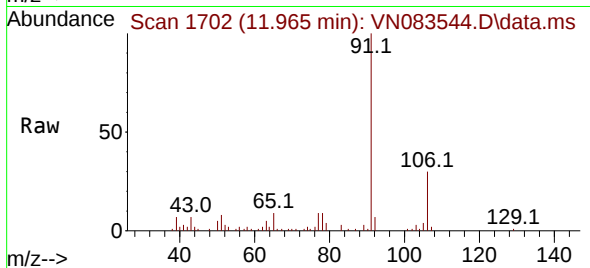




#66  
Ethyl Benzene  
Concen: 4.948 ug/l  
RT: 11.965 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

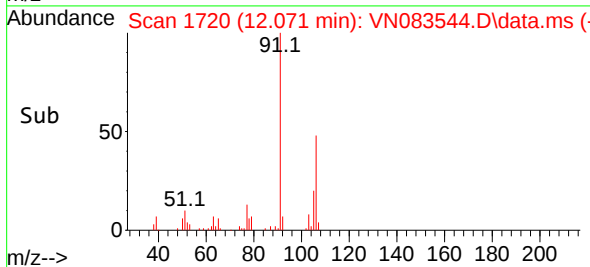
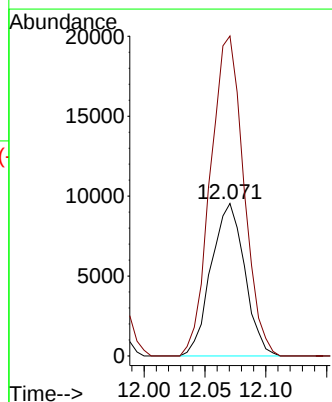
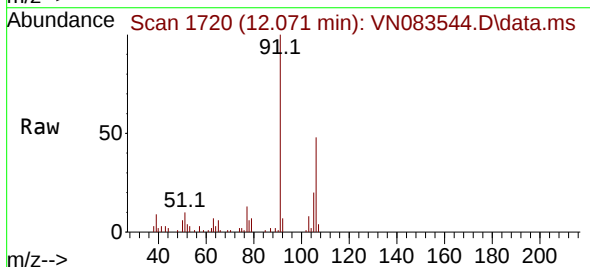
Instrument :  
MSVOA\_N  
ClientSampleId :  
VOA-240821073-02

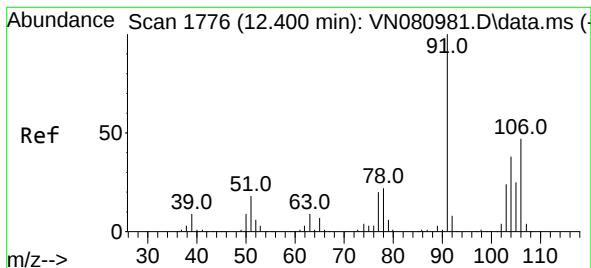
Tgt Ion: 91 Resp: 47791  
Ion Ratio Lower Upper  
91 100  
106 29.5 24.4 36.6



#67  
m/p-Xylenes  
Concen: 5.111 ug/l  
RT: 12.071 min Scan# 1720  
Delta R.T. -0.006 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

Tgt Ion: 106 Resp: 18297  
Ion Ratio Lower Upper  
106 100  
91 208.2 166.6 249.8





#68

o-Xylene

Concen: 3.389 ug/l

RT: 12.400 min Scan# 11

Delta R.T. 0.000 min

Lab File: VN083544.D

Acq: 28 Aug 2024 18:33

Instrument :

MSVOA\_N

ClientSampleId :

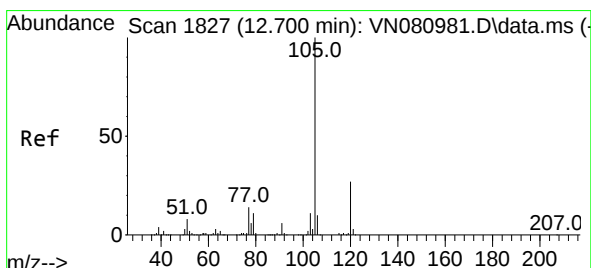
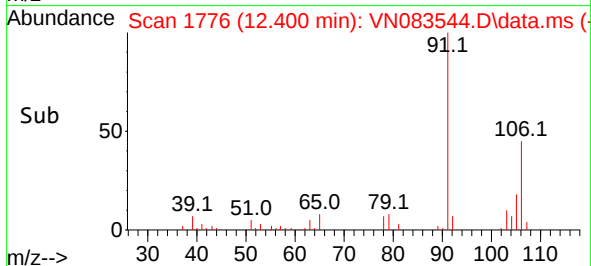
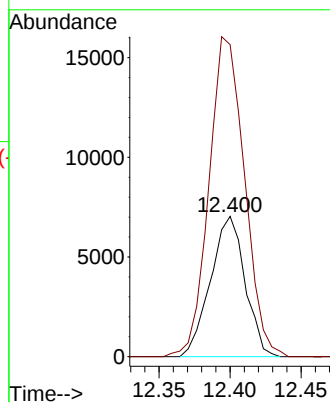
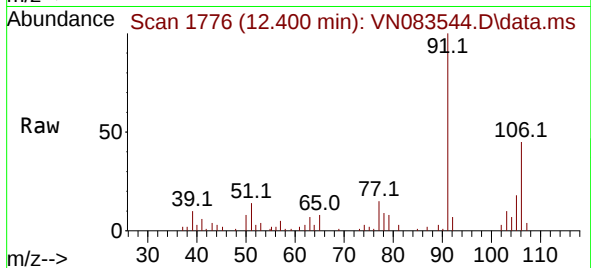
VOA-240821073-02

Tgt Ion:106 Resp: 11913

Ion Ratio Lower Upper

106 100

91 234.5 110.0 330.0



#70

Isopropylbenzene

Concen: 1.408 ug/l

RT: 12.694 min Scan# 1826

Delta R.T. -0.006 min

Lab File: VN083544.D

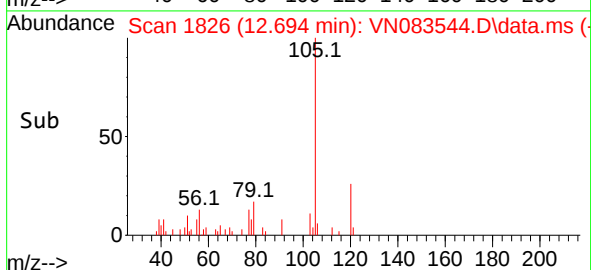
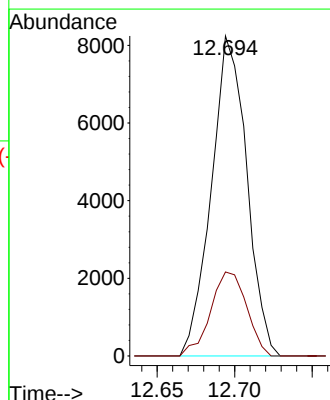
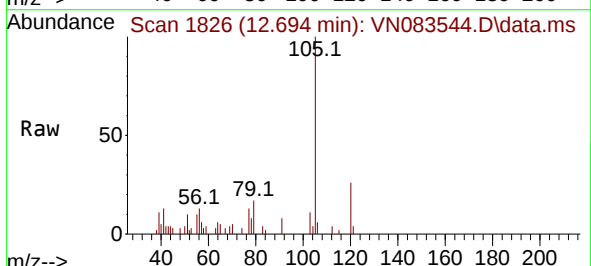
Acq: 28 Aug 2024 18:33

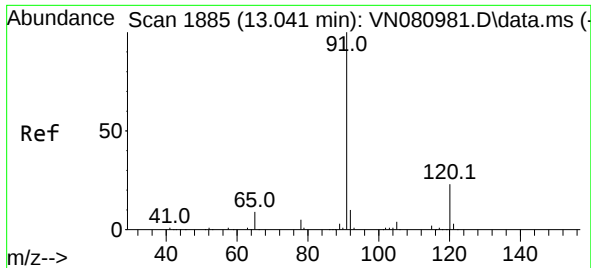
Tgt Ion:105 Resp: 13077

Ion Ratio Lower Upper

105 100

120 26.8 17.8 33.1

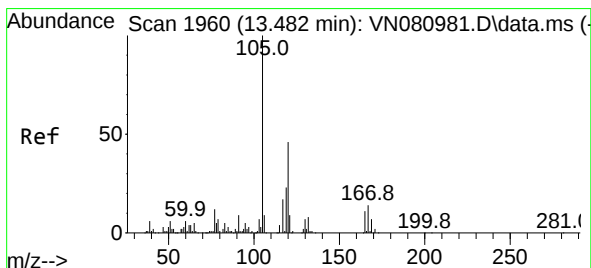
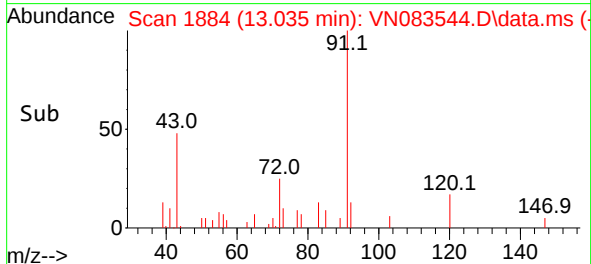
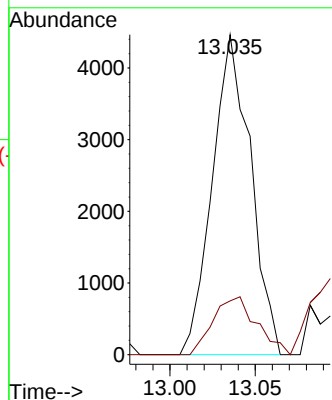
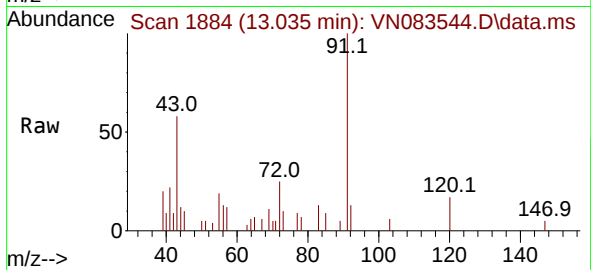




#74  
n-propylbenzene  
Concen: 0.648 ug/l  
RT: 13.035 min Scan# 1884  
Delta R.T. -0.006 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

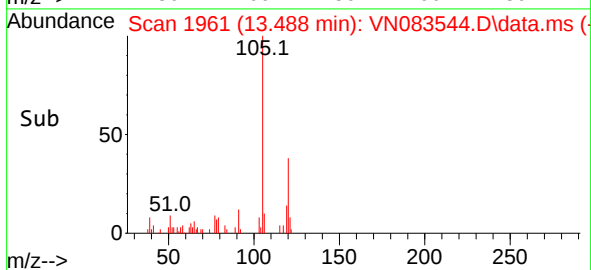
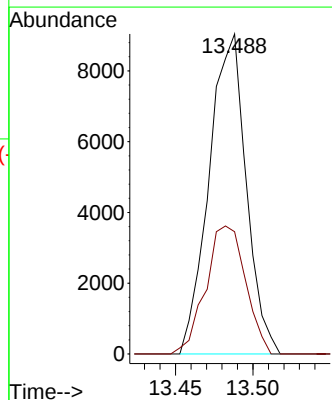
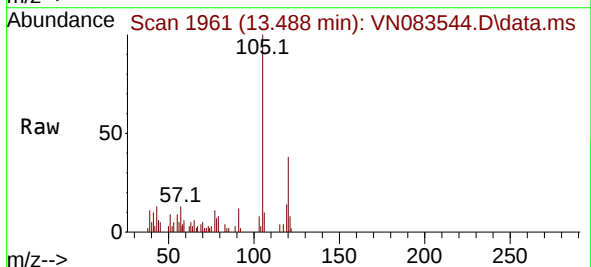
Instrument :  
MSVOA\_N  
ClientSampleId :  
VOA-240821073-02

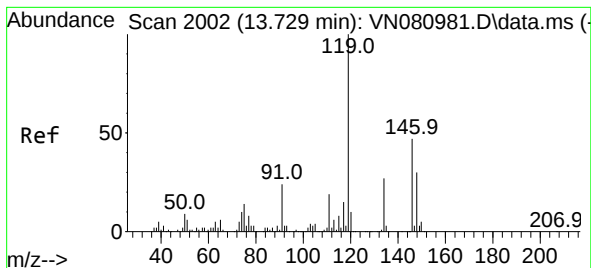
Tgt Ion: 91 Resp: 6969  
Ion Ratio Lower Upper  
91 100  
120 20.6 0.0 43.8



#80  
1,2,4-Trimethylbenzene  
Concen: 1.904 ug/l  
RT: 13.488 min Scan# 1961  
Delta R.T. 0.006 min  
Lab File: VN083544.D  
Acq: 28 Aug 2024 18:33

Tgt Ion: 105 Resp: 15048  
Ion Ratio Lower Upper  
105 100  
120 42.9 0.0 86.8





#82

p-Isopropyltoluene

Concen: 1.633 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. 0.000 min

Lab File: VN083544.D

Acq: 28 Aug 2024 18:33

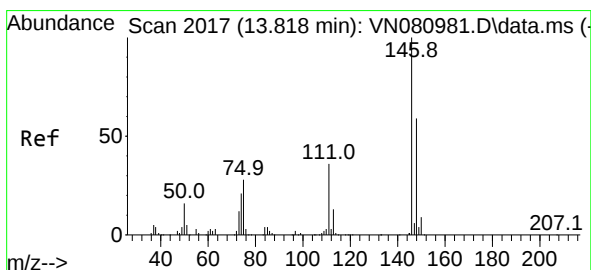
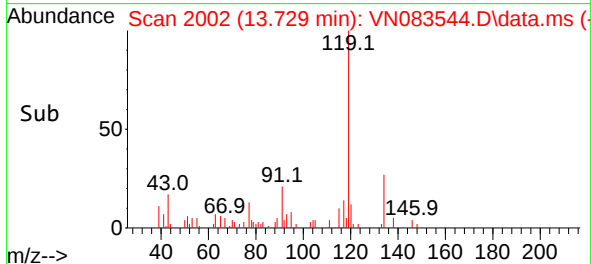
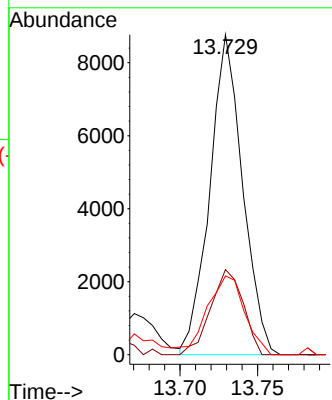
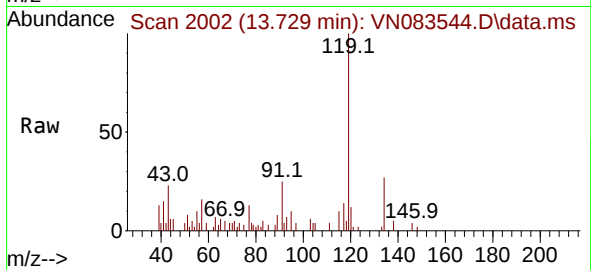
Instrument :

MSVOA\_N

ClientSampleId :

VOA-240821073-02

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 119   | Resp: | 12918 |
| Ion Ratio | Lower | Upper |       |
| 119       | 100   |       |       |
| 134       | 26.3  | 0.0   | 49.2  |
| 91        | 27.9  | 0.0   | 48.8  |



#84

1,4-Dichlorobenzene

Concen: 3.113 ug/l

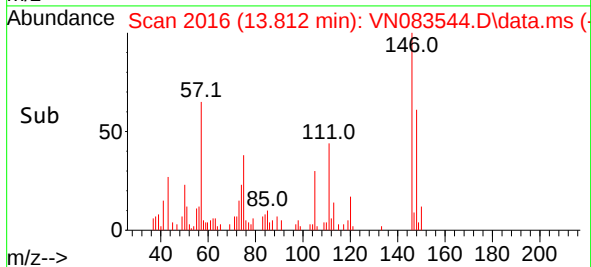
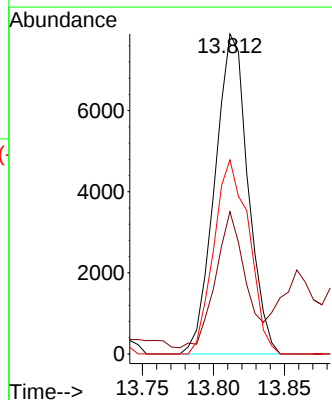
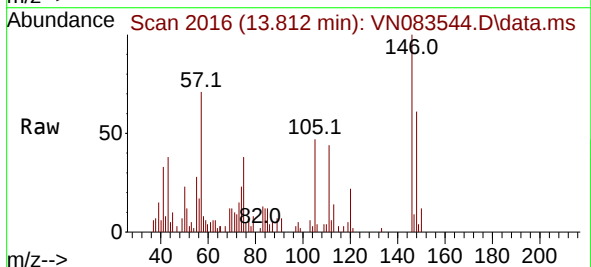
RT: 13.812 min Scan# 2016

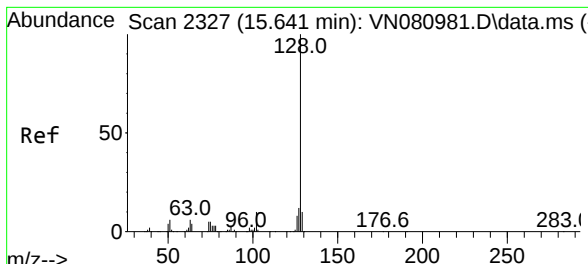
Delta R.T. -0.006 min

Lab File: VN083544.D

Acq: 28 Aug 2024 18:33

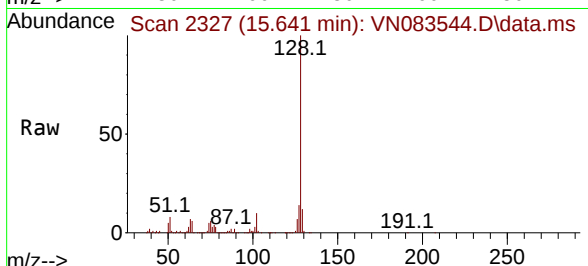
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 146   | Resp: | 12837 |
| Ion Ratio | Lower | Upper |       |
| 146       | 100   |       |       |
| 111       | 36.5  | 21.3  | 63.9  |
| 148       | 64.1  | 31.9  | 95.5  |





#91  
 Naphthalene  
 Concen: 26.900 ug/l  
 RT: 15.641 min Scan# 21  
 Delta R.T. 0.000 min  
 Lab File: VN083544.D  
 Acq: 28 Aug 2024 18:33

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VOA-240821073-02



|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 128   | Resp: | 205993 |
| Ion      | Ratio | Lower | Upper  |
| 128      | 100   |       |        |
| 127      | 13.1  | 10.6  | 16.0   |
| 129      | 11.0  | 8.6   | 13.0   |

