

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_W\Data\VW092425\  
 Data File : VW032254.D  
 Acq On : 24 Sep 2025 19:02  
 Operator : SY/MD  
 Sample : Q3168-03  
 Misc : 5.00g/5mL/MSVOA\_W/SOIL/A  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 ARS20-0010-Oily Soil-Sludge

Quant Time: Sep 25 08:18:25 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_W\Method\82W082625S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Aug 27 04:13:40 2025  
 Response via : Initial Calibration

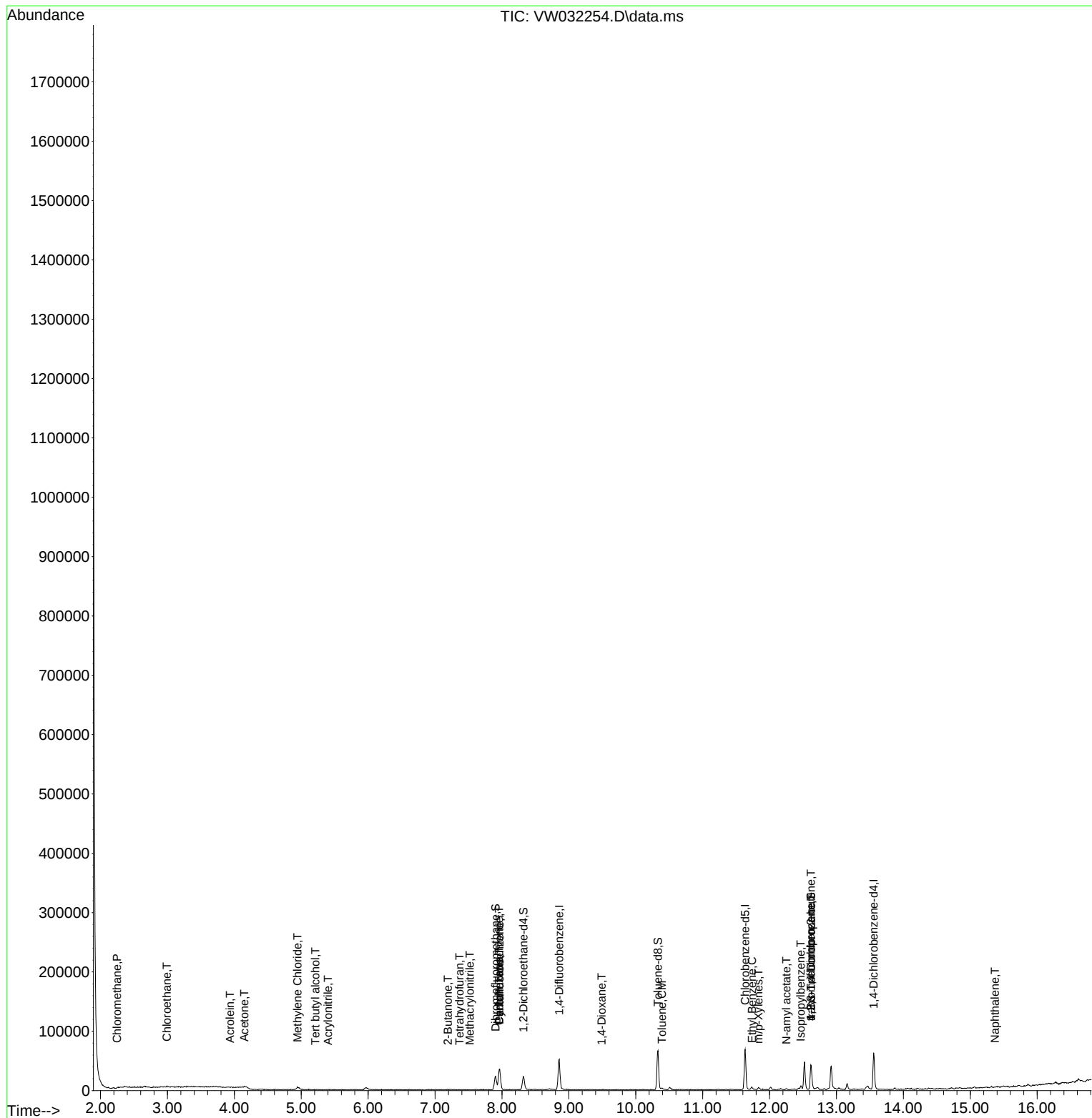
| Compound                      | R.T.           | QIon | Response            | Conc   | Units  | Dev(Min) |
|-------------------------------|----------------|------|---------------------|--------|--------|----------|
| -----                         |                |      |                     |        |        |          |
| Internal Standards            |                |      |                     |        |        |          |
| 1) Pentafluorobenzene         | 7.965          | 168  | 23280               | 50.000 | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene       | 8.856          | 114  | 40021               | 50.000 | ug/l   | 0.00     |
| 63) Chlorobenzene-d5          | 11.636         | 117  | 36380               | 50.000 | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 13.556         | 152  | 16850               | 50.000 | ug/l   | 0.00     |
|                               |                |      |                     |        |        |          |
| System Monitoring Compounds   |                |      |                     |        |        |          |
| 33) 1,2-Dichloroethane-d4     | 8.319          | 65   | 18537               | 55.678 | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 63 - 155 |      | Recovery = 111.360% |        |        |          |
| 35) Dibromofluoromethane      | 7.904          | 113  | 15564               | 55.430 | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 70 - 134 |      | Recovery = 110.860% |        |        |          |
| 50) Toluene-d8                | 10.331         | 98   | 45236               | 45.893 | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 74 - 123 |      | Recovery = 91.780%  |        |        |          |
| 62) 4-Bromofluorobenzene      | 12.617         | 95   | 14275               | 39.164 | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 17 - 146 |      | Recovery = 78.320%  |        |        |          |
|                               |                |      |                     |        |        |          |
| Target Compounds              |                |      |                     |        |        | Qvalue   |
| 3) Chloromethane              | 2.247          | 50   | 175                 | 1.086  | ug/l # | 42       |
| 6) Chloroethane               | 2.991          | 64   | 150                 | 1.018  | ug/l # | 42       |
| 11) Tert butyl alcohol        | 5.210          | 59   | 51                  | 2.504  | ug/l # | 1        |
| 13) Acrolein                  | 3.936          | 56   | 72                  | 2.300  | ug/l # | 14       |
| 15) Acrylonitrile             | 5.399          | 53   | 106                 | 1.409  | ug/l # | 23       |
| 16) Acetone                   | 4.149          | 43   | 3008                | 41.718 | ug/l # | 88       |
| 20) Methylene Chloride        | 4.942          | 84   | 2772                | 5.951  | ug/l   | 94       |
| 25) 2-Butanone                | 7.191          | 43   | 191                 | 1.869  | ug/l   | 91       |
| 29) Tetrahydrofuran           | 7.368          | 42   | 111                 | 1.710  | ug/l   | 90       |
| 31) Cyclohexane               | 7.959          | 56   | 1068                | 2.613  | ug/l # | 56       |
| 38) Carbon Tetrachloride      | 7.959          | 117  | 3220                | 8.251  | ug/l # | 19       |
| 41) Methacrylonitrile         | 7.520          | 41   | 164                 | 1.352  | ug/l # | 30       |
| 49) 1,4-Dioxane               | 9.490          | 88   | 30                  | 13.049 | ug/l # | 1        |
| 52) Toluene                   | 10.392         | 92   | 825                 | 1.122  | ug/l # | 74       |
| 67) Ethyl Benzene             | 11.739         | 91   | 2353                | 1.734  | ug/l # | 85       |
| 68) m/p-Xylenes               | 11.837         | 106  | 856                 | 1.639  | ug/l   | 97       |
| 73) Isopropylbenzene          | 12.465         | 105  | 1501                | 1.311  | ug/l   | 92       |
| 74) N-amyl acetate            | 12.251         | 43   | 401                 | 1.207  | ug/l # | 36       |
| 76) 1,2,3-Trichloropropane    | 12.617         | 75   | 7293                | 34.548 | ug/l # | 1        |
| 81) trans-1,4-Dichloro-2-b... | 12.617         | 75   | 7293                | 93.020 | ug/l # | 6        |
| 95) Naphthalene               | 15.367         | 128  | 1033                | 1.373  | ug/l # | 83       |
| -----                         |                |      |                     |        |        |          |

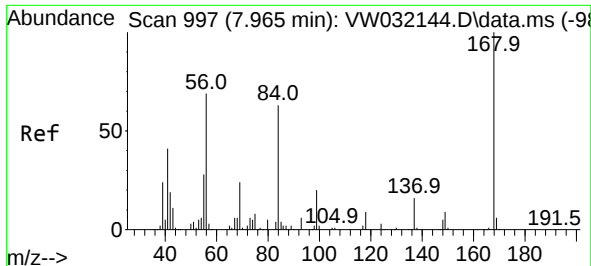
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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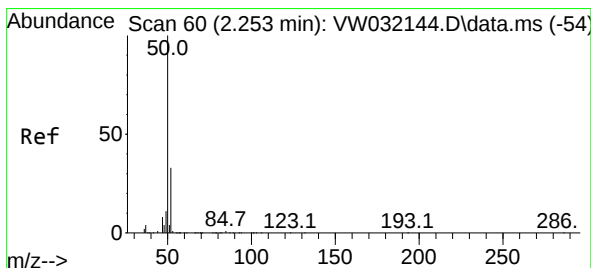
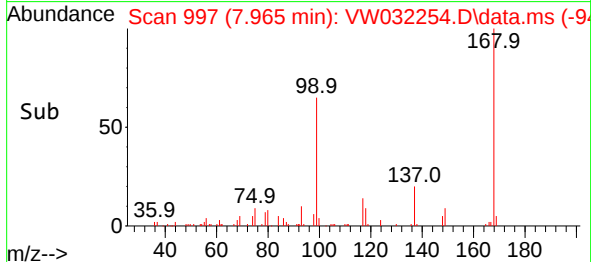
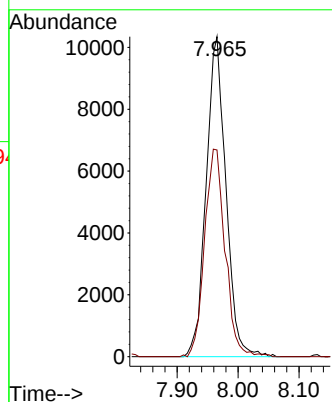
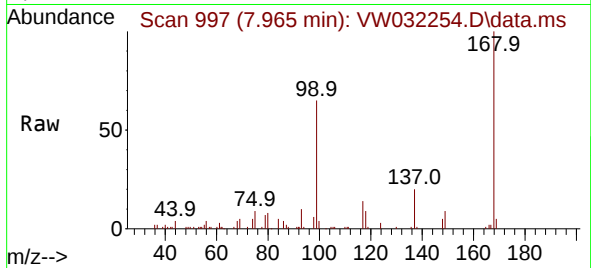




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 7.965 min Scan# 99  
Delta R.T. 0.000 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

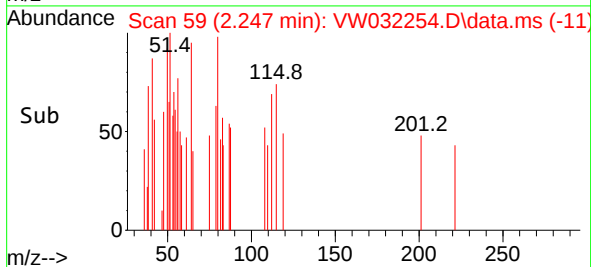
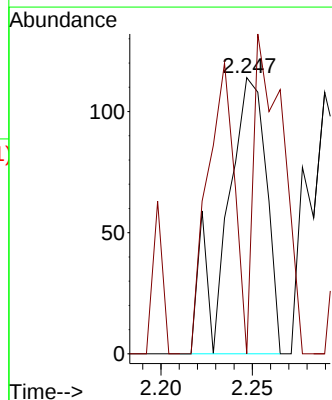
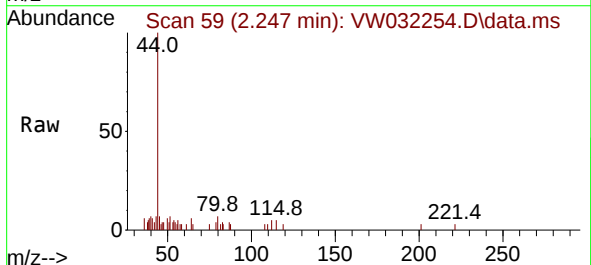
Instrument :  
MSVOA\_W  
ClientSampleId :  
ARS20-0010-Oily Soil-Sludge

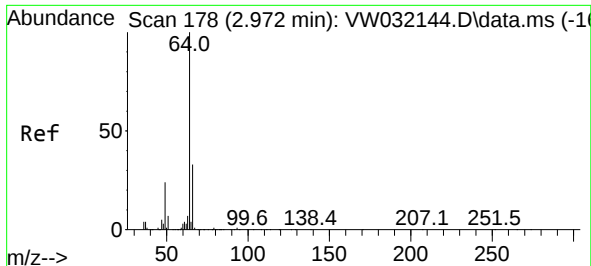
Tgt Ion:168 Resp: 23280  
Ion Ratio Lower Upper  
168 100  
99 64.6 49.3 73.9



#3  
Chloromethane  
Concen: 1.086 ug/l  
RT: 2.247 min Scan# 59  
Delta R.T. -0.006 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

Tgt Ion: 50 Resp: 175  
Ion Ratio Lower Upper  
50 100  
52 0.0 26.1 39.1#

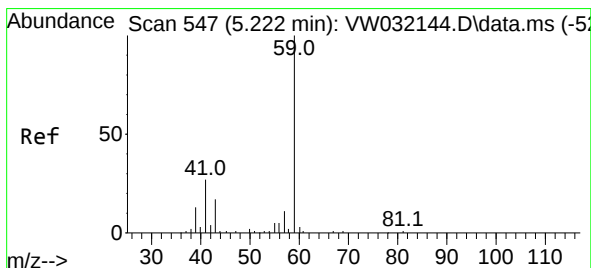
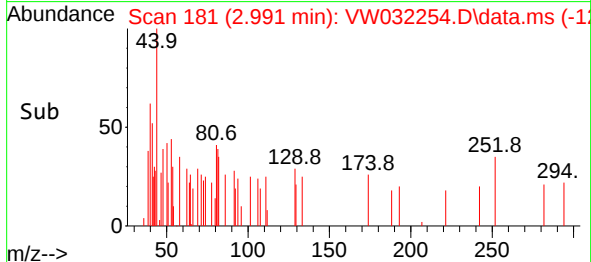
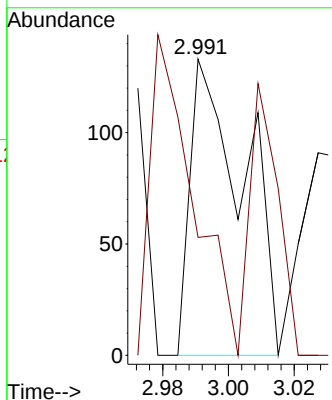
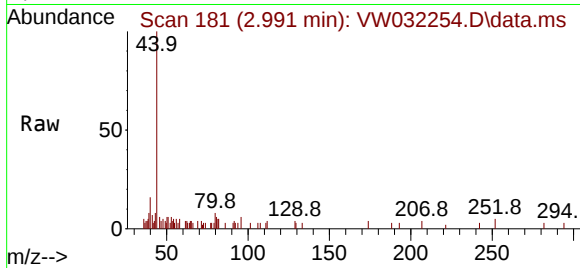




#6  
Chloroethane  
Concen: 1.018 ug/l  
RT: 2.991 min Scan# 11  
Delta R.T. 0.018 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

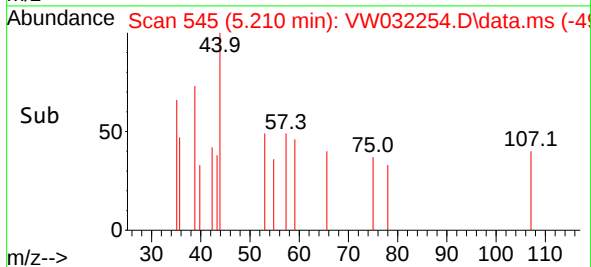
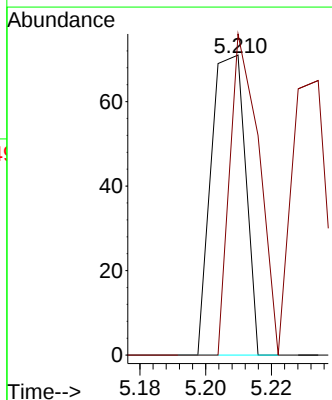
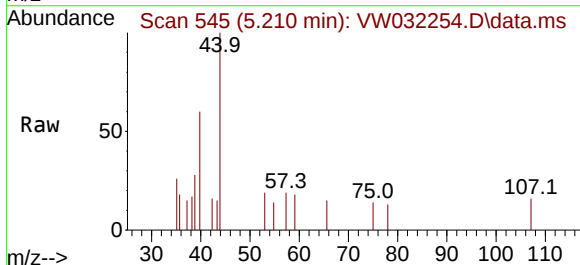
Instrument :  
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ClientSampleId :  
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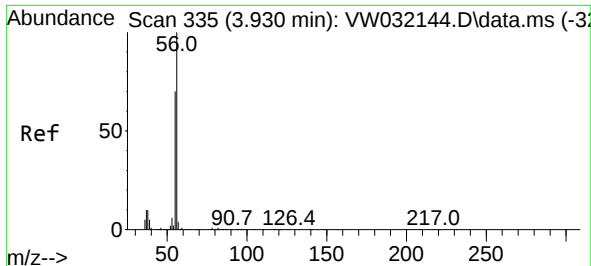
Tgt Ion: 64 Resp: 150  
Ion Ratio Lower Upper  
64 100  
66 0.0 26.2 39.4#



#11  
Tert butyl alcohol  
Concen: 2.504 ug/l  
RT: 5.210 min Scan# 545  
Delta R.T. -0.012 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

Tgt Ion: 59 Resp: 51  
Ion Ratio Lower Upper  
59 100  
57 92.2 9.8 14.6#

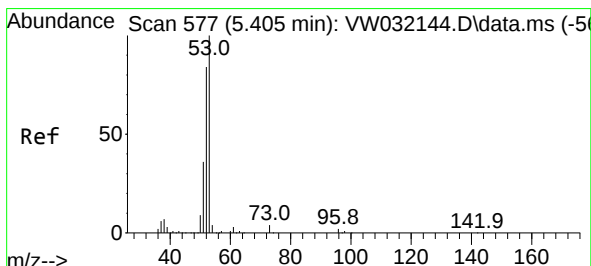
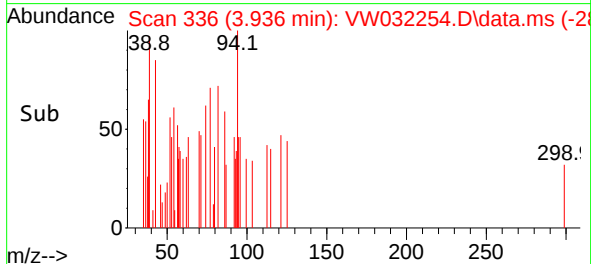
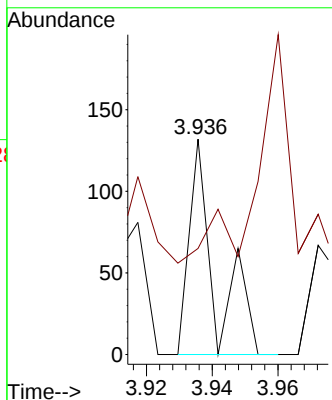
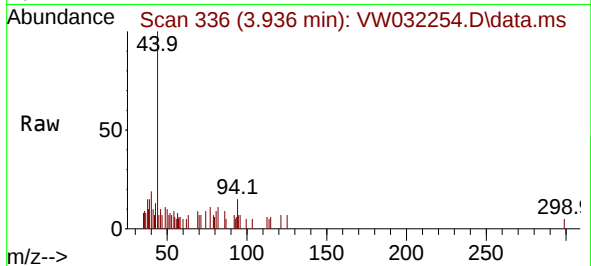




#13  
Acrolein  
Concen: 2.300 ug/l  
RT: 3.936 min Scan# 31  
Delta R.T. 0.006 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

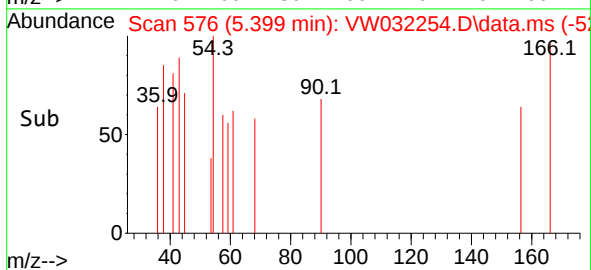
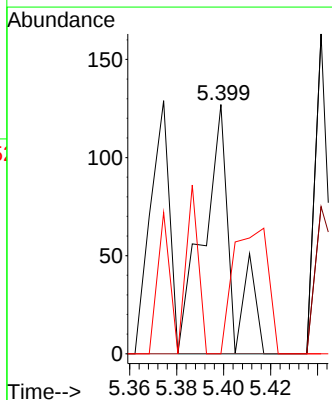
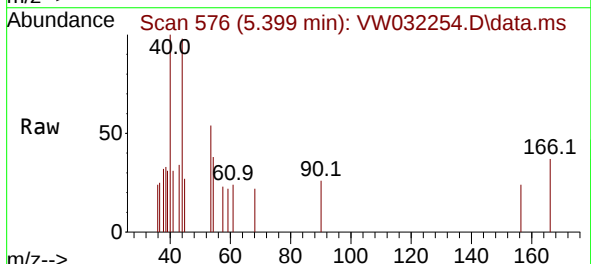
Instrument :  
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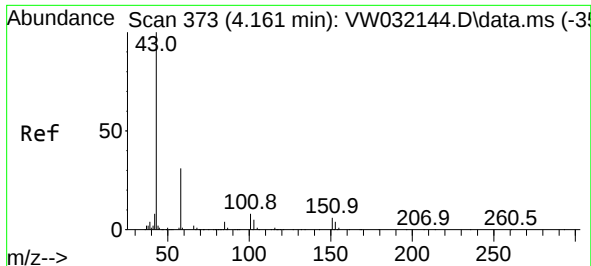
Tgt Ion: 56 Resp: 72  
Ion Ratio Lower Upper  
56 100  
55 0.0 56.4 84.6#



#15  
Acrylonitrile  
Concen: 1.409 ug/l  
RT: 5.399 min Scan# 576  
Delta R.T. -0.006 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

Tgt Ion: 53 Resp: 106  
Ion Ratio Lower Upper  
53 100  
52 0.0 67.4 101.2#  
51 62.3 30.3 45.5#

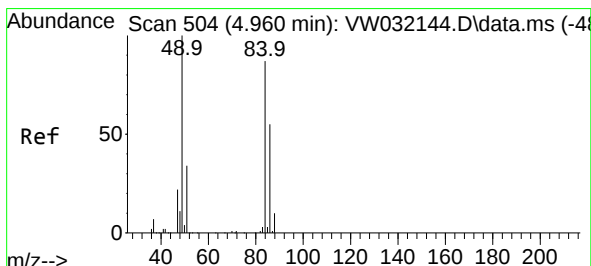
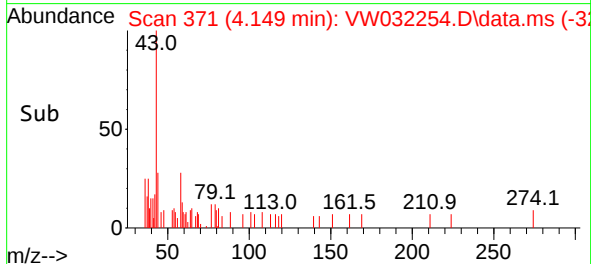
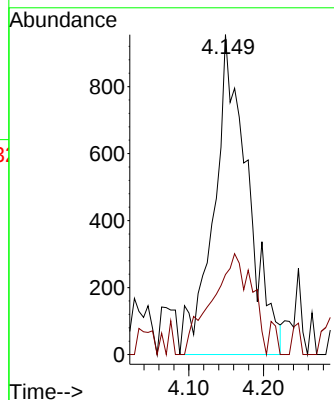
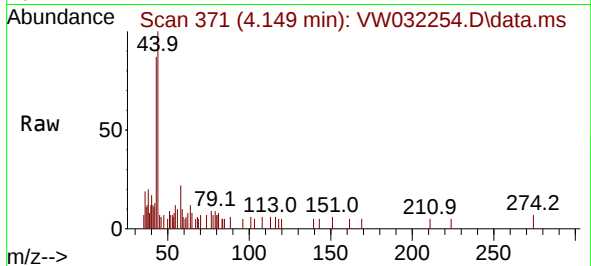




#16  
Acetone  
Concen: 41.718 ug/l  
RT: 4.149 min Scan# 31  
Delta R.T. -0.012 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

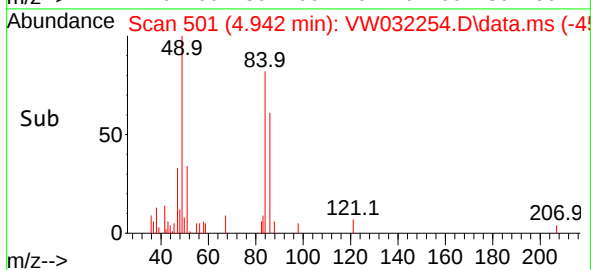
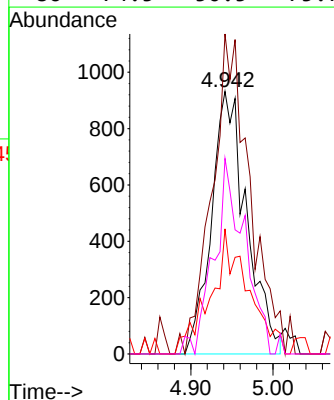
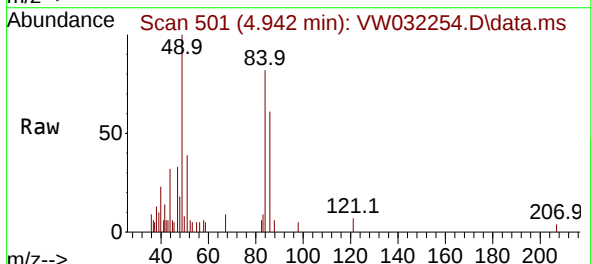
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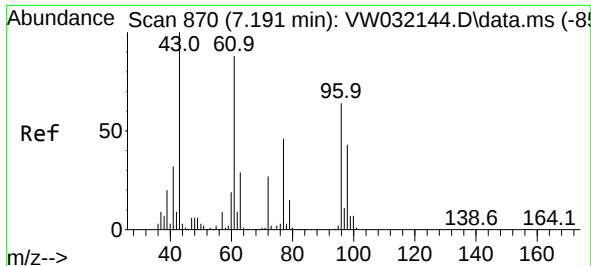
Tgt Ion: 43 Resp: 3008  
Ion Ratio Lower Upper  
43 100  
58 25.0 25.3 37.9#



#20  
Methylene Chloride  
Concen: 5.951 ug/l  
RT: 4.942 min Scan# 501  
Delta R.T. -0.018 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

Tgt Ion: 84 Resp: 2772  
Ion Ratio Lower Upper  
84 100  
49 114.2 92.2 138.4  
51 41.3 31.0 46.6  
86 74.5 50.5 75.7

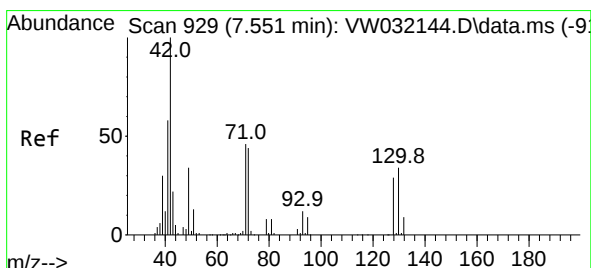
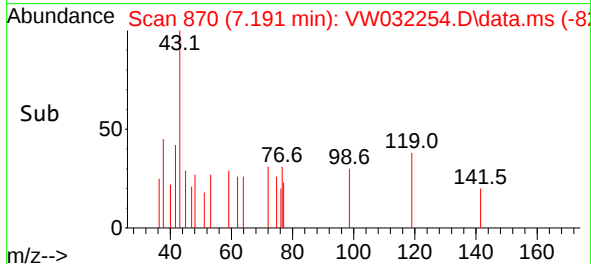
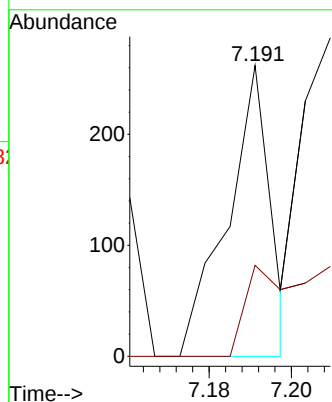
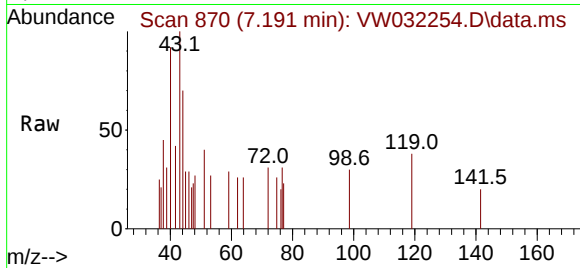




#25  
2-Butanone  
Concen: 1.869 ug/l  
RT: 7.191 min Scan# 81  
Delta R.T. 0.000 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

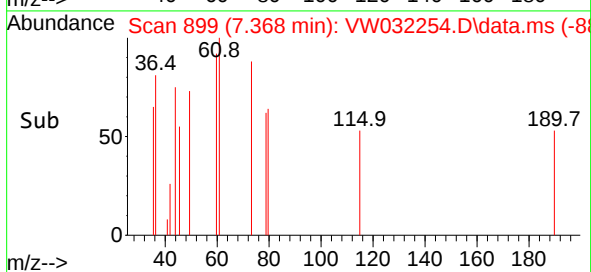
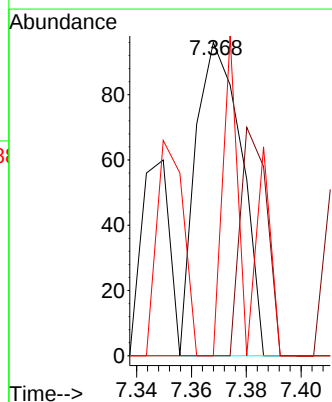
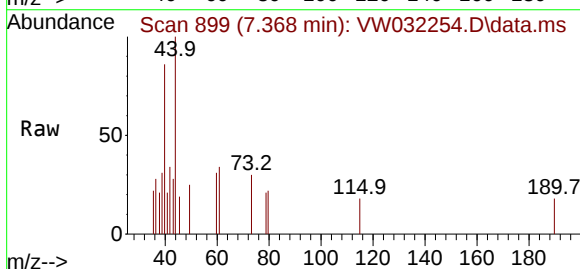
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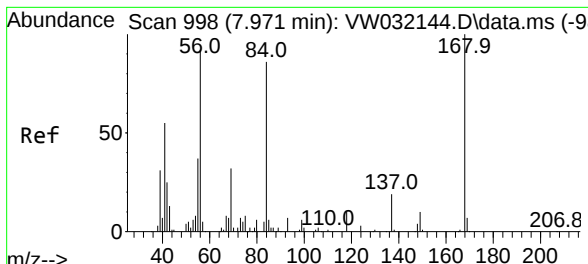
Tgt Ion: 43 Resp: 191  
Ion Ratio Lower Upper  
43 100  
72 31.3 21.4 32.2



#29  
Tetrahydrofuran  
Concen: 1.710 ug/l  
RT: 7.368 min Scan# 899  
Delta R.T. -0.183 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

Tgt Ion: 42 Resp: 111  
Ion Ratio Lower Upper  
42 100  
72 42.3 37.4 56.2  
71 53.2 36.0 54.0

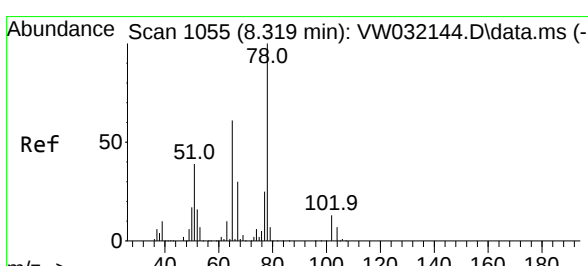
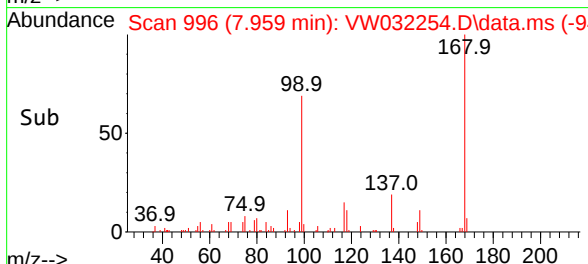
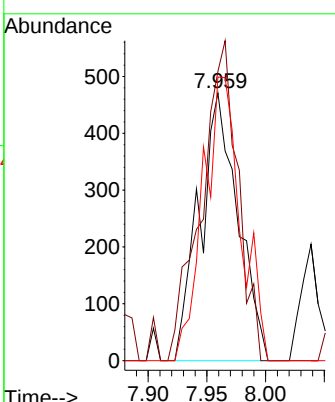
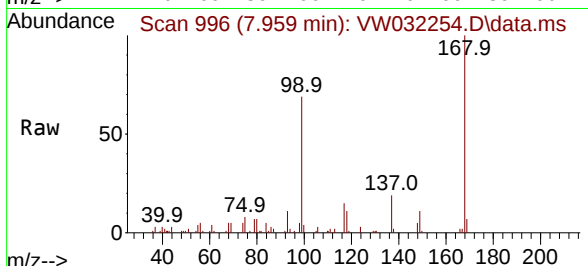




#31  
Cyclohexane  
Concen: 2.613 ug/l  
RT: 7.959 min Scan# 996  
Delta R.T. -0.012 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

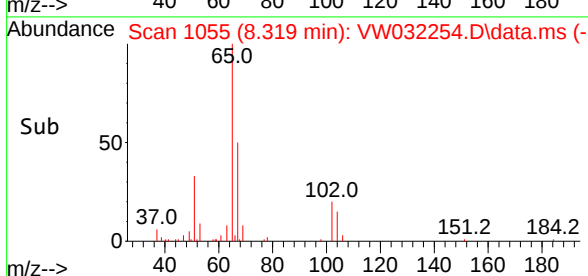
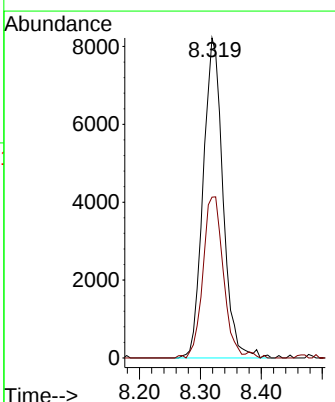
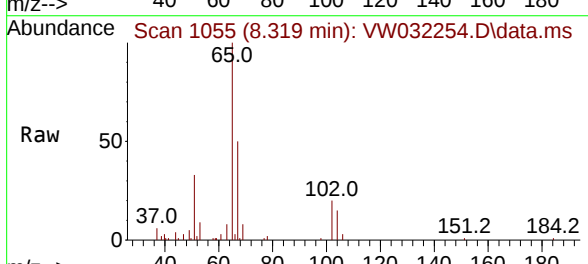
Instrument : MSVOA\_W  
ClientSampleId : ARS20-0010-Oily Soil-Sludge

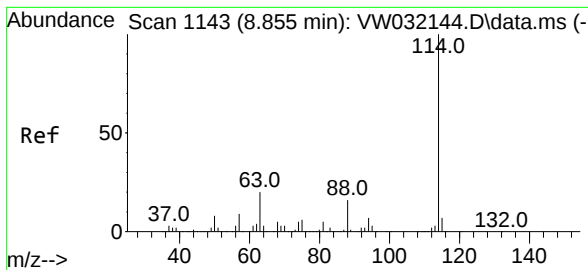
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 56    | Resp: | 1068  |
| Ion      | Ratio | Lower | Upper |
| 56       | 100   |       |       |
| 69       | 108.1 | 27.7  | 41.5# |
| 84       | 105.9 | 74.6  | 112.0 |



#33  
1,2-Dichloroethane-d4  
Concen: 55.678 ug/l  
RT: 8.319 min Scan# 1055  
Delta R.T. 0.000 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 65    | Resp: | 18537 |
| Ion      | Ratio | Lower | Upper |
| 65       | 100   |       |       |
| 67       | 51.9  | 0.0   | 99.6  |

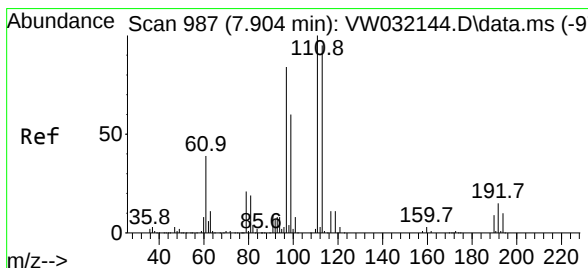
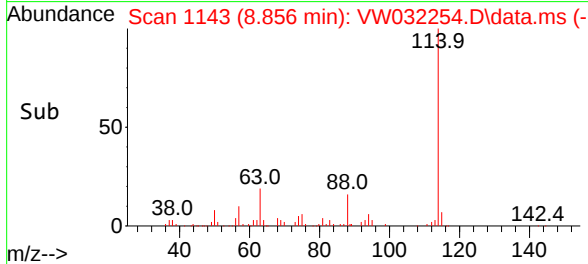
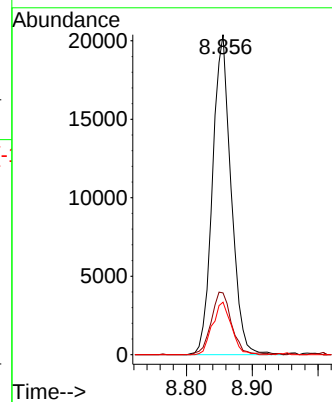
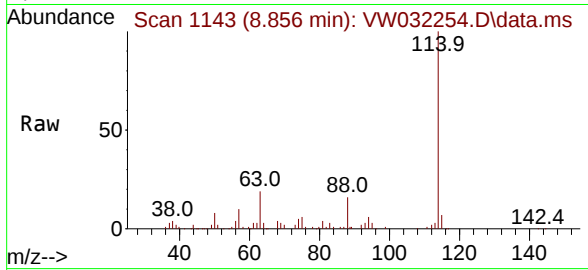




#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 8.856 min Scan# 1143  
Delta R.T. 0.000 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

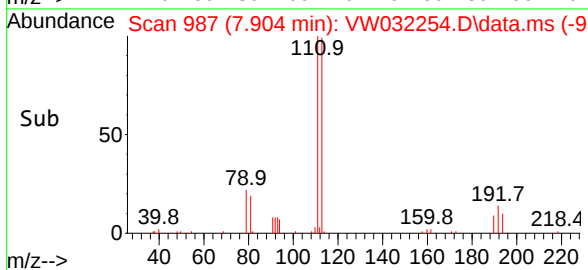
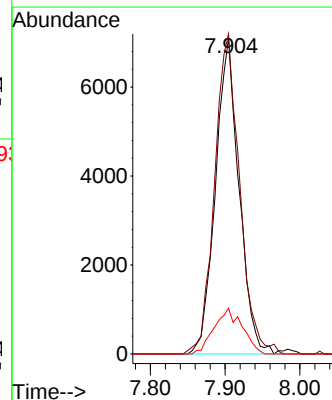
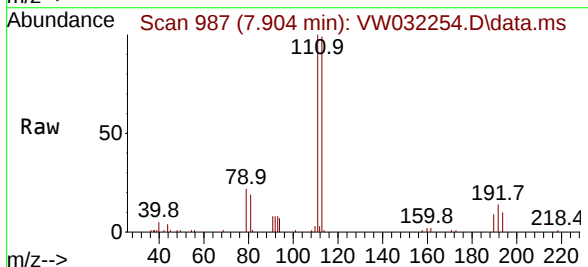
Instrument :  
MSVOA\_W  
ClientSampleId :  
ARS20-0010-Oily Soil-Sludge

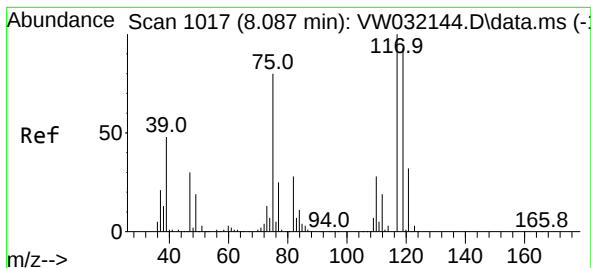
|             |       |          |
|-------------|-------|----------|
| Tgt Ion:114 | Resp: | 40021    |
| Ion Ratio   | Lower | Upper    |
| 114         | 100   |          |
| 63          | 19.3  | 0.0 40.4 |
| 88          | 16.4  | 0.0 32.0 |



#35  
Dibromofluoromethane  
Concen: 55.430 ug/l  
RT: 7.904 min Scan# 987  
Delta R.T. 0.000 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

|             |       |            |
|-------------|-------|------------|
| Tgt Ion:113 | Resp: | 15564      |
| Ion Ratio   | Lower | Upper      |
| 113         | 100   |            |
| 111         | 107.4 | 83.9 125.9 |
| 192         | 17.2  | 14.6 21.8  |





#38

Carbon Tetrachloride

Concen: 8.251 ug/l

RT: 7.959 min Scan# 91

Delta R.T. -0.128 min

Lab File: VW032254.D

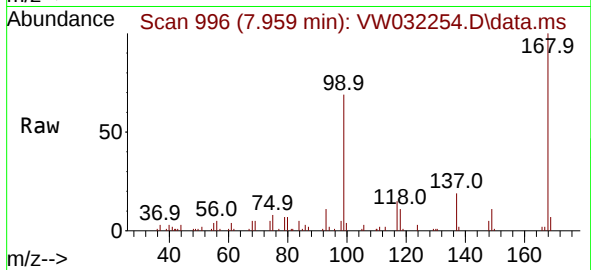
Acq: 24 Sep 2025 19:02

Instrument :

MSVOA\_W

ClientSampleId :

ARS20-0010-Oily Soil-Sludge



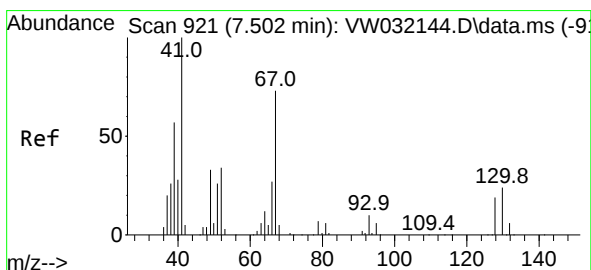
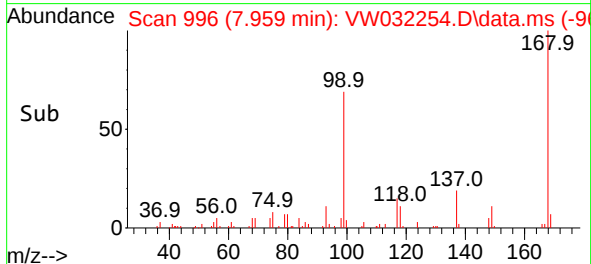
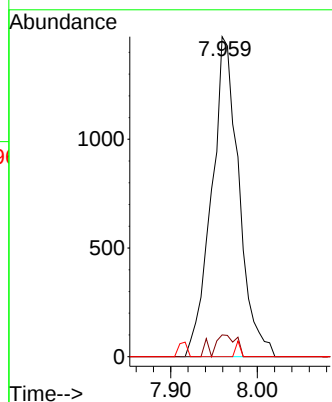
Tgt Ion: 117 Resp: 3220

Ion Ratio Lower Upper

117 100

119 6.8 74.2 111.2#

121 0.0 25.6 38.4#



#41

Methacrylonitrile

Concen: 1.352 ug/l

RT: 7.520 min Scan# 924

Delta R.T. 0.018 min

Lab File: VW032254.D

Acq: 24 Sep 2025 19:02

Tgt Ion: 41 Resp: 164

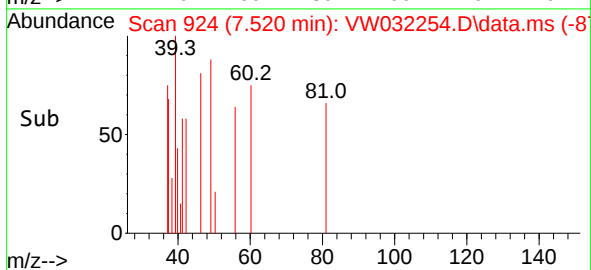
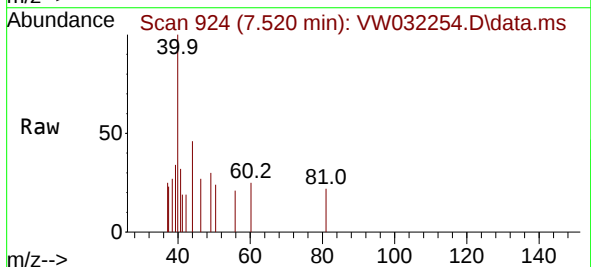
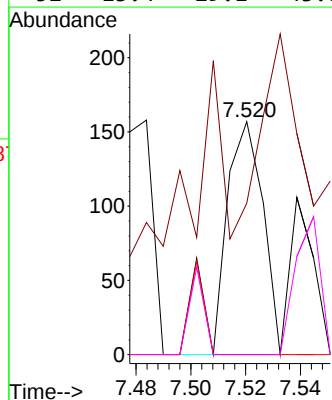
Ion Ratio Lower Upper

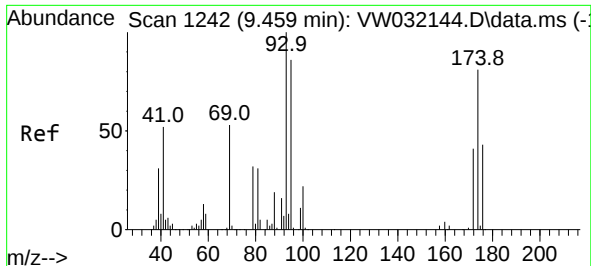
41 100

39 125.6 50.9 76.3#

67 14.0 65.6 98.4#

52 13.4 29.1 43.7#





#49

1,4-Dioxane

Concen: 13.049 ug/l

RT: 9.490 min Scan# 11

Delta R.T. 0.030 min

Lab File: VW032254.D

Acq: 24 Sep 2025 19:02

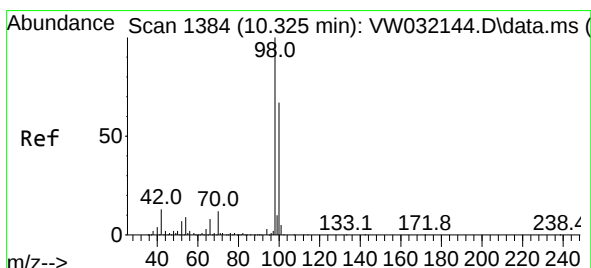
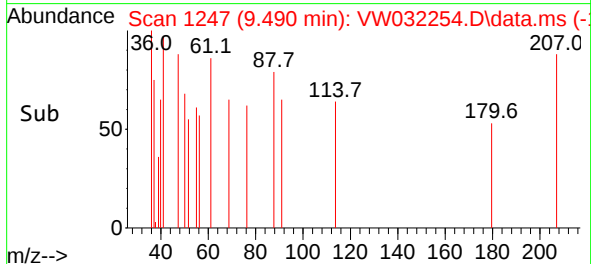
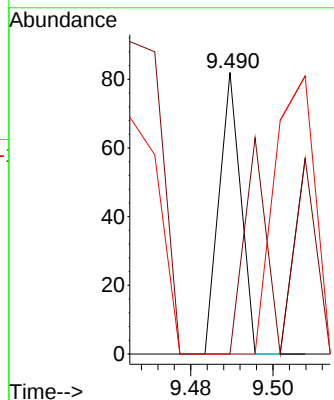
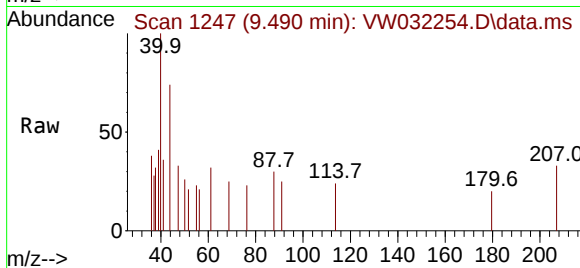
Instrument :

MSVOA\_W

ClientSampleId :

ARS20-0010-Oily Soil-Sludge

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 88    | Resp: | 30    |
| Ion      | Ratio | Lower | Upper |
| 88       | 100   |       |       |
| 43       | 146.7 | 18.0  | 27.0# |
| 58       | 183.3 | 55.4  | 83.0# |



#50

Toluene-d8

Concen: 45.893 ug/l

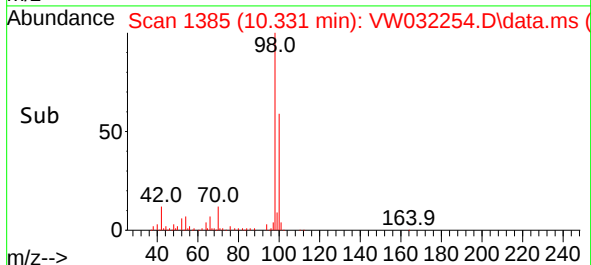
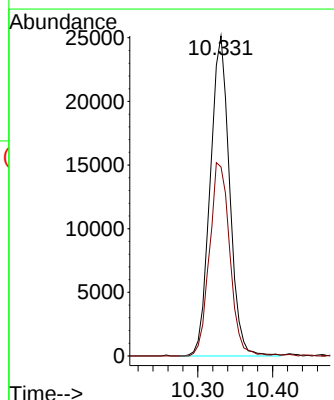
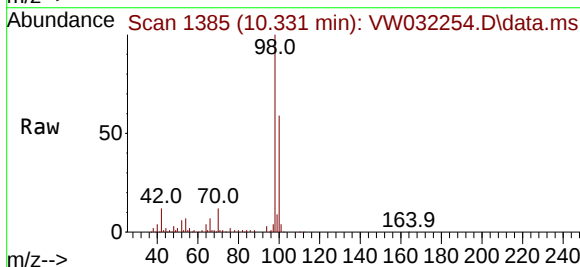
RT: 10.331 min Scan# 1385

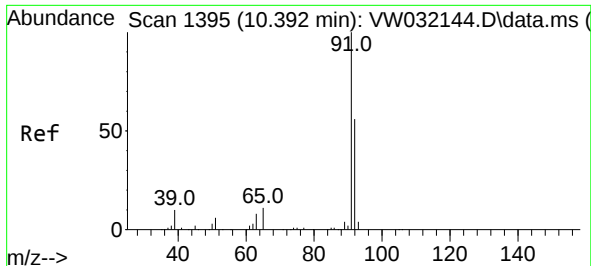
Delta R.T. 0.006 min

Lab File: VW032254.D

Acq: 24 Sep 2025 19:02

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 98    | Resp: | 45236 |
| Ion      | Ratio | Lower | Upper |
| 98       | 100   |       |       |
| 100      | 63.2  | 51.4  | 77.2  |

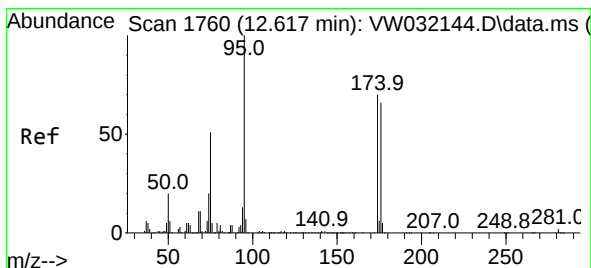
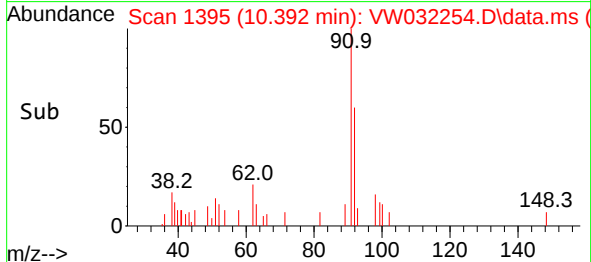
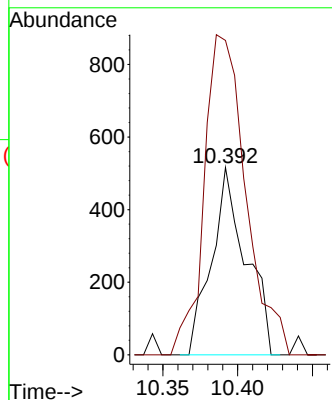
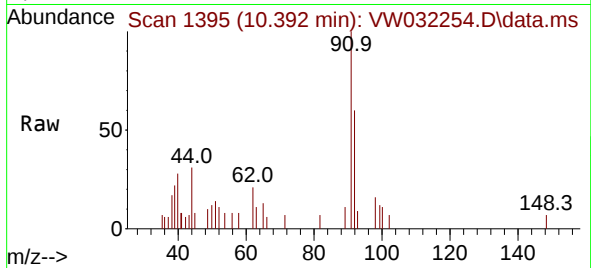




#52  
Toluene  
Concen: 1.122 ug/l  
RT: 10.392 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

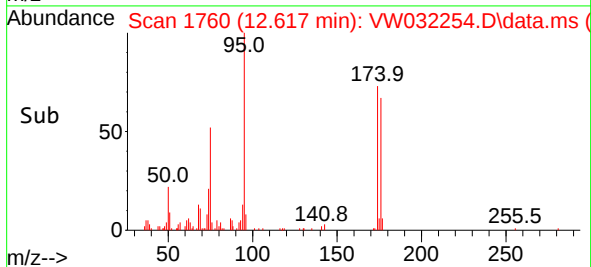
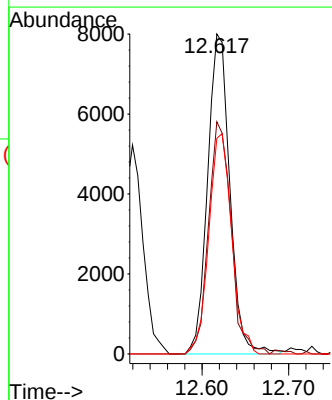
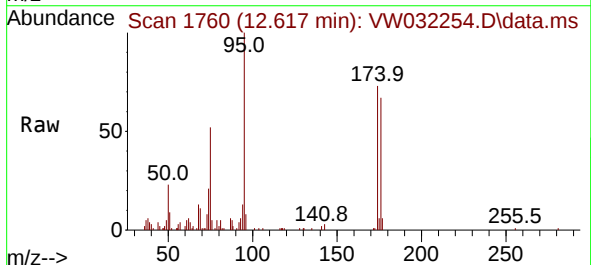
Instrument :  
MSVOA\_W  
ClientSampleId :  
ARS20-0010-Oily Soil-Sludge

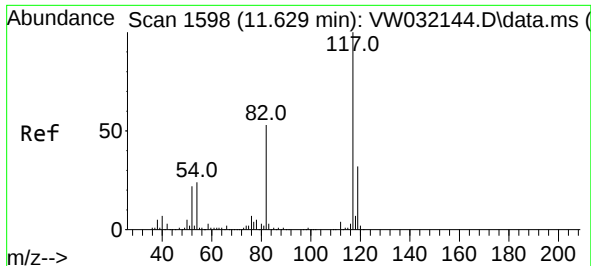
Tgt Ion: 92 Resp: 825  
Ion Ratio Lower Upper  
92 100  
91 207.2 137.5 206.3#



#62  
4-Bromofluorobenzene  
Concen: 39.164 ug/l  
RT: 12.617 min Scan# 1760  
Delta R.T. 0.000 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

Tgt Ion: 95 Resp: 14275  
Ion Ratio Lower Upper  
95 100  
174 73.4 0.0 145.6  
176 70.8 0.0 140.8

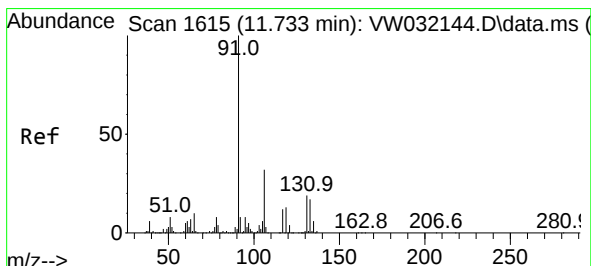
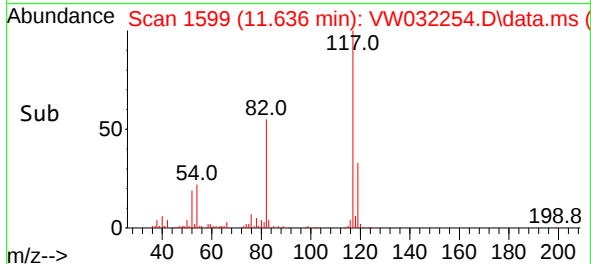
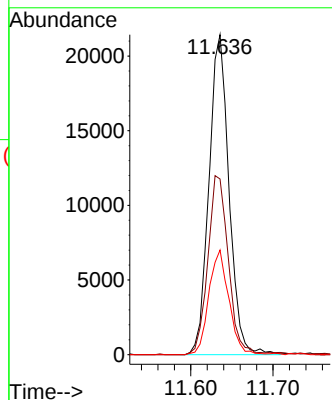
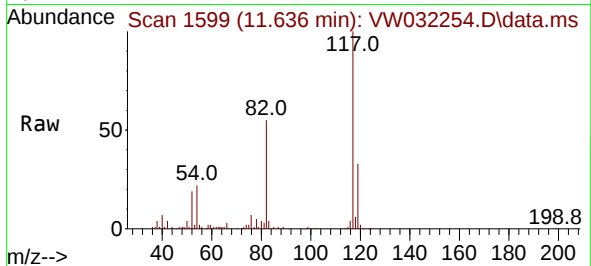




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.636 min Scan# 11  
Delta R.T. 0.006 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

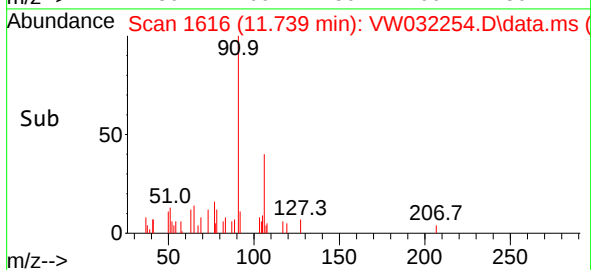
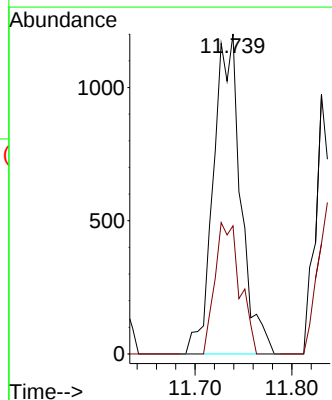
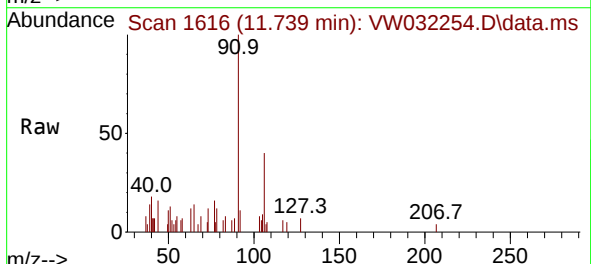
Instrument :  
MSVOA\_W  
ClientSampleId :  
ARS20-0010-Oily Soil-Sludge

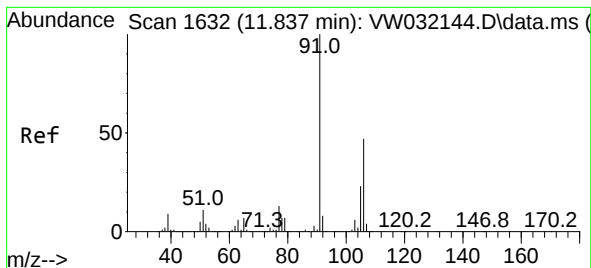
Tgt Ion:117 Resp: 36380  
Ion Ratio Lower Upper  
117 100  
82 54.9 42.7 64.1  
119 32.7 25.2 37.8



#67  
Ethyl Benzene  
Concen: 1.734 ug/l  
RT: 11.739 min Scan# 1616  
Delta R.T. 0.006 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

Tgt Ion: 91 Resp: 2353  
Ion Ratio Lower Upper  
91 100  
106 40.0 25.3 37.9#

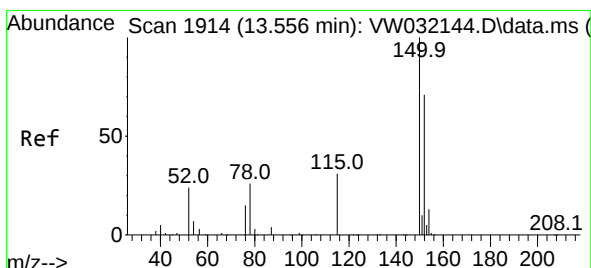
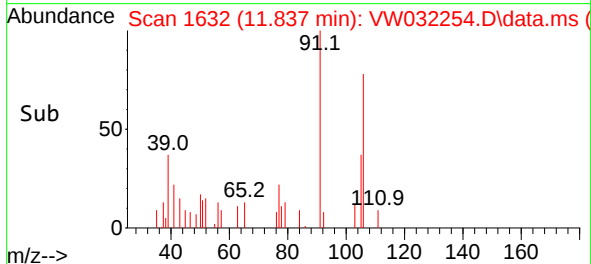
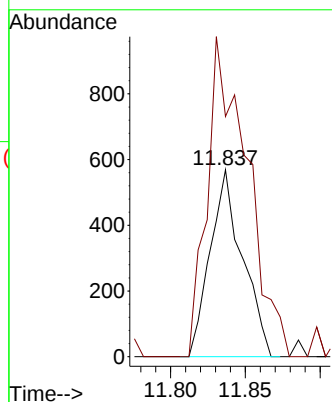
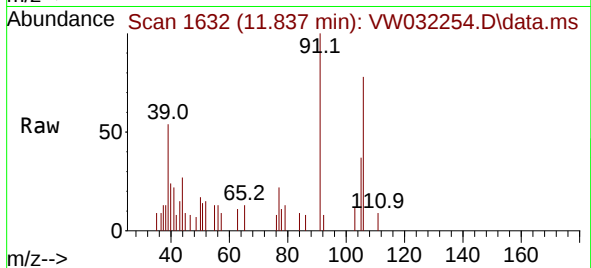




#68  
m/p-Xylenes  
Concen: 1.639 ug/l  
RT: 11.837 min Scan# 1  
Delta R.T. 0.000 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

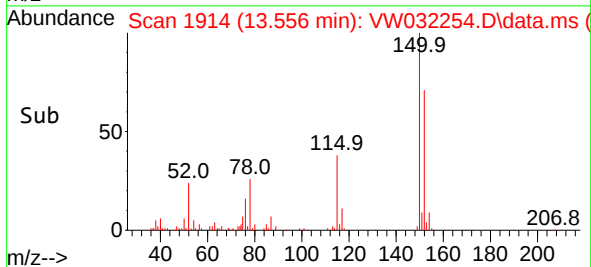
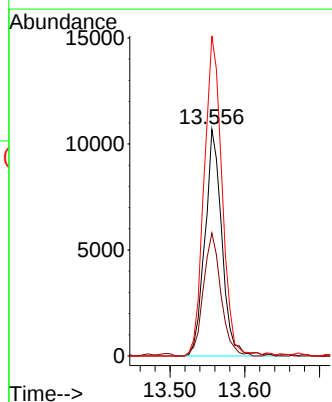
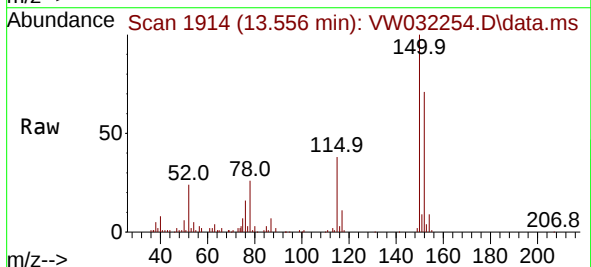
Instrument :  
MSVOA\_W  
ClientSampleId :  
ARS20-0010-Oily Soil-Sludge

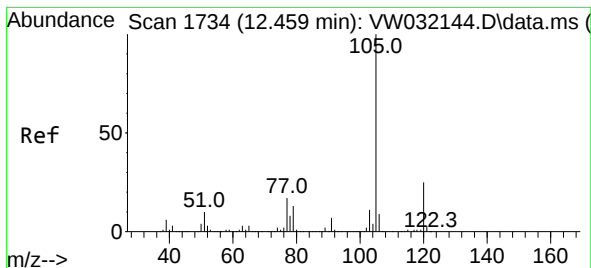
Tgt Ion:106 Resp: 856  
Ion Ratio Lower Upper  
106 100  
91 210.5 164.2 246.2



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.556 min Scan# 1914  
Delta R.T. 0.000 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

Tgt Ion:152 Resp: 16850  
Ion Ratio Lower Upper  
152 100  
115 56.2 31.8 95.4  
150 148.5 0.0 343.0





#73

Isopropylbenzene

Concen: 1.311 ug/l

RT: 12.465 min Scan# 1

Delta R.T. 0.006 min

Lab File: VW032254.D

Acq: 24 Sep 2025 19:02

Instrument :

MSVOA\_W

ClientSampleId :

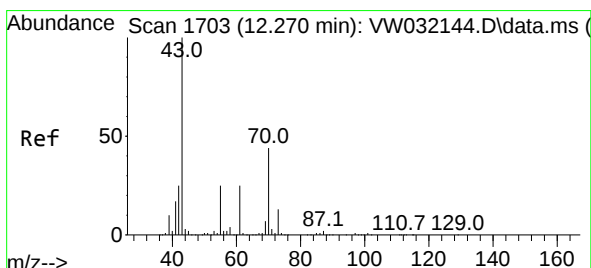
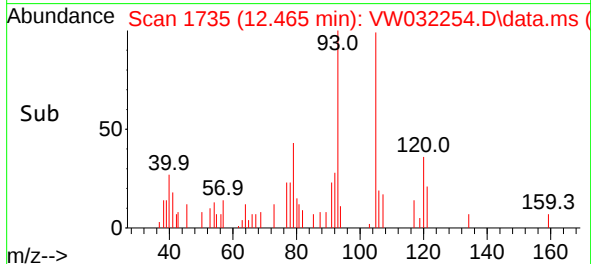
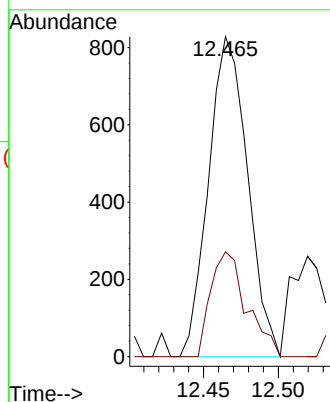
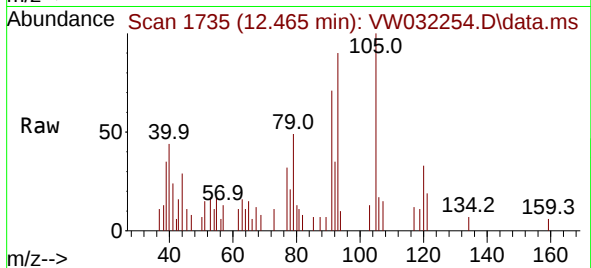
ARS20-0010-Oily Soil-Sludge

Tgt Ion:105 Resp: 1501

Ion Ratio Lower Upper

105 100

120 30.1 13.0 38.9



#74

N-ethyl acetate

Concen: 1.207 ug/l

RT: 12.251 min Scan# 1700

Delta R.T. -0.018 min

Lab File: VW032254.D

Acq: 24 Sep 2025 19:02

Tgt Ion: 43 Resp: 401

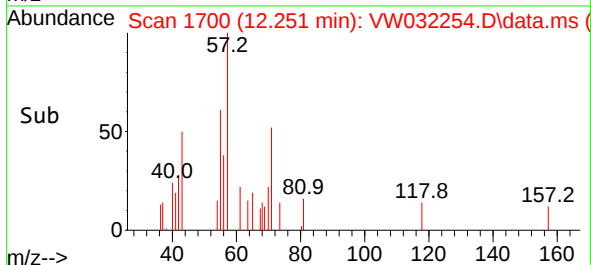
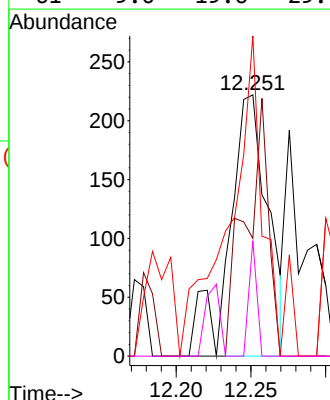
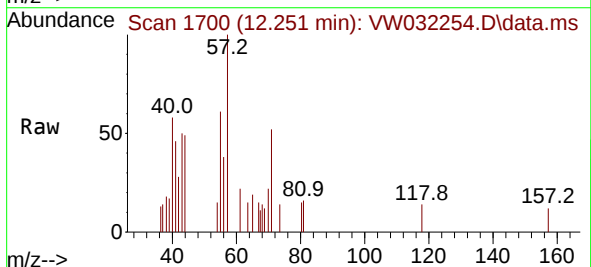
Ion Ratio Lower Upper

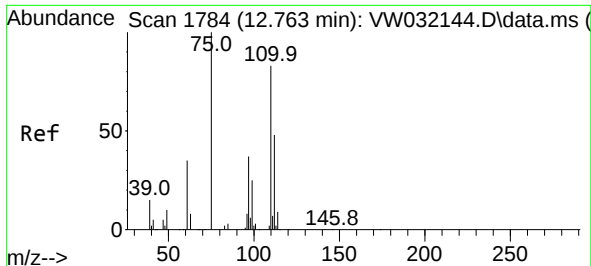
43 100

70 57.9 35.3 52.9#

55 111.7 19.9 29.9#

61 9.0 19.6 29.4#

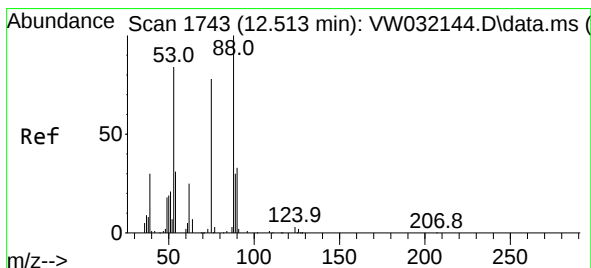
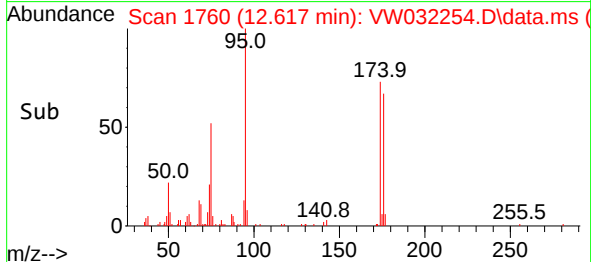
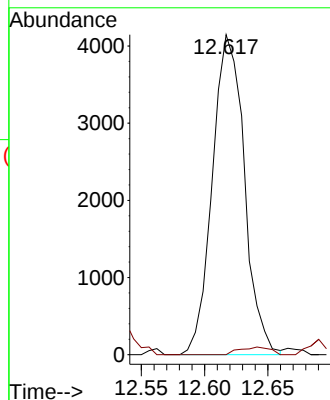
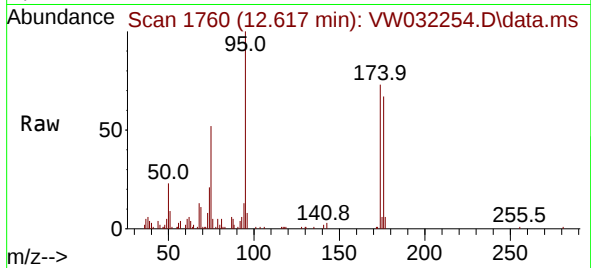




#76  
1,2,3-Trichloropropane  
Concen: 34.548 ug/l  
RT: 12.617 min Scan# 1760  
Delta R.T. -0.146 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

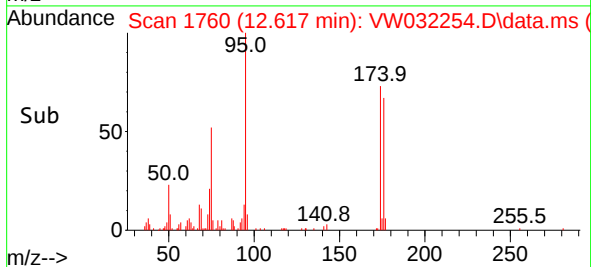
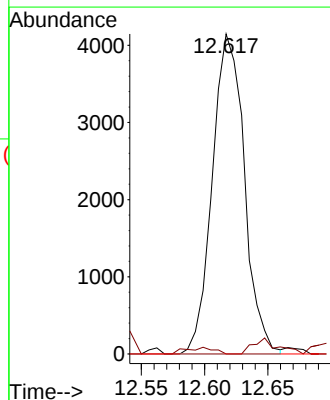
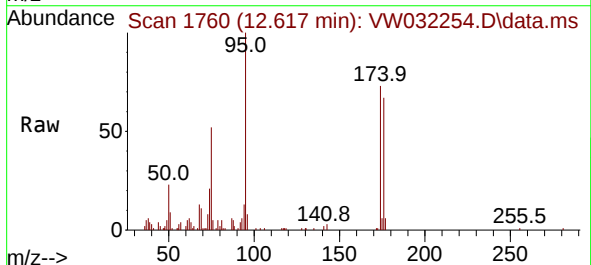
Instrument :  
MSVOA\_W  
ClientSampleId :  
ARS20-0010-Oily Soil-Sludge

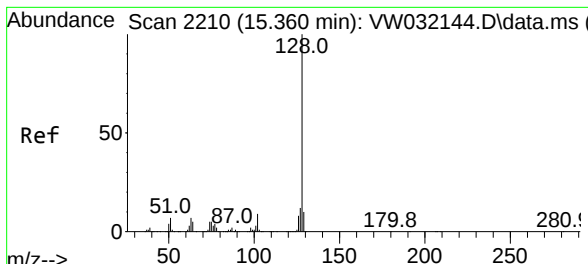
Tgt Ion: 75 Resp: 7293  
Ion Ratio Lower Upper  
75 100  
77 0.0 141.7 425.1#



#81  
trans-1,4-Dichloro-2-butene  
Concen: 93.020 ug/l  
RT: 12.617 min Scan# 1760  
Delta R.T. 0.104 min  
Lab File: VW032254.D  
Acq: 24 Sep 2025 19:02

Tgt Ion: 75 Resp: 7293  
Ion Ratio Lower Upper  
75 100  
53 1.8 91.0 136.6#  
89 0.0 39.4 59.2#





#95  
 Naphthalene  
 Concen: 1.373 ug/l  
 RT: 15.367 min Scan# 21  
 Delta R.T. 0.006 min  
 Lab File: VW032254.D  
 Acq: 24 Sep 2025 19:02

Instrument : MSVOA\_W  
 ClientSampleId : ARS20-0010-Oily Soil-Sludge

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 128   | Resp: | 1033  |
| Ion Ratio | Lower | Upper |       |
| 128       | 100   |       |       |
| 127       | 23.5  | 10.6  | 16.0# |
| 129       | 8.4   | 8.4   | 12.6  |

