

# MWS - LINEAR

## Pollutant Removal Performance Summary

| Test Run                       | pH       |          | TSS (mg/L) |          | Dissolved Phosphorus (mg/L) |          | Dissolved Cadmium (mg/L) |          | Dissolved Copper (mg/L) |          | Dissolved Lead (mg/L) |          | Dissolved Mercury (mg/L) |          |
|--------------------------------|----------|----------|------------|----------|-----------------------------|----------|--------------------------|----------|-------------------------|----------|-----------------------|----------|--------------------------|----------|
|                                | Influent | Effluent | Influent   | Effluent | Influent                    | Effluent | Influent                 | Effluent | Influent                | Effluent | Influent              | Effluent | Influent                 | Effluent |
| 1                              | 7.26     | 7.68     | 270        | 6        | 0.68                        | 0.12     | 0.61                     | 0.02     | 0.757                   | 0.028    | 0.543                 | 0.1      | 0.018                    | 0.002    |
| 2                              | 7.26     | 7.43     | 270        | 3        | 0.68                        | 0.65     | 0.61                     | 0.07     | 0.757                   | 0.055    | 0.543                 | 0.1      | 0.018                    | 0.002    |
| 3                              | 7.26     | 7.35     | 270        | 2        | 0.68                        | 0.77     | 0.61                     | 0.2      | 0.757                   | 0.066    | 0.543                 | 0.1      | 0.018                    | 0.002    |
| 4                              | 7.26     | 7.36     | 270        | 1        | 0.68                        | 0.58     | 0.61                     | 0.33     | 0.757                   | 0.072    | 0.543                 | 0.1      | 0.018                    | 0.002    |
| 5                              |          |          |            |          |                             |          |                          |          |                         |          |                       |          |                          |          |
| 6                              |          |          |            |          |                             |          |                          |          |                         |          |                       |          |                          |          |
| 7                              |          |          |            |          |                             |          |                          |          |                         |          |                       |          |                          |          |
| 8                              |          |          |            |          |                             |          |                          |          |                         |          |                       |          |                          |          |
| Averages                       | 7.26     | 7.455    | 270        | 3        | 0.68                        | 0.53     | 0.61                     | 0.155    | 0.757                   | 0.05525  | 0.543                 | 0.1      | 0.018                    | 0.002    |
| Average Removal Efficiency (%) |          |          | 98.89%     |          | 22.06%                      |          | 74.59%                   |          | 92.70%                  |          | 81.58%                |          | 88.89%                   |          |

Using Sil-Co-Sil 106

Mean particle size = 19 microns

| Test Run                       | Dissolved Nickel (mg/L) |          | Dissolved Zinc (mg/L) |          | Oil & Grease (mg/L) |          | TPH (mg/L) |          | Turbidity (NTU) |          | Fecal Coliform (MPN/100 mL) |          | E.Coli (MPN/100 mL) |           |
|--------------------------------|-------------------------|----------|-----------------------|----------|---------------------|----------|------------|----------|-----------------|----------|-----------------------------|----------|---------------------|-----------|
|                                | Influent                | Effluent | Influent              | Effluent | Influent            | Effluent | Influent   | Effluent | Influent        | Effluent | Influent                    | Effluent | Influent            | Effluent  |
| 1                              | 0.37                    | 0.01     | 0.95                  | 0.05     | 10                  | 1        | 19         | 0        | 21              | 0.5      |                             |          |                     |           |
| 2                              | 0.37                    | 0.25     | 0.95                  | 0.05     | 10                  | 1        | 19         | 0        | 21              | 1.5      |                             |          |                     |           |
| 3                              | 0.37                    | 0.3      | 0.95                  | 0.21     | 10                  | 2.5      | 19         | 0        | 21              | 1.5      |                             |          |                     |           |
| 4                              | 0.37                    | 0.34     | 0.95                  | 0.43     | 10                  | 2        | 19         | 0        | 21              | 2.8      |                             |          |                     |           |
| 5                              |                         |          |                       |          |                     |          |            |          |                 |          |                             |          |                     |           |
| 6                              |                         |          |                       |          |                     |          |            |          |                 |          | 1600                        | 170      | 1600                | 110       |
| 7                              |                         |          |                       |          |                     |          |            |          |                 |          | 1600                        | 900      | 1600                | 900       |
| 8                              |                         |          |                       |          |                     |          |            |          |                 |          | 1600                        | 900      | 1600                | 900       |
| Averages                       | 0.37                    | 0.225    | 0.95                  | 0.185    | 10                  | 1.625    | 19         | 0        | 21              | 1.575    | 1600                        | 535      | 1600                | 636.66667 |
| Average Removal Efficiency (%) | 39.19%                  |          | 80.53%                |          | 83.75%              |          | 100.00%    |          | 92.50%          |          | 66.56%                      |          | 60.21%              |           |

Red text indicates concentrations are greater than testing limits of 1600 MPN/100mL

Testing of Quarter Scale Model - at Flow Rate of 1.9 GPM. This flow rate is equal to 121.6 GPM for full size system.

Modular Wetland System - Linear is manufactured by Modular Wetland Sytems, Inc. 760-433-7640 [www.modularwetlands.com](http://www.modularwetlands.com)