



## Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

| Sample # | Location                                 | Date Collected | Date Analyzed | Conc. (ppb) |
|----------|--|----------------|---------------|-------------|
| AB52589  | Raccoon Lake SRA                         | 8/22/2022      | 8/24/2022     | < 0.15      |
| AB52590  | Cagles Mill Lake Beach                   | 8/22/2022      | 8/24/2022     | < 0.15      |
| AB52591  | Paynetown SRA                            | 8/22/2022      | 8/24/2022     | < 0.15      |
| AB52592  | Fairfax SRA                              | 8/22/2022      | 8/24/2022     | < 0.15      |
| AB52593  | Starve Hollow SRA                        | 8/22/2022      | 8/24/2022     | < 0.15      |
| AB52594  | Whitewater Memorial SP                   | 8/23/2022      | 8/24/2022     | < 0.15      |
| AB52595  | Quakertown SRA                           | 8/23/2022      | 8/24/2022     | < 0.15      |
| AB52596  | Mounds SRA                               | 8/23/2022      | 8/24/2022     | < 0.15      |
| AB52597  | Hardy Lake SRA                           | 8/23/2022      | 8/24/2022     | < 0.15      |
| AB52598  | Cagles Mill Lake Beach (Field Duplicate) | 8/22/2022      | 8/24/2022     | < 0.15      |
| AB52599  | Field Blank                              | 8/22/2022      | 8/24/2022     | < 0.15      |
| AB52600  | Ft. Ben Harrison SP Dog Lake             | 8/23/2022      | 8/24/2022     | 0.70        |
| AB52629  | Kunkel Lake @ Oubache SP                 | 8/23/2022      | 8/24/2022     | < 0.15      |
| AB52630  | Lincoln State Park                       | 8/22/2022      | 8/24/2022     | 2.5         |

# Test Report (by Request)

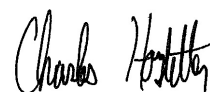
## Test Information

Request: 8/24/2022 2:24:00 PM  
Date: 8/24/2022

| Name/ID   | Assay              | Absorbance                | Concentration      | Interpretation     | Note | Reference | Lot#    |
|-----------|--------------------|---------------------------|--------------------|--------------------|------|-----------|---------|
| CYL Std 0 | CYLINDROSPERMOPSIN | 1.842 Abs                 | 0.000 µg/L         | R^2=0.99763, 100.5 |      |           | M22G208 |
| CYL Std 0 | CYLINDROSPERMOPSIN | 1.806 Abs [1.8240] {1.4 C | 0.004 µg/L [0.002] | R^2=0.99763, 99.01 |      |           | M22G208 |
| CYL Std 1 | CYLINDROSPERMOPSIN | 1.586 Abs                 | 0.040 µg/L         | R^2=0.99763, 86.95 |      |           | M22G208 |
| CYL Std 1 | CYLINDROSPERMOPSIN | 1.547 Abs [1.5665] {1.8 C | 0.048 µg/L [0.044] | R^2=0.99763, 84.81 |      |           | M22G208 |
| CYL Std 2 | CYLINDROSPERMOPSIN | 1.327 Abs                 | 0.101 µg/L         | R^2=0.99763, 72.75 |      |           | M22G208 |
| CYL Std 2 | CYLINDROSPERMOPSIN | 1.310 Abs [1.3185] {0.9 C | 0.106 µg/L [0.104] | R^2=0.99763, 71.82 |      |           | M22G208 |
| CYL Std 3 | CYLINDROSPERMOPSIN | 0.950 Abs                 | 0.261 µg/L         | R^2=0.99763, 52.08 |      |           | M22G208 |
| CYL Std 3 | CYLINDROSPERMOPSIN | 0.904 Abs [0.9270] {3.5 C | 0.291 µg/L [0.276] | R^2=0.99763, 49.56 |      |           | M22G208 |
| CYL Std 4 | CYLINDROSPERMOPSIN | 0.730 Abs                 | 0.444 µg/L         | R^2=0.99763, 40.02 |      |           | M22G208 |
| CYL Std 4 | CYLINDROSPERMOPSIN | 0.718 Abs [0.7240] {1.2 C | 0.458 µg/L [0.451] | R^2=0.99763, 39.36 |      |           | M22G208 |
| CYL Std 5 | CYLINDROSPERMOPSIN | 0.466 Abs                 | 0.953 µg/L         | R^2=0.99763, 25.54 |      |           | M22G208 |
| CYL Std 5 | CYLINDROSPERMOPSIN | 0.451 Abs [0.4585] {2.3 C | 1.004 µg/L [0.979] | R^2=0.99763, 24.72 |      |           | M22G208 |
| CYL Std 6 | CYLINDROSPERMOPSIN | 0.285 Abs                 | > 2.000 µg/L       | 15.625 %Abs        |      |           | M22G208 |
| CYL Std 6 | CYLINDROSPERMOPSIN | 0.275 Abs [0.2800] {2.5 C | > 2.000 µg/L       | 15.077 %Abs        |      |           | M22G208 |
| CYL QCS   | CYLINDROSPERMOPSIN | 0.519 Abs                 | 0.800 µg/L         | 28.454 %Abs        |      |           | M22G208 |
| CYL QCS   | CYLINDROSPERMOPSIN | 0.519 Abs [0.5190] {0.0 C | 0.800 µg/L [0.800] | 28.454 %Abs [28.4  |      |           | M22G208 |

## Note

Signature



# Test Report (by Request)

## Test Information

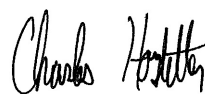
Request: 8/24/2022 2:27:58 PM  
Date: 8/24/2022

| Name/ID     | Assay              | Absorbance                | Concentration      | Interpretation     | Note | Reference     | Lot#    |
|-------------|--------------------|---------------------------|--------------------|--------------------|------|---------------|---------|
| LRB         | CYLINDROSPERMOPSIN | 1.796 Abs                 | 0.005 µg/L         | Low, 98.465 %Abs   |      | 0.050 - 2.000 | M22G208 |
| LRB         | CYLINDROSPERMOPSIN | 1.772 Abs [1.7840] {1.0 C | 0.008 µg/L [0.007] | Low, 97.149 %Abs   |      | 0.050 - 2.000 | M22G208 |
| LFB         | CYLINDROSPERMOPSIN | 0.640 Abs                 | 0.562 µg/L         | 35.088 %Abs        |      | 0.050 - 2.000 | M22G208 |
| LFB         | CYLINDROSPERMOPSIN | 0.629 Abs [0.6345] {1.2 C | 0.579 µg/L [0.571] | 34.485 %Abs [34.7  |      | 0.050 - 2.000 | M22G208 |
| AB52589     | CYLINDROSPERMOPSIN | 1.666 Abs                 | 0.025 µg/L         | Low, 91.338 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52589     | CYLINDROSPERMOPSIN | 1.658 Abs [1.6620] {0.3 C | 0.027 µg/L [0.026] | Low, 90.899 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52590     | CYLINDROSPERMOPSIN | 1.669 Abs                 | 0.025 µg/L         | Low, 91.502 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52590     | CYLINDROSPERMOPSIN | 1.686 Abs [1.6775] {0.7 C | 0.022 µg/L [0.023] | Low, 92.434 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52591     | CYLINDROSPERMOPSIN | 1.745 Abs                 | 0.012 µg/L         | Low, 95.669 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52591     | CYLINDROSPERMOPSIN | 1.712 Abs [1.7285] {1.3 C | 0.018 µg/L [0.015] | Low, 93.860 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52592     | CYLINDROSPERMOPSIN | 1.687 Abs                 | 0.022 µg/L         | Low, 92.489 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52592     | CYLINDROSPERMOPSIN | 1.653 Abs [1.6700] {1.4 C | 0.027 µg/L [0.025] | Low, 90.625 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52593     | CYLINDROSPERMOPSIN | 1.667 Abs                 | 0.025 µg/L         | Low, 91.393 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52593     | CYLINDROSPERMOPSIN | 1.648 Abs [1.6575] {0.8 C | 0.028 µg/L [0.027] | Low, 90.351 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52594     | CYLINDROSPERMOPSIN | 1.664 Abs                 | 0.026 µg/L         | Low, 91.228 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52594     | CYLINDROSPERMOPSIN | 1.696 Abs [1.6800] {1.3 C | 0.020 µg/L [0.023] | Low, 92.982 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52594MS   | CYLINDROSPERMOPSIN | 0.640 Abs                 | 0.562 µg/L         | 35.088 %Abs        |      | 0.050 - 2.000 | M22G208 |
| AB52594MS   | CYLINDROSPERMOPSIN | 0.609 Abs [0.6245] {3.5 C | 0.612 µg/L [0.587] | 33.388 %Abs [34.2  |      | 0.050 - 2.000 | M22G208 |
| AB52594MSD  | CYLINDROSPERMOPSIN | 0.611 Abs                 | 0.609 µg/L         | 33.498 %Abs        |      | 0.050 - 2.000 | M22G208 |
| AB52594MSD  | CYLINDROSPERMOPSIN | 0.590 Abs [0.6005] {2.5 C | 0.646 µg/L [0.628] | 32.346 %Abs [32.9  |      | 0.050 - 2.000 | M22G208 |
| AB52595     | CYLINDROSPERMOPSIN | 1.631 Abs                 | 0.031 µg/L         | Low, 89.419 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52595     | CYLINDROSPERMOPSIN | 1.634 Abs [1.6325] {0.1 C | 0.031 µg/L [0.031] | Low, 89.583 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52596     | CYLINDROSPERMOPSIN | 1.641 Abs                 | 0.030 µg/L         | Low, 89.967 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52596     | CYLINDROSPERMOPSIN | 1.697 Abs [1.6690] {2.4 C | 0.020 µg/L [0.025] | Low, 93.037 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52597     | CYLINDROSPERMOPSIN | 1.774 Abs                 | 0.008 µg/L         | Low, 97.259 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52597     | CYLINDROSPERMOPSIN | 1.721 Abs [1.7475] {2.1 C | 0.016 µg/L [0.012] | Low, 94.353 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52598     | CYLINDROSPERMOPSIN | 1.676 Abs                 | 0.024 µg/L         | Low, 91.886 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52598     | CYLINDROSPERMOPSIN | 1.682 Abs [1.6790] {0.3 C | 0.023 µg/L [0.023] | Low, 92.215 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52599     | CYLINDROSPERMOPSIN | 1.701 Abs                 | 0.019 µg/L         | Low, 93.257 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52599     | CYLINDROSPERMOPSIN | 1.693 Abs [1.6970] {0.3 C | 0.021 µg/L [0.020] | Low, 92.818 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52600     | CYLINDROSPERMOPSIN | 0.558 Abs                 | 0.709 µg/L         | 30.592 %Abs        |      | 0.050 - 2.000 | M22G208 |
| AB52600     | CYLINDROSPERMOPSIN | 0.565 Abs [0.5615] {0.9 C | 0.695 µg/L [0.702] | 30.976 %Abs [30.7  |      | 0.050 - 2.000 | M22G208 |
| AB52629     | CYLINDROSPERMOPSIN | 1.720 Abs                 | 0.016 µg/L         | Low, 94.298 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52629     | CYLINDROSPERMOPSIN | 1.693 Abs [1.7065] {1.1 C | 0.021 µg/L [0.019] | Low, 92.818 %Abs   |      | 0.050 - 2.000 | M22G208 |
| AB52630     | CYLINDROSPERMOPSIN | 0.263 Abs                 | > 2.000 µg/L       | 14.419 %Abs, Out(l |      | 0.050 - 2.000 | M22G208 |
| AB52630     | CYLINDROSPERMOPSIN | 0.257 Abs [0.2600] {1.6 C | > 2.000 µg/L       | 14.090 %Abs, Out(l |      | 0.050 - 2.000 | M22G208 |
| AB52630-10x | CYLINDROSPERMOPSIN | 0.977 Abs                 | 0.245 µg/L         | 53.564 %Abs        |      | 0.050 - 2.000 | M22G208 |
| AB52630-10x | CYLINDROSPERMOPSIN | 0.956 Abs [0.9665] {1.5 C | 0.257 µg/L [0.251] | 52.412 %Abs [52.9  |      | 0.050 - 2.000 | M22G208 |

## Note

10x dilution factor was not entered for AB52630-10x. Therefore, the true concentration is 2.51 ug/L

Signature



## Assay Information

Assay Name: CYLINDROSPERMOPSIN\_

Version: 2

Temperature: Room Temperature

Last Modified By: Security disabled

Units: µg/L

Assay Description: PN 522011

Assay Substances: Controls:  
CYL QCS

Standards:

CYL Std 0, Concentration = 0.000, Minimum number to use: 2

CYL Std 1, Concentration = 0.050, Minimum number to use: 2

CYL Std 2, Concentration = 0.100, Minimum number to use: 2

CYL Std 3, Concentration = 0.250, Minimum number to use: 2

CYL Std 4, Concentration = 0.500, Minimum number to use: 2

CYL Std 5, Concentration = 1.000, Minimum number to use: 2

CYL Std 6, Concentration = 2.000, Minimum number to use: 2

Curve valid interval: 1 days 0 hours

Axis Mode: Y = Abs, X = Log(Conc)

Assay Mode: 4-Parameter Logistic Weight by:None

Well Type: Flat bottom

Last Modified On: 9/30/2020 10:05:41 AM

Normal: 0.050 - 2.000

# of decimals: 3

Kit Lot Number: M22G2084

## Assay Calibration

Current Calibration Status: "

"

| Name                 | Absorbance                  | Concentration                 | Interpretation                        | Position      |
|----------------------|-----------------------------|-------------------------------|---------------------------------------|---------------|
| 8/24/2022 2:24:00 PM |                             |                               |                                       |               |
| CYL Std 0            | 1.842 Abs                   | 0.000 µg/L                    | R <sup>2</sup> =0.99763, 100.987 %Abs | RK1:23->A01@2 |
| CYL Std 0            | 1.806 Abs [1.8240] {1.4 CV} | 0.004 µg/L [0.002] {141.4 CV} | R <sup>2</sup> =0.99763, 99.013 %Abs  | RK1:23->B01@2 |
| CYL Std 1            | 1.586 Abs                   | 0.040 µg/L                    | R <sup>2</sup> =0.99763, 86.952 %Abs  | RK1:24->C01@2 |
| CYL Std 1            | 1.547 Abs [1.5665] {1.8 CV} | 0.048 µg/L [0.044] {12.9 CV}  | R <sup>2</sup> =0.99763, 84.814 %Abs  | RK1:24->D01@2 |
| CYL Std 2            | 1.327 Abs                   | 0.101 µg/L                    | R <sup>2</sup> =0.99763, 72.752 %Abs  | RK1:25->E01@2 |
| CYL Std 2            | 1.310 Abs [1.3185] {0.9 CV} | 0.106 µg/L [0.104] {3.4 CV}   | R <sup>2</sup> =0.99763, 71.820 %Abs  | RK1:25->F01@3 |
| CYL Std 3            | 0.950 Abs                   | 0.261 µg/L                    | R <sup>2</sup> =0.99763, 52.083 %Abs  | RK1:26->G01@3 |
| CYL Std 3            | 0.904 Abs [0.9270] {3.5 CV} | 0.291 µg/L [0.276] {7.7 CV}   | R <sup>2</sup> =0.99763, 49.561 %Abs  | RK1:26->H01@3 |
| CYL Std 4            | 0.730 Abs                   | 0.444 µg/L                    | R <sup>2</sup> =0.99763, 40.022 %Abs  | RK1:27->A02@2 |
| CYL Std 4            | 0.718 Abs [0.7240] {1.2 CV} | 0.458 µg/L [0.451] {2.2 CV}   | R <sup>2</sup> =0.99763, 39.364 %Abs  | RK1:27->B02@2 |
| CYL Std 5            | 0.466 Abs                   | 0.953 µg/L                    | R <sup>2</sup> =0.99763, 25.548 %Abs  | RK1:28->C02@2 |
| CYL Std 5            | 0.451 Abs [0.4585] {2.3 CV} | 1.004 µg/L [0.979] {3.7 CV}   | R <sup>2</sup> =0.99763, 24.726 %Abs  | RK1:28->D02@2 |
| CYL Std 6            | 0.285 Abs                   | > 2.000 µg/L                  | 15.625 %Abs                           | RK1:29->E02@2 |
| CYL Std 6            | 0.275 Abs [0.2800] {2.5 CV} | > 2.000 µg/L                  | 15.077 %Abs                           | RK1:29->F02@3 |
| *****                |                             |                               |                                       |               |
| 8/24/2022 2:24:00 PM |                             |                               |                                       |               |
| CYL QCS              | 0.519 Abs                   | 0.800 µg/L                    | 28.454 %Abs                           | RK1:30->G02@3 |
| CYL QCS              | 0.519 Abs [0.5190] {0.0 CV} | 0.800 µg/L [0.800] {0.0 CV}   | 28.454 %Abs [28.454 %Abs]             | RK1:30->H02@3 |
| *****                |                             |                               |                                       |               |
| Statistic            |                             |                               |                                       |               |
| CYL Std 0 [MEAN]     | 1.8240                      | 0.0020                        |                                       |               |
| CYL Std 0 [SD]       | 0.0255                      | 0.0028                        |                                       |               |
| CYL Std 0 [%CV]      | 1.3956                      | 141.4214                      |                                       |               |
| CYL Std 1 [MEAN]     | 1.5665                      | 0.0440                        |                                       |               |
| CYL Std 1 [SD]       | 0.0276                      | 0.0057                        |                                       |               |
| CYL Std 1 [%CV]      | 1.7604                      | 12.8565                       |                                       |               |
| CYL Std 1 [%DIFF]    |                             | -12.0000                      |                                       |               |
| CYL Std 2 [MEAN]     | 1.3185                      | 0.1035                        |                                       |               |
| CYL Std 2 [SD]       | 0.0120                      | 0.0035                        |                                       |               |
| CYL Std 2 [%CV]      | 0.9117                      | 3.4160                        |                                       |               |
| CYL Std 2 [%DIFF]    |                             | 3.5000                        |                                       |               |
| CYL Std 3 [MEAN]     | 0.9270                      | 0.2760                        |                                       |               |
| CYL Std 3 [SD]       | 0.0325                      | 0.0212                        |                                       |               |
| CYL Std 3 [%CV]      | 3.5088                      | 7.6859                        |                                       |               |
| CYL Std 3 [%DIFF]    |                             | 10.4000                       |                                       |               |
| CYL Std 4 [MEAN]     | 0.7240                      | 0.4510                        |                                       |               |
| CYL Std 4 [SD]       | 0.0085                      | 0.0099                        |                                       |               |
| CYL Std 4 [%CV]      | 1.1720                      | 2.1950                        |                                       |               |
| CYL Std 4 [%DIFF]    |                             | -9.8000                       |                                       |               |

| Name              | Absorbance | Concentration | Interpretation | Position |  |
|-------------------|------------|---------------|----------------|----------|--|
| CYL Std 5 [MEAN]  | 0.4585     | 0.9785        |                |          |  |
| CYL Std 5 [SD]    | 0.0106     | 0.0361        |                |          |  |
| CYL Std 5 [%CV]   | 2.3133     | 3.6855        |                |          |  |
| CYL Std 5 [%DIFF] |            | -2.1500       |                |          |  |
| CYL Std 6 [MEAN]  | 0.2800     |               |                |          |  |
| CYL Std 6 [SD]    | 0.0071     |               |                |          |  |
| CYL Std 6 [%CV]   | 2.5254     |               |                |          |  |
| CYL QCS [MEAN]    | 0.5190     | 0.8000        |                |          |  |
| CYL QCS [SD]      | 0.0000     | 0.0000        |                |          |  |
| CYL QCS [%CV]     | 0.0000     | 0.0000        |                |          |  |

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.8329  
 B = 0.97144  
 C = 0.25534  
 D = 0.085575  
 R2 coef = 0.99763  
 50% = 0.285

