



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

| Sample # | Location | Date Collected | Date Analyzed | Conc. (ppb) |
|----------|--------------------------------------|----------------|---------------|-------------|
| AB52432 | Summit Lake State Park | 8/16/2022 | 8/17/2022 | < 0.15 |
| AB52433 | Kunkel Lake @ Oubache SP | 8/15/2022 | 8/17/2022 | < 0.15 |
| AB52434 | Pokagon State Park | 8/15/2022 | 8/17/2022 | < 0.15 |
| AB52435 | Potawatomi Inn's Beach | 8/15/2022 | 8/17/2022 | < 0.15 |
| AB52436 | Chain O'Lakes SP | 8/15/2022 | 8/17/2022 | < 0.15 |
| AB52437 | Potato Creek State Park | 8/16/2022 | 8/17/2022 | < 0.15 |
| AB52438 | Lost Bridge West SRA | 8/16/2022 | 8/17/2022 | < 0.15 |
| AB52439 | Mississinewa Lake Miami SRA | 8/16/2022 | 8/17/2022 | < 0.15 |
| AB52440 | Kunkel Lake @ Oubache SP (Field Dup) | 8/15/2022 | 8/17/2022 | < 0.15 |
| AB52441 | Field Blank | 8/15/2022 | 8/17/2022 | < 0.15 |
| AB52442 | Lincoln State Park | 8/15/2022 | 8/17/2022 | 1.6 |
| AB52443 | Ferdinand State Forest Lake | 8/15/2022 | 8/17/2022 | < 0.15 |
| AB52444 | Patoka SRA Beach | 8/15/2022 | 8/17/2022 | < 0.15 |
| AB52560 | Ft. Ben Harrison SP Dog Lake | 8/16/2022 | 8/17/2022 | 0.39 |

Test Report (by Request)

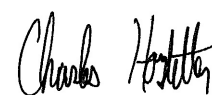
Test Information

Request: 8/17/2022 3:41:35 PM
Date: 8/17/2022 - 8/18/2022

| Name/ID | Assay | Absorbance | Concentration | Interpretation | Note | Reference | Lot# |
|-----------|--------------------|---------------------------|--------------------|---------------------|------|-----------|---------|
| CYL Std 0 | CYLINDROSPERMOPSIN | 1.990 Abs | 0.007 µg/L | R^2=0.99731, 99.10% | | | M22G208 |
| CYL Std 0 | CYLINDROSPERMOPSIN | 2.025 Abs [2.0075] {1.2 C | 0.000 µg/L [0.004] | R^2=0.99731, 100.8% | | | M22G208 |
| CYL Std 1 | CYLINDROSPERMOPSIN | 1.816 Abs | 0.040 µg/L | R^2=0.99731, 90.43% | | | M22G208 |
| CYL Std 1 | CYLINDROSPERMOPSIN | 1.799 Abs [1.8075] {0.7 C | 0.043 µg/L [0.042] | R^2=0.99731, 89.55% | | | M22G208 |
| CYL Std 2 | CYLINDROSPERMOPSIN | 1.544 Abs | 0.099 µg/L | R^2=0.99731, 76.85% | | | M22G208 |
| CYL Std 2 | CYLINDROSPERMOPSIN | 1.502 Abs [1.5230] {2.0 C | 0.109 µg/L [0.104] | R^2=0.99731, 74.80% | | | M22G208 |
| CYL Std 3 | CYLINDROSPERMOPSIN | 1.067 Abs | 0.266 µg/L | R^2=0.99731, 53.13% | | | M22G208 |
| CYL Std 3 | CYLINDROSPERMOPSIN | 1.042 Abs [1.0545] {1.7 C | 0.280 µg/L [0.273] | R^2=0.99731, 51.85% | | | M22G208 |
| CYL Std 4 | CYLINDROSPERMOPSIN | 0.804 Abs | 0.451 µg/L | R^2=0.99731, 40.04% | | | M22G208 |
| CYL Std 4 | CYLINDROSPERMOPSIN | 0.785 Abs [0.7945] {1.7 C | 0.470 µg/L [0.461] | R^2=0.99731, 39.05% | | | M22G208 |
| CYL Std 5 | CYLINDROSPERMOPSIN | 0.526 Abs | 0.910 µg/L | R^2=0.99731, 26.15% | | | M22G208 |
| CYL Std 5 | CYLINDROSPERMOPSIN | 0.509 Abs [0.5175] {2.3 C | 0.961 µg/L [0.936] | R^2=0.99731, 25.34% | | | M22G208 |
| CYL Std 6 | CYLINDROSPERMOPSIN | 0.325 Abs | > 2.000 µg/L | 16.185 %Abs | | | M22G208 |
| CYL Std 6 | CYLINDROSPERMOPSIN | 0.303 Abs [0.3140] {5.0 C | > 2.000 µg/L | 15.090 %Abs | | | M22G208 |
| CYL QCS | CYLINDROSPERMOPSIN | 0.578 Abs | 0.780 µg/L | 28.785 %Abs | | | M22G208 |
| CYL QCS | CYLINDROSPERMOPSIN | 0.566 Abs [0.5720] {1.5 C | 0.807 µg/L [0.793] | 28.187 %Abs [28.4 | | | M22G208 |

Note

Signature



Test Report (by Request)

Test Information

Request: 8/17/2022 3:44:14 PM
Date: 8/17/2022 - 8/18/2022

| Name/ID | Assay | Absorbance | Concentration | Interpretation | Note | Reference | Lot# |
|------------|--------------------|---------------------------|--------------------|-------------------|------|---------------|---------|
| LRB | CYLINDROSPERMOPSIN | 1.992 Abs | 0.007 µg/L | Low, 99.203 %Abs | | 0.050 - 2.000 | M22G208 |
| LRB | CYLINDROSPERMOPSIN | 2.013 Abs [2.0025] {0.7 C | 0.003 µg/L [0.005] | | | 0.050 - 2.000 | M22G208 |
| LFB | CYLINDROSPERMOPSIN | 0.719 Abs | 0.545 µg/L | 35.807 %Abs | | 0.050 - 2.000 | M22G208 |
| LFB | CYLINDROSPERMOPSIN | 0.709 Abs [0.7140] {1.0 C | 0.558 µg/L [0.552] | 35.309 %Abs [35.5 | | 0.050 - 2.000 | M22G208 |
| AB52432 | CYLINDROSPERMOPSIN | 1.611 Abs | 0.083 µg/L | 80.229 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52432 | CYLINDROSPERMOPSIN | 1.559 Abs [1.5850] {2.3 C | 0.095 µg/L [0.089] | 77.639 %Abs [78.9 | | 0.050 - 2.000 | M22G208 |
| AB52433 | CYLINDROSPERMOPSIN | 1.890 Abs | 0.026 µg/L | Low, 94.124 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52433 | CYLINDROSPERMOPSIN | 1.865 Abs [1.8775] {0.9 C | 0.031 µg/L [0.029] | | | 0.050 - 2.000 | M22G208 |
| AB52434 | CYLINDROSPERMOPSIN | 1.887 Abs | 0.027 µg/L | Low, 93.974 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52434 | CYLINDROSPERMOPSIN | 1.896 Abs [1.8915] {0.3 C | 0.025 µg/L [0.026] | | | 0.050 - 2.000 | M22G208 |
| AB52435 | CYLINDROSPERMOPSIN | 1.866 Abs | 0.031 µg/L | Low, 92.928 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52435 | CYLINDROSPERMOPSIN | 1.910 Abs [1.8880] {1.6 C | 0.022 µg/L [0.026] | | | 0.050 - 2.000 | M22G208 |
| AB52436 | CYLINDROSPERMOPSIN | 1.861 Abs | 0.031 µg/L | Low, 92.679 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52436 | CYLINDROSPERMOPSIN | 1.836 Abs [1.8485] {1.0 C | 0.036 µg/L [0.034] | | | 0.050 - 2.000 | M22G208 |
| AB52437 | CYLINDROSPERMOPSIN | 1.865 Abs | 0.031 µg/L | Low, 92.878 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52437 | CYLINDROSPERMOPSIN | 1.876 Abs [1.8705] {0.4 C | 0.029 µg/L [0.030] | | | 0.050 - 2.000 | M22G208 |
| AB52437MS | CYLINDROSPERMOPSIN | 0.677 Abs | 0.602 µg/L | 33.715 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52437MS | CYLINDROSPERMOPSIN | 0.666 Abs [0.6715] {1.2 C | 0.619 µg/L [0.610] | 33.167 %Abs [33.4 | | 0.050 - 2.000 | M22G208 |
| AB52437MSD | CYLINDROSPERMOPSIN | 0.668 Abs | 0.616 µg/L | 33.267 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52437MSD | CYLINDROSPERMOPSIN | 0.667 Abs [0.6675] {0.1 C | 0.617 µg/L [0.617] | 33.217 %Abs [33.2 | | 0.050 - 2.000 | M22G208 |
| AB52438 | CYLINDROSPERMOPSIN | 1.843 Abs | 0.035 µg/L | Low, 91.783 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52438 | CYLINDROSPERMOPSIN | 1.816 Abs [1.8295] {1.0 C | 0.040 µg/L [0.038] | | | 0.050 - 2.000 | M22G208 |
| AB52439 | CYLINDROSPERMOPSIN | 1.793 Abs | 0.044 µg/L | Low, 89.293 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52439 | CYLINDROSPERMOPSIN | 1.798 Abs [1.7955] {0.2 C | 0.043 µg/L [0.043] | | | 0.050 - 2.000 | M22G208 |
| AB52440 | CYLINDROSPERMOPSIN | 1.867 Abs | 0.030 µg/L | Low, 92.978 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52440 | CYLINDROSPERMOPSIN | 1.817 Abs [1.8420] {1.9 C | 0.040 µg/L [0.035] | | | 0.050 - 2.000 | M22G208 |
| AB52441 | CYLINDROSPERMOPSIN | 1.858 Abs | 0.032 µg/L | Low, 92.530 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52441 | CYLINDROSPERMOPSIN | 1.903 Abs [1.8805] {1.7 C | 0.024 µg/L [0.028] | | | 0.050 - 2.000 | M22G208 |
| AB52442 | CYLINDROSPERMOPSIN | 0.385 Abs | 1.559 µg/L | 19.173 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52442 | CYLINDROSPERMOPSIN | 0.378 Abs [0.3815] {1.3 C | 1.613 µg/L [1.586] | 18.825 %Abs [18.9 | | 0.050 - 2.000 | M22G208 |
| AB52443 | CYLINDROSPERMOPSIN | 1.819 Abs | 0.039 µg/L | Low, 90.588 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52443 | CYLINDROSPERMOPSIN | 1.814 Abs [1.8165] {0.2 C | 0.040 µg/L [0.039] | | | 0.050 - 2.000 | M22G208 |
| AB52444 | CYLINDROSPERMOPSIN | 1.925 Abs | 0.020 µg/L | Low, 95.867 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52444 | CYLINDROSPERMOPSIN | 1.896 Abs [1.9105] {1.1 C | 0.025 µg/L [0.023] | | | 0.050 - 2.000 | M22G208 |
| AB52560 | CYLINDROSPERMOPSIN | 0.878 Abs | 0.386 µg/L | 43.725 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52560 | CYLINDROSPERMOPSIN | 0.859 Abs [0.8685] {1.5 C | 0.402 µg/L [0.394] | 42.779 %Abs [43.2 | | 0.050 - 2.000 | M22G208 |
| AB52560LD | CYLINDROSPERMOPSIN | 0.853 Abs | 0.407 µg/L | 42.480 %Abs | | 0.050 - 2.000 | M22G208 |
| AB52560LD | CYLINDROSPERMOPSIN | 0.821 Abs [0.8370] {2.7 C | 0.435 µg/L [0.421] | 40.886 %Abs [41.6 | | 0.050 - 2.000 | M22G208 |
| LFB 2 | CYLINDROSPERMOPSIN | 0.624 Abs | 0.688 µg/L | 31.076 %Abs | | 0.050 - 2.000 | M22G208 |
| LFB 2 | CYLINDROSPERMOPSIN | 0.608 Abs [0.6160] {1.8 C | 0.718 µg/L [0.703] | 30.279 %Abs [30.6 | | 0.050 - 2.000 | M22G208 |
| LRB 2 | CYLINDROSPERMOPSIN | 1.723 Abs | 0.058 µg/L | 85.807 %Abs | | 0.050 - 2.000 | M22G208 |
| LRB 2 | CYLINDROSPERMOPSIN | 1.716 Abs [1.7195] {0.3 C | 0.060 µg/L [0.059] | 85.458 %Abs [85.6 | | 0.050 - 2.000 | M22G208 |

Note

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:

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

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 Calibration

Current Calibration Status: "

"

| Name | Absorbance | Concentration | Interpretation | Position |
|----------------------|-----------------------------|-------------------------------|---------------------------------------|---------------|
| 8/17/2022 3:41:35 PM | | | | |
| CYL Std 0 | 1.990 Abs | 0.007 µg/L | R ² =0.99731, 99.104 %Abs | RK1:23->A01@2 |
| CYL Std 0 | 2.025 Abs [2.0075] {1.2 CV} | 0.000 µg/L [0.004] {141.4 CV} | R ² =0.99731, 100.847 %Abs | RK1:23->B01@2 |
| CYL Std 1 | 1.816 Abs | 0.040 µg/L | R ² =0.99731, 90.438 %Abs | RK1:24->C01@2 |
| CYL Std 1 | 1.799 Abs [1.8075] {0.7 CV} | 0.043 µg/L [0.042] {5.1 CV} | R ² =0.99731, 89.592 %Abs | RK1:24->D01@2 |
| CYL Std 2 | 1.502 Abs | 0.109 µg/L | R ² =0.99731, 74.801 %Abs | RK1:25->F01@3 |
| CYL Std 2 | 1.544 Abs [1.5230] {2.0 CV} | 0.099 µg/L [0.104] {6.8 CV} | R ² =0.99731, 76.892 %Abs | RK1:25->E01@2 |
| CYL Std 3 | 1.067 Abs | 0.266 µg/L | R ² =0.99731, 53.137 %Abs | RK1:26->G01@3 |
| CYL Std 3 | 1.042 Abs [1.0545] {1.7 CV} | 0.280 µg/L [0.273] {3.6 CV} | R ² =0.99731, 51.892 %Abs | RK1:26->H01@3 |
| CYL Std 4 | 0.804 Abs | 0.451 µg/L | R ² =0.99731, 40.040 %Abs | RK1:27->A02@2 |
| CYL Std 4 | 0.785 Abs [0.7945] {1.7 CV} | 0.470 µg/L [0.461] {2.9 CV} | R ² =0.99731, 39.094 %Abs | RK1:27->B02@2 |
| CYL Std 5 | 0.526 Abs | 0.910 µg/L | R ² =0.99731, 26.195 %Abs | RK1:28->C02@2 |
| CYL Std 5 | 0.509 Abs [0.5175] {2.3 CV} | 0.961 µg/L [0.936] {3.9 CV} | R ² =0.99731, 25.349 %Abs | RK1:28->D02@2 |
| CYL Std 6 | 0.325 Abs | > 2.000 µg/L | 16.185 %Abs | RK1:29->E02@2 |
| CYL Std 6 | 0.303 Abs [0.3140] {5.0 CV} | > 2.000 µg/L | 15.090 %Abs | RK1:29->F02@3 |
| ***** | | | | |
| 8/17/2022 3:41:35 PM | | | | |
| CYL QCS | 0.578 Abs | 0.780 µg/L | 28.785 %Abs | RK1:30->G02@3 |
| CYL QCS | 0.566 Abs [0.5720] {1.5 CV} | 0.807 µg/L [0.793] {2.4 CV} | 28.187 %Abs [28.486 %Abs] | RK1:30->H02@3 |
| ***** | | | | |
| Statistic | | | | |
| CYL Std 0 [MEAN] | 2.0075 | 0.0035 | | |
| CYL Std 0 [SD] | 0.0247 | 0.0049 | | |
| CYL Std 0 [%CV] | 1.2328 | 141.4214 | | |
| CYL Std 1 [MEAN] | 1.8075 | 0.0415 | | |
| CYL Std 1 [SD] | 0.0120 | 0.0021 | | |
| CYL Std 1 [%CV] | 0.6651 | 5.1116 | | |
| CYL Std 1 [%DIFF] | | -17.0000 | | |
| CYL Std 2 [MEAN] | 1.5230 | 0.1040 | | |
| CYL Std 2 [SD] | 0.0297 | 0.0071 | | |
| CYL Std 2 [%CV] | 1.9500 | 6.7991 | | |
| CYL Std 2 [%DIFF] | | 4.0000 | | |
| CYL Std 3 [MEAN] | 1.0545 | 0.2730 | | |
| CYL Std 3 [SD] | 0.0177 | 0.0099 | | |
| CYL Std 3 [%CV] | 1.6764 | 3.6262 | | |
| CYL Std 3 [%DIFF] | | 9.2000 | | |
| CYL Std 4 [MEAN] | 0.7945 | 0.4605 | | |
| CYL Std 4 [SD] | 0.0134 | 0.0134 | | |
| CYL Std 4 [%CV] | 1.6910 | 2.9175 | | |
| CYL Std 4 [%DIFF] | | -7.9000 | | |

| Name | Absorbance | Concentration | Interpretation | Position | |
|-------------------|------------|---------------|----------------|----------|--|
| CYL Std 5 [MEAN] | 0.5175 | 0.9355 | | | |
| CYL Std 5 [SD] | 0.0120 | 0.0361 | | | |
| CYL Std 5 [%CV] | 2.3229 | 3.8549 | | | |
| CYL Std 5 [%DIFF] | | -6.4500 | | | |
| CYL Std 6 [MEAN] | 0.3140 | | | | |
| CYL Std 6 [SD] | 0.0156 | | | | |
| CYL Std 6 [%CV] | 4.9542 | | | | |
| CYL QCS [MEAN] | 0.5720 | 0.7935 | | | |
| CYL QCS [SD] | 0.0085 | 0.0191 | | | |
| CYL QCS [%CV] | 1.4834 | 2.4060 | | | |

Assay Curve

$$y = (A-D)/(1+(x/C)^B) + D$$

Weight: NONE

A = 2.0244

B = 1.1255

C = 0.24993

D = 0.17617

R2 coef = 0.99731

50% = 0.301

