



## Cylindrospermopsin Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

<b>Sample #</b>	<b>Location</b>	<b>Date Collected</b>	<b>Date Analyzed</b>	<b>Conc. (ppb)</b>
AB43415	Raccoon Lake SRA	7/13/2020	7/16/2020	<0.15
AB43417	Cagles Mill Lake Beach	7/13/2020	7/16/2020	<0.15
AB43418	Paynetown SRA	7/13/2020	7/16/2020	<0.15
AB43419	Fairfax SRA	7/13/2020	7/16/2020	<0.15
AB43420	Starve Hollow SRA	7/13/2020	7/16/2020	<0.15
AB43421	Whitewater Memorial SP	7/14/2020	7/16/2020	<0.15
AB43422	Quakertown SRA	7/14/2020	7/16/2020	<0.15
AB43423	Mounds SRA	7/14/2020	7/16/2020	<0.15
AB43424	Hardy Lake SRA	7/14/2020	7/16/2020	<0.15
AB43416	Deam Lake SRA	7/14/2020	7/16/2020	<0.15
AB43425	Whitewater Memorial SP (Field Duplicate)	7/14/2020	7/16/2020	<0.15
AB43426	Field Blank	7/13/2020	7/16/2020	<0.15
AB43427	Lincoln State Park	7/13/2020	7/16/2020	<0.15
AB43428	Ferdinand State Forest Lake	7/13/2020	7/16/2020	<0.15
AB43429	Patoka Lake	7/14/2020	7/16/2020	<0.15

# Test Report (by Request)

**Test Information**

 Request: 7/16/2020 3:29:09 PM  
 Date: 7/16/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
CYL Std 0	CYLINDROSPERMOPSIN	0.616 Abs	0.000 µg/L	R^2=0.99814, 99.676		19G0261
CYL Std 0	CYLINDROSPERMOPSIN	0.620 Abs [0.6180] {0.5 CV}	0.000 µg/L [0.000]	R^2=0.99814, 100.32		19G0261
CYL Std 1	CYLINDROSPERMOPSIN	0.557 Abs	0.059 µg/L	R^2=0.99814, 90.129		19G0261
CYL Std 1	CYLINDROSPERMOPSIN	0.562 Abs [0.5595] {0.6 CV}	0.053 µg/L [0.056] {7}	R^2=0.99814, 90.939		19G0261
CYL Std 2	CYLINDROSPERMOPSIN	0.527 Abs	0.099 µg/L	R^2=0.99814, 85.275		19G0261
CYL Std 2	CYLINDROSPERMOPSIN	0.518 Abs [0.5225] {1.2 CV}	0.112 µg/L [0.105] {8}	R^2=0.99814, 83.819		19G0261
CYL Std 3	CYLINDROSPERMOPSIN	0.460 Abs	0.214 µg/L	R^2=0.99814, 74.434		19G0261
CYL Std 3	CYLINDROSPERMOPSIN	0.453 Abs [0.4565] {1.1 CV}	0.228 µg/L [0.221] {4}	R^2=0.99814, 73.301		19G0261
CYL Std 4	CYLINDROSPERMOPSIN	0.357 Abs	0.501 µg/L	R^2=0.99814, 57.767		19G0261
CYL Std 4	CYLINDROSPERMOPSIN	0.346 Abs [0.3515] {2.2 CV}	0.544 µg/L [0.523] {5}	R^2=0.99814, 55.987		19G0261
CYL Std 5	CYLINDROSPERMOPSIN	0.265 Abs	1.011 µg/L	R^2=0.99814, 42.880		19G0261
CYL Std 5	CYLINDROSPERMOPSIN	0.262 Abs [0.2635] {0.8 CV}	1.035 µg/L [1.023] {1}	R^2=0.99814, 42.395		19G0261
CYL Std 6	CYLINDROSPERMOPSIN	0.195 Abs	1.855 µg/L	R^2=0.99814, 31.553		19G0261
CYL Std 6	CYLINDROSPERMOPSIN	0.186 Abs [0.1905] {3.3 CV}	> 2.000 µg/L [1.855]	30.097 %Abs		19G0261
CYL QCS	CYLINDROSPERMOPSIN	0.301 Abs	0.765 µg/L	48.706 %Abs		19G0261
CYL QCS	CYLINDROSPERMOPSIN	0.331 Abs [0.3160] {6.7 CV}	0.609 µg/L [0.687] {1}	53.560 %Abs [51.13]		19G0261

**Note**

Signature

Date: 7/16/2020

# Test Report (by Request)

**Test Information**

Request: 7/16/2020 3:30:33 PM

Date: 7/16/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	CYLINDROSPERMOPSIN	0.582 Abs	0.031 µg/L	<b>LOW, 94.175 %ABS</b>	0.050 - 2.000	19G0261
LRB	CYLINDROSPERMOPSIN	0.574 Abs [0.5780] {1.0 CV}	0.040 µg/L [0.035] {1.0 CV}	<b>LOW, 92.880 %ABS</b>	0.050 - 2.000	19G0261
LFB	CYLINDROSPERMOPSIN	0.294 Abs	0.806 µg/L	47.573 %Abs	0.050 - 2.000	19G0261
LFB	CYLINDROSPERMOPSIN	0.294 Abs [0.2940] {0.0 CV}	0.806 µg/L [0.806] {0.0 CV}	47.573 %Abs [47.573] {0.0 CV}	0.050 - 2.000	19G0261
AB43415	CYLINDROSPERMOPSIN	0.546 Abs	0.073 µg/L	88.350 %Abs	0.050 - 2.000	19G0261
AB43415	CYLINDROSPERMOPSIN	0.545 Abs [0.5455] {0.1 CV}	0.075 µg/L [0.074] {0.1 CV}	88.188 %Abs [88.269] {0.1 CV}	0.050 - 2.000	19G0261
AB43416	CYLINDROSPERMOPSIN	0.558 Abs	0.058 µg/L	90.291 %Abs	0.050 - 2.000	19G0261
AB43416	CYLINDROSPERMOPSIN	0.619 Abs [0.5885] {7.3 CV}	0.000 µg/L [0.029] {1.0 CV}	<b>LOW, 100.162 %ABS</b>	0.050 - 2.000	19G0261
AB43417	CYLINDROSPERMOPSIN	0.545 Abs	0.075 µg/L	88.188 %Abs	0.050 - 2.000	19G0261
AB43417	CYLINDROSPERMOPSIN	0.547 Abs [0.5460] {0.3 CV}	0.072 µg/L [0.074] {0.3 CV}	88.511 %Abs [88.350] {0.3 CV}	0.050 - 2.000	19G0261
AB43418	CYLINDROSPERMOPSIN	0.553 Abs	0.064 µg/L	89.482 %Abs	0.050 - 2.000	19G0261
AB43418	CYLINDROSPERMOPSIN	0.539 Abs [0.5460] {1.8 CV}	0.083 µg/L [0.074] {1.8 CV}	87.217 %Abs [88.350] {1.8 CV}	0.050 - 2.000	19G0261
AB43418MS	CYLINDROSPERMOPSIN	0.538 Abs	0.084 µg/L	87.055 %Abs	0.050 - 2.000	19G0261
AB43418MS	CYLINDROSPERMOPSIN	0.540 Abs [0.5390] {0.3 CV}	0.081 µg/L [0.082] {0.3 CV}	87.379 %Abs [87.217] {0.3 CV}	0.050 - 2.000	19G0261
AB43418MSD	CYLINDROSPERMOPSIN	0.554 Abs	0.063 µg/L	89.644 %Abs	0.050 - 2.000	19G0261
AB43418MSD	CYLINDROSPERMOPSIN	0.587 Abs [0.5705] {4.1 CV}	0.026 µg/L [0.045] {5.0 CV}	<b>LOW, 94.984 %ABS</b>	0.050 - 2.000	19G0261
AB43419	CYLINDROSPERMOPSIN	0.547 Abs	0.072 µg/L	88.511 %Abs	0.050 - 2.000	19G0261
AB43419	CYLINDROSPERMOPSIN	0.537 Abs [0.5420] {1.3 CV}	0.085 µg/L [0.079] {1.3 CV}	86.893 %Abs [87.702] {1.3 CV}	0.050 - 2.000	19G0261
AB43420	CYLINDROSPERMOPSIN	0.530 Abs	0.095 µg/L	85.761 %Abs	0.050 - 2.000	19G0261
AB43420	CYLINDROSPERMOPSIN	0.525 Abs [0.5275] {0.7 CV}	0.102 µg/L [0.098] {0.7 CV}	84.951 %Abs [85.356] {0.7 CV}	0.050 - 2.000	19G0261
AB43421	CYLINDROSPERMOPSIN	0.527 Abs	0.099 µg/L	85.275 %Abs	0.050 - 2.000	19G0261
AB43421	CYLINDROSPERMOPSIN	0.522 Abs [0.5245] {0.7 CV}	0.106 µg/L [0.102] {0.7 CV}	84.466 %Abs [84.872] {0.7 CV}	0.050 - 2.000	19G0261
AB43422	CYLINDROSPERMOPSIN	0.527 Abs	0.099 µg/L	85.275 %Abs	0.050 - 2.000	19G0261
AB43422	CYLINDROSPERMOPSIN	0.554 Abs [0.5405] {3.5 CV}	0.063 µg/L [0.081] {3.5 CV}	89.644 %Abs [87.460] {3.5 CV}	0.050 - 2.000	19G0261
AB43423	CYLINDROSPERMOPSIN	0.537 Abs	0.085 µg/L	86.893 %Abs	0.050 - 2.000	19G0261
AB43423	CYLINDROSPERMOPSIN	0.530 Abs [0.5335] {0.9 CV}	0.095 µg/L [0.090] {0.9 CV}	85.761 %Abs [86.327] {0.9 CV}	0.050 - 2.000	19G0261
AB43424	CYLINDROSPERMOPSIN	0.523 Abs	0.105 µg/L	84.628 %Abs	0.050 - 2.000	19G0261
AB43424	CYLINDROSPERMOPSIN	0.533 Abs [0.5280] {1.3 CV}	0.091 µg/L [0.098] {1.3 CV}	86.246 %Abs [85.437] {1.3 CV}	0.050 - 2.000	19G0261
AB43425	CYLINDROSPERMOPSIN	0.526 Abs	0.101 µg/L	85.113 %Abs	0.050 - 2.000	19G0261
AB43425	CYLINDROSPERMOPSIN	0.516 Abs [0.5210] {1.4 CV}	0.115 µg/L [0.108] {0.9 CV}	83.495 %Abs [84.304] {0.9 CV}	0.050 - 2.000	19G0261
AB43426	CYLINDROSPERMOPSIN	0.547 Abs	0.072 µg/L	88.511 %Abs	0.050 - 2.000	19G0261
AB43426	CYLINDROSPERMOPSIN	0.577 Abs [0.5620] {3.8 CV}	0.036 µg/L [0.054] {4.4 CV}	<b>LOW, 93.366 %ABS</b>	0.050 - 2.000	19G0261
AB43427	CYLINDROSPERMOPSIN	0.518 Abs	0.112 µg/L	83.819 %Abs	0.050 - 2.000	19G0261
AB43427	CYLINDROSPERMOPSIN	0.513 Abs [0.5155] {0.7 CV}	0.120 µg/L [0.116] {0.7 CV}	83.010 %Abs [83.414] {0.7 CV}	0.050 - 2.000	19G0261
AB43428	CYLINDROSPERMOPSIN	0.549 Abs	0.069 µg/L	88.835 %Abs	0.050 - 2.000	19G0261
AB43428	CYLINDROSPERMOPSIN	0.552 Abs [0.5505] {0.4 CV}	0.066 µg/L [0.067] {0.3 CV}	89.320 %Abs [89.078] {0.3 CV}	0.050 - 2.000	19G0261
AB43429	CYLINDROSPERMOPSIN	0.525 Abs	0.102 µg/L	84.951 %Abs	0.050 - 2.000	19G0261
AB43429	CYLINDROSPERMOPSIN	0.513 Abs [0.5190] {1.6 CV}	0.120 µg/L [0.111] {1.6 CV}	83.010 %Abs [83.982] {1.6 CV}	0.050 - 2.000	19G0261

**Note**

 Signature *David Jordan*

Date: 7/16/2020

**Assay Information**

Assay Name: CYLINDROSPERMOP SIN  
 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: 8/15/2019 12:26:24 PM  
 Normal: 0.050 - 2.000  
 # of decimals: 3  
 Kit Lot Number: 19G0261

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
<b>7/16/2020 3:29:09 PM</b>				
CYL Std 0	0.616 Abs		R <sup>2</sup> =0.99814, 99.676 %Abs	RK1:23->A01@2
CYL Std 0	0.620 Abs [0.6180] {0.5 CV}		R <sup>2</sup> =0.99814, 100.324 %Abs	RK1:23->B01@2
CYL Std 1	0.557 Abs		R <sup>2</sup> =0.99814, 90.129 %Abs	RK1:24->C01@2
CYL Std 1	0.562 Abs [0.5595] {0.6 CV}		R <sup>2</sup> =0.99814, 90.939 %Abs	RK1:24->D01@2
CYL Std 2	0.527 Abs		R <sup>2</sup> =0.99814, 85.275 %Abs	RK1:25->E01@2
CYL Std 2	0.518 Abs [0.5225] {1.2 CV}		R <sup>2</sup> =0.99814, 83.819 %Abs	RK1:25->F01@3
CYL Std 3	0.460 Abs		R <sup>2</sup> =0.99814, 74.434 %Abs	RK1:26->G01@3
CYL Std 3	0.453 Abs [0.4565] {1.1 CV}		R <sup>2</sup> =0.99814, 73.301 %Abs	RK1:26->H01@3
CYL Std 4	0.357 Abs		R <sup>2</sup> =0.99814, 57.767 %Abs	RK1:27->A02@2
CYL Std 4	0.346 Abs [0.3515] {2.2 CV}		R <sup>2</sup> =0.99814, 55.987 %Abs	RK1:27->B02@2
CYL Std 5	0.265 Abs		R <sup>2</sup> =0.99814, 42.880 %Abs	RK1:28->C02@2
CYL Std 5	0.262 Abs [0.2635] {0.8 CV}		R <sup>2</sup> =0.99814, 42.395 %Abs	RK1:28->D02@2
CYL Std 6	0.195 Abs		R <sup>2</sup> =0.99814, 31.553 %Abs	RK1:29->E02@2
CYL Std 6	0.186 Abs [0.1905] {3.3 CV}		30.097 %Abs	RK1:29->F02@3
+++++				
<b>7/16/2020 3:29:09 PM</b>				
CYL QCS	0.301 Abs		48.706 %Abs	RK1:30->G02@3
CYL QCS	0.331 Abs [0.3160] {6.7 CV}		53.560 %Abs [51.133 %Abs]	RK1:30->H02@3
*****				
<b>Statistic</b>				
CYL Std 0 [MEAN]	0.6180			
CYL Std 0 [SD]	0.0028			
CYL Std 0 [%CV]	0.4577			
CYL Std 1 [MEAN]	0.5595			
CYL Std 1 [SD]	0.0035			
CYL Std 1 [%CV]	0.6319			
CYL Std 1 [%DIFF]				
CYL Std 2 [MEAN]	0.5225			
CYL Std 2 [SD]	0.0064			
CYL Std 2 [%CV]	1.2180			
CYL Std 2 [%DIFF]				
CYL Std 3 [MEAN]	0.4565			
CYL Std 3 [SD]	0.0049			
CYL Std 3 [%CV]	1.0843			
CYL Std 3 [%DIFF]				
CYL Std 4 [MEAN]	0.3515			
CYL Std 4 [SD]	0.0078			
CYL Std 4 [%CV]	2.2129			
CYL Std 4 [%DIFF]				

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.2635			
CYL Std 5 [SD]	0.0021			
CYL Std 5 [%CV]	0.8051			
CYL Std 5 [%DIFF]				
CYL Std 6 [MEAN]	0.1905			
CYL Std 6 [SD]	0.0064			
CYL Std 6 [%CV]	3.3407			
CYL QCS [MEAN]	0.3160			
CYL QCS [SD]	0.0212			
CYL QCS [%CV]	6.7130			

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 0.61489  
 B = 0.93363  
 C = 0.61246  
 D = 0.045813  
 R2 coef = 0.99814  
 50% = 0.719

