



## Cylindrospermopsin ELISA 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>
AB47837	Potato Creek State Park	7/6/2021	7/7/2021	< 0.15
AB47838	Lost Bridge West SRA	7/6/2021	7/7/2021	< 0.15
AB47839	Mississinewa Lake Miami SRA	7/6/2021	7/7/2021	< 0.15
AB47840	Potato Creek State Park (Field Dup)	7/6/2021	7/7/2021	< 0.15
AB47841	Field Blank	7/6/2021	7/7/2021	< 0.15
AB47842	Ft. Ben Harrison SP Dog Lake - East	7/6/2021	7/7/2021	< 0.15

## Test Information

Request: 7/7/2021 7:41:38 PM

Date: 7/7/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	0.955 Abs	0.000 µg/L	R <sup>2</sup> =0.99981, 101.4			20H3911
CYL Std 0	CYLINDROSPERMOPSIN	0.926 Abs [0.9405] {2.2 C	0.006 µg/L [0.003]	R <sup>2</sup> =0.99981, 98.40			20H3911
CYL Std 1	CYLINDROSPERMOPSIN	0.826 Abs	0.047 µg/L	R <sup>2</sup> =0.99981, 87.77			20H3911
CYL Std 1	CYLINDROSPERMOPSIN	0.816 Abs [0.8210] {0.9 C	0.052 µg/L [0.049]	R <sup>2</sup> =0.99981, 86.71			20H3911
CYL Std 2	CYLINDROSPERMOPSIN	0.726 Abs	0.100 µg/L	R <sup>2</sup> =0.99981, 77.15			20H3911
CYL Std 2	CYLINDROSPERMOPSIN	0.722 Abs [0.7240] {0.4 C	0.103 µg/L [0.102]	R <sup>2</sup> =0.99981, 76.72			20H3911
CYL Std 3	CYLINDROSPERMOPSIN	0.549 Abs	0.244 µg/L	R <sup>2</sup> =0.99981, 58.34			20H3911
CYL Std 3	CYLINDROSPERMOPSIN	0.547 Abs [0.5480] {0.3 C	0.246 µg/L [0.245]	R <sup>2</sup> =0.99981, 58.13			20H3911
CYL Std 4	CYLINDROSPERMOPSIN	0.385 Abs	0.508 µg/L	R <sup>2</sup> =0.99981, 40.91			20H3911
CYL Std 4	CYLINDROSPERMOPSIN	0.380 Abs [0.3825] {0.9 C	0.520 µg/L [0.514]	R <sup>2</sup> =0.99981, 40.38			20H3911
CYL Std 5	CYLINDROSPERMOPSIN	0.262 Abs	0.971 µg/L	R <sup>2</sup> =0.99981, 27.84			20H3911
CYL Std 5	CYLINDROSPERMOPSIN	0.262 Abs [0.2620] {0.0 C	0.971 µg/L [0.971]	R <sup>2</sup> =0.99981, 27.84			20H3911
CYL Std 6	CYLINDROSPERMOPSIN	0.167 Abs	1.990 µg/L	R <sup>2</sup> =0.99981, 17.74			20H3911
CYL Std 6	CYLINDROSPERMOPSIN	0.163 Abs [0.1650] {1.7 C	> 2.000 µg/L [1.99]	17.322 %Abs			20H3911
CYL QCS	CYLINDROSPERMOPSIN	0.317 Abs	0.712 µg/L	33.688 %Abs			20H3911
CYL QCS	CYLINDROSPERMOPSIN	0.313 Abs [0.3150] {0.9 C	0.727 µg/L [0.720]	33.262 %Abs [33.4			20H3911

## Note

Signature

David Jordan

David Jordan 7/7/2021

# Test Report (by Request)

**Test Information**

 Request: 7/8/2021 7:41:57 AM  
 Date: 7/7/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (CYL)	CYLINDROSPERMOPSIN	0.884 Abs	0.022 µg/L	Low, 93.943 %Abs		0.050 - 2.000	20H3911
LRB (CYL)	CYLINDROSPERMOPSIN	0.867 Abs [0.8755] {1.4 C	0.029 µg/L [0.025]	Low, 92.136 %Abs		0.050 - 2.000	20H3911
LFB (CYL)	CYLINDROSPERMOPSIN	0.345 Abs	0.617 µg/L	36.663 %Abs		0.050 - 2.000	20H3911
LFB (CYL)	CYLINDROSPERMOPSIN	0.338 Abs [0.3415] {1.4 C	0.639 µg/L [0.628]	35.919 %Abs [36.2		0.050 - 2.000	20H3911
AB47837	CYLINDROSPERMOPSIN	0.867 Abs	0.029 µg/L	Low, 92.136 %Abs		0.050 - 2.000	20H3911
AB47837	CYLINDROSPERMOPSIN	0.879 Abs [0.8730] {1.0 C	0.024 µg/L [0.026]	Low, 93.411 %Abs		0.050 - 2.000	20H3911
AB47838	CYLINDROSPERMOPSIN	0.886 Abs	0.021 µg/L	Low, 94.155 %Abs		0.050 - 2.000	20H3911
AB47838	CYLINDROSPERMOPSIN	0.919 Abs [0.9025] {2.6 C	0.008 µg/L [0.014]	Low, 97.662 %Abs		0.050 - 2.000	20H3911
AB47838MS	CYLINDROSPERMOPSIN	0.331 Abs	0.662 µg/L	35.175 %Abs		0.050 - 2.000	20H3911
AB47838MS	CYLINDROSPERMOPSIN	0.327 Abs [0.3290] {0.9 C	0.676 µg/L [0.669]	34.750 %Abs [34.9		0.050 - 2.000	20H3911
AB47838MSD	CYLINDROSPERMOPSIN	0.325 Abs	0.683 µg/L	34.538 %Abs		0.050 - 2.000	20H3911
AB47838MSD	CYLINDROSPERMOPSIN	0.338 Abs [0.3315] {2.8 C	0.639 µg/L [0.661]	35.919 %Abs [35.2		0.050 - 2.000	20H3911
AB47839	CYLINDROSPERMOPSIN	0.885 Abs	0.022 µg/L	Low, 94.049 %Abs		0.050 - 2.000	20H3911
AB47839	CYLINDROSPERMOPSIN	0.865 Abs [0.8750] {1.6 C	0.030 µg/L [0.026]	Low, 91.923 %Abs		0.050 - 2.000	20H3911
AB47840	CYLINDROSPERMOPSIN	0.902 Abs	0.015 µg/L	Low, 95.855 %Abs		0.050 - 2.000	20H3911
AB47840	CYLINDROSPERMOPSIN	0.905 Abs [0.9035] {0.2 C	0.014 µg/L [0.014]	Low, 96.174 %Abs		0.050 - 2.000	20H3911
AB47841	CYLINDROSPERMOPSIN	0.877 Abs	0.025 µg/L	Low, 93.199 %Abs		0.050 - 2.000	20H3911
AB47841	CYLINDROSPERMOPSIN	0.846 Abs [0.8615] {2.5 C	0.038 µg/L [0.032]	Low, 89.904 %Abs		0.050 - 2.000	20H3911
AB47842	CYLINDROSPERMOPSIN	0.782 Abs	0.069 µg/L	83.103 %Abs		0.050 - 2.000	20H3911
AB47842	CYLINDROSPERMOPSIN	0.743 Abs [0.7625] {3.6 C	0.090 µg/L [0.080]	78.959 %Abs [81.0		0.050 - 2.000	20H3911

**Note**

Signature

David Jordan 7/7/2021

**Assay Information**

Assay Name: CYLINDROSPERMOPSPIN\_  
 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: 20H3911

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>7/7/2021 7:41:38 PM</b>				
CYL Std 0	0.955 Abs	0.000 µg/L	R <sup>2</sup> =0.99981, 101.488 %Abs	RK1:32->A06@1
CYL Std 0	0.926 Abs [0.9405] {2.2 CV}	0.006 µg/L [0.003] {141.4 CV}	R <sup>2</sup> =0.99981, 98.406 %Abs	RK1:32->B06@1
CYL Std 1	0.826 Abs	0.047 µg/L	R <sup>2</sup> =0.99981, 87.779 %Abs	RK1:33->C06@1
CYL Std 1	0.816 Abs [0.8210] {0.9 CV}	0.052 µg/L [0.049] {7.1 CV}	R <sup>2</sup> =0.99981, 86.716 %Abs	RK1:33->D06@1
CYL Std 2	0.726 Abs	0.100 µg/L	R <sup>2</sup> =0.99981, 77.152 %Abs	RK1:34->E06@1
CYL Std 2	0.722 Abs [0.7240] {0.4 CV}	0.103 µg/L [0.102] {2.1 CV}	R <sup>2</sup> =0.99981, 76.727 %Abs	RK1:34->F06@4
CYL Std 3	0.549 Abs	0.244 µg/L	R <sup>2</sup> =0.99981, 58.342 %Abs	RK1:35->G06@4
CYL Std 3	0.547 Abs [0.5480] {0.3 CV}	0.246 µg/L [0.245] {0.6 CV}	R <sup>2</sup> =0.99981, 58.130 %Abs	RK1:35->H06@4
CYL Std 4	0.385 Abs	0.508 µg/L	R <sup>2</sup> =0.99981, 40.914 %Abs	RK1:36->A07@2
CYL Std 4	0.380 Abs [0.3825] {0.9 CV}	0.520 µg/L [0.514] {1.7 CV}	R <sup>2</sup> =0.99981, 40.383 %Abs	RK1:36->B07@2
CYL Std 5	0.262 Abs	0.971 µg/L	R <sup>2</sup> =0.99981, 27.843 %Abs	RK1:37->C07@2
CYL Std 5	0.262 Abs [0.2620] {0.0 CV}	0.971 µg/L [0.971] {0.0 CV}	R <sup>2</sup> =0.99981, 27.843 %Abs	RK1:37->D07@2
CYL Std 6	0.167 Abs	1.990 µg/L	R <sup>2</sup> =0.99981, 17.747 %Abs	RK1:38->E07@2
CYL Std 6	0.163 Abs [0.1650] {1.7 CV}	> 2.000 µg/L [1.990]	17.322 %Abs	RK1:38->F07@3
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<b>7/7/2021 7:41:38 PM</b>				
CYL QCS	0.317 Abs	0.712 µg/L	33.688 %Abs	RK1:39->G07@3
CYL QCS	0.313 Abs [0.3150] {0.9 CV}	0.727 µg/L [0.720] {1.5 CV}	33.262 %Abs [33.475 %Abs]	RK1:39->H07@3
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<b>Statistic</b>				
CYL Std 0 [MEAN]	0.9405	0.0030		
CYL Std 0 [SD]	0.0205	0.0042		
CYL Std 0 [%CV]	2.1803	141.4214		
CYL Std 1 [MEAN]	0.8210	0.0495		
CYL Std 1 [SD]	0.0071	0.0035		
CYL Std 1 [%CV]	0.8613	7.1425		
CYL Std 1 [%DIFF]		-1.0000		
CYL Std 2 [MEAN]	0.7240	0.1015		
CYL Std 2 [SD]	0.0028	0.0021		
CYL Std 2 [%CV]	0.3907	2.0900		
CYL Std 2 [%DIFF]		1.5000		
CYL Std 3 [MEAN]	0.5480	0.2450		
CYL Std 3 [SD]	0.0014	0.0014		
CYL Std 3 [%CV]	0.2581	0.5772		
CYL Std 3 [%DIFF]		-2.0000		
CYL Std 4 [MEAN]	0.3825	0.5140		
CYL Std 4 [SD]	0.0035	0.0085		
CYL Std 4 [%CV]	0.9243	1.6508		
CYL Std 4 [%DIFF]		2.8000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.2620	0.9710		
CYL Std 5 [SD]	0.0000	0.0000		
CYL Std 5 [%CV]	0.0000	0.0000		
CYL Std 5 [%DIFF]		-2.9000		
CYL Std 6 [MEAN]	0.1650			
CYL Std 6 [SD]	0.0028			
CYL Std 6 [%CV]	1.7142			
CYL QCS [MEAN]	0.3150	0.7195		
CYL QCS [SD]	0.0028	0.0106		
CYL QCS [%CV]	0.8979	1.4742		

**Assay Curve**

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

Weight: NONE

A = 0.94100

B = 1.0185

C = 0.30794

D = 0.051271

R2 coef = 0.99981

50% = 0.345

