



## 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>
AC02941	Ft. Ben Harrison SP Dog Lake	5/23/2023	5/25/2023	< 0.15

# Test Report (by Request)

**Test Information**

 Request: 5/25/2023 3:09:45 PM  
 Date: 5/25/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	1.295 Abs	0.000 µg/L	R^2=0.99959, 102.2			P23C0657
CYL Std 0	CYLINDROSPERMOPSIN	1.238 Abs [1.2665] {3.2 C	0.006 µg/L [0.003]	R^2=0.99959, 97.78			P23C0657
CYL Std 1	CYLINDROSPERMOPSIN	1.045 Abs	0.044 µg/L	R^2=0.99959, 82.54			P23C0657
CYL Std 1	CYLINDROSPERMOPSIN	1.010 Abs [1.0275] {2.4 C	0.052 µg/L [0.048]	R^2=0.99959, 79.77			P23C0657
CYL Std 2	CYLINDROSPERMOPSIN	0.846 Abs	0.099 µg/L	R^2=0.99959, 66.82			P23C0657
CYL Std 2	CYLINDROSPERMOPSIN	0.825 Abs [0.8355] {1.8 C	0.106 µg/L [0.102]	R^2=0.99959, 65.16			P23C0657
CYL Std 3	CYLINDROSPERMOPSIN	0.556 Abs	0.250 µg/L	R^2=0.99959, 43.91			P23C0657
CYL Std 3	CYLINDROSPERMOPSIN	0.535 Abs [0.5455] {2.7 C	0.268 µg/L [0.259]	R^2=0.99959, 42.25			P23C0657
CYL Std 4	CYLINDROSPERMOPSIN	0.382 Abs	0.461 µg/L	R^2=0.99959, 30.17			P23C0657
CYL Std 4	CYLINDROSPERMOPSIN	0.364 Abs [0.3730] {3.4 C	0.496 µg/L [0.479]	R^2=0.99959, 28.75			P23C0657
CYL Std 5	CYLINDROSPERMOPSIN	0.234 Abs	0.943 µg/L	R^2=0.99959, 18.48			P23C0657
CYL Std 5	CYLINDROSPERMOPSIN	0.227 Abs [0.2305] {2.1 C	0.985 µg/L [0.964]	R^2=0.99959, 17.93			P23C0657
CYL Std 6	CYLINDROSPERMOPSIN	0.141 Abs	> 2.000 µg/L	11.137 %Abs			P23C0657
CYL Std 6	CYLINDROSPERMOPSIN	0.130 Abs [0.1355] {5.7 C	> 2.000 µg/L	10.269 %Abs			P23C0657
CYL QCS	CYLINDROSPERMOPSIN	0.260 Abs	0.810 µg/L	20.537 %Abs			P23C0657
CYL QCS	CYLINDROSPERMOPSIN	0.260 Abs [0.2600] {0.0 C	0.810 µg/L [0.810]	20.537 %Abs [20.5			P23C0657

**Note**

 Signature *David Jordan*

David Jordan 5/25/2023

# Test Report (by Request)

**Test Information**

 Request: 5/25/2023 3:49:33 PM  
 Date: 5/25/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (CYL)	CYLINDROSPERMOPSIN	1.288 Abs	0.000 µg/L	Low, 101.738 %Abs		0.050 - 2.000	P23C0657
LRB (CYL)	CYLINDROSPERMOPSIN	1.270 Abs [1.2790] {1.0 C	0.000 µg/L [0.000]	Low, 100.316 %Abs		0.050 - 2.000	P23C0657
LFB (CYL)	CYLINDROSPERMOPSIN	0.328 Abs	0.578 µg/L	25.908 %Abs		0.050 - 2.000	P23C0657
LFB (CYL)	CYLINDROSPERMOPSIN	0.323 Abs [0.3255] {1.1 C	0.592 µg/L [0.585]	25.513 %Abs [25.7		0.050 - 2.000	P23C0657
AC02941	CYLINDROSPERMOPSIN	1.164 Abs	0.019 µg/L	Low, 91.943 %Abs		0.050 - 2.000	P23C0657
AC02941	CYLINDROSPERMOPSIN	1.134 Abs [1.1490] {1.8 C	0.025 µg/L [0.022]	Low, 89.573 %Abs		0.050 - 2.000	P23C0657
AC02941MS	CYLINDROSPERMOPSIN	0.337 Abs	0.556 µg/L	26.619 %Abs		0.050 - 2.000	P23C0657
AC02941MS	CYLINDROSPERMOPSIN	0.339 Abs [0.3380] {0.4 C	0.551 µg/L [0.553]	26.777 %Abs [26.6		0.050 - 2.000	P23C0657
AC02941MSD	CYLINDROSPERMOPSIN	0.350 Abs	0.526 µg/L	27.646 %Abs		0.050 - 2.000	P23C0657
AC02941MSD	CYLINDROSPERMOPSIN	0.345 Abs [0.3475] {1.0 C	0.537 µg/L [0.531]	27.251 %Abs [27.4		0.050 - 2.000	P23C0657

**Note**

Signature

David Jordan 5/25/2023

**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: P23C0657

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>5/25/2023 3:09:45 PM</b>				
CYL Std 0	1.295 Abs	0.000 µg/L	R <sup>2</sup> =0.99959, 102.291 %Abs	RK1:32->A08@2
CYL Std 0	1.238 Abs [1.2665] {3.2 CV}	0.006 µg/L [0.003] {141.4 CV}	R <sup>2</sup> =0.99959, 97.788 %Abs	RK1:32->B08@2
CYL Std 1	1.045 Abs	0.044 µg/L	R <sup>2</sup> =0.99959, 82.543 %Abs	RK1:33->C08@2
CYL Std 1	1.010 Abs [1.0275] {2.4 CV}	0.052 µg/L [0.048] {11.8 CV}	R <sup>2</sup> =0.99959, 79.779 %Abs	RK1:33->D08@2
CYL Std 2	0.846 Abs	0.099 µg/L	R <sup>2</sup> =0.99959, 66.825 %Abs	RK1:34->E08@2
CYL Std 2	0.825 Abs [0.8355] {1.8 CV}	0.106 µg/L [0.102] {4.8 CV}	R <sup>2</sup> =0.99959, 65.166 %Abs	RK1:34->F08@3
CYL Std 3	0.556 Abs	0.250 µg/L	R <sup>2</sup> =0.99959, 43.918 %Abs	RK1:35->G08@3
CYL Std 3	0.535 Abs [0.5455] {2.7 CV}	0.268 µg/L [0.259] {4.9 CV}	R <sup>2</sup> =0.99959, 42.259 %Abs	RK1:35->H08@3
CYL Std 4	0.382 Abs	0.461 µg/L	R <sup>2</sup> =0.99959, 30.174 %Abs	RK1:36->A09@2
CYL Std 4	0.364 Abs [0.3730] {3.4 CV}	0.496 µg/L [0.479] {5.2 CV}	R <sup>2</sup> =0.99959, 28.752 %Abs	RK1:36->B09@2
CYL Std 5	0.234 Abs	0.943 µg/L	R <sup>2</sup> =0.99959, 18.483 %Abs	RK1:37->C09@2
CYL Std 5	0.227 Abs [0.2305] {2.1 CV}	0.985 µg/L [0.964] {3.1 CV}	R <sup>2</sup> =0.99959, 17.930 %Abs	RK1:37->D09@2
CYL Std 6	0.141 Abs	> 2.000 µg/L	11.137 %Abs	RK1:38->E09@2
CYL Std 6	0.130 Abs [0.1355] {5.7 CV}	> 2.000 µg/L	10.269 %Abs	RK1:38->F09@3
*****				
<b>5/25/2023 3:09:45 PM</b>				
CYL QCS	0.260 Abs	0.810 µg/L	20.537 %Abs	RK1:39->G09@3
CYL QCS	0.260 Abs [0.2600] {0.0 CV}	0.810 µg/L [0.810] {0.0 CV}	20.537 %Abs [20.537 %Abs]	RK1:39->H09@3
*****				
<b>Statistic</b>				
CYL Std 0 [MEAN]	1.2665	0.0030		
CYL Std 0 [SD]	0.0403	0.0042		
CYL Std 0 [%CV]	3.1824	141.4214		
CYL Std 1 [MEAN]	1.0275	0.0480		
CYL Std 1 [SD]	0.0247	0.0057		
CYL Std 1 [%CV]	2.4086	11.7851		
CYL Std 1 [%DIFF]		-4.0000		
CYL Std 2 [MEAN]	0.8355	0.1025		
CYL Std 2 [SD]	0.0148	0.0049		
CYL Std 2 [%CV]	1.7773	4.8290		
CYL Std 2 [%DIFF]		2.5000		
CYL Std 3 [MEAN]	0.5455	0.2590		
CYL Std 3 [SD]	0.0148	0.0127		
CYL Std 3 [%CV]	2.7221	4.9143		
CYL Std 3 [%DIFF]		3.6000		
CYL Std 4 [MEAN]	0.3730	0.4785		
CYL Std 4 [SD]	0.0127	0.0247		
CYL Std 4 [%CV]	3.4123	5.1721		
CYL Std 4 [%DIFF]		-4.3000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.2305	0.9640		
CYL Std 5 [SD]	0.0049	0.0297		
CYL Std 5 [%CV]	2.1474	3.0808		
CYL Std 5 [%DIFF]		-3.6000		
CYL Std 6 [MEAN]	0.1355			
CYL Std 6 [SD]	0.0078			
CYL Std 6 [%CV]	5.7404			
CYL QCS [MEAN]	0.2600	0.8100		
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 = 1.2686  
 B = 1.0511  
 C = 0.17959  
 D = 0.052891  
 R2 coef = 0.99959  
 50% = 0.196

