



## 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>
AC40776	Cecil M. Harden Lake - Raccoon Lake SRA Beach	7/8/2024	7/10/2024	< 0.10
AC40777	Cagles Mill Lake - Lieber SRA Beach	7/8/2024	7/10/2024	< 0.10
AC40778	Monroe Lake - Fairfax SRA Beach	7/8/2024	7/10/2024	< 0.10
AC40779	Monroe Lake - Paynetown SRA Beach	7/8/2024	7/10/2024	< 0.10
AC40780	Starve Hollow SRA - Starve Hollow Lake Beach	7/8/2024	7/10/2024	< 0.10
AC40781	Whitewater Memorial SP - Whitewater Lake Beach	7/9/2024	7/10/2024	< 0.10
AC40782	Brookville Lake - Quakertown SRA Beach	7/9/2024	7/10/2024	< 0.10
AC40783	Brookville Lake - Mounds SRA Beach	7/9/2024	7/10/2024	< 0.10
AC40784	Hardy Lake SRA - Hardy Lake SRA Beach	7/9/2024	7/10/2024	< 0.10
AC40785	Deam Lake SRA - Deam Lake Beach	7/9/2024	7/10/2024	< 0.10
AC40786	Cecil M. Harden Lake - Raccoon Lake SRA Beach (Field Duplicate)	7/8/2024	7/10/2024	< 0.10
AC40787	Field Blank	7/8/2024	7/10/2024	< 0.10
AC40788	Ft. Ben Harrison SP Dog Lake	7/9/2024	7/10/2024	< 0.10

# Test Report (by Request)

**Test Information**

Request: 7/10/2024 6:48:45 PM  
 Date: 7/10/2024 - 7/11/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	0.970 Abs	0.000 µg/L	R <sup>2</sup> =0.99253, 100.0		0.000	Kit:240520
CYL Std 0	CYLINDROSPERMOPSIN	0.970 Abs [0.9700] {0.0 C	0.000 µg/L [0.000]	R <sup>2</sup> =0.99253, 100.0		0.000	Kit:240520
CYL Std 1	CYLINDROSPERMOPSIN	0.803 Abs	0.064 µg/L	R <sup>2</sup> =0.99253, 82.78		0.050	Kit:240520
CYL Std 1	CYLINDROSPERMOPSIN	0.791 Abs [0.7970] {1.1 C	0.071 µg/L [0.068]	R <sup>2</sup> =0.99253, 81.54		0.050	Kit:240520
CYL Std 2	CYLINDROSPERMOPSIN	0.769 Abs	0.085 µg/L	R <sup>2</sup> =0.99253, 79.27		0.100	Kit:240520
CYL Std 2	CYLINDROSPERMOPSIN	0.752 Abs [0.7605] {1.6 C	0.097 µg/L [0.091]	R <sup>2</sup> =0.99253, 77.52		0.100	Kit:240520
CYL Std 3	CYLINDROSPERMOPSIN	0.670 Abs	0.168 µg/L	R <sup>2</sup> =0.99253, 69.07		0.250	Kit:240520
CYL Std 3	CYLINDROSPERMOPSIN	0.571 Abs [0.6205] {11.3	0.290 µg/L [0.229]	R <sup>2</sup> =0.99253, 58.86		0.250	Kit:240520
CYL Std 4	CYLINDROSPERMOPSIN	0.459 Abs	0.512 µg/L	R <sup>2</sup> =0.99253, 47.32		0.500	Kit:240520
CYL Std 4	CYLINDROSPERMOPSIN	0.479 Abs [0.4690] {3.0 C	0.463 µg/L [0.488]	R <sup>2</sup> =0.99253, 49.38		0.500	Kit:240520
CYL Std 5	CYLINDROSPERMOPSIN	0.298 Abs	1.179 µg/L	R <sup>2</sup> =0.99253, 30.72		1.000	Kit:240520
CYL Std 5	CYLINDROSPERMOPSIN	0.283 Abs [0.2905] {3.7 C	1.284 µg/L [1.232]	R <sup>2</sup> =0.99253, 29.17		1.000	Kit:240520
CYL Std 6	CYLINDROSPERMOPSIN	0.241 Abs	1.650 µg/L	R <sup>2</sup> =0.99253, 24.84		2.000	Kit:240520
CYL Std 6	CYLINDROSPERMOPSIN	0.219 Abs [0.2300] {6.8 C	1.899 µg/L [1.775]	R <sup>2</sup> =0.99253, 22.57		2.000	Kit:240520
CYL QCS	CYLINDROSPERMOPSIN	0.405 Abs	0.670 µg/L	41.753 %Abs			Kit:240520
CYL QCS	CYLINDROSPERMOPSIN	0.399 Abs [0.4020] {1.1 C	0.691 µg/L [0.681]	41.134 %Abs [41.4			Kit:240520

**Note**

Signature

# Test Report (by Request)

**Test Information**

Request: 7/10/2024 6:50:18 PM  
 Date: 7/10/2024 - 7/11/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	CYLINDROSPERMOPSIN	0.973 Abs	0.000 µg/L	Low, 100.309 %Abs		0.050 - 2.000	Kit:24052(
LRB	CYLINDROSPERMOPSIN	0.961 Abs [0.9670] {0.9 C	0.000 µg/L [0.000]			0.050 - 2.000	Kit:24052(
LFB	CYLINDROSPERMOPSIN	0.376 Abs	0.777 µg/L	38.763 %Abs		0.050 - 2.000	Kit:24052(
LFB	CYLINDROSPERMOPSIN	0.379 Abs [0.3775] {0.6 C	0.765 µg/L [0.771]	39.072 %Abs [38.9		0.050 - 2.000	Kit:24052(
AC40776	CYLINDROSPERMOPSIN	0.953 Abs	0.002 µg/L	Low, 98.247 %Abs		0.050 - 2.000	Kit:24052(
AC40776	CYLINDROSPERMOPSIN	0.974 Abs [0.9635] {1.5 C	0.000 µg/L [0.001]			0.050 - 2.000	Kit:24052(
AC40777	CYLINDROSPERMOPSIN	0.940 Abs	0.005 µg/L	Low, 96.907 %Abs		0.050 - 2.000	Kit:24052(
AC40777	CYLINDROSPERMOPSIN	0.982 Abs [0.9610] {3.1 C	0.000 µg/L [0.003]			0.050 - 2.000	Kit:24052(
AC40778	CYLINDROSPERMOPSIN	0.959 Abs	0.000 µg/L	Low, 98.866 %Abs		0.050 - 2.000	Kit:24052(
AC40778	CYLINDROSPERMOPSIN	0.980 Abs [0.9695] {1.5 C	0.000 µg/L [0.000]			0.050 - 2.000	Kit:24052(
AC40779	CYLINDROSPERMOPSIN	0.933 Abs	0.006 µg/L	Low, 96.186 %Abs		0.050 - 2.000	Kit:24052(
AC40779	CYLINDROSPERMOPSIN	0.906 Abs [0.9195] {2.1 C	0.015 µg/L [0.011]			0.050 - 2.000	Kit:24052(
AC40780	CYLINDROSPERMOPSIN	0.939 Abs	0.005 µg/L	Low, 96.804 %Abs		0.050 - 2.000	Kit:24052(
AC40780	CYLINDROSPERMOPSIN	0.933 Abs [0.9360] {0.5 C	0.006 µg/L [0.006]			0.050 - 2.000	Kit:24052(
AC40781	CYLINDROSPERMOPSIN	0.970 Abs	0.000 µg/L	Low, 100.000 %Abs		0.050 - 2.000	Kit:24052(
AC40781	CYLINDROSPERMOPSIN	0.970 Abs [0.9700] {0.0 C	0.000 µg/L [0.000]			0.050 - 2.000	Kit:24052(
AC40782	CYLINDROSPERMOPSIN	0.922 Abs	0.010 µg/L	Low, 95.052 %Abs		0.050 - 2.000	Kit:24052(
AC40782	CYLINDROSPERMOPSIN	0.918 Abs [0.9200] {0.3 C	0.011 µg/L [0.011]			0.050 - 2.000	Kit:24052(
AC40783	CYLINDROSPERMOPSIN	0.898 Abs	0.018 µg/L	Low, 92.577 %Abs		0.050 - 2.000	Kit:24052(
AC40783	CYLINDROSPERMOPSIN	0.894 Abs [0.8960] {0.3 C	0.020 µg/L [0.019]			0.050 - 2.000	Kit:24052(
AC40783MS	CYLINDROSPERMOPSIN	0.391 Abs	0.720 µg/L	40.309 %Abs		0.050 - 2.000	Kit:24052(
AC40783MS	CYLINDROSPERMOPSIN	0.438 Abs [0.4145] {8.0 C	0.568 µg/L [0.644]	45.155 %Abs [42.7		0.050 - 2.000	Kit:24052(
AC40783MSD	CYLINDROSPERMOPSIN	0.406 Abs	0.667 µg/L	41.856 %Abs		0.050 - 2.000	Kit:24052(
AC40783MSD	CYLINDROSPERMOPSIN	0.450 Abs [0.4280] {7.3 C	0.535 µg/L [0.601]	46.392 %Abs [44.1		0.050 - 2.000	Kit:24052(
AC40784	CYLINDROSPERMOPSIN	0.976 Abs	0.000 µg/L	Low, 100.619 %Abs		0.050 - 2.000	Kit:24052(
AC40784	CYLINDROSPERMOPSIN	0.970 Abs [0.9730] {0.4 C	0.000 µg/L [0.000]			0.050 - 2.000	Kit:24052(
AC40785	CYLINDROSPERMOPSIN	0.964 Abs	0.000 µg/L	Low, 99.381 %Abs		0.050 - 2.000	Kit:24052(
AC40785	CYLINDROSPERMOPSIN	1.020 Abs [0.9920] {4.0 C	0.000 µg/L [0.000]			0.050 - 2.000	Kit:24052(
AC40786	CYLINDROSPERMOPSIN	0.924 Abs	0.009 µg/L	Low, 95.258 %Abs		0.050 - 2.000	Kit:24052(
AC40786	CYLINDROSPERMOPSIN	0.990 Abs [0.9570] {4.9 C	0.000 µg/L [0.005]			0.050 - 2.000	Kit:24052(
AC40787	CYLINDROSPERMOPSIN	1.050 Abs	0.000 µg/L	Low, 108.247 %Abs		0.050 - 2.000	Kit:24052(
AC40787	CYLINDROSPERMOPSIN	1.067 Abs [1.0585] {1.1 C	0.000 µg/L [0.000]			0.050 - 2.000	Kit:24052(
AC40788	CYLINDROSPERMOPSIN	0.900 Abs	0.017 µg/L	Low, 92.784 %Abs		0.050 - 2.000	Kit:24052(
AC40788	CYLINDROSPERMOPSIN	0.968 Abs [0.9340] {5.1 C	0.000 µg/L [0.009]			0.050 - 2.000	Kit:24052(

**Note**

Signature

**Assay Information**

Assay Name: CYLINDROSPERMOPSIS\_  
 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: Kit:2405201466

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>7/10/2024 6:48:45 PM</b>				
CYL Std 0	0.970 Abs	0.000 µg/L	R <sup>2</sup> =0.99253, 100.000 %Abs	RK1:23->A01@2
CYL Std 0	0.970 Abs [0.9700] {0.0 CV}	0.000 µg/L [0.000]	R <sup>2</sup> =0.99253, 100.000 %Abs	RK1:23->B01@2
CYL Std 1	0.803 Abs	0.064 µg/L	R <sup>2</sup> =0.99253, 82.784 %Abs	RK1:24->C01@2
CYL Std 1	0.791 Abs [0.7970] {1.1 CV}	0.071 µg/L [0.068] {7.3 CV}	R <sup>2</sup> =0.99253, 81.546 %Abs	RK1:24->D01@2
CYL Std 2	0.769 Abs	0.085 µg/L	R <sup>2</sup> =0.99253, 79.278 %Abs	RK1:25->E01@2
CYL Std 2	0.752 Abs [0.7605] {1.6 CV}	0.097 µg/L [0.091] {9.3 CV}	R <sup>2</sup> =0.99253, 77.526 %Abs	RK1:25->F01@3
CYL Std 3	0.670 Abs	0.168 µg/L	R <sup>2</sup> =0.99253, 69.072 %Abs	RK1:26->G01@3
CYL Std 3	0.571 Abs [0.6205] {11.3 CV}	0.290 µg/L [0.229] {37.7 CV}	R <sup>2</sup> =0.99253, 58.866 %Abs	RK1:26->H01@3
CYL Std 4	0.459 Abs	0.512 µg/L	R <sup>2</sup> =0.99253, 47.320 %Abs	RK1:27->A02@2
CYL Std 4	0.479 Abs [0.4690] {3.0 CV}	0.463 µg/L [0.488] {7.1 CV}	R <sup>2</sup> =0.99253, 49.381 %Abs	RK1:27->B02@2
CYL Std 5	0.298 Abs	1.179 µg/L	R <sup>2</sup> =0.99253, 30.722 %Abs	RK1:28->C02@2
CYL Std 5	0.283 Abs [0.2905] {3.7 CV}	1.284 µg/L [1.232] {6.0 CV}	R <sup>2</sup> =0.99253, 29.175 %Abs	RK1:28->D02@2
CYL Std 6	0.241 Abs	1.650 µg/L	R <sup>2</sup> =0.99253, 24.845 %Abs	RK1:29->E02@2
CYL Std 6	0.219 Abs [0.2300] {6.8 CV}	1.899 µg/L [1.775] {9.9 CV}	R <sup>2</sup> =0.99253, 22.577 %Abs	RK1:29->F02@3
+++++				
<b>7/10/2024 6:48:45 PM</b>				
CYL QCS	0.405 Abs	0.670 µg/L	41.753 %Abs	RK1:30->G02@3
CYL QCS	0.399 Abs [0.4020] {1.1 CV}	0.691 µg/L [0.681] {2.2 CV}	41.134 %Abs [41.443 %Abs]	RK1:30->H02@3
*****				
<b>Statistic</b>				
CYL Std 0 [MEAN]	0.9700	0.0000		
CYL Std 0 [SD]	0.0000	0.0000		
CYL Std 0 [%CV]	0.0000	0.0000		
CYL Std 1 [MEAN]	0.7970	0.0675		
CYL Std 1 [SD]	0.0085	0.0049		
CYL Std 1 [%CV]	1.0646	7.3330		
CYL Std 1 [%DIFF]		35.0000		
CYL Std 2 [MEAN]	0.7605	0.0910		
CYL Std 2 [SD]	0.0120	0.0085		
CYL Std 2 [%CV]	1.5806	9.3245		
CYL Std 2 [%DIFF]		-9.0000		
CYL Std 3 [MEAN]	0.6205	0.2290		
CYL Std 3 [SD]	0.0700	0.0863		
CYL Std 3 [%CV]	11.2818	37.6712		
CYL Std 3 [%DIFF]		-8.4000		
CYL Std 4 [MEAN]	0.4690	0.4875		
CYL Std 4 [SD]	0.0141	0.0346		
CYL Std 4 [%CV]	3.0154	7.1073		
CYL Std 4 [%DIFF]		-2.5000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.2905	1.2315		
CYL Std 5 [SD]	0.0106	0.0742		
CYL Std 5 [%CV]	3.6512	6.0289		
CYL Std 5 [%DIFF]		23.1500		
CYL Std 6 [MEAN]	0.2300	1.7745		
CYL Std 6 [SD]	0.0156	0.1761		
CYL Std 6 [%CV]	6.7636	9.9222		
CYL Std 6 [%DIFF]		-11.2750		
CYL QCS [MEAN]	0.4020	0.6805		
CYL QCS [SD]	0.0042	0.0148		
CYL QCS [%CV]	1.0554	2.1821		

### Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 0.96189  
 B = 0.80627  
 C = 0.49900  
 D = -0.033928  
 R2 coef = 0.99253  
 50% = 0.449

