



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB48106	Raccoon Lake SRA	8/9/2021	8/11/2021	< 0.15
AB48108	Cagles Mill Lake Beach	8/9/2021	8/11/2021	< 0.15
AB48109	Paynetown SRA	8/9/2021	8/11/2021	< 0.15
AB48110	Fairfax SRA	8/9/2021	8/11/2021	< 0.15
AB48111	Starve Hollow SRA	8/9/2021	8/11/2021	< 0.15
AB48112	Whitewater Memorial SP	8/10/2021	8/11/2021	< 0.15
AB48113	Quakertown SRA	8/10/2021	8/11/2021	< 0.15
AB48114	Mounds SRA	8/10/2021	8/11/2021	< 0.15
AB48115	Hardy Lake SRA	8/10/2021	8/11/2021	< 0.15
AB48107	Deam Lake SRA	8/10/2021	8/11/2021	< 0.15
AB48116	Cagles Mill Lake Beach (Field Duplicate)	8/9/2021	8/11/2021	< 0.15
AB48117	Field Blank	8/9/2021	8/11/2021	< 0.15

Test Report (by Request)

Test Information

Request: 8/11/2021 7:49:44 PM
Date: 8/11/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	1.228 Abs	0.004 µg/L	R^2=0.99853, 99.27			M21B4676
CYL Std 0	CYLINDROSPERMOPSIN	1.245 Abs [1.2365] {1.0 C	0.000 µg/L [0.002]	R^2=0.99853, 100.6			M21B4676
CYL Std 1	CYLINDROSPERMOPSIN	1.097 Abs	0.042 µg/L	R^2=0.99853, 88.68			M21B4676
CYL Std 1	CYLINDROSPERMOPSIN	1.071 Abs [1.0840] {1.7 C	0.051 µg/L [0.046]	R^2=0.99853, 86.58			M21B4676
CYL Std 2	CYLINDROSPERMOPSIN	0.939 Abs	0.101 µg/L	R^2=0.99853, 75.90			M21B4676
CYL Std 2	CYLINDROSPERMOPSIN	0.948 Abs [0.9435] {0.7 C	0.097 µg/L [0.099]	R^2=0.99853, 76.63			M21B4676
CYL Std 3	CYLINDROSPERMOPSIN	0.686 Abs	0.254 µg/L	R^2=0.99853, 55.45			M21B4676
CYL Std 3	CYLINDROSPERMOPSIN	0.643 Abs [0.6645] {4.6 C	0.293 µg/L [0.274]	R^2=0.99853, 51.98			M21B4676
CYL Std 4	CYLINDROSPERMOPSIN	0.509 Abs	0.461 µg/L	R^2=0.99853, 41.14			M21B4676
CYL Std 4	CYLINDROSPERMOPSIN	0.502 Abs [0.5055] {1.0 C	0.473 µg/L [0.467]	R^2=0.99853, 40.58			M21B4676
CYL Std 5	CYLINDROSPERMOPSIN	0.337 Abs	0.920 µg/L	R^2=0.99853, 27.24			M21B4676
CYL Std 5	CYLINDROSPERMOPSIN	0.319 Abs [0.3280] {3.9 C	1.004 µg/L [0.962]	R^2=0.99853, 25.78			M21B4676
CYL Std 6	CYLINDROSPERMOPSIN	0.200 Abs	> 2.000 µg/L	16.168 %Abs			M21B4676
CYL Std 6	CYLINDROSPERMOPSIN	0.197 Abs [0.1985] {1.1 C	> 2.000 µg/L	15.926 %Abs			M21B4676
CYL QCS	CYLINDROSPERMOPSIN	0.366 Abs	0.806 µg/L	29.588 %Abs			M21B4676
CYL QCS	CYLINDROSPERMOPSIN	0.373 Abs [0.3695] {1.3 C	0.782 µg/L [0.794]	30.154 %Abs [29.8			M21B4676

Note

Signature

David Jordan

David Jordan 8/11/2021

Test Report (by Request)

Test Information

Request: 8/11/2021 7:51:36 PM
Date: 8/11/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	CYLINDROSPERMOPSIN	1.221 Abs	0.006 µg/L	Low, 98.707 %Abs		0.050 - 2.000	M21B467f
LRB	CYLINDROSPERMOPSIN	1.199 Abs [1.2100] {1.3 C	0.012 µg/L [0.009]	Low, 96.928 %Abs		0.050 - 2.000	M21B467f
LFB	CYLINDROSPERMOPSIN	0.445 Abs	0.584 µg/L	35.974 %Abs		0.050 - 2.000	M21B467f
LFB	CYLINDROSPERMOPSIN	0.411 Abs [0.4280] {5.6 C	0.667 µg/L [0.625]	33.226 %Abs [34.6		0.050 - 2.000	M21B467f
AB48106	CYLINDROSPERMOPSIN	1.145 Abs	0.027 µg/L	Low, 92.563 %Abs		0.050 - 2.000	M21B467f
AB48106	CYLINDROSPERMOPSIN	1.158 Abs [1.1515] {0.8 C	0.023 µg/L [0.025]	Low, 93.614 %Abs		0.050 - 2.000	M21B467f
AB48108	CYLINDROSPERMOPSIN	1.153 Abs	0.025 µg/L	Low, 93.209 %Abs		0.050 - 2.000	M21B467f
AB48108	CYLINDROSPERMOPSIN	1.158 Abs [1.1555] {0.3 C	0.023 µg/L [0.024]	Low, 93.614 %Abs		0.050 - 2.000	M21B467f
AB48109	CYLINDROSPERMOPSIN	1.194 Abs	0.013 µg/L	Low, 96.524 %Abs		0.050 - 2.000	M21B467f
AB48109	CYLINDROSPERMOPSIN	1.165 Abs [1.1795] {1.7 C	0.021 µg/L [0.017]	Low, 94.179 %Abs		0.050 - 2.000	M21B467f
AB48109MS	CYLINDROSPERMOPSIN	0.436 Abs	0.604 µg/L	35.247 %Abs		0.050 - 2.000	M21B467f
AB48109MS	CYLINDROSPERMOPSIN	0.422 Abs [0.4290] {2.3 C	0.638 µg/L [0.621]	34.115 %Abs [34.6		0.050 - 2.000	M21B467f
AB48109MSD	CYLINDROSPERMOPSIN	0.401 Abs	0.695 µg/L	32.417 %Abs		0.050 - 2.000	M21B467f
AB48109MSD	CYLINDROSPERMOPSIN	0.416 Abs [0.4085] {2.6 C	0.654 µg/L [0.674]	33.630 %Abs [33.0		0.050 - 2.000	M21B467f
AB48110	CYLINDROSPERMOPSIN	1.136 Abs	0.030 µg/L	Low, 91.835 %Abs		0.050 - 2.000	M21B467f
AB48110	CYLINDROSPERMOPSIN	1.122 Abs [1.1290] {0.9 C	0.034 µg/L [0.032]	Low, 90.703 %Abs		0.050 - 2.000	M21B467f
AB48111	CYLINDROSPERMOPSIN	1.179 Abs	0.017 µg/L	Low, 95.311 %Abs		0.050 - 2.000	M21B467f
AB48111	CYLINDROSPERMOPSIN	1.107 Abs [1.1430] {4.5 C	0.039 µg/L [0.028]	Low, 89.491 %Abs		0.050 - 2.000	M21B467f
AB48112	CYLINDROSPERMOPSIN	1.147 Abs	0.027 µg/L	Low, 92.724 %Abs		0.050 - 2.000	M21B467f
AB48112	CYLINDROSPERMOPSIN	1.113 Abs [1.1300] {2.1 C	0.037 µg/L [0.032]	Low, 89.976 %Abs		0.050 - 2.000	M21B467f
AB48113	CYLINDROSPERMOPSIN	1.052 Abs	0.057 µg/L	85.044 %Abs		0.050 - 2.000	M21B467f
AB48113	CYLINDROSPERMOPSIN	1.071 Abs [1.0615] {1.3 C	0.051 µg/L [0.054]	86.580 %Abs [85.8		0.050 - 2.000	M21B467f
AB48114	CYLINDROSPERMOPSIN	1.086 Abs	0.046 µg/L	Low, 87.793 %Abs		0.050 - 2.000	M21B467f
AB48114	CYLINDROSPERMOPSIN	1.091 Abs [1.0885] {0.3 C	0.044 µg/L [0.045]	Low, 88.197 %Abs		0.050 - 2.000	M21B467f
AB48115	CYLINDROSPERMOPSIN	1.103 Abs	0.040 µg/L	Low, 89.167 %Abs		0.050 - 2.000	M21B467f
AB48115	CYLINDROSPERMOPSIN	1.115 Abs [1.1090] {0.8 C	0.036 µg/L [0.038]	Low, 90.137 %Abs		0.050 - 2.000	M21B467f
AB48107	CYLINDROSPERMOPSIN	1.020 Abs	0.068 µg/L	82.458 %Abs		0.050 - 2.000	M21B467f
AB48107	CYLINDROSPERMOPSIN	0.993 Abs [1.0065] {1.9 C	0.079 µg/L [0.074]	80.275 %Abs [81.3		0.050 - 2.000	M21B467f
AB48116	CYLINDROSPERMOPSIN	1.053 Abs	0.057 µg/L	85.125 %Abs		0.050 - 2.000	M21B467f
AB48116	CYLINDROSPERMOPSIN	1.069 Abs [1.0610] {1.1 C	0.051 µg/L [0.054]	86.419 %Abs [85.7		0.050 - 2.000	M21B467f
AB48117	CYLINDROSPERMOPSIN	1.102 Abs	0.040 µg/L	Low, 89.087 %Abs		0.050 - 2.000	M21B467f
AB48117	CYLINDROSPERMOPSIN	1.099 Abs [1.1005] {0.2 C	0.041 µg/L [0.041]	Low, 88.844 %Abs		0.050 - 2.000	M21B467f

Note

Signature

David Jordan

David Jordan 8/11/2021

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:
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 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: M21B4676

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
8/11/2021 7:49:44 PM				
CYL Std 0	1.228 Abs	0.004 µg/L	R ² =0.99853, 99.272 %Abs	RK1:23->A01@2
CYL Std 0	1.245 Abs [1.2365] {1.0 CV}	0.000 µg/L [0.002] {141.4 CV}	R ² =0.99853, 100.647 %Abs	RK1:23->B01@2
CYL Std 1	1.097 Abs	0.042 µg/L	R ² =0.99853, 88.682 %Abs	RK1:24->C01@2
CYL Std 1	1.071 Abs [1.0840] {1.7 CV}	0.051 µg/L [0.046] {13.7 CV}	R ² =0.99853, 86.580 %Abs	RK1:24->D01@2
CYL Std 2	0.939 Abs	0.101 µg/L	R ² =0.99853, 75.909 %Abs	RK1:25->E01@2
CYL Std 2	0.948 Abs [0.9435] {0.7 CV}	0.097 µg/L [0.099] {2.9 CV}	R ² =0.99853, 76.637 %Abs	RK1:25->F01@3
CYL Std 3	0.686 Abs	0.254 µg/L	R ² =0.99853, 55.457 %Abs	RK1:26->G01@3
CYL Std 3	0.643 Abs [0.6645] {4.6 CV}	0.293 µg/L [0.274] {10.1 CV}	R ² =0.99853, 51.981 %Abs	RK1:26->H01@3
CYL Std 4	0.509 Abs	0.461 µg/L	R ² =0.99853, 41.148 %Abs	RK1:27->A02@2
CYL Std 4	0.502 Abs [0.5055] {1.0 CV}	0.473 µg/L [0.467] {1.8 CV}	R ² =0.99853, 40.582 %Abs	RK1:27->B02@2
CYL Std 5	0.337 Abs	0.920 µg/L	R ² =0.99853, 27.243 %Abs	RK1:28->C02@2
CYL Std 5	0.319 Abs [0.3280] {3.9 CV}	1.004 µg/L [0.962] {6.2 CV}	R ² =0.99853, 25.788 %Abs	RK1:28->D02@2
CYL Std 6	0.200 Abs	> 2.000 µg/L	16.168 %Abs	RK1:29->E02@2
CYL Std 6	0.197 Abs [0.1985] {1.1 CV}	> 2.000 µg/L	15.926 %Abs	RK1:29->F02@3

8/11/2021 7:49:44 PM				
CYL QCS	0.366 Abs	0.806 µg/L	29.588 %Abs	RK1:30->G02@3
CYL QCS	0.373 Abs [0.3695] {1.3 CV}	0.782 µg/L [0.794] {2.1 CV}	30.154 %Abs [29.871 %Abs]	RK1:30->H02@3

Statistic				
CYL Std 0 [MEAN]	1.2365	0.0020		
CYL Std 0 [SD]	0.0120	0.0028		
CYL Std 0 [%CV]	0.9722	141.4214		
CYL Std 1 [MEAN]	1.0840	0.0465		
CYL Std 1 [SD]	0.0184	0.0064		
CYL Std 1 [%CV]	1.6960	13.6859		
CYL Std 1 [%DIFF]		-7.0000		
CYL Std 2 [MEAN]	0.9435	0.0990		
CYL Std 2 [SD]	0.0064	0.0028		
CYL Std 2 [%CV]	0.6745	2.8570		
CYL Std 2 [%DIFF]		-1.0000		
CYL Std 3 [MEAN]	0.6645	0.2735		
CYL Std 3 [SD]	0.0304	0.0276		
CYL Std 3 [%CV]	4.5757	10.0831		
CYL Std 3 [%DIFF]		9.4000		
CYL Std 4 [MEAN]	0.5055	0.4670		
CYL Std 4 [SD]	0.0049	0.0085		
CYL Std 4 [%CV]	0.9792	1.8170		
CYL Std 4 [%DIFF]		-6.6000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.3280	0.9620		
CYL Std 5 [SD]	0.0127	0.0594		
CYL Std 5 [%CV]	3.8805	6.1743		
CYL Std 5 [%DIFF]		-3.8000		
CYL Std 6 [MEAN]	0.1985			
CYL Std 6 [SD]	0.0021			
CYL Std 6 [%CV]	1.0687			
CYL QCS [MEAN]	0.3695	0.7940		
CYL QCS [SD]	0.0049	0.0170		
CYL QCS [%CV]	1.3396	2.1373		

Assay Curve

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

Weight: NONE

A = 1.2422

B = 1.0321

C = 0.27885

D = 0.073015

R2 coef = 0.99853

50% = 0.317

