



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC41195	Cecil M. Harden Lake - Raccoon Lake SRA Beach	8/5/2024	8/8/2024	< 0.10
AC41196	Cagles Mill Lake - Lieber SRA Beach	8/5/2024	8/8/2024	< 0.10
AC41197	Monroe Lake - Fairfax SRA Beach	8/5/2024	8/8/2024	< 0.10
AC41198	Monroe Lake - Paynetown SRA Beach	8/5/2024	8/8/2024	< 0.10
AC41199	Starve Hollow SRA - Starve Hollow Lake Beach	8/5/2024	8/8/2024	< 0.10
AC41200	Whitewater Memorial SP - Whitewater Lake Beach	8/6/2024	8/8/2024	< 0.10
AC41201	Brookville Lake - Quakertown SRA Beach	8/6/2024	8/8/2024	< 0.10
AC41202	Brookville Lake - Mounds SRA Beach	8/6/2024	8/8/2024	< 0.10
AC41203	Hardy Lake SRA - Hardy Lake SRA Beach	8/6/2024	8/8/2024	< 0.10
AC41204	Deam Lake SRA - Deam Lake Beach	8/6/2024	8/8/2024	< 0.10
AC41205	Cagles Mill Lake - Lieber SRA Beach (Field Duplicate)	8/5/2024	8/8/2024	< 0.10
AC41206	Field Blank	8/5/2024	8/8/2024	< 0.10
AC41207	Ft. Ben Harrison SP Dog Lake	8/6/2024	8/8/2024	< 0.10

Test Report (by Request)

Test Information

Request: 8/8/2024 2:54:22 PM
 Date: 8/8/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	0.939 Abs	0.000 µg/L	R^2=0.99308, 100.1		0.000	Kit:240520
CYL Std 0	CYLINDROSPERMOPSIN	0.937 Abs [0.9380] {0.2 C	0.000 µg/L [0.000]	R^2=0.99308, 99.85		0.000	Kit:240520
CYL Std 1	CYLINDROSPERMOPSIN	0.793 Abs	0.049 µg/L	R^2=0.99308, 84.54		0.050	Kit:240520
CYL Std 1	CYLINDROSPERMOPSIN	0.779 Abs [0.7860] {1.3 C	0.056 µg/L [0.053]	R^2=0.99308, 83.04		0.050	Kit:240520
CYL Std 2	CYLINDROSPERMOPSIN	0.635 Abs	0.151 µg/L	R^2=0.99308, 67.65		0.100	Kit:240520
CYL Std 2	CYLINDROSPERMOPSIN	0.746 Abs [0.6905] {11.4	0.073 µg/L [0.112]	R^2=0.99308, 79.53		0.100	Kit:240520
CYL Std 3	CYLINDROSPERMOPSIN	0.543 Abs	0.256 µg/L	R^2=0.99308, 57.88		0.250	Kit:240520
CYL Std 3	CYLINDROSPERMOPSIN	0.607 Abs [0.5750] {7.9 C	0.178 µg/L [0.217]	R^2=0.99308, 64.71		0.250	Kit:240520
CYL Std 4	CYLINDROSPERMOPSIN	0.428 Abs	0.505 µg/L	R^2=0.99308, 45.62		0.500	Kit:240520
CYL Std 4	CYLINDROSPERMOPSIN	0.425 Abs [0.4265] {0.5 C	0.515 µg/L [0.510]	R^2=0.99308, 45.30		0.500	Kit:240520
CYL Std 5	CYLINDROSPERMOPSIN	0.303 Abs	1.353 µg/L	R^2=0.99308, 32.30		1.000	Kit:240520
CYL Std 5	CYLINDROSPERMOPSIN	0.299 Abs [0.3010] {0.9 C	1.411 µg/L [1.382]	R^2=0.99308, 31.87		1.000	Kit:240520
CYL Std 6	CYLINDROSPERMOPSIN	0.247 Abs	> 2.000 µg/L	26.333 %Abs		2.000	Kit:240520
CYL Std 6	CYLINDROSPERMOPSIN	0.335 Abs [0.2910] {21.4	0.999 µg/L [0.999]	R^2=0.99308, 35.71		2.000	Kit:240520
CYL QCS	CYLINDROSPERMOPSIN	0.364 Abs	0.789 µg/L	38.806 %Abs			Kit:240520
CYL QCS	CYLINDROSPERMOPSIN	0.348 Abs [0.3560] {3.2 C	0.896 µg/L [0.843]	37.100 %Abs [37.9			Kit:240520

Note

Signature _____

Charles Hostetter 8/8/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

* Generated by software version (6.4.1.1171/1085/1.00/0.95) 8/8/2024 3:06:51 PM

Test Report (by Request)

Test Information

Request: 8/8/2024 2:55:56 PM
Date: 8/8/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	CYLINDROSPERMOPSIN	0.869 Abs	0.019 µg/L	Low, 92.644 %Abs		0.050 - 2.000	Kit:24052f
LRB	CYLINDROSPERMOPSIN	0.886 Abs [0.8775] {1.4 C	0.014 µg/L [0.017]	Low, 94.456 %Abs		0.050 - 2.000	Kit:24052f
LFB	CYLINDROSPERMOPSIN	0.409 Abs	0.572 µg/L	43.603 %Abs		0.050 - 2.000	Kit:24052f
LFB	CYLINDROSPERMOPSIN	0.397 Abs [0.4030] {2.1 C	0.621 µg/L [0.597]	42.324 %Abs [42.9		0.050 - 2.000	Kit:24052f
AC41195	CYLINDROSPERMOPSIN	0.846 Abs	0.028 µg/L	Low, 90.192 %Abs		0.050 - 2.000	Kit:24052f
AC41195	CYLINDROSPERMOPSIN	0.842 Abs [0.8440] {0.3 C	0.029 µg/L [0.029]	Low, 89.765 %Abs		0.050 - 2.000	Kit:24052f
AC41196	CYLINDROSPERMOPSIN	0.842 Abs	0.029 µg/L	Low, 89.765 %Abs		0.050 - 2.000	Kit:24052f
AC41196	CYLINDROSPERMOPSIN	0.839 Abs [0.8405] {0.3 C	0.030 µg/L [0.030]	Low, 89.446 %Abs		0.050 - 2.000	Kit:24052f
AC41197	CYLINDROSPERMOPSIN	0.889 Abs	0.013 µg/L	Low, 94.776 %Abs		0.050 - 2.000	Kit:24052f
AC41197	CYLINDROSPERMOPSIN	0.899 Abs [0.8940] {0.8 C	0.010 µg/L [0.012]	Low, 95.842 %Abs		0.050 - 2.000	Kit:24052f
AC41198	CYLINDROSPERMOPSIN	0.899 Abs	0.010 µg/L	Low, 95.842 %Abs		0.050 - 2.000	Kit:24052f
AC41198	CYLINDROSPERMOPSIN	0.859 Abs [0.8790] {3.2 C	0.023 µg/L [0.017]	Low, 91.578 %Abs		0.050 - 2.000	Kit:24052f
AC41199	CYLINDROSPERMOPSIN	0.860 Abs	0.022 µg/L	Low, 91.684 %Abs		0.050 - 2.000	Kit:24052f
AC41199	CYLINDROSPERMOPSIN	0.897 Abs [0.8785] {3.0 C	0.010 µg/L [0.016]	Low, 95.629 %Abs		0.050 - 2.000	Kit:24052f
AC41200	CYLINDROSPERMOPSIN	0.890 Abs	0.012 µg/L	Low, 94.883 %Abs		0.050 - 2.000	Kit:24052f
AC41200	CYLINDROSPERMOPSIN	0.888 Abs [0.8890] {0.2 C	0.013 µg/L [0.013]	Low, 94.670 %Abs		0.050 - 2.000	Kit:24052f
AC41200MS	CYLINDROSPERMOPSIN	0.396 Abs	0.625 µg/L	42.217 %Abs		0.050 - 2.000	Kit:24052f
AC41200MS	CYLINDROSPERMOPSIN	0.439 Abs [0.4175] {7.3 C	0.471 µg/L [0.548]	46.802 %Abs [44.5		0.050 - 2.000	Kit:24052f
AC41200MSD	CYLINDROSPERMOPSIN	0.430 Abs	0.499 µg/L	45.842 %Abs		0.050 - 2.000	Kit:24052f
AC41200MSD	CYLINDROSPERMOPSIN	0.416 Abs [0.4230] {2.3 C	0.546 µg/L [0.523]	44.350 %Abs [45.0		0.050 - 2.000	Kit:24052f
AC41201	CYLINDROSPERMOPSIN	0.833 Abs	0.032 µg/L	Low, 88.806 %Abs		0.050 - 2.000	Kit:24052f
AC41201	CYLINDROSPERMOPSIN	0.879 Abs [0.8560] {3.8 C	0.016 µg/L [0.024]	Low, 93.710 %Abs		0.050 - 2.000	Kit:24052f
AC41202	CYLINDROSPERMOPSIN	0.866 Abs	0.020 µg/L	Low, 92.324 %Abs		0.050 - 2.000	Kit:24052f
AC41202	CYLINDROSPERMOPSIN	0.899 Abs [0.8825] {2.6 C	0.010 µg/L [0.015]	Low, 95.842 %Abs		0.050 - 2.000	Kit:24052f
AC41203	CYLINDROSPERMOPSIN	0.850 Abs	0.026 µg/L	Low, 90.618 %Abs		0.050 - 2.000	Kit:24052f
AC41203	CYLINDROSPERMOPSIN	0.857 Abs [0.8535] {0.6 C	0.023 µg/L [0.025]	Low, 91.365 %Abs		0.050 - 2.000	Kit:24052f
AC41204	CYLINDROSPERMOPSIN	0.794 Abs	0.049 µg/L	Low, 84.648 %Abs		0.050 - 2.000	Kit:24052f
AC41204	CYLINDROSPERMOPSIN	0.829 Abs [0.8115] {3.0 C	0.034 µg/L [0.042]	Low, 88.380 %Abs		0.050 - 2.000	Kit:24052f
AC41205	CYLINDROSPERMOPSIN	0.852 Abs	0.025 µg/L	Low, 90.832 %Abs		0.050 - 2.000	Kit:24052f
AC41205	CYLINDROSPERMOPSIN	0.844 Abs [0.8480] {0.7 C	0.028 µg/L [0.027]	Low, 89.979 %Abs		0.050 - 2.000	Kit:24052f
AC41206	CYLINDROSPERMOPSIN	0.878 Abs	0.016 µg/L	Low, 93.603 %Abs		0.050 - 2.000	Kit:24052f
AC41206	CYLINDROSPERMOPSIN	0.880 Abs [0.8790] {0.2 C	0.016 µg/L [0.016]	Low, 93.817 %Abs		0.050 - 2.000	Kit:24052f
AC41207	CYLINDROSPERMOPSIN	0.824 Abs	0.036 µg/L	Low, 87.846 %Abs		0.050 - 2.000	Kit:24052f
AC41207	CYLINDROSPERMOPSIN	0.789 Abs [0.8065] {3.1 C	0.051 µg/L [0.044]	84.115 %Abs [Low,		0.050 - 2.000	Kit:24052f

Note

Signature _____

Charles Hostetter 8/8/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

* Generated by software version (6.4.1.1171/1085/1.00/0.95) 8/8/2024 3:06:51 PM

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
8/8/2024 2:54:22 PM				
CYL Std 0	0.939 Abs	0.000 µg/L	R ² =0.99308, 100.107 %Abs	RK1:23->A01@2
CYL Std 0	0.937 Abs [0.9380] {0.2 CV}	0.000 µg/L [0.000]	R ² =0.99308, 99.893 %Abs	RK1:23->B01@2
CYL Std 1	0.793 Abs	0.049 µg/L	R ² =0.99308, 84.542 %Abs	RK1:24->C01@2
CYL Std 1	0.779 Abs [0.7860] {1.3 CV}	0.056 µg/L [0.053] {9.4 CV}	R ² =0.99308, 83.049 %Abs	RK1:24->D01@2
CYL Std 2	0.635 Abs	0.151 µg/L	R ² =0.99308, 67.697 %Abs	RK1:25->E01@2
CYL Std 2	0.746 Abs [0.6905] {11.4 CV}	0.073 µg/L [0.112] {49.2 CV}	R ² =0.99308, 79.531 %Abs	RK1:25->F01@3
CYL Std 3	0.543 Abs	0.256 µg/L	R ² =0.99308, 57.889 %Abs	RK1:26->G01@3
CYL Std 3	0.607 Abs [0.5750] {7.9 CV}	0.178 µg/L [0.217] {25.4 CV}	R ² =0.99308, 64.712 %Abs	RK1:26->H01@3
CYL Std 4	0.428 Abs	0.505 µg/L	R ² =0.99308, 45.629 %Abs	RK1:27->A02@2
CYL Std 4	0.425 Abs [0.4265] {0.5 CV}	0.515 µg/L [0.510] {1.4 CV}	R ² =0.99308, 45.309 %Abs	RK1:27->B02@2
CYL Std 5	0.303 Abs	1.353 µg/L	R ² =0.99308, 32.303 %Abs	RK1:28->C02@2
CYL Std 5	0.299 Abs [0.3010] {0.9 CV}	1.411 µg/L [1.382] {3.0 CV}	R ² =0.99308, 31.876 %Abs	RK1:28->D02@2
CYL Std 6	0.247 Abs	> 2.000 µg/L	26.333 %Abs	RK1:29->E02@2
CYL Std 6	0.335 Abs [0.2910] {21.4 CV}	0.999 µg/L [0.999]	R ² =0.99308, 35.714 %Abs	RK1:29->F02@3

8/8/2024 2:54:22 PM				
CYL QCS	0.364 Abs	0.789 µg/L	38.806 %Abs	RK1:30->G02@3
CYL QCS	0.348 Abs [0.3560] {3.2 CV}	0.896 µg/L [0.843] {9.0 CV}	37.100 %Abs [37.953 %Abs]	RK1:30->H02@3

Statistic				
CYL Std 0 [MEAN]	0.9380	0.0000		
CYL Std 0 [SD]	0.0014	0.0000		
CYL Std 0 [%CV]	0.1508	0.0000		
CYL Std 1 [MEAN]	0.7860	0.0525		
CYL Std 1 [SD]	0.0099	0.0049		
CYL Std 1 [%CV]	1.2595	9.4281		
CYL Std 1 [%DIFF]		5.0000		
CYL Std 2 [MEAN]	0.6905	0.1120		
CYL Std 2 [SD]	0.0785	0.0552		
CYL Std 2 [%CV]	11.3670	49.2449		
CYL Std 2 [%DIFF]		12.0000		
CYL Std 3 [MEAN]	0.5750	0.2170		
CYL Std 3 [SD]	0.0453	0.0552		
CYL Std 3 [%CV]	7.8704	25.4167		
CYL Std 3 [%DIFF]		-13.2000		
CYL Std 4 [MEAN]	0.4265	0.5100		
CYL Std 4 [SD]	0.0021	0.0071		
CYL Std 4 [%CV]	0.4974	1.3865		
CYL Std 4 [%DIFF]		2.0000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.3010	1.3820		
CYL Std 5 [SD]	0.0028	0.0410		
CYL Std 5 [%CV]	0.9397	2.9676		
CYL Std 5 [%DIFF]		38.2000		
CYL Std 6 [MEAN]	0.2910			
CYL Std 6 [SD]	0.0622			
CYL Std 6 [%CV]	21.3833			
CYL QCS [MEAN]	0.3560	0.8425		
CYL QCS [SD]	0.0113	0.0757		
CYL QCS [%CV]	3.1780	8.9805		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 0.93443
 B = 0.93905
 C = 0.23540
 D = 0.18077
 R2 coef = 0.99308
 50% = 0.392

