



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC41502	Cecil M. Harden Lake - Raccoon Lake SRA Beach	8/19/2024	8/22/2024	< 0.10
AC41503	Cagles Mill Lake - Lieber SRA Beach	8/19/2024	8/22/2024	< 0.10
AC41504	Monroe Lake - Fairfax SRA Beach	8/19/2024	8/22/2024	< 0.10
AC41505	Monroe Lake - Paynetown SRA Beach	8/19/2024	8/22/2024	< 0.10
AC41506	Starve Hollow SRA - Starve Hollow Lake Beach	8/19/2024	8/22/2024	< 0.10
AC41507	Hardy Lake SRA - Hardy Lake SRA Beach	8/20/2024	8/22/2024	< 0.10
AC41508	Whitewater Memorial SP - Whitewater Lake Beach	8/20/2024	8/22/2024	< 0.10
AC41509	Brookville Lake - Quakertown SRA Beach	8/20/2024	8/22/2024	< 0.10
AC41510	Brookville Lake - Mounds SRA Beach	8/20/2024	8/22/2024	< 0.10
AC41511	Hardy Lake SRA - Hardy Lake SRA Beach (Field Duplicate)	8/20/2024	8/22/2024	< 0.10
AC41512	Field Blank	8/20/2024	8/22/2024	< 0.10
AC41513	Ft. Ben Harrison SP Dog Lake	8/20/2024	8/22/2024	< 0.10

Test Report (by Request)

Test Information

Request: 8/22/2024 2:33:46 PM
 Date: 8/22/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	1.369 Abs	0.000 µg/L	R^2=0.99673, 102.4		0.000	Kit:240520
CYL Std 0	CYLINDROSPERMOPSIN	1.303 Abs [1.3360] {3.5 C	0.003 µg/L [0.002]	R^2=0.99673, 97.53		0.000	Kit:240520
CYL Std 1	CYLINDROSPERMOPSIN	1.036 Abs	0.049 µg/L	R^2=0.99673, 77.54		0.050	Kit:240520
CYL Std 1	CYLINDROSPERMOPSIN	1.025 Abs [1.0305] {0.8 C	0.052 µg/L [0.051]	R^2=0.99673, 76.72		0.050	Kit:240520
CYL Std 2	CYLINDROSPERMOPSIN	0.897 Abs	0.092 µg/L	R^2=0.99673, 67.14		0.100	Kit:240520
CYL Std 2	CYLINDROSPERMOPSIN	0.891 Abs [0.8940] {0.5 C	0.094 µg/L [0.093]	R^2=0.99673, 66.65		0.100	Kit:240520
CYL Std 3	CYLINDROSPERMOPSIN	0.600 Abs	0.286 µg/L	R^2=0.99673, 44.91		0.250	Kit:240520
CYL Std 3	CYLINDROSPERMOPSIN	0.586 Abs [0.5930] {1.7 C	0.302 µg/L [0.294]	R^2=0.99673, 43.86		0.250	Kit:240520
CYL Std 4	CYLINDROSPERMOPSIN	0.489 Abs	0.450 µg/L	R^2=0.99673, 36.60		0.500	Kit:240520
CYL Std 4	CYLINDROSPERMOPSIN	0.500 Abs [0.4945] {1.6 C	0.429 µg/L [0.440]	R^2=0.99673, 37.42		0.500	Kit:240520
CYL Std 5	CYLINDROSPERMOPSIN	0.363 Abs	0.831 µg/L	R^2=0.99673, 27.17		1.000	Kit:240520
CYL Std 5	CYLINDROSPERMOPSIN	0.313 Abs [0.3380] {10.5	1.126 µg/L [0.979]	R^2=0.99673, 23.42		1.000	Kit:240520
CYL Std 6	CYLINDROSPERMOPSIN	0.219 Abs	> 2.000 µg/L	16.392 %Abs		2.000	Kit:240520
CYL Std 6	CYLINDROSPERMOPSIN	0.239 Abs [0.2290] {6.2 C	> 2.000 µg/L	17.889 %Abs		2.000	Kit:240520
CYL QCS	CYLINDROSPERMOPSIN	0.376 Abs	0.774 µg/L	28.144 %Abs			Kit:240520
CYL QCS	CYLINDROSPERMOPSIN	0.400 Abs [0.3880] {4.4 C	0.682 µg/L [0.728]	29.940 %Abs [29.0			Kit:240520

Note

Signature

Charles Hostetter 8/22/2024

Test Report (by Request)

Test Information

Request: 8/22/2024 2:34:59 PM
Date: 8/22/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	CYLINDROSPERMOPSIN	1.337 Abs	0.000 µg/L	Low, 100.000 %Abs		0.050 - 2.000	Kit:24052(
LRB	CYLINDROSPERMOPSIN	1.300 Abs [1.3185] {2.0 C	0.003 µg/L [0.002]	Low, 97.305 %Abs		0.050 - 2.000	Kit:24052(
LFB	CYLINDROSPERMOPSIN	0.456 Abs	0.521 µg/L	34.132 %Abs		0.050 - 2.000	Kit:24052(
LFB	CYLINDROSPERMOPSIN	0.437 Abs [0.4465] {3.0 C	0.569 µg/L [0.545]	32.710 %Abs [33.4		0.050 - 2.000	Kit:24052(
AC41502	CYLINDROSPERMOPSIN	1.230 Abs	0.012 µg/L	Low, 92.066 %Abs		0.050 - 2.000	Kit:24052(
AC41502	CYLINDROSPERMOPSIN	1.237 Abs [1.2335] {0.4 C	0.011 µg/L [0.012]	Low, 92.590 %Abs		0.050 - 2.000	Kit:24052(
AC41503	CYLINDROSPERMOPSIN	1.277 Abs	0.006 µg/L	Low, 95.584 %Abs		0.050 - 2.000	Kit:24052(
AC41503	CYLINDROSPERMOPSIN	1.233 Abs [1.2550] {2.5 C	0.012 µg/L [0.009]	Low, 92.290 %Abs		0.050 - 2.000	Kit:24052(
AC41504	CYLINDROSPERMOPSIN	1.278 Abs	0.006 µg/L	Low, 95.659 %Abs		0.050 - 2.000	Kit:24052(
AC41504	CYLINDROSPERMOPSIN	1.296 Abs [1.2870] {1.0 C	0.004 µg/L [0.005]	Low, 97.006 %Abs		0.050 - 2.000	Kit:24052(
AC41505	CYLINDROSPERMOPSIN	1.217 Abs	0.014 µg/L	Low, 91.093 %Abs		0.050 - 2.000	Kit:24052(
AC41505	CYLINDROSPERMOPSIN	1.206 Abs [1.2115] {0.6 C	0.016 µg/L [0.015]	Low, 90.269 %Abs		0.050 - 2.000	Kit:24052(
AC41506	CYLINDROSPERMOPSIN	1.189 Abs	0.018 µg/L	Low, 88.997 %Abs		0.050 - 2.000	Kit:24052(
AC41506	CYLINDROSPERMOPSIN	1.196 Abs [1.1925] {0.4 C	0.017 µg/L [0.018]	Low, 89.521 %Abs		0.050 - 2.000	Kit:24052(
AC41507	CYLINDROSPERMOPSIN	1.172 Abs	0.021 µg/L	Low, 87.725 %Abs		0.050 - 2.000	Kit:24052(
AC41507	CYLINDROSPERMOPSIN	1.239 Abs [1.2055] {3.9 C	0.011 µg/L [0.016]	Low, 92.740 %Abs		0.050 - 2.000	Kit:24052(
AC41508	CYLINDROSPERMOPSIN	1.305 Abs	0.003 µg/L	Low, 97.680 %Abs		0.050 - 2.000	Kit:24052(
AC41508	CYLINDROSPERMOPSIN	1.292 Abs [1.2985] {0.7 C	0.004 µg/L [0.004]	Low, 96.707 %Abs		0.050 - 2.000	Kit:24052(
AC41508MS	CYLINDROSPERMOPSIN	0.447 Abs	0.543 µg/L	33.458 %Abs		0.050 - 2.000	Kit:24052(
AC41508MS	CYLINDROSPERMOPSIN	0.449 Abs [0.4480] {0.3 C	0.538 µg/L [0.541]	33.608 %Abs [33.5		0.050 - 2.000	Kit:24052(
AC41508MSD	CYLINDROSPERMOPSIN	0.424 Abs	0.605 µg/L	31.737 %Abs		0.050 - 2.000	Kit:24052(
AC41508MSD	CYLINDROSPERMOPSIN	0.443 Abs [0.4335] {3.1 C	0.553 µg/L [0.579]	33.159 %Abs [32.4		0.050 - 2.000	Kit:24052(
AC41509	CYLINDROSPERMOPSIN	1.230 Abs	0.012 µg/L	Low, 92.066 %Abs		0.050 - 2.000	Kit:24052(
AC41509	CYLINDROSPERMOPSIN	1.284 Abs [1.2570] {3.0 C	0.005 µg/L [0.009]	Low, 96.108 %Abs		0.050 - 2.000	Kit:24052(
AC41510	CYLINDROSPERMOPSIN	1.367 Abs	0.000 µg/L	Low, 102.320 %Abs		0.050 - 2.000	Kit:24052(
AC41510	CYLINDROSPERMOPSIN	1.325 Abs [1.3460] {2.2 C	0.001 µg/L [0.001]	Low, 99.177 %Abs		0.050 - 2.000	Kit:24052(
AC41511	CYLINDROSPERMOPSIN	1.262 Abs	0.008 µg/L	Low, 94.461 %Abs		0.050 - 2.000	Kit:24052(
AC41511	CYLINDROSPERMOPSIN	1.278 Abs [1.2700] {0.9 C	0.006 µg/L [0.007]	Low, 95.659 %Abs		0.050 - 2.000	Kit:24052(
AC41512	CYLINDROSPERMOPSIN	1.258 Abs	0.008 µg/L	Low, 94.162 %Abs		0.050 - 2.000	Kit:24052(
AC41512	CYLINDROSPERMOPSIN	1.255 Abs [1.2565] {0.2 C	0.009 µg/L [0.009]	Low, 93.937 %Abs		0.050 - 2.000	Kit:24052(
AC41513	CYLINDROSPERMOPSIN	0.963 Abs	0.069 µg/L	72.081 %Abs		0.050 - 2.000	Kit:24052(
AC41513	CYLINDROSPERMOPSIN	0.982 Abs [0.9725] {1.4 C	0.064 µg/L [0.067]	73.503 %Abs [72.7		0.050 - 2.000	Kit:24052(

Note

Signature

Charles Hostetter 8/22/2024

* 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) 8/22/2024 2:37:04 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
8/22/2024 2:33:46 PM				
CYL Std 0	1.369 Abs	0.000 µg/L	R ² =0.99673, 102.470 %Abs	RK1:23->A01@2
CYL Std 0	1.303 Abs [1.3360] {3.5 CV}	0.003 µg/L [0.002] {141.4 CV}	R ² =0.99673, 97.530 %Abs	RK1:23->B01@2
CYL Std 1	1.036 Abs	0.049 µg/L	R ² =0.99673, 77.545 %Abs	RK1:24->C01@2
CYL Std 1	1.025 Abs [1.0305] {0.8 CV}	0.052 µg/L [0.051] {4.2 CV}	R ² =0.99673, 76.722 %Abs	RK1:24->D01@2
CYL Std 2	0.897 Abs	0.092 µg/L	R ² =0.99673, 67.141 %Abs	RK1:25->E01@2
CYL Std 2	0.891 Abs [0.8940] {0.5 CV}	0.094 µg/L [0.093] {1.5 CV}	R ² =0.99673, 66.692 %Abs	RK1:25->F01@3
CYL Std 3	0.600 Abs	0.286 µg/L	R ² =0.99673, 44.910 %Abs	RK1:26->G01@3
CYL Std 3	0.586 Abs [0.5930] {1.7 CV}	0.302 µg/L [0.294] {3.8 CV}	R ² =0.99673, 43.862 %Abs	RK1:26->H01@3
CYL Std 4	0.489 Abs	0.450 µg/L	R ² =0.99673, 36.602 %Abs	RK1:27->A02@2
CYL Std 4	0.500 Abs [0.4945] {1.6 CV}	0.429 µg/L [0.440] {3.4 CV}	R ² =0.99673, 37.425 %Abs	RK1:27->B02@2
CYL Std 5	0.363 Abs	0.831 µg/L	R ² =0.99673, 27.171 %Abs	RK1:28->C02@2
CYL Std 5	0.313 Abs [0.3380] {10.5 CV}	1.126 µg/L [0.979] {21.3 CV}	R ² =0.99673, 23.428 %Abs	RK1:28->D02@2
CYL Std 6	0.219 Abs	> 2.000 µg/L	16.392 %Abs	RK1:29->E02@2
CYL Std 6	0.239 Abs [0.2290] {6.2 CV}	> 2.000 µg/L	17.889 %Abs	RK1:29->F02@3

8/22/2024 2:33:46 PM				
CYL QCS	0.376 Abs	0.774 µg/L	28.144 %Abs	RK1:30->G02@3
CYL QCS	0.400 Abs [0.3880] {4.4 CV}	0.682 µg/L [0.728] {8.9 CV}	29.940 %Abs [29.042 %Abs]	RK1:30->H02@3

Statistic				
CYL Std 0 [MEAN]	1.3360	0.0015		
CYL Std 0 [SD]	0.0467	0.0021		
CYL Std 0 [%CV]	3.4932	141.4214		
CYL Std 1 [MEAN]	1.0305	0.0505		
CYL Std 1 [SD]	0.0078	0.0021		
CYL Std 1 [%CV]	0.7548	4.2006		
CYL Std 1 [%DIFF]		1.0000		
CYL Std 2 [MEAN]	0.8940	0.0930		
CYL Std 2 [SD]	0.0042	0.0014		
CYL Std 2 [%CV]	0.4746	1.5207		
CYL Std 2 [%DIFF]		-7.0000		
CYL Std 3 [MEAN]	0.5930	0.2940		
CYL Std 3 [SD]	0.0099	0.0113		
CYL Std 3 [%CV]	1.6694	3.8482		
CYL Std 3 [%DIFF]		17.6000		
CYL Std 4 [MEAN]	0.4945	0.4395		
CYL Std 4 [SD]	0.0078	0.0148		
CYL Std 4 [%CV]	1.5729	3.3787		
CYL Std 4 [%DIFF]		-12.1000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.3380	0.9785		
CYL Std 5 [SD]	0.0354	0.2086		
CYL Std 5 [%CV]	10.4602	21.3180		
CYL Std 5 [%DIFF]		-2.1500		
CYL Std 6 [MEAN]	0.2290			
CYL Std 6 [SD]	0.0141			
CYL Std 6 [%CV]	6.1756			
CYL QCS [MEAN]	0.3880	0.7280		
CYL QCS [SD]	0.0170	0.0651		
CYL QCS [%CV]	4.3739	8.9360		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3373
 B = 0.86515
 C = 0.18164
 D = 0.10164
 R2 coef = 0.99673
 50% = 0.220

