



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43631	Summit Lake - State Park	8/3/2020	8/5/2020	< 0.15
AB43632	Kunkel Beach @ Ouabache SP	8/3/2020	8/5/2020	< 0.15
AB43633	Pokagon State Park	8/3/2020	8/5/2020	< 0.15
AB43634	Potawatomi Inn's Beach	8/3/2020	8/5/2020	< 0.15
AB43635	Chain O'Lakes SP	8/3/2020	8/5/2020	< 0.15
AB43636	Potato Creek State Park	8/3/2020	8/5/2020	< 0.15
AB43637	Lost Bridge West SRA	8/3/2020	8/5/2020	< 0.15
AB43638	Mississinewa Lake Miami SRA	8/3/2020	8/5/2020	< 0.15
AB43639	Chain O'Lakes SP (Field Duplicate)	8/3/2020	8/5/2020	< 0.15
AB43640	Field Blank	8/3/2020	8/5/2020	< 0.15
AB43641	Ft. Harrison SP Dog Lake	8/5/2020	8/5/2020	0.52

Test Report (by Request)

Test Information

 Request: 8/5/2020 2:05:10 PM
 Date: 8/5/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
CYL Std 0	CYLINDROSPERMOPSIN	1.089 Abs	0.000 µg/L	R^2=0.99440, 101.58		19L2079
CYL Std 0	CYLINDROSPERMOPSIN	1.056 Abs [1.0725] {2.2 CV}	0.002 µg/L [0.001] {1}	R^2=0.99440, 98.507		19L2079
CYL Std 1	CYLINDROSPERMOPSIN	0.969 Abs	0.027 µg/L	R^2=0.99440, 90.392		19L2079
CYL Std 1	CYLINDROSPERMOPSIN	0.920 Abs [0.9445] {3.7 CV}	0.049 µg/L [0.038] {4}	R^2=0.99440, 85.821		19L2079
CYL Std 2	CYLINDROSPERMOPSIN	0.808 Abs	0.121 µg/L	R^2=0.99440, 75.373		19L2079
CYL Std 2	CYLINDROSPERMOPSIN	0.829 Abs [0.8185] {1.8 CV}	0.105 µg/L [0.113] {1}	R^2=0.99440, 77.332		19L2079
CYL Std 3	CYLINDROSPERMOPSIN	0.658 Abs	0.291 µg/L	R^2=0.99440, 61.381		19L2079
CYL Std 3	CYLINDROSPERMOPSIN	0.659 Abs [0.6585] {0.1 CV}	0.289 µg/L [0.290] {0}	R^2=0.99440, 61.474		19L2079
CYL Std 4	CYLINDROSPERMOPSIN	0.587 Abs	0.417 µg/L	R^2=0.99440, 54.757		19L2079
CYL Std 4	CYLINDROSPERMOPSIN	0.572 Abs [0.5795] {1.8 CV}	0.448 µg/L [0.433] {5}	R^2=0.99440, 53.358		19L2079
CYL Std 5	CYLINDROSPERMOPSIN	0.412 Abs	0.975 µg/L	R^2=0.99440, 38.433		19L2079
CYL Std 5	CYLINDROSPERMOPSIN	0.396 Abs [0.4040] {2.8 CV}	1.055 µg/L [1.015] {5}	R^2=0.99440, 36.940		19L2079
CYL Std 6	CYLINDROSPERMOPSIN	0.267 Abs	> 2.000 µg/L	24.907 %Abs		19L2079
CYL Std 6	CYLINDROSPERMOPSIN	0.276 Abs [0.2715] {2.3 CV}	1.988 µg/L [1.988]	R^2=0.99440, 25.746		19L2079
CYL QCS	CYLINDROSPERMOPSIN	0.469 Abs	0.738 µg/L	43.750 %Abs		19L2079
CYL QCS	CYLINDROSPERMOPSIN	0.477 Abs [0.4730] {1.2 CV}	0.710 µg/L [0.724] {2}	44.496 %Abs [44.12]		19L2079

Note

Signature

Charles Hostetter 8/7/2020

Test Report (by Request)

Test Information

Request: 8/5/2020 2:07:24 PM
Date: 8/5/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	CYLINDROSPERMOPSIN	1.063 Abs	0.001 µg/L	LOW, 99.160 %ABS	0.050 - 2.000	19L2079
LRB	CYLINDROSPERMOPSIN	1.012 Abs [1.0375] {3.5 CV}	0.013 µg/L [0.007] {1.4}	LOW, 94.403 %ABS	0.050 - 2.000	19L2079
LFB	CYLINDROSPERMOPSIN	0.506 Abs	0.617 µg/L	47.201 %Abs	0.050 - 2.000	19L2079
LFB	CYLINDROSPERMOPSIN	0.492 Abs [0.4990] {2.0 CV}	0.660 µg/L [0.638] {4.4}	45.896 %Abs [46.545]	0.050 - 2.000	19L2079
AB43631	CYLINDROSPERMOPSIN	0.918 Abs	0.050 µg/L	85.634 %Abs	0.050 - 2.000	19L2079
AB43631	CYLINDROSPERMOPSIN	0.905 Abs [0.9115] {1.0 CV}	0.056 µg/L [0.053] {8.8}	84.422 %Abs [85.028]	0.050 - 2.000	19L2079
AB43632	CYLINDROSPERMOPSIN	0.939 Abs	0.040 µg/L	LOW, 87.593 %ABS	0.050 - 2.000	19L2079
AB43632	CYLINDROSPERMOPSIN	0.953 Abs [0.9460] {1.0 CV}	0.034 µg/L [0.037] {1.5}	LOW, 88.899 %ABS	0.050 - 2.000	19L2079
AB43633	CYLINDROSPERMOPSIN	1.011 Abs	0.013 µg/L	LOW, 94.310 %ABS	0.050 - 2.000	19L2079
AB43633	CYLINDROSPERMOPSIN	1.007 Abs [1.0090] {0.3 CV}	0.014 µg/L [0.014] {5.5}	LOW, 93.937 %ABS	0.050 - 2.000	19L2079
AB43634	CYLINDROSPERMOPSIN	0.970 Abs	0.027 µg/L	LOW, 90.485 %ABS	0.050 - 2.000	19L2079
AB43634	CYLINDROSPERMOPSIN	0.947 Abs [0.9585] {1.7 CV}	0.036 µg/L [0.032] {2.2}	LOW, 88.340 %ABS	0.050 - 2.000	19L2079
AB43635	CYLINDROSPERMOPSIN	0.932 Abs	0.043 µg/L	LOW, 86.940 %ABS	0.050 - 2.000	19L2079
AB43635	CYLINDROSPERMOPSIN	0.926 Abs [0.9290] {0.5 CV}	0.046 µg/L [0.045] {4.4}	LOW, 86.381 %ABS	0.050 - 2.000	19L2079
AB43635MS	CYLINDROSPERMOPSIN	0.482 Abs	0.693 µg/L	44.963 %Abs	0.050 - 2.000	19L2079
AB43635MS	CYLINDROSPERMOPSIN	0.477 Abs [0.4795] {0.7 CV}	0.710 µg/L [0.701] {1.1}	44.496 %Abs [44.725]	0.050 - 2.000	19L2079
AB43635MSD	CYLINDROSPERMOPSIN	0.518 Abs	0.583 µg/L	48.321 %Abs	0.050 - 2.000	19L2079
AB43635MSD	CYLINDROSPERMOPSIN	0.502 Abs [0.5100] {2.2 CV}	0.629 µg/L [0.606] {5.5}	46.828 %Abs [47.575]	0.050 - 2.000	19L2079
AB43636	CYLINDROSPERMOPSIN	0.941 Abs	0.039 µg/L	LOW, 87.780 %ABS	0.050 - 2.000	19L2079
AB43636	CYLINDROSPERMOPSIN	0.938 Abs [0.9395] {0.2 CV}	0.040 µg/L [0.039] {1.1}	LOW, 87.500 %ABS	0.050 - 2.000	19L2079
AB43637	CYLINDROSPERMOPSIN	0.923 Abs	0.047 µg/L	LOW, 86.101 %ABS	0.050 - 2.000	19L2079
AB43637	CYLINDROSPERMOPSIN	0.913 Abs [0.9180] {0.8 CV}	0.052 µg/L [0.049] {7.7}	85.168 %ABS [LOW]	0.050 - 2.000	19L2079
AB43638	CYLINDROSPERMOPSIN	0.937 Abs	0.041 µg/L	LOW, 87.407 %ABS	0.050 - 2.000	19L2079
AB43638	CYLINDROSPERMOPSIN	0.938 Abs [0.9375] {0.1 CV}	0.040 µg/L [0.041] {1.1}	LOW, 87.500 %ABS	0.050 - 2.000	19L2079
AB43639	CYLINDROSPERMOPSIN	1.001 Abs	0.016 µg/L	LOW, 93.377 %ABS	0.050 - 2.000	19L2079
AB43639	CYLINDROSPERMOPSIN	0.966 Abs [0.9835] {2.5 CV}	0.028 µg/L [0.022] {3.3}	LOW, 90.112 %ABS	0.050 - 2.000	19L2079
AB43640	CYLINDROSPERMOPSIN	0.940 Abs	0.039 µg/L	LOW, 87.687 %ABS	0.050 - 2.000	19L2079
AB43640	CYLINDROSPERMOPSIN	0.927 Abs [0.9335] {1.0 CV}	0.045 µg/L [0.042] {1.1}	LOW, 86.474 %ABS	0.050 - 2.000	19L2079
AB43641	CYLINDROSPERMOPSIN	0.541 Abs	0.521 µg/L	50.466 %Abs	0.050 - 2.000	19L2079
AB43641	CYLINDROSPERMOPSIN	0.539 Abs [0.5400] {0.3 CV}	0.526 µg/L [0.524] {0.0}	50.280 %Abs [50.375]	0.050 - 2.000	19L2079
LFB 2	CYLINDROSPERMOPSIN	0.464 Abs	0.756 µg/L	43.284 %Abs	0.050 - 2.000	19L2079
LFB 2	CYLINDROSPERMOPSIN	0.463 Abs [0.4635] {0.2 CV}	0.760 µg/L [0.758] {0.0}	43.190 %Abs [43.235]	0.050 - 2.000	19L2079
LRB 2	CYLINDROSPERMOPSIN	0.915 Abs	0.051 µg/L	85.354 %Abs	0.050 - 2.000	19L2079
LRB 2	CYLINDROSPERMOPSIN	0.914 Abs [0.9145] {0.1 CV}	0.052 µg/L [0.052] {1.1}	85.261 %Abs [85.308]	0.050 - 2.000	19L2079

Note

Signature 

Charles Hostetter 8/7/2020

* 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 (6.4.1.1073/1085/1.00/0.95) 8/5/2020 8:12:59 PM

Assay Information

Assay Name: CYLINDROSPERMOP SIN
 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: 8/15/2019 12:26:24 PM
 Normal: 0.050 - 2.000
 # of decimals: 3
 Kit Lot Number: 19L2079

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
8/5/2020 2:05:10 PM				
CYL Std 0	1.089 Abs		R ² =0.99440, 101.586 %Abs	RK1:23->A01@2
CYL Std 0	1.056 Abs [1.0725] {2.2 CV}		R ² =0.99440, 98.507 %Abs	RK1:23->B01@2
CYL Std 1	0.969 Abs		R ² =0.99440, 90.392 %Abs	RK1:24->C01@2
CYL Std 1	0.920 Abs [0.9445] {3.7 CV}		R ² =0.99440, 85.821 %Abs	RK1:24->D01@2
CYL Std 2	0.808 Abs		R ² =0.99440, 75.373 %Abs	RK1:25->E01@2
CYL Std 2	0.829 Abs [0.8185] {1.8 CV}		R ² =0.99440, 77.332 %Abs	RK1:25->F01@3
CYL Std 3	0.658 Abs		R ² =0.99440, 61.381 %Abs	RK1:26->G01@3
CYL Std 3	0.659 Abs [0.6585] {0.1 CV}		R ² =0.99440, 61.474 %Abs	RK1:26->H01@3
CYL Std 4	0.587 Abs		R ² =0.99440, 54.757 %Abs	RK1:27->A02@2
CYL Std 4	0.572 Abs [0.5795] {1.8 CV}		R ² =0.99440, 53.358 %Abs	RK1:27->B02@2
CYL Std 5	0.412 Abs		R ² =0.99440, 38.433 %Abs	RK1:28->C02@2
CYL Std 5	0.396 Abs [0.4040] {2.8 CV}		R ² =0.99440, 36.940 %Abs	RK1:28->D02@2
CYL Std 6	0.267 Abs		24.907 %Abs	RK1:29->E02@2
CYL Std 6	0.276 Abs [0.2715] {2.3 CV}		R ² =0.99440, 25.746 %Abs	RK1:29->F02@3
+++++				
8/5/2020 2:05:10 PM				
CYL QCS	0.469 Abs		43.750 %Abs	RK1:30->G02@3
CYL QCS	0.477 Abs [0.4730] {1.2 CV}		44.496 %Abs [44.123 %Abs]	RK1:30->H02@3

Statistic				
CYL Std 0 [MEAN]	1.0725			
CYL Std 0 [SD]	0.0233			
CYL Std 0 [%CV]	2.1757			
CYL Std 1 [MEAN]	0.9445			
CYL Std 1 [SD]	0.0346			
CYL Std 1 [%CV]	3.6684			
CYL Std 1 [%DIFF]				
CYL Std 2 [MEAN]	0.8185			
CYL Std 2 [SD]	0.0148			
CYL Std 2 [%CV]	1.8142			
CYL Std 2 [%DIFF]				
CYL Std 3 [MEAN]	0.6585			
CYL Std 3 [SD]	0.0007			
CYL Std 3 [%CV]	0.1074			
CYL Std 3 [%DIFF]				
CYL Std 4 [MEAN]	0.5795			
CYL Std 4 [SD]	0.0106			
CYL Std 4 [%CV]	1.8303			
CYL Std 4 [%DIFF]				

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.4040			
CYL Std 5 [SD]	0.0113			
CYL Std 5 [%CV]	2.8004			
CYL Std 5 [%DIFF]				
CYL Std 6 [MEAN]	0.2715			
CYL Std 6 [SD]	0.0064			
CYL Std 6 [%CV]	2.3440			
CYL QCS [MEAN]	0.4730			
CYL QCS [SD]	0.0057			
CYL QCS [%CV]	1.1960			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.0768
 B = 0.72064
 C = 0.63253
 D = -0.074864
 R2 coef = 0.99440
 50% = 0.534

