



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC37262	Cecil M. Harden Lake - Raccoon Lake SRA Beach	8/21/2023	8/23/2023	< 0.15
AC37263	Cagles Mill Lake - Lieber SRA Beach	8/21/2023	8/23/2023	< 0.15
AC37269	Monroe Lake - Fairfax SRA Beach	8/21/2023	8/23/2023	< 0.15
AC37268	Monroe Lake - Paynetown SRA Beach	8/21/2023	8/23/2023	< 0.15
AC37267	Starve Hollow SRA - Starve Hollow Lake Beach	8/21/2023	8/23/2023	< 0.15
AC37266	Whitewater Memorial SP - Whitewater Lake Beach	8/22/2023	8/23/2023	< 0.15
AC37264	Brookville Lake - Quakertown SRA Beach	8/22/2023	8/23/2023	< 0.15
AC37265	Brookville Lake - Mounds SRA Beach	8/22/2023	8/23/2023	< 0.15
AC37270	Hardy Lake SRA - Hardy Lake SRA Beach	8/22/2023	8/23/2023	< 0.15
AC37260	Monroe Lake - Paynetown SRA Beach (Field Duplicate)	8/21/2023	8/23/2023	< 0.15
AC37261	Field Blank	8/21/2023	8/23/2023	< 0.15
AC37271	Ft. Ben Harrison SP Dog Lake	8/21/2023	8/23/2023	< 0.15

Test Report (by Request)

Test Information

Request: 8/23/2023 7:47:04 PM
Date: 8/23/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	1.093 Abs	0.000 µg/L	R ² =0.99801, 100.3		0.000	Kit:P23C0
CYL Std 0	CYLINDROSPERMOPSIN	1.085 Abs [1.0890] {0.5 C	0.002 µg/L [0.001]	R ² =0.99801, 99.63		0.000	Kit:P23C0
CYL Std 1	CYLINDROSPERMOPSIN	0.894 Abs	0.043 µg/L	R ² =0.99801, 82.05		0.050	Kit:P23C0
CYL Std 1	CYLINDROSPERMOPSIN	0.874 Abs [0.8840] {1.6 C	0.048 µg/L [0.046]	R ² =0.99801, 80.25		0.050	Kit:P23C0
CYL Std 2	CYLINDROSPERMOPSIN	0.713 Abs	0.100 µg/L	R ² =0.99801, 65.47		0.100	Kit:P23C0
CYL Std 2	CYLINDROSPERMOPSIN	0.688 Abs [0.7005] {2.5 C	0.110 µg/L [0.105]	R ² =0.99801, 63.17		0.100	Kit:P23C0
CYL Std 3	CYLINDROSPERMOPSIN	0.457 Abs	0.263 µg/L	R ² =0.99801, 41.96		0.250	Kit:P23C0
CYL Std 3	CYLINDROSPERMOPSIN	0.447 Abs [0.4520] {1.6 C	0.274 µg/L [0.269]	R ² =0.99801, 41.04		0.250	Kit:P23C0
CYL Std 4	CYLINDROSPERMOPSIN	0.345 Abs	0.423 µg/L	R ² =0.99801, 31.68		0.500	Kit:P23C0
CYL Std 4	CYLINDROSPERMOPSIN	0.321 Abs [0.3330] {5.1 C	0.474 µg/L [0.449]	R ² =0.99801, 29.47		0.500	Kit:P23C0
CYL Std 5	CYLINDROSPERMOPSIN	0.211 Abs	0.910 µg/L	R ² =0.99801, 19.37		1.000	Kit:P23C0
CYL Std 5	CYLINDROSPERMOPSIN	0.200 Abs [0.2055] {3.8 C	0.991 µg/L [0.951]	R ² =0.99801, 18.36		1.000	Kit:P23C0
CYL Std 6	CYLINDROSPERMOPSIN	0.124 Abs	> 2.000 µg/L	11.387 %Abs		2.000	Kit:P23C0
CYL Std 6	CYLINDROSPERMOPSIN	0.116 Abs [0.1200] {4.7 C	> 2.000 µg/L	10.652 %Abs		2.000	Kit:P23C0
CYL QCS	CYLINDROSPERMOPSIN	0.246 Abs	0.717 µg/L	22.590 %Abs			Kit:P23C0
CYL QCS	CYLINDROSPERMOPSIN	0.224 Abs [0.2350] {6.6 C	0.829 µg/L [0.773]	20.569 %Abs [21.5			Kit:P23C0

Note

Signature *David Jordan*

David Jordan 8/23/2023

* 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) 8/24/2023 9:08:56 AM

Test Report (by Request)

Test Information

 Request: 8/23/2023 7:48:32 PM
 Date: 8/23/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (CYL)	CYLINDROSPERMOPSIN	1.108 Abs	0.000 µg/L	Low, 101.745 %Abs		0.050 - 2.000	Kit:P23C0
LRB (CYL)	CYLINDROSPERMOPSIN	1.081 Abs [1.0945] {1.7 C	0.003 µg/L [0.002]	Low, 99.265 %Abs		0.050 - 2.000	Kit:P23C0
LFB (CYL)	CYLINDROSPERMOPSIN	0.294 Abs	0.544 µg/L	26.997 %Abs		0.050 - 2.000	Kit:P23C0
LFB (CYL)	CYLINDROSPERMOPSIN	0.279 Abs [0.2865] {3.7 C	0.590 µg/L [0.567]	25.620 %Abs [26.3		0.050 - 2.000	Kit:P23C0
AC37262	CYLINDROSPERMOPSIN	1.013 Abs	0.016 µg/L	Low, 93.021 %Abs		0.050 - 2.000	Kit:P23C0
AC37262	CYLINDROSPERMOPSIN	1.014 Abs [1.0135] {0.1 C	0.016 µg/L [0.016]	Low, 93.113 %Abs		0.050 - 2.000	Kit:P23C0
AC37263	CYLINDROSPERMOPSIN	1.035 Abs	0.011 µg/L	Low, 95.041 %Abs		0.050 - 2.000	Kit:P23C0
AC37263	CYLINDROSPERMOPSIN	1.054 Abs [1.0445] {1.3 C	0.008 µg/L [0.010]	Low, 96.786 %Abs		0.050 - 2.000	Kit:P23C0
AC37269	CYLINDROSPERMOPSIN	1.118 Abs	0.000 µg/L	Low, 102.663 %Abs		0.050 - 2.000	Kit:P23C0
AC37269	CYLINDROSPERMOPSIN	1.079 Abs [1.0985] {2.5 C	0.003 µg/L [0.002]	Low, 99.082 %Abs		0.050 - 2.000	Kit:P23C0
AC37268	CYLINDROSPERMOPSIN	1.058 Abs	0.007 µg/L	Low, 97.153 %Abs		0.050 - 2.000	Kit:P23C0
AC37268	CYLINDROSPERMOPSIN	1.056 Abs [1.0570] {0.1 C	0.007 µg/L [0.007]	Low, 96.970 %Abs		0.050 - 2.000	Kit:P23C0
AC37267	CYLINDROSPERMOPSIN	1.055 Abs	0.008 µg/L	Low, 96.878 %Abs		0.050 - 2.000	Kit:P23C0
AC37267	CYLINDROSPERMOPSIN	1.075 Abs [1.0650] {1.3 C	0.004 µg/L [0.006]	Low, 98.714 %Abs		0.050 - 2.000	Kit:P23C0
AC37266	CYLINDROSPERMOPSIN	1.085 Abs	0.002 µg/L	Low, 99.633 %Abs		0.050 - 2.000	Kit:P23C0
AC37266	CYLINDROSPERMOPSIN	1.079 Abs [1.0820] {0.4 C	0.003 µg/L [0.003]	Low, 99.082 %Abs		0.050 - 2.000	Kit:P23C0
AC37266MS	CYLINDROSPERMOPSIN	0.329 Abs	0.456 µg/L	30.211 %Abs		0.050 - 2.000	Kit:P23C0
AC37266MS	CYLINDROSPERMOPSIN	0.318 Abs [0.3235] {2.4 C	0.481 µg/L [0.469]	29.201 %Abs [29.7		0.050 - 2.000	Kit:P23C0
AC37266MSD	CYLINDROSPERMOPSIN	0.315 Abs	0.488 µg/L	28.926 %Abs		0.050 - 2.000	Kit:P23C0
AC37266MSD	CYLINDROSPERMOPSIN	0.308 Abs [0.3115] {1.6 C	0.506 µg/L [0.497]	28.283 %Abs [28.6		0.050 - 2.000	Kit:P23C0
AC37264	CYLINDROSPERMOPSIN	1.062 Abs	0.006 µg/L	Low, 97.521 %Abs		0.050 - 2.000	Kit:P23C0
AC37264	CYLINDROSPERMOPSIN	1.070 Abs [1.0660] {0.5 C	0.005 µg/L [0.006]	Low, 98.255 %Abs		0.050 - 2.000	Kit:P23C0
AC37265	CYLINDROSPERMOPSIN	1.100 Abs	0.000 µg/L	Low, 101.010 %Abs		0.050 - 2.000	Kit:P23C0
AC37265	CYLINDROSPERMOPSIN	1.123 Abs [1.1115] {1.5 C	0.000 µg/L [0.000]	Low, 103.122 %Abs		0.050 - 2.000	Kit:P23C0
AC37270	CYLINDROSPERMOPSIN	1.128 Abs	0.000 µg/L	Low, 103.581 %Abs		0.050 - 2.000	Kit:P23C0
AC37270	CYLINDROSPERMOPSIN	1.091 Abs [1.1095] {2.4 C	0.001 µg/L [0.001]	Low, 100.184 %Abs		0.050 - 2.000	Kit:P23C0
AC37260	CYLINDROSPERMOPSIN	1.082 Abs	0.002 µg/L	Low, 99.357 %Abs		0.050 - 2.000	Kit:P23C0
AC37260	CYLINDROSPERMOPSIN	1.109 Abs [1.0955] {1.7 C	0.000 µg/L [0.001]	Low, 101.837 %Abs		0.050 - 2.000	Kit:P23C0
AC37261	CYLINDROSPERMOPSIN	1.127 Abs	0.000 µg/L	Low, 103.489 %Abs		0.050 - 2.000	Kit:P23C0
AC37261	CYLINDROSPERMOPSIN	1.142 Abs [1.1345] {0.9 C	0.000 µg/L [0.000]	Low, 104.867 %Abs		0.050 - 2.000	Kit:P23C0
AC37271	CYLINDROSPERMOPSIN	0.964 Abs	0.026 µg/L	Low, 88.522 %Abs		0.050 - 2.000	Kit:P23C0
AC37271	CYLINDROSPERMOPSIN	0.955 Abs [0.9595] {0.7 C	0.028 µg/L [0.027]	Low, 87.695 %Abs		0.050 - 2.000	Kit:P23C0

Note

 Signature *David Jordan*

David Jordan 8/23/2023

Assay Information

Assay Name: CYLINDROSPERMOPSPIN_
 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:P23C0657

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: "

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Name	Absorbance	Concentration	Interpretation	Position
8/23/2023 7:47:04 PM				
CYL Std 0	1.093 Abs	0.000 µg/L	R ² =0.99801, 100.367 %Abs	RK1:23->A01@2
CYL Std 0	1.085 Abs [1.0890] {0.5 CV}	0.002 µg/L [0.001] {141.4 CV}	R ² =0.99801, 99.633 %Abs	RK1:23->B01@2
CYL Std 1	0.894 Abs	0.043 µg/L	R ² =0.99801, 82.094 %Abs	RK1:24->C01@2
CYL Std 1	0.874 Abs [0.8840] {1.6 CV}	0.048 µg/L [0.046] {7.8 CV}	R ² =0.99801, 80.257 %Abs	RK1:24->D01@2
CYL Std 2	0.713 Abs	0.100 µg/L	R ² =0.99801, 65.473 %Abs	RK1:25->E01@2
CYL Std 2	0.688 Abs [0.7005] {2.5 CV}	0.110 µg/L [0.105] {6.7 CV}	R ² =0.99801, 63.177 %Abs	RK1:25->F01@3
CYL Std 3	0.457 Abs	0.263 µg/L	R ² =0.99801, 41.965 %Abs	RK1:26->G01@3
CYL Std 3	0.447 Abs [0.4520] {1.6 CV}	0.274 µg/L [0.269] {2.9 CV}	R ² =0.99801, 41.047 %Abs	RK1:26->H01@3
CYL Std 4	0.345 Abs	0.423 µg/L	R ² =0.99801, 31.680 %Abs	RK1:27->A02@2
CYL Std 4	0.321 Abs [0.3330] {5.1 CV}	0.474 µg/L [0.449] {8.0 CV}	R ² =0.99801, 29.477 %Abs	RK1:27->B02@2
CYL Std 5	0.211 Abs	0.910 µg/L	R ² =0.99801, 19.376 %Abs	RK1:28->C02@2
CYL Std 5	0.200 Abs [0.2055] {3.8 CV}	0.991 µg/L [0.951] {6.0 CV}	R ² =0.99801, 18.365 %Abs	RK1:28->D02@2
CYL Std 6	0.124 Abs	> 2.000 µg/L	11.387 %Abs	RK1:29->E02@2
CYL Std 6	0.116 Abs [0.1200] {4.7 CV}	> 2.000 µg/L	10.652 %Abs	RK1:29->F02@3
+++++				
8/23/2023 7:47:04 PM				
CYL QCS	0.246 Abs	0.717 µg/L	22.590 %Abs	RK1:30->G02@3
CYL QCS	0.224 Abs [0.2350] {6.6 CV}	0.829 µg/L [0.773] {10.2 CV}	20.569 %Abs [21.579 %Abs]	RK1:30->H02@3

Statistic				
CYL Std 0 [MEAN]	1.0890	0.0010		
CYL Std 0 [SD]	0.0057	0.0014		
CYL Std 0 [%CV]	0.5195	141.4214		
CYL Std 1 [MEAN]	0.8840	0.0455		
CYL Std 1 [SD]	0.0141	0.0035		
CYL Std 1 [%CV]	1.5998	7.7704		
CYL Std 1 [%DIFF]		-9.0000		
CYL Std 2 [MEAN]	0.7005	0.1050		
CYL Std 2 [SD]	0.0177	0.0071		
CYL Std 2 [%CV]	2.5236	6.7343		
CYL Std 2 [%DIFF]		5.0000		
CYL Std 3 [MEAN]	0.4520	0.2685		
CYL Std 3 [SD]	0.0071	0.0078		
CYL Std 3 [%CV]	1.5644	2.8969		
CYL Std 3 [%DIFF]		7.4000		
CYL Std 4 [MEAN]	0.3330	0.4485		
CYL Std 4 [SD]	0.0170	0.0361		
CYL Std 4 [%CV]	5.0963	8.0407		
CYL Std 4 [%DIFF]		-10.3000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.2055	0.9505		
CYL Std 5 [SD]	0.0078	0.0573		
CYL Std 5 [%CV]	3.7850	6.0258		
CYL Std 5 [%DIFF]		-4.9500		
CYL Std 6 [MEAN]	0.1200			
CYL Std 6 [SD]	0.0057			
CYL Std 6 [%CV]	4.7140			
CYL QCS [MEAN]	0.2350	0.7730		
CYL QCS [SD]	0.0156	0.0792		
CYL QCS [%CV]	6.6197	10.2453		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.0935
 B = 1.0467
 C = 0.16737
 D = 0.061086
 R2 coef = 0.99801
 50% = 0.189

