



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC02954	Cecil M. Harden Lake - Raccoon Lake SRA Beach	5/30/2023	5/31/2023	< 0.30
AC02955	Whitewater Memorial SP - Whitewater Lake Beach	5/30/2023	5/31/2023	< 0.30
AC02956	Brookville Lake - Quakertown SRA Beach	5/30/2023	5/31/2023	< 0.30
AC02957	Brookville Lake - Mounds SRA Beach	5/30/2023	5/31/2023	< 0.30
AC02958	Whitewater Memorial SP - Whitewater Lake Beach (Field Dup)	5/30/2023	5/31/2023	< 0.30
AC02959	Field Blank	5/30/2023	5/31/2023	< 0.30

Test Report (by Request)

Test Information

Request: 5/31/2023 3:30:01 PM
Date: 5/31/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.107 Abs	0.008 µg/L	R^2=0.99849, 100.1			P23C0589
MCT Std 0	MICROCYSTINS ADDA 54	1.104 Abs [1.1055] {0.2 C	0.014 µg/L [0.011]	R^2=0.99849, 100.0			P23C0589
MCT Std 1	MICROCYSTINS ADDA 54	0.992 Abs	0.127 µg/L	R^2=0.99849, 89.77			P23C0589
MCT Std 1	MICROCYSTINS ADDA 54	0.966 Abs [0.9790] {1.9 C	0.151 µg/L [0.139]	R^2=0.99849, 87.42			P23C0589
MCT Std 2	MICROCYSTINS ADDA 54	0.737 Abs	0.390 µg/L	R^2=0.99849, 66.69			P23C0589
MCT Std 2	MICROCYSTINS ADDA 54	0.704 Abs [0.7205] {3.2 C	0.435 µg/L [0.412]	R^2=0.99849, 63.71			P23C0589
MCT Std 3	MICROCYSTINS ADDA 54	0.460 Abs	0.983 µg/L	R^2=0.99849, 41.62			P23C0589
MCT Std 3	MICROCYSTINS ADDA 54	0.437 Abs [0.4485] {3.6 C	1.077 µg/L [1.030]	R^2=0.99849, 39.54			P23C0589
MCT Std 4	MICROCYSTINS ADDA 54	0.340 Abs	1.717 µg/L	R^2=0.99849, 30.76			P23C0589
MCT Std 4	MICROCYSTINS ADDA 54	0.335 Abs [0.3375] {1.0 C	1.769 µg/L [1.743]	R^2=0.99849, 30.31			P23C0589
MCT Std 5	MICROCYSTINS ADDA 54	0.221 Abs	> 5.000 µg/L	20.000 %Abs			P23C0589
MCT Std 5	MICROCYSTINS ADDA 54	0.215 Abs [0.2180] {1.9 C	> 5.000 µg/L	19.457 %Abs			P23C0589
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.095 Abs	0.026 µg/L	99.095 %Abs			P23C0589
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.054 Abs [1.0745] {2.7 C	0.070 µg/L [0.048]	95.385 %Abs [97.2			P23C0589
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.770 Abs	0.349 µg/L	69.683 %Abs			P23C0589
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.745 Abs [0.7575] {2.3 C	0.380 µg/L [0.364]	67.421 %Abs [68.5			P23C0589
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.625 Abs	0.559 µg/L	56.561 %Abs			P23C0589
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.607 Abs [0.6160] {2.1 C	0.592 µg/L [0.576]	54.932 %Abs [55.7			P23C0589

Note

Signature *David Jordan*

David Jordan 5/31/2023

* 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 (6.4.1.1139/1085/1.00/0.95) 5/31/2023 3:56:06 PM

Test Report (by Request)

Test Information

 Request: 5/31/2023 3:30:35 PM
 Date: 5/31/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC02954	MICROCYSTINS ADDA 54	0.922 Abs	0.191 µg/L	Low, 83.439 %Abs		0.300 - 5.000	P23C058€
AC02954	MICROCYSTINS ADDA 54	0.892 Abs [0.9070] {2.3 C	0.220 µg/L [0.206]	Low, 80.724 %Abs		0.300 - 5.000	P23C058€
AC02954MS	MICROCYSTINS ADDA 54	0.483 Abs	0.902 µg/L	43.710 %Abs		0.300 - 5.000	P23C058€
AC02954MS	MICROCYSTINS ADDA 54	0.457 Abs [0.4700] {3.9 C	0.995 µg/L [0.949]	41.357 %Abs [42.5		0.300 - 5.000	P23C058€
AC02954MSD	MICROCYSTINS ADDA 54	0.463 Abs	0.972 µg/L	41.900 %Abs		0.300 - 5.000	P23C058€
AC02954MSD	MICROCYSTINS ADDA 54	0.469 Abs [0.4660] {0.9 C	0.950 µg/L [0.961]	42.443 %Abs [42.1		0.300 - 5.000	P23C058€
AC02955	MICROCYSTINS ADDA 54	0.961 Abs	0.155 µg/L	Low, 86.968 %Abs		0.300 - 5.000	P23C058€
AC02955	MICROCYSTINS ADDA 54	0.957 Abs [0.9590] {0.3 C	0.159 µg/L [0.157]	Low, 86.606 %Abs		0.300 - 5.000	P23C058€
AC02956	MICROCYSTINS ADDA 54	1.035 Abs	0.088 µg/L	Low, 93.665 %Abs		0.300 - 5.000	P23C058€
AC02956	MICROCYSTINS ADDA 54	1.021 Abs [1.0280] {1.0 C	0.101 µg/L [0.095]	Low, 92.398 %Abs		0.300 - 5.000	P23C058€
AC02957	MICROCYSTINS ADDA 54	1.064 Abs	0.060 µg/L	Low, 96.290 %Abs		0.300 - 5.000	P23C058€
AC02957	MICROCYSTINS ADDA 54	1.075 Abs [1.0695] {0.7 C	0.049 µg/L [0.054]	Low, 97.285 %Abs		0.300 - 5.000	P23C058€
AC02958	MICROCYSTINS ADDA 54	1.004 Abs	0.116 µg/L	Low, 90.860 %Abs		0.300 - 5.000	P23C058€
AC02958	MICROCYSTINS ADDA 54	0.991 Abs [0.9975] {0.9 C	0.128 µg/L [0.122]	Low, 89.683 %Abs		0.300 - 5.000	P23C058€
AC02959	MICROCYSTINS ADDA 54	1.069 Abs	0.055 µg/L	Low, 96.742 %Abs		0.300 - 5.000	P23C058€
AC02959	MICROCYSTINS ADDA 54	1.079 Abs [1.0740] {0.7 C	0.045 µg/L [0.050]	Low, 97.647 %Abs		0.300 - 5.000	P23C058€
LFB 2	MICROCYSTINS ADDA 54	0.594 Abs	0.618 µg/L	53.756 %Abs		0.300 - 5.000	P23C058€
LFB 2	MICROCYSTINS ADDA 54	0.581 Abs [0.5875] {1.6 C	0.644 µg/L [0.631]	52.579 %Abs [53.1		0.300 - 5.000	P23C058€
LRB 2	MICROCYSTINS ADDA 54	1.089 Abs	0.033 µg/L	Low, 98.552 %Abs		0.300 - 5.000	P23C058€
LRB 2	MICROCYSTINS ADDA 54	1.095 Abs [1.0920] {0.4 C	0.026 µg/L [0.030]	Low, 99.095 %Abs		0.300 - 5.000	P23C058€

Note

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David Jordan 5/31/2023

Assay Information

Assay Name: MICROCYSTINS ADDA 546_
 Version: 2
 Temperature: Room Temperature
 Last Modified By: Security disabled
 Units: µg/L
 Assay Description:
 Assay Substances: Controls:

Assay Mode: 4-Parameter Logistic Weight by:None
 Well Type: Flat bottom
 Last Modified On: 9/30/2020 10:02:13 AM
 Normal: 0.300 - 5.000
 # of decimals: 3
 Kit Lot Number: P23C0589

MCT 546 LRB 1
 MCT 546 Low-CV
 MCT 546 LFB 1
 Standards:
 MCT Std 0, Concentration = 0.000, Minimum number to use: 2
 MCT Std 1, Concentration = 0.150, Minimum number to use: 2
 MCT Std 2, Concentration = 0.400, Minimum number to use: 2
 MCT Std 3, Concentration = 1.000, Minimum number to use: 2
 MCT Std 4, Concentration = 2.000, Minimum number to use: 2
 MCT Std 5, Concentration = 5.000, 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
5/31/2023 3:30:01 PM				
MCT Std 0	1.107 Abs	0.008 µg/L	R ² =0.99849, 100.181 %Abs	RK1:23->A01@2
MCT Std 0	1.104 Abs [1.1055] {0.2 CV}	0.014 µg/L [0.011] {38.6 CV}	R ² =0.99849, 100.000 %Abs	RK1:23->B01@2
MCT Std 1	0.992 Abs	0.127 µg/L	R ² =0.99849, 89.774 %Abs	RK1:24->C01@2
MCT Std 1	0.966 Abs [0.9790] {1.9 CV}	0.151 µg/L [0.139] {12.2 CV}	R ² =0.99849, 87.421 %Abs	RK1:24->D01@2
MCT Std 2	0.737 Abs	0.390 µg/L	R ² =0.99849, 66.697 %Abs	RK1:25->E01@2
MCT Std 2	0.704 Abs [0.7205] {3.2 CV}	0.435 µg/L [0.412] {7.7 CV}	R ² =0.99849, 63.710 %Abs	RK1:25->F01@3
MCT Std 3	0.460 Abs	0.983 µg/L	R ² =0.99849, 41.629 %Abs	RK1:26->G01@3
MCT Std 3	0.437 Abs [0.4485] {3.6 CV}	1.077 µg/L [1.030] {6.5 CV}	R ² =0.99849, 39.548 %Abs	RK1:26->H01@3
MCT Std 4	0.340 Abs	1.717 µg/L	R ² =0.99849, 30.769 %Abs	RK1:27->A02@2
MCT Std 4	0.335 Abs [0.3375] {1.0 CV}	1.769 µg/L [1.743] {2.1 CV}	R ² =0.99849, 30.317 %Abs	RK1:27->B02@2
MCT Std 5	0.221 Abs	> 5.000 µg/L	20.000 %Abs	RK1:28->C02@2
MCT Std 5	0.215 Abs [0.2180] {1.9 CV}	> 5.000 µg/L	19.457 %Abs	RK1:28->D02@2

5/31/2023 3:30:01 PM				
MCT 546 LRB 1	1.095 Abs	0.026 µg/L	99.095 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.054 Abs [1.0745] {2.7 CV}	0.070 µg/L [0.048] {64.8 CV}	95.385 %Abs [97.240 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.770 Abs	0.349 µg/L	69.683 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.745 Abs [0.7575] {2.3 CV}	0.380 µg/L [0.364] {6.0 CV}	67.421 %Abs [68.552 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.625 Abs	0.559 µg/L	56.561 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.607 Abs [0.6160] {2.1 CV}	0.592 µg/L [0.576] {4.1 CV}	54.932 %Abs [55.747 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.1055	0.0110		
MCT Std 0 [SD]	0.0021	0.0042		
MCT Std 0 [%CV]	0.1919	38.5695		
MCT Std 1 [MEAN]	0.9790	0.1390		
MCT Std 1 [SD]	0.0184	0.0170		
MCT Std 1 [%CV]	1.8779	12.2090		
MCT Std 1 [%DIFF]		-7.3333		
MCT Std 2 [MEAN]	0.7205	0.4125		
MCT Std 2 [SD]	0.0233	0.0318		
MCT Std 2 [%CV]	3.2387	7.7139		
MCT Std 2 [%DIFF]		3.1250		
MCT Std 3 [MEAN]	0.4485	1.0300		
MCT Std 3 [SD]	0.0163	0.0665		
MCT Std 3 [%CV]	3.6262	6.4532		
MCT Std 3 [%DIFF]		3.0000		
MCT Std 4 [MEAN]	0.3375	1.7430		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0035	0.0368		
MCT Std 4 [%CV]	1.0476	2.1096		
MCT Std 4 [%DIFF]		-12.8500		
MCT Std 5 [MEAN]	0.2180			
MCT Std 5 [SD]	0.0042			
MCT Std 5 [%CV]	1.9462			
MCT 546 LRB 1 [MEAN]	1.0745	0.0480		
MCT 546 LRB 1 [SD]	0.0290	0.0311		
MCT 546 LRB 1 [%CV]	2.6981	64.8181		
MCT 546 Low-CV [MEAN]	0.7575	0.3645		
MCT 546 Low-CV [SD]	0.0177	0.0219		
MCT 546 Low-CV [%CV]	2.3337	6.0138		
MCT 546 LFB 1 [MEAN]	0.6160	0.5755		
MCT 546 LFB 1 [SD]	0.0127	0.0233		
MCT 546 LFB 1 [%CV]	2.0662	4.0547		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1103
 B = 1.3678
 C = 0.51485
 D = 0.19168
 R2 coef = 0.99849
 50% = 0.708

