



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC03279	Mississinewa Lake - Miami SRA Beach	7/3/2023	7/6/2023	1.99
AC03280	Salamonie Lake - Lost Bridge West SRA Beach	7/3/2023	7/6/2023	< 0.30
AC03281	Mississinewa Lake - Miami SRA Beach (Field Duplicate)	7/3/2023	7/6/2023	1.45
AC03282	Field Blank	7/3/2023	7/6/2023	< 0.30
AC03283	Patoka Lake - Newton Stewart SRA	7/5/2023	7/6/2023	< 0.30

Test Report (by Request)

Test Information

Request: 7/6/2023 3:00:23 PM

Date: 7/6/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.052 Abs	0.011 µg/L	R ² =0.99872, 99.62			P23C0589
MCT Std 0	MICROCYSTINS ADDA 54	1.061 Abs [1.0565] {0.6 C	0.000 µg/L [0.006]	R ² =0.99872, 100.4			P23C0589
MCT Std 1	MICROCYSTINS ADDA 54	0.913 Abs	0.139 µg/L	R ² =0.99872, 86.45			P23C0589
MCT Std 1	MICROCYSTINS ADDA 54	0.889 Abs [0.9010] {1.9 C	0.159 µg/L [0.149]	R ² =0.99872, 84.18			P23C0589
MCT Std 2	MICROCYSTINS ADDA 54	0.672 Abs	0.379 µg/L	R ² =0.99872, 63.63			P23C0589
MCT Std 2	MICROCYSTINS ADDA 54	0.643 Abs [0.6575] {3.1 C	0.417 µg/L [0.398]	R ² =0.99872, 60.85			P23C0589
MCT Std 3	MICROCYSTINS ADDA 54	0.409 Abs	0.965 µg/L	R ² =0.99872, 38.73			P23C0589
MCT Std 3	MICROCYSTINS ADDA 54	0.366 Abs [0.3875] {7.8 C	1.178 µg/L [1.071]	R ² =0.99872, 34.65			P23C0589
MCT Std 4	MICROCYSTINS ADDA 54	0.301 Abs	1.727 µg/L	R ² =0.99872, 28.50			P23C0589
MCT Std 4	MICROCYSTINS ADDA 54	0.306 Abs [0.3035] {1.2 C	1.668 µg/L [1.697]	R ² =0.99872, 28.97			P23C0589
MCT Std 5	MICROCYSTINS ADDA 54	0.203 Abs	> 5.000 µg/L	19.223 %Abs			P23C0589
MCT Std 5	MICROCYSTINS ADDA 54	0.203 Abs [0.2030] {0.0 C	> 5.000 µg/L	19.223 %Abs			P23C0589
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.020 Abs	0.047 µg/L	96.591 %Abs			P23C0589
MCT 546 LRB 1	MICROCYSTINS ADDA 54	0.993 Abs [1.0065] {1.9 C	0.072 µg/L [0.059]	94.034 %Abs [95.3			P23C0589
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.707 Abs	0.336 µg/L	66.951 %Abs			P23C0589
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.697 Abs [0.7020] {1.0 C	0.348 µg/L [0.342]	66.004 %Abs [66.4			P23C0589
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.558 Abs	0.554 µg/L	52.841 %Abs			P23C0589
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.574 Abs [0.5660] {2.0 C	0.525 µg/L [0.539]	54.356 %Abs [53.5			P23C0589

Note

Signature

David Jordan 7/6/2023

Test Report (by Request)

Test Information

Request: 7/6/2023 3:00:56 PM
 Date: 7/6/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC03279	MICROCYSTINS ADDA 54	0.284 Abs	1.964 µg/L	26.894 %Abs		0.300 - 5.000	P23C058€
AC03279	MICROCYSTINS ADDA 54	0.281 Abs [0.2825] {0.8 C	2.013 µg/L [1.988]	26.610 %Abs [26.7		0.300 - 5.000	P23C058€
AC03280	MICROCYSTINS ADDA 54	0.987 Abs	0.077 µg/L	Low, 93.466 %Abs		0.300 - 5.000	P23C058€
AC03280	MICROCYSTINS ADDA 54	0.930 Abs [0.9585] {4.2 C	0.125 µg/L [0.101]	Low, 88.068 %Abs		0.300 - 5.000	P23C058€
AC03280MS	MICROCYSTINS ADDA 54	0.501 Abs	0.675 µg/L	47.443 %Abs		0.300 - 5.000	P23C058€
AC03280MS	MICROCYSTINS ADDA 54	0.452 Abs [0.4765] {7.3 C	0.810 µg/L [0.743]	42.803 %Abs [45.1		0.300 - 5.000	P23C058€
AC03280MSD	MICROCYSTINS ADDA 54	0.512 Abs	0.649 µg/L	48.485 %Abs		0.300 - 5.000	P23C058€
AC03280MSD	MICROCYSTINS ADDA 54	0.526 Abs [0.5190] {1.9 C	0.618 µg/L [0.633]	49.811 %Abs [49.1		0.300 - 5.000	P23C058€
AC03281	MICROCYSTINS ADDA 54	0.330 Abs	1.432 µg/L	31.250 %Abs		0.300 - 5.000	P23C058€
AC03281	MICROCYSTINS ADDA 54	0.325 Abs [0.3275] {1.1 C	1.476 µg/L [1.454]	30.777 %Abs [31.0		0.300 - 5.000	P23C058€
AC03282	MICROCYSTINS ADDA 54	1.092 Abs	0.000 µg/L	Low, 103.409 %Abs		0.300 - 5.000	P23C058€
AC03282	MICROCYSTINS ADDA 54	1.017 Abs [1.0545] {5.0 C	0.050 µg/L [0.025]	Low, 96.307 %Abs		0.300 - 5.000	P23C058€
AC03283	MICROCYSTINS ADDA 54	0.941 Abs	0.116 µg/L	Low, 89.110 %Abs		0.300 - 5.000	P23C058€
AC03283	MICROCYSTINS ADDA 54	0.887 Abs [0.9140] {4.2 C	0.161 µg/L [0.139]	Low, 83.996 %Abs		0.300 - 5.000	P23C058€
LFB 2	MICROCYSTINS ADDA 54	0.554 Abs	0.561 µg/L	52.462 %Abs		0.300 - 5.000	P23C058€
LFB 2	MICROCYSTINS ADDA 54	0.575 Abs [0.5645] {2.6 C	0.523 µg/L [0.542]	54.451 %Abs [53.4		0.300 - 5.000	P23C058€
LRB 2	MICROCYSTINS ADDA 54	1.063 Abs	0.000 µg/L	Low, 100.663 %Abs		0.300 - 5.000	P23C058€
LRB 2	MICROCYSTINS ADDA 54	0.959 Abs [1.0110] {7.3 C	0.100 µg/L [0.050]	Low, 90.814 %Abs		0.300 - 5.000	P23C058€

Note

Signature *David Jordan*

David Jordan 7/6/2023

* 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) 7/6/2023 3:31:01 PM

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:

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 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

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
7/6/2023 3:00:23 PM				
MCT Std 0	1.052 Abs	0.011 µg/L	R ² =0.99872, 99.621 %Abs	RK1:23->A01@2
MCT Std 0	1.061 Abs [1.0565] {0.6 CV}	0.000 µg/L [0.006] {141.4 CV}	R ² =0.99872, 100.473 %Abs	RK1:23->B01@2
MCT Std 1	0.913 Abs	0.139 µg/L	R ² =0.99872, 86.458 %Abs	RK1:24->C01@2
MCT Std 1	0.889 Abs [0.9010] {1.9 CV}	0.159 µg/L [0.149] {9.5 CV}	R ² =0.99872, 84.186 %Abs	RK1:24->D01@2
MCT Std 2	0.672 Abs	0.379 µg/L	R ² =0.99872, 63.636 %Abs	RK1:25->E01@2
MCT Std 2	0.643 Abs [0.6575] {3.1 CV}	0.417 µg/L [0.398] {6.8 CV}	R ² =0.99872, 60.890 %Abs	RK1:25->F01@3
MCT Std 3	0.409 Abs	0.965 µg/L	R ² =0.99872, 38.731 %Abs	RK1:26->G01@3
MCT Std 3	0.366 Abs [0.3875] {7.8 CV}	1.178 µg/L [1.071] {14.1 CV}	R ² =0.99872, 34.659 %Abs	RK1:26->H01@3
MCT Std 4	0.301 Abs	1.727 µg/L	R ² =0.99872, 28.504 %Abs	RK1:27->A02@2
MCT Std 4	0.306 Abs [0.3035] {1.2 CV}	1.668 µg/L [1.697] {2.5 CV}	R ² =0.99872, 28.977 %Abs	RK1:27->B02@2
MCT Std 5	0.203 Abs	> 5.000 µg/L	19.223 %Abs	RK1:28->C02@2
MCT Std 5	0.203 Abs [0.2030] {0.0 CV}	> 5.000 µg/L	19.223 %Abs	RK1:28->D02@2

7/6/2023 3:00:23 PM				
MCT 546 LRB 1	1.020 Abs	0.047 µg/L	96.591 %Abs	RK1:29->E02@2
MCT 546 LRB 1	0.993 Abs [1.0065] {1.9 CV}	0.072 µg/L [0.059] {29.7 CV}	94.034 %Abs [95.313 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.707 Abs	0.336 µg/L	66.951 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.697 Abs [0.7020] {1.0 CV}	0.348 µg/L [0.342] {2.5 CV}	66.004 %Abs [66.477 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.558 Abs	0.554 µg/L	52.841 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.574 Abs [0.5660] {2.0 CV}	0.525 µg/L [0.539] {3.8 CV}	54.356 %Abs [53.598 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.0565	0.0055		
MCT Std 0 [SD]	0.0064	0.0078		
MCT Std 0 [%CV]	0.6024	141.4214		
MCT Std 1 [MEAN]	0.9010	0.1490		
MCT Std 1 [SD]	0.0170	0.0141		
MCT Std 1 [%CV]	1.8835	9.4914		
MCT Std 1 [%DIFF]		-0.6667		
MCT Std 2 [MEAN]	0.6575	0.3980		
MCT Std 2 [SD]	0.0205	0.0269		
MCT Std 2 [%CV]	3.1188	6.7513		
MCT Std 2 [%DIFF]		-0.5000		
MCT Std 3 [MEAN]	0.3875	1.0715		
MCT Std 3 [SD]	0.0304	0.1506		
MCT Std 3 [%CV]	7.8466	14.0563		
MCT Std 3 [%DIFF]		7.1500		
MCT Std 4 [MEAN]	0.3035	1.6975		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0035	0.0417		
MCT Std 4 [%CV]	1.1649	2.4577		
MCT Std 4 [%DIFF]		-15.1250		
MCT Std 5 [MEAN]	0.2030			
MCT Std 5 [SD]	0.0000			
MCT Std 5 [%CV]	0.0000			
MCT 546 LRB 1 [MEAN]	1.0065	0.0595		
MCT 546 LRB 1 [SD]	0.0191	0.0177		
MCT 546 LRB 1 [%CV]	1.8969	29.7104		
MCT 546 Low-CV [MEAN]	0.7020	0.3420		
MCT 546 Low-CV [SD]	0.0071	0.0085		
MCT 546 Low-CV [%CV]	1.0073	2.4811		
MCT 546 LFB 1 [MEAN]	0.5660	0.5395		
MCT 546 LFB 1 [SD]	0.0113	0.0205		
MCT 546 LFB 1 [%CV]	1.9989	3.8010		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.0570
 B = 1.3798
 C = 0.45035
 D = 0.18267
 R2 coef = 0.99872
 50% = 0.613

