



## Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43871	Summit Lake - State Park	8/17/2020	8/20/2020	< 0.30
AB43872	Kunkel Beach @ Ouabache SP	8/17/2020	8/20/2020	< 0.30
AB43873	Pokagon State Park	8/17/2020	8/20/2020	< 0.30
AB43874	Potawatomi Inn's Beach	8/17/2020	8/20/2020	< 0.30
AB43875	Chain O'Lakes SP	8/17/2020	8/20/2020	< 0.30
AB43876	Potato Creek State Park	8/17/2020	8/20/2020	< 0.30
AB43877	Lost Bridge West SRA	8/17/2020	8/20/2020	< 0.30
AB43878	Mississinewa Lake Miami SRA	8/17/2020	8/20/2020	< 0.30
AB43879	Summit Lake - State Park (Field Duplicate)	8/17/2020	8/20/2020	< 0.30
AB43880	Field Blank	8/17/2020	8/20/2020	< 0.30
AB43881	Ft. Harrison SP Dog Lake	8/19/2020	8/20/2020	< 0.30

# Test Report (by Request)

**Test Information**

Request: 8/20/2020 12:30:28 PM  
Date: 8/20/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
MCT Std 0	MICROCYSTINS ADDA 546	1.355 Abs	0.003 µg/L	R^2=0.99789, 100.00		19L2093
MCT Std 0	MICROCYSTINS ADDA 546	1.356 Abs [1.3555] {0.1 CV}	0.002 µg/L [0.003] {2}	R^2=0.99789, 100.00		19L2093
MCT Std 1	MICROCYSTINS ADDA 546	1.202 Abs	0.110 µg/L	R^2=0.99789, 88.708		19L2093
MCT Std 1	MICROCYSTINS ADDA 546	1.112 Abs [1.1570] {5.5 CV}	0.180 µg/L [0.145] {3}	R^2=0.99789, 82.066		19L2093
MCT Std 2	MICROCYSTINS ADDA 546	0.915 Abs	0.383 µg/L	R^2=0.99789, 67.528		19L2093
MCT Std 2	MICROCYSTINS ADDA 546	0.884 Abs [0.8995] {2.4 CV}	0.425 µg/L [0.404] {7}	R^2=0.99789, 65.240		19L2093
MCT Std 3	MICROCYSTINS ADDA 546	0.579 Abs	1.188 µg/L	R^2=0.99789, 42.731		19L2093
MCT Std 3	MICROCYSTINS ADDA 546	0.631 Abs [0.6050] {6.1 CV}	0.980 µg/L [1.084] {1}	R^2=0.99789, 46.568		19L2093
MCT Std 4	MICROCYSTINS ADDA 546	0.486 Abs	1.766 µg/L	R^2=0.99789, 35.867		19L2093
MCT Std 4	MICROCYSTINS ADDA 546	0.499 Abs [0.4925] {1.9 CV}	1.662 µg/L [1.714] {4}	R^2=0.99789, 36.827		19L2093
MCT Std 5	MICROCYSTINS ADDA 546	0.325 Abs	> 5.000 µg/L	23.985 %Abs		19L2093
MCT Std 5	MICROCYSTINS ADDA 546	0.320 Abs [0.3225] {1.1 CV}	> 5.000 µg/L	23.616 %Abs		19L2093
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.847 Abs	0.480 µg/L	62.509 %Abs		19L2093
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.820 Abs [0.8335] {2.3 CV}	0.523 µg/L [0.502] {6}	60.517 %Abs [61.513]		19L2093
MCT 546 Low-CV	MICROCYSTINS ADDA 546	0.968 Abs	0.320 µg/L	71.439 %Abs		19L2093
MCT 546 Low-CV	MICROCYSTINS ADDA 546	0.949 Abs [0.9585] {1.4 CV}	0.342 µg/L [0.331] {4}	70.037 %Abs [70.738]		19L2093
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.331 Abs	0.021 µg/L	98.229 %Abs		19L2093
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.353 Abs [1.3420] {1.2 CV}	0.005 µg/L [0.013] {8}	99.852 %Abs [99.041]		19L2093

**Note**

Signature

\* 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) 8/20/2020 12:37:03 PM

Charles Hostetter 8/20/20

# Test Report (by Request)

**Test Information**

 Request: 8/20/2020 12:34:30 PM  
 Date: 8/20/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
AB43871	MICROCYSTINS ADDA 546	1.247 Abs	0.078 µg/L	<b>LOW, 92.030 %ABS</b>	0.300 - 5.000	19L2093
AB43871	MICROCYSTINS ADDA 546	1.240 Abs [1.2435] {0.4 CV}	0.083 µg/L [0.080] {4	<b>LOW, 91.513 %ABS</b>	0.300 - 5.000	19L2093
AB43871MS	MICROCYSTINS ADDA 546	0.804 Abs	0.551 µg/L	59.336 %Abs	0.300 - 5.000	19L2093
AB43871MS	MICROCYSTINS ADDA 546	0.775 Abs [0.7895] {2.6 CV}	0.605 µg/L [0.578] {6	57.196 %Abs [58.266	0.300 - 5.000	19L2093
AB43871MSD	MICROCYSTINS ADDA 546	0.787 Abs	0.582 µg/L	58.081 %Abs	0.300 - 5.000	19L2093
AB43871MSD	MICROCYSTINS ADDA 546	0.738 Abs [0.7625] {4.5 CV}	0.682 µg/L [0.632] {1	54.465 %Abs [56.273	0.300 - 5.000	19L2093
AB43872	MICROCYSTINS ADDA 546	1.236 Abs	0.085 µg/L	<b>LOW, 91.218 %ABS</b>	0.300 - 5.000	19L2093
AB43872	MICROCYSTINS ADDA 546	1.205 Abs [1.2205] {1.8 CV}	0.108 µg/L [0.097] {1	<b>LOW, 88.930 %ABS</b>	0.300 - 5.000	19L2093
AB43873	MICROCYSTINS ADDA 546	1.234 Abs	0.087 µg/L	<b>LOW, 91.070 %ABS</b>	0.300 - 5.000	19L2093
AB43873	MICROCYSTINS ADDA 546	1.230 Abs [1.2320] {0.2 CV}	0.090 µg/L [0.089] {2	<b>LOW, 90.775 %ABS</b>	0.300 - 5.000	19L2093
AB43874	MICROCYSTINS ADDA 546	1.202 Abs	0.110 µg/L	<b>LOW, 88.708 %ABS</b>	0.300 - 5.000	19L2093
AB43874	MICROCYSTINS ADDA 546	1.158 Abs [1.1800] {2.6 CV}	0.143 µg/L [0.127] {1	<b>LOW, 85.461 %ABS</b>	0.300 - 5.000	19L2093
AB43875	MICROCYSTINS ADDA 546	1.172 Abs	0.132 µg/L	<b>LOW, 86.494 %ABS</b>	0.300 - 5.000	19L2093
AB43875	MICROCYSTINS ADDA 546	1.183 Abs [1.1775] {0.7 CV}	0.124 µg/L [0.128] {4	<b>LOW, 87.306 %ABS</b>	0.300 - 5.000	19L2093
AB43876	MICROCYSTINS ADDA 546	1.253 Abs	0.074 µg/L	<b>LOW, 92.472 %ABS</b>	0.300 - 5.000	19L2093
AB43876	MICROCYSTINS ADDA 546	1.210 Abs [1.2315] {2.5 CV}	0.104 µg/L [0.089] {2	<b>LOW, 89.299 %ABS</b>	0.300 - 5.000	19L2093
AB43877	MICROCYSTINS ADDA 546	1.018 Abs	0.266 µg/L	<b>LOW, 75.129 %ABS</b>	0.300 - 5.000	19L2093
AB43877	MICROCYSTINS ADDA 546	1.020 Abs [1.0190] {0.1 CV}	0.264 µg/L [0.265] {0	<b>LOW, 75.277 %ABS</b>	0.300 - 5.000	19L2093
AB43878	MICROCYSTINS ADDA 546	1.177 Abs	0.128 µg/L	<b>LOW, 86.863 %ABS</b>	0.300 - 5.000	19L2093
AB43878	MICROCYSTINS ADDA 546	1.133 Abs [1.1550] {2.7 CV}	0.163 µg/L [0.146] {1	<b>LOW, 83.616 %ABS</b>	0.300 - 5.000	19L2093
AB43879	MICROCYSTINS ADDA 546	1.176 Abs	0.129 µg/L	<b>LOW, 86.790 %ABS</b>	0.300 - 5.000	19L2093
AB43879	MICROCYSTINS ADDA 546	1.175 Abs [1.1755] {0.1 CV}	0.130 µg/L [0.130] {0	<b>LOW, 86.716 %ABS</b>	0.300 - 5.000	19L2093
AB43880	MICROCYSTINS ADDA 546	1.354 Abs	0.004 µg/L	<b>LOW, 100.000 %ABS</b>	0.300 - 5.000	19L2093
AB43880	MICROCYSTINS ADDA 546	1.322 Abs [1.3380] {1.7 CV}	0.027 µg/L [0.016] {1	<b>LOW, 97.565 %ABS</b>	0.300 - 5.000	19L2093
AB43881	MICROCYSTINS ADDA 546	1.268 Abs	0.063 µg/L	<b>LOW, 93.579 %ABS</b>	0.300 - 5.000	19L2093
AB43881	MICROCYSTINS ADDA 546	1.268 Abs [1.2680] {0.0 CV}	0.063 µg/L [0.063] {0	<b>LOW, 93.579 %ABS</b>	0.300 - 5.000	19L2093
LFB 2	MICROCYSTINS ADDA 546	0.831 Abs	0.505 µg/L	61.328 %Abs	0.300 - 5.000	19L2093
LFB 2	MICROCYSTINS ADDA 546	0.794 Abs [0.8125] {3.2 CV}	0.569 µg/L [0.537] {8	58.598 %Abs [59.963	0.300 - 5.000	19L2093
LRB 2	MICROCYSTINS ADDA 546	1.273 Abs	0.060 µg/L	<b>LOW, 93.948 %ABS</b>	0.300 - 5.000	19L2093
LRB 2	MICROCYSTINS ADDA 546	1.341 Abs [1.3070] {3.7 CV}	0.014 µg/L [0.037] {8	<b>LOW, 98.967 %ABS</b>	0.300 - 5.000	19L2093

**Note**

Signature

**Assay Information**

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

Assay Mode: 4-Parameter Logistic Weight by:None  
 Well Type: Flat bottom  
 Last Modified On: 8/13/2019 2:01:59 PM  
 Normal: 0.300 - 5.000  
 # of decimals: 3  
 Kit Lot Number: 19L2093

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 Calibration**

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
<b>8/20/2020 12:30:28 PM</b>				
MCT Std 0	1.355 Abs		R <sup>2</sup> =0.99789, 100.000 %Abs	RK1:23->A01@2
MCT Std 0	1.356 Abs [1.3555] {0.1 CV}		R <sup>2</sup> =0.99789, 100.000 %Abs	RK1:23->B01@2
MCT Std 1	1.202 Abs		R <sup>2</sup> =0.99789, 88.708 %Abs	RK1:24->C01@2
MCT Std 1	1.112 Abs [1.1570] {5.5 CV}		R <sup>2</sup> =0.99789, 82.066 %Abs	RK1:24->D01@2
MCT Std 2	0.915 Abs		R <sup>2</sup> =0.99789, 67.528 %Abs	RK1:25->E01@2
MCT Std 2	0.884 Abs [0.8995] {2.4 CV}		R <sup>2</sup> =0.99789, 65.240 %Abs	RK1:25->F01@3
MCT Std 3	0.579 Abs		R <sup>2</sup> =0.99789, 42.731 %Abs	RK1:26->G01@3
MCT Std 3	0.631 Abs [0.6050] {6.1 CV}		R <sup>2</sup> =0.99789, 46.568 %Abs	RK1:26->H01@3
MCT Std 4	0.486 Abs		R <sup>2</sup> =0.99789, 35.867 %Abs	RK1:27->A02@2
MCT Std 4	0.499 Abs [0.4925] {1.9 CV}		R <sup>2</sup> =0.99789, 36.827 %Abs	RK1:27->B02@2
MCT Std 5	0.325 Abs		23.985 %Abs	RK1:28->C02@2
MCT Std 5	0.320 Abs [0.3225] {1.1 CV}		23.616 %Abs	RK1:28->D02@2
*****				
<b>8/20/2020 12:30:28 PM</b>				
MCT 546 LRB 1	0.847 Abs		62.509 %Abs	RK1:29->E02@2
MCT 546 LRB 1	0.820 Abs [0.8335] {2.3 CV}		60.517 %Abs [61.513 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.968 Abs		71.439 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.949 Abs [0.9585] {1.4 CV}		70.037 %Abs [70.738 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	1.331 Abs		98.229 %Abs	RK1:31->A03@2
MCT 546 LFB 1	1.353 Abs [1.3420] {1.2 CV}		99.852 %Abs [99.041 %Abs]	RK1:31->B03@2
*****				
<b>Statistic</b>				
MCT Std 0 [MEAN]	1.3555			
MCT Std 0 [SD]	0.0007			
MCT Std 0 [%CV]	0.0522			
MCT Std 1 [MEAN]	1.1570			
MCT Std 1 [SD]	0.0636			
MCT Std 1 [%CV]	5.5004			
MCT Std 1 [%DIFF]				
MCT Std 2 [MEAN]	0.8995			
MCT Std 2 [SD]	0.0219			
MCT Std 2 [%CV]	2.4369			
MCT Std 2 [%DIFF]				
MCT Std 3 [MEAN]	0.6050			
MCT Std 3 [SD]	0.0368			
MCT Std 3 [%CV]	6.0776			
MCT Std 3 [%DIFF]				
MCT Std 4 [MEAN]	0.4925			

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0092			
MCT Std 4 [%CV]	1.8665			
MCT Std 4 [%DIFF]				
MCT Std 5 [MEAN]	0.3225			
MCT Std 5 [SD]	0.0035			
MCT Std 5 [%CV]	1.0963			
MCT 546 LRB 1 [MEAN]	0.8335			
MCT 546 LRB 1 [SD]	0.0191			
MCT 546 LRB 1 [%CV]	2.2906			
MCT 546 Low-CV [MEAN]	0.9585			
MCT 546 Low-CV [SD]	0.0134			
MCT 546 Low-CV [%CV]	1.4017			
MCT 546 LFB 1 [MEAN]	1.3420			
MCT 546 LFB 1 [SD]	0.0156			
MCT 546 LFB 1 [%CV]	1.1592			

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.3582  
 B = 1.1207  
 C = 0.55116  
 D = 0.24955  
 R2 coef = 0.99789  
 50% = 0.834

