



## Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)	% Recovery
MCT 546 LRB 1	Lab Reagent Blank	5/22/2019	5/23/2019	< 0.30	
MCT 546 LFB 1	Lab Fortified Blank	5/22/2019	5/23/2019	0.60	100
AB38419	Potawatomi Inn's Beach	5/20/2019	5/23/2019	< 0.30	
AB38420	Pokagon State Park	5/20/2019	5/23/2019	< 0.30	
AB38420MS	Pokagon State Park (Matrix Spike)	5/20/2019	5/23/2019	0.65	108
AB38420MSD	Pokagon State Park (Matrix Spike Dup.)	5/20/2019	5/23/2019	0.38	63
AB34821	Chain O'Lakes SP	5/20/2019	5/23/2019	< 0.30	
AB34822	Ouabache State Park	5/20/2019	5/23/2019	< 0.30	
AB34823	Potato Creek State Park	5/21/2019	5/23/2019	< 0.30	
AB34824	Mississinewa Lake Miami SRA	5/21/2019	5/23/2019	< 0.30	
AB34825	Lost Bridge West SRA	5/21/2019	5/23/2019	< 0.30	
AB34826	Mississinewa Lake Miami SRA (Field Dup.)	5/21/2019	5/23/2019	< 0.30	
AB34827	Field Blank	5/21/2019	5/23/2019	< 0.30	
MCT 546 LFB 2	Lab Fortified Blank	5/22/2019	5/23/2019	0.59	98
MCT 546 LRB 2	Lab Reagent Blank	5/22/2019	5/23/2019	< 0.30	

## Test Information

Request: 5/23/2019 8:46:41 AM  
Date: 5/23/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
MCT Std 0	MICROCYSTINS ADDA 546	1.349 Abs	0.027 µg/L	R^2=0.99835	0.000
MCT Std 0	MICROCYSTINS ADDA 546	1.448 Abs [1.3985] {5.0 CV}	0.000 µg/L [0.014] {141.1}	R^2=0.99835	0.000
MCT Std 1	MICROCYSTINS ADDA 546	1.174 Abs	0.143 µg/L	R^2=0.99835	0.150
MCT Std 1	MICROCYSTINS ADDA 546	1.178 Abs [1.1760] {0.2 CV}	0.140 µg/L [0.141] {1.5}	R^2=0.99835	0.150
MCT Std 2	MICROCYSTINS ADDA 546	0.922 Abs	0.410 µg/L	R^2=0.99835	0.400
MCT Std 2	MICROCYSTINS ADDA 546	0.924 Abs [0.9230] {0.2 CV}	0.407 µg/L [0.409] {0.5}	R^2=0.99835	0.400
MCT Std 3	MICROCYSTINS ADDA 546	0.622 Abs	1.111 µg/L	R^2=0.99835	1.000
MCT Std 3	MICROCYSTINS ADDA 546	0.646 Abs [0.6340] {2.7 CV}	1.023 µg/L [1.067] {5.8}	R^2=0.99835	1.000
MCT Std 4	MICROCYSTINS ADDA 546	0.500 Abs	1.745 µg/L	R^2=0.99835	2.000
MCT Std 4	MICROCYSTINS ADDA 546	0.492 Abs [0.4960] {1.1 CV}	1.802 µg/L [1.773] {2.3}	R^2=0.99835	2.000
MCT Std 5	MICROCYSTINS ADDA 546	0.283 Abs	> 5.000 µg/L		5.000
MCT Std 5	MICROCYSTINS ADDA 546	0.295 Abs [0.2890] {2.9 CV}	> 5.000 µg/L		5.000
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.365 Abs	0.018 µg/L		
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.402 Abs [1.3835] {1.9 CV}	0.000 µg/L [0.009] {141.1}		
MCT 546 Low-CV	MICROCYSTINS ADDA 546	0.974 Abs	0.341 µg/L		
MCT 546 Low-CV	MICROCYSTINS ADDA 546	0.915 Abs [0.9445] {4.4 CV}	0.420 µg/L [0.380] {14.7}		
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.796 Abs	0.623 µg/L		
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.824 Abs [0.8100] {2.4 CV}	0.569 µg/L [0.596] {6.4}		
AB38419	MICROCYSTINS ADDA 546	1.342 Abs	0.031 µg/L	LOW	0.300 - 5
AB38419	MICROCYSTINS ADDA 546	1.335 Abs [1.3385] {0.4 CV}	0.035 µg/L [0.033] {8.6}	LOW [LOW]	0.300 - 5
AB38420	MICROCYSTINS ADDA 546	1.351 Abs	0.026 µg/L	LOW	0.300 - 5
AB38420	MICROCYSTINS ADDA 546	1.377 Abs [1.3640] {1.3 CV}	0.012 µg/L [0.019] {52.1}	LOW [LOW]	0.300 - 5
AB38420MS	MICROCYSTINS ADDA 546	0.828 Abs	0.561 µg/L		0.300 - 5
AB38420MS	MICROCYSTINS ADDA 546	0.743 Abs [0.7855] {7.7 CV}	0.741 µg/L [0.651] {19.6}		0.300 - 5
AB38420MSD	MICROCYSTINS ADDA 546	0.949 Abs	0.373 µg/L		0.300 - 5
AB38420MSD	MICROCYSTINS ADDA 546	0.941 Abs [0.9450] {0.6 CV}	0.383 µg/L [0.378] {1.9}		0.300 - 5
AB38421	MICROCYSTINS ADDA 546	1.331 Abs	0.037 µg/L	LOW	0.300 - 5
AB38421	MICROCYSTINS ADDA 546	1.340 Abs [1.3355] {0.5 CV}	0.032 µg/L [0.035] {10.2}	LOW [LOW]	0.300 - 5
AB38422	MICROCYSTINS ADDA 546	1.366 Abs	0.018 µg/L	LOW	0.300 - 5
AB38422	MICROCYSTINS ADDA 546	1.364 Abs [1.3650] {0.1 CV}	0.019 µg/L [0.019] {3.8}	LOW [LOW]	0.300 - 5
AB38423	MICROCYSTINS ADDA 546	1.316 Abs	0.046 µg/L	LOW	0.300 - 5
AB38423	MICROCYSTINS ADDA 546	1.254 Abs [1.2850] {3.4 CV}	0.085 µg/L [0.065] {42.1}	LOW [LOW]	0.300 - 5
AB38424	MICROCYSTINS ADDA 546	1.471 Abs	0.000 µg/L	LOW	0.300 - 5
AB38424	MICROCYSTINS ADDA 546	1.399 Abs [1.4350] {3.5 CV}	0.001 µg/L [0.001] {141.1}	LOW [LOW]	0.300 - 5
AB38425	MICROCYSTINS ADDA 546	1.343 Abs	0.030 µg/L	LOW	0.300 - 5
AB38425	MICROCYSTINS ADDA 546	1.349 Abs [1.3460] {0.3 CV}	0.027 µg/L [0.029] {7.4}	LOW [LOW]	0.300 - 5
AB38426	MICROCYSTINS ADDA 546	1.358 Abs	0.022 µg/L	LOW	0.300 - 5
AB38426	MICROCYSTINS ADDA 546	1.363 Abs [1.3605] {0.3 CV}	0.020 µg/L [0.021] {6.7}	LOW [LOW]	0.300 - 5
AB38427	MICROCYSTINS ADDA 546	1.404 Abs	0.000 µg/L	LOW	0.300 - 5
AB38427	MICROCYSTINS ADDA 546	1.289 Abs [1.3465] {6.0 CV}	0.062 µg/L [0.031] {141.1}	LOW [LOW]	0.300 - 5
MCT 546 LFB 2	MICROCYSTINS ADDA 546	0.815 Abs	0.586 µg/L		0.300 - 5
MCT 546 LFB 2	MICROCYSTINS ADDA 546	0.814 Abs [0.8145] {0.1 CV}	0.588 µg/L [0.587] {0.2}		0.300 - 5
MCT LRB 2	MICROCYSTINS ADDA 546	1.390 Abs	0.005 µg/L	LOW	0.300 - 5
MCT LRB 2	MICROCYSTINS ADDA 546	1.360 Abs [1.3750] {1.5 CV}	0.021 µg/L [0.013] {87.0}	LOW [LOW]	0.300 - 5

## Note

Signature

David Jordan

Date: 5/23/2019

## Assay Information

Assay Name: MICROCYSTINS ADDA 546

Version: 1

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: 7 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: 5/9/2019 11:43:40 AM

Normal: 0.300 - 5.000

# of decimals: 3

## Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position	
5/23/2019 8:46:41 AM					
MCT Std 0	1.349 Abs	0.027 µg/L	R^2=0.99835	RK1:23->A01@2	
MCT Std 0	1.448 Abs [1.3985] {5.0 CV}	0.000 µg/L [0.014] {141.4 CV}	R^2=0.99835	RK1:23->B01@2	
MCT Std 1	1.174 Abs	0.143 µg/L	R^2=0.99835	RK1:24->C01@2	
MCT Std 1	1.178 Abs [1.1760] {0.2 CV}	0.140 µg/L [0.141] {1.5 CV}	R^2=0.99835	RK1:24->D01@2	
MCT Std 2	0.922 Abs	0.410 µg/L	R^2=0.99835	RK1:25->E01@2	
MCT Std 2	0.924 Abs [0.9230] {0.2 CV}	0.407 µg/L [0.409] {0.5 CV}	R^2=0.99835	RK1:25->F01@3	
MCT Std 3	0.622 Abs	1.111 µg/L	R^2=0.99835	RK1:26->G01@3	
MCT Std 3	0.646 Abs [0.6340] {2.7 CV}	1.023 µg/L [1.067] {5.8 CV}	R^2=0.99835	RK1:26->H01@3	
MCT Std 4	0.500 Abs	1.745 µg/L	R^2=0.99835	RK1:27->A02@2	
MCT Std 4	0.492 Abs [0.4960] {1.1 CV}	1.802 µg/L [1.773] {2.3 CV}	R^2=0.99835	RK1:27->B02@2	
MCT Std 5	0.283 Abs	> 5.000 µg/L		RK1:28->C02@2	
MCT Std 5	0.295 Abs [0.2890] {2.9 CV}	> 5.000 µg/L		RK1:28->D02@2	
*****					
5/23/2019 8:46:41 AM					
MCT 546 LRB 1	1.365 Abs	0.018 µg/L		RK1:29->E02@2	
MCT 546 LRB 1	1.402 Abs [1.3835] {1.9 CV}	0.000 µg/L [0.009] {141.4 CV}		RK1:29->F02@3	
MCT 546 Low-CV	0.974 Abs	0.341 µg/L		RK1:30->G02@3	
MCT 546 Low-CV	0.915 Abs [0.9445] {4.4 CV}	0.420 µg/L [0.380] {14.7 CV}		RK1:30->H02@3	
MCT 546 LFB 1	0.796 Abs	0.623 µg/L		RK1:31->A03@2	
MCT 546 LFB 1	0.824 Abs [0.8100] {2.4 CV}	0.569 µg/L [0.596] {6.4 CV}		RK1:31->B03@2	
*****					
Statistic					
MCT Std 0 [MEAN]	1.3985	0.0135			
MCT Std 0 [SD]	0.0700	0.0191			
MCT Std 0 [%CV]	5.0056	141.4214			
MCT Std 1 [MEAN]	1.1760	0.1415			
MCT Std 1 [SD]	0.0028	0.0021			
MCT Std 1 [%CV]	0.2405	1.4992			
MCT Std 1 [%DIFF]		-5.6667			
MCT Std 2 [MEAN]	0.9230	0.4085			
MCT Std 2 [SD]	0.0014	0.0021			
MCT Std 2 [%CV]	0.1532	0.5193			
MCT Std 2 [%DIFF]		2.1250			
MCT Std 3 [MEAN]	0.6340	1.0670			
MCT Std 3 [SD]	0.0170	0.0622			
MCT Std 3 [%CV]	2.6768	5.8318			
MCT Std 3 [%DIFF]		6.7000			
MCT Std 4 [MEAN]	0.4960	1.7735			

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0057	0.0403		
MCT Std 4 [%CV]	1.1405	2.2726		
MCT Std 4 [%DIFF]		-11.3250		
MCT Std 5 [MEAN]	0.2890			
MCT Std 5 [SD]	0.0085			
MCT Std 5 [%CV]	2.9361			
MCT 546 LRB 1 [MEAN]	1.3835	0.0090		
MCT 546 LRB 1 [SD]	0.0262	0.0127		
MCT 546 LRB 1 [%CV]	1.8911	141.4214		
MCT 546 Low-CV [MEAN]	0.9445	0.3805		
MCT 546 Low-CV [SD]	0.0417	0.0559		
MCT 546 Low-CV [%CV]	4.4171	14.6811		
MCT 546 LFB 1 [MEAN]	0.8100	0.5960		
MCT 546 LFB 1 [SD]	0.0198	0.0382		
MCT 546 LFB 1 [%CV]	2.4443	6.4067		

### Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$   
Weight: NONE  
A = 1.4014  
B = 0.97745  
C = 0.67033  
D = 0.14618  
R2 coef = 0.99835

