



## 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	7/2/2019	7/2/2019	<0.30	
MCT 546 LFB 1	Lab Fortified Blank (True value = 0.600)	7/2/2019	7/2/2019	0.48	79
AB39631	Field Blank	7/1/2019	7/2/2019	<0.30	
AB39633	Kunkel Beach @ Ouabache State Park	7/1/2019	7/2/2019	<0.30	
AB39633LD	Kunkel Beach @ Ouabache State Park (Lab Dup.)	7/2/2019	7/2/2019	<0.30	
AB39634	Kunkel Beach @ Ouabache State Park (Field Dup.)	7/1/2019	7/2/2019	<0.30	
MCT 546 LFB 2	Lab Fortified Blank (True value = 0.600)	7/2/2019	7/2/2019	0.58	97
MCT 546 LRB 2	Lab Reagent Blank	7/2/2019	7/2/2019	< 0.30	

## Test Information

Request: 7/2/2019 2:31:57 PM  
Date: 7/2/2019 - 7/2/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
MCT Std 0	MICROCYSTINS ADDA 546	1.015 Abs	0.004 µg/L	R^2=0.99783	0.000
MCT Std 0	MICROCYSTINS ADDA 546	1.015 Abs [1.0150] {0.0 CV}	0.004 µg/L [0.004] {0.0 CV}	R^2=0.99783	0.000
MCT Std 1	MICROCYSTINS ADDA 546	0.846 Abs	0.121 µg/L	R^2=0.99783	0.150
MCT Std 1	MICROCYSTINS ADDA 546	0.785 Abs [0.8155] {5.3 CV}	0.166 µg/L [0.144] {22.2 CV}	R^2=0.99783	0.150
MCT Std 2	MICROCYSTINS ADDA 546	0.585 Abs	0.378 µg/L	R^2=0.99783	0.400
MCT Std 2	MICROCYSTINS ADDA 546	0.526 Abs [0.5555] {7.5 CV}	0.477 µg/L [0.428] {16.4 CV}	R^2=0.99783	0.400
MCT Std 3	MICROCYSTINS ADDA 546	0.358 Abs	1.072 µg/L	R^2=0.99783	1.000
MCT Std 3	MICROCYSTINS ADDA 546	0.382 Abs [0.3700] {4.6 CV}	0.930 µg/L [1.001] {10.0 CV}	R^2=0.99783	1.000
MCT Std 4	MICROCYSTINS ADDA 546	0.300 Abs	1.651 µg/L	R^2=0.99783	2.000
MCT Std 4	MICROCYSTINS ADDA 546	0.307 Abs [0.3035] {1.6 CV}	1.552 µg/L [1.602] {4.4 CV}	R^2=0.99783	2.000
MCT Std 5	MICROCYSTINS ADDA 546	0.215 Abs	> 5.000 µg/L		5.000
MCT Std 5	MICROCYSTINS ADDA 546	0.209 Abs [0.2120] {2.0 CV}	> 5.000 µg/L		5.000
MCT 546 LRB 1	MICROCYSTINS ADDA 546	0.966 Abs	0.041 µg/L		
MCT 546 LRB 1	MICROCYSTINS ADDA 546	0.909 Abs [0.9375] {4.3 CV}	0.078 µg/L [0.060] {44.0 CV}		
MCT 546 Low-CV	MICROCYSTINS ADDA 546	0.603 Abs	0.352 µg/L		
MCT 546 Low-CV	MICROCYSTINS ADDA 546	0.590 Abs [0.5965] {1.5 CV}	0.371 µg/L [0.361] {3.7 CV}		
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.538 Abs	0.455 µg/L		
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.517 Abs [0.5275] {2.8 CV}	0.495 µg/L [0.475] {6.0 CV}		
QCS	MICROCYSTINS ADDA 546	0.499 Abs	0.533 µg/L		0.300 - 5
QCS	MICROCYSTINS ADDA 546	0.492 Abs [0.4955] {1.0 CV}	0.549 µg/L [0.541] {2.1 CV}		0.300 - 5
AB39631	MICROCYSTINS ADDA 546	1.044 Abs	0.000 µg/L	LOW	0.300 - 5
AB39631	MICROCYSTINS ADDA 546	0.943 Abs [0.9935] {7.2 CV}	0.056 µg/L [0.028] {141.0 CV}	LOW [LOW]	0.300 - 5
AB39633	MICROCYSTINS ADDA 546	0.949 Abs	0.052 µg/L	LOW	0.300 - 5
AB39633	MICROCYSTINS ADDA 546	0.945 Abs [0.9470] {0.3 CV}	0.055 µg/L [0.054] {4.0 CV}	LOW [LOW]	0.300 - 5
AB39633LD	MICROCYSTINS ADDA 546	1.031 Abs	0.000 µg/L	LOW	0.300 - 5
AB39633LD	MICROCYSTINS ADDA 546	1.040 Abs [1.0355] {0.6 CV}	0.000 µg/L [0.000]	LOW [LOW]	0.300 - 5
AB39634	MICROCYSTINS ADDA 546	0.960 Abs	0.045 µg/L	LOW	0.300 - 5
AB39634	MICROCYSTINS ADDA 546	0.989 Abs [0.9745] {2.1 CV}	0.025 µg/L [0.035] {40.4 CV}	LOW [LOW]	0.300 - 5
MCT 546 LFB 2	MICROCYSTINS ADDA 546	0.498 Abs	0.535 µg/L		0.300 - 5
MCT 546 LFB 2	MICROCYSTINS ADDA 546	0.462 Abs [0.4800] {5.3 CV}	0.625 µg/L [0.580] {11.0 CV}		0.300 - 5
MCT LRB 2	MICROCYSTINS ADDA 546	0.867 Abs	0.106 µg/L	LOW	0.300 - 5
MCT LRB 2	MICROCYSTINS ADDA 546	0.889 Abs [0.8780] {1.8 CV}	0.091 µg/L [0.098] {10.8 CV}	LOW [LOW]	0.300 - 5

## Note

Signature

Date: 7/2/2019

David Jordan



MICROCYSTINS ADDA 546 - Assay Calibration Report

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	
7/2/2019 2:31:57 PM					
MCT Std 0	1.015 Abs	0.004 µg/L	R^2=0.99783	RK1:23->A01@2	
MCT Std 0	1.015 Abs [1.0150] {0.0 CV}	0.004 µg/L [0.004] {0.0 CV}	R^2=0.99783	RK1:23->B01@2	
MCT Std 1	0.846 Abs	0.121 µg/L	R^2=0.99783	RK1:24->C01@2	
MCT Std 1	0.785 Abs [0.8155] {5.3 CV}	0.166 µg/L [0.144] {22.2 CV}	R^2=0.99783	RK1:24->D01@2	
MCT Std 2	0.585 Abs	0.378 µg/L	R^2=0.99783	RK1:25->E01@2	
MCT Std 2	0.526 Abs [0.5555] {7.5 CV}	0.477 µg/L [0.428] {16.4 CV}	R^2=0.99783	RK1:25->F01@3	
MCT Std 3	0.358 Abs	1.072 µg/L	R^2=0.99783	RK1:26->G01@3	
MCT Std 3	0.382 Abs [0.3700] {4.6 CV}	0.930 µg/L [1.001] {10.0 CV}	R^2=0.99783	RK1:26->H01@3	
MCT Std 4	0.300 Abs	1.651 µg/L	R^2=0.99783	RK1:27->A02@2	
MCT Std 4	0.307 Abs [0.3035] {1.6 CV}	1.552 µg/L [1.602] {4.4 CV}	R^2=0.99783	RK1:27->B02@2	
MCT Std 5	0.215 Abs	> 5.000 µg/L		RK1:28->C02@2	
MCT Std 5	0.209 Abs [0.2120] {2.0 CV}	> 5.000 µg/L		RK1:28->D02@2	
*****					
7/2/2019 2:31:57 PM					
MCT 546 LRB 1	0.966 Abs	0.041 µg/L		RK1:29->E02@2	
MCT 546 LRB 1	0.909 Abs [0.9375] {4.3 CV}	0.078 µg/L [0.060] {44.0 CV}		RK1:29->F02@3	
MCT 546 Low-CV	0.603 Abs	0.352 µg/L		RK1:30->G02@3	
MCT 546 Low-CV	0.590 Abs [0.5965] {1.5 CV}	0.371 µg/L [0.361] {3.7 CV}		RK1:30->H02@3	
MCT 546 LFB 1	0.538 Abs	0.455 µg/L		RK1:31->A03@2	
MCT 546 LFB 1	0.517 Abs [0.5275] {2.8 CV}	0.495 µg/L [0.475] {6.0 CV}		RK1:31->B03@2	
*****					
Statistic					
MCT Std 0 [MEAN]	1.0150	0.0040			
MCT Std 0 [SD]	0.0000	0.0000			
MCT Std 0 [%CV]	0.0000	0.0000			
MCT Std 1 [MEAN]	0.8155	0.1435			
MCT Std 1 [SD]	0.0431	0.0318			
MCT Std 1 [%CV]	5.2892	22.1741			
MCT Std 1 [%DIFF]		-4.3333			
MCT Std 2 [MEAN]	0.5555	0.4275			
MCT Std 2 [SD]	0.0417	0.0700			
MCT Std 2 [%CV]	7.5102	16.3751			
MCT Std 2 [%DIFF]		6.8750			
MCT Std 3 [MEAN]	0.3700	1.0010			
MCT Std 3 [SD]	0.0170	0.1004			
MCT Std 3 [%CV]	4.5866	10.0309			
MCT Std 3 [%DIFF]		0.1000			
MCT Std 4 [MEAN]	0.3035	1.6015			

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0049	0.0700		
MCT Std 4 [%CV]	1.6309	4.3711		
MCT Std 4 [%DIFF]		-19.9250		
MCT Std 5 [MEAN]	0.2120			
MCT Std 5 [SD]	0.0042			
MCT Std 5 [%CV]	2.0012			
MCT 546 LRB 1 [MEAN]	0.9375	0.0595		
MCT 546 LRB 1 [SD]	0.0403	0.0262		
MCT 546 LRB 1 [%CV]	4.2992	43.9713		
MCT 546 Low-CV [MEAN]	0.5965	0.3615		
MCT 546 Low-CV [SD]	0.0092	0.0134		
MCT 546 Low-CV [%CV]	1.5411	3.7165		
MCT 546 LFB 1 [MEAN]	0.5275	0.4750		
MCT 546 LFB 1 [SD]	0.0148	0.0283		
MCT 546 LFB 1 [%CV]	2.8150	5.9546		

### Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$   
Weight: NONE  
A = 1.0180  
B = 1.2594  
C = 0.34234  
D = 0.20098  
R2 coef = 0.99781

