



## Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)	% Recovery
LRB 1	Lab Reagent Blank	8/7/2019	8/7/2019	<0.300	
LFB 1	Lab Fortified Blank (Spike = 0.60 ppb)	8/7/2019	8/7/2019	0.502	84
AB40022	Raccoon Lake SRA	8/5/2019	8/7/2019	<0.300	
AB40025	Starve Hollow SRA	8/5/2019	8/7/2019	<0.300	
AB40026	Whitewater Memorial SP	8/6/2019	8/7/2019	<0.300	
AB40026MS	Whitewater Memorial SP MS (Spk. = 0.6 ppb)	8/6/2019	8/7/2019	0.600	70
AB40026MSD	Whitewater Memorial SP MSD (Spk. = 0.6 ppb)	8/6/2019	8/7/2019	0.618	73
AB40027	Quakertown SRA	8/6/2019	8/7/2019	<0.300	
AB40028	Mounds SRA	8/6/2019	8/7/2019	<0.300	
AB40029	Hardy Lake SRA	8/6/2019	8/7/2019	<0.300	
AB40030	Deam Lake SRA	8/6/2019	8/7/2019	<0.300	
AB40031	Field Blank	8/6/2019	8/7/2019	<0.300	
AB40033	Raccoon Lake SRA Field Dup.	8/5/2019	8/7/2019	0.455	
AB40046	Fairfax SRA	8/5/2019	8/7/2019	<0.300	
AB40047	Paynetown SRA	8/5/2019	8/7/2019	<0.300	
LRB 2	Lab Reagent Blank 2	8/7/2019	8/7/2019	<0.300	
LFB 2	Lab Fortified Blank 2 (Spike = 0.60 ppb)	8/7/2019	8/7/2019	0.507	85

## Test Information

Request: 8/7/2019 3:06:58 PM  
Date: 8/7/2019 - 8/8/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
MCT Std 0	MICROCYSTINS ADDA 546	1.412 Abs	0.000 µg/L	R^2=0.99780	0.000
MCT Std 0	MICROCYSTINS ADDA 546	1.402 Abs [1.4070] {0.5 CV}	0.010 µg/L [0.005] {141.1}	R^2=0.99780	0.000
MCT Std 1	MICROCYSTINS ADDA 546	1.229 Abs	0.135 µg/L	R^2=0.99780	0.150
MCT Std 1	MICROCYSTINS ADDA 546	1.213 Abs [1.2210] {0.9 CV}	0.147 µg/L [0.141] {6.0}	R^2=0.99780	0.150
MCT Std 2	MICROCYSTINS ADDA 546	0.947 Abs	0.400 µg/L	R^2=0.99780	0.400
MCT Std 2	MICROCYSTINS ADDA 546	0.933 Abs [0.9400] {1.1 CV}	0.418 µg/L [0.409] {3.1}	R^2=0.99780	0.400
MCT Std 3	MICROCYSTINS ADDA 546	0.655 Abs	0.994 µg/L	R^2=0.99780	1.000
MCT Std 3	MICROCYSTINS ADDA 546	0.617 Abs [0.6360] {4.2 CV}	1.138 µg/L [1.066] {9.6}	R^2=0.99780	1.000
MCT Std 4	MICROCYSTINS ADDA 546	0.521 Abs	1.692 µg/L	R^2=0.99780	2.000
MCT Std 4	MICROCYSTINS ADDA 546	0.521 Abs [0.5210] {0.0 CV}	1.692 µg/L [1.692] {0.0}	R^2=0.99780	2.000
MCT Std 5	MICROCYSTINS ADDA 546	0.356 Abs	> 5.000 µg/L		5.000
MCT Std 5	MICROCYSTINS ADDA 546	0.352 Abs [0.3540] {0.8 CV}	> 5.000 µg/L		5.000
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.394 Abs	0.017 µg/L		
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.374 Abs [1.3840] {1.0 CV}	0.032 µg/L [0.025] {43.3}		
MCT 546 Low-CV	MICROCYSTINS ADDA 546	1.008 Abs	0.330 µg/L		
MCT 546 Low-CV	MICROCYSTINS ADDA 546	0.992 Abs [1.0000] {1.1 CV}	0.347 µg/L [0.339] {3.6}		
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.865 Abs	0.513 µg/L		
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.880 Abs [0.8725] {1.2 CV}	0.491 µg/L [0.502] {3.1}		
AB40022	MICROCYSTINS ADDA 546	1.076 Abs	0.262 µg/L	LOW	0.300 - 5
AB40022	MICROCYSTINS ADDA 546	1.056 Abs [1.0660] {1.3 CV}	0.281 µg/L [0.271] {4.9}	LOW [LOW]	0.300 - 5
AB40025	MICROCYSTINS ADDA 546	1.141 Abs	0.204 µg/L	LOW	0.300 - 5
AB40025	MICROCYSTINS ADDA 546	1.122 Abs [1.1315] {1.2 CV}	0.220 µg/L [0.212] {5.3}	LOW [LOW]	0.300 - 5
AB40026	MICROCYSTINS ADDA 546	1.236 Abs	0.130 µg/L	LOW	0.300 - 5
AB40026	MICROCYSTINS ADDA 546	1.116 Abs [1.1760] {7.2 CV}	0.226 µg/L [0.178] {38.1}	LOW [LOW]	0.300 - 5
AB40026MS	MICROCYSTINS ADDA 546	0.806 Abs	0.613 µg/L		0.300 - 5
AB40026MS	MICROCYSTINS ADDA 546	0.820 Abs [0.8130] {1.2 CV}	0.588 µg/L [0.600] {2.9}		0.300 - 5
AB40026MSD	MICROCYSTINS ADDA 546	0.808 Abs	0.610 µg/L		0.300 - 5
AB40026MSD	MICROCYSTINS ADDA 546	0.799 Abs [0.8035] {0.8 CV}	0.627 µg/L [0.618] {1.9}		0.300 - 5
AB40027	MICROCYSTINS ADDA 546	1.181 Abs	0.172 µg/L	LOW	0.300 - 5
AB40027	MICROCYSTINS ADDA 546	1.193 Abs [1.1870] {0.7 CV}	0.163 µg/L [0.168] {3.8}	LOW [LOW]	0.300 - 5
AB40028	MICROCYSTINS ADDA 546	1.209 Abs	0.150 µg/L	LOW	0.300 - 5
AB40028	MICROCYSTINS ADDA 546	1.108 Abs [1.1585] {6.2 CV}	0.233 µg/L [0.192] {30.6}	LOW [LOW]	0.300 - 5
AB40029	MICROCYSTINS ADDA 546	1.206 Abs	0.153 µg/L	LOW	0.300 - 5
AB40029	MICROCYSTINS ADDA 546	1.190 Abs [1.1980] {0.9 CV}	0.165 µg/L [0.159] {5.3}	LOW [LOW]	0.300 - 5
AB40030	MICROCYSTINS ADDA 546	1.370 Abs	0.035 µg/L	LOW	0.300 - 5
AB40030	MICROCYSTINS ADDA 546	1.343 Abs [1.3565] {1.4 CV}	0.054 µg/L [0.045] {30.2}	LOW [LOW]	0.300 - 5
AB40031	MICROCYSTINS ADDA 546	1.372 Abs	0.033 µg/L	LOW	0.300 - 5
AB40031	MICROCYSTINS ADDA 546	1.376 Abs [1.3740] {0.2 CV}	0.030 µg/L [0.032] {6.7}	LOW [LOW]	0.300 - 5
AB40033	MICROCYSTINS ADDA 546	0.951 Abs	0.395 µg/L		0.300 - 5
AB40033	MICROCYSTINS ADDA 546	0.864 Abs [0.9075] {6.8 CV}	0.515 µg/L [0.455] {18.6}		0.300 - 5
AB40046	MICROCYSTINS ADDA 546	1.359 Abs	0.043 µg/L	LOW	0.300 - 5
AB40046	MICROCYSTINS ADDA 546	1.365 Abs [1.3620] {0.3 CV}	0.038 µg/L [0.041] {8.7}	LOW [LOW]	0.300 - 5
AB40047	MICROCYSTINS ADDA 546	1.337 Abs	0.058 µg/L	LOW	0.300 - 5
AB40047	MICROCYSTINS ADDA 546	1.342 Abs [1.3395] {0.3 CV}	0.055 µg/L [0.056] {3.8}	LOW [LOW]	0.300 - 5
MCT LRB 2	MICROCYSTINS ADDA 546	1.396 Abs	0.015 µg/L	LOW	0.300 - 5
MCT LRB 2	MICROCYSTINS ADDA 546	1.402 Abs [1.3990] {0.3 CV}	0.010 µg/L [0.012] {28.3}	LOW [LOW]	0.300 - 5
MCT 546 LFB 2	MICROCYSTINS ADDA 546	0.890 Abs	0.476 µg/L		0.300 - 5
MCT 546 LFB 2	MICROCYSTINS ADDA 546	0.849 Abs [0.8695] {3.3 CV}	0.539 µg/L [0.507] {8.8}		0.300 - 5



# Test Report (by Request)

Note

Signature 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	
8/7/2019 3:06:58 PM					
MCT Std 0	1.412 Abs	0.000 µg/L	R^2=0.99780	RK1:23->A01@2	
MCT Std 0	1.402 Abs [1.4070] {0.5 CV}	0.010 µg/L [0.005] {141.4 CV}	R^2=0.99780	RK1:23->B01@2	
MCT Std 1	1.229 Abs	0.135 µg/L	R^2=0.99780	RK1:24->C01@2	
MCT Std 1	1.213 Abs [1.2210] {0.9 CV}	0.147 µg/L [0.141] {6.0 CV}	R^2=0.99780	RK1:24->D01@2	
MCT Std 2	0.947 Abs	0.400 µg/L	R^2=0.99780	RK1:25->E01@2	
MCT Std 2	0.933 Abs [0.9400] {1.1 CV}	0.418 µg/L [0.409] {3.1 CV}	R^2=0.99780	RK1:25->F01@3	
MCT Std 3	0.655 Abs	0.994 µg/L	R^2=0.99780	RK1:26->G01@3	
MCT Std 3	0.617 Abs [0.6360] {4.2 CV}	1.138 µg/L [1.066] {9.6 CV}	R^2=0.99780	RK1:26->H01@3	
MCT Std 4	0.521 Abs	1.692 µg/L	R^2=0.99780	RK1:27->A02@2	
MCT Std 4	0.521 Abs [0.5210] {0.0 CV}	1.692 µg/L [1.692] {0.0 CV}	R^2=0.99780	RK1:27->B02@2	
MCT Std 5	0.356 Abs	> 5.000 µg/L		RK1:28->C02@2	
MCT Std 5	0.352 Abs [0.3540] {0.8 CV}	> 5.000 µg/L		RK1:28->D02@2	
*****	*****	*****	*****	*****	*****
8/7/2019 3:06:58 PM					
MCT 546 LRB 1	1.394 Abs	0.017 µg/L		RK1:29->E02@2	
MCT 546 LRB 1	1.374 Abs [1.3840] {1.0 CV}	0.032 µg/L [0.025] {43.3 CV}		RK1:29->F02@3	
MCT 546 Low-CV	1.008 Abs	0.330 µg/L		RK1:30->G02@3	
MCT 546 Low-CV	0.992 Abs [1.0000] {1.1 CV}	0.347 µg/L [0.339] {3.6 CV}		RK1:30->H02@3	
MCT 546 LFB 1	0.865 Abs	0.513 µg/L		RK1:31->A03@2	
MCT 546 LFB 1	0.880 Abs [0.8725] {1.2 CV}	0.491 µg/L [0.502] {3.1 CV}		RK1:31->B03@2	
*****	*****	*****	*****	*****	*****
Statistic					
MCT Std 0 [MEAN]	1.4070	0.0050			
MCT Std 0 [SD]	0.0071	0.0071			
MCT Std 0 [%CV]	0.5026	141.4214			
MCT Std 1 [MEAN]	1.2210	0.1410			
MCT Std 1 [SD]	0.0113	0.0085			
MCT Std 1 [%CV]	0.9266	6.0179			
MCT Std 1 [%DIFF]		-6.0000			
MCT Std 2 [MEAN]	0.9400	0.4090			
MCT Std 2 [SD]	0.0099	0.0127			
MCT Std 2 [%CV]	1.0531	3.1120			
MCT Std 2 [%DIFF]		2.2500			
MCT Std 3 [MEAN]	0.6360	1.0660			
MCT Std 3 [SD]	0.0269	0.1018			
MCT Std 3 [%CV]	4.2249	9.5519			
MCT Std 3 [%DIFF]		6.6000			
MCT Std 4 [MEAN]	0.5210	1.6920			

Name	Absorbance	Concentration	Interpretation	Position	
MCT Std 4 [SD]	0.0000	0.0000			
MCT Std 4 [%CV]	0.0000	0.0000			
MCT Std 4 [%DIFF]		-15.4000			
MCT Std 5 [MEAN]	0.3540				
MCT Std 5 [SD]	0.0028				
MCT Std 5 [%CV]	0.7990				
MCT 546 LRB 1 [MEAN]	1.3840	0.0245			
MCT 546 LRB 1 [SD]	0.0141	0.0106			
MCT 546 LRB 1 [%CV]	1.0218	43.2923			
MCT 546 Low-CV [MEAN]	1.0000	0.3385			
MCT 546 Low-CV [SD]	0.0113	0.0120			
MCT 546 Low-CV [%CV]	1.1314	3.5512			
MCT 546 LFB 1 [MEAN]	0.8725	0.5020			
MCT 546 LFB 1 [SD]	0.0106	0.0156			
MCT 546 LFB 1 [%CV]	1.2157	3.0989			

Assay Curve

y = (A-D)/(1+(x/C)^B) + D  
Weight: NONE  
A = 1.4115  
B = 1.1945  
C = 0.52866  
D = 0.29907  
R2 coef = 0.99780

