



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB47837	Potato Creek State Park	7/6/2021	7/7/2021	< 0.30
AB47838	Lost Bridge West SRA	7/6/2021	7/7/2021	1.99
AB47839	Mississinewa Lake Miami SRA	7/6/2021	7/7/2021	0.34
AB47840	Potato Creek State Park (Field Dup)	7/6/2021	7/7/2021	< 0.30
AB47841	Field Blank	7/6/2021	7/7/2021	< 0.30
AB47842	Ft. Ben Harrison SP Dog Lake - East	7/6/2021	7/7/2021	< 0.30

Test Report (by Request)

Test Information

Request: 7/7/2021 8:13:40 PM
Date: 7/7/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.680 Abs	0.008 µg/L	R^2=0.99808, 99.2%			20J4209
MCT Std 0	MICROCYSTINS ADDA 54	1.705 Abs [1.6925] {1.0 C	0.000 µg/L [0.004]	R^2=0.99808, 100.7%			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.445 Abs	0.113 µg/L	R^2=0.99808, 85.4%			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.353 Abs [1.3990] {4.7 C	0.163 µg/L [0.138]	R^2=0.99808, 79.9%			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	1.003 Abs	0.444 µg/L	R^2=0.99808, 59.2%			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	1.021 Abs [1.0120] {1.3 C	0.423 µg/L [0.433]	R^2=0.99808, 60.3%			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.693 Abs	1.026 µg/L	R^2=0.99808, 40.9%			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.719 Abs [0.7060] {2.6 C	0.949 µg/L [0.988]	R^2=0.99808, 42.4%			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.537 Abs	1.769 µg/L	R^2=0.99808, 31.7%			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.532 Abs [0.5345] {0.7 C	1.806 µg/L [1.788]	R^2=0.99808, 31.4%			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.348 Abs	> 5.000 µg/L	20.567 %Abs			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.343 Abs [0.3455] {1.0 C	> 5.000 µg/L	20.272 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.603 Abs	0.041 µg/L	94.740 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.574 Abs [1.5885] {1.3 C	0.053 µg/L [0.047]	93.026 %Abs [93.8			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.128 Abs	0.320 µg/L	66.667 %Abs			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.024 Abs [1.0760] {6.8 C	0.420 µg/L [0.370]	60.520 %Abs [63.5			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.908 Abs	0.567 µg/L	53.664 %Abs			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.910 Abs [0.9090] {0.2 C	0.564 µg/L [0.566]	53.783 %Abs [53.7			20J4209

Note

Signature *David Jordan*

David Jordan 7/7/2021

* 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) 7/8/2021 7:59:42 AM

Test Report (by Request)

Test Information

 Request: 7/7/2021 8:14:11 PM
 Date: 7/7/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AB47837	MICROCYSTINS ADDA 54	1.572 Abs	0.054 µg/L	Low, 92.908 %Abs		0.300 - 5.000	20J4209
AB47837	MICROCYSTINS ADDA 54	1.560 Abs [1.5660] {0.5 C	0.059 µg/L [0.057]	Low, 92.199 %Abs		0.300 - 5.000	20J4209
AB47838	MICROCYSTINS ADDA 54	0.528 Abs	1.837 µg/L	31.206 %Abs		0.300 - 5.000	20J4209
AB47838	MICROCYSTINS ADDA 54	0.493 Abs [0.5105] {4.8 C	2.146 µg/L [1.991]	29.137 %Abs [30.1		0.300 - 5.000	20J4209
AB47838MS	MICROCYSTINS ADDA 54	0.454 Abs	2.615 µg/L	26.832 %Abs		0.300 - 5.000	20J4209
AB47838MS	MICROCYSTINS ADDA 54	0.433 Abs [0.4435] {3.3 C	2.949 µg/L [2.782]	25.591 %Abs [26.2		0.300 - 5.000	20J4209
AB47838MSD	MICROCYSTINS ADDA 54	0.493 Abs	2.146 µg/L	29.137 %Abs		0.300 - 5.000	20J4209
AB47838MSD	MICROCYSTINS ADDA 54	0.474 Abs [0.4835] {2.8 C	2.354 µg/L [2.250]	28.014 %Abs [28.5		0.300 - 5.000	20J4209
AB47839	MICROCYSTINS ADDA 54	1.101 Abs	0.344 µg/L	65.071 %Abs		0.300 - 5.000	20J4209
AB47839	MICROCYSTINS ADDA 54	1.101 Abs [1.1010] {0.0 C	0.344 µg/L [0.344]	65.071 %Abs [65.0		0.300 - 5.000	20J4209
AB47840	MICROCYSTINS ADDA 54	1.497 Abs	0.088 µg/L	Low, 88.475 %Abs		0.300 - 5.000	20J4209
AB47840	MICROCYSTINS ADDA 54	1.445 Abs [1.4710] {2.5 C	0.113 µg/L [0.101]	Low, 85.402 %Abs		0.300 - 5.000	20J4209
AB47841	MICROCYSTINS ADDA 54	1.577 Abs	0.052 µg/L	Low, 93.203 %Abs		0.300 - 5.000	20J4209
AB47841	MICROCYSTINS ADDA 54	1.567 Abs [1.5720] {0.4 C	0.056 µg/L [0.054]	Low, 92.612 %Abs		0.300 - 5.000	20J4209
AB47842	MICROCYSTINS ADDA 54	1.656 Abs	0.019 µg/L	Low, 97.872 %Abs		0.300 - 5.000	20J4209
AB47842	MICROCYSTINS ADDA 54	1.648 Abs [1.6520] {0.3 C	0.022 µg/L [0.021]	Low, 97.400 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.856 Abs	0.649 µg/L	50.591 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.840 Abs [0.8480] {1.3 C	0.677 µg/L [0.663]	49.645 %Abs [50.1		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.599 Abs	0.043 µg/L	Low, 94.504 %Abs		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.608 Abs [1.6035] {0.4 C	0.039 µg/L [0.041]	Low, 95.035 %Abs		0.300 - 5.000	20J4209

Note

Signature

David Jordan 7/7/2021

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: 20J4209

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
7/7/2021 8:13:40 PM				
MCT Std 0	1.680 Abs	0.008 µg/L	R ² =0.99808, 99.291 %Abs	RK1:23->A01@2
MCT Std 0	1.705 Abs [1.6925] {1.0 CV}	0.000 µg/L [0.004] {141.4 CV}	R ² =0.99808, 100.768 %Abs	RK1:23->B01@2
MCT Std 1	1.445 Abs	0.113 µg/L	R ² =0.99808, 85.402 %Abs	RK1:24->C01@2
MCT Std 1	1.353 Abs [1.3990] {4.7 CV}	0.163 µg/L [0.138] {25.6 CV}	R ² =0.99808, 79.965 %Abs	RK1:24->D01@2
MCT Std 2	1.003 Abs	0.444 µg/L	R ² =0.99808, 59.279 %Abs	RK1:25->E01@2
MCT Std 2	1.021 Abs [1.0120] {1.3 CV}	0.423 µg/L [0.433] {3.4 CV}	R ² =0.99808, 60.343 %Abs	RK1:25->F01@3
MCT Std 3	0.693 Abs	1.026 µg/L	R ² =0.99808, 40.957 %Abs	RK1:26->G01@3
MCT Std 3	0.719 Abs [0.7060] {2.6 CV}	0.949 µg/L [0.988] {5.5 CV}	R ² =0.99808, 42.494 %Abs	RK1:26->H01@3
MCT Std 4	0.537 Abs	1.769 µg/L	R ² =0.99808, 31.738 %Abs	RK1:27->A02@2
MCT Std 4	0.532 Abs [0.5345] {0.7 CV}	1.806 µg/L [1.788] {1.5 CV}	R ² =0.99808, 31.442 %Abs	RK1:27->B02@2
MCT Std 5	0.348 Abs	> 5.000 µg/L	20.567 %Abs	RK1:28->C02@2
MCT Std 5	0.343 Abs [0.3455] {1.0 CV}	> 5.000 µg/L	20.272 %Abs	RK1:28->D02@2

7/7/2021 8:13:40 PM				
MCT 546 LRB 1	1.603 Abs	0.041 µg/L	94.740 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.574 Abs [1.5885] {1.3 CV}	0.053 µg/L [0.047] {18.1 CV}	93.026 %Abs [93.883 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	1.128 Abs	0.320 µg/L	66.667 %Abs	RK1:30->G02@3
MCT 546 Low-CV	1.024 Abs [1.0760] {6.8 CV}	0.420 µg/L [0.370] {19.1 CV}	60.520 %Abs [63.593 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.908 Abs	0.567 µg/L	53.664 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.910 Abs [0.9090] {0.2 CV}	0.564 µg/L [0.566] {0.4 CV}	53.783 %Abs [53.723 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.6925	0.0040		
MCT Std 0 [SD]	0.0177	0.0057		
MCT Std 0 [%CV]	1.0445	141.4214		
MCT Std 1 [MEAN]	1.3990	0.1380		
MCT Std 1 [SD]	0.0651	0.0354		
MCT Std 1 [%CV]	4.6500	25.6198		
MCT Std 1 [%DIFF]		-8.0000		
MCT Std 2 [MEAN]	1.0120	0.4335		
MCT Std 2 [SD]	0.0127	0.0148		
MCT Std 2 [%CV]	1.2577	3.4254		
MCT Std 2 [%DIFF]		8.3750		
MCT Std 3 [MEAN]	0.7060	0.9875		
MCT Std 3 [SD]	0.0184	0.0544		
MCT Std 3 [%CV]	2.6041	5.5136		
MCT Std 3 [%DIFF]		-1.2500		
MCT Std 4 [MEAN]	0.5345	1.7875		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0035	0.0262		
MCT Std 4 [%CV]	0.6615	1.4637		
MCT Std 4 [%DIFF]		-10.6250		
MCT Std 5 [MEAN]	0.3455			
MCT Std 5 [SD]	0.0035			
MCT Std 5 [%CV]	1.0233			
MCT 546 LRB 1 [MEAN]	1.5885	0.0470		
MCT 546 LRB 1 [SD]	0.0205	0.0085		
MCT 546 LRB 1 [%CV]	1.2909	18.0538		
MCT 546 Low-CV [MEAN]	1.0760	0.3700		
MCT 546 Low-CV [SD]	0.0735	0.0707		
MCT 546 Low-CV [%CV]	6.8345	19.1110		
MCT 546 LFB 1 [MEAN]	0.9090	0.5655		
MCT 546 LFB 1 [SD]	0.0014	0.0021		
MCT 546 LFB 1 [%CV]	0.1556	0.3751		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.6982
 B = 1.0812
 C = 0.47283
 D = 0.25817
 R2 coef = 0.99808
 50% = 0.667

