



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB47550	Ft. Ben Harrison SP Dog Lake - East	6/7/2021	6/9/2021	< 0.30
AB47551	Ferdinand State Forest Lake	6/7/2021	6/9/2021	< 0.30
AB47552	Patoka SRA Beach	6/7/2021	6/9/2021	< 0.30
AB47578	Ft. Ben Harrison SP Dog Lake - East (Field Dup)	6/7/2021	6/9/2021	< 0.30
AB47579	Field Blank	6/7/2021	6/9/2021	< 0.30

Test Report (by Request)

Test Information

 Request: 6/9/2021 3:16:09 PM
 Date: 6/9/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.775 Abs	0.002 µg/L	R ² =0.99628, 100.1			20J4209
MCT Std 0	MICROCYSTINS ADDA 54	1.771 Abs [1.7730] {0.2 C	0.004 µg/L [0.003]	R ² =0.99628, 99.8			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.469 Abs	0.124 µg/L	R ² =0.99628, 82.8			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.418 Abs [1.4435] {2.5 C	0.149 µg/L [0.137]	R ² =0.99628, 79.9			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	1.027 Abs	0.429 µg/L	R ² =0.99628, 57.9			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	1.010 Abs [1.0185] {1.2 C	0.447 µg/L [0.438]	R ² =0.99628, 56.9			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.708 Abs	1.001 µg/L	R ² =0.99628, 39.9			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.704 Abs [0.7060] {0.4 C	1.013 µg/L [1.007]	R ² =0.99628, 39.7			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.587 Abs	1.517 µg/L	R ² =0.99628, 33.1			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.555 Abs [0.5710] {4.0 C	1.730 µg/L [1.623]	R ² =0.99628, 31.3			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.365 Abs	> 5.000 µg/L	20.587 %Abs			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.352 Abs [0.3585] {2.6 C	> 5.000 µg/L	19.853 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.599 Abs	0.069 µg/L	90.186 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.602 Abs [1.6005] {0.1 C	0.068 µg/L [0.068]	90.355 %Abs [90.2			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.215 Abs	0.268 µg/L	68.528 %Abs			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.165 Abs [1.1900] {3.0 C	0.305 µg/L [0.287]	65.708 %Abs [67.1			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.957 Abs	0.510 µg/L	53.976 %Abs			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.935 Abs [0.9460] {1.6 C	0.539 µg/L [0.525]	52.735 %Abs [53.3			20J4209

Note

Signature _____

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 Date: 6/9/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AB47550	MICROCYSTINS ADDA 54	1.673 Abs	0.041 µg/L	Low, 94.360 %Abs		0.300 - 5.000	20J4209
AB47550	MICROCYSTINS ADDA 54	1.613 Abs [1.6430] {2.6 C	0.063 µg/L [0.052]	Low, 90.976 %Abs		0.300 - 5.000	20J4209
AB47551	MICROCYSTINS ADDA 54	1.590 Abs	0.073 µg/L	Low, 89.679 %Abs		0.300 - 5.000	20J4209
AB47551	MICROCYSTINS ADDA 54	1.537 Abs [1.5635] {2.4 C	0.094 µg/L [0.083]	Low, 86.689 %Abs		0.300 - 5.000	20J4209
AB47551MS	MICROCYSTINS ADDA 54	0.879 Abs	0.622 µg/L	49.577 %Abs		0.300 - 5.000	20J4209
AB47551MS	MICROCYSTINS ADDA 54	0.843 Abs [0.8610] {3.0 C	0.683 µg/L [0.653]	47.547 %Abs [48.5		0.300 - 5.000	20J4209
AB47551MSD	MICROCYSTINS ADDA 54	0.919 Abs	0.561 µg/L	51.833 %Abs		0.300 - 5.000	20J4209
AB47551MSD	MICROCYSTINS ADDA 54	0.888 Abs [0.9035] {2.4 C	0.607 µg/L [0.584]	50.085 %Abs [50.9		0.300 - 5.000	20J4209
AB47552	MICROCYSTINS ADDA 54	1.606 Abs	0.066 µg/L	Low, 90.581 %Abs		0.300 - 5.000	20J4209
AB47552	MICROCYSTINS ADDA 54	1.599 Abs [1.6025] {0.3 C	0.069 µg/L [0.067]	Low, 90.186 %Abs		0.300 - 5.000	20J4209
AB47578	MICROCYSTINS ADDA 54	1.668 Abs	0.042 µg/L	Low, 94.078 %Abs		0.300 - 5.000	20J4209
AB47578	MICROCYSTINS ADDA 54	1.661 Abs [1.6645] {0.3 C	0.045 µg/L [0.043]	Low, 93.683 %Abs		0.300 - 5.000	20J4209
AB47579	MICROCYSTINS ADDA 54	1.571 Abs	0.080 µg/L	Low, 88.607 %Abs		0.300 - 5.000	20J4209
AB47579	MICROCYSTINS ADDA 54	1.620 Abs [1.5955] {2.2 C	0.061 µg/L [0.071]	Low, 91.371 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.927 Abs	0.550 µg/L	52.284 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.922 Abs [0.9245] {0.4 C	0.557 µg/L [0.553]	52.002 %Abs [52.1		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.632 Abs	0.056 µg/L	Low, 92.047 %Abs		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.572 Abs [1.6020] {2.6 C	0.080 µg/L [0.068]	Low, 88.663 %Abs		0.300 - 5.000	20J4209

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:

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
6/9/2021 3:16:09 PM				
MCT Std 0	1.775 Abs	0.002 µg/L	R ² =0.99628, 100.113 %Abs	RK1:23->A01@2
MCT Std 0	1.771 Abs [1.7730] {0.2 CV}	0.004 µg/L [0.003] {47.1 CV}	R ² =0.99628, 99.887 %Abs	RK1:23->B01@2
MCT Std 1	1.469 Abs	0.124 µg/L	R ² =0.99628, 82.854 %Abs	RK1:24->C01@2
MCT Std 1	1.418 Abs [1.4435] {2.5 CV}	0.149 µg/L [0.137] {13.0 CV}	R ² =0.99628, 79.977 %Abs	RK1:24->D01@2
MCT Std 2	1.027 Abs	0.429 µg/L	R ² =0.99628, 57.924 %Abs	RK1:25->E01@2
MCT Std 2	1.010 Abs [1.0185] {1.2 CV}	0.447 µg/L [0.438] {2.9 CV}	R ² =0.99628, 56.966 %Abs	RK1:25->F01@3
MCT Std 3	0.708 Abs	1.001 µg/L	R ² =0.99628, 39.932 %Abs	RK1:26->G01@3
MCT Std 3	0.704 Abs [0.7060] {0.4 CV}	1.013 µg/L [1.007] {0.8 CV}	R ² =0.99628, 39.707 %Abs	RK1:26->H01@3
MCT Std 4	0.587 Abs	1.517 µg/L	R ² =0.99628, 33.108 %Abs	RK1:27->A02@2
MCT Std 4	0.555 Abs [0.5710] {4.0 CV}	1.730 µg/L [1.623] {9.3 CV}	R ² =0.99628, 31.303 %Abs	RK1:27->B02@2
MCT Std 5	0.365 Abs	> 5.000 µg/L	20.587 %Abs	RK1:28->C02@2
MCT Std 5	0.352 Abs [0.3585] {2.6 CV}	> 5.000 µg/L	19.853 %Abs	RK1:28->D02@2

6/9/2021 3:16:09 PM				
MCT 546 LRB 1	1.599 Abs	0.069 µg/L	90.186 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.602 Abs [1.6005] {0.1 CV}	0.068 µg/L [0.068] {1.0 CV}	90.355 %Abs [90.271 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	1.215 Abs	0.268 µg/L	68.528 %Abs	RK1:30->G02@3
MCT 546 Low-CV	1.165 Abs [1.1900] {3.0 CV}	0.305 µg/L [0.287] {9.1 CV}	65.708 %Abs [67.118 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.957 Abs	0.510 µg/L	53.976 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.935 Abs [0.9460] {1.6 CV}	0.539 µg/L [0.525] {3.9 CV}	52.735 %Abs [53.356 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.7730	0.0030		
MCT Std 0 [SD]	0.0028	0.0014		
MCT Std 0 [%CV]	0.1595	47.1405		
MCT Std 1 [MEAN]	1.4435	0.1365		
MCT Std 1 [SD]	0.0361	0.0177		
MCT Std 1 [%CV]	2.4983	12.9507		
MCT Std 1 [%DIFF]		-9.0000		
MCT Std 2 [MEAN]	1.0185	0.4380		
MCT Std 2 [SD]	0.0120	0.0127		
MCT Std 2 [%CV]	1.1802	2.9059		
MCT Std 2 [%DIFF]		9.5000		
MCT Std 3 [MEAN]	0.7060	1.0070		
MCT Std 3 [SD]	0.0028	0.0085		
MCT Std 3 [%CV]	0.4006	0.8426		
MCT Std 3 [%DIFF]		0.7000		
MCT Std 4 [MEAN]	0.5710	1.6235		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0226	0.1506		
MCT Std 4 [%CV]	3.9628	9.2771		
MCT Std 4 [%DIFF]		-18.8250		
MCT Std 5 [MEAN]	0.3585			
MCT Std 5 [SD]	0.0092			
MCT Std 5 [%CV]	2.5641			
MCT 546 LRB 1 [MEAN]	1.6005	0.0685		
MCT 546 LRB 1 [SD]	0.0021	0.0007		
MCT 546 LRB 1 [%CV]	0.1325	1.0323		
MCT 546 Low-CV [MEAN]	1.1900	0.2865		
MCT 546 Low-CV [SD]	0.0354	0.0262		
MCT 546 Low-CV [%CV]	2.9710	9.1319		
MCT 546 LFB 1 [MEAN]	0.9460	0.5245		
MCT 546 LFB 1 [SD]	0.0156	0.0205		
MCT 546 LFB 1 [%CV]	1.6444	3.9096		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.7803
 B = 1.0954
 C = 0.41673
 D = 0.29727
 R2 coef = 0.99628
 50% = 0.610

