



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB52058	Summit Lake State Park	7/19/2022	7/20/2022	< 0.30
AB52059	Kunkel Lake @ Oubache State Park	7/18/2022	7/20/2022	< 0.30
AB52060	Pokagon State Park	7/18/2022	7/20/2022	< 0.30
AB52061	Potawatomi Inn's Beach	7/18/2022	7/20/2022	< 0.30
AB52062	Chain O'Lakes SP	7/18/2022	7/20/2022	< 0.30
AB52063	Potato Creek State Park	7/19/2022	7/20/2022	< 0.30
AB52064	Lost Bridge West SRA	7/19/2022	7/20/2022	0.42
AB52065	Mississinewa Lake Miami SRA	7/19/2022	7/20/2022	0.78
AB52072	Summit Lake State Park (Field Dup)	7/19/2022	7/20/2022	< 0.30
AB52073	Field Blank	7/19/2022	7/20/2022	< 0.30
AB52074	Lincoln State Park	7/18/2022	7/20/2022	< 0.30
AB52075	Ferdinand State Forest Lake	7/18/2022	7/20/2022	< 0.30
AB52076	Patoka SRA Beach	7/18/2022	7/20/2022	< 0.30

Test Information

Request: 7/20/2022 5:02:57 PM
Date: 7/20/2022 - 7/21/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.296 Abs	0.000 µg/L	R ² =0.99669, 102.8			M22B127(
MCT Std 0	MICROCYSTINS ADDA 54	1.224 Abs [1.2600] {4.0 C	0.027 µg/L [0.014]	R ² =0.99669, 97.14			M22B127(
MCT Std 1	MICROCYSTINS ADDA 54	1.034 Abs	0.146 µg/L	R ² =0.99669, 82.06			M22B127(
MCT Std 1	MICROCYSTINS ADDA 54	1.053 Abs [1.0435] {1.3 C	0.133 µg/L [0.139]	R ² =0.99669, 83.57			M22B127(
MCT Std 2	MICROCYSTINS ADDA 54	0.776 Abs	0.389 µg/L	R ² =0.99669, 61.58			M22B127(
MCT Std 2	MICROCYSTINS ADDA 54	0.730 Abs [0.7530] {4.3 C	0.454 µg/L [0.421]	R ² =0.99669, 57.93			M22B127(
MCT Std 3	MICROCYSTINS ADDA 54	0.518 Abs	0.972 µg/L	R ² =0.99669, 41.11			M22B127(
MCT Std 3	MICROCYSTINS ADDA 54	0.480 Abs [0.4990] {5.4 C	1.146 µg/L [1.059]	R ² =0.99669, 38.05			M22B127(
MCT Std 4	MICROCYSTINS ADDA 54	0.416 Abs	1.578 µg/L	R ² =0.99669, 33.01			M22B127(
MCT Std 4	MICROCYSTINS ADDA 54	0.415 Abs [0.4155] {0.2 C	1.587 µg/L [1.582]	R ² =0.99669, 32.93			M22B127(
MCT Std 5	MICROCYSTINS ADDA 54	0.274 Abs	> 5.000 µg/L	21.746 %Abs			M22B127(
MCT Std 5	MICROCYSTINS ADDA 54	0.255 Abs [0.2645] {5.1 C	> 5.000 µg/L	20.238 %Abs			M22B127(
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.228 Abs	0.025 µg/L	97.460 %Abs			M22B127(
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.201 Abs [1.2145] {1.6 C	0.041 µg/L [0.033]	95.317 %Abs [96.3			M22B127(
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.806 Abs	0.352 µg/L	63.968 %Abs			M22B127(
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.793 Abs [0.7995] {1.1 C	0.368 µg/L [0.360]	62.937 %Abs [63.4			M22B127(
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.706 Abs	0.492 µg/L	56.032 %Abs			M22B127(
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.663 Abs [0.6845] {4.4 C	0.569 µg/L [0.530]	52.619 %Abs [54.3			M22B127(

Note

Signature

David Jordan

David Jordan 7/20/2022

Test Information

Request: 7/20/2022 5:04:01 PM
Date: 7/20/2022 - 7/21/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AB52058	MICROCYSTINS ADDA 54	1.178 Abs	0.054 µg/L	Low, 93.492 %Abs		0.300 - 5.000	M22B127(
AB52058	MICROCYSTINS ADDA 54	1.163 Abs [1.1705] {0.9 C	0.063 µg/L [0.058]			0.300 - 5.000	M22B127(
AB52059	MICROCYSTINS ADDA 54	1.147 Abs	0.073 µg/L	Low, 91.032 %Abs		0.300 - 5.000	M22B127(
AB52059	MICROCYSTINS ADDA 54	1.086 Abs [1.1165] {3.9 C	0.111 µg/L [0.092]			0.300 - 5.000	M22B127(
AB52060	MICROCYSTINS ADDA 54	1.018 Abs	0.157 µg/L	Low, 80.794 %Abs		0.300 - 5.000	M22B127(
AB52060	MICROCYSTINS ADDA 54	1.001 Abs [1.0095] {1.2 C	0.170 µg/L [0.164]			0.300 - 5.000	M22B127(
AB52061	MICROCYSTINS ADDA 54	1.224 Abs	0.027 µg/L	Low, 97.143 %Abs		0.300 - 5.000	M22B127(
AB52061	MICROCYSTINS ADDA 54	1.191 Abs [1.2075] {1.9 C	0.047 µg/L [0.037]			0.300 - 5.000	M22B127(
AB52061MS	MICROCYSTINS ADDA 54	0.677 Abs	0.542 µg/L	53.730 %Abs		0.300 - 5.000	M22B127(
AB52061MS	MICROCYSTINS ADDA 54	0.654 Abs [0.6655] {2.4 C	0.587 µg/L [0.564]	51.905 %Abs [52.8		0.300 - 5.000	M22B127(
AB52061MSD	MICROCYSTINS ADDA 54	0.659 Abs	0.577 µg/L	52.302 %Abs		0.300 - 5.000	M22B127(
AB52061MSD	MICROCYSTINS ADDA 54	0.632 Abs [0.6455] {3.0 C	0.633 µg/L [0.605]	50.159 %Abs [51.2		0.300 - 5.000	M22B127(
AB52062	MICROCYSTINS ADDA 54	1.089 Abs	0.109 µg/L	Low, 86.429 %Abs		0.300 - 5.000	M22B127(
AB52062	MICROCYSTINS ADDA 54	1.087 Abs [1.0880] {0.1 C	0.110 µg/L [0.109]			0.300 - 5.000	M22B127(
AB52063	MICROCYSTINS ADDA 54	1.138 Abs	0.078 µg/L	Low, 90.317 %Abs		0.300 - 5.000	M22B127(
AB52063	MICROCYSTINS ADDA 54	1.136 Abs [1.1370] {0.1 C	0.080 µg/L [0.079]			0.300 - 5.000	M22B127(
AB52064	MICROCYSTINS ADDA 54	0.772 Abs	0.395 µg/L	61.270 %Abs		0.300 - 5.000	M22B127(
AB52064	MICROCYSTINS ADDA 54	0.733 Abs [0.7525] {3.7 C	0.449 µg/L [0.422]	58.175 %Abs [59.7		0.300 - 5.000	M22B127(
AB52065	MICROCYSTINS ADDA 54	0.588 Abs	0.741 µg/L	46.667 %Abs		0.300 - 5.000	M22B127(
AB52065	MICROCYSTINS ADDA 54	0.561 Abs [0.5745] {3.3 C	0.820 µg/L [0.780]	44.524 %Abs [45.5		0.300 - 5.000	M22B127(
AB52072	MICROCYSTINS ADDA 54	1.105 Abs	0.099 µg/L	Low, 87.698 %Abs		0.300 - 5.000	M22B127(
AB52072	MICROCYSTINS ADDA 54	1.067 Abs [1.0860] {2.5 C	0.123 µg/L [0.111]			0.300 - 5.000	M22B127(
AB52073	MICROCYSTINS ADDA 54	1.183 Abs	0.051 µg/L	Low, 93.889 %Abs		0.300 - 5.000	M22B127(
AB52073	MICROCYSTINS ADDA 54	1.122 Abs [1.1525] {3.7 C	0.088 µg/L [0.069]			0.300 - 5.000	M22B127(
AB52074	MICROCYSTINS ADDA 54	1.005 Abs	0.167 µg/L	Low, 79.762 %Abs		0.300 - 5.000	M22B127(
AB52074	MICROCYSTINS ADDA 54	0.916 Abs [0.9605] {6.6 C	0.239 µg/L [0.203]			0.300 - 5.000	M22B127(
AB52075	MICROCYSTINS ADDA 54	1.250 Abs	0.011 µg/L	Low, 99.206 %Abs		0.300 - 5.000	M22B127(
AB52075	MICROCYSTINS ADDA 54	1.176 Abs [1.2130] {4.3 C	0.056 µg/L [0.034]			0.300 - 5.000	M22B127(
AB52076	MICROCYSTINS ADDA 54	1.227 Abs	0.025 µg/L	Low, 97.381 %Abs		0.300 - 5.000	M22B127(
AB52076	MICROCYSTINS ADDA 54	1.180 Abs [1.2035] {2.8 C	0.053 µg/L [0.039]			0.300 - 5.000	M22B127(
LFB 2	MICROCYSTINS ADDA 54	0.686 Abs	0.526 µg/L	54.444 %Abs		0.300 - 5.000	M22B127(
LFB 2	MICROCYSTINS ADDA 54	0.664 Abs [0.6750] {2.3 C	0.567 µg/L [0.546]	52.698 %Abs [53.5		0.300 - 5.000	M22B127(
LRB 2	MICROCYSTINS ADDA 54	1.157 Abs	0.067 µg/L	Low, 91.825 %Abs		0.300 - 5.000	M22B127(
LRB 2	MICROCYSTINS ADDA 54	1.182 Abs [1.1695] {1.5 C	0.052 µg/L [0.060]			0.300 - 5.000	M22B127(

Note

Signature

David Jordan

David Jordan 7/20/2022

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: M22B1270

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position	
7/20/2022 5:02:57 PM					
MCT Std 0	1.296 Abs	0.000 µg/L	R ² =0.99669, 102.857 %Abs	RK1:23->A01@2	
MCT Std 0	1.224 Abs [1.2600] {4.0 CV}	0.027 µg/L [0.014] {141.4 CV}	R ² =0.99669, 97.143 %Abs	RK1:23->B01@2	
MCT Std 1	1.034 Abs	0.146 µg/L	R ² =0.99669, 82.063 %Abs	RK1:24->C01@2	
MCT Std 1	1.053 Abs [1.0435] {1.3 CV}	0.133 µg/L [0.139] {6.6 CV}	R ² =0.99669, 83.571 %Abs	RK1:24->D01@2	
MCT Std 2	0.776 Abs	0.389 µg/L	R ² =0.99669, 61.587 %Abs	RK1:25->E01@2	
MCT Std 2	0.730 Abs [0.7530] {4.3 CV}	0.454 µg/L [0.421] {10.9 CV}	R ² =0.99669, 57.937 %Abs	RK1:25->F01@3	
MCT Std 3	0.518 Abs	0.972 µg/L	R ² =0.99669, 41.111 %Abs	RK1:26->G01@3	
MCT Std 3	0.480 Abs [0.4990] {5.4 CV}	1.146 µg/L [1.059] {11.6 CV}	R ² =0.99669, 38.095 %Abs	RK1:26->H01@3	
MCT Std 4	0.416 Abs	1.578 µg/L	R ² =0.99669, 33.016 %Abs	RK1:27->A02@2	
MCT Std 4	0.415 Abs [0.4155] {0.2 CV}	1.587 µg/L [1.582] {0.4 CV}	R ² =0.99669, 32.937 %Abs	RK1:27->B02@2	
MCT Std 5	0.274 Abs	> 5.000 µg/L	21.746 %Abs	RK1:28->C02@2	
MCT Std 5	0.255 Abs [0.2645] {5.1 CV}	> 5.000 µg/L	20.238 %Abs	RK1:28->D02@2	

7/20/2022 5:02:57 PM					
MCT 546 LRB 1	1.228 Abs	0.025 µg/L	97.460 %Abs	RK1:29->E02@2	
MCT 546 LRB 1	1.201 Abs [1.2145] {1.6 CV}	0.041 µg/L [0.033] {34.3 CV}	95.317 %Abs [96.389 %Abs]	RK1:29->F02@3	
MCT 546 Low-CV	0.806 Abs	0.352 µg/L	63.968 %Abs	RK1:30->G02@3	
MCT 546 Low-CV	0.793 Abs [0.7995] {1.1 CV}	0.368 µg/L [0.360] {3.1 CV}	62.937 %Abs [63.452 %Abs]	RK1:30->H02@3	
MCT 546 LFB 1	0.706 Abs	0.492 µg/L	56.032 %Abs	RK1:31->A03@2	
MCT 546 LFB 1	0.663 Abs [0.6845] {4.4 CV}	0.569 µg/L [0.530] {10.3 CV}	52.619 %Abs [54.325 %Abs]	RK1:31->B03@2	

Statistic					
MCT Std 0 [MEAN]	1.2600	0.0135			
MCT Std 0 [SD]	0.0509	0.0191			
MCT Std 0 [%CV]	4.0406	141.4214			
MCT Std 1 [MEAN]	1.0435	0.1395			
MCT Std 1 [SD]	0.0134	0.0092			
MCT Std 1 [%CV]	1.2875	6.5895			
MCT Std 1 [%DIFF]		-7.0000			
MCT Std 2 [MEAN]	0.7530	0.4215			
MCT Std 2 [SD]	0.0325	0.0460			
MCT Std 2 [%CV]	4.3196	10.9044			
MCT Std 2 [%DIFF]		5.3750			
MCT Std 3 [MEAN]	0.4990	1.0590			
MCT Std 3 [SD]	0.0269	0.1230			
MCT Std 3 [%CV]	5.3848	11.6182			
MCT Std 3 [%DIFF]		5.9000			
MCT Std 4 [MEAN]	0.4155	1.5825			

Name	Absorbance	Concentration	Interpretation	Position	
MCT Std 4 [SD]	0.0007	0.0064			
MCT Std 4 [%CV]	0.1702	0.4021			
MCT Std 4 [%DIFF]		-20.8750			
MCT Std 5 [MEAN]	0.2645				
MCT Std 5 [SD]	0.0134				
MCT Std 5 [%CV]	5.0794				
MCT 546 LRB 1 [MEAN]	1.2145	0.0330			
MCT 546 LRB 1 [SD]	0.0191	0.0113			
MCT 546 LRB 1 [%CV]	1.5720	34.2840			
MCT 546 Low-CV [MEAN]	0.7995	0.3600			
MCT 546 Low-CV [SD]	0.0092	0.0113			
MCT 546 Low-CV [%CV]	1.1498	3.1427			
MCT 546 LFB 1 [MEAN]	0.6845	0.5305			
MCT 546 LFB 1 [SD]	0.0304	0.0544			
MCT 546 LFB 1 [%CV]	4.4420	10.2634			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.2645
 B = 1.1579
 C = 0.43045
 D = 0.22743
 R2 coef = 0.99669
 50% = 0.638

