



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB52159	Raccoon Lake SRA	7/25/2022	7/27/2022	< 0.30
AB52161	Cagles Mill Lake Beach	7/25/2022	7/27/2022	0.33
AB52162	Paynetown SRA	7/25/2022	7/27/2022	< 0.30
AB52163	Fairfax SRA	7/25/2022	7/27/2022	< 0.30
AB52165	Whitewater Memorial SP	7/26/2022	7/27/2022	< 0.30
AB52166	Quakertown SRA	7/26/2022	7/27/2022	< 0.30
AB52167	Mounds SRA	7/26/2022	7/27/2022	< 0.30
AB52168	Hardy Lake SRA	7/26/2022	7/27/2022	< 0.30
AB52169	Whitewater Memorial SP (Field Duplicate)	7/26/2022	7/27/2022	< 0.30
AB52170	Field Blank	7/26/2022	7/27/2022	< 0.30
AB52174	Ft. Ben Harrison SP Dog Lake	7/26/2022	7/27/2022	< 0.30

Test Information

Request: 7/27/2022 2:36:36 PM
Date: 7/27/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.354 Abs	0.019 µg/L	R ² =0.99671, 99.1%			M22B127(
MCT Std 0	MICROCYSTINS ADDA 54	1.375 Abs [1.3645] {1.1 C	0.000 µg/L [0.009]	R ² =0.99671, 100.7%			M22B127(
MCT Std 1	MICROCYSTINS ADDA 54	1.185 Abs	0.129 µg/L	R ² =0.99671, 86.8%			M22B127(
MCT Std 1	MICROCYSTINS ADDA 54	1.159 Abs [1.1720] {1.6 C	0.145 µg/L [0.137]	R ² =0.99671, 84.9%			M22B127(
MCT Std 2	MICROCYSTINS ADDA 54	0.825 Abs	0.432 µg/L	R ² =0.99671, 60.4%			M22B127(
MCT Std 2	MICROCYSTINS ADDA 54	0.840 Abs [0.8325] {1.3 C	0.415 µg/L [0.424]	R ² =0.99671, 61.5%			M22B127(
MCT Std 3	MICROCYSTINS ADDA 54	0.541 Abs	1.035 µg/L	R ² =0.99671, 39.6%			M22B127(
MCT Std 3	MICROCYSTINS ADDA 54	0.547 Abs [0.5440] {0.8 C	1.013 µg/L [1.024]	R ² =0.99671, 40.0%			M22B127(
MCT Std 4	MICROCYSTINS ADDA 54	0.450 Abs	1.534 µg/L	R ² =0.99671, 32.9%			M22B127(
MCT Std 4	MICROCYSTINS ADDA 54	0.435 Abs [0.4425] {2.4 C	1.660 µg/L [1.597]	R ² =0.99671, 31.8%			M22B127(
MCT Std 5	MICROCYSTINS ADDA 54	0.293 Abs	> 5.000 µg/L	21.465 %Abs			M22B127(
MCT Std 5	MICROCYSTINS ADDA 54	0.284 Abs [0.2885] {2.2 C	> 5.000 µg/L	20.806 %Abs			M22B127(
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.326 Abs	0.039 µg/L	97.143 %Abs			M22B127(
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.339 Abs [1.3325] {0.7 C	0.030 µg/L [0.034]	98.095 %Abs [97.6			M22B127(
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.869 Abs	0.382 µg/L	63.663 %Abs			M22B127(
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.882 Abs [0.8755] {1.0 C	0.368 µg/L [0.375]	64.615 %Abs [64.1			M22B127(
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.758 Abs	0.522 µg/L	55.531 %Abs			M22B127(
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.759 Abs [0.7585] {0.1 C	0.520 µg/L [0.521]	55.604 %Abs [55.5			M22B127(

Note

Signature

David Jordan

David Jordan 7/27/2022

Test Report (by Request)

Test Information

Request: 7/27/2022 2:46:16 PM
Date: 7/27/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AB52159	MICROCYSTINS ADDA 54	1.226 Abs	0.103 µg/L	Low, 89.817 %Abs		0.300 - 5.000	M22B127(
AB52159	MICROCYSTINS ADDA 54	1.234 Abs [1.2300] {0.5 C	0.098 µg/L [0.101]	Low, 90.403 %Abs		0.300 - 5.000	M22B127(
AB52159MS	MICROCYSTINS ADDA 54	0.668 Abs	0.678 µg/L	48.938 %Abs		0.300 - 5.000	M22B127(
AB52159MS	MICROCYSTINS ADDA 54	0.665 Abs [0.6665] {0.3 C	0.685 µg/L [0.681]	48.718 %Abs [48.8		0.300 - 5.000	M22B127(
AB52159MSD	MICROCYSTINS ADDA 54	0.660 Abs	0.695 µg/L	48.352 %Abs		0.300 - 5.000	M22B127(
AB52159MSD	MICROCYSTINS ADDA 54	0.663 Abs [0.6615] {0.3 C	0.689 µg/L [0.692]	48.571 %Abs [48.4		0.300 - 5.000	M22B127(
AB52161	MICROCYSTINS ADDA 54	0.899 Abs	0.351 µg/L	65.861 %Abs		0.300 - 5.000	M22B127(
AB52161	MICROCYSTINS ADDA 54	0.938 Abs [0.9185] {3.0 C	0.314 µg/L [0.333]	68.718 %Abs [67.2		0.300 - 5.000	M22B127(
AB52162	MICROCYSTINS ADDA 54	1.222 Abs	0.105 µg/L	Low, 89.524 %Abs		0.300 - 5.000	M22B127(
AB52162	MICROCYSTINS ADDA 54	1.212 Abs [1.2170] {0.6 C	0.111 µg/L [0.108]	Low, 88.791 %Abs		0.300 - 5.000	M22B127(
AB52163	MICROCYSTINS ADDA 54	1.139 Abs	0.159 µg/L	Low, 83.443 %Abs		0.300 - 5.000	M22B127(
AB52163	MICROCYSTINS ADDA 54	1.163 Abs [1.1510] {1.5 C	0.143 µg/L [0.151]	Low, 85.201 %Abs		0.300 - 5.000	M22B127(
AB52165	MICROCYSTINS ADDA 54	0.989 Abs	0.269 µg/L	Low, 72.454 %Abs		0.300 - 5.000	M22B127(
AB52165	MICROCYSTINS ADDA 54	1.003 Abs [0.9960] {1.0 C	0.258 µg/L [0.263]	Low, 73.480 %Abs		0.300 - 5.000	M22B127(
AB52166	MICROCYSTINS ADDA 54	1.147 Abs	0.153 µg/L	Low, 84.029 %Abs		0.300 - 5.000	M22B127(
AB52166	MICROCYSTINS ADDA 54	1.158 Abs [1.1525] {0.7 C	0.146 µg/L [0.149]	Low, 84.835 %Abs		0.300 - 5.000	M22B127(
AB52167	MICROCYSTINS ADDA 54	1.132 Abs	0.163 µg/L	Low, 82.930 %Abs		0.300 - 5.000	M22B127(
AB52167	MICROCYSTINS ADDA 54	1.132 Abs [1.1320] {0.0 C	0.163 µg/L [0.163]	Low, 82.930 %Abs		0.300 - 5.000	M22B127(
AB52168	MICROCYSTINS ADDA 54	1.082 Abs	0.198 µg/L	Low, 79.267 %Abs		0.300 - 5.000	M22B127(
AB52168	MICROCYSTINS ADDA 54	1.101 Abs [1.0915] {1.2 C	0.184 µg/L [0.191]	Low, 80.659 %Abs		0.300 - 5.000	M22B127(
AB52169	MICROCYSTINS ADDA 54	1.010 Abs	0.252 µg/L	Low, 73.993 %Abs		0.300 - 5.000	M22B127(
AB52169	MICROCYSTINS ADDA 54	0.995 Abs [1.0025] {1.1 C	0.264 µg/L [0.258]	Low, 72.894 %Abs		0.300 - 5.000	M22B127(
AB52170	MICROCYSTINS ADDA 54	1.345 Abs	0.026 µg/L	Low, 98.535 %Abs		0.300 - 5.000	M22B127(
AB52170	MICROCYSTINS ADDA 54	1.336 Abs [1.3405] {0.5 C	0.032 µg/L [0.029]	Low, 97.875 %Abs		0.300 - 5.000	M22B127(
AB52174	MICROCYSTINS ADDA 54	1.291 Abs	0.062 µg/L	Low, 94.579 %Abs		0.300 - 5.000	M22B127(
AB52174	MICROCYSTINS ADDA 54	1.268 Abs [1.2795] {1.3 C	0.076 µg/L [0.069]	Low, 92.894 %Abs		0.300 - 5.000	M22B127(
LFB 2	MICROCYSTINS ADDA 54	0.720 Abs	0.582 µg/L	52.747 %Abs		0.300 - 5.000	M22B127(
LFB 2	MICROCYSTINS ADDA 54	0.716 Abs [0.7180] {0.4 C	0.589 µg/L [0.586]	52.454 %Abs [52.6		0.300 - 5.000	M22B127(
LRB 2	MICROCYSTINS ADDA 54	1.281 Abs	0.068 µg/L	Low, 93.846 %Abs		0.300 - 5.000	M22B127(
LRB 2	MICROCYSTINS ADDA 54	1.277 Abs [1.2790] {0.2 C	0.071 µg/L [0.069]	Low, 93.553 %Abs		0.300 - 5.000	M22B127(

Note

Signature 

David Jordan 7/27/2022

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	
7/27/2022 2:36:36 PM					
MCT Std 0	1.354 Abs	0.019 µg/L	R ² =0.99671, 99.194 %Abs	RK1:23->A01@2	
MCT Std 0	1.375 Abs [1.3645] {1.1 CV}	0.000 µg/L [0.009] {141.4 CV}	R ² =0.99671, 100.733 %Abs	RK1:23->B01@2	
MCT Std 1	1.185 Abs	0.129 µg/L	R ² =0.99671, 86.813 %Abs	RK1:24->C01@2	
MCT Std 1	1.159 Abs [1.1720] {1.6 CV}	0.145 µg/L [0.137] {8.3 CV}	R ² =0.99671, 84.908 %Abs	RK1:24->D01@2	
MCT Std 2	0.825 Abs	0.432 µg/L	R ² =0.99671, 60.440 %Abs	RK1:25->E01@2	
MCT Std 2	0.840 Abs [0.8325] {1.3 CV}	0.415 µg/L [0.424] {2.8 CV}	R ² =0.99671, 61.538 %Abs	RK1:25->F01@3	
MCT Std 3	0.541 Abs	1.035 µg/L	R ² =0.99671, 39.634 %Abs	RK1:26->G01@3	
MCT Std 3	0.547 Abs [0.5440] {0.8 CV}	1.013 µg/L [1.024] {1.5 CV}	R ² =0.99671, 40.073 %Abs	RK1:26->H01@3	
MCT Std 4	0.450 Abs	1.534 µg/L	R ² =0.99671, 32.967 %Abs	RK1:27->A02@2	
MCT Std 4	0.435 Abs [0.4425] {2.4 CV}	1.660 µg/L [1.597] {5.6 CV}	R ² =0.99671, 31.868 %Abs	RK1:27->B02@2	
MCT Std 5	0.293 Abs	> 5.000 µg/L	21.465 %Abs	RK1:28->C02@2	
MCT Std 5	0.284 Abs [0.2885] {2.2 CV}	> 5.000 µg/L	20.806 %Abs	RK1:28->D02@2	

7/27/2022 2:36:36 PM					
MCT 546 LRB 1	1.326 Abs	0.039 µg/L	97.143 %Abs	RK1:29->E02@2	
MCT 546 LRB 1	1.339 Abs [1.3325] {0.7 CV}	0.030 µg/L [0.034] {18.4 CV}	98.095 %Abs [97.619 %Abs]	RK1:29->F02@3	
MCT 546 Low-CV	0.869 Abs	0.382 µg/L	63.663 %Abs	RK1:30->G02@3	
MCT 546 Low-CV	0.882 Abs [0.8755] {1.0 CV}	0.368 µg/L [0.375] {2.6 CV}	64.615 %Abs [64.139 %Abs]	RK1:30->H02@3	
MCT 546 LFB 1	0.758 Abs	0.522 µg/L	55.531 %Abs	RK1:31->A03@2	
MCT 546 LFB 1	0.759 Abs [0.7585] {0.1 CV}	0.520 µg/L [0.521] {0.3 CV}	55.604 %Abs [55.568 %Abs]	RK1:31->B03@2	

Statistic					
MCT Std 0 [MEAN]	1.3645	0.0095			
MCT Std 0 [SD]	0.0148	0.0134			
MCT Std 0 [%CV]	1.0883	141.4214			
MCT Std 1 [MEAN]	1.1720	0.1370			
MCT Std 1 [SD]	0.0184	0.0113			
MCT Std 1 [%CV]	1.5687	8.2582			
MCT Std 1 [%DIFF]		-8.6667			
MCT Std 2 [MEAN]	0.8325	0.4235			
MCT Std 2 [SD]	0.0106	0.0120			
MCT Std 2 [%CV]	1.2741	2.8384			
MCT Std 2 [%DIFF]		5.8750			
MCT Std 3 [MEAN]	0.5440	1.0240			
MCT Std 3 [SD]	0.0042	0.0156			
MCT Std 3 [%CV]	0.7799	1.5192			
MCT Std 3 [%DIFF]		2.4000			
MCT Std 4 [MEAN]	0.4425	1.5970			

Name	Absorbance	Concentration	Interpretation	Position	
MCT Std 4 [SD]	0.0106	0.0891			
MCT Std 4 [%CV]	2.3970	5.5789			
MCT Std 4 [%DIFF]		-20.1500			
MCT Std 5 [MEAN]	0.2885				
MCT Std 5 [SD]	0.0064				
MCT Std 5 [%CV]	2.2059				
MCT 546 LRB 1 [MEAN]	1.3325	0.0345			
MCT 546 LRB 1 [SD]	0.0092	0.0064			
MCT 546 LRB 1 [%CV]	0.6899	18.4463			
MCT 546 Low-CV [MEAN]	0.8755	0.3750			
MCT 546 Low-CV [SD]	0.0092	0.0099			
MCT 546 Low-CV [%CV]	1.0500	2.6399			
MCT 546 LFB 1 [MEAN]	0.7585	0.5210			
MCT 546 LFB 1 [SD]	0.0007	0.0014			
MCT 546 LFB 1 [%CV]	0.0932	0.2714			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3722
 B = 1.2953
 C = 0.43847
 D = 0.26791
 R2 coef = 0.99671
 50% = 0.649

