



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB52048	Raccoon Lake SRA	7/11/2022	7/13/2022	< 0.30
AB52050	Cagles Mill Lake Beach	7/11/2022	7/13/2022	< 0.30
AB52051	Paynetown SRA	7/11/2022	7/13/2022	< 0.30
AB52052	Fairfax SRA	7/11/2022	7/13/2022	< 0.30
AB52053	Starve Hollow SRA	7/11/2022	7/13/2022	0.60
AB52054	Whitewater Memorial SP	7/12/2022	7/13/2022	< 0.30
AB52055	Quakertown SRA	7/12/2022	7/13/2022	< 0.30
AB52056	Mounds SRA	7/12/2022	7/13/2022	< 0.30
AB52057	Hardy Lake SRA	7/12/2022	7/13/2022	< 0.30
AB52049	Deam Lake SRA	7/12/2022	7/13/2022	< 0.30
AB52069	Fairfax SRA (Field Duplicate)	7/11/2022	7/13/2022	< 0.30
AB52070	Field Blank	7/11/2022	7/13/2022	< 0.30
AB52071	Ft. Ben Harrison SP Dog Lake	7/12/2022	7/13/2022	< 0.30

Test Information

Request: 7/13/2022 4:00:06 PM
Date: 7/13/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.217 Abs	0.003 µg/L	R^2=0.99714, 100.0			M22B127(
MCT Std 0	MICROCYSTINS ADDA 54	1.215 Abs [1.2160] {0.1 C	0.004 µg/L [0.004]	R^2=0.99714, 100.0			M22B127(
MCT Std 1	MICROCYSTINS ADDA 54	1.015 Abs	0.124 µg/L	R^2=0.99714, 83.47			M22B127(
MCT Std 1	MICROCYSTINS ADDA 54	0.975 Abs [0.9950] {2.8 C	0.152 µg/L [0.138]	R^2=0.99714, 80.18			M22B127(
MCT Std 2	MICROCYSTINS ADDA 54	0.719 Abs	0.410 µg/L	R^2=0.99714, 59.12			M22B127(
MCT Std 2	MICROCYSTINS ADDA 54	0.691 Abs [0.7050] {2.8 C	0.452 µg/L [0.431]	R^2=0.99714, 56.82			M22B127(
MCT Std 3	MICROCYSTINS ADDA 54	0.480 Abs	0.995 µg/L	R^2=0.99714, 39.47			M22B127(
MCT Std 3	MICROCYSTINS ADDA 54	0.470 Abs [0.4750] {1.5 C	1.039 µg/L [1.017]	R^2=0.99714, 38.65			M22B127(
MCT Std 4	MICROCYSTINS ADDA 54	0.383 Abs	1.602 µg/L	R^2=0.99714, 31.45			M22B127(
MCT Std 4	MICROCYSTINS ADDA 54	0.374 Abs [0.3785] {1.7 C	1.688 µg/L [1.645]	R^2=0.99714, 30.75			M22B127(
MCT Std 5	MICROCYSTINS ADDA 54	0.245 Abs	> 5.000 µg/L	20.148 %Abs			M22B127(
MCT Std 5	MICROCYSTINS ADDA 54	0.225 Abs [0.2350] {6.0 C	> 5.000 µg/L	18.503 %Abs			M22B127(
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.113 Abs	0.063 µg/L	91.530 %Abs			M22B127(
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.112 Abs [1.1125] {0.1 C	0.064 µg/L [0.064]	91.447 %Abs [91.4			M22B127(
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.761 Abs	0.354 µg/L	62.582 %Abs			M22B127(
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.728 Abs [0.7445] {3.1 C	0.397 µg/L [0.376]	59.868 %Abs [61.2			M22B127(
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.673 Abs	0.481 µg/L	55.345 %Abs			M22B127(
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.671 Abs [0.6720] {0.2 C	0.484 µg/L [0.483]	55.181 %Abs [55.2			M22B127(

Note

Signature

David Jordan

David Jordan 7/13/2022

Test Report (by Request)

Test Information

Request: 7/13/2022 4:01:11 PM
Date: 7/13/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AB52048	MICROCYSTINS ADDA 54	1.051 Abs	0.101 µg/L	Low, 86.431 %Abs		0.300 - 5.000	M22B127(
AB52048	MICROCYSTINS ADDA 54	1.044 Abs [1.0475] {0.5 C	0.105 µg/L [0.103]	Low, 85.855 %Abs		0.300 - 5.000	M22B127(
AB52050	MICROCYSTINS ADDA 54	0.951 Abs	0.170 µg/L	Low, 78.207 %Abs		0.300 - 5.000	M22B127(
AB52050	MICROCYSTINS ADDA 54	0.921 Abs [0.9360] {2.3 C	0.194 µg/L [0.182]	Low, 75.740 %Abs		0.300 - 5.000	M22B127(
AB52051	MICROCYSTINS ADDA 54	1.082 Abs	0.081 µg/L	Low, 88.980 %Abs		0.300 - 5.000	M22B127(
AB52051	MICROCYSTINS ADDA 54	1.046 Abs [1.0640] {2.4 C	0.104 µg/L [0.093]	Low, 86.020 %Abs		0.300 - 5.000	M22B127(
AB52052	MICROCYSTINS ADDA 54	1.116 Abs	0.061 µg/L	Low, 91.776 %Abs		0.300 - 5.000	M22B127(
AB52052	MICROCYSTINS ADDA 54	1.130 Abs [1.1230] {0.9 C	0.053 µg/L [0.057]	Low, 92.928 %Abs		0.300 - 5.000	M22B127(
AB52053	MICROCYSTINS ADDA 54	0.626 Abs	0.567 µg/L	51.480 %Abs		0.300 - 5.000	M22B127(
AB52053	MICROCYSTINS ADDA 54	0.595 Abs [0.6105] {3.6 C	0.634 µg/L [0.600]	48.931 %Abs [50.2		0.300 - 5.000	M22B127(
AB52054	MICROCYSTINS ADDA 54	0.808 Abs	0.299 µg/L	Low, 66.447 %Abs		0.300 - 5.000	M22B127(
AB52054	MICROCYSTINS ADDA 54	0.810 Abs [0.8090] {0.2 C	0.297 µg/L [0.298]	Low, 66.612 %Abs		0.300 - 5.000	M22B127(
AB52054MS	MICROCYSTINS ADDA 54	0.500 Abs	0.914 µg/L	41.118 %Abs		0.300 - 5.000	M22B127(
AB52054MS	MICROCYSTINS ADDA 54	0.456 Abs [0.4780] {6.5 C	1.106 µg/L [1.010]	37.500 %Abs [39.3		0.300 - 5.000	M22B127(
AB52054MSD	MICROCYSTINS ADDA 54	0.521 Abs	0.840 µg/L	42.845 %Abs		0.300 - 5.000	M22B127(
AB52054MSD	MICROCYSTINS ADDA 54	0.525 Abs [0.5230] {0.5 C	0.826 µg/L [0.833]	43.174 %Abs [43.0		0.300 - 5.000	M22B127(
AB52055	MICROCYSTINS ADDA 54	1.060 Abs	0.095 µg/L	Low, 87.171 %Abs		0.300 - 5.000	M22B127(
AB52055	MICROCYSTINS ADDA 54	1.058 Abs [1.0590] {0.1 C	0.096 µg/L [0.095]	Low, 87.007 %Abs		0.300 - 5.000	M22B127(
AB52056	MICROCYSTINS ADDA 54	0.983 Abs	0.146 µg/L	Low, 80.839 %Abs		0.300 - 5.000	M22B127(
AB52056	MICROCYSTINS ADDA 54	0.955 Abs [0.9690] {2.0 C	0.167 µg/L [0.156]	Low, 78.536 %Abs		0.300 - 5.000	M22B127(
AB52057	MICROCYSTINS ADDA 54	1.018 Abs	0.122 µg/L	Low, 83.717 %Abs		0.300 - 5.000	M22B127(
AB52057	MICROCYSTINS ADDA 54	0.982 Abs [1.0000] {2.5 C	0.147 µg/L [0.134]	Low, 80.757 %Abs		0.300 - 5.000	M22B127(
AB52049	MICROCYSTINS ADDA 54	1.125 Abs	0.056 µg/L	Low, 92.516 %Abs		0.300 - 5.000	M22B127(
AB52049	MICROCYSTINS ADDA 54	1.150 Abs [1.1375] {1.6 C	0.042 µg/L [0.049]	Low, 94.572 %Abs		0.300 - 5.000	M22B127(
AB52069	MICROCYSTINS ADDA 54	1.110 Abs	0.065 µg/L	Low, 91.283 %Abs		0.300 - 5.000	M22B127(
AB52069	MICROCYSTINS ADDA 54	1.104 Abs [1.1070] {0.4 C	0.068 µg/L [0.067]	Low, 90.789 %Abs		0.300 - 5.000	M22B127(
AB52070	MICROCYSTINS ADDA 54	1.192 Abs	0.018 µg/L	Low, 98.026 %Abs		0.300 - 5.000	M22B127(
AB52070	MICROCYSTINS ADDA 54	1.163 Abs [1.1775] {1.7 C	0.034 µg/L [0.026]	Low, 95.641 %Abs		0.300 - 5.000	M22B127(
AB52071	MICROCYSTINS ADDA 54	1.149 Abs	0.042 µg/L	Low, 94.490 %Abs		0.300 - 5.000	M22B127(
AB52071	MICROCYSTINS ADDA 54	1.126 Abs [1.1375] {1.4 C	0.055 µg/L [0.049]	Low, 92.599 %Abs		0.300 - 5.000	M22B127(
LFB 2	MICROCYSTINS ADDA 54	0.709 Abs	0.424 µg/L	58.306 %Abs		0.300 - 5.000	M22B127(
LFB 2	MICROCYSTINS ADDA 54	0.687 Abs [0.6980] {2.2 C	0.458 µg/L [0.441]	56.497 %Abs [57.4		0.300 - 5.000	M22B127(
LRB 2	MICROCYSTINS ADDA 54	1.244 Abs	0.000 µg/L	Low, 102.303 %Abs		0.300 - 5.000	M22B127(
LRB 2	MICROCYSTINS ADDA 54	1.194 Abs [1.2190] {2.9 C	0.017 µg/L [0.009]	Low, 98.191 %Abs		0.300 - 5.000	M22B127(

Note

Signature 

David Jordan 7/13/2022

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	
7/13/2022 4:00:06 PM					
MCT Std 0	1.217 Abs	0.003 µg/L	R ² =0.99714, 100.000 %Abs	RK1:23->A01@2	
MCT Std 0	1.215 Abs [1.2160] {0.1 CV}	0.004 µg/L [0.004] {20.2 CV}	R ² =0.99714, 100.000 %Abs	RK1:23->B01@2	
MCT Std 1	1.015 Abs	0.124 µg/L	R ² =0.99714, 83.470 %Abs	RK1:24->C01@2	
MCT Std 1	0.975 Abs [0.9950] {2.8 CV}	0.152 µg/L [0.138] {14.3 CV}	R ² =0.99714, 80.181 %Abs	RK1:24->D01@2	
MCT Std 2	0.719 Abs	0.410 µg/L	R ² =0.99714, 59.128 %Abs	RK1:25->E01@2	
MCT Std 2	0.691 Abs [0.7050] {2.8 CV}	0.452 µg/L [0.431] {6.9 CV}	R ² =0.99714, 56.826 %Abs	RK1:25->F01@3	
MCT Std 3	0.480 Abs	0.995 µg/L	R ² =0.99714, 39.474 %Abs	RK1:26->G01@3	
MCT Std 3	0.470 Abs [0.4750] {1.5 CV}	1.039 µg/L [1.017] {3.1 CV}	R ² =0.99714, 38.651 %Abs	RK1:26->H01@3	
MCT Std 4	0.383 Abs	1.602 µg/L	R ² =0.99714, 31.497 %Abs	RK1:27->A02@2	
MCT Std 4	0.374 Abs [0.3785] {1.7 CV}	1.688 µg/L [1.645] {3.7 CV}	R ² =0.99714, 30.757 %Abs	RK1:27->B02@2	
MCT Std 5	0.245 Abs	> 5.000 µg/L	20.148 %Abs	RK1:28->C02@2	
MCT Std 5	0.225 Abs [0.2350] {6.0 CV}	> 5.000 µg/L	18.503 %Abs	RK1:28->D02@2	

7/13/2022 4:00:06 PM					
MCT 546 LRB 1	1.113 Abs	0.063 µg/L	91.530 %Abs	RK1:29->E02@2	
MCT 546 LRB 1	1.112 Abs [1.1125] {0.1 CV}	0.064 µg/L [0.064] {1.1 CV}	91.447 %Abs [91.488 %Abs]	RK1:29->F02@3	
MCT 546 Low-CV	0.761 Abs	0.354 µg/L	62.582 %Abs	RK1:30->G02@3	
MCT 546 Low-CV	0.728 Abs [0.7445] {3.1 CV}	0.397 µg/L [0.376] {8.1 CV}	59.868 %Abs [61.225 %Abs]	RK1:30->H02@3	
MCT 546 LFB 1	0.673 Abs	0.481 µg/L	55.345 %Abs	RK1:31->A03@2	
MCT 546 LFB 1	0.671 Abs [0.6720] {0.2 CV}	0.484 µg/L [0.483] {0.4 CV}	55.181 %Abs [55.263 %Abs]	RK1:31->B03@2	

Statistic					
MCT Std 0 [MEAN]	1.2160	0.0035			
MCT Std 0 [SD]	0.0014	0.0007			
MCT Std 0 [%CV]	0.1163	20.2031			
MCT Std 1 [MEAN]	0.9950	0.1380			
MCT Std 1 [SD]	0.0283	0.0198			
MCT Std 1 [%CV]	2.8426	14.3471			
MCT Std 1 [%DIFF]		-8.0000			
MCT Std 2 [MEAN]	0.7050	0.4310			
MCT Std 2 [SD]	0.0198	0.0297			
MCT Std 2 [%CV]	2.8084	6.8906			
MCT Std 2 [%DIFF]		7.7500			
MCT Std 3 [MEAN]	0.4750	1.0170			
MCT Std 3 [SD]	0.0071	0.0311			
MCT Std 3 [%CV]	1.4886	3.0593			
MCT Std 3 [%DIFF]		1.7000			
MCT Std 4 [MEAN]	0.3785	1.6450			

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0064	0.0608		
MCT Std 4 [%CV]	1.6814	3.6967		
MCT Std 4 [%DIFF]		-17.7500		
MCT Std 5 [MEAN]	0.2350			
MCT Std 5 [SD]	0.0141			
MCT Std 5 [%CV]	6.0179			
MCT 546 LRB 1 [MEAN]	1.1125	0.0635		
MCT 546 LRB 1 [SD]	0.0007	0.0007		
MCT 546 LRB 1 [%CV]	0.0636	1.1136		
MCT 546 Low-CV [MEAN]	0.7445	0.3755		
MCT 546 Low-CV [SD]	0.0233	0.0304		
MCT 546 Low-CV [%CV]	3.1343	8.0974		
MCT 546 LFB 1 [MEAN]	0.6720	0.4825		
MCT 546 LFB 1 [SD]	0.0014	0.0021		
MCT 546 LFB 1 [%CV]	0.2104	0.4397		

Assay Curve

$$y = (A-D)/(1+(x/C)^B) + D$$

Weight: NONE

A = 1.2207

B = 1.1198

C = 0.42836

D = 0.19171

R2 coef = 0.99714

50% = 0.605

