Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC44191	Cecil M. Harden Lake - Raccoon Lake SRA Beach	5/12/2025	5/14/2025	< 0.30
AC44192	Cagles Mill Lake - Lieber SRA Beach	5/12/2025	5/14/2025	< 0.30
AC44193	Monroe Lake - Fairfax SRA Beach	5/12/2025	5/14/2025	< 0.30
AC44194	Monroe Lake - Paynetown SRA Beach	5/12/2025	5/14/2025	< 0.30
AC44195	Starve Hollow SRA - Starve Hollow Lake Beach	5/12/2025	5/14/2025	< 0.30
AC44196	Whitewater Memorial SP - Whitewater Lake Beach	5/13/2025	5/14/2025	< 0.30
AC44197	Brookville Lake - Quakertown SRA Beach	5/13/2025	5/14/2025	< 0.30
AC44198	Brookville Lake - Mounds SRA Beach	5/13/2025	5/14/2025	< 0.30
AC44199	Hardy Lake SRA - Hardy Lake SRA Beach	5/13/2025	5/14/2025	< 0.30
AC44200	Deam Lake SRA - Deam Lake Beach	5/13/2025	5/14/2025	< 0.30
AC44201	Cecil M. Harden Lake - Raccoon Lake SRA Beach (Field Duplicate)	5/12/2025	5/14/2025	< 0.30
AC44202	Field Blank	5/12/2025	5/14/2025	< 0.30
AC44203	Ft. Ben Harrison SP Dog Lake	5/12/2025	5/14/2025	< 0.30

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Test Report (by Request)

Test Information

Request: 5/14/2025 3:03:21 PM
Date: 5/14/2025

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.141 Abs	0.020 µg/L	R^2=0.99948, 98.61		0.000	Kit:244044
MCT Std 0	MICROCYSTINS ADDA 54	1.173 Abs [1.1570] {2.0 C	0.000 µg/L [0.010]	R^2=0.99948, 101.3		0.000	Kit:244044
MCT Std 1	MICROCYSTINS ADDA 54	0.988 Abs	0.143 µg/L	R^2=0.99948, 85.39		0.150	Kit:244044
MCT Std 1	MICROCYSTINS ADDA 54	0.983 Abs [0.9855] {0.4 C	0.147 µg/L [0.145]	R^2=0.99948, 84.96		0.150	Kit:244044
MCT Std 2	MICROCYSTINS ADDA 54	0.741 Abs	0.405 µg/L	R^2=0.99948, 64.04		0.400	Kit:244044
MCT Std 2	MICROCYSTINS ADDA 54	0.735 Abs [0.7380] {0.6 C	0.413 µg/L [0.409]	R^2=0.99948, 63.52		0.400	Kit:244044
MCT Std 3	MICROCYSTINS ADDA 54	0.487 Abs	1.008 µg/L	R^2=0.99948, 42.09		1.000	Kit:244044
MCT Std 3	MICROCYSTINS ADDA 54	0.482 Abs [0.4845] {0.7 C	1.029 µg/L [1.019]	R^2=0.99948, 41.65		1.000	Kit:244044
MCT Std 4	MICROCYSTINS ADDA 54	0.359 Abs	1.898 µg/L	R^2=0.99948, 31.02		2.000	Kit:244044
MCT Std 4	MICROCYSTINS ADDA 54	0.368 Abs [0.3635] {1.8 C	1.796 µg/L [1.847]	R^2=0.99948, 31.80		2.000	Kit:244044
MCT Std 5	MICROCYSTINS ADDA 54	0.254 Abs	> 5.000 µg/L	21.953 %Abs		5.000	Kit:244044
MCT Std 5	MICROCYSTINS ADDA 54	0.244 Abs [0.2490] {2.8 C	> 5.000 µg/L	21.089 %Abs		5.000	Kit:244044
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.116 Abs	0.041 µg/L	96.456 %Abs			Kit:244044
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.093 Abs [1.1045] {1.5 C	0.059 µg/L [0.050]	94.468 %Abs [95.4			Kit:244044
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.826 Abs	0.298 µg/L	71.392 %Abs			Kit:244044
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.820 Abs [0.8230] {0.5 C	0.305 µg/L [0.302]	70.873 %Abs [71.1			Kit:244044
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.672 Abs	0.513 µg/L	58.081 %Abs			Kit:244044
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.690 Abs [0.6810] {1.9 C	0.483 µg/L [0.498]	59.637 %Abs [58.8			Kit:244044

Note

Signature David Jordan

David Jordan 5/14/2025

* 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 (6.4.1.1171/1085/1.00/0.95) 5/14/2025 3:34:46 PM

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Test Report (by Request)

Test Information

Request: 5/14/2025 3:04:36 PM
Date: 5/14/2025

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC44191	MICROCYSTINS ADDA 5	1.028 Abs	0.110 µg/L	Low, 88.850 %Abs		0.300 - 5.000	Kit:24404
AC44191	MICROCYSTINS ADDA 5	1.010 Abs [1.0190] {1.2 C	0.125 µg/L [0.118]	Low, 87.295 %Abs		0.300 - 5.000	Kit:24404
AC44192	MICROCYSTINS ADDA 5	1.068 Abs	0.079 µg/L	Low, 92.308 %Abs		0.300 - 5.000	Kit:24404
AC44192	MICROCYSTINS ADDA 5	1.086 Abs [1.0770] {1.2 C	0.065 µg/L [0.072]	Low, 93.863 %Abs		0.300 - 5.000	Kit:24404
AC44193	MICROCYSTINS ADDA 5	1.108 Abs	0.047 µg/L	Low, 95.765 %Abs		0.300 - 5.000	Kit:24404
AC44193	MICROCYSTINS ADDA 5	1.131 Abs [1.1195] {1.5 C	0.028 µg/L [0.038]	Low, 97.753 %Abs		0.300 - 5.000	Kit:24404
AC44194	MICROCYSTINS ADDA 5	1.133 Abs	0.027 µg/L	Low, 97.926 %Abs		0.300 - 5.000	Kit:24404
AC44194	MICROCYSTINS ADDA 5	1.175 Abs [1.1540] {2.6 C	0.000 µg/L [0.014]	Low, 101.556 %Abs		0.300 - 5.000	Kit:24404
AC44195	MICROCYSTINS ADDA 5	1.136 Abs	0.024 µg/L	Low, 98.185 %Abs		0.300 - 5.000	Kit:24404
AC44195	MICROCYSTINS ADDA 5	1.125 Abs [1.1305] {0.7 C	0.033 µg/L [0.029]	Low, 97.234 %Abs		0.300 - 5.000	Kit:24404
AC44196	MICROCYSTINS ADDA 5	0.859 Abs	0.262 µg/L	Low, 74.244 %Abs		0.300 - 5.000	Kit:24404
AC44196	MICROCYSTINS ADDA 5	0.848 Abs [0.8535] {0.9 C	0.274 µg/L [0.268]	Low, 73.293 %Abs		0.300 - 5.000	Kit:24404
AC44196MS	MICROCYSTINS ADDA 5	0.519 Abs	0.888 µg/L	44.857 %Abs		0.300 - 5.000	Kit:24404
AC44196MS	MICROCYSTINS ADDA 5	0.477 Abs [0.4980] {6.0 C	1.051 µg/L [0.970]	41.227 %Abs [43.0		0.300 - 5.000	Kit:24404
AC44196MSD	MICROCYSTINS ADDA 5	0.499 Abs	0.960 µg/L	43.129 %Abs		0.300 - 5.000	Kit:24404
AC44196MSD	MICROCYSTINS ADDA 5	0.517 Abs [0.5080] {2.5 C	0.895 µg/L [0.928]	44.685 %Abs [43.9		0.300 - 5.000	Kit:24404
AC44197	MICROCYSTINS ADDA 5	1.059 Abs	0.086 µg/L	Low, 91.530 %Abs		0.300 - 5.000	Kit:24404
AC44197	MICROCYSTINS ADDA 5	1.027 Abs [1.0430] {2.2 C	0.111 µg/L [0.099]	Low, 88.764 %Abs		0.300 - 5.000	Kit:24404
AC44198	MICROCYSTINS ADDA 5	1.108 Abs	0.047 µg/L	Low, 95.765 %Abs		0.300 - 5.000	Kit:24404
AC44198	MICROCYSTINS ADDA 5	1.088 Abs [1.0980] {1.3 C	0.063 µg/L [0.055]	Low, 94.036 %Abs		0.300 - 5.000	Kit:24404
AC44199	MICROCYSTINS ADDA 5	1.056 Abs	0.088 µg/L	Low, 91.271 %Abs		0.300 - 5.000	Kit:24404
AC44199	MICROCYSTINS ADDA 5	1.091 Abs [1.0735] {2.3 C	0.061 µg/L [0.075]	Low, 94.296 %Abs		0.300 - 5.000	Kit:24404
AC44200	MICROCYSTINS ADDA 5	1.167 Abs	0.000 µg/L	Low, 100.864 %Abs		0.300 - 5.000	Kit:24404
AC44200	MICROCYSTINS ADDA 5	1.181 Abs [1.1740] {0.8 C	0.000 µg/L [0.000]	Low, 102.074 %Abs		0.300 - 5.000	Kit:24404
AC44201	MICROCYSTINS ADDA 5	1.043 Abs	0.098 µg/L	Low, 90.147 %Abs		0.300 - 5.000	Kit:24404
AC44201	MICROCYSTINS ADDA 5	1.056 Abs [1.0495] {0.9 C	0.088 µg/L [0.093]	Low, 91.271 %Abs		0.300 - 5.000	Kit:24404
AC44202	MICROCYSTINS ADDA 5	1.176 Abs	0.000 µg/L	Low, 101.642 %Abs		0.300 - 5.000	Kit:24404
AC44202	MICROCYSTINS ADDA 5	1.156 Abs [1.1660] {1.2 C	0.005 µg/L [0.003]	Low, 100.000 %Abs		0.300 - 5.000	Kit:24404
AC44203	MICROCYSTINS ADDA 5	1.111 Abs	0.045 µg/L	Low, 96.024 %Abs		0.300 - 5.000	Kit:24404
AC44203	MICROCYSTINS ADDA 5	1.086 Abs [1.0985] {1.6 C	0.065 µg/L [0.055]	Low, 93.863 %Abs		0.300 - 5.000	Kit:24404
LFB 2	MICROCYSTINS ADDA 5	0.696 Abs	0.473 µg/L	60.156 %Abs		0.300 - 5.000	Kit:24404
LFB 2	MICROCYSTINS ADDA 5	0.708 Abs [0.7020] {1.2 C	0.454 µg/L [0.464]	61.193 %Abs [60.6		0.300 - 5.000	Kit:24404
LRB 2	MICROCYSTINS ADDA 5	1.171 Abs	0.000 µg/L	Low, 101.210 %Abs		0.300 - 5.000	Kit:24404
LRB 2	MICROCYSTINS ADDA 5	1.177 Abs [1.1740] {0.4 C	0.000 µg/L [0.000]	Low, 101.729 %Abs		0.300 - 5.000	Kit:24404

Note

Signature David Jordan

David Jordan 5/14/2025

* 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 (6.4.1.1171/1085/1.00/0.95) 5/14/2025 3:34:46 PM

MICROCYSTINS ADDA 546_ - Assay Calibration Report

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: Kit:24404401378

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
5/14/2025 3:03:21 PM				
MCT Std 0	1.141 Abs	0.020 µg/L	R^2=0.99948, 98.617 %Abs	RK1:23->A01@2
MCT Std 0	1.173 Abs [1.1570] {2.0 CV}	0.000 µg/L [0.010] {141.4 C\	R^2=0.99948, 101.383 %Abs	RK1:23->B01@2
MCT Std 1	0.988 Abs	0.143 µg/L	R^2=0.99948, 85.393 %Abs	RK1:24->C01@2
MCT Std 1	0.983 Abs [0.9855] {0.4 CV}	0.147 µg/L [0.145] {2.0 CV}	R^2=0.99948, 84.961 %Abs	RK1:24->D01@2
MCT Std 2	0.741 Abs	0.405 µg/L	R^2=0.99948, 64.045 %Abs	RK1:25->E01@2
MCT Std 2	0.735 Abs [0.7380] {0.6 CV}	0.413 µg/L [0.409] {1.4 CV}	R^2=0.99948, 63.526 %Abs	RK1:25->F01@3
MCT Std 3	0.487 Abs	1.008 µg/L	R^2=0.99948, 42.092 %Abs	RK1:26->G01@3
MCT Std 3	0.482 Abs [0.4845] {0.7 CV}	1.029 µg/L [1.019] {1.5 CV}	R^2=0.99948, 41.659 %Abs	RK1:26->H01@3
MCT Std 4	0.359 Abs	1.898 µg/L	R^2=0.99948, 31.029 %Abs	RK1:27->A02@2
MCT Std 4	0.368 Abs [0.3635] {1.8 CV}	1.796 µg/L [1.847] {3.9 CV}	R^2=0.99948, 31.806 %Abs	RK1:27->B02@2
MCT Std 5	0.254 Abs	> 5.000 µg/L	21.953 %Abs	RK1:28->C02@2
MCT Std 5	0.244 Abs [0.2490] {2.8 CV}	> 5.000 µg/L	21.089 %Abs	RK1:28->D02@2
++++++++++++++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++
5/14/2025 3:03:21 PM				
MCT 546 LRB 1	1.116 Abs	0.041 µg/L	96.456 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.093 Abs [1.1045] {1.5 CV}	0.059 µg/L [0.050] {25.5 CV}	94.468 %Abs [95.462 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.826 Abs	0.298 µg/L	71.392 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.820 Abs [0.8230] {0.5 CV}	0.305 µg/L [0.302] {1.6 CV}	70.873 %Abs [71.132 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.672 Abs	0.513 µg/L	58.081 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.690 Abs [0.6810] {1.9 CV}	0.483 µg/L [0.498] {4.3 CV}	59.637 %Abs [58.859 %Abs]	RK1:31->B03@2
**********	**********	**********	**********	**********
Statistic				
MCT Std 0 [MEAN]	1.1570	0.0100		
MCT Std 0 [SD]	0.0226	0.0141		
MCT Std 0 [%CV]	1.9557	141.4214		
MCT Std 1 [MEAN]	0.9855	0.1450		
MCT Std 1 [SD]	0.0035	0.0028		
MCT Std 1 [%CV]	0.3588	1.9506		
MCT Std 1 [%DIFF]		-3.3333		
MCT Std 2 [MEAN]	0.7380	0.4090		
MCT Std 2 [SD]	0.0042	0.0057		
MCT Std 2 [%CV]	0.5749	1.3831		
MCT Std 2 [%DIFF]		2.2500		
MCT Std 3 [MEAN]	0.4845	1.0185		
MCT Std 3 [SD]	0.0035	0.0148		
MCT Std 3 [%CV]	0.7297	1.4580		
MCT Std 3 [%DIFF]		1.8500		
MCT Std 4 [MEAN]	0.3635	1.8470		

MICROCYSTINS ADDA 546_ - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0064	0.0721		
MCT Std 4 [%CV]	1.7507	3.9050		
MCT Std 4 [%DIFF]		-7.6500		
MCT Std 5 [MEAN]	0.2490			
MCT Std 5 [SD]	0.0071			
MCT Std 5 [%CV]	2.8398			
MCT 546 LRB 1 [MEAN]	1.1045	0.0500		
MCT 546 LRB 1 [SD]	0.0163	0.0127		
MCT 546 LRB 1 [%CV]	1.4725	25.4558		
MCT 546 Low-CV [MEAN]	0.8230	0.3015		
MCT 546 Low-CV [SD]	0.0042	0.0049		
MCT 546 Low-CV [%CV]	0.5155	1.6417		
MCT 546 LFB 1 [MEAN]	0.6810	0.4980		
MCT 546 LFB 1 [SD]	0.0127	0.0212		
MCT 546 LFB 1 [%CV]	1.8690	4.2597		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.1594
B = 1.2170
C = 0.49841
D = 0.20174
R2 coef = 0.99948
50% = 0.711