



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC40776	Cecil M. Harden Lake - Raccoon Lake SRA Beach	7/8/2024	7/10/2024	< 0.30
AC40777	Cagles Mill Lake - Lieber SRA Beach	7/8/2024	7/10/2024	< 0.30
AC40778	Monroe Lake - Fairfax SRA Beach	7/8/2024	7/10/2024	< 0.30
AC40779	Monroe Lake - Paynetown SRA Beach	7/8/2024	7/10/2024	< 0.30
AC40780	Starve Hollow SRA - Starve Hollow Lake Beach	7/8/2024	7/10/2024	< 0.30
AC40781	Whitewater Memorial SP - Whitewater Lake Beach	7/9/2024	7/10/2024	< 0.30
AC40782	Brookville Lake - Quakertown SRA Beach	7/9/2024	7/10/2024	< 0.30
AC40783	Brookville Lake - Mounds SRA Beach	7/9/2024	7/10/2024	< 0.30
AC40784	Hardy Lake SRA - Hardy Lake SRA Beach	7/9/2024	7/10/2024	< 0.30
AC40785	Deam Lake SRA - Deam Lake Beach	7/9/2024	7/10/2024	< 0.30
AC40786	Cecil M. Harden Lake - Raccoon Lake SRA Beach (Field Duplicate)	7/8/2024	7/10/2024	< 0.30
AC40787	Field Blank	7/8/2024	7/10/2024	< 0.30
AC40788	Ft. Ben Harrison SP Dog Lake	7/9/2024	7/10/2024	< 0.30

Test Report (by Request)

Test Information

Request: 7/10/2024 2:23:01 PM
Date: 7/10/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.166 Abs	0.010 µg/L	R^2=0.99833, 99.57		0.000	Kit:24044
MCT Std 0	MICROCYSTINS ADDA 54	1.176 Abs [1.1710] {0.6 C	0.000 µg/L [0.005]	R^2=0.99833, 100.4		0.000	Kit:24044
MCT Std 1	MICROCYSTINS ADDA 54	0.998 Abs	0.139 µg/L	R^2=0.99833, 85.22		0.150	Kit:24044
MCT Std 1	MICROCYSTINS ADDA 54	0.980 Abs [0.9890] {1.3 C	0.153 µg/L [0.146]	R^2=0.99833, 83.68		0.150	Kit:24044
MCT Std 2	MICROCYSTINS ADDA 54	0.730 Abs	0.396 µg/L	R^2=0.99833, 62.34		0.400	Kit:24044
MCT Std 2	MICROCYSTINS ADDA 54	0.722 Abs [0.7260] {0.8 C	0.407 µg/L [0.402]	R^2=0.99833, 61.65		0.400	Kit:24044
MCT Std 3	MICROCYSTINS ADDA 54	0.442 Abs	1.094 µg/L	R^2=0.99833, 37.74		1.000	Kit:24044
MCT Std 3	MICROCYSTINS ADDA 54	0.453 Abs [0.4475] {1.7 C	1.043 µg/L [1.069]	R^2=0.99833, 38.68		1.000	Kit:24044
MCT Std 4	MICROCYSTINS ADDA 54	0.354 Abs	1.727 µg/L	R^2=0.99833, 30.23		2.000	Kit:24044
MCT Std 4	MICROCYSTINS ADDA 54	0.363 Abs [0.3585] {1.8 C	1.634 µg/L [1.681]	R^2=0.99833, 30.95		2.000	Kit:24044
MCT Std 5	MICROCYSTINS ADDA 54	0.239 Abs	> 5.000 µg/L	20.410 %Abs		5.000	Kit:24044
MCT Std 5	MICROCYSTINS ADDA 54	0.235 Abs [0.2370] {1.2 C	> 5.000 µg/L	20.068 %Abs		5.000	Kit:24044
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.110 Abs	0.057 µg/L	94.791 %Abs			Kit:24044
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.086 Abs [1.0980] {1.5 C	0.075 µg/L [0.066]	92.741 %Abs [93.7			Kit:24044
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.817 Abs	0.297 µg/L	69.769 %Abs			Kit:24044
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.775 Abs [0.7960] {3.7 C	0.342 µg/L [0.320]	66.183 %Abs [67.9			Kit:24044
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.653 Abs	0.509 µg/L	55.764 %Abs			Kit:24044
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.668 Abs [0.6605] {1.6 C	0.484 µg/L [0.497]	57.045 %Abs [56.4			Kit:24044

Note

Signature _____

Charles Hostetter 7/10/2024

* 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) 7/10/2024 2:44:31 PM

Test Report (by Request)

Test Information

Request: 7/10/2024 2:24:12 PM
Date: 7/10/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC40776	MICROCYSTINS ADDA 54	1.034 Abs	0.113 µg/L	Low, 88.301 %Abs		0.300 - 5.000	Kit:24044C
AC40776	MICROCYSTINS ADDA 54	1.027 Abs [1.0305] {0.5 C	0.118 µg/L [0.116]	Low, 87.703 %Abs		0.300 - 5.000	Kit:24044C
AC40777	MICROCYSTINS ADDA 54	0.982 Abs	0.152 µg/L	Low, 83.860 %Abs		0.300 - 5.000	Kit:24044C
AC40777	MICROCYSTINS ADDA 54	0.998 Abs [0.9900] {1.1 C	0.139 µg/L [0.146]	Low, 85.226 %Abs		0.300 - 5.000	Kit:24044C
AC40778	MICROCYSTINS ADDA 54	1.072 Abs	0.085 µg/L	Low, 91.546 %Abs		0.300 - 5.000	Kit:24044C
AC40778	MICROCYSTINS ADDA 54	0.977 Abs [1.0245] {6.6 C	0.156 µg/L [0.121]	Low, 83.433 %Abs		0.300 - 5.000	Kit:24044C
AC40779	MICROCYSTINS ADDA 54	1.054 Abs	0.098 µg/L	Low, 90.009 %Abs		0.300 - 5.000	Kit:24044C
AC40779	MICROCYSTINS ADDA 54	1.100 Abs [1.0770] {3.0 C	0.064 µg/L [0.081]	Low, 93.937 %Abs		0.300 - 5.000	Kit:24044C
AC40780	MICROCYSTINS ADDA 54	1.155 Abs	0.021 µg/L	Low, 98.634 %Abs		0.300 - 5.000	Kit:24044C
AC40780	MICROCYSTINS ADDA 54	1.089 Abs [1.1220] {4.2 C	0.072 µg/L [0.047]	Low, 92.997 %Abs		0.300 - 5.000	Kit:24044C
AC40781	MICROCYSTINS ADDA 54	0.986 Abs	0.149 µg/L	Low, 84.202 %Abs		0.300 - 5.000	Kit:24044C
AC40781	MICROCYSTINS ADDA 54	0.981 Abs [0.9835] {0.4 C	0.152 µg/L [0.151]	Low, 83.775 %Abs		0.300 - 5.000	Kit:24044C
AC40782	MICROCYSTINS ADDA 54	1.048 Abs	0.102 µg/L	Low, 89.496 %Abs		0.300 - 5.000	Kit:24044C
AC40782	MICROCYSTINS ADDA 54	0.909 Abs [0.9785] {10.0	0.211 µg/L [0.157]	Low, 77.626 %Abs		0.300 - 5.000	Kit:24044C
AC40783	MICROCYSTINS ADDA 54	1.095 Abs	0.068 µg/L	Low, 93.510 %Abs		0.300 - 5.000	Kit:24044C
AC40783	MICROCYSTINS ADDA 54	1.124 Abs [1.1095] {1.8 C	0.046 µg/L [0.057]	Low, 95.986 %Abs		0.300 - 5.000	Kit:24044C
AC40783MS	MICROCYSTINS ADDA 54	0.644 Abs	0.524 µg/L	54.996 %Abs		0.300 - 5.000	Kit:24044C
AC40783MS	MICROCYSTINS ADDA 54	0.622 Abs [0.6330] {2.5 C	0.563 µg/L [0.544]	53.117 %Abs [54.0		0.300 - 5.000	Kit:24044C
AC40783MSD	MICROCYSTINS ADDA 54	0.623 Abs	0.561 µg/L	53.202 %Abs		0.300 - 5.000	Kit:24044C
AC40783MSD	MICROCYSTINS ADDA 54	0.622 Abs [0.6225] {0.1 C	0.563 µg/L [0.562]	53.117 %Abs [53.1		0.300 - 5.000	Kit:24044C
AC40784	MICROCYSTINS ADDA 54	0.968 Abs	0.163 µg/L	Low, 82.664 %Abs		0.300 - 5.000	Kit:24044C
AC40784	MICROCYSTINS ADDA 54	0.904 Abs [0.9360] {4.8 C	0.215 µg/L [0.189]	Low, 77.199 %Abs		0.300 - 5.000	Kit:24044C
AC40785	MICROCYSTINS ADDA 54	1.134 Abs	0.038 µg/L	Low, 96.840 %Abs		0.300 - 5.000	Kit:24044C
AC40785	MICROCYSTINS ADDA 54	1.174 Abs [1.1540] {2.5 C	0.000 µg/L [0.019]	Low, 100.256 %Abs		0.300 - 5.000	Kit:24044C
AC40786	MICROCYSTINS ADDA 54	1.054 Abs	0.098 µg/L	Low, 90.009 %Abs		0.300 - 5.000	Kit:24044C
AC40786	MICROCYSTINS ADDA 54	1.035 Abs [1.0445] {1.3 C	0.112 µg/L [0.105]	Low, 88.386 %Abs		0.300 - 5.000	Kit:24044C
AC40787	MICROCYSTINS ADDA 54	1.182 Abs	0.000 µg/L	Low, 100.939 %Abs		0.300 - 5.000	Kit:24044C
AC40787	MICROCYSTINS ADDA 54	1.168 Abs [1.1750] {0.8 C	0.008 µg/L [0.004]	Low, 99.744 %Abs		0.300 - 5.000	Kit:24044C
AC40788	MICROCYSTINS ADDA 54	1.117 Abs	0.052 µg/L	Low, 95.389 %Abs		0.300 - 5.000	Kit:24044C
AC40788	MICROCYSTINS ADDA 54	1.122 Abs [1.1195] {0.3 C	0.048 µg/L [0.050]	Low, 95.816 %Abs		0.300 - 5.000	Kit:24044C
LFB 2	MICROCYSTINS ADDA 54	0.690 Abs	0.451 µg/L	58.924 %Abs		0.300 - 5.000	Kit:24044C
LFB 2	MICROCYSTINS ADDA 54	0.693 Abs [0.6915] {0.3 C	0.447 µg/L [0.449]	59.180 %Abs [59.0		0.300 - 5.000	Kit:24044C
LRB 2	MICROCYSTINS ADDA 54	1.171 Abs	0.004 µg/L	Low, 100.000 %Abs		0.300 - 5.000	Kit:24044C
LRB 2	MICROCYSTINS ADDA 54	1.177 Abs [1.1740] {0.4 C	0.000 µg/L [0.002]	Low, 100.512 %Abs		0.300 - 5.000	Kit:24044C

Note

Signature _____

Charles Hostetter 7/10/2024

* 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) 7/10/2024 2:44:31 PM

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:2404401378

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
7/10/2024 2:23:01 PM				
MCT Std 0	1.166 Abs	0.010 µg/L	R ² =0.99833, 99.573 %Abs	RK1:23->A01@2
MCT Std 0	1.176 Abs [1.1710] {0.6 CV}	0.000 µg/L [0.005] {141.4 CV}	R ² =0.99833, 100.427 %Abs	RK1:23->B01@2
MCT Std 1	0.998 Abs	0.139 µg/L	R ² =0.99833, 85.226 %Abs	RK1:24->C01@2
MCT Std 1	0.980 Abs [0.9890] {1.3 CV}	0.153 µg/L [0.146] {6.8 CV}	R ² =0.99833, 83.689 %Abs	RK1:24->D01@2
MCT Std 2	0.730 Abs	0.396 µg/L	R ² =0.99833, 62.340 %Abs	RK1:25->E01@2
MCT Std 2	0.722 Abs [0.7260] {0.8 CV}	0.407 µg/L [0.402] {1.9 CV}	R ² =0.99833, 61.657 %Abs	RK1:25->F01@3
MCT Std 3	0.442 Abs	1.094 µg/L	R ² =0.99833, 37.746 %Abs	RK1:26->G01@3
MCT Std 3	0.453 Abs [0.4475] {1.7 CV}	1.043 µg/L [1.069] {3.4 CV}	R ² =0.99833, 38.685 %Abs	RK1:26->H01@3
MCT Std 4	0.354 Abs	1.727 µg/L	R ² =0.99833, 30.231 %Abs	RK1:27->A02@2
MCT Std 4	0.363 Abs [0.3585] {1.8 CV}	1.634 µg/L [1.681] {3.9 CV}	R ² =0.99833, 30.999 %Abs	RK1:27->B02@2
MCT Std 5	0.239 Abs	> 5.000 µg/L	20.410 %Abs	RK1:28->C02@2
MCT Std 5	0.235 Abs [0.2370] {1.2 CV}	> 5.000 µg/L	20.068 %Abs	RK1:28->D02@2

7/10/2024 2:23:01 PM				
MCT 546 LRB 1	1.110 Abs	0.057 µg/L	94.791 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.086 Abs [1.0980] {1.5 CV}	0.075 µg/L [0.066] {19.3 CV}	92.741 %Abs [93.766 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.817 Abs	0.297 µg/L	69.769 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.775 Abs [0.7960] {3.7 CV}	0.342 µg/L [0.320] {10.0 CV}	66.183 %Abs [67.976 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.653 Abs	0.509 µg/L	55.764 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.668 Abs [0.6605] {1.6 CV}	0.484 µg/L [0.497] {3.6 CV}	57.045 %Abs [56.405 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.1710	0.0050		
MCT Std 0 [SD]	0.0071	0.0071		
MCT Std 0 [%CV]	0.6038	141.4214		
MCT Std 1 [MEAN]	0.9890	0.1460		
MCT Std 1 [SD]	0.0127	0.0099		
MCT Std 1 [%CV]	1.2869	6.7805		
MCT Std 1 [%DIFF]		-2.6667		
MCT Std 2 [MEAN]	0.7260	0.4015		
MCT Std 2 [SD]	0.0057	0.0078		
MCT Std 2 [%CV]	0.7792	1.9373		
MCT Std 2 [%DIFF]		0.3750		
MCT Std 3 [MEAN]	0.4475	1.0685		
MCT Std 3 [SD]	0.0078	0.0361		
MCT Std 3 [%CV]	1.7381	3.3751		
MCT Std 3 [%DIFF]		6.8500		
MCT Std 4 [MEAN]	0.3585	1.6805		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0064	0.0658		
MCT Std 4 [%CV]	1.7752	3.9132		
MCT Std 4 [%DIFF]		-15.9750		
MCT Std 5 [MEAN]	0.2370			
MCT Std 5 [SD]	0.0028			
MCT Std 5 [%CV]	1.1934			
MCT 546 LRB 1 [MEAN]	1.0980	0.0660		
MCT 546 LRB 1 [SD]	0.0170	0.0127		
MCT 546 LRB 1 [%CV]	1.5456	19.2847		
MCT 546 Low-CV [MEAN]	0.7960	0.3195		
MCT 546 Low-CV [SD]	0.0297	0.0318		
MCT 546 Low-CV [%CV]	3.7310	9.9593		
MCT 546 LFB 1 [MEAN]	0.6605	0.4965		
MCT 546 LFB 1 [SD]	0.0106	0.0177		
MCT 546 LFB 1 [%CV]	1.6058	3.5605		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1732
 B = 1.2848
 C = 0.44996
 D = 0.20846
 R2 coef = 0.99833
 50% = 0.636

