



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC03626	Cecil M. Harden Lake - Raccoon Lake SRA Beach	7/24/2023	7/26/2023	< 0.30
AC03627	Cagles Mill Lake - Lieber SRA Beach	7/24/2023	7/26/2023	0.36
AC03628	Starve Hollow SRA - Starve Hollow Lake Beach	7/24/2023	7/26/2023	< 0.30
AC03629	Whitewater Memorial SP - Whitewater Lake Beach	7/25/2023	7/26/2023	< 0.30
AC03630	Brookville Lake - Quakertown SRA Beach	7/25/2023	7/26/2023	0.46
AC03631	Hardy Lake SRA - Hardy Lake SRA Beach	7/25/2023	7/26/2023	< 0.30
AC03632	Cagles Mill Lake - Lieber SRA Beach (Field Duplicate)	7/24/2023	7/26/2023	0.38
AC03633	Field Blank	7/24/2023	7/26/2023	< 0.30
AC03634	Ft. Ben Harrison SP Dog Lake	7/25/2023	7/26/2023	< 0.30

Test Report (by Request)

Test Information

Request: 7/26/2023 3:34:43 PM
 Date: 7/26/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.135 Abs	0.018 µg/L	R^2=0.99861, 98.9%		0.000	Kit:P23C0
MCT Std 0	MICROCYSTINS ADDA 54	1.159 Abs [1.1470] {1.5 C	0.000 µg/L [0.009]	R^2=0.99861, 101.0%		0.000	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.994 Abs	0.129 µg/L	R^2=0.99861, 86.6%		0.150	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.952 Abs [0.9730] {3.1 C	0.163 µg/L [0.146]	R^2=0.99861, 82.9%		0.150	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.726 Abs	0.389 µg/L	R^2=0.99861, 63.2%		0.400	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.705 Abs [0.7155] {2.1 C	0.417 µg/L [0.403]	R^2=0.99861, 61.4%		0.400	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.446 Abs	1.023 µg/L	R^2=0.99861, 38.8%		1.000	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.430 Abs [0.4380] {2.6 C	1.094 µg/L [1.059]	R^2=0.99861, 37.4%		1.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.342 Abs	1.693 µg/L	R^2=0.99861, 29.8%		2.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.337 Abs [0.3395] {1.0 C	1.744 µg/L [1.719]	R^2=0.99861, 29.3%		2.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.221 Abs	> 5.000 µg/L	19.268 %Abs		5.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.212 Abs [0.2165] {2.9 C	> 5.000 µg/L	18.483 %Abs		5.000	Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.098 Abs	0.049 µg/L	95.728 %Abs			Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.072 Abs [1.0850] {1.7 C	0.070 µg/L [0.060]	93.461 %Abs [94.5			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.761 Abs	0.346 µg/L	66.347 %Abs			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.718 Abs [0.7395] {4.1 C	0.399 µg/L [0.373]	62.598 %Abs [64.4			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.619 Abs	0.551 µg/L	53.967 %Abs			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.624 Abs [0.6215] {0.6 C	0.542 µg/L [0.547]	54.403 %Abs [54.1			Kit:P23C0

Note

Signature David Jordan

David Jordan 7/26/2023

* 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) 7/26/2023 4:23:44 PM

Test Report (by Request)

Test Information

Request: 7/26/2023 3:44:50 PM
Date: 7/26/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC03626	MICROCYSTINS ADDA 54	1.069 Abs	0.072 µg/L	Low, 93.200 %Abs		0.300 - 5.000	Kit:P23C0
AC03626	MICROCYSTINS ADDA 54	1.042 Abs [1.0555] {1.8 C	0.093 µg/L [0.083]	Low, 90.846 %Abs		0.300 - 5.000	Kit:P23C0
AC03627	MICROCYSTINS ADDA 54	0.769 Abs	0.337 µg/L	67.044 %Abs		0.300 - 5.000	Kit:P23C0
AC03627	MICROCYSTINS ADDA 54	0.734 Abs [0.7515] {3.3 C	0.379 µg/L [0.358]	63.993 %Abs [65.5		0.300 - 5.000	Kit:P23C0
AC03628	MICROCYSTINS ADDA 54	0.935 Abs	0.177 µg/L	Low, 81.517 %Abs		0.300 - 5.000	Kit:P23C0
AC03628	MICROCYSTINS ADDA 54	0.904 Abs [0.9195] {2.4 C	0.203 µg/L [0.190]	Low, 78.814 %Abs		0.300 - 5.000	Kit:P23C0
AC03629	MICROCYSTINS ADDA 54	1.029 Abs	0.103 µg/L	Low, 89.712 %Abs		0.300 - 5.000	Kit:P23C0
AC03629	MICROCYSTINS ADDA 54	1.053 Abs [1.0410] {1.6 C	0.084 µg/L [0.094]	Low, 91.805 %Abs		0.300 - 5.000	Kit:P23C0
AC03629MS	MICROCYSTINS ADDA 54	0.568 Abs	0.653 µg/L	49.520 %Abs		0.300 - 5.000	Kit:P23C0
AC03629MS	MICROCYSTINS ADDA 54	0.545 Abs [0.5565] {2.9 C	0.707 µg/L [0.680]	47.515 %Abs [48.5		0.300 - 5.000	Kit:P23C0
AC03629MSD	MICROCYSTINS ADDA 54	0.568 Abs	0.653 µg/L	49.520 %Abs		0.300 - 5.000	Kit:P23C0
AC03629MSD	MICROCYSTINS ADDA 54	0.553 Abs [0.5605] {1.9 C	0.688 µg/L [0.671]	48.213 %Abs [48.8		0.300 - 5.000	Kit:P23C0
AC03630	MICROCYSTINS ADDA 54	0.694 Abs	0.432 µg/L	60.506 %Abs		0.300 - 5.000	Kit:P23C0
AC03630	MICROCYSTINS ADDA 54	0.672 Abs [0.6830] {2.3 C	0.464 µg/L [0.448]	58.588 %Abs [59.5		0.300 - 5.000	Kit:P23C0
AC03631	MICROCYSTINS ADDA 54	0.968 Abs	0.150 µg/L	Low, 84.394 %Abs		0.300 - 5.000	Kit:P23C0
AC03631	MICROCYSTINS ADDA 54	0.986 Abs [0.9770] {1.3 C	0.136 µg/L [0.143]	Low, 85.963 %Abs		0.300 - 5.000	Kit:P23C0
AC03632	MICROCYSTINS ADDA 54	0.742 Abs	0.369 µg/L	64.690 %Abs		0.300 - 5.000	Kit:P23C0
AC03632	MICROCYSTINS ADDA 54	0.733 Abs [0.7375] {0.9 C	0.380 µg/L [0.375]	63.906 %Abs [64.2		0.300 - 5.000	Kit:P23C0
AC03633	MICROCYSTINS ADDA 54	1.092 Abs	0.054 µg/L	Low, 95.205 %Abs		0.300 - 5.000	Kit:P23C0
AC03633	MICROCYSTINS ADDA 54	1.095 Abs [1.0935] {0.2 C	0.052 µg/L [0.053]	Low, 95.466 %Abs		0.300 - 5.000	Kit:P23C0
AC03634	MICROCYSTINS ADDA 54	1.060 Abs	0.079 µg/L	Low, 92.415 %Abs		0.300 - 5.000	Kit:P23C0
AC03634	MICROCYSTINS ADDA 54	1.023 Abs [1.0415] {2.5 C	0.107 µg/L [0.093]	Low, 89.189 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.593 Abs	0.601 µg/L	51.700 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.601 Abs [0.5970] {0.9 C	0.585 µg/L [0.593]	52.398 %Abs [52.0		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	1.059 Abs	0.080 µg/L	Low, 92.328 %Abs		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	1.059 Abs [1.0590] {0.0 C	0.080 µg/L [0.080]	Low, 92.328 %Abs		0.300 - 5.000	Kit:P23C0

Note

Signature *David Jordan*

David Jordan 7/26/2023

* 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) 7/26/2023 4:23:44 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:P23C0589

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
7/26/2023 3:34:43 PM				
MCT Std 0	1.135 Abs	0.018 µg/L	R ² =0.99861, 98.954 %Abs	RK1:23->A01@2
MCT Std 0	1.159 Abs [1.1470] {1.5 CV}	0.000 µg/L [0.009] {141.4 CV}	R ² =0.99861, 101.046 %Abs	RK1:23->B01@2
MCT Std 1	0.994 Abs	0.129 µg/L	R ² =0.99861, 86.661 %Abs	RK1:24->C01@2
MCT Std 1	0.952 Abs [0.9730] {3.1 CV}	0.163 µg/L [0.146] {16.5 CV}	R ² =0.99861, 82.999 %Abs	RK1:24->D01@2
MCT Std 2	0.726 Abs	0.389 µg/L	R ² =0.99861, 63.296 %Abs	RK1:25->E01@2
MCT Std 2	0.705 Abs [0.7155] {2.1 CV}	0.417 µg/L [0.403] {4.9 CV}	R ² =0.99861, 61.465 %Abs	RK1:25->F01@3
MCT Std 3	0.446 Abs	1.023 µg/L	R ² =0.99861, 38.884 %Abs	RK1:26->G01@3
MCT Std 3	0.430 Abs [0.4380] {2.6 CV}	1.094 µg/L [1.059] {4.7 CV}	R ² =0.99861, 37.489 %Abs	RK1:26->H01@3
MCT Std 4	0.342 Abs	1.693 µg/L	R ² =0.99861, 29.817 %Abs	RK1:27->A02@2
MCT Std 4	0.337 Abs [0.3395] {1.0 CV}	1.744 µg/L [1.719] {2.1 CV}	R ² =0.99861, 29.381 %Abs	RK1:27->B02@2
MCT Std 5	0.221 Abs	> 5.000 µg/L	19.268 %Abs	RK1:28->C02@2
MCT Std 5	0.212 Abs [0.2165] {2.9 CV}	> 5.000 µg/L	18.483 %Abs	RK1:28->D02@2

7/26/2023 3:34:43 PM				
MCT 546 LRB 1	1.098 Abs	0.049 µg/L	95.728 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.072 Abs [1.0850] {1.7 CV}	0.070 µg/L [0.060] {25.0 CV}	93.461 %Abs [94.595 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.761 Abs	0.346 µg/L	66.347 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.718 Abs [0.7395] {4.1 CV}	0.399 µg/L [0.373] {10.1 CV}	62.598 %Abs [64.473 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.619 Abs	0.551 µg/L	53.967 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.624 Abs [0.6215] {0.6 CV}	0.542 µg/L [0.547] {1.2 CV}	54.403 %Abs [54.185 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.1470	0.0090		
MCT Std 0 [SD]	0.0170	0.0127		
MCT Std 0 [%CV]	1.4796	141.4214		
MCT Std 1 [MEAN]	0.9730	0.1460		
MCT Std 1 [SD]	0.0297	0.0240		
MCT Std 1 [%CV]	3.0523	16.4669		
MCT Std 1 [%DIFF]		-2.6667		
MCT Std 2 [MEAN]	0.7155	0.4030		
MCT Std 2 [SD]	0.0148	0.0198		
MCT Std 2 [%CV]	2.0754	4.9129		
MCT Std 2 [%DIFF]		0.7500		
MCT Std 3 [MEAN]	0.4380	1.0585		
MCT Std 3 [SD]	0.0113	0.0502		
MCT Std 3 [%CV]	2.5830	4.7430		
MCT Std 3 [%DIFF]		5.8500		
MCT Std 4 [MEAN]	0.3395	1.7185		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0035	0.0361		
MCT Std 4 [%CV]	1.0414	2.0985		
MCT Std 4 [%DIFF]		-14.0750		
MCT Std 5 [MEAN]	0.2165			
MCT Std 5 [SD]	0.0064			
MCT Std 5 [%CV]	2.9395			
MCT 546 LRB 1 [MEAN]	1.0850	0.0595		
MCT 546 LRB 1 [SD]	0.0184	0.0148		
MCT 546 LRB 1 [%CV]	1.6945	24.9567		
MCT 546 Low-CV [MEAN]	0.7395	0.3725		
MCT 546 Low-CV [SD]	0.0304	0.0375		
MCT 546 Low-CV [%CV]	4.1116	10.0608		
MCT 546 LFB 1 [MEAN]	0.6215	0.5465		
MCT 546 LFB 1 [SD]	0.0035	0.0064		
MCT 546 LFB 1 [%CV]	0.5689	1.1645		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1493
 B = 1.2761
 C = 0.47250
 D = 0.18358
 R2 coef = 0.99861
 50% = 0.641

