



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC37262	Cecil M. Harden Lake - Raccoon Lake SRA Beach	8/21/2023	8/23/2023	< 0.30
AC37263	Cagles Mill Lake - Lieber SRA Beach	8/21/2023	8/23/2023	< 0.30
AC37269	Monroe Lake - Fairfax SRA Beach	8/21/2023	8/23/2023	< 0.30
AC37268	Monroe Lake - Paynetown SRA Beach	8/21/2023	8/23/2023	< 0.30
AC37267	Starve Hollow SRA - Starve Hollow Lake Beach	8/21/2023	8/23/2023	1.62
AC37266	Whitewater Memorial SP - Whitewater Lake Beach	8/22/2023	8/23/2023	< 0.30
AC37264	Brookville Lake - Quakertown SRA Beach	8/22/2023	8/23/2023	< 0.30
AC37265	Brookville Lake - Mounds SRA Beach	8/22/2023	8/23/2023	< 0.30
AC37270	Hardy Lake SRA - Hardy Lake SRA Beach	8/22/2023	8/23/2023	< 0.30
AC37260	Monroe Lake - Paynetown SRA Beach (Field Duplicate)	8/21/2023	8/23/2023	< 0.30
AC37261	Field Blank	8/21/2023	8/23/2023	< 0.30
AC37271	Ft. Ben Harrison SP Dog Lake	8/21/2023	8/23/2023	< 0.30

Test Report (by Request)

Test Information

Request: 8/23/2023 5:13:59 PM
Date: 8/23/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.102 Abs	0.009 µg/L	R^2=0.99773, 99.54		0.000	Kit:P23C0
MCT Std 0	MICROCYSTINS ADDA 54	1.111 Abs [1.1065] {0.6 C	0.000 µg/L [0.005]	R^2=0.99773, 100.3		0.000	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.938 Abs	0.128 µg/L	R^2=0.99773, 84.73		0.150	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.896 Abs [0.9170] {3.2 C	0.159 µg/L [0.144]	R^2=0.99773, 80.93		0.150	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.658 Abs	0.402 µg/L	R^2=0.99773, 59.44		0.400	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.646 Abs [0.6520] {1.3 C	0.419 µg/L [0.411]	R^2=0.99773, 58.35		0.400	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.411 Abs	1.027 µg/L	R^2=0.99773, 37.12		1.000	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.398 Abs [0.4045] {2.3 C	1.093 µg/L [1.060]	R^2=0.99773, 35.95		1.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.328 Abs	1.615 µg/L	R^2=0.99773, 29.63		2.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.327 Abs [0.3275] {0.2 C	1.626 µg/L [1.621]	R^2=0.99773, 29.53		2.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.210 Abs	> 5.000 µg/L	18.970 %Abs		5.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.204 Abs [0.2070] {2.0 C	> 5.000 µg/L	18.428 %Abs		5.000	Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.052 Abs	0.048 µg/L	95.032 %Abs			Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.041 Abs [1.0465] {0.7 C	0.056 µg/L [0.052]	94.038 %Abs [94.5			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.686 Abs	0.365 µg/L	61.969 %Abs			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.656 Abs [0.6710] {3.2 C	0.405 µg/L [0.385]	59.259 %Abs [60.6			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.623 Abs	0.454 µg/L	56.278 %Abs			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.617 Abs [0.6200] {0.7 C	0.463 µg/L [0.459]	55.736 %Abs [56.0			Kit:P23C0

Note

Signature *David Jordan*

David Jordan 8/23/2023

Test Report (by Request)

Test Information

 Request: 8/23/2023 5:15:07 PM
 Date: 8/23/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC37262	MICROCYSTINS ADDA 54	1.005 Abs	0.080 µg/L	Low, 90.786 %Abs		0.300 - 5.000	Kit:P23C0
AC37262	MICROCYSTINS ADDA 54	1.002 Abs [1.0035] {0.2 C	0.083 µg/L [0.082]	Low, 90.515 %Abs		0.300 - 5.000	Kit:P23C0
AC37263	MICROCYSTINS ADDA 54	0.939 Abs	0.127 µg/L	Low, 84.824 %Abs		0.300 - 5.000	Kit:P23C0
AC37263	MICROCYSTINS ADDA 54	0.933 Abs [0.9360] {0.5 C	0.131 µg/L [0.129]	Low, 84.282 %Abs		0.300 - 5.000	Kit:P23C0
AC37269	MICROCYSTINS ADDA 54	0.935 Abs	0.130 µg/L	Low, 84.463 %Abs		0.300 - 5.000	Kit:P23C0
AC37269	MICROCYSTINS ADDA 54	0.909 Abs [0.9220] {2.0 C	0.149 µg/L [0.140]	Low, 82.114 %Abs		0.300 - 5.000	Kit:P23C0
AC37268	MICROCYSTINS ADDA 54	1.048 Abs	0.051 µg/L	Low, 94.670 %Abs		0.300 - 5.000	Kit:P23C0
AC37268	MICROCYSTINS ADDA 54	1.052 Abs [1.0500] {0.3 C	0.048 µg/L [0.050]	Low, 95.032 %Abs		0.300 - 5.000	Kit:P23C0
AC37267	MICROCYSTINS ADDA 54	0.331 Abs	1.584 µg/L	29.901 %Abs		0.300 - 5.000	Kit:P23C0
AC37267	MICROCYSTINS ADDA 54	0.324 Abs [0.3275] {1.5 C	1.659 µg/L [1.622]	29.268 %Abs [29.5		0.300 - 5.000	Kit:P23C0
AC37266	MICROCYSTINS ADDA 54	0.996 Abs	0.087 µg/L	Low, 89.973 %Abs		0.300 - 5.000	Kit:P23C0
AC37266	MICROCYSTINS ADDA 54	0.988 Abs [0.9920] {0.6 C	0.092 µg/L [0.090]	Low, 89.250 %Abs		0.300 - 5.000	Kit:P23C0
AC37266MS	MICROCYSTINS ADDA 54	0.536 Abs	0.618 µg/L	48.419 %Abs		0.300 - 5.000	Kit:P23C0
AC37266MS	MICROCYSTINS ADDA 54	0.517 Abs [0.5265] {2.6 C	0.663 µg/L [0.641]	46.703 %Abs [47.5		0.300 - 5.000	Kit:P23C0
AC37266MSD	MICROCYSTINS ADDA 54	0.597 Abs	0.497 µg/L	53.930 %Abs		0.300 - 5.000	Kit:P23C0
AC37266MSD	MICROCYSTINS ADDA 54	0.588 Abs [0.5925] {1.1 C	0.513 µg/L [0.505]	53.117 %Abs [53.5		0.300 - 5.000	Kit:P23C0
AC37264	MICROCYSTINS ADDA 54	0.959 Abs	0.113 µg/L	Low, 86.631 %Abs		0.300 - 5.000	Kit:P23C0
AC37264	MICROCYSTINS ADDA 54	0.945 Abs [0.9520] {1.0 C	0.123 µg/L [0.118]	Low, 85.366 %Abs		0.300 - 5.000	Kit:P23C0
AC37265	MICROCYSTINS ADDA 54	0.939 Abs	0.127 µg/L	Low, 84.824 %Abs		0.300 - 5.000	Kit:P23C0
AC37265	MICROCYSTINS ADDA 54	0.914 Abs [0.9265] {1.9 C	0.146 µg/L [0.137]	Low, 82.565 %Abs		0.300 - 5.000	Kit:P23C0
AC37270	MICROCYSTINS ADDA 54	0.907 Abs	0.151 µg/L	Low, 81.933 %Abs		0.300 - 5.000	Kit:P23C0
AC37270	MICROCYSTINS ADDA 54	0.881 Abs [0.8940] {2.1 C	0.171 µg/L [0.161]	Low, 79.584 %Abs		0.300 - 5.000	Kit:P23C0
AC37260	MICROCYSTINS ADDA 54	1.048 Abs	0.051 µg/L	Low, 94.670 %Abs		0.300 - 5.000	Kit:P23C0
AC37260	MICROCYSTINS ADDA 54	1.045 Abs [1.0465] {0.2 C	0.053 µg/L [0.052]	Low, 94.399 %Abs		0.300 - 5.000	Kit:P23C0
AC37261	MICROCYSTINS ADDA 54	1.082 Abs	0.026 µg/L	Low, 97.742 %Abs		0.300 - 5.000	Kit:P23C0
AC37261	MICROCYSTINS ADDA 54	1.063 Abs [1.0725] {1.3 C	0.040 µg/L [0.033]	Low, 96.025 %Abs		0.300 - 5.000	Kit:P23C0
AC37271	MICROCYSTINS ADDA 54	1.006 Abs	0.080 µg/L	Low, 90.876 %Abs		0.300 - 5.000	Kit:P23C0
AC37271	MICROCYSTINS ADDA 54	1.026 Abs [1.0160] {1.4 C	0.066 µg/L [0.073]	Low, 92.683 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.626 Abs	0.449 µg/L	56.549 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.602 Abs [0.6140] {2.8 C	0.488 µg/L [0.469]	54.381 %Abs [55.4		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	1.062 Abs	0.041 µg/L	Low, 95.935 %Abs		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	1.067 Abs [1.0645] {0.3 C	0.037 µg/L [0.039]	Low, 96.387 %Abs		0.300 - 5.000	Kit:P23C0

Note

 Signature *David Jordan*

David Jordan 8/23/2023

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
8/23/2023 5:13:59 PM				
MCT Std 0	1.102 Abs	0.009 µg/L	R ² =0.99773, 99.548 %Abs	RK1:23->A01@2
MCT Std 0	1.111 Abs [1.1065] {0.6 CV}	0.000 µg/L [0.005] {141.4 CV}	R ² =0.99773, 100.361 %Abs	RK1:23->B01@2
MCT Std 1	0.938 Abs	0.128 µg/L	R ² =0.99773, 84.734 %Abs	RK1:24->C01@2
MCT Std 1	0.896 Abs [0.9170] {3.2 CV}	0.159 µg/L [0.144] {15.3 CV}	R ² =0.99773, 80.939 %Abs	RK1:24->D01@2
MCT Std 2	0.658 Abs	0.402 µg/L	R ² =0.99773, 59.440 %Abs	RK1:25->E01@2
MCT Std 2	0.646 Abs [0.6520] {1.3 CV}	0.419 µg/L [0.411] {2.9 CV}	R ² =0.99773, 58.356 %Abs	RK1:25->F01@3
MCT Std 3	0.411 Abs	1.027 µg/L	R ² =0.99773, 37.127 %Abs	RK1:26->G01@3
MCT Std 3	0.398 Abs [0.4045] {2.3 CV}	1.093 µg/L [1.060] {4.4 CV}	R ² =0.99773, 35.953 %Abs	RK1:26->H01@3
MCT Std 4	0.328 Abs	1.615 µg/L	R ² =0.99773, 29.630 %Abs	RK1:27->A02@2
MCT Std 4	0.327 Abs [0.3275] {0.2 CV}	1.626 µg/L [1.621] {0.5 CV}	R ² =0.99773, 29.539 %Abs	RK1:27->B02@2
MCT Std 5	0.210 Abs	> 5.000 µg/L	18.970 %Abs	RK1:28->C02@2
MCT Std 5	0.204 Abs [0.2070] {2.0 CV}	> 5.000 µg/L	18.428 %Abs	RK1:28->D02@2

8/23/2023 5:13:59 PM				
MCT 546 LRB 1	1.052 Abs	0.048 µg/L	95.032 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.041 Abs [1.0465] {0.7 CV}	0.056 µg/L [0.052] {10.9 CV}	94.038 %Abs [94.535 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.686 Abs	0.365 µg/L	61.969 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.656 Abs [0.6710] {3.2 CV}	0.405 µg/L [0.385] {7.3 CV}	59.259 %Abs [60.614 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.623 Abs	0.454 µg/L	56.278 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.617 Abs [0.6200] {0.7 CV}	0.463 µg/L [0.459] {1.4 CV}	55.736 %Abs [56.007 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.1065	0.0045		
MCT Std 0 [SD]	0.0064	0.0064		
MCT Std 0 [%CV]	0.5751	141.4214		
MCT Std 1 [MEAN]	0.9170	0.1435		
MCT Std 1 [SD]	0.0297	0.0219		
MCT Std 1 [%CV]	3.2387	15.2755		
MCT Std 1 [%DIFF]		-4.3333		
MCT Std 2 [MEAN]	0.6520	0.4105		
MCT Std 2 [SD]	0.0085	0.0120		
MCT Std 2 [%CV]	1.3014	2.9283		
MCT Std 2 [%DIFF]		2.6250		
MCT Std 3 [MEAN]	0.4045	1.0600		
MCT Std 3 [SD]	0.0092	0.0467		
MCT Std 3 [%CV]	2.2725	4.4027		
MCT Std 3 [%DIFF]		6.0000		
MCT Std 4 [MEAN]	0.3275	1.6205		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0007	0.0078		
MCT Std 4 [%CV]	0.2159	0.4800		
MCT Std 4 [%DIFF]		-18.9750		
MCT Std 5 [MEAN]	0.2070			
MCT Std 5 [SD]	0.0042			
MCT Std 5 [%CV]	2.0496			
MCT 546 LRB 1 [MEAN]	1.0465	0.0520		
MCT 546 LRB 1 [SD]	0.0078	0.0057		
MCT 546 LRB 1 [%CV]	0.7433	10.8786		
MCT 546 Low-CV [MEAN]	0.6710	0.3850		
MCT 546 Low-CV [SD]	0.0212	0.0283		
MCT 546 Low-CV [%CV]	3.1614	7.3466		
MCT 546 LFB 1 [MEAN]	0.6200	0.4585		
MCT 546 LFB 1 [SD]	0.0042	0.0064		
MCT 546 LFB 1 [%CV]	0.6843	1.3880		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1101
 B = 1.2472
 C = 0.41808
 D = 0.18308
 R2 coef = 0.99773
 50% = 0.580

