Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC40223	Cecil M. Harden Lake - Raccoon Lake SRA Beach	5/28/2024	5/29/2024	< 0.30
AC40224	Whitewater Memorial SP - Whitewater Lake Beach	5/28/2024	5/29/2024	< 0.30
AC40225	Brookville Lake - Quakertown SRA Beach	5/28/2024	5/29/2024	< 0.30
AC40226	Whitewater Memorial SP - Whitewater Lake Beach (Field Duplicate)	5/28/2024	5/29/2024	< 0.30
AC40227	Field Blank	5/28/2024	5/29/2024	< 0.30
AC40228	Ferdinand State Forest - Ferdinand Lake Beach	5/28/2024	5/29/2024	< 0.30

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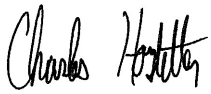
Test Report (by Request)

Test Information

Request: 5/29/2024 4:26:26 PM
Date: 5/29/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.150 Abs	0.000 µg/L	R^2=0.99598, 100.4		0.000	Kit:P23C0
MCT Std 0	MICROCYSTINS ADDA 54	1.140 Abs [1.1450] {0.6 C	0.000 µg/L [0.000]	R^2=0.99598, 99.56		0.000	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.984 Abs	0.073 µg/L	R^2=0.99598, 85.93		0.150	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.743 Abs [0.8635] {19.7	0.313 µg/L [0.193]	R^2=0.99598, 64.89		0.150	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.728 Abs	0.335 µg/L	R^2=0.99598, 63.58		0.400	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.721 Abs [0.7245] {0.7 C	0.346 µg/L [0.341]	R^2=0.99598, 62.96		0.400	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.464 Abs	1.107 µg/L	R^2=0.99598, 40.52		1.000	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.454 Abs [0.4590] {1.5 C	1.162 µg/L [1.135]	R^2=0.99598, 39.65		1.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.354 Abs	1.972 µg/L	R^2=0.99598, 30.91		2.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.355 Abs [0.3545] {0.2 C	1.960 µg/L [1.966]	R^2=0.99598, 31.00		2.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.232 Abs	4.731 µg/L	R^2=0.99598, 20.26		5.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.228 Abs [0.2300] {1.2 C	4.911 µg/L [4.821]	R^2=0.99598, 19.91		5.000	Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.072 Abs	0.025 µg/L	93.624 %Abs			Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.078 Abs [1.0750] {0.4 C	0.023 µg/L [0.024]	94.148 %Abs [93.8			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.796 Abs	0.242 µg/L	69.520 %Abs			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.739 Abs [0.7675] {5.3 C	0.318 µg/L [0.280]	64.541 %Abs [67.0			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.617 Abs	0.552 µg/L	53.886 %Abs			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.630 Abs [0.6235] {1.5 C	0.521 µg/L [0.537]	55.022 %Abs [54.4			Kit:P23C0

Note

Signature 

Charles Hostetter 5/30/2024

* 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) 5/29/2024 4:34:03 PM

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Test Report (by Request)

Test Information

Request: 5/29/2024 4:27:01 PM
Date: 5/29/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC40223	MICROCYSTINS ADDA 54	1.029 Abs	0.047 µg/L	Low, 89.869 %Abs		0.300 - 5.000	Kit:P23C0
AC40223	MICROCYSTINS ADDA 54	1.020 Abs [1.0245] {0.6 C	0.052 µg/L [0.050]	Low, 89.083 %Abs		0.300 - 5.000	Kit:P23C0
AC40223MS	MICROCYSTINS ADDA 54	0.556 Abs	0.724 µg/L	48.559 %Abs		0.300 - 5.000	Kit:P23C0
AC40223MS	MICROCYSTINS ADDA 54	0.547 Abs [0.5515] {1.2 C	0.754 µg/L [0.739]	47.773 %Abs [48.1		0.300 - 5.000	Kit:P23C0
AC40223MSD	MICROCYSTINS ADDA 54	0.552 Abs	0.737 µg/L	48.210 %Abs		0.300 - 5.000	Kit:P23C0
AC40223MSD	MICROCYSTINS ADDA 54	0.539 Abs [0.5455] {1.7 C	0.782 µg/L [0.760]	47.074 %Abs [47.6		0.300 - 5.000	Kit:P23C0
AC40224	MICROCYSTINS ADDA 54	0.993 Abs	0.068 µg/L	Low, 86.725 %Abs		0.300 - 5.000	Kit:P23C0
AC40224	MICROCYSTINS ADDA 54	1.010 Abs [1.0015] {1.2 C	0.058 µg/L [0.063]	Low, 88.210 %Abs		0.300 - 5.000	Kit:P23C0
AC40225	MICROCYSTINS ADDA 54	1.047 Abs	0.037 µg/L	Low, 91.441 %Abs		0.300 - 5.000	Kit:P23C0
AC40225	MICROCYSTINS ADDA 54	1.046 Abs [1.0465] {0.1 C	0.038 µg/L [0.038]	Low, 91.354 %Abs		0.300 - 5.000	Kit:P23C0
AC40226	MICROCYSTINS ADDA 54	0.983 Abs	0.074 µg/L	Low, 85.852 %Abs		0.300 - 5.000	Kit:P23C0
AC40226	MICROCYSTINS ADDA 54	0.974 Abs [0.9785] {0.7 C	0.080 µg/L [0.077]	Low, 85.066 %Abs		0.300 - 5.000	Kit:P23C0
AC40227	MICROCYSTINS ADDA 54	1.054 Abs	0.034 µg/L	Low, 92.052 %Abs		0.300 - 5.000	Kit:P23C0
AC40227	MICROCYSTINS ADDA 54	0.979 Abs [1.0165] {5.2 C	0.077 µg/L [0.056]	Low, 85.502 %Abs		0.300 - 5.000	Kit:P23C0
AC40228	MICROCYSTINS ADDA 54	1.026 Abs	0.049 µg/L	Low, 89.607 %Abs		0.300 - 5.000	Kit:P23C0
AC40228	MICROCYSTINS ADDA 54	1.014 Abs [1.0200] {0.8 C	0.055 µg/L [0.052]	Low, 88.559 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.628 Abs	0.526 µg/L	54.847 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.626 Abs [0.6270] {0.2 C	0.531 µg/L [0.529]	54.672 %Abs [54.7		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	1.103 Abs	0.012 µg/L	Low, 96.332 %Abs		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	1.067 Abs [1.0850] {2.3 C	0.028 µg/L [0.020]	Low, 93.188 %Abs		0.300 - 5.000	Kit:P23C0

Note

Signature

Charles Hostetter 5/30/2024

* 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) 5/29/2024 4:34:03 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:P23C0589

Assay Calibration

Current Calibration Status: " "

Name	Absorbance	Concentration	Interpretation	Position
5/29/2024 4:26:26 PM				
MCT Std 0	1.150 Abs	0.000 µg/L	R^2=0.99598, 100.437 %Abs	RK1:23->A01@2
MCT Std 0	1.140 Abs [1.1450] {0.6 CV}	0.000 µg/L [0.000]	R^2=0.99598, 99.563 %Abs	RK1:23->B01@2
MCT Std 1	0.984 Abs	0.073 µg/L	R^2=0.99598, 85.939 %Abs	RK1:24->C01@2
MCT Std 1	0.743 Abs [0.8635] {19.7 CV	0.313 µg/L [0.193] {87.9 CV}	R^2=0.99598, 64.891 %Abs	RK1:24->D01@2
MCT Std 2	0.728 Abs	0.335 µg/L	R^2=0.99598, 63.581 %Abs	RK1:25->E01@2
MCT Std 2	0.721 Abs [0.7245] {0.7 CV}	0.346 µg/L [0.341] {2.3 CV}	R^2=0.99598, 62.969 %Abs	RK1:25->F01@3
MCT Std 3	0.464 Abs	1.107 µg/L	R^2=0.99598, 40.524 %Abs	RK1:26->G01@3
MCT Std 3	0.454 Abs [0.4590] {1.5 CV}	1.162 µg/L [1.135] {3.4 CV}	R^2=0.99598, 39.651 %Abs	RK1:26->H01@3
MCT Std 4	0.354 Abs	1.972 µg/L	R^2=0.99598, 30.917 %Abs	RK1:27->A02@2
MCT Std 4	0.355 Abs [0.3545] {0.2 CV}	1.960 µg/L [1.966] {0.4 CV}	R^2=0.99598, 31.004 %Abs	RK1:27->B02@2
MCT Std 5	0.232 Abs	4.731 µg/L	R^2=0.99598, 20.262 %Abs	RK1:28->C02@2
MCT Std 5	0.228 Abs [0.2300] {1.2 CV}	4.911 µg/L [4.821] {2.6 CV}	R^2=0.99598, 19.913 %Abs	RK1:28->D02@2
++++++++++++++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++
5/29/2024 4:26:26 PM				
MCT 546 LRB 1	1.072 Abs	0.025 µg/L	93.624 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.078 Abs [1.0750] {0.4 CV}	0.023 µg/L [0.024] {5.9 CV}	94.148 %Abs [93.886 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.796 Abs	0.242 µg/L	69.520 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.739 Abs [0.7675] {5.3 CV}	0.318 µg/L [0.280] {19.2 CV}	64.541 %Abs [67.031 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.617 Abs	0.552 µg/L	53.886 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.630 Abs [0.6235] {1.5 CV}	0.521 µg/L [0.537] {4.1 CV}	55.022 %Abs [54.454 %Abs]	RK1:31->B03@2
**********	**********	**********	**********	**********
Statistic				
MCT Std 0 [MEAN]	1.1450	0.0000		
MCT Std 0 [SD]	0.0071	0.0000		
MCT Std 0 [%CV]	0.6176	0.0000		
MCT Std 1 [MEAN]	0.8635	0.1930		
MCT Std 1 [SD]	0.1704	0.1697		
MCT Std 1 [%CV]	19.7351	87.9304		
MCT Std 1 [%DIFF]		28.6667		
MCT Std 2 [MEAN]	0.7245	0.3405		
MCT Std 2 [SD]	0.0049	0.0078		
MCT Std 2 [%CV]	0.6832	2.2843		
MCT Std 2 [%DIFF]		-14.8750		
MCT Std 3 [MEAN]	0.4590	1.1345		
MCT Std 3 [SD]	0.0071	0.0389		
MCT Std 3 [%CV]	1.5405	3.4280		
MCT Std 3 [%DIFF]		13.4500		
MCT Std 4 [MEAN]	0.3545	1.9660		

MICROCYSTINS ADDA 546_ - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0007	0.0085		
MCT Std 4 [%CV]	0.1995	0.4316		
MCT Std 4 [%DIFF]		-1.7000		
MCT Std 5 [MEAN]	0.2300	4.8210		
MCT Std 5 [SD]	0.0028	0.1273		
MCT Std 5 [%CV]	1.2297	2.6401		
MCT Std 5 [%DIFF]		-3.5800		
MCT 546 LRB 1 [MEAN]	1.0750	0.0240		
MCT 546 LRB 1 [SD]	0.0042	0.0014		
MCT 546 LRB 1 [%CV]	0.3947	5.8926		
MCT 546 Low-CV [MEAN]	0.7675	0.2800		
MCT 546 Low-CV [SD]	0.0403	0.0537		
MCT 546 Low-CV [%CV]	5.2515	19.1929		
MCT 546 LFB 1 [MEAN]	0.6235	0.5365		
MCT 546 LFB 1 [SD]	0.0092	0.0219		
MCT 546 LFB 1 [%CV]	1.4743	4.0858		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.1420
B = 0.85498
C = 0.56084
D = 0.085019
R2 coef = 0.99598
50% = 0.673