Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC40677	Cecil M. Harden Lake - Raccoon Lake SRA Beach	6/24/2024	6/27/2024	< 0.30
AC40678	Cagles Mill Lake - Lieber SRA Beach	6/24/2024	6/27/2024	< 0.30
AC40679	Starve Hollow SRA - Starve Hollow Lake Beach	6/24/2024	6/27/2024	< 0.30
AC40680	Hardy Lake SRA - Hardy Lake SRA Beach	6/24/2024	6/27/2024	< 0.30
AC40681	Whitewater Memorial SP - Whitewater Lake Beach	6/25/2024	6/27/2024	< 0.30
AC40682	Salamonie Lake - Lost Bridge West SRA Beach	6/25/2024	6/27/2024	< 0.30
AC40687	Cecil M. Harden Lake - Raccoon Lake SRA Beach (Field Duplicate)	6/24/2024	6/27/2024	< 0.30
AC40688	Field Blank	6/24/2024	6/27/2024	< 0.30

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Test Report (by Request)

Test Information

Request: 6/27/2024 2:55:50 PM
Date: 6/27/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.147 Abs	0.055 µg/L	R^2=0.99836, 96.63		0.000	Kit:24044(
MCT Std 0	MICROCYSTINS ADDA 54	1.227 Abs [1.1870] {4.8 C	0.000 µg/L [0.028]	R^2=0.99836, 103.3		0.000	Kit:24044(
MCT Std 1	MICROCYSTINS ADDA 54	1.064 Abs	0.125 µg/L	R^2=0.99836, 89.63		0.150	Kit:24044(
MCT Std 1	MICROCYSTINS ADDA 54	1.034 Abs [1.0490] {2.0 C	0.150 µg/L [0.138]	R^2=0.99836, 87.11		0.150	Kit:24044(
MCT Std 2	MICROCYSTINS ADDA 54	0.766 Abs	0.411 µg/L	R^2=0.99836, 64.53		0.400	Kit:24044(
MCT Std 2	MICROCYSTINS ADDA 54	0.756 Abs [0.7610] {0.9 C	0.424 µg/L [0.418]	R^2=0.99836, 63.69		0.400	Kit:24044(
MCT Std 3	MICROCYSTINS ADDA 54	0.502 Abs	0.951 µg/L	R^2=0.99836, 42.29		1.000	Kit:24044(
MCT Std 3	MICROCYSTINS ADDA 54	0.469 Abs [0.4855] {4.8 C	1.080 µg/L [1.016]	R^2=0.99836, 39.51		1.000	Kit:24044(
MCT Std 4	MICROCYSTINS ADDA 54	0.368 Abs	1.757 µg/L	R^2=0.99836, 31.00		2.000	Kit:24044(
MCT Std 4	MICROCYSTINS ADDA 54	0.371 Abs [0.3695] {0.6 C	1.726 µg/L [1.742]	R^2=0.99836, 31.25		2.000	Kit:24044(
MCT Std 5	MICROCYSTINS ADDA 54	0.254 Abs	> 5.000 µg/L	21.398 %Abs		5.000	Kit:24044(
MCT Std 5	MICROCYSTINS ADDA 54	0.246 Abs [0.2500] {2.3 C	> 5.000 µg/L	20.725 %Abs		5.000	Kit:24044(
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.153 Abs	0.050 µg/L	97.136 %Abs			Kit:24044(
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.116 Abs [1.1345] {2.3 C	0.083 µg/L [0.067]	94.019 %Abs [95.5			Kit:24044(
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.806 Abs	0.364 µg/L	67.902 %Abs			Kit:24044(
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.790 Abs [0.7980] {1.4 C	0.382 µg/L [0.373]	66.554 %Abs [67.2			Kit:24044(
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.674 Abs	0.543 µg/L	56.782 %Abs			Kit:24044(
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.689 Abs [0.6815] {1.6 C	0.519 µg/L [0.531]	58.045 %Abs [57.4			Kit:24044(

Note

Signature

Charles Hostetter 6/27/2024

* 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) 6/27/2024 3:02:45 PM

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Test Report (by Request)

Test Information

Request: 6/27/2024 2:57:21 PM
Date: 6/27/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC40677	MICROCYSTINS ADDA 5	0.999 Abs	0.179 µg/L	Low, 84.162 %Abs		0.300 - 5.000	Kit:24044(
AC40677	MICROCYSTINS ADDA 5	0.988 Abs [0.9935] {0.8 C	0.188 µg/L [0.184]	Low, 83.235 %Abs		0.300 - 5.000	Kit:24044(
AC40678	MICROCYSTINS ADDA 5	1.077 Abs	0.115 µg/L	Low, 90.733 %Abs		0.300 - 5.000	Kit:24044(
AC40678	MICROCYSTINS ADDA 5	1.057 Abs [1.0670] {1.3 C	0.131 µg/L [0.123]	Low, 89.048 %Abs		0.300 - 5.000	Kit:24044(
AC40679	MICROCYSTINS ADDA 5	1.141 Abs	0.061 µg/L	Low, 96.125 %Abs		0.300 - 5.000	Kit:24044(
AC40679	MICROCYSTINS ADDA 5	1.038 Abs [1.0895] {6.7 C	0.147 µg/L [0.104]	Low, 87.447 %Abs		0.300 - 5.000	Kit:24044(
AC40680	MICROCYSTINS ADDA 5	1.042 Abs	0.143 µg/L	Low, 87.784 %Abs		0.300 - 5.000	Kit:24044(
AC40680	MICROCYSTINS ADDA 5	1.074 Abs [1.0580] {2.1 C	0.117 µg/L [0.130]	Low, 90.480 %Abs		0.300 - 5.000	Kit:24044(
AC40680MS	MICROCYSTINS ADDA 5	0.607 Abs	0.667 µg/L	51.137 %Abs		0.300 - 5.000	Kit:24044(
AC40680MS	MICROCYSTINS ADDA 5	0.597 Abs [0.6020] {1.2 C	0.689 µg/L [0.678]	50.295 %Abs [50.7		0.300 - 5.000	Kit:24044(
AC40680MSD	MICROCYSTINS ADDA 5	0.597 Abs	0.689 µg/L	50.295 %Abs		0.300 - 5.000	Kit:24044(
AC40680MSD	MICROCYSTINS ADDA 5	0.606 Abs [0.6015] {1.1 C	0.669 µg/L [0.679]	51.053 %Abs [50.6		0.300 - 5.000	Kit:24044(
AC40681	MICROCYSTINS ADDA 5	1.060 Abs	0.129 µg/L	Low, 89.301 %Abs		0.300 - 5.000	Kit:24044(
AC40681	MICROCYSTINS ADDA 5	0.985 Abs [1.0225] {5.2 C	0.191 µg/L [0.160]	Low, 82.982 %Abs		0.300 - 5.000	Kit:24044(
AC40682	MICROCYSTINS ADDA 5	0.952 Abs	0.219 µg/L	Low, 80.202 %Abs		0.300 - 5.000	Kit:24044(
AC40682	MICROCYSTINS ADDA 5	0.956 Abs [0.9540] {0.3 C	0.215 µg/L [0.217]	Low, 80.539 %Abs		0.300 - 5.000	Kit:24044(
AC40687	MICROCYSTINS ADDA 5	1.059 Abs	0.129 µg/L	Low, 89.217 %Abs		0.300 - 5.000	Kit:24044(
AC40687	MICROCYSTINS ADDA 5	1.012 Abs [1.0355] {3.2 C	0.168 µg/L [0.149]	Low, 85.257 %Abs		0.300 - 5.000	Kit:24044(
AC40688	MICROCYSTINS ADDA 5	1.194 Abs	0.000 µg/L	Low, 100.590 %Abs		0.300 - 5.000	Kit:24044(
AC40688	MICROCYSTINS ADDA 5	1.185 Abs [1.1895] {0.5 C	0.015 µg/L [0.008]	Low, 99.832 %Abs		0.300 - 5.000	Kit:24044(
LFB 2	MICROCYSTINS ADDA 5	0.660 Abs	0.567 µg/L	55.602 %Abs		0.300 - 5.000	Kit:24044(
LFB 2	MICROCYSTINS ADDA 5	0.646 Abs [0.6530] {1.5 C	0.591 µg/L [0.579]	54.423 %Abs [55.0		0.300 - 5.000	Kit:24044(
LRB 2	MICROCYSTINS ADDA 5	1.217 Abs	0.000 µg/L	Low, 102.527 %Abs		0.300 - 5.000	Kit:24044(
LRB 2	MICROCYSTINS ADDA 5	1.199 Abs [1.2080] {1.1 C	0.000 µg/L [0.000]	Low, 101.011 %Abs		0.300 - 5.000	Kit:24044(

Note

Signature

Charles Hostetter 6/27/2024

* 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) 6/27/2024 3:02:45 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:24044011378

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
6/27/2024 2:55:50 PM				
MCT Std 0	1.147 Abs	0.055 µg/L	R^2=0.99836, 96.630 %Abs	RK1:23->A01@2
MCT Std 0	1.227 Abs [1.1870] {4.8 CV}	0.000 µg/L [0.028] {141.4 C\	R^2=0.99836, 103.370 %Abs	RK1:23->B01@2
MCT Std 1	1.064 Abs	0.125 µg/L	R^2=0.99836, 89.638 %Abs	RK1:24->C01@2
MCT Std 1	1.034 Abs [1.0490] {2.0 CV}	0.150 µg/L [0.138] {12.9 CV}	R^2=0.99836, 87.110 %Abs	RK1:24->D01@2
MCT Std 2	0.766 Abs	0.411 µg/L	R^2=0.99836, 64.532 %Abs	RK1:25->E01@2
MCT Std 2	0.756 Abs [0.7610] {0.9 CV}	0.424 µg/L [0.418] {2.2 CV}	R^2=0.99836, 63.690 %Abs	RK1:25->F01@3
MCT Std 3	0.502 Abs	0.951 µg/L	R^2=0.99836, 42.291 %Abs	RK1:26->G01@3
MCT Std 3	0.469 Abs [0.4855] {4.8 CV}	1.080 µg/L [1.016] {9.0 CV}	R^2=0.99836, 39.511 %Abs	RK1:26->H01@3
MCT Std 4	0.368 Abs	1.757 µg/L	R^2=0.99836, 31.003 %Abs	RK1:27->A02@2
MCT Std 4	0.371 Abs [0.3695] {0.6 CV}	1.726 µg/L [1.742] {1.3 CV}	R^2=0.99836, 31.255 %Abs	RK1:27->B02@2
MCT Std 5	0.254 Abs	> 5.000 µg/L	21.398 %Abs	RK1:28->C02@2
MCT Std 5	0.246 Abs [0.2500] {2.3 CV}	> 5.000 µg/L	20.725 %Abs	RK1:28->D02@2
++++++++++++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++
6/27/2024 2:55:50 PM				
MCT 546 LRB 1	1.153 Abs	0.050 µg/L	97.136 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.116 Abs [1.1345] {2.3 CV}	0.083 µg/L [0.067] {35.1 CV}	94.019 %Abs [95.577 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.806 Abs	0.364 µg/L	67.902 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.790 Abs [0.7980] {1.4 CV}	0.382 µg/L [0.373] {3.4 CV}	66.554 %Abs [67.228 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.674 Abs	0.543 µg/L	56.782 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.689 Abs [0.6815] {1.6 CV}	0.519 µg/L [0.531] {3.2 CV}	58.045 %Abs [57.414 %Abs]	RK1:31->B03@2
**********	**********	**********	**********	**********
Statistic				
MCT Std 0 [MEAN]	1.1870	0.0275		
MCT Std 0 [SD]	0.0566	0.0389		
MCT Std 0 [%CV]	4.7657	141.4214		
MCT Std 1 [MEAN]	1.0490	0.1375		
MCT Std 1 [SD]	0.0212	0.0177		
MCT Std 1 [%CV]	2.0222	12.8565		
MCT Std 1 [%DIFF]		-8.3333		
MCT Std 2 [MEAN]	0.7610	0.4175		
MCT Std 2 [SD]	0.0071	0.0092		
MCT Std 2 [%CV]	0.9292	2.2018		
MCT Std 2 [%DIFF]		4.3750		
MCT Std 3 [MEAN]	0.4855	1.0155		
MCT Std 3 [SD]	0.0233	0.0912		
MCT Std 3 [%CV]	4.8063	8.9825		
MCT Std 3 [%DIFF]		1.5500		
MCT Std 4 [MEAN]	0.3695	1.7415		

MICROCYSTINS ADDA 546_ - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0021	0.0219		
MCT Std 4 [%CV]	0.5741	1.2587		
MCT Std 4 [%DIFF]		-12.9250		
MCT Std 5 [MEAN]	0.2500			
MCT Std 5 [SD]	0.0057			
MCT Std 5 [%CV]	2.2627			
MCT 546 LRB 1 [MEAN]	1.1345	0.0665		
MCT 546 LRB 1 [SD]	0.0262	0.0233		
MCT 546 LRB 1 [%CV]	2.3061	35.0895		
MCT 546 Low-CV [MEAN]	0.7980	0.3730		
MCT 546 Low-CV [SD]	0.0113	0.0127		
MCT 546 Low-CV [%CV]	1.4178	3.4123		
MCT 546 LFB 1 [MEAN]	0.6815	0.5310		
MCT 546 LFB 1 [SD]	0.0106	0.0170		
MCT 546 LFB 1 [%CV]	1.5564	3.1960		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.1932
B = 1.3762
C = 0.48717
D = 0.22675
R2 coef = 0.99836
50% = 0.696