



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB47937	Raccoon Lake SRA	7/12/2021	7/14/2021	< 0.30
AB47939	Cagles Mill Lake Beach	7/12/2021	7/14/2021	0.35
AB47940	Paynetown SRA	7/12/2021	7/14/2021	< 0.30
AB47941	Fairfax SRA	7/12/2021	7/14/2021	< 0.30
AB47942	Starve Hollow SRA	7/12/2021	7/14/2021	< 0.30
AB47943	Whitewater Memorial SP	7/13/2021	7/14/2021	< 0.30
AB47944	Quakertown SRA	7/13/2021	7/14/2021	< 0.30
AB47945	Mounds SRA	7/13/2021	7/14/2021	< 0.30
AB47946	Hardy Lake SRA	7/13/2021	7/14/2021	0.34
AB47938	Deam Lake SRA	7/13/2021	7/14/2021	< 0.30
AB47947	Hardy Lake SRA (Field Duplicate)	7/13/2021	7/14/2021	0.32
AB47948	Field Blank	7/12/2021	7/14/2021	< 0.30
AB47959	Ft. Ben Harrison SP Dog Lake - East	7/13/2021	7/14/2021	< 0.30

Test Report (by Request)

Test Information

 Request: 7/14/2021 2:50:05 PM
 Date: 7/14/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.646 Abs	0.000 µg/L	R^2=0.99435, 100.0%			20J4209
MCT Std 0	MICROCYSTINS ADDA 54	1.625 Abs [1.6355] {0.9 C	0.007 µg/L [0.004]	R^2=0.99435, 99.3%			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.342 Abs	0.127 µg/L	R^2=0.99435, 82.0%			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.330 Abs [1.3360] {0.6 C	0.133 µg/L [0.130]	R^2=0.99435, 81.3%			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	0.917 Abs	0.469 µg/L	R^2=0.99435, 56.0%			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	0.923 Abs [0.9200] {0.5 C	0.461 µg/L [0.465]	R^2=0.99435, 56.4%			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.672 Abs	0.957 µg/L	R^2=0.99435, 41.1%			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.674 Abs [0.6730] {0.2 C	0.950 µg/L [0.954]	R^2=0.99435, 41.2%			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.539 Abs	1.553 µg/L	R^2=0.99435, 32.9%			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.508 Abs [0.5235] {4.2 C	1.778 µg/L [1.665]	R^2=0.99435, 31.0%			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.326 Abs	> 5.000 µg/L	19.939 %Abs			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.317 Abs [0.3215] {2.0 C	> 5.000 µg/L	19.388 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.438 Abs	0.081 µg/L	87.951 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.437 Abs [1.4375] {0.0 C	0.082 µg/L [0.082]	87.890 %Abs [87.9			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.044 Abs	0.330 µg/L	63.853 %Abs			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.093 Abs [1.0685] {3.2 C	0.288 µg/L [0.309]	66.850 %Abs [65.3			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.933 Abs	0.448 µg/L	57.064 %Abs			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.867 Abs [0.9000] {5.2 C	0.538 µg/L [0.493]	53.028 %Abs [55.0			20J4209

Note

Signature

Charles Hostetter 7/15/21

Test Report (by Request)

Test Information

Request: 7/14/2021 2:51:10 PM

Date: 7/14/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AB47937	MICROCYSTINS ADDA 54	1.265 Abs	0.169 µg/L	Low, 77.370 %Abs		0.300 - 5.000	20J4209
AB47937	MICROCYSTINS ADDA 54	1.237 Abs [1.2510] {1.6 C	0.186 µg/L [0.178]	Low, 75.657 %Abs		0.300 - 5.000	20J4209
AB47939	MICROCYSTINS ADDA 54	1.038 Abs	0.336 µg/L	63.486 %Abs		0.300 - 5.000	20J4209
AB47939	MICROCYSTINS ADDA 54	1.003 Abs [1.0205] {2.4 C	0.370 µg/L [0.353]	61.346 %Abs [62.4		0.300 - 5.000	20J4209
AB47940	MICROCYSTINS ADDA 54	1.367 Abs	0.114 µg/L	Low, 83.609 %Abs		0.300 - 5.000	20J4209
AB47940	MICROCYSTINS ADDA 54	1.388 Abs [1.3775] {1.1 C	0.104 µg/L [0.109]	Low, 84.893 %Abs		0.300 - 5.000	20J4209
AB47941	MICROCYSTINS ADDA 54	1.590 Abs	0.020 µg/L	Low, 97.248 %Abs		0.300 - 5.000	20J4209
AB47941	MICROCYSTINS ADDA 54	1.511 Abs [1.5505] {3.6 C	0.051 µg/L [0.035]	Low, 92.416 %Abs		0.300 - 5.000	20J4209
AB47941MS	MICROCYSTINS ADDA 54	0.836 Abs	0.586 µg/L	51.131 %Abs		0.300 - 5.000	20J4209
AB47941MS	MICROCYSTINS ADDA 54	0.823 Abs [0.8295] {1.1 C	0.608 µg/L [0.597]	50.336 %Abs [50.7		0.300 - 5.000	20J4209
AB47941MSD	MICROCYSTINS ADDA 54	0.830 Abs	0.596 µg/L	50.765 %Abs		0.300 - 5.000	20J4209
AB47941MSD	MICROCYSTINS ADDA 54	0.779 Abs [0.8045] {4.5 C	0.690 µg/L [0.643]	47.645 %Abs [49.2		0.300 - 5.000	20J4209
AB47942	MICROCYSTINS ADDA 54	1.194 Abs	0.213 µg/L	Low, 73.028 %Abs		0.300 - 5.000	20J4209
AB47942	MICROCYSTINS ADDA 54	1.193 Abs [1.1935] {0.1 C	0.214 µg/L [0.213]	Low, 72.966 %Abs		0.300 - 5.000	20J4209
AB47943	MICROCYSTINS ADDA 54	1.537 Abs	0.040 µg/L	Low, 94.006 %Abs		0.300 - 5.000	20J4209
AB47943	MICROCYSTINS ADDA 54	1.500 Abs [1.5185] {1.7 C	0.055 µg/L [0.047]	Low, 91.743 %Abs		0.300 - 5.000	20J4209
AB47944	MICROCYSTINS ADDA 54	1.418 Abs	0.090 µg/L	Low, 86.728 %Abs		0.300 - 5.000	20J4209
AB47944	MICROCYSTINS ADDA 54	1.390 Abs [1.4040] {1.4 C	0.103 µg/L [0.097]	Low, 85.015 %Abs		0.300 - 5.000	20J4209
AB47945	MICROCYSTINS ADDA 54	1.383 Abs	0.107 µg/L	Low, 84.587 %Abs		0.300 - 5.000	20J4209
AB47945	MICROCYSTINS ADDA 54	1.326 Abs [1.3545] {3.0 C	0.135 µg/L [0.121]	Low, 81.101 %Abs		0.300 - 5.000	20J4209
AB47946	MICROCYSTINS ADDA 54	1.028 Abs	0.345 µg/L	62.875 %Abs		0.300 - 5.000	20J4209
AB47946	MICROCYSTINS ADDA 54	1.027 Abs [1.0275] {0.1 C	0.346 µg/L [0.345]	62.813 %Abs [62.8		0.300 - 5.000	20J4209
AB47938	MICROCYSTINS ADDA 54	1.542 Abs	0.038 µg/L	Low, 94.312 %Abs		0.300 - 5.000	20J4209
AB47938	MICROCYSTINS ADDA 54	1.523 Abs [1.5325] {0.9 C	0.046 µg/L [0.042]	Low, 93.150 %Abs		0.300 - 5.000	20J4209
AB47947	MICROCYSTINS ADDA 54	1.060 Abs	0.316 µg/L	64.832 %Abs		0.300 - 5.000	20J4209
AB47947	MICROCYSTINS ADDA 54	1.053 Abs [1.0565] {0.5 C	0.322 µg/L [0.319]	64.404 %Abs [64.6		0.300 - 5.000	20J4209
AB47948	MICROCYSTINS ADDA 54	1.593 Abs	0.019 µg/L	Low, 97.431 %Abs		0.300 - 5.000	20J4209
AB47948	MICROCYSTINS ADDA 54	1.553 Abs [1.5730] {1.8 C	0.034 µg/L [0.027]	Low, 94.985 %Abs		0.300 - 5.000	20J4209
AB47959	MICROCYSTINS ADDA 54	1.500 Abs	0.055 µg/L	Low, 91.743 %Abs		0.300 - 5.000	20J4209
AB47959	MICROCYSTINS ADDA 54	1.508 Abs [1.5040] {0.4 C	0.052 µg/L [0.054]	Low, 92.232 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.922 Abs	0.462 µg/L	56.391 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.929 Abs [0.9255] {0.5 C	0.453 µg/L [0.458]	56.820 %Abs [56.6		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.670 Abs	0.000 µg/L	Low, 102.141 %Abs		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.629 Abs [1.6495] {1.8 C	0.006 µg/L [0.003]	Low, 99.633 %Abs		0.300 - 5.000	20J4209

Note

Signature

Charles Hostetter 7/15/21

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: 20J4209

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
7/14/2021 2:50:05 PM				
MCT Std 0	1.646 Abs	0.000 µg/L	R ² =0.99435, 100.673 %Abs	RK1:23->A01@2
MCT Std 0	1.625 Abs [1.6355] {0.9 CV}	0.007 µg/L [0.004] {141.4 CV}	R ² =0.99435, 99.388 %Abs	RK1:23->B01@2
MCT Std 1	1.342 Abs	0.127 µg/L	R ² =0.99435, 82.080 %Abs	RK1:24->C01@2
MCT Std 1	1.330 Abs [1.3360] {0.6 CV}	0.133 µg/L [0.130] {3.3 CV}	R ² =0.99435, 81.346 %Abs	RK1:24->D01@2
MCT Std 2	0.917 Abs	0.469 µg/L	R ² =0.99435, 56.086 %Abs	RK1:25->E01@2
MCT Std 2	0.923 Abs [0.9200] {0.5 CV}	0.461 µg/L [0.465] {1.2 CV}	R ² =0.99435, 56.453 %Abs	RK1:25->F01@3
MCT Std 3	0.672 Abs	0.957 µg/L	R ² =0.99435, 41.101 %Abs	RK1:26->G01@3
MCT Std 3	0.674 Abs [0.6730] {0.2 CV}	0.950 µg/L [0.954] {0.5 CV}	R ² =0.99435, 41.223 %Abs	RK1:26->H01@3
MCT Std 4	0.539 Abs	1.553 µg/L	R ² =0.99435, 32.966 %Abs	RK1:27->A02@2
MCT Std 4	0.508 Abs [0.5235] {4.2 CV}	1.778 µg/L [1.665] {9.6 CV}	R ² =0.99435, 31.070 %Abs	RK1:27->B02@2
MCT Std 5	0.326 Abs	> 5.000 µg/L	19.939 %Abs	RK1:28->C02@2
MCT Std 5	0.317 Abs [0.3215] {2.0 CV}	> 5.000 µg/L	19.388 %Abs	RK1:28->D02@2

7/14/2021 2:50:05 PM				
MCT 546 LRB 1	1.438 Abs	0.081 µg/L	87.951 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.437 Abs [1.4375] {0.0 CV}	0.082 µg/L [0.082] {0.9 CV}	87.890 %Abs [87.920 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	1.044 Abs	0.330 µg/L	63.853 %Abs	RK1:30->G02@3
MCT 546 Low-CV	1.093 Abs [1.0685] {3.2 CV}	0.288 µg/L [0.309] {9.6 CV}	66.850 %Abs [65.352 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.933 Abs	0.448 µg/L	57.064 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.867 Abs [0.9000] {5.2 CV}	0.538 µg/L [0.493] {12.9 CV}	53.028 %Abs [55.046 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.6355	0.0035		
MCT Std 0 [SD]	0.0148	0.0049		
MCT Std 0 [%CV]	0.9079	141.4214		
MCT Std 1 [MEAN]	1.3360	0.1300		
MCT Std 1 [SD]	0.0085	0.0042		
MCT Std 1 [%CV]	0.6351	3.2636		
MCT Std 1 [%DIFF]		-13.3333		
MCT Std 2 [MEAN]	0.9200	0.4650		
MCT Std 2 [SD]	0.0042	0.0057		
MCT Std 2 [%CV]	0.4612	1.2165		
MCT Std 2 [%DIFF]		16.2500		
MCT Std 3 [MEAN]	0.6730	0.9535		
MCT Std 3 [SD]	0.0014	0.0049		
MCT Std 3 [%CV]	0.2101	0.5191		
MCT Std 3 [%DIFF]		-4.6500		
MCT Std 4 [MEAN]	0.5235	1.6655		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0219	0.1591		
MCT Std 4 [%CV]	4.1873	9.5526		
MCT Std 4 [%DIFF]		-16.7250		
MCT Std 5 [MEAN]	0.3215			
MCT Std 5 [SD]	0.0064			
MCT Std 5 [%CV]	1.9795			
MCT 546 LRB 1 [MEAN]	1.4375	0.0815		
MCT 546 LRB 1 [SD]	0.0007	0.0007		
MCT 546 LRB 1 [%CV]	0.0492	0.8676		
MCT 546 Low-CV [MEAN]	1.0685	0.3090		
MCT 546 Low-CV [SD]	0.0346	0.0297		
MCT 546 Low-CV [%CV]	3.2427	9.6112		
MCT 546 LFB 1 [MEAN]	0.9000	0.4930		
MCT 546 LFB 1 [SD]	0.0467	0.0636		
MCT 546 LFB 1 [%CV]	5.1855	12.9086		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.6437
 B = 1.0513
 C = 0.43034
 D = 0.25240
 R2 coef = 0.99435
 50% = 0.618

