



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC00558	Raccoon Lake SRA	5/15/2023	5/17/2023	< 0.30
AC00561	Cagles Mill Lake Beach	5/15/2023	5/17/2023	< 0.30
AC00562	Paynetown SRA	5/15/2023	5/17/2023	< 0.30
AC00563	Fairfax SRA	5/15/2023	5/17/2023	< 0.30
AC00564	Starve Hollow SRA	5/15/2023	5/17/2023	< 0.30
AC00565	Whitewater Memorial SP	5/16/2023	5/17/2023	< 0.30
AC00566	Quakertown SRA	5/16/2023	5/17/2023	< 0.30
AC00567	Mounds SRA	5/16/2023	5/17/2023	< 0.30
AC00568	Hardy Lake SRA	5/16/2023	5/17/2023	< 0.30
AC00559	Deam Lake SRA	5/16/2023	5/17/2023	< 0.30
AC00580	Starve Hollow SRA (Field Duplicate)	5/15/2023	5/17/2023	< 0.30
AC00581	Field Blank	5/15/2023	5/17/2023	< 0.30

Test Report (by Request)

Test Information

Request: 5/17/2023 3:08:32 PM
Date: 5/17/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.211 Abs	0.000 µg/L	R^2=0.99696, 100.8			P23C0589
MCT Std 0	MICROCYSTINS ADDA 54	1.192 Abs [1.2015] {1.1 C	0.013 µg/L [0.007]	R^2=0.99696, 99.25			P23C0589
MCT Std 1	MICROCYSTINS ADDA 54	1.012 Abs	0.129 µg/L	R^2=0.99696, 84.26			P23C0589
MCT Std 1	MICROCYSTINS ADDA 54	0.974 Abs [0.9930] {2.7 C	0.154 µg/L [0.141]	R^2=0.99696, 81.05			P23C0589
MCT Std 2	MICROCYSTINS ADDA 54	0.709 Abs	0.394 µg/L	R^2=0.99696, 59.03			P23C0589
MCT Std 2	MICROCYSTINS ADDA 54	0.673 Abs [0.6910] {3.7 C	0.442 µg/L [0.418]	R^2=0.99696, 56.03			P23C0589
MCT Std 3	MICROCYSTINS ADDA 54	0.441 Abs	1.009 µg/L	R^2=0.99696, 36.74			P23C0589
MCT Std 3	MICROCYSTINS ADDA 54	0.425 Abs [0.4330] {2.6 C	1.084 µg/L [1.046]	R^2=0.99696, 35.38			P23C0589
MCT Std 4	MICROCYSTINS ADDA 54	0.361 Abs	1.508 µg/L	R^2=0.99696, 30.05			P23C0589
MCT Std 4	MICROCYSTINS ADDA 54	0.350 Abs [0.3555] {2.2 C	1.612 µg/L [1.560]	R^2=0.99696, 29.14			P23C0589
MCT Std 5	MICROCYSTINS ADDA 54	0.221 Abs	> 5.000 µg/L	18.401 %Abs			P23C0589
MCT Std 5	MICROCYSTINS ADDA 54	0.218 Abs [0.2195] {1.0 C	> 5.000 µg/L	18.152 %Abs			P23C0589
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.095 Abs	0.076 µg/L	91.174 %Abs			P23C0589
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.074 Abs [1.0845] {1.4 C	0.089 µg/L [0.082]	89.425 %Abs [90.3			P23C0589
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.687 Abs	0.423 µg/L	57.202 %Abs			P23C0589
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.648 Abs [0.6675] {4.1 C	0.479 µg/L [0.451]	53.955 %Abs [55.5			P23C0589
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.644 Abs	0.485 µg/L	53.622 %Abs			P23C0589
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.637 Abs [0.6405] {0.8 C	0.496 µg/L [0.491]	53.039 %Abs [53.3			P23C0589

Note

Signature

David Jordan

David Jordan 5/17/23

Test Report (by Request)

Test Information

Request: 5/17/2023 3:09:38 PM
Date: 5/17/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
QCS 546	MICROCYSTINS ADDA 54	0.595 Abs	0.569 µg/L	49.542 %Abs		0.300 - 5.000	P23C058€
QCS 546	MICROCYSTINS ADDA 54	0.576 Abs [0.5855] {2.3 C	0.606 µg/L [0.587]	47.960 %Abs [48.7		0.300 - 5.000	P23C058€
AC00558	MICROCYSTINS ADDA 54	0.949 Abs	0.171 µg/L	Low, 79.017 %Abs		0.300 - 5.000	P23C058€
AC00558	MICROCYSTINS ADDA 54	0.904 Abs [0.9265] {3.4 C	0.205 µg/L [0.188]	Low, 75.271 %Abs		0.300 - 5.000	P23C058€
AC00561	MICROCYSTINS ADDA 54	0.905 Abs	0.204 µg/L	Low, 75.354 %Abs		0.300 - 5.000	P23C058€
AC00561	MICROCYSTINS ADDA 54	0.829 Abs [0.8670] {6.2 C	0.267 µg/L [0.235]	Low, 69.026 %Abs		0.300 - 5.000	P23C058€
AC00561MS	MICROCYSTINS ADDA 54	0.558 Abs	0.645 µg/L	46.461 %Abs		0.300 - 5.000	P23C058€
AC00561MS	MICROCYSTINS ADDA 54	0.557 Abs [0.5575] {0.1 C	0.647 µg/L [0.646]	46.378 %Abs [46.4		0.300 - 5.000	P23C058€
AC00561MSD	MICROCYSTINS ADDA 54	0.571 Abs	0.617 µg/L	47.544 %Abs		0.300 - 5.000	P23C058€
AC00561MSD	MICROCYSTINS ADDA 54	0.556 Abs [0.5635] {1.9 C	0.649 µg/L [0.633]	46.295 %Abs [46.9		0.300 - 5.000	P23C058€
AC00562	MICROCYSTINS ADDA 54	1.123 Abs	0.059 µg/L	Low, 93.505 %Abs		0.300 - 5.000	P23C058€
AC00562	MICROCYSTINS ADDA 54	1.087 Abs [1.1050] {2.3 C	0.081 µg/L [0.070]	Low, 90.508 %Abs		0.300 - 5.000	P23C058€
AC00563	MICROCYSTINS ADDA 54	1.060 Abs	0.098 µg/L	Low, 88.260 %Abs		0.300 - 5.000	P23C058€
AC00563	MICROCYSTINS ADDA 54	0.997 Abs [1.0285] {4.3 C	0.138 µg/L [0.118]	Low, 83.014 %Abs		0.300 - 5.000	P23C058€
AC00564	MICROCYSTINS ADDA 54	1.133 Abs	0.053 µg/L	Low, 94.338 %Abs		0.300 - 5.000	P23C058€
AC00564	MICROCYSTINS ADDA 54	1.127 Abs [1.1300] {0.4 C	0.056 µg/L [0.054]	Low, 93.838 %Abs		0.300 - 5.000	P23C058€
AC00565	MICROCYSTINS ADDA 54	1.125 Abs	0.058 µg/L	Low, 93.672 %Abs		0.300 - 5.000	P23C058€
AC00565	MICROCYSTINS ADDA 54	1.113 Abs [1.1190] {0.8 C	0.065 µg/L [0.061]	Low, 92.673 %Abs		0.300 - 5.000	P23C058€
AC00566	MICROCYSTINS ADDA 54	1.069 Abs	0.092 µg/L	Low, 89.009 %Abs		0.300 - 5.000	P23C058€
AC00566	MICROCYSTINS ADDA 54	1.061 Abs [1.0650] {0.5 C	0.097 µg/L [0.095]	Low, 88.343 %Abs		0.300 - 5.000	P23C058€
AC00567	MICROCYSTINS ADDA 54	1.019 Abs	0.124 µg/L	Low, 84.846 %Abs		0.300 - 5.000	P23C058€
AC00567	MICROCYSTINS ADDA 54	0.948 Abs [0.9835] {5.1 C	0.172 µg/L [0.148]	Low, 78.934 %Abs		0.300 - 5.000	P23C058€
AC00568	MICROCYSTINS ADDA 54	1.113 Abs	0.065 µg/L	Low, 92.673 %Abs		0.300 - 5.000	P23C058€
AC00568	MICROCYSTINS ADDA 54	1.110 Abs [1.1115] {0.2 C	0.067 µg/L [0.066]	Low, 92.423 %Abs		0.300 - 5.000	P23C058€
AC00559	MICROCYSTINS ADDA 54	1.159 Abs	0.036 µg/L	Low, 96.503 %Abs		0.300 - 5.000	P23C058€
AC00559	MICROCYSTINS ADDA 54	1.178 Abs [1.1685] {1.1 C	0.023 µg/L [0.030]	Low, 98.085 %Abs		0.300 - 5.000	P23C058€
AC00580	MICROCYSTINS ADDA 54	1.152 Abs	0.041 µg/L	Low, 95.920 %Abs		0.300 - 5.000	P23C058€
AC00580	MICROCYSTINS ADDA 54	1.097 Abs [1.1245] {3.5 C	0.075 µg/L [0.058]	Low, 91.341 %Abs		0.300 - 5.000	P23C058€
AC00581	MICROCYSTINS ADDA 54	1.115 Abs	0.064 µg/L	Low, 92.839 %Abs		0.300 - 5.000	P23C058€
AC00581	MICROCYSTINS ADDA 54	1.053 Abs [1.0840] {4.0 C	0.102 µg/L [0.083]	Low, 87.677 %Abs		0.300 - 5.000	P23C058€
LFB 2	MICROCYSTINS ADDA 54	0.678 Abs	0.435 µg/L	56.453 %Abs		0.300 - 5.000	P23C058€
LFB 2	MICROCYSTINS ADDA 54	0.665 Abs [0.6715] {1.4 C	0.453 µg/L [0.444]	55.371 %Abs [55.9		0.300 - 5.000	P23C058€
LRB 2	MICROCYSTINS ADDA 54	1.163 Abs	0.034 µg/L	Low, 96.836 %Abs		0.300 - 5.000	P23C058€
LRB 2	MICROCYSTINS ADDA 54	1.166 Abs [1.1645] {0.2 C	0.032 µg/L [0.033]	Low, 97.086 %Abs		0.300 - 5.000	P23C058€

Note

Signature *David Jordan*

David Jordan 5/17/23

* 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 (6.4.1.1139/1085/1.00/0.95) 5/17/2023 3:47:49 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: P23C0589

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
5/17/2023 3:08:32 PM				
MCT Std 0	1.211 Abs	0.000 µg/L	R ² =0.99696, 100.833 %Abs	RK1:23->A01@2
MCT Std 0	1.192 Abs [1.2015] {1.1 CV}	0.013 µg/L [0.007] {141.4 CV}	R ² =0.99696, 99.251 %Abs	RK1:23->B01@2
MCT Std 1	1.012 Abs	0.129 µg/L	R ² =0.99696, 84.263 %Abs	RK1:24->C01@2
MCT Std 1	0.974 Abs [0.9930] {2.7 CV}	0.154 µg/L [0.141] {12.5 CV}	R ² =0.99696, 81.099 %Abs	RK1:24->D01@2
MCT Std 2	0.709 Abs	0.394 µg/L	R ² =0.99696, 59.034 %Abs	RK1:25->E01@2
MCT Std 2	0.673 Abs [0.6910] {3.7 CV}	0.442 µg/L [0.418] {8.1 CV}	R ² =0.99696, 56.037 %Abs	RK1:25->F01@3
MCT Std 3	0.441 Abs	1.009 µg/L	R ² =0.99696, 36.719 %Abs	RK1:26->G01@3
MCT Std 3	0.425 Abs [0.4330] {2.6 CV}	1.084 µg/L [1.046] {5.1 CV}	R ² =0.99696, 35.387 %Abs	RK1:26->H01@3
MCT Std 4	0.361 Abs	1.508 µg/L	R ² =0.99696, 30.058 %Abs	RK1:27->A02@2
MCT Std 4	0.350 Abs [0.3555] {2.2 CV}	1.612 µg/L [1.560] {4.7 CV}	R ² =0.99696, 29.142 %Abs	RK1:27->B02@2
MCT Std 5	0.221 Abs	> 5.000 µg/L	18.401 %Abs	RK1:28->C02@2
MCT Std 5	0.218 Abs [0.2195] {1.0 CV}	> 5.000 µg/L	18.152 %Abs	RK1:28->D02@2

5/17/2023 3:08:32 PM				
MCT 546 LRB 1	1.095 Abs	0.076 µg/L	91.174 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.074 Abs [1.0845] {1.4 CV}	0.089 µg/L [0.082] {11.1 CV}	89.425 %Abs [90.300 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.687 Abs	0.423 µg/L	57.202 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.648 Abs [0.6675] {4.1 CV}	0.479 µg/L [0.451] {8.8 CV}	53.955 %Abs [55.579 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.644 Abs	0.485 µg/L	53.622 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.637 Abs [0.6405] {0.8 CV}	0.496 µg/L [0.491] {1.6 CV}	53.039 %Abs [53.331 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.2015	0.0065		
MCT Std 0 [SD]	0.0134	0.0092		
MCT Std 0 [%CV]	1.1182	141.4214		
MCT Std 1 [MEAN]	0.9930	0.1415		
MCT Std 1 [SD]	0.0269	0.0177		
MCT Std 1 [%CV]	2.7059	12.4931		
MCT Std 1 [%DIFF]		-5.6667		
MCT Std 2 [MEAN]	0.6910	0.4180		
MCT Std 2 [SD]	0.0255	0.0339		
MCT Std 2 [%CV]	3.6839	8.1199		
MCT Std 2 [%DIFF]		4.5000		
MCT Std 3 [MEAN]	0.4330	1.0465		
MCT Std 3 [SD]	0.0113	0.0530		
MCT Std 3 [%CV]	2.6129	5.0677		
MCT Std 3 [%DIFF]		4.6500		
MCT Std 4 [MEAN]	0.3555	1.5600		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0078	0.0735		
MCT Std 4 [%CV]	2.1880	4.7140		
MCT Std 4 [%DIFF]		-22.0000		
MCT Std 5 [MEAN]	0.2195			
MCT Std 5 [SD]	0.0021			
MCT Std 5 [%CV]	0.9664			
MCT 546 LRB 1 [MEAN]	1.0845	0.0825		
MCT 546 LRB 1 [SD]	0.0148	0.0092		
MCT 546 LRB 1 [%CV]	1.3692	11.1423		
MCT 546 Low-CV [MEAN]	0.6675	0.4510		
MCT 546 Low-CV [SD]	0.0276	0.0396		
MCT 546 Low-CV [%CV]	4.1314	8.7800		
MCT 546 LFB 1 [MEAN]	0.6405	0.4905		
MCT 546 LFB 1 [SD]	0.0049	0.0078		
MCT 546 LFB 1 [%CV]	0.7728	1.5858		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.2054
 B = 1.2577
 C = 0.40167
 D = 0.20101
 R2 coef = 0.99696
 50% = 0.559

