



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC19228	Cecil M. Harden Lake - Raccoon Lake SRA Beach	8/7/2023	8/9/2023	< 0.30
AC19229	Cagles Mill Lake - Lieber SRA Beach	8/7/2023	8/9/2023	< 0.30
AC19230	Monroe Lake - Fairfax SRA Beach	8/7/2023	8/9/2023	< 0.30
AC19231	Monroe Lake - Paynetown SRA Beach	8/7/2023	8/9/2023	< 0.30
AC19232	Starve Hollow SRA - Starve Hollow Lake Beach	8/7/2023	8/9/2023	< 0.30
AC19333	Whitewater Memorial SP - Whitewater Lake Beach	8/8/2023	8/9/2023	< 0.30
AC19234	Brookville Lake - Quakertown SRA Beach	8/8/2023	8/9/2023	< 0.30
AC19235	Brookville Lake - Mounds SRA Beach	8/8/2023	8/9/2023	< 0.30
AC19236	Hardy Lake SRA - Hardy Lake SRA Beach	8/8/2023	8/9/2023	< 0.30
AC19237	Deam Lake SRA - Deam Lake Beach	8/8/2023	8/9/2023	< 0.30
AC19238	Monroe Lake - Paynetown SRA Beach (Field Duplicate)	8/7/2023	8/9/2023	< 0.30
AC19239	Field Blank	8/7/2023	8/9/2023	< 0.30
AC19240	Ft. Ben Harrison SP Dog Lake	8/7/2023	8/9/2023	< 0.30

Test Report (by Request)

Test Information

Request: 8/9/2023 3:41:55 PM
 Date: 8/9/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.101 Abs	0.005 µg/L	R^2=0.99865, 99.81		0.000	Kit:P23C0
MCT Std 0	MICROCYSTINS ADDA 54	1.105 Abs [1.1030] {0.3 C	0.000 µg/L [0.003]	R^2=0.99865, 100.1		0.000	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.932 Abs	0.131 µg/L	R^2=0.99865, 84.4%		0.150	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.896 Abs [0.9140] {2.8 C	0.160 µg/L [0.146]	R^2=0.99865, 81.2%		0.150	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.678 Abs	0.395 µg/L	R^2=0.99865, 61.4%		0.400	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.663 Abs [0.6705] {1.6 C	0.417 µg/L [0.406]	R^2=0.99865, 60.1%		0.400	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.420 Abs	1.059 µg/L	R^2=0.99865, 38.0%		1.000	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.422 Abs [0.4210] {0.3 C	1.050 µg/L [1.055]	R^2=0.99865, 38.2%		1.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.331 Abs	1.680 µg/L	R^2=0.99865, 30.0%		2.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.323 Abs [0.3270] {1.7 C	1.765 µg/L [1.723]	R^2=0.99865, 29.2%		2.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.205 Abs	> 5.000 µg/L	18.586 %Abs		5.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.202 Abs [0.2035] {1.0 C	> 5.000 µg/L	18.314 %Abs		5.000	Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.054 Abs	0.041 µg/L	95.558 %Abs			Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.043 Abs [1.0485] {0.7 C	0.049 µg/L [0.045]	94.560 %Abs [95.0			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.751 Abs	0.301 µg/L	68.087 %Abs			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.753 Abs [0.7520] {0.2 C	0.299 µg/L [0.300]	68.268 %Abs [68.1			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.607 Abs	0.510 µg/L	55.032 %Abs			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.594 Abs [0.6005] {1.5 C	0.534 µg/L [0.522]	53.853 %Abs [54.4			Kit:P23C0

Note

Signature *David Jordan*

David Jordan 8/9/2023

* 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) 8/10/2023 8:42:41 AM

Test Report (by Request)

Test Information

 Request: 8/9/2023 3:43:04 PM
 Date: 8/9/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC19228	MICROCYSTINS ADDA 54	1.030 Abs	0.058 µg/L	Low, 93.382 %Abs		0.300 - 5.000	Kit:P23C0
AC19228	MICROCYSTINS ADDA 54	1.017 Abs [1.0235] {0.9 C	0.068 µg/L [0.063]	Low, 92.203 %Abs		0.300 - 5.000	Kit:P23C0
AC19229	MICROCYSTINS ADDA 54	0.860 Abs	0.191 µg/L	Low, 77.969 %Abs		0.300 - 5.000	Kit:P23C0
AC19229	MICROCYSTINS ADDA 54	0.849 Abs [0.8545] {0.9 C	0.201 µg/L [0.196]	Low, 76.972 %Abs		0.300 - 5.000	Kit:P23C0
AC19230	MICROCYSTINS ADDA 54	1.011 Abs	0.072 µg/L	Low, 91.659 %Abs		0.300 - 5.000	Kit:P23C0
AC19230	MICROCYSTINS ADDA 54	0.998 Abs [1.0045] {0.9 C	0.081 µg/L [0.077]	Low, 90.481 %Abs		0.300 - 5.000	Kit:P23C0
AC19231	MICROCYSTINS ADDA 54	1.046 Abs	0.047 µg/L	Low, 94.832 %Abs		0.300 - 5.000	Kit:P23C0
AC19231	MICROCYSTINS ADDA 54	1.056 Abs [1.0510] {0.7 C	0.040 µg/L [0.044]	Low, 95.739 %Abs		0.300 - 5.000	Kit:P23C0
AC19232	MICROCYSTINS ADDA 54	0.777 Abs	0.272 µg/L	Low, 70.444 %Abs		0.300 - 5.000	Kit:P23C0
AC19232	MICROCYSTINS ADDA 54	0.775 Abs [0.7760] {0.2 C	0.274 µg/L [0.273]	Low, 70.263 %Abs		0.300 - 5.000	Kit:P23C0
AC19233	MICROCYSTINS ADDA 54	1.013 Abs	0.071 µg/L	Low, 91.840 %Abs		0.300 - 5.000	Kit:P23C0
AC19233	MICROCYSTINS ADDA 54	1.013 Abs [1.0130] {0.0 C	0.071 µg/L [0.071]	Low, 91.840 %Abs		0.300 - 5.000	Kit:P23C0
AC19234	MICROCYSTINS ADDA 54	0.877 Abs	0.176 µg/L	Low, 79.510 %Abs		0.300 - 5.000	Kit:P23C0
AC19234	MICROCYSTINS ADDA 54	0.854 Abs [0.8655] {1.9 C	0.196 µg/L [0.186]	Low, 77.425 %Abs		0.300 - 5.000	Kit:P23C0
AC19234MS	MICROCYSTINS ADDA 54	0.484 Abs	0.808 µg/L	43.880 %Abs		0.300 - 5.000	Kit:P23C0
AC19234MS	MICROCYSTINS ADDA 54	0.489 Abs [0.4865] {0.7 C	0.792 µg/L [0.800]	44.334 %Abs [44.1		0.300 - 5.000	Kit:P23C0
AC19234MSD	MICROCYSTINS ADDA 54	0.503 Abs	0.750 µg/L	45.603 %Abs		0.300 - 5.000	Kit:P23C0
AC19234MSD	MICROCYSTINS ADDA 54	0.496 Abs [0.4995] {1.0 C	0.771 µg/L [0.761]	44.968 %Abs [45.2		0.300 - 5.000	Kit:P23C0
AC19235	MICROCYSTINS ADDA 54	0.778 Abs	0.271 µg/L	Low, 70.535 %Abs		0.300 - 5.000	Kit:P23C0
AC19235	MICROCYSTINS ADDA 54	0.767 Abs [0.7725] {1.0 C	0.283 µg/L [0.277]	Low, 69.538 %Abs		0.300 - 5.000	Kit:P23C0
AC19236	MICROCYSTINS ADDA 54	0.942 Abs	0.123 µg/L	Low, 85.403 %Abs		0.300 - 5.000	Kit:P23C0
AC19236	MICROCYSTINS ADDA 54	0.880 Abs [0.9110] {4.8 C	0.174 µg/L [0.149]	Low, 79.782 %Abs		0.300 - 5.000	Kit:P23C0
AC19237	MICROCYSTINS ADDA 54	1.001 Abs	0.079 µg/L	Low, 90.752 %Abs		0.300 - 5.000	Kit:P23C0
AC19237	MICROCYSTINS ADDA 54	1.012 Abs [1.0065] {0.8 C	0.071 µg/L [0.075]	Low, 91.750 %Abs		0.300 - 5.000	Kit:P23C0
AC19238	MICROCYSTINS ADDA 54	1.040 Abs	0.051 µg/L	Low, 94.288 %Abs		0.300 - 5.000	Kit:P23C0
AC19238	MICROCYSTINS ADDA 54	1.051 Abs [1.0455] {0.7 C	0.043 µg/L [0.047]	Low, 95.286 %Abs		0.300 - 5.000	Kit:P23C0
AC19239	MICROCYSTINS ADDA 54	1.094 Abs	0.011 µg/L	Low, 99.184 %Abs		0.300 - 5.000	Kit:P23C0
AC19239	MICROCYSTINS ADDA 54	1.093 Abs [1.0935] {0.1 C	0.012 µg/L [0.012]	Low, 99.093 %Abs		0.300 - 5.000	Kit:P23C0
AC19240	MICROCYSTINS ADDA 54	1.032 Abs	0.057 µg/L	Low, 93.563 %Abs		0.300 - 5.000	Kit:P23C0
AC19240	MICROCYSTINS ADDA 54	0.984 Abs [1.0080] {3.4 C	0.092 µg/L [0.075]	Low, 89.211 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.615 Abs	0.495 µg/L	55.757 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.595 Abs [0.6050] {2.3 C	0.533 µg/L [0.514]	53.944 %Abs [54.8		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	1.093 Abs	0.012 µg/L	Low, 99.093 %Abs		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	1.079 Abs [1.0860] {0.9 C	0.023 µg/L [0.018]	Low, 97.824 %Abs		0.300 - 5.000	Kit:P23C0

Note

Signature

David Jordan 8/9/2023

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
8/9/2023 3:41:55 PM				
MCT Std 0	1.101 Abs	0.005 µg/L	R ² =0.99865, 99.819 %Abs	RK1:23->A01@2
MCT Std 0	1.105 Abs [1.1030] {0.3 CV}	0.000 µg/L [0.003] {141.4 CV}	R ² =0.99865, 100.181 %Abs	RK1:23->B01@2
MCT Std 1	0.932 Abs	0.131 µg/L	R ² =0.99865, 84.497 %Abs	RK1:24->C01@2
MCT Std 1	0.896 Abs [0.9140] {2.8 CV}	0.160 µg/L [0.146] {14.1 CV}	R ² =0.99865, 81.233 %Abs	RK1:24->D01@2
MCT Std 2	0.678 Abs	0.395 µg/L	R ² =0.99865, 61.469 %Abs	RK1:25->E01@2
MCT Std 2	0.663 Abs [0.6705] {1.6 CV}	0.417 µg/L [0.406] {3.8 CV}	R ² =0.99865, 60.109 %Abs	RK1:25->F01@3
MCT Std 3	0.420 Abs	1.059 µg/L	R ² =0.99865, 38.078 %Abs	RK1:26->G01@3
MCT Std 3	0.422 Abs [0.4210] {0.3 CV}	1.050 µg/L [1.055] {0.6 CV}	R ² =0.99865, 38.259 %Abs	RK1:26->H01@3
MCT Std 4	0.331 Abs	1.680 µg/L	R ² =0.99865, 30.009 %Abs	RK1:27->A02@2
MCT Std 4	0.323 Abs [0.3270] {1.7 CV}	1.765 µg/L [1.723] {3.5 CV}	R ² =0.99865, 29.284 %Abs	RK1:27->B02@2
MCT Std 5	0.205 Abs	> 5.000 µg/L	18.586 %Abs	RK1:28->C02@2
MCT Std 5	0.202 Abs [0.2035] {1.0 CV}	> 5.000 µg/L	18.314 %Abs	RK1:28->D02@2

8/9/2023 3:41:55 PM				
MCT 546 LRB 1	1.054 Abs	0.041 µg/L	95.558 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.043 Abs [1.0485] {0.7 CV}	0.049 µg/L [0.045] {12.6 CV}	94.560 %Abs [95.059 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.751 Abs	0.301 µg/L	68.087 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.753 Abs [0.7520] {0.2 CV}	0.299 µg/L [0.300] {0.5 CV}	68.268 %Abs [68.178 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.607 Abs	0.510 µg/L	55.032 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.594 Abs [0.6005] {1.5 CV}	0.534 µg/L [0.522] {3.3 CV}	53.853 %Abs [54.442 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.1030	0.0025		
MCT Std 0 [SD]	0.0028	0.0035		
MCT Std 0 [%CV]	0.2564	141.4214		
MCT Std 1 [MEAN]	0.9140	0.1455		
MCT Std 1 [SD]	0.0255	0.0205		
MCT Std 1 [%CV]	2.7851	14.0935		
MCT Std 1 [%DIFF]		-3.0000		
MCT Std 2 [MEAN]	0.6705	0.4060		
MCT Std 2 [SD]	0.0106	0.0156		
MCT Std 2 [%CV]	1.5819	3.8316		
MCT Std 2 [%DIFF]		1.5000		
MCT Std 3 [MEAN]	0.4210	1.0545		
MCT Std 3 [SD]	0.0014	0.0064		
MCT Std 3 [%CV]	0.3359	0.6035		
MCT Std 3 [%DIFF]		5.4500		
MCT Std 4 [MEAN]	0.3270	1.7225		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0057	0.0601		
MCT Std 4 [%CV]	1.7299	3.4894		
MCT Std 4 [%DIFF]		-13.8750		
MCT Std 5 [MEAN]	0.2035			
MCT Std 5 [SD]	0.0021			
MCT Std 5 [%CV]	1.0424			
MCT 546 LRB 1 [MEAN]	1.0485	0.0450		
MCT 546 LRB 1 [SD]	0.0078	0.0057		
MCT 546 LRB 1 [%CV]	0.7418	12.5708		
MCT 546 Low-CV [MEAN]	0.7520	0.3000		
MCT 546 Low-CV [SD]	0.0014	0.0014		
MCT 546 Low-CV [%CV]	0.1881	0.4714		
MCT 546 LFB 1 [MEAN]	0.6005	0.5220		
MCT 546 LFB 1 [SD]	0.0092	0.0170		
MCT 546 LFB 1 [%CV]	1.5308	3.2511		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1052
 B = 1.1797
 C = 0.46402
 D = 0.16126
 R2 coef = 0.99865
 50% = 0.624

