



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC03081	Pokagon SP - Main Beach	6/19/2023	6/21/2023	< 0.30
AC03082	Pokagon SP - Potawatomi Inn Beach	6/19/2023	6/21/2023	< 0.30
AC03083	Chain O'Lakes SP - Sand Lake Beach	6/19/2023	6/21/2023	< 0.30
AC03084	Ouabache SP - Kunkel Lake Beach	6/19/2023	6/21/2023	< 0.30
AC03085	Potato Creek SP - Worster Lake Beach	6/20/2023	6/21/2023	< 0.30
AC03086	Mississinewa Lake - Miami SRA Beach	6/20/2023	6/21/2023	0.63
AC03087	Salamonie Lake - Lost Bridge West SRA Beach	6/20/2023	6/21/2023	< 0.30
AC03088	Summit Lake SP - Summit Lake Beach	6/20/2023	6/21/2023	< 0.30
AC03089	Salamonie Lake - Lost Bridge West SRA Beach (Field Duplicate)	6/20/2023	6/21/2023	< 0.30
AC03090	Field Blank	6/20/2023	6/21/2023	< 0.30
AC03091	Lincoln SP - Lake Lincoln Beach	6/19/2023	6/21/2023	< 0.30
AC03092	Ferdinand State Forest - Ferdinand Lake Beach	6/19/2023	6/21/2023	< 0.30
AC03093	Patoka Lake - Newton Stewart SRA	6/19/2023	6/21/2023	< 0.30

Test Report (by Request)

Test Information

Request: 6/21/2023 3:56:30 PM
Date: 6/21/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.185 Abs	0.000 µg/L	R^2=0.99881, 100.5			P23C0589
MCT Std 0	MICROCYSTINS ADDA 54	1.174 Abs [1.1795] {0.7 C	0.008 µg/L [0.004]	R^2=0.99881, 99.57			P23C0589
MCT Std 1	MICROCYSTINS ADDA 54	0.998 Abs	0.133 µg/L	R^2=0.99881, 84.64			P23C0589
MCT Std 1	MICROCYSTINS ADDA 54	0.967 Abs [0.9825] {2.2 C	0.157 µg/L [0.145]	R^2=0.99881, 82.01			P23C0589
MCT Std 2	MICROCYSTINS ADDA 54	0.735 Abs	0.387 µg/L	R^2=0.99881, 62.34			P23C0589
MCT Std 2	MICROCYSTINS ADDA 54	0.706 Abs [0.7205] {2.8 C	0.426 µg/L [0.406]	R^2=0.99881, 59.88			P23C0589
MCT Std 3	MICROCYSTINS ADDA 54	0.464 Abs	0.985 µg/L	R^2=0.99881, 39.35			P23C0589
MCT Std 3	MICROCYSTINS ADDA 54	0.435 Abs [0.4495] {4.6 C	1.108 µg/L [1.046]	R^2=0.99881, 36.85			P23C0589
MCT Std 4	MICROCYSTINS ADDA 54	0.353 Abs	1.625 µg/L	R^2=0.99881, 29.94			P23C0589
MCT Std 4	MICROCYSTINS ADDA 54	0.327 Abs [0.3400] {5.4 C	1.881 µg/L [1.753]	R^2=0.99881, 27.73			P23C0589
MCT Std 5	MICROCYSTINS ADDA 54	0.212 Abs	> 5.000 µg/L	17.981 %Abs			P23C0589
MCT Std 5	MICROCYSTINS ADDA 54	0.201 Abs [0.2065] {3.8 C	> 5.000 µg/L	17.048 %Abs			P23C0589
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.052 Abs	0.094 µg/L	89.228 %Abs			P23C0589
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.044 Abs [1.0480] {0.5 C	0.100 µg/L [0.097]	88.550 %Abs [88.8			P23C0589
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.750 Abs	0.368 µg/L	63.613 %Abs			P23C0589
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.689 Abs [0.7195] {6.0 C	0.451 µg/L [0.410]	58.439 %Abs [61.0			P23C0589
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.637 Abs	0.535 µg/L	54.029 %Abs			P23C0589
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.610 Abs [0.6235] {3.1 C	0.585 µg/L [0.560]	51.739 %Abs [52.8			P23C0589

Note

Signature David Jordan

David Jordan 6/21/2023

* 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 (6.4.1.1139/1085/1.00/0.95) 6/22/2023 8:05:20 AM

Test Report (by Request)

Test Information

Request: 6/21/2023 3:57:37 PM
Date: 6/21/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC03081	MICROCYSTINS ADDA 54	1.020 Abs	0.117 µg/L	Low, 86.514 %Abs		0.300 - 5.000	P23C058€
AC03081	MICROCYSTINS ADDA 54	0.982 Abs [1.0010] {2.7 C	0.145 µg/L [0.131]	Low, 83.291 %Abs		0.300 - 5.000	P23C058€
AC03082	MICROCYSTINS ADDA 54	1.016 Abs	0.120 µg/L	Low, 86.175 %Abs		0.300 - 5.000	P23C058€
AC03082	MICROCYSTINS ADDA 54	1.009 Abs [1.0125] {0.5 C	0.125 µg/L [0.123]	Low, 85.581 %Abs		0.300 - 5.000	P23C058€
AC03082MS	MICROCYSTINS ADDA 54	0.557 Abs	0.701 µg/L	47.243 %Abs		0.300 - 5.000	P23C058€
AC03082MS	MICROCYSTINS ADDA 54	0.510 Abs [0.5335] {6.2 C	0.828 µg/L [0.765]	43.257 %Abs [45.2		0.300 - 5.000	P23C058€
AC03082MSD	MICROCYSTINS ADDA 54	0.648 Abs	0.516 µg/L	54.962 %Abs		0.300 - 5.000	P23C058€
AC03082MSD	MICROCYSTINS ADDA 54	0.633 Abs [0.6405] {1.7 C	0.542 µg/L [0.529]	53.690 %Abs [54.3		0.300 - 5.000	P23C058€
AC03083	MICROCYSTINS ADDA 54	1.072 Abs	0.080 µg/L	Low, 90.925 %Abs		0.300 - 5.000	P23C058€
AC03083	MICROCYSTINS ADDA 54	1.075 Abs [1.0735] {0.2 C	0.078 µg/L [0.079]	Low, 91.179 %Abs		0.300 - 5.000	P23C058€
AC03084	MICROCYSTINS ADDA 54	1.047 Abs	0.098 µg/L	Low, 88.804 %Abs		0.300 - 5.000	P23C058€
AC03084	MICROCYSTINS ADDA 54	1.041 Abs [1.0440] {0.4 C	0.102 µg/L [0.100]	Low, 88.295 %Abs		0.300 - 5.000	P23C058€
AC03085	MICROCYSTINS ADDA 54	1.013 Abs	0.122 µg/L	Low, 85.920 %Abs		0.300 - 5.000	P23C058€
AC03085	MICROCYSTINS ADDA 54	0.938 Abs [0.9755] {5.4 C	0.180 µg/L [0.151]	Low, 79.559 %Abs		0.300 - 5.000	P23C058€
AC03086	MICROCYSTINS ADDA 54	0.595 Abs	0.615 µg/L	50.466 %Abs		0.300 - 5.000	P23C058€
AC03086	MICROCYSTINS ADDA 54	0.584 Abs [0.5895] {1.3 C	0.639 µg/L [0.627]	49.534 %Abs [50.0		0.300 - 5.000	P23C058€
AC03087	MICROCYSTINS ADDA 54	1.056 Abs	0.091 µg/L	Low, 89.567 %Abs		0.300 - 5.000	P23C058€
AC03087	MICROCYSTINS ADDA 54	1.041 Abs [1.0485] {1.0 C	0.102 µg/L [0.096]	Low, 88.295 %Abs		0.300 - 5.000	P23C058€
AC03088	MICROCYSTINS ADDA 54	1.096 Abs	0.064 µg/L	Low, 92.960 %Abs		0.300 - 5.000	P23C058€
AC03088	MICROCYSTINS ADDA 54	1.067 Abs [1.0815] {1.9 C	0.084 µg/L [0.074]	Low, 90.500 %Abs		0.300 - 5.000	P23C058€
AC03089	MICROCYSTINS ADDA 54	1.006 Abs	0.127 µg/L	Low, 85.327 %Abs		0.300 - 5.000	P23C058€
AC03089	MICROCYSTINS ADDA 54	0.941 Abs [0.9735] {4.7 C	0.177 µg/L [0.152]	Low, 79.813 %Abs		0.300 - 5.000	P23C058€
AC03090	MICROCYSTINS ADDA 54	1.133 Abs	0.038 µg/L	Low, 96.098 %Abs		0.300 - 5.000	P23C058€
AC03090	MICROCYSTINS ADDA 54	1.100 Abs [1.1165] {2.1 C	0.061 µg/L [0.049]	Low, 93.299 %Abs		0.300 - 5.000	P23C058€
AC03091	MICROCYSTINS ADDA 54	1.076 Abs	0.077 µg/L	Low, 91.264 %Abs		0.300 - 5.000	P23C058€
AC03091	MICROCYSTINS ADDA 54	1.051 Abs [1.0635] {1.7 C	0.095 µg/L [0.086]	Low, 89.143 %Abs		0.300 - 5.000	P23C058€
AC03092	MICROCYSTINS ADDA 54	1.043 Abs	0.101 µg/L	Low, 88.465 %Abs		0.300 - 5.000	P23C058€
AC03092	MICROCYSTINS ADDA 54	1.056 Abs [1.0495] {0.9 C	0.091 µg/L [0.096]	Low, 89.567 %Abs		0.300 - 5.000	P23C058€
AC03093	MICROCYSTINS ADDA 54	0.982 Abs	0.145 µg/L	Low, 83.291 %Abs		0.300 - 5.000	P23C058€
AC03093	MICROCYSTINS ADDA 54	0.936 Abs [0.9590] {3.4 C	0.182 µg/L [0.163]	Low, 79.389 %Abs		0.300 - 5.000	P23C058€
LFB 2	MICROCYSTINS ADDA 54	0.690 Abs	0.449 µg/L	58.524 %Abs		0.300 - 5.000	P23C058€
LFB 2	MICROCYSTINS ADDA 54	0.665 Abs [0.6775] {2.6 C	0.488 µg/L [0.469]	56.404 %Abs [57.4		0.300 - 5.000	P23C058€
LRB 2	MICROCYSTINS ADDA 54	1.154 Abs	0.023 µg/L	Low, 97.880 %Abs		0.300 - 5.000	P23C058€
LRB 2	MICROCYSTINS ADDA 54	1.132 Abs [1.1430] {1.4 C	0.039 µg/L [0.031]	Low, 96.014 %Abs		0.300 - 5.000	P23C058€

Note

Signature *David Jordan*

David Jordan 6/21/2023

* 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 (6.4.1.1139/1085/1.00/0.95) 6/22/2023 8:05:20 AM

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
6/21/2023 3:56:30 PM				
MCT Std 0	1.185 Abs	0.000 µg/L	R ² =0.99881, 100.509 %Abs	RK1:23->A01@2
MCT Std 0	1.174 Abs [1.1795] {0.7 CV}	0.008 µg/L [0.004] {141.4 CV}	R ² =0.99881, 99.576 %Abs	RK1:23->B01@2
MCT Std 1	0.998 Abs	0.133 µg/L	R ² =0.99881, 84.648 %Abs	RK1:24->C01@2
MCT Std 1	0.967 Abs [0.9825] {2.2 CV}	0.157 µg/L [0.145] {11.7 CV}	R ² =0.99881, 82.019 %Abs	RK1:24->D01@2
MCT Std 2	0.735 Abs	0.387 µg/L	R ² =0.99881, 62.341 %Abs	RK1:25->E01@2
MCT Std 2	0.706 Abs [0.7205] {2.8 CV}	0.426 µg/L [0.406] {6.8 CV}	R ² =0.99881, 59.881 %Abs	RK1:25->F01@3
MCT Std 3	0.464 Abs	0.985 µg/L	R ² =0.99881, 39.355 %Abs	RK1:26->G01@3
MCT Std 3	0.435 Abs [0.4495] {4.6 CV}	1.108 µg/L [1.046] {8.3 CV}	R ² =0.99881, 36.896 %Abs	RK1:26->H01@3
MCT Std 4	0.353 Abs	1.625 µg/L	R ² =0.99881, 29.941 %Abs	RK1:27->A02@2
MCT Std 4	0.327 Abs [0.3400] {5.4 CV}	1.881 µg/L [1.753] {10.3 CV}	R ² =0.99881, 27.735 %Abs	RK1:27->B02@2
MCT Std 5	0.212 Abs	> 5.000 µg/L	17.981 %Abs	RK1:28->C02@2
MCT Std 5	0.201 Abs [0.2065] {3.8 CV}	> 5.000 µg/L	17.048 %Abs	RK1:28->D02@2

6/21/2023 3:56:30 PM				
MCT 546 LRB 1	1.052 Abs	0.094 µg/L	89.228 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.044 Abs [1.0480] {0.5 CV}	0.100 µg/L [0.097] {4.4 CV}	88.550 %Abs [88.889 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.750 Abs	0.368 µg/L	63.613 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.689 Abs [0.7195] {6.0 CV}	0.451 µg/L [0.410] {14.3 CV}	58.439 %Abs [61.026 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.637 Abs	0.535 µg/L	54.029 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.610 Abs [0.6235] {3.1 CV}	0.585 µg/L [0.560] {6.3 CV}	51.739 %Abs [52.884 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.1795	0.0040		
MCT Std 0 [SD]	0.0078	0.0057		
MCT Std 0 [%CV]	0.6594	141.4214		
MCT Std 1 [MEAN]	0.9825	0.1450		
MCT Std 1 [SD]	0.0219	0.0170		
MCT Std 1 [%CV]	2.2311	11.7038		
MCT Std 1 [%DIFF]		-3.3333		
MCT Std 2 [MEAN]	0.7205	0.4065		
MCT Std 2 [SD]	0.0205	0.0276		
MCT Std 2 [%CV]	2.8461	6.7841		
MCT Std 2 [%DIFF]		1.6250		
MCT Std 3 [MEAN]	0.4495	1.0465		
MCT Std 3 [SD]	0.0205	0.0870		
MCT Std 3 [%CV]	4.5620	8.3110		
MCT Std 3 [%DIFF]		4.6500		
MCT Std 4 [MEAN]	0.3400	1.7530		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0184	0.1810		
MCT Std 4 [%CV]	5.4073	10.3263		
MCT Std 4 [%DIFF]		-12.3500		
MCT Std 5 [MEAN]	0.2065			
MCT Std 5 [SD]	0.0078			
MCT Std 5 [%CV]	3.7667			
MCT 546 LRB 1 [MEAN]	1.0480	0.0970		
MCT 546 LRB 1 [SD]	0.0057	0.0042		
MCT 546 LRB 1 [%CV]	0.5398	4.3739		
MCT 546 Low-CV [MEAN]	0.7195	0.4095		
MCT 546 Low-CV [SD]	0.0431	0.0587		
MCT 546 Low-CV [%CV]	5.9949	14.3321		
MCT 546 LFB 1 [MEAN]	0.6235	0.5600		
MCT 546 LFB 1 [SD]	0.0191	0.0354		
MCT 546 LFB 1 [%CV]	3.0621	6.3134		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1816
 B = 1.1851
 C = 0.48060
 D = 0.15740
 R2 coef = 0.99881
 50% = 0.627

