



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43893	Raccoon Lake SRA	8/24/2020	8/26/2020	< 0.30
AB43895	Cagles Mill Lake Beach	8/24/2020	8/26/2020	< 0.30
AB43896	Paynetown SRA	8/24/2020	8/26/2020	< 0.30
AB43897	Fairfax SRA	8/24/2020	8/26/2020	< 0.30
AB43898	Starve Hollow SRA	8/24/2020	8/26/2020	< 0.30
AB43899	Whitewater Memorial SP	8/25/2020	8/26/2020	< 0.30
AB43900	Quakertown SRA	8/25/2020	8/26/2020	< 0.30
AB43901	Mounds SRA	8/25/2020	8/26/2020	< 0.30
AB43902	Hardy Lake SRA	8/25/2020	8/26/2020	< 0.30
AB43903	Ft. Harrison SP Dog Lake	8/25/2020	8/26/2020	< 0.30
AB43904	Ferdinand State Forest Lake	8/25/2020	8/26/2020	< 0.30
AB43905	Patoka Lake	8/25/2020	8/26/2020	< 0.30
AB43906	Paynetown SRA (Field Duplicate)	8/24/2020	8/26/2020	< 0.30
AB43907	Field Blank	8/24/2020	8/26/2020	< 0.30
AB43908	Kunkel Lake @ Ouabache SP	8/24/2020	8/26/2020	< 0.30

Test Report (by Request)

Test Information

Request: 8/26/2020 1:06:21 PM

Date: 8/26/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
MCT Std 0	MICROCYSTINS ADDA 546	1.396 Abs	0.008 µg/L	R ² =0.99651, 99.714		19L2093
MCT Std 0	MICROCYSTINS ADDA 546	1.404 Abs [1.4000] {0.4 CV}	0.003 µg/L [0.006] {0.2 CV}	R ² =0.99651, 100.28		19L2093
MCT Std 1	MICROCYSTINS ADDA 546	1.204 Abs	0.123 µg/L	R ² =0.99651, 86.000		19L2093
MCT Std 1	MICROCYSTINS ADDA 546	1.173 Abs [1.1885] {1.8 CV}	0.144 µg/L [0.133] {1.0 CV}	R ² =0.99651, 83.786		19L2093
MCT Std 2	MICROCYSTINS ADDA 546	0.869 Abs	0.425 µg/L	R ² =0.99651, 62.071		19L2093
MCT Std 2	MICROCYSTINS ADDA 546	0.852 Abs [0.8605] {1.4 CV}	0.447 µg/L [0.436] {0.3 CV}	R ² =0.99651, 60.857		19L2093
MCT Std 3	MICROCYSTINS ADDA 546	0.595 Abs	1.027 µg/L	R ² =0.99651, 42.500		19L2093
MCT Std 3	MICROCYSTINS ADDA 546	0.605 Abs [0.6000] {1.2 CV}	0.990 µg/L [1.008] {2.0 CV}	R ² =0.99651, 43.214		19L2093
MCT Std 4	MICROCYSTINS ADDA 546	0.486 Abs	1.618 µg/L	R ² =0.99651, 34.714		19L2093
MCT Std 4	MICROCYSTINS ADDA 546	0.475 Abs [0.4805] {1.6 CV}	1.707 µg/L [1.663] {0.3 CV}	R ² =0.99651, 33.929		19L2093
MCT Std 5	MICROCYSTINS ADDA 546	0.315 Abs	> 5.000 µg/L	22.500 %Abs		19L2093
MCT Std 5	MICROCYSTINS ADDA 546	0.307 Abs [0.3110] {1.8 CV}	> 5.000 µg/L	21.929 %Abs		19L2093
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.325 Abs	0.050 µg/L	94.643 %Abs		19L2093
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.284 Abs [1.3045] {2.2 CV}	0.074 µg/L [0.062] {2.0 CV}	91.714 %Abs [93.175]		19L2093
MCT 546 Low-CV	MICROCYSTINS ADDA 546	0.963 Abs	0.317 µg/L	68.786 %Abs		19L2093
MCT 546 Low-CV	MICROCYSTINS ADDA 546	0.964 Abs [0.9635] {0.1 CV}	0.315 µg/L [0.316] {0.0 CV}	68.857 %Abs [68.821]		19L2093
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.904 Abs	0.381 µg/L	64.571 %Abs		19L2093
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.858 Abs [0.8810] {3.7 CV}	0.439 µg/L [0.410] {1.0 CV}	61.286 %Abs [62.925]		19L2093

Note

Signature _____

Test Report (by Request)

Test Information

 Request: 8/26/2020 1:08:49 PM
 Date: 8/26/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
AB43893	MICROCYSTINS ADDA 546	1.261 Abs	0.088 µg/L	LOW, 90.071 %ABS	0.300 - 5.000	19L2093
AB43893	MICROCYSTINS ADDA 546	1.252 Abs [1.2565] {0.5 CV}	0.093 µg/L [0.090] {3}	LOW, 89.429 %ABS	0.300 - 5.000	19L2093
AB43895	MICROCYSTINS ADDA 546	1.255 Abs	0.091 µg/L	LOW, 89.643 %ABS	0.300 - 5.000	19L2093
AB43895	MICROCYSTINS ADDA 546	1.233 Abs [1.2440] {1.3 CV}	0.105 µg/L [0.098] {1}	LOW, 88.071 %ABS	0.300 - 5.000	19L2093
AB43895MS	MICROCYSTINS ADDA 546	0.739 Abs	0.633 µg/L	52.786 %Abs	0.300 - 5.000	19L2093
AB43895MS	MICROCYSTINS ADDA 546	0.754 Abs [0.7465] {1.4 CV}	0.604 µg/L [0.618] {3}	53.857 %Abs [53.32]	0.300 - 5.000	19L2093
AB43895MSD	MICROCYSTINS ADDA 546	0.825 Abs	0.486 µg/L	58.929 %Abs	0.300 - 5.000	19L2093
AB43895MSD	MICROCYSTINS ADDA 546	0.810 Abs [0.8175] {1.3 CV}	0.508 µg/L [0.497] {3}	57.857 %Abs [58.39]	0.300 - 5.000	19L2093
AB43896	MICROCYSTINS ADDA 546	1.237 Abs	0.102 µg/L	LOW, 88.357 %ABS	0.300 - 5.000	19L2093
AB43896	MICROCYSTINS ADDA 546	1.223 Abs [1.2300] {0.8 CV}	0.111 µg/L [0.106] {6}	LOW, 87.357 %ABS	0.300 - 5.000	19L2093
AB43897	MICROCYSTINS ADDA 546	1.172 Abs	0.144 µg/L	LOW, 83.714 %ABS	0.300 - 5.000	19L2093
AB43897	MICROCYSTINS ADDA 546	1.184 Abs [1.1780] {0.7 CV}	0.136 µg/L [0.140] {4}	LOW, 84.571 %ABS	0.300 - 5.000	19L2093
AB43898	MICROCYSTINS ADDA 546	1.216 Abs	0.116 µg/L	LOW, 86.857 %ABS	0.300 - 5.000	19L2093
AB43898	MICROCYSTINS ADDA 546	1.214 Abs [1.2150] {0.1 CV}	0.117 µg/L [0.116] {0}	LOW, 86.714 %ABS	0.300 - 5.000	19L2093
AB43899	MICROCYSTINS ADDA 546	1.326 Abs	0.050 µg/L	LOW, 94.714 %ABS	0.300 - 5.000	19L2093
AB43899	MICROCYSTINS ADDA 546	1.273 Abs [1.2995] {2.9 CV}	0.081 µg/L [0.065] {3}	LOW, 90.929 %ABS	0.300 - 5.000	19L2093
AB43900	MICROCYSTINS ADDA 546	1.199 Abs	0.126 µg/L	LOW, 85.643 %ABS	0.300 - 5.000	19L2093
AB43900	MICROCYSTINS ADDA 546	1.186 Abs [1.1925] {0.8 CV}	0.135 µg/L [0.131] {4}	LOW, 84.714 %ABS	0.300 - 5.000	19L2093
AB43901	MICROCYSTINS ADDA 546	1.170 Abs	0.146 µg/L	LOW, 83.571 %ABS	0.300 - 5.000	19L2093
AB43901	MICROCYSTINS ADDA 546	1.192 Abs [1.1810] {1.3 CV}	0.131 µg/L [0.139] {7}	LOW, 85.143 %ABS	0.300 - 5.000	19L2093
AB43902	MICROCYSTINS ADDA 546	1.183 Abs	0.137 µg/L	LOW, 84.500 %ABS	0.300 - 5.000	19L2093
AB43902	MICROCYSTINS ADDA 546	1.176 Abs [1.1795] {0.4 CV}	0.142 µg/L [0.139] {2}	LOW, 84.000 %ABS	0.300 - 5.000	19L2093
AB43903	MICROCYSTINS ADDA 546	1.377 Abs	0.020 µg/L	LOW, 98.357 %ABS	0.300 - 5.000	19L2093
AB43903	MICROCYSTINS ADDA 546	1.309 Abs [1.3430] {3.6 CV}	0.059 µg/L [0.039] {6}	LOW, 93.500 %ABS	0.300 - 5.000	19L2093
AB43904	MICROCYSTINS ADDA 546	1.108 Abs	0.190 µg/L	LOW, 79.143 %ABS	0.300 - 5.000	19L2093
AB43904	MICROCYSTINS ADDA 546	1.096 Abs [1.1020] {0.8 CV}	0.199 µg/L [0.194] {3}	LOW, 78.286 %ABS	0.300 - 5.000	19L2093
AB43905	MICROCYSTINS ADDA 546	1.304 Abs	0.062 µg/L	LOW, 93.143 %ABS	0.300 - 5.000	19L2093
AB43905	MICROCYSTINS ADDA 546	1.288 Abs [1.2960] {0.9 CV}	0.072 µg/L [0.067] {1}	LOW, 92.000 %ABS	0.300 - 5.000	19L2093
AB43906	MICROCYSTINS ADDA 546	1.201 Abs	0.125 µg/L	LOW, 85.786 %ABS	0.300 - 5.000	19L2093
AB43906	MICROCYSTINS ADDA 546	1.224 Abs [1.2125] {1.3 CV}	0.110 µg/L [0.117] {9}	LOW, 87.429 %ABS	0.300 - 5.000	19L2093
AB43907	MICROCYSTINS ADDA 546	1.423 Abs	0.000 µg/L	LOW, 101.643 %ABS	0.300 - 5.000	19L2093
AB43907	MICROCYSTINS ADDA 546	1.371 Abs [1.3970] {2.6 CV}	0.024 µg/L [0.012] {1}	LOW, 97.929 %ABS	0.300 - 5.000	19L2093
AB43908	MICROCYSTINS ADDA 546	1.063 Abs	0.225 µg/L	LOW, 75.929 %ABS	0.300 - 5.000	19L2093
AB43908	MICROCYSTINS ADDA 546	1.032 Abs [1.0475] {2.1 CV}	0.252 µg/L [0.238] {8}	LOW, 73.714 %ABS	0.300 - 5.000	19L2093
LFB 2	MICROCYSTINS ADDA 546	0.857 Abs	0.440 µg/L	61.214 %Abs	0.300 - 5.000	19L2093
LFB 2	MICROCYSTINS ADDA 546	0.824 Abs [0.8405] {2.8 CV}	0.487 µg/L [0.463] {7}	58.857 %Abs [60.036]	0.300 - 5.000	19L2093
LRB 2	MICROCYSTINS ADDA 546	1.241 Abs	0.100 µg/L	LOW, 88.643 %ABS	0.300 - 5.000	19L2093
LRB 2	MICROCYSTINS ADDA 546	1.334 Abs [1.2875] {5.1 CV}	0.045 µg/L [0.073] {5}	LOW, 95.286 %ABS	0.300 - 5.000	19L2093

Note

Signature _____

Assay Information

Assay Name: MICROCYSTINS ADDA 546
 Version: 2
 Temperature: Room Temperature
 Last Modified By: Security disabled
 Units: µg/L
 Assay Description:
 Assay Substances:

Assay Mode: 4-Parameter Logistic Weight by:None
 Well Type: Flat bottom
 Last Modified On: 8/13/2019 2:01:59 PM
 Normal: 0.300 - 5.000
 # of decimals: 3
 Kit Lot Number: 19L2093

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 Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
8/26/2020 1:06:21 PM				
MCT Std 0	1.396 Abs		R ² =0.99651, 99.714 %Abs	RK1:23->A01@2
MCT Std 0	1.404 Abs [1.4000] {0.4 CV}		R ² =0.99651, 100.286 %Abs	RK1:23->B01@2
MCT Std 1	1.204 Abs		R ² =0.99651, 86.000 %Abs	RK1:24->C01@2
MCT Std 1	1.173 Abs [1.1885] {1.8 CV}		R ² =0.99651, 83.786 %Abs	RK1:24->D01@2
MCT Std 2	0.869 Abs		R ² =0.99651, 62.071 %Abs	RK1:25->E01@2
MCT Std 2	0.852 Abs [0.8605] {1.4 CV}		R ² =0.99651, 60.857 %Abs	RK1:25->F01@3
MCT Std 3	0.595 Abs		R ² =0.99651, 42.500 %Abs	RK1:26->G01@3
MCT Std 3	0.605 Abs [0.6000] {1.2 CV}		R ² =0.99651, 43.214 %Abs	RK1:26->H01@3
MCT Std 4	0.486 Abs		R ² =0.99651, 34.714 %Abs	RK1:27->A02@2
MCT Std 4	0.475 Abs [0.4805] {1.6 CV}		R ² =0.99651, 33.929 %Abs	RK1:27->B02@2
MCT Std 5	0.315 Abs		22.500 %Abs	RK1:28->C02@2
MCT Std 5	0.307 Abs [0.3110] {1.8 CV}		21.929 %Abs	RK1:28->D02@2

8/26/2020 1:06:21 PM				
MCT 546 LRB 1	1.325 Abs		94.643 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.284 Abs [1.3045] {2.2 CV}		91.714 %Abs [93.179 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.963 Abs		68.786 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.964 Abs [0.9635] {0.1 CV}		68.857 %Abs [68.821 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.904 Abs		64.571 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.858 Abs [0.8810] {3.7 CV}		61.286 %Abs [62.929 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.4000			
MCT Std 0 [SD]	0.0057			
MCT Std 0 [%CV]	0.4041			
MCT Std 1 [MEAN]	1.1885			
MCT Std 1 [SD]	0.0219			
MCT Std 1 [%CV]	1.8444			
MCT Std 1 [%DIFF]				
MCT Std 2 [MEAN]	0.8605			
MCT Std 2 [SD]	0.0120			
MCT Std 2 [%CV]	1.3970			
MCT Std 2 [%DIFF]				
MCT Std 3 [MEAN]	0.6000			
MCT Std 3 [SD]	0.0071			
MCT Std 3 [%CV]	1.1785			
MCT Std 3 [%DIFF]				
MCT Std 4 [MEAN]	0.4805			

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0078			
MCT Std 4 [%CV]	1.6188			
MCT Std 4 [%DIFF]				
MCT Std 5 [MEAN]	0.3110			
MCT Std 5 [SD]	0.0057			
MCT Std 5 [%CV]	1.8189			
MCT 546 LRB 1 [MEAN]	1.3045			
MCT 546 LRB 1 [SD]	0.0290			
MCT 546 LRB 1 [%CV]	2.2224			
MCT 546 Low-CV [MEAN]	0.9635			
MCT 546 Low-CV [SD]	0.0007			
MCT 546 Low-CV [%CV]	0.0734			
MCT 546 LFB 1 [MEAN]	0.8810			
MCT 546 LFB 1 [SD]	0.0325			
MCT 546 LFB 1 [%CV]	3.6920			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.4072
 B = 1.1415
 C = 0.47365
 D = 0.25932
 R2 coef = 0.99651
 50% = 0.717

