



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

| Sample # | Location | Date Collected | Date Analyzed | Conc. (ppb) |
|----------|---------------------------------|----------------|---------------|-------------|
| AB51524 | Raccoon Lake SRA | 6/13/2022 | 6/15/2022 | < 0.30 |
| AB51526 | Cagles Mill Lake Beach | 6/13/2022 | 6/15/2022 | < 0.30 |
| AB51527 | Paynetown SRA | 6/13/2022 | 6/15/2022 | < 0.30 |
| AB51528 | Fairfax SRA | 6/13/2022 | 6/15/2022 | < 0.30 |
| AB51529 | Starve Hollow SRA | 6/13/2022 | 6/15/2022 | < 0.30 |
| AB51530 | Whitewater Memorial SP | 6/14/2022 | 6/15/2022 | < 0.30 |
| AB51531 | Quakertown SRA | 6/14/2022 | 6/15/2022 | < 0.30 |
| AB51532 | Mounds SRA | 6/14/2022 | 6/15/2022 | < 0.30 |
| AB51533 | Hardy Lake SRA | 6/14/2022 | 6/15/2022 | < 0.30 |
| AB51525 | Deam Lake SRA | 6/14/2022 | 6/15/2022 | < 0.30 |
| AB51534 | Paynetown SRA (Field Duplicate) | 6/13/2022 | 6/15/2022 | < 0.30 |
| AB51535 | Field Blank | 6/13/2022 | 6/15/2022 | < 0.30 |

Test Information

Request: 6/15/2022 4:15:04 PM
Date: 6/15/2022

| Name/ID | Assay | Absorbance | Concentration | Interpretation | Note | Reference | Lot# |
|----------------|----------------------|---------------------------|--------------------|--------------------|------|-----------|----------|
| MCT Std 0 | MICROCYSTINS ADDA 54 | 1.319 Abs | 0.003 µg/L | R^2=0.99588, 100.2 | | | M22B127(|
| MCT Std 0 | MICROCYSTINS ADDA 54 | 1.313 Abs [1.3160] {0.3 C | 0.008 µg/L [0.006] | R^2=0.99588, 99.77 | | | M22B127(|
| MCT Std 1 | MICROCYSTINS ADDA 54 | 1.116 Abs | 0.127 µg/L | R^2=0.99588, 84.80 | | | M22B127(|
| MCT Std 1 | MICROCYSTINS ADDA 54 | 1.086 Abs [1.1010] {1.9 C | 0.147 µg/L [0.137] | R^2=0.99588, 82.52 | | | M22B127(|
| MCT Std 2 | MICROCYSTINS ADDA 54 | 0.778 Abs | 0.429 µg/L | R^2=0.99588, 59.11 | | | M22B127(|
| MCT Std 2 | MICROCYSTINS ADDA 54 | 0.776 Abs [0.7770] {0.2 C | 0.431 µg/L [0.430] | R^2=0.99588, 58.96 | | | M22B127(|
| MCT Std 3 | MICROCYSTINS ADDA 54 | 0.512 Abs | 1.075 µg/L | R^2=0.99588, 38.90 | | | M22B127(|
| MCT Std 3 | MICROCYSTINS ADDA 54 | 0.533 Abs [0.5225] {2.8 C | 0.985 µg/L [1.030] | R^2=0.99588, 40.50 | | | M22B127(|
| MCT Std 4 | MICROCYSTINS ADDA 54 | 0.435 Abs | 1.561 µg/L | R^2=0.99588, 33.05 | | | M22B127(|
| MCT Std 4 | MICROCYSTINS ADDA 54 | 0.437 Abs [0.4360] {0.3 C | 1.544 µg/L [1.553] | R^2=0.99588, 33.20 | | | M22B127(|
| MCT Std 5 | MICROCYSTINS ADDA 54 | 0.288 Abs | > 5.000 µg/L | 21.884 %Abs | | | M22B127(|
| MCT Std 5 | MICROCYSTINS ADDA 54 | 0.277 Abs [0.2825] {2.8 C | > 5.000 µg/L | 21.049 %Abs | | | M22B127(|
| MCT 546 LRB 1 | MICROCYSTINS ADDA 54 | 1.233 Abs | 0.057 µg/L | 93.693 %Abs | | | M22B127(|
| MCT 546 LRB 1 | MICROCYSTINS ADDA 54 | 1.237 Abs [1.2350] {0.2 C | 0.055 µg/L [0.056] | 93.997 %Abs [93.8 | | | M22B127(|
| MCT 546 Low-CV | MICROCYSTINS ADDA 54 | 0.792 Abs | 0.410 µg/L | 60.182 %Abs | | | M22B127(|
| MCT 546 Low-CV | MICROCYSTINS ADDA 54 | 0.798 Abs [0.7950] {0.5 C | 0.403 µg/L [0.406] | 60.638 %Abs [60.4 | | | M22B127(|
| MCT 546 LFB 1 | MICROCYSTINS ADDA 54 | 0.742 Abs | 0.479 µg/L | 56.383 %Abs | | | M22B127(|
| MCT 546 LFB 1 | MICROCYSTINS ADDA 54 | 0.725 Abs [0.7335] {1.6 C | 0.506 µg/L [0.493] | 55.091 %Abs [55.7 | | | M22B127(|

Note

Signature 

David Jordan 6/15/2022

Test Report (by Request)

Test Information

Request: 6/15/2022 4:16:10 PM
Date: 6/15/2022

| Name/ID | Assay | Absorbance | Concentration | Interpretation | Note | Reference | Lot# |
|------------|----------------------|---------------------------|--------------------|-------------------|------|---------------|----------|
| QCS | MICROCYSTINS ADDA 54 | 0.678 Abs | 0.588 µg/L | 51.520 %Abs | | 0.300 - 5.000 | M22B127(|
| QCS | MICROCYSTINS ADDA 54 | 0.652 Abs [0.6650] {2.8 C | 0.640 µg/L [0.614] | 49.544 %Abs [50.5 | | 0.300 - 5.000 | M22B127(|
| AB51524 | MICROCYSTINS ADDA 54 | 1.110 Abs | 0.131 µg/L | Low, 84.347 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51524 | MICROCYSTINS ADDA 54 | 1.114 Abs [1.1120] {0.3 C | 0.129 µg/L [0.130] | Low, 84.650 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51526 | MICROCYSTINS ADDA 54 | 1.102 Abs | 0.136 µg/L | Low, 83.739 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51526 | MICROCYSTINS ADDA 54 | 1.038 Abs [1.0700] {4.2 C | 0.179 µg/L [0.157] | Low, 78.875 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51527 | MICROCYSTINS ADDA 54 | 1.230 Abs | 0.059 µg/L | Low, 93.465 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51527 | MICROCYSTINS ADDA 54 | 1.262 Abs [1.2460] {1.8 C | 0.040 µg/L [0.049] | Low, 95.897 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51528 | MICROCYSTINS ADDA 54 | 1.259 Abs | 0.042 µg/L | Low, 95.669 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51528 | MICROCYSTINS ADDA 54 | 1.199 Abs [1.2290] {3.5 C | 0.077 µg/L [0.060] | Low, 91.109 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51529 | MICROCYSTINS ADDA 54 | 1.159 Abs | 0.101 µg/L | Low, 88.070 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51529 | MICROCYSTINS ADDA 54 | 1.183 Abs [1.1710] {1.4 C | 0.086 µg/L [0.094] | Low, 89.894 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51529MS | MICROCYSTINS ADDA 54 | 0.634 Abs | 0.680 µg/L | 48.176 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51529MS | MICROCYSTINS ADDA 54 | 0.641 Abs [0.6375] {0.8 C | 0.664 µg/L [0.672] | 48.708 %Abs [48.4 | | 0.300 - 5.000 | M22B127(|
| AB51529MSD | MICROCYSTINS ADDA 54 | 0.723 Abs | 0.509 µg/L | 54.939 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51529MSD | MICROCYSTINS ADDA 54 | 0.719 Abs [0.7210] {0.4 C | 0.515 µg/L [0.512] | 54.635 %Abs [54.7 | | 0.300 - 5.000 | M22B127(|
| AB51530 | MICROCYSTINS ADDA 54 | 1.192 Abs | 0.081 µg/L | Low, 90.578 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51530 | MICROCYSTINS ADDA 54 | 1.183 Abs [1.1875] {0.5 C | 0.086 µg/L [0.083] | Low, 89.894 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51531 | MICROCYSTINS ADDA 54 | 1.100 Abs | 0.137 µg/L | Low, 83.587 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51531 | MICROCYSTINS ADDA 54 | 1.093 Abs [1.0965] {0.5 C | 0.142 µg/L [0.139] | Low, 83.055 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51532 | MICROCYSTINS ADDA 54 | 1.136 Abs | 0.115 µg/L | Low, 86.322 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51532 | MICROCYSTINS ADDA 54 | 1.080 Abs [1.1080] {3.6 C | 0.151 µg/L [0.133] | Low, 82.067 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51533 | MICROCYSTINS ADDA 54 | 0.947 Abs | 0.250 µg/L | Low, 71.960 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51533 | MICROCYSTINS ADDA 54 | 0.936 Abs [0.9415] {0.8 C | 0.259 µg/L [0.255] | Low, 71.125 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51525 | MICROCYSTINS ADDA 54 | 1.196 Abs | 0.079 µg/L | Low, 90.881 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51525 | MICROCYSTINS ADDA 54 | 1.156 Abs [1.1760] {2.4 C | 0.103 µg/L [0.091] | Low, 87.842 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51534 | MICROCYSTINS ADDA 54 | 1.155 Abs | 0.103 µg/L | Low, 87.766 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51534 | MICROCYSTINS ADDA 54 | 1.155 Abs [1.1550] {0.0 C | 0.103 µg/L [0.103] | Low, 87.766 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51535 | MICROCYSTINS ADDA 54 | 1.185 Abs | 0.085 µg/L | Low, 90.046 %Abs | | 0.300 - 5.000 | M22B127(|
| AB51535 | MICROCYSTINS ADDA 54 | 1.193 Abs [1.1890] {0.5 C | 0.081 µg/L [0.083] | Low, 90.653 %Abs | | 0.300 - 5.000 | M22B127(|
| LFB 2 | MICROCYSTINS ADDA 54 | 0.750 Abs | 0.468 µg/L | 56.991 %Abs | | 0.300 - 5.000 | M22B127(|
| LFB 2 | MICROCYSTINS ADDA 54 | 0.744 Abs [0.7470] {0.6 C | 0.476 µg/L [0.472] | 56.535 %Abs [56.7 | | 0.300 - 5.000 | M22B127(|
| LRB 2 | MICROCYSTINS ADDA 54 | 1.290 Abs | 0.024 µg/L | Low, 98.024 %Abs | | 0.300 - 5.000 | M22B127(|
| LRB 2 | MICROCYSTINS ADDA 54 | 1.230 Abs [1.2600] {3.4 C | 0.059 µg/L [0.042] | Low, 93.465 %Abs | | 0.300 - 5.000 | M22B127(|

Note

Signature David Jordan

David Jordan 6/15/2022

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: M22B1270

Assay Calibration

Current Calibration Status: "

"

| Name | Absorbance | Concentration | Interpretation | Position | |
|-----------------------------|-----------------------------|------------------------------|---------------------------------------|---------------|--|
| 6/15/2022 4:15:04 PM | | | | | |
| MCT Std 0 | 1.319 Abs | 0.003 µg/L | R ² =0.99588, 100.228 %Abs | RK1:23->A01@2 | |
| MCT Std 0 | 1.313 Abs [1.3160] {0.3 CV} | 0.008 µg/L [0.006] {64.3 CV} | R ² =0.99588, 99.772 %Abs | RK1:23->B01@2 | |
| MCT Std 1 | 1.116 Abs | 0.127 µg/L | R ² =0.99588, 84.802 %Abs | RK1:24->C01@2 | |
| MCT Std 1 | 1.086 Abs [1.1010] {1.9 CV} | 0.147 µg/L [0.137] {10.3 CV} | R ² =0.99588, 82.523 %Abs | RK1:24->D01@2 | |
| MCT Std 2 | 0.778 Abs | 0.429 µg/L | R ² =0.99588, 59.119 %Abs | RK1:25->E01@2 | |
| MCT Std 2 | 0.776 Abs [0.7770] {0.2 CV} | 0.431 µg/L [0.430] {0.3 CV} | R ² =0.99588, 58.967 %Abs | RK1:25->F01@3 | |
| MCT Std 3 | 0.512 Abs | 1.075 µg/L | R ² =0.99588, 38.906 %Abs | RK1:26->G01@3 | |
| MCT Std 3 | 0.533 Abs [0.5225] {2.8 CV} | 0.985 µg/L [1.030] {6.2 CV} | R ² =0.99588, 40.502 %Abs | RK1:26->H01@3 | |
| MCT Std 4 | 0.435 Abs | 1.561 µg/L | R ² =0.99588, 33.055 %Abs | RK1:27->A02@2 | |
| MCT Std 4 | 0.437 Abs [0.4360] {0.3 CV} | 1.544 µg/L [1.553] {0.8 CV} | R ² =0.99588, 33.207 %Abs | RK1:27->B02@2 | |
| MCT Std 5 | 0.288 Abs | > 5.000 µg/L | 21.884 %Abs | RK1:28->C02@2 | |
| MCT Std 5 | 0.277 Abs [0.2825] {2.8 CV} | > 5.000 µg/L | 21.049 %Abs | RK1:28->D02@2 | |
| ***** | | | | | |
| 6/15/2022 4:15:04 PM | | | | | |
| MCT 546 LRB 1 | 1.233 Abs | 0.057 µg/L | 93.693 %Abs | RK1:29->E02@2 | |
| MCT 546 LRB 1 | 1.237 Abs [1.2350] {0.2 CV} | 0.055 µg/L [0.056] {2.5 CV} | 93.997 %Abs [93.845 %Abs] | RK1:29->F02@3 | |
| MCT 546 Low-CV | 0.792 Abs | 0.410 µg/L | 60.182 %Abs | RK1:30->G02@3 | |
| MCT 546 Low-CV | 0.798 Abs [0.7950] {0.5 CV} | 0.403 µg/L [0.406] {1.2 CV} | 60.638 %Abs [60.410 %Abs] | RK1:30->H02@3 | |
| MCT 546 LFB 1 | 0.742 Abs | 0.479 µg/L | 56.383 %Abs | RK1:31->A03@2 | |
| MCT 546 LFB 1 | 0.725 Abs [0.7335] {1.6 CV} | 0.506 µg/L [0.493] {3.9 CV} | 55.091 %Abs [55.737 %Abs] | RK1:31->B03@2 | |
| ***** | | | | | |
| Statistic | | | | | |
| MCT Std 0 [MEAN] | 1.3160 | 0.0055 | | | |
| MCT Std 0 [SD] | 0.0042 | 0.0035 | | | |
| MCT Std 0 [%CV] | 0.3224 | 64.2824 | | | |
| MCT Std 1 [MEAN] | 1.1010 | 0.1370 | | | |
| MCT Std 1 [SD] | 0.0212 | 0.0141 | | | |
| MCT Std 1 [%CV] | 1.9267 | 10.3227 | | | |
| MCT Std 1 [%DIFF] | | -8.6667 | | | |
| MCT Std 2 [MEAN] | 0.7770 | 0.4300 | | | |
| MCT Std 2 [SD] | 0.0014 | 0.0014 | | | |
| MCT Std 2 [%CV] | 0.1820 | 0.3289 | | | |
| MCT Std 2 [%DIFF] | | 7.5000 | | | |
| MCT Std 3 [MEAN] | 0.5225 | 1.0300 | | | |
| MCT Std 3 [SD] | 0.0148 | 0.0636 | | | |
| MCT Std 3 [%CV] | 2.8420 | 6.1786 | | | |
| MCT Std 3 [%DIFF] | | 3.0000 | | | |
| MCT Std 4 [MEAN] | 0.4360 | 1.5525 | | | |

| Name | Absorbance | Concentration | Interpretation | Position |
|-----------------------|------------|---------------|----------------|----------|
| MCT Std 4 [SD] | 0.0014 | 0.0120 | | |
| MCT Std 4 [%CV] | 0.3244 | 0.7743 | | |
| MCT Std 4 [%DIFF] | | -22.3750 | | |
| MCT Std 5 [MEAN] | 0.2825 | | | |
| MCT Std 5 [SD] | 0.0078 | | | |
| MCT Std 5 [%CV] | 2.7533 | | | |
| MCT 546 LRB 1 [MEAN] | 1.2350 | 0.0560 | | |
| MCT 546 LRB 1 [SD] | 0.0028 | 0.0014 | | |
| MCT 546 LRB 1 [%CV] | 0.2290 | 2.5254 | | |
| MCT 546 Low-CV [MEAN] | 0.7950 | 0.4065 | | |
| MCT 546 Low-CV [SD] | 0.0042 | 0.0049 | | |
| MCT 546 Low-CV [%CV] | 0.5337 | 1.2177 | | |
| MCT 546 LFB 1 [MEAN] | 0.7335 | 0.4925 | | |
| MCT 546 LFB 1 [SD] | 0.0120 | 0.0191 | | |
| MCT 546 LFB 1 [%CV] | 1.6388 | 3.8765 | | |

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3222
 B = 1.2116
 C = 0.41280
 D = 0.25793
 R2 coef = 0.99588
 50% = 0.627

