



Saxitoxins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

| Sample # | Location | Date Collected | Date Analyzed | Conc. (ppb) |
|-----------------|---------------------------------------|-----------------------|----------------------|--------------------|
| AB46769 | Summit Lake - State Park | 5/25/2021 | 5/25/2021 | < 0.05 |
| AB46770 | Kunkel Beach @ Oubache State Park | 5/24/2021 | 5/25/2021 | < 0.05 |
| AB46771 | Pokagon State Park | 5/24/2021 | 5/25/2021 | < 0.05 |
| AB46772 | Potawatomi Inn's Beach | 5/24/2021 | 5/25/2021 | < 0.05 |
| AB46773 | Chain O'Lakes SP | 5/24/2021 | 5/25/2021 | < 0.05 |
| AB46774 | Potato Creek State Park | 5/24/2021 | 5/25/2021 | < 0.05 |
| AB46775 | Lost Bridge West SRA | 5/24/2021 | 5/25/2021 | < 0.05 |
| AB46776 | Mississinewa Lake Miami SRA | 5/24/2021 | 5/25/2021 | < 0.05 |
| AB46777 | Field Blank | 5/25/2021 | 5/25/2021 | < 0.05 |
| AB46778 | Kunkel Beach @ Oubache SP (Field Dup) | 5/24/2021 | 5/25/2021 | < 0.05 |
| AB47260 | Lincoln State Park | 5/24/2021 | 5/25/2021 | < 0.05 |
| AB47261 | Ferdinand State Forest Lake | 5/24/2021 | 5/25/2021 | < 0.05 |
| AB47262 | Patoka SRA Beach | 5/24/2021 | 5/25/2021 | < 0.05 |
| AB47263 | Ft. Ben Harrison SP Dog Lake - East | 5/24/2021 | 5/25/2021 | < 0.05 |

Test Information

Request: 5/25/2021 6:39:52 PM

Date: 5/25/2021

| Name/ID | Assay | Absorbance | Concentration | Interpretation | Note | Reference | Lot# |
|---------------------------|-----------|---------------------------|--------------------|--------------------|------|-----------|---------|
| STX Std 0 | SAXITOXIN | 1.188 Abs | 0.000 µg/L | R^2=0.99903, 100.0 | | | 20G3584 |
| STX Std 0 | SAXITOXIN | 1.188 Abs [1.1880] {0.0 C | 0.000 µg/L [0.000] | R^2=0.99903, 100.0 | | | 20G3584 |
| STX Std 1 | SAXITOXIN | 1.008 Abs | 0.020 µg/L | R^2=0.99903, 84.84 | | | 20G3584 |
| STX Std 1 | SAXITOXIN | 0.985 Abs [0.9965] {1.6 C | 0.022 µg/L [0.021] | R^2=0.99903, 82.91 | | | 20G3584 |
| STX Std 2 | SAXITOXIN | 0.767 Abs | 0.046 µg/L | R^2=0.99903, 64.56 | | | 20G3584 |
| STX Std 2 | SAXITOXIN | 0.746 Abs [0.7565] {2.0 C | 0.049 µg/L [0.047] | R^2=0.99903, 62.79 | | | 20G3584 |
| STX Std 3 | SAXITOXIN | 0.480 Abs | 0.102 µg/L | R^2=0.99903, 40.40 | | | 20G3584 |
| STX Std 3 | SAXITOXIN | 0.458 Abs [0.4690] {3.3 C | 0.109 µg/L [0.105] | R^2=0.99903, 38.55 | | | 20G3584 |
| STX Std 4 | SAXITOXIN | 0.304 Abs | 0.186 µg/L | R^2=0.99903, 25.58 | | | 20G3584 |
| STX Std 4 | SAXITOXIN | 0.292 Abs [0.2980] {2.8 C | 0.196 µg/L [0.191] | R^2=0.99903, 24.57 | | | 20G3584 |
| STX Std 5 | SAXITOXIN | 0.176 Abs | > 0.400 µg/L | 14.815 %Abs | | | 20G3584 |
| STX Std 5 | SAXITOXIN | 0.171 Abs [0.1735] {2.0 C | > 0.400 µg/L | 14.394 %Abs | | | 20G3584 |
| STX Control (0.060-0.090) | SAXITOXIN | 0.625 Abs | 0.068 µg/L | 52.609 %Abs | | | 20G3584 |
| STX Control (0.060-0.090) | SAXITOXIN | 0.613 Abs [0.6190] {1.4 C | 0.071 µg/L [0.069] | 51.599 %Abs [52.1 | | | 20G3584 |

David Jordan

David Jordan 5/25/2021

Test Report (by Request)

Test Information

Request: 5/25/2021 6:41:11 PM

Date: 5/25/2021

| Name/ID | Assay | Absorbance | Concentration | Interpretation | Note | Reference | Lot# |
|------------|-----------|---------------------------|--------------------|-------------------|------|---------------|---------|
| LRB (SAX) | SAXITOXIN | 1.163 Abs | 0.004 µg/L | Low, 97.896 %Abs | | 0.020 - 0.400 | 20G3584 |
| LRB (SAX) | SAXITOXIN | 1.153 Abs [1.1580] {0.6 C | 0.005 µg/L [0.004] | Low, 97.054 %Abs | | 0.020 - 0.400 | 20G3584 |
| LFB (SAX) | SAXITOXIN | 0.527 Abs | 0.089 µg/L | 44.360 %Abs | | 0.020 - 0.400 | 20G3584 |
| LFB (SAX) | SAXITOXIN | 0.512 Abs [0.5195] {2.0 C | 0.093 µg/L [0.091] | 43.098 %Abs [43.7 | | 0.020 - 0.400 | 20G3584 |
| AB46769 | SAXITOXIN | 1.100 Abs | 0.011 µg/L | Low, 92.593 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46769 | SAXITOXIN | 1.087 Abs [1.0935] {0.8 C | 0.012 µg/L [0.012] | Low, 91.498 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46770 | SAXITOXIN | 1.076 Abs | 0.013 µg/L | Low, 90.572 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46770 | SAXITOXIN | 1.043 Abs [1.0595] {2.2 C | 0.016 µg/L [0.015] | Low, 87.795 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46771 | SAXITOXIN | 1.081 Abs | 0.013 µg/L | Low, 90.993 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46771 | SAXITOXIN | 1.079 Abs [1.0800] {0.1 C | 0.013 µg/L [0.013] | Low, 90.825 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46772 | SAXITOXIN | 1.113 Abs | 0.009 µg/L | Low, 93.687 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46772 | SAXITOXIN | 1.102 Abs [1.1075] {0.7 C | 0.011 µg/L [0.010] | Low, 92.761 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46772MS | SAXITOXIN | 0.532 Abs | 0.088 µg/L | 44.781 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46772MS | SAXITOXIN | 0.512 Abs [0.5220] {2.7 C | 0.093 µg/L [0.090] | 43.098 %Abs [43.9 | | 0.020 - 0.400 | 20G3584 |
| AB46772MSD | SAXITOXIN | 0.486 Abs | 0.100 µg/L | 40.909 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46772MSD | SAXITOXIN | 0.460 Abs [0.4730] {3.9 C | 0.108 µg/L [0.104] | 38.721 %Abs [39.8 | | 0.020 - 0.400 | 20G3584 |
| AB46773 | SAXITOXIN | 1.028 Abs | 0.018 µg/L | Low, 86.532 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46773 | SAXITOXIN | 1.002 Abs [1.0150] {1.8 C | 0.020 µg/L [0.019] | 84.343 %Abs [Low, | | 0.020 - 0.400 | 20G3584 |
| AB46774 | SAXITOXIN | 1.122 Abs | 0.009 µg/L | Low, 94.444 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46774 | SAXITOXIN | 1.093 Abs [1.1075] {1.9 C | 0.012 µg/L [0.010] | Low, 92.003 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46775 | SAXITOXIN | 1.112 Abs | 0.010 µg/L | Low, 93.603 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46775 | SAXITOXIN | 1.103 Abs [1.1075] {0.6 C | 0.011 µg/L [0.010] | Low, 92.845 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46776 | SAXITOXIN | 1.117 Abs | 0.009 µg/L | Low, 94.024 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46776 | SAXITOXIN | 1.082 Abs [1.0995] {2.3 C | 0.013 µg/L [0.011] | Low, 91.077 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46777 | SAXITOXIN | 1.177 Abs | 0.002 µg/L | Low, 99.074 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46777 | SAXITOXIN | 1.155 Abs [1.1660] {1.3 C | 0.005 µg/L [0.004] | Low, 97.222 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46778 | SAXITOXIN | 1.082 Abs | 0.013 µg/L | Low, 91.077 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB46778 | SAXITOXIN | 1.089 Abs [1.0855] {0.5 C | 0.012 µg/L [0.013] | Low, 91.667 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB47260 | SAXITOXIN | 1.078 Abs | 0.013 µg/L | Low, 90.741 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB47260 | SAXITOXIN | 1.079 Abs [1.0785] {0.1 C | 0.013 µg/L [0.013] | Low, 90.825 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB47261 | SAXITOXIN | 1.131 Abs | 0.008 µg/L | Low, 95.202 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB47261 | SAXITOXIN | 1.100 Abs [1.1155] {2.0 C | 0.011 µg/L [0.010] | Low, 92.593 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB47262 | SAXITOXIN | 1.152 Abs | 0.005 µg/L | Low, 96.970 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB47262 | SAXITOXIN | 1.140 Abs [1.1460] {0.7 C | 0.007 µg/L [0.006] | Low, 95.960 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB47263 | SAXITOXIN | 1.084 Abs | 0.012 µg/L | Low, 91.246 %Abs | | 0.020 - 0.400 | 20G3584 |
| AB47263 | SAXITOXIN | 1.066 Abs [1.0750] {1.2 C | 0.014 µg/L [0.013] | Low, 89.731 %Abs | | 0.020 - 0.400 | 20G3584 |

David Jordan 5/25/2021

Assay Information

Assay Name: SAXITOXIN
 Version: 2
 Temperature: Room Temperature
 Last Modified By: Security disabled
 Units: µg/L
 Assay Description: PN. 52255B
 Assay Substances: Controls:

Assay Mode: 4-Parameter Logistic Weight by:None
 Well Type: Flat bottom
 Last Modified On: 7/25/2019 3:55:28 PM
 Normal: 0.020 - 0.400
 # of decimals: 3
 Kit Lot Number: 20G3584

STX Control (0.060-0.090)
 Standards:
 STX Std 0, Concentration = 0.000, Minimum number to use: 2
 STX Std 1, Concentration = 0.020, Minimum number to use: 2
 STX Std 2, Concentration = 0.050, Minimum number to use: 2
 STX Std 3, Concentration = 0.100, Minimum number to use: 2
 STX Std 4, Concentration = 0.200, Minimum number to use: 2
 STX Std 5, Concentration = 0.400, 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 |
|-----------------------------|-----------------------------|-----------------------------|---------------------------------------|---------------|
| 5/25/2021 6:39:52 PM | | | | |
| STX Std 0 | 1.188 Abs | 0.000 µg/L | R ² =0.99903, 100.000 %Abs | RK1:23->A01@2 |
| STX Std 0 | 1.188 Abs [1.1880] {0.0 CV} | 0.000 µg/L [0.000] | R ² =0.99903, 100.000 %Abs | RK1:23->B01@2 |
| STX Std 1 | 1.008 Abs | 0.020 µg/L | R ² =0.99903, 84.848 %Abs | RK1:24->C01@2 |
| STX Std 1 | 0.985 Abs [0.9965] {1.6 CV} | 0.022 µg/L [0.021] {6.7 CV} | R ² =0.99903, 82.912 %Abs | RK1:24->D01@2 |
| STX Std 2 | 0.767 Abs | 0.046 µg/L | R ² =0.99903, 64.562 %Abs | RK1:25->E01@2 |
| STX Std 2 | 0.746 Abs [0.7565] {2.0 CV} | 0.049 µg/L [0.047] {4.5 CV} | R ² =0.99903, 62.795 %Abs | RK1:25->F01@3 |
| STX Std 3 | 0.480 Abs | 0.102 µg/L | R ² =0.99903, 40.404 %Abs | RK1:26->G01@3 |
| STX Std 3 | 0.458 Abs [0.4690] {3.3 CV} | 0.109 µg/L [0.105] {4.7 CV} | R ² =0.99903, 38.552 %Abs | RK1:26->H01@3 |
| STX Std 4 | 0.304 Abs | 0.186 µg/L | R ² =0.99903, 25.589 %Abs | RK1:27->A02@2 |
| STX Std 4 | 0.292 Abs [0.2980] {2.8 CV} | 0.196 µg/L [0.191] {3.7 CV} | R ² =0.99903, 24.579 %Abs | RK1:27->B02@2 |
| STX Std 5 | 0.176 Abs | > 0.400 µg/L | 14.815 %Abs | RK1:28->C02@2 |
| STX Std 5 | 0.171 Abs [0.1735] {2.0 CV} | > 0.400 µg/L | 14.394 %Abs | RK1:28->D02@2 |
| ***** | | | | |
| 5/25/2021 6:39:52 PM | | | | |
| STX Control (0.060-0.090) | 0.625 Abs | 0.068 µg/L | 52.609 %Abs | RK1:29->E02@2 |
| STX Control (0.060-0.090) | 0.613 Abs [0.6190] {1.4 CV} | 0.071 µg/L [0.069] {3.1 CV} | 51.599 %Abs [52.104 %Abs] | RK1:29->F02@3 |
| ***** | | | | |
| Statistic | | | | |
| STX Std 0 [MEAN] | 1.1880 | 0.0000 | | |
| STX Std 0 [SD] | 0.0000 | 0.0000 | | |
| STX Std 0 [%CV] | 0.0000 | 0.0000 | | |
| STX Std 1 [MEAN] | 0.9965 | 0.0210 | | |
| STX Std 1 [SD] | 0.0163 | 0.0014 | | |
| STX Std 1 [%CV] | 1.6321 | 6.7344 | | |
| STX Std 1 [%DIFF] | | 5.0000 | | |
| STX Std 2 [MEAN] | 0.7565 | 0.0475 | | |
| STX Std 2 [SD] | 0.0148 | 0.0021 | | |
| STX Std 2 [%CV] | 1.9629 | 4.4659 | | |
| STX Std 2 [%DIFF] | | -5.0000 | | |
| STX Std 3 [MEAN] | 0.4690 | 0.1055 | | |
| STX Std 3 [SD] | 0.0156 | 0.0049 | | |
| STX Std 3 [%CV] | 3.3169 | 4.6917 | | |
| STX Std 3 [%DIFF] | | 5.5000 | | |
| STX Std 4 [MEAN] | 0.2980 | 0.1910 | | |
| STX Std 4 [SD] | 0.0085 | 0.0071 | | |
| STX Std 4 [%CV] | 2.8474 | 3.7021 | | |
| STX Std 4 [%DIFF] | | -4.5000 | | |
| STX Std 5 [MEAN] | 0.1735 | | | |
| STX Std 5 [SD] | 0.0035 | | | |
| STX Std 5 [%CV] | 2.0378 | | | |

| Name | Absorbance | Concentration | Interpretation | Position |
|----------------------------------|------------|---------------|----------------|----------|
| STX Control (0.060-0.090) [MEAN] | 0.6190 | 0.0695 | | |
| STX Control (0.060-0.090) [SD] | 0.0085 | 0.0021 | | |
| STX Control (0.060-0.090) [%CV] | 1.3708 | 3.0523 | | |

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1856
 B = 1.3644
 C = 0.066018
 D = 0.090064
 R2 coef = 0.99903
 50% = 0.074

