



## Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

| <b>Sample #</b> | <b>Location</b>                     | <b>Date Collected</b> | <b>Date Analyzed</b> | <b>Conc. (ppb)</b> |
|-----------------|-------------------------------------|-----------------------|----------------------|--------------------|
| AB47937         | Raccoon Lake SRA                    | 7/12/2021             | 7/15/2021            | < 0.05             |
| AB47939         | Cagles Mill Lake Beach              | 7/12/2021             | 7/15/2021            | 0.06               |
| AB47940         | Paynetown SRA                       | 7/12/2021             | 7/15/2021            | < 0.05             |
| AB47941         | Fairfax SRA                         | 7/12/2021             | 7/15/2021            | < 0.05             |
| AB47942         | Starve Hollow SRA                   | 7/12/2021             | 7/15/2021            | 0.06               |
| AB47943         | Whitewater Memorial SP              | 7/13/2021             | 7/15/2021            | < 0.05             |
| AB47944         | Quakertown SRA                      | 7/13/2021             | 7/15/2021            | < 0.05             |
| AB47945         | Mounds SRA                          | 7/13/2021             | 7/15/2021            | < 0.05             |
| AB47946         | Hardy Lake SRA                      | 7/13/2021             | 7/15/2021            | 0.07               |
| AB47938         | Deam Lake SRA                       | 7/13/2021             | 7/15/2021            | < 0.05             |
| AB47947         | Hardy Lake SRA (Field Duplicate)    | 7/13/2021             | 7/15/2021            | 0.07               |
| AB47948         | Field Blank                         | 7/12/2021             | 7/15/2021            | < 0.05             |
| AB47959         | Ft. Ben Harrison SP Dog Lake - East | 7/13/2021             | 7/15/2021            | < 0.05             |

**Test Information**

 Request: 7/15/2021 12:06:22 PM  
 Date: 7/15/2021

| Name/ID                   | Assay     | Absorbance                | Concentration      | Interpretation                 | Note | Reference | Lot#    |
|---------------------------|-----------|---------------------------|--------------------|--------------------------------|------|-----------|---------|
| STX Std 0                 | SAXITOXIN | 1.231 Abs                 | 0.000 µg/L         | R <sup>2</sup> =0.99894, 100.1 |      |           | 20G3584 |
| STX Std 0                 | SAXITOXIN | 1.227 Abs [1.2290] {0.2 C | 0.000 µg/L [0.000] | R <sup>2</sup> =0.99894, 99.83 |      |           | 20G3584 |
| STX Std 1                 | SAXITOXIN | 1.032 Abs                 | 0.020 µg/L         | R <sup>2</sup> =0.99894, 83.97 |      |           | 20G3584 |
| STX Std 1                 | SAXITOXIN | 1.022 Abs [1.0270] {0.7 C | 0.021 µg/L [0.021] | R <sup>2</sup> =0.99894, 83.15 |      |           | 20G3584 |
| STX Std 2                 | SAXITOXIN | 0.791 Abs                 | 0.046 µg/L         | R <sup>2</sup> =0.99894, 64.36 |      |           | 20G3584 |
| STX Std 2                 | SAXITOXIN | 0.764 Abs [0.7775] {2.5 C | 0.050 µg/L [0.048] | R <sup>2</sup> =0.99894, 62.16 |      |           | 20G3584 |
| STX Std 3                 | SAXITOXIN | 0.495 Abs                 | 0.102 µg/L         | R <sup>2</sup> =0.99894, 40.27 |      |           | 20G3584 |
| STX Std 3                 | SAXITOXIN | 0.471 Abs [0.4830] {3.5 C | 0.110 µg/L [0.106] | R <sup>2</sup> =0.99894, 38.32 |      |           | 20G3584 |
| STX Std 4                 | SAXITOXIN | 0.319 Abs                 | 0.185 µg/L         | R <sup>2</sup> =0.99894, 25.95 |      |           | 20G3584 |
| STX Std 4                 | SAXITOXIN | 0.307 Abs [0.3130] {2.7 C | 0.195 µg/L [0.190] | R <sup>2</sup> =0.99894, 24.96 |      |           | 20G3584 |
| STX Std 5                 | SAXITOXIN | 0.187 Abs                 | > 0.400 µg/L       | 15.216 %Abs                    |      |           | 20G3584 |
| STX Std 5                 | SAXITOXIN | 0.180 Abs [0.1835] {2.7 C | > 0.400 µg/L       | 14.646 %Abs                    |      |           | 20G3584 |
| STX Control (0.060-0.090) | SAXITOXIN | 0.652 Abs                 | 0.067 µg/L         | 53.051 %Abs                    |      |           | 20G3584 |
| STX Control (0.060-0.090) | SAXITOXIN | 0.622 Abs [0.6370] {3.3 C | 0.072 µg/L [0.069] | 50.610 %Abs [51.8              |      |           | 20G3584 |

**Note**

Signature \_\_\_\_\_

Charles Hostetter 7/15/21

# Test Report (by Request)

**Test Information**

 Request: 7/15/2021 12:07:28 PM  
 Date: 7/15/2021

| Name/ID    | Assay     | Absorbance                | Concentration      | Interpretation    | Note | Reference     | Lot#    |
|------------|-----------|---------------------------|--------------------|-------------------|------|---------------|---------|
| LRB        | SAXITOXIN | 1.176 Abs                 | 0.007 µg/L         | Low, 95.688 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| LRB        | SAXITOXIN | 1.196 Abs [1.1860] {1.2 C | 0.005 µg/L [0.006] | Low, 97.315 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| LFB (SAX)  | SAXITOXIN | 0.518 Abs                 | 0.096 µg/L         | 42.148 %Abs       |      | 0.020 - 0.400 | 20G3584 |
| LFB (SAX)  | SAXITOXIN | 0.512 Abs [0.5150] {0.8 C | 0.097 µg/L [0.097] | 41.660 %Abs [41.9 |      | 0.020 - 0.400 | 20G3584 |
| AB47937    | SAXITOXIN | 1.174 Abs                 | 0.007 µg/L         | Low, 95.525 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47937    | SAXITOXIN | 1.150 Abs [1.1620] {1.5 C | 0.009 µg/L [0.008] | Low, 93.572 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47939    | SAXITOXIN | 0.719 Abs                 | 0.056 µg/L         | 58.503 %Abs       |      | 0.020 - 0.400 | 20G3584 |
| AB47939    | SAXITOXIN | 0.712 Abs [0.7155] {0.7 C | 0.057 µg/L [0.057] | 57.933 %Abs [58.2 |      | 0.020 - 0.400 | 20G3584 |
| AB47940    | SAXITOXIN | 1.152 Abs                 | 0.009 µg/L         | Low, 93.735 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47940    | SAXITOXIN | 1.160 Abs [1.1560] {0.5 C | 0.008 µg/L [0.009] | Low, 94.386 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47941    | SAXITOXIN | 1.209 Abs                 | 0.003 µg/L         | Low, 98.373 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47941    | SAXITOXIN | 1.199 Abs [1.2040] {0.6 C | 0.004 µg/L [0.004] | Low, 97.559 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47941MS  | SAXITOXIN | 0.525 Abs                 | 0.094 µg/L         | 42.718 %Abs       |      | 0.020 - 0.400 | 20G3584 |
| AB47941MS  | SAXITOXIN | 0.507 Abs [0.5160] {2.5 C | 0.099 µg/L [0.096] | 41.253 %Abs [41.9 |      | 0.020 - 0.400 | 20G3584 |
| AB47941MSD | SAXITOXIN | 0.516 Abs                 | 0.096 µg/L         | 41.985 %Abs       |      | 0.020 - 0.400 | 20G3584 |
| AB47941MSD | SAXITOXIN | 0.508 Abs [0.5120] {1.1 C | 0.098 µg/L [0.097] | 41.334 %Abs [41.6 |      | 0.020 - 0.400 | 20G3584 |
| AB47942    | SAXITOXIN | 0.745 Abs                 | 0.052 µg/L         | 60.618 %Abs       |      | 0.020 - 0.400 | 20G3584 |
| AB47942    | SAXITOXIN | 0.728 Abs [0.7365] {1.6 C | 0.055 µg/L [0.054] | 59.235 %Abs [59.9 |      | 0.020 - 0.400 | 20G3584 |
| AB47943    | SAXITOXIN | 1.157 Abs                 | 0.009 µg/L         | Low, 94.142 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47943    | SAXITOXIN | 1.146 Abs [1.1515] {0.7 C | 0.010 µg/L [0.009] | Low, 93.247 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47944    | SAXITOXIN | 1.142 Abs                 | 0.010 µg/L         | Low, 92.921 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47944    | SAXITOXIN | 1.142 Abs [1.1420] {0.0 C | 0.010 µg/L [0.010] | Low, 92.921 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47945    | SAXITOXIN | 1.140 Abs                 | 0.010 µg/L         | Low, 92.758 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47945    | SAXITOXIN | 1.147 Abs [1.1435] {0.4 C | 0.010 µg/L [0.010] | Low, 93.328 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47946    | SAXITOXIN | 0.668 Abs                 | 0.064 µg/L         | 54.353 %Abs       |      | 0.020 - 0.400 | 20G3584 |
| AB47946    | SAXITOXIN | 0.659 Abs [0.6635] {1.0 C | 0.066 µg/L [0.065] | 53.621 %Abs [53.9 |      | 0.020 - 0.400 | 20G3584 |
| AB47938    | SAXITOXIN | 1.220 Abs                 | 0.001 µg/L         | Low, 99.268 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47938    | SAXITOXIN | 1.222 Abs [1.2210] {0.1 C | 0.001 µg/L [0.001] | Low, 99.430 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47947    | SAXITOXIN | 0.653 Abs                 | 0.067 µg/L         | 53.133 %Abs       |      | 0.020 - 0.400 | 20G3584 |
| AB47947    | SAXITOXIN | 0.644 Abs [0.6485] {1.0 C | 0.068 µg/L [0.068] | 52.400 %Abs [52.7 |      | 0.020 - 0.400 | 20G3584 |
| AB47948    | SAXITOXIN | 1.190 Abs                 | 0.005 µg/L         | Low, 96.827 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47948    | SAXITOXIN | 1.219 Abs [1.2045] {1.7 C | 0.002 µg/L [0.004] | Low, 99.186 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47959    | SAXITOXIN | 1.085 Abs                 | 0.015 µg/L         | Low, 88.283 %Abs  |      | 0.020 - 0.400 | 20G3584 |
| AB47959    | SAXITOXIN | 1.081 Abs [1.0830] {0.3 C | 0.016 µg/L [0.015] | Low, 87.958 %Abs  |      | 0.020 - 0.400 | 20G3584 |

**Note**

Signature

Charles Hostetter 7/15/21

**Assay Information**

Assay Name: ANATOXIN  
 Version: 2  
 Temperature: Room Temperature  
 Last Modified By: Security disabled  
 Units: µg/L  
 Assay Description: PN 520060  
 Assay Substances: Controls:

Assay Mode: 4-Parameter Logistic Weight by:None  
 Well Type: Flat bottom  
 Last Modified On: 7/25/2019 3:49:23 PM  
 Normal: 0.150 - 5.000  
 # of decimals: 3  
 Kit Lot Number: 20L4352

ATX Control  
 Standards:  
 ATX Std 0, Concentration = 0.000, Minimum number to use: 2  
 ATX Std 1, Concentration = 0.150, Minimum number to use: 2  
 ATX Std 2, Concentration = 0.400, Minimum number to use: 2  
 ATX Std 3, Concentration = 1.000, Minimum number to use: 2  
 ATX Std 4, Concentration = 2.500, Minimum number to use: 2  
 ATX 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      |
|------------------------------|-----------------------------|-------------------------------|---------------------------------------|---------------|
| <b>7/15/2021 11:45:36 AM</b> |                             |                               |                                       |               |
| ATX Std 0                    | 1.902 Abs                   | 0.000 µg/L                    | R <sup>2</sup> =0.99993, 100.475 %Abs | RK1:23->A01@2 |
| ATX Std 0                    | 1.884 Abs [1.8930] {0.7 CV} | 0.002 µg/L [0.001] {141.4 CV} | R <sup>2</sup> =0.99993, 99.525 %Abs  | RK1:23->B01@2 |
| ATX Std 1                    | 1.571 Abs                   | 0.142 µg/L                    | R <sup>2</sup> =0.99993, 82.990 %Abs  | RK1:24->C01@2 |
| ATX Std 1                    | 1.543 Abs [1.5570] {1.3 CV} | 0.159 µg/L [0.150] {8.0 CV}   | R <sup>2</sup> =0.99993, 81.511 %Abs  | RK1:24->D01@2 |
| ATX Std 2                    | 1.263 Abs                   | 0.385 µg/L                    | R <sup>2</sup> =0.99993, 66.719 %Abs  | RK1:25->E01@2 |
| ATX Std 2                    | 1.243 Abs [1.2530] {1.1 CV} | 0.406 µg/L [0.396] {3.8 CV}   | R <sup>2</sup> =0.99993, 65.663 %Abs  | RK1:25->F01@3 |
| ATX Std 3                    | 0.878 Abs                   | 0.969 µg/L                    | R <sup>2</sup> =0.99993, 46.381 %Abs  | RK1:26->G01@3 |
| ATX Std 3                    | 0.835 Abs [0.8565] {3.5 CV} | 1.069 µg/L [1.019] {6.9 CV}   | R <sup>2</sup> =0.99993, 44.110 %Abs  | RK1:26->H01@3 |
| ATX Std 4                    | 0.503 Abs                   | 2.400 µg/L                    | R <sup>2</sup> =0.99993, 26.572 %Abs  | RK1:27->A02@2 |
| ATX Std 4                    | 0.486 Abs [0.4945] {2.4 CV} | 2.513 µg/L [2.457] {3.3 CV}   | R <sup>2</sup> =0.99993, 25.674 %Abs  | RK1:27->B02@2 |
| ATX Std 5                    | 0.273 Abs                   | 4.908 µg/L                    | R <sup>2</sup> =0.99993, 14.422 %Abs  | RK1:28->C02@2 |
| ATX Std 5                    | 0.257 Abs [0.2650] {4.3 CV} | > 5.000 µg/L [4.908]          | 13.576 %Abs                           | RK1:28->D02@2 |
| *****                        |                             |                               |                                       |               |
| <b>7/15/2021 11:45:36 AM</b> |                             |                               |                                       |               |
| ATX Control                  | 0.978 Abs                   | 0.771 µg/L                    | 51.664 %Abs                           | RK1:29->E02@2 |
| ATX Control                  | 0.945 Abs [0.9615] {2.4 CV} | 0.831 µg/L [0.801] {5.3 CV}   | 49.921 %Abs [50.792 %Abs]             | RK1:29->F02@3 |
| *****                        |                             |                               |                                       |               |
| <b>Statistic</b>             |                             |                               |                                       |               |
| ATX Std 0 [MEAN]             | 1.8930                      | 0.0010                        |                                       |               |
| ATX Std 0 [SD]               | 0.0127                      | 0.0014                        |                                       |               |
| ATX Std 0 [%CV]              | 0.6724                      | 141.4214                      |                                       |               |
| ATX Std 1 [MEAN]             | 1.5570                      | 0.1505                        |                                       |               |
| ATX Std 1 [SD]               | 0.0198                      | 0.0120                        |                                       |               |
| ATX Std 1 [%CV]              | 1.2716                      | 7.9872                        |                                       |               |
| ATX Std 1 [%DIFF]            |                             | 0.3333                        |                                       |               |
| ATX Std 2 [MEAN]             | 1.2530                      | 0.3955                        |                                       |               |
| ATX Std 2 [SD]               | 0.0141                      | 0.0148                        |                                       |               |
| ATX Std 2 [%CV]              | 1.1287                      | 3.7545                        |                                       |               |
| ATX Std 2 [%DIFF]            |                             | -1.1250                       |                                       |               |
| ATX Std 3 [MEAN]             | 0.8565                      | 1.0190                        |                                       |               |
| ATX Std 3 [SD]               | 0.0304                      | 0.0707                        |                                       |               |
| ATX Std 3 [%CV]              | 3.5500                      | 6.9392                        |                                       |               |
| ATX Std 3 [%DIFF]            |                             | 1.9000                        |                                       |               |
| ATX Std 4 [MEAN]             | 0.4945                      | 2.4565                        |                                       |               |
| ATX Std 4 [SD]               | 0.0120                      | 0.0799                        |                                       |               |
| ATX Std 4 [%CV]              | 2.4309                      | 3.2527                        |                                       |               |
| ATX Std 4 [%DIFF]            |                             | -1.7400                       |                                       |               |
| ATX Std 5 [MEAN]             | 0.2650                      |                               |                                       |               |
| ATX Std 5 [SD]               | 0.0113                      |                               |                                       |               |
| ATX Std 5 [%CV]              | 4.2693                      |                               |                                       |               |

| Name               | Absorbance | Concentration | Interpretation | Position |
|--------------------|------------|---------------|----------------|----------|
| ATX Control [MEAN] | 0.9615     | 0.8010        |                |          |
| ATX Control [SD]   | 0.0233     | 0.0424        |                |          |
| ATX Control [%CV]  | 2.4269     | 5.2967        |                |          |

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.8932  
 B = 0.87474  
 C = 0.93689  
 D = -0.10760  
 R2 coef = 0.99993  
 50% = 0.829

