



## Saxitoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43415	Raccoon Lake SRA	7/13/2020	7/15/2020	<0.05
AB43417	Cagles Mill Lake Beach	7/13/2020	7/15/2020	<0.05
AB43418	Paynetown SRA	7/13/2020	7/15/2020	<0.05
AB43419	Fairfax SRA	7/13/2020	7/15/2020	<0.05
AB43420	Starve Hollow SRA	7/13/2020	7/15/2020	0.062
AB43421	Whitewater Memorial SP	7/14/2020	7/15/2020	<0.05
AB43422	Quakertown SRA	7/14/2020	7/15/2020	<0.05
AB43423	Mounds SRA	7/14/2020	7/15/2020	<0.05
AB43424	Hardy Lake SRA	7/14/2020	7/15/2020	<0.05
AB43416	Deam Lake SRA	7/14/2020	7/15/2020	<0.05
AB43425	Whitewater Memorial SP (Field Duplicate)	7/14/2020	7/15/2020	<0.05
AB43426	Field Blank	7/13/2020	7/15/2020	<0.05
AB43427	Lincoln State Park	7/13/2020	7/15/2020	<0.05
AB43428	Ferdinand State Forest Lake	7/13/2020	7/15/2020	<0.05
AB43429	Patoka Lake	7/14/2020	7/15/2020	<0.05



# Test Report (by Request)

**Test Information**

 Request: 7/15/2020 2:46:33 PM  
 Date: 7/15/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
STX Std 0	SAXITOXIN	1.677 Abs	0.000 µg/L	R^2=0.99984, 101.32		19J1672
STX Std 0	SAXITOXIN	1.632 Abs [1.6545] {1.9 CV}	0.002 µg/L [0.001] {1}	R^2=0.99984, 98.610		19J1672
STX Std 1	SAXITOXIN	1.338 Abs	0.019 µg/L	R^2=0.99984, 80.846		19J1672
STX Std 1	SAXITOXIN	1.310 Abs [1.3240] {1.5 CV}	0.021 µg/L [0.020] {7}	R^2=0.99984, 79.154		19J1672
STX Std 2	SAXITOXIN	0.946 Abs	0.048 µg/L	R^2=0.99984, 57.160		19J1672
STX Std 2	SAXITOXIN	0.919 Abs [0.9325] {2.0 CV}	0.051 µg/L [0.049] {4}	R^2=0.99984, 55.529		19J1672
STX Std 3	SAXITOXIN	0.595 Abs	0.101 µg/L	R^2=0.99984, 35.952		19J1672
STX Std 3	SAXITOXIN	0.588 Abs [0.5915] {0.8 CV}	0.103 µg/L [0.102] {1}	R^2=0.99984, 35.529		19J1672
STX Std 4	SAXITOXIN	0.380 Abs	0.187 µg/L	R^2=0.99984, 22.961		19J1672
STX Std 4	SAXITOXIN	0.366 Abs [0.3730] {2.7 CV}	0.197 µg/L [0.192] {5}	R^2=0.99984, 22.115		19J1672
STX Std 5	SAXITOXIN	0.227 Abs	> 0.400 µg/L	13.716 %Abs		19J1672
STX Std 5	SAXITOXIN	0.221 Abs [0.2240] {1.9 CV}	> 0.400 µg/L	13.353 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.733 Abs	0.075 µg/L	44.290 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.700 Abs [0.7165] {3.3 CV}	0.080 µg/L [0.078] {4}	42.296 %Abs [43.296]		19J1672

**Note**

 Signature David Jordan  
 Date: 7/16/2020

# Test Report (by Request)

**Test Information**

Request: 7/15/2020 2:47:52 PM

Date: 7/15/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.578 Abs	0.006 µg/L	<b>LOW, 95.347 %ABS</b>	0.020 - 0.400	19J1672
LRB	SAXITOXIN	1.553 Abs [1.5655] {1.1 CV}	0.007 µg/L [0.007] {1.1 CV}	<b>LOW, 93.837 %ABS</b>	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.700 Abs	0.080 µg/L	42.296 %Abs	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.683 Abs [0.6915] {1.7 CV}	0.083 µg/L [0.081] {2.0 CV}	41.269 %Abs [41.782]	0.020 - 0.400	19J1672
AB43415	SAXITOXIN	1.552 Abs	0.008 µg/L	<b>LOW, 93.776 %ABS</b>	0.020 - 0.400	19J1672
AB43415	SAXITOXIN	1.555 Abs [1.5535] {0.1 CV}	0.008 µg/L [0.008] {0.1 CV}	<b>LOW, 93.958 %ABS</b>	0.020 - 0.400	19J1672
AB43417	SAXITOXIN	1.289 Abs	0.024 µg/L	77.885 %Abs	0.020 - 0.400	19J1672
AB43417	SAXITOXIN	1.280 Abs [1.2845] {0.5 CV}	0.025 µg/L [0.025] {2.0 CV}	77.341 %Abs [77.613]	0.020 - 0.400	19J1672
AB43418	SAXITOXIN	1.531 Abs	0.009 µg/L	<b>LOW, 92.508 %ABS</b>	0.020 - 0.400	19J1672
AB43418	SAXITOXIN	1.538 Abs [1.5345] {0.3 CV}	0.009 µg/L [0.009] {0.3 CV}	<b>LOW, 92.931 %ABS</b>	0.020 - 0.400	19J1672
AB43418MS	SAXITOXIN	0.714 Abs	0.078 µg/L	43.142 %Abs	0.020 - 0.400	19J1672
AB43418MS	SAXITOXIN	0.721 Abs [0.7175] {0.7 CV}	0.077 µg/L [0.078] {0.7 CV}	43.565 %Abs [43.353]	0.020 - 0.400	19J1672
AB43418MSD	SAXITOXIN	0.715 Abs	0.078 µg/L	43.202 %Abs	0.020 - 0.400	19J1672
AB43418MSD	SAXITOXIN	0.714 Abs [0.7145] {0.1 CV}	0.078 µg/L [0.078] {0.1 CV}	43.142 %Abs [43.172]	0.020 - 0.400	19J1672
AB43419	SAXITOXIN	1.568 Abs	0.007 µg/L	<b>LOW, 94.743 %ABS</b>	0.020 - 0.400	19J1672
AB43419	SAXITOXIN	1.549 Abs [1.5585] {0.9 CV}	0.008 µg/L [0.008] {0.9 CV}	<b>LOW, 93.595 %ABS</b>	0.020 - 0.400	19J1672
AB43420	SAXITOXIN	0.892 Abs	0.059 µg/L	53.897 %Abs	0.020 - 0.400	19J1672
AB43420	SAXITOXIN	0.853 Abs [0.8725] {3.2 CV}	0.064 µg/L [0.062] {5.0 CV}	51.541 %Abs [52.719]	0.020 - 0.400	19J1672
AB43421	SAXITOXIN	1.528 Abs	0.009 µg/L	<b>LOW, 92.326 %ABS</b>	0.020 - 0.400	19J1672
AB43421	SAXITOXIN	1.522 Abs [1.5250] {0.3 CV}	0.010 µg/L [0.009] {7.0 CV}	<b>LOW, 91.964 %ABS</b>	0.020 - 0.400	19J1672
AB43422	SAXITOXIN	1.503 Abs	0.011 µg/L	<b>LOW, 90.816 %ABS</b>	0.020 - 0.400	19J1672
AB43422	SAXITOXIN	1.518 Abs [1.5105] {0.7 CV}	0.010 µg/L [0.010] {6.0 CV}	<b>LOW, 91.722 %ABS</b>	0.020 - 0.400	19J1672
AB43423	SAXITOXIN	1.543 Abs	0.009 µg/L	<b>LOW, 93.233 %ABS</b>	0.020 - 0.400	19J1672
AB43423	SAXITOXIN	1.548 Abs [1.5455] {0.2 CV}	0.008 µg/L [0.009] {8.0 CV}	<b>LOW, 93.535 %ABS</b>	0.020 - 0.400	19J1672
AB43424	SAXITOXIN	1.449 Abs	0.014 µg/L	<b>LOW, 87.553 %ABS</b>	0.020 - 0.400	19J1672
AB43424	SAXITOXIN	1.433 Abs [1.4410] {0.8 CV}	0.015 µg/L [0.014] {4.0 CV}	<b>LOW, 86.586 %ABS</b>	0.020 - 0.400	19J1672
AB43416	SAXITOXIN	1.542 Abs	0.009 µg/L	<b>LOW, 93.172 %ABS</b>	0.020 - 0.400	19J1672
AB43416	SAXITOXIN	1.547 Abs [1.5445] {0.2 CV}	0.008 µg/L [0.009] {8.0 CV}	<b>LOW, 93.474 %ABS</b>	0.020 - 0.400	19J1672
AB43425	SAXITOXIN	1.499 Abs	0.011 µg/L	<b>LOW, 90.574 %ABS</b>	0.020 - 0.400	19J1672
AB43425	SAXITOXIN	1.498 Abs [1.4985] {0.0 CV}	0.011 µg/L [0.011] {0.0 CV}	<b>LOW, 90.514 %ABS</b>	0.020 - 0.400	19J1672
AB43426	SAXITOXIN	1.609 Abs	0.004 µg/L	<b>LOW, 97.221 %ABS</b>	0.020 - 0.400	19J1672
AB43426	SAXITOXIN	1.589 Abs [1.5990] {0.9 CV}	0.005 µg/L [0.004] {1.0 CV}	<b>LOW, 96.012 %ABS</b>	0.020 - 0.400	19J1672
AB43427	SAXITOXIN	1.491 Abs	0.011 µg/L	<b>LOW, 90.091 %ABS</b>	0.020 - 0.400	19J1672
AB43427	SAXITOXIN	1.490 Abs [1.4905] {0.0 CV}	0.012 µg/L [0.012] {6.0 CV}	<b>LOW, 90.030 %ABS</b>	0.020 - 0.400	19J1672
AB43428	SAXITOXIN	1.460 Abs	0.013 µg/L	<b>LOW, 88.218 %ABS</b>	0.020 - 0.400	19J1672
AB43428	SAXITOXIN	1.490 Abs [1.4750] {1.4 CV}	0.012 µg/L [0.013] {5.0 CV}	<b>LOW, 90.030 %ABS</b>	0.020 - 0.400	19J1672
AB43429	SAXITOXIN	1.544 Abs	0.009 µg/L	<b>LOW, 93.293 %ABS</b>	0.020 - 0.400	19J1672
AB43429	SAXITOXIN	1.526 Abs [1.5350] {0.8 CV}	0.010 µg/L [0.009] {7.0 CV}	<b>LOW, 92.205 %ABS</b>	0.020 - 0.400	19J1672

**Note**

 Signature *David Jordan*

Date: 7/16/2020

**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: 20A2174

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>7/15/2020 5:03:59 PM</b>				
ATX Std 0	1.204 Abs		R <sup>2</sup> =0.99975, 100.838 %Abs	RK1:23->A01@2
ATX Std 0	1.184 Abs [1.1940] {1.2 CV}		R <sup>2</sup> =0.99975, 99.162 %Abs	RK1:23->B01@2
ATX Std 1	1.031 Abs		R <sup>2</sup> =0.99975, 86.348 %Abs	RK1:24->C01@2
ATX Std 1	1.048 Abs [1.0395] {1.2 CV}		R <sup>2</sup> =0.99975, 87.772 %Abs	RK1:24->D01@2
ATX Std 2	0.830 Abs		R <sup>2</sup> =0.99975, 69.514 %Abs	RK1:25->E01@2
ATX Std 2	0.823 Abs [0.8265] {0.6 CV}		R <sup>2</sup> =0.99975, 68.928 %Abs	RK1:25->F01@3
ATX Std 3	0.543 Abs		R <sup>2</sup> =0.99975, 45.477 %Abs	RK1:26->G01@3
ATX Std 3	0.546 Abs [0.5445] {0.4 CV}		R <sup>2</sup> =0.99975, 45.729 %Abs	RK1:26->H01@3
ATX Std 4	0.310 Abs		R <sup>2</sup> =0.99975, 25.963 %Abs	RK1:27->A02@2
ATX Std 4	0.305 Abs [0.3075] {1.1 CV}		R <sup>2</sup> =0.99975, 25.544 %Abs	RK1:27->B02@2
ATX Std 5	0.169 Abs		14.154 %Abs	RK1:28->C02@2
ATX Std 5	0.163 Abs [0.1660] {2.6 CV}		13.652 %Abs	RK1:28->D02@2
*****				
<b>7/15/2020 5:03:59 PM</b>				
ATX Control	0.625 Abs		52.345 %Abs	RK1:29->E02@2
ATX Control	0.602 Abs [0.6135] {2.7 CV}		50.419 %Abs [51.382 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
ATX Std 0 [MEAN]	1.1940			
ATX Std 0 [SD]	0.0141			
ATX Std 0 [%CV]	1.1844			
ATX Std 1 [MEAN]	1.0395			
ATX Std 1 [SD]	0.0120			
ATX Std 1 [%CV]	1.1564			
ATX Std 1 [%DIFF]				
ATX Std 2 [MEAN]	0.8265			
ATX Std 2 [SD]	0.0049			
ATX Std 2 [%CV]	0.5989			
ATX Std 2 [%DIFF]				
ATX Std 3 [MEAN]	0.5445			
ATX Std 3 [SD]	0.0021			
ATX Std 3 [%CV]	0.3896			
ATX Std 3 [%DIFF]				
ATX Std 4 [MEAN]	0.3075			
ATX Std 4 [SD]	0.0035			
ATX Std 4 [%CV]	1.1498			
ATX Std 4 [%DIFF]				
ATX Std 5 [MEAN]	0.1660			
ATX Std 5 [SD]	0.0042			
ATX Std 5 [%CV]	2.5558			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.6135			
ATX Control [SD]	0.0163			
ATX Control [%CV]	2.6509			

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.1960  
 B = 1.0745  
 C = 0.82668  
 D = 0.023647  
 R2 coef = 0.99975  
 50% = 0.861

