



## Saxitoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43619	Raccoon Lake SRA	7/27/2020	7/30/2020	<0.05
AB43620	Cagles Mill Lake Beach	7/27/2020	7/30/2020	<0.05
AB43621	Paynetown SRA	7/27/2020	7/30/2020	<0.05
AB43622	Starve Hollow SRA	7/28/2020	7/30/2020	0.14
AB43623	Whitewater Memorial SP	7/28/2020	7/30/2020	<0.05
AB43624	Quakertown SRA	7/28/2020	7/30/2020	<0.05
AB43625	Mounds SRA	7/28/2020	7/30/2020	<0.05
AB43626	Hardy Lake SRA	7/28/2020	7/30/2020	<0.05
AB43627	Ferdinand State Forest Lake	7/27/2020	7/30/2020	<0.05
AB43628	Patoka Lake	7/27/2020	7/30/2020	<0.05
AB43629	Raccoon Lake SRA (Field Duplicate)	7/27/2020	7/30/2020	<0.05
AB43630	Field Blank	7/27/2020	7/30/2020	<0.05

## Test Information

Request: 7/30/2020 5:17:59 PM  
Date: 7/30/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
STX Std 0	SAXITOXIN	1.675 Abs	0.000 µg/L	R^2=0.99965, 100.48		19L2082
STX Std 0	SAXITOXIN	1.659 Abs [1.6670] {0.7 CV}	0.001 µg/L [0.001] {1}	R^2=0.99965, 99.520		19L2082
STX Std 1	SAXITOXIN	1.313 Abs	0.019 µg/L	R^2=0.99965, 78.764		19L2082
STX Std 1	SAXITOXIN	1.286 Abs [1.2995] {1.5 CV}	0.021 µg/L [0.020] {7}	R^2=0.99965, 77.145		19L2082
STX Std 2	SAXITOXIN	0.914 Abs	0.049 µg/L	R^2=0.99965, 54.829		19L2082
STX Std 2	SAXITOXIN	0.905 Abs [0.9095] {0.7 CV}	0.050 µg/L [0.049] {1}	R^2=0.99965, 54.289		19L2082
STX Std 3	SAXITOXIN	0.576 Abs	0.103 µg/L	R^2=0.99965, 34.553		19L2082
STX Std 3	SAXITOXIN	0.572 Abs [0.5740] {0.5 CV}	0.104 µg/L [0.104] {0}	R^2=0.99965, 34.313		19L2082
STX Std 4	SAXITOXIN	0.382 Abs	0.182 µg/L	R^2=0.99965, 22.915		19L2082
STX Std 4	SAXITOXIN	0.365 Abs [0.3735] {3.2 CV}	0.194 µg/L [0.188] {4}	R^2=0.99965, 21.896		19L2082
STX Std 5	SAXITOXIN	0.220 Abs	> 0.400 µg/L	13.197 %Abs		19L2082
STX Std 5	SAXITOXIN	0.215 Abs [0.2175] {1.6 CV}	> 0.400 µg/L	12.897 %Abs		19L2082
STX Control (0.060-0.090)	SAXITOXIN	0.720 Abs	0.074 µg/L	43.191 %Abs		19L2082
STX Control (0.060-0.090)	SAXITOXIN	0.692 Abs [0.7060] {2.8 CV}	0.079 µg/L [0.076] {4}	41.512 %Abs [42.354]		19L2082

## Note

Signature David Jordan

Date: 7/30/2020

# Test Report (by Request)

## Test Information

Request: 7/30/2020 5:19:40 PM  
Date: 7/30/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.525 Abs	0.008 µg/L	<b>LOW, 91.482 %ABS</b>	0.020 - 0.400	19L2082
LRB	SAXITOXIN	1.536 Abs [1.5305] {0.5 CV}	0.007 µg/L [0.008] {9}	<b>LOW, 92.142 %ABS</b>	0.020 - 0.400	19L2082
LFB	SAXITOXIN	0.740 Abs	0.071 µg/L	44.391 %Abs	0.020 - 0.400	19L2082
LFB	SAXITOXIN	0.709 Abs [0.7245] {3.0 CV}	0.076 µg/L [0.074] {4}	42.531 %Abs [43.46]	0.020 - 0.400	19L2082
AB43619	SAXITOXIN	1.523 Abs	0.009 µg/L	<b>LOW, 91.362 %ABS</b>	0.020 - 0.400	19L2082
AB43619	SAXITOXIN	1.496 Abs [1.5095] {1.3 CV}	0.011 µg/L [0.010] {1}	<b>LOW, 89.742 %ABS</b>	0.020 - 0.400	19L2082
AB43620	SAXITOXIN	1.399 Abs	0.016 µg/L	<b>LOW, 83.923 %ABS</b>	0.020 - 0.400	19L2082
AB43620	SAXITOXIN	1.364 Abs [1.3815] {1.8 CV}	0.018 µg/L [0.017] {8}	<b>LOW, 81.824 %ABS</b>	0.020 - 0.400	19L2082
AB43621	SAXITOXIN	1.455 Abs	0.013 µg/L	<b>LOW, 87.283 %ABS</b>	0.020 - 0.400	19L2082
AB43621	SAXITOXIN	1.471 Abs [1.4630] {0.8 CV}	0.012 µg/L [0.013] {5}	<b>LOW, 88.242 %ABS</b>	0.020 - 0.400	19L2082
AB43622	SAXITOXIN	0.529 Abs	0.128 µg/L	31.734 %Abs	0.020 - 0.400	19L2082
AB43622	SAXITOXIN	0.491 Abs [0.5100] {5.3 CV}	0.142 µg/L [0.135] {7}	29.454 %Abs [30.594]	0.020 - 0.400	19L2082
AB43622MS	SAXITOXIN	0.356 Abs	0.200 µg/L	21.356 %Abs	0.020 - 0.400	19L2082
AB43622MS	SAXITOXIN	0.353 Abs [0.3545] {0.6 CV}	0.203 µg/L [0.201] {1}	21.176 %Abs [21.266]	0.020 - 0.400	19L2082
AB43622MSD	SAXITOXIN	0.349 Abs	0.206 µg/L	20.936 %Abs	0.020 - 0.400	19L2082
AB43622MSD	SAXITOXIN	0.337 Abs [0.3430] {2.5 CV}	0.216 µg/L [0.211] {3}	20.216 %Abs [20.576]	0.020 - 0.400	19L2082
AB43623	SAXITOXIN	1.466 Abs	0.012 µg/L	<b>LOW, 87.942 %ABS</b>	0.020 - 0.400	19L2082
AB43623	SAXITOXIN	1.479 Abs [1.4725] {0.6 CV}	0.011 µg/L [0.012] {6}	<b>LOW, 88.722 %ABS</b>	0.020 - 0.400	19L2082
AB43624	SAXITOXIN	1.599 Abs	0.004 µg/L	<b>LOW, 95.921 %ABS</b>	0.020 - 0.400	19L2082
AB43624	SAXITOXIN	1.542 Abs [1.5705] {2.6 CV}	0.008 µg/L [0.006] {4}	<b>LOW, 92.501 %ABS</b>	0.020 - 0.400	19L2082
AB43625	SAXITOXIN	1.496 Abs	0.011 µg/L	<b>LOW, 89.742 %ABS</b>	0.020 - 0.400	19L2082
AB43625	SAXITOXIN	1.493 Abs [1.4945] {0.1 CV}	0.011 µg/L [0.011] {0}	<b>LOW, 89.562 %ABS</b>	0.020 - 0.400	19L2082
AB43626	SAXITOXIN	1.247 Abs	0.025 µg/L	74.805 %Abs	0.020 - 0.400	19L2082
AB43626	SAXITOXIN	1.217 Abs [1.2320] {1.7 CV}	0.027 µg/L [0.026] {5}	73.005 %Abs [73.905]	0.020 - 0.400	19L2082
AB43627	SAXITOXIN	1.452 Abs	0.013 µg/L	<b>LOW, 87.103 %ABS</b>	0.020 - 0.400	19L2082
AB43627	SAXITOXIN	1.461 Abs [1.4565] {0.4 CV}	0.012 µg/L [0.013] {5}	<b>LOW, 87.642 %ABS</b>	0.020 - 0.400	19L2082
AB43628	SAXITOXIN	1.548 Abs	0.008 µg/L	<b>LOW, 92.861 %ABS</b>	0.020 - 0.400	19L2082
AB43628	SAXITOXIN	1.550 Abs [1.5490] {0.1 CV}	0.008 µg/L [0.008] {0}	<b>LOW, 92.981 %ABS</b>	0.020 - 0.400	19L2082
AB43629	SAXITOXIN	1.451 Abs	0.013 µg/L	<b>LOW, 87.043 %ABS</b>	0.020 - 0.400	19L2082
AB43629	SAXITOXIN	1.479 Abs [1.4650] {1.4 CV}	0.011 µg/L [0.012] {1}	<b>LOW, 88.722 %ABS</b>	0.020 - 0.400	19L2082
AB43630	SAXITOXIN	1.528 Abs	0.009 µg/L	<b>LOW, 91.662 %ABS</b>	0.020 - 0.400	19L2082
AB43630	SAXITOXIN	1.516 Abs [1.5220] {0.6 CV}	0.010 µg/L [0.009] {7}	<b>LOW, 90.942 %ABS</b>	0.020 - 0.400	19L2082

## Note

Signature David Jordan Type text here

Date: 7/30/2020

## 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: 19L2082

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
<b>7/30/2020 5:17:59 PM</b>				
STX Std 0	1.675 Abs		R <sup>2</sup> =0.99965, 100.480 %Abs	RK1:23->A01@2
STX Std 0	1.659 Abs [1.6670] {0.7 CV}		R <sup>2</sup> =0.99965, 99.520 %Abs	RK1:23->B01@2
STX Std 1	1.313 Abs		R <sup>2</sup> =0.99965, 78.764 %Abs	RK1:24->C01@2
STX Std 1	1.286 Abs [1.2995] {1.5 CV}		R <sup>2</sup> =0.99965, 77.145 %Abs	RK1:24->D01@2
STX Std 2	0.914 Abs		R <sup>2</sup> =0.99965, 54.829 %Abs	RK1:25->E01@2
STX Std 2	0.905 Abs [0.9095] {0.7 CV}		R <sup>2</sup> =0.99965, 54.289 %Abs	RK1:25->F01@3
STX Std 3	0.576 Abs		R <sup>2</sup> =0.99965, 34.553 %Abs	RK1:26->G01@3
STX Std 3	0.572 Abs [0.5740] {0.5 CV}		R <sup>2</sup> =0.99965, 34.313 %Abs	RK1:26->H01@3
STX Std 4	0.382 Abs		R <sup>2</sup> =0.99965, 22.915 %Abs	RK1:27->A02@2
STX Std 4	0.365 Abs [0.3735] {3.2 CV}		R <sup>2</sup> =0.99965, 21.896 %Abs	RK1:27->B02@2
STX Std 5	0.220 Abs		13.197 %Abs	RK1:28->C02@2
STX Std 5	0.215 Abs [0.2175] {1.6 CV}		12.897 %Abs	RK1:28->D02@2
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<b>7/30/2020 5:17:59 PM</b>				
STX Control (0.060-0.090)	0.720 Abs		43.191 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.692 Abs [0.7060] {2.8 CV}		41.512 %Abs [42.352 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
STX Std 0 [MEAN]	1.6670			
STX Std 0 [SD]	0.0113			
STX Std 0 [%CV]	0.6787			
STX Std 1 [MEAN]	1.2995			
STX Std 1 [SD]	0.0191			
STX Std 1 [%CV]	1.4692			
STX Std 1 [%DIFF]				
STX Std 2 [MEAN]	0.9095			
STX Std 2 [SD]	0.0064			
STX Std 2 [%CV]	0.6997			
STX Std 2 [%DIFF]				
STX Std 3 [MEAN]	0.5740			
STX Std 3 [SD]	0.0028			
STX Std 3 [%CV]	0.4928			
STX Std 3 [%DIFF]				
STX Std 4 [MEAN]	0.3735			
STX Std 4 [SD]	0.0120			
STX Std 4 [%CV]	3.2184			
STX Std 4 [%DIFF]				
STX Std 5 [MEAN]	0.2175			
STX Std 5 [SD]	0.0035			
STX Std 5 [%CV]	1.6255			

Name	Absorbance	Concentration	Interpretation	Position	
STX Control (0.060-0.090) [MEAN]	0.7060				
STX Control (0.060-0.090) [SD]	0.0198				
STX Control (0.060-0.090) [%CV]	2.8044				

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.6673  
 B = 1.2351  
 C = 0.051703  
 D = 0.11001  
 R2 coef = 0.99965  
 50% = 0.058

