



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43893	Raccoon Lake SRA	8/24/2020	8/26/2020	< 0.05
AB43895	Cagles Mill Lake Beach	8/24/2020	8/26/2020	< 0.05
AB43896	Paynetown SRA	8/24/2020	8/26/2020	< 0.05
AB43897	Fairfax SRA	8/24/2020	8/26/2020	< 0.05
AB43898	Starve Hollow SRA	8/24/2020	8/26/2020	0.11
AB43899	Whitewater Memorial SP	8/25/2020	8/26/2020	< 0.05
AB43900	Quakertown SRA	8/25/2020	8/26/2020	< 0.05
AB43901	Mounds SRA	8/25/2020	8/26/2020	< 0.05
AB43902	Hardy Lake SRA	8/25/2020	8/26/2020	< 0.05
AB43903	Ft. Harrison SP Dog Lake	8/25/2020	8/26/2020	< 0.05
AB43904	Ferdinand State Forest Lake	8/25/2020	8/26/2020	0.053
AB43905	Patoka Lake	8/25/2020	8/26/2020	< 0.05
AB43906	Paynetown SRA (Field Duplicate)	8/24/2020	8/26/2020	< 0.05
AB43907	Field Blank	8/24/2020	8/26/2020	< 0.05
AB43908	Kunkel Lake @ Ouabache SP (10x dilution)	8/24/2020	8/26/2020	0.68

Test Information

Request: 8/26/2020 5:37:45 PM

Date: 8/26/2020 - 8/26/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
STX Std 0	SAXITOXIN	1.678 Abs	0.000 µg/L	R ² =0.99972, 100.84		19L2082
STX Std 0	SAXITOXIN	1.650 Abs [1.6640] {1.2 CV}	0.001 µg/L [0.001] {1}	R ² =0.99972, 99.159		19L2082
STX Std 1	SAXITOXIN	1.310 Abs	0.019 µg/L	R ² =0.99972, 78.726		19L2082
STX Std 1	SAXITOXIN	1.291 Abs [1.3005] {1.0 CV}	0.020 µg/L [0.019] {5}	R ² =0.99972, 77.584		19L2082
STX Std 2	SAXITOXIN	0.934 Abs	0.048 µg/L	R ² =0.99972, 56.130		19L2082
STX Std 2	SAXITOXIN	0.898 Abs [0.9160] {2.8 CV}	0.052 µg/L [0.050] {5}	R ² =0.99972, 53.966		19L2082
STX Std 3	SAXITOXIN	0.597 Abs	0.101 µg/L	R ² =0.99972, 35.877		19L2082
STX Std 3	SAXITOXIN	0.579 Abs [0.5880] {2.2 CV}	0.105 µg/L [0.103] {2}	R ² =0.99972, 34.796		19L2082
STX Std 4	SAXITOXIN	0.395 Abs	0.180 µg/L	R ² =0.99972, 23.738		19L2082
STX Std 4	SAXITOXIN	0.367 Abs [0.3810] {5.2 CV}	0.199 µg/L [0.190] {7}	R ² =0.99972, 22.055		19L2082
STX Std 5	SAXITOXIN	0.224 Abs	> 0.400 µg/L	13.462 %Abs		19L2082
STX Std 5	SAXITOXIN	0.220 Abs [0.2220] {1.3 CV}	> 0.400 µg/L	13.221 %Abs		19L2082
STX Control (0.060-0.090)	SAXITOXIN	0.724 Abs	0.075 µg/L	43.510 %Abs		19L2082
STX Control (0.060-0.090)	SAXITOXIN	0.712 Abs [0.7180] {1.2 CV}	0.077 µg/L [0.076] {1}	42.788 %Abs [43.145]		19L2082

Note

Signature

David Jordan

Date: 08/26/2020

Test Report (by Request)

Test Information

 Request: 8/26/2020 5:40:53 PM
 Date: 8/26/2020 - 8/26/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.581 Abs	0.005 µg/L	LOW, 95.012 %ABS	0.020 - 0.400	19L2082
LRB	SAXITOXIN	1.601 Abs [1.5910] {0.9 CV}	0.004 µg/L [0.004] {1		0.020 - 0.400	19L2082
LFB	SAXITOXIN	0.784 Abs	0.066 µg/L	47.115 %Abs	0.020 - 0.400	19L2082
LFB	SAXITOXIN	0.747 Abs [0.7655] {3.4 CV}	0.071 µg/L [0.068] {5	44.892 %Abs [46.00	0.020 - 0.400	19L2082
AB43893	SAXITOXIN	1.521 Abs	0.009 µg/L	LOW, 91.406 %ABS	0.020 - 0.400	19L2082
AB43893	SAXITOXIN	1.544 Abs [1.5325] {1.1 CV}	0.008 µg/L [0.009] {8		0.020 - 0.400	19L2082
AB43895	SAXITOXIN	1.510 Abs	0.010 µg/L	LOW, 90.745 %ABS	0.020 - 0.400	19L2082
AB43895	SAXITOXIN	1.491 Abs [1.5005] {0.9 CV}	0.011 µg/L [0.010] {6		0.020 - 0.400	19L2082
AB43895MS	SAXITOXIN	0.687 Abs	0.081 µg/L	41.286 %Abs	0.020 - 0.400	19L2082
AB43895MS	SAXITOXIN	0.692 Abs [0.6895] {0.5 CV}	0.081 µg/L [0.081] {0	41.587 %Abs [41.43	0.020 - 0.400	19L2082
AB43895MSD	SAXITOXIN	0.701 Abs	0.079 µg/L	42.127 %Abs	0.020 - 0.400	19L2082
AB43895MSD	SAXITOXIN	0.669 Abs [0.6850] {3.3 CV}	0.085 µg/L [0.082] {5	40.204 %Abs [41.16	0.020 - 0.400	19L2082
AB43896	SAXITOXIN	1.262 Abs	0.024 µg/L	75.841 %Abs	0.020 - 0.400	19L2082
AB43896	SAXITOXIN	1.233 Abs [1.2475] {1.6 CV}	0.026 µg/L [0.025] {5	74.099 %Abs [74.97	0.020 - 0.400	19L2082
AB43897	SAXITOXIN	1.318 Abs	0.021 µg/L	79.207 %Abs	0.020 - 0.400	19L2082
AB43897	SAXITOXIN	1.314 Abs [1.3160] {0.2 CV}	0.021 µg/L [0.021] {0	78.966 %Abs [79.08	0.020 - 0.400	19L2082
AB43898	SAXITOXIN	0.616 Abs	0.106 µg/L	37.019 %Abs	0.020 - 0.400	19L2082
AB43898	SAXITOXIN	0.611 Abs [0.6135] {0.6 CV}	0.107 µg/L [0.106] {0	36.719 %Abs [36.86	0.020 - 0.400	19L2082
AB43899	SAXITOXIN	1.554 Abs	0.007 µg/L	LOW, 93.389 %ABS	0.020 - 0.400	19L2082
AB43899	SAXITOXIN	1.517 Abs [1.5355] {1.7 CV}	0.009 µg/L [0.008] {1		0.020 - 0.400	19L2082
AB43900	SAXITOXIN	1.510 Abs	0.010 µg/L	LOW, 90.745 %ABS	0.020 - 0.400	19L2082
AB43900	SAXITOXIN	1.492 Abs [1.5010] {0.8 CV}	0.011 µg/L [0.010] {6		0.020 - 0.400	19L2082
AB43901	SAXITOXIN	1.505 Abs	0.010 µg/L	LOW, 90.445 %ABS	0.020 - 0.400	19L2082
AB43901	SAXITOXIN	1.484 Abs [1.4945] {1.0 CV}	0.011 µg/L [0.010] {6		0.020 - 0.400	19L2082
AB43902	SAXITOXIN	1.342 Abs	0.020 µg/L	LOW, 80.649 %ABS	0.020 - 0.400	19L2082
AB43902	SAXITOXIN	1.342 Abs [1.3420] {0.0 CV}	0.020 µg/L [0.020] {0		0.020 - 0.400	19L2082
AB43903	SAXITOXIN	1.510 Abs	0.010 µg/L	LOW, 90.745 %ABS	0.020 - 0.400	19L2082
AB43903	SAXITOXIN	1.479 Abs [1.4945] {1.5 CV}	0.011 µg/L [0.010] {6		0.020 - 0.400	19L2082
AB43904	SAXITOXIN	0.933 Abs	0.053 µg/L	56.070 %Abs	0.020 - 0.400	19L2082
AB43904	SAXITOXIN	0.930 Abs [0.9315] {0.2 CV}	0.053 µg/L [0.053] {0	55.889 %Abs [55.98	0.020 - 0.400	19L2082
AB43905	SAXITOXIN	1.492 Abs	0.011 µg/L	LOW, 89.663 %ABS	0.020 - 0.400	19L2082
AB43905	SAXITOXIN	1.474 Abs [1.4830] {0.9 CV}	0.011 µg/L [0.011] {0		0.020 - 0.400	19L2082
AB43906	SAXITOXIN	1.330 Abs	0.020 µg/L	LOW, 79.928 %ABS	0.020 - 0.400	19L2082
AB43906	SAXITOXIN	1.341 Abs [1.3355] {0.6 CV}	0.020 µg/L [0.020] {0		0.020 - 0.400	19L2082
AB43907	SAXITOXIN	1.623 Abs	0.003 µg/L	LOW, 97.536 %ABS	0.020 - 0.400	19L2082
AB43907	SAXITOXIN	1.610 Abs [1.6165] {0.6 CV}	0.003 µg/L [0.003] {0		0.020 - 0.400	19L2082
AB43908	SAXITOXIN	0.155 Abs	> 0.400 µg/L	9.315 %Abs, Out(LR)	0.020 - 0.400	19L2082
AB43908	SAXITOXIN	0.151 Abs [0.1530] {1.8 CV}	> 0.400 µg/L	9.075 %Abs, Out(LR)	0.020 - 0.400	19L2082
AB43908 10X	SAXITOXIN	0.786 Abs	0.660 µg/L	HIGH, 47.236 %ABS	0.020 - 0.400	19L2082
AB43908 10X	SAXITOXIN	0.758 Abs [0.7720] {2.6 CV}	0.700 µg/L [0.680] {4		0.020 - 0.400	19L2082

Note

 Signature *David Jordan*

Date: 08/26/2020

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: "

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Name	Absorbance	Concentration	Interpretation	Position
8/26/2020 5:37:45 PM				
STX Std 0	1.678 Abs		R ² =0.99972, 100.841 %Abs	RK1:23->A01@2
STX Std 0	1.650 Abs [1.6640] {1.2 CV}		R ² =0.99972, 99.159 %Abs	RK1:23->B01@2
STX Std 1	1.310 Abs		R ² =0.99972, 78.726 %Abs	RK1:24->C01@2
STX Std 1	1.291 Abs [1.3005] {1.0 CV}		R ² =0.99972, 77.584 %Abs	RK1:24->D01@2
STX Std 2	0.934 Abs		R ² =0.99972, 56.130 %Abs	RK1:25->E01@2
STX Std 2	0.898 Abs [0.9160] {2.8 CV}		R ² =0.99972, 53.966 %Abs	RK1:25->F01@3
STX Std 3	0.597 Abs		R ² =0.99972, 35.877 %Abs	RK1:26->G01@3
STX Std 3	0.579 Abs [0.5880] {2.2 CV}		R ² =0.99972, 34.796 %Abs	RK1:26->H01@3
STX Std 4	0.395 Abs		R ² =0.99972, 23.738 %Abs	RK1:27->A02@2
STX Std 4	0.367 Abs [0.3810] {5.2 CV}		R ² =0.99972, 22.055 %Abs	RK1:27->B02@2
STX Std 5	0.224 Abs		13.462 %Abs	RK1:28->C02@2
STX Std 5	0.220 Abs [0.2220] {1.3 CV}		13.221 %Abs	RK1:28->D02@2

8/26/2020 5:37:45 PM				
STX Control (0.060-0.090)	0.724 Abs		43.510 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.712 Abs [0.7180] {1.2 CV}		42.788 %Abs [43.149 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.6640			
STX Std 0 [SD]	0.0198			
STX Std 0 [%CV]	1.1898			
STX Std 1 [MEAN]	1.3005			
STX Std 1 [SD]	0.0134			
STX Std 1 [%CV]	1.0331			
STX Std 1 [%DIFF]				
STX Std 2 [MEAN]	0.9160			
STX Std 2 [SD]	0.0255			
STX Std 2 [%CV]	2.7790			
STX Std 2 [%DIFF]				
STX Std 3 [MEAN]	0.5880			
STX Std 3 [SD]	0.0127			
STX Std 3 [%CV]	2.1646			
STX Std 3 [%DIFF]				
STX Std 4 [MEAN]	0.3810			
STX Std 4 [SD]	0.0198			
STX Std 4 [%CV]	5.1966			
STX Std 4 [%DIFF]				
STX Std 5 [MEAN]	0.2220			
STX Std 5 [SD]	0.0028			
STX Std 5 [%CV]	1.2741			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7180			
STX Control (0.060-0.090) [SD]	0.0085			
STX Control (0.060-0.090) [%CV]	1.1818			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.6646
 B = 1.2120
 C = 0.053108
 D = 0.10498
 R2 coef = 0.99972
 50% = 0.059

