



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)	% Recovery
LRB 1	Lab Reagent Blank	8/21/2019	8/21/2019	<0.050	
LFB 1	Lab Fortified Blank (Spike = 0.10 ppb)	8/21/2019	8/21/2019	0.069	69
AB40163	Miami SRA at Mississinewa Lake	8/19/2019	8/21/2019	<0.050	
AB40162	Field Blank	8/19/2019	8/21/2019	<0.050	
AB40152	Raccoon Lake SRA	8/19/2019	8/21/2019	<0.050	
AB40157	Whitewater Memorial SP	8/20/2019	8/21/2019	<0.050	
AB40157MS	Whitewater Memorial SP MS (Spk. = 0.10 ppb)	8/20/2019	8/21/2019	0.079	69
AB40157MSD	Whitewater Memorial SP MSD (Spk. = 0.10 ppb)	8/20/2019	8/21/2019	0.082	72
AB40151	Quakertown SRA	8/20/2019	8/21/2019	<0.050	
AB40155	Mounds SRA	8/20/2019	8/21/2019	<0.050	
AB40156	Paynetown SRA	8/19/2019	8/21/2019	0.16	
AB40153	Fairfax SRA	8/19/2019	8/21/2019	0.20	
AB40154	Hardy Lake SRA	8/19/2019	8/21/2019	0.062	
AB40158	Field Blank	8/20/2019	8/21/2019	<0.050	
AB40159	Mounds SRA Field Duplicate	8/20/2019	8/21/2019	<0.050	
LRB 2	Lab Reagent Blank 2	8/21/2019	8/21/2019	<0.050	
LFB 2	Lab Fortified Blank 2 (Spike = 0.10 ppb)	8/21/2019	8/21/2019	0.085	85

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:

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 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: 19G0236

Assay Calibration

Current Calibration Status: "

"

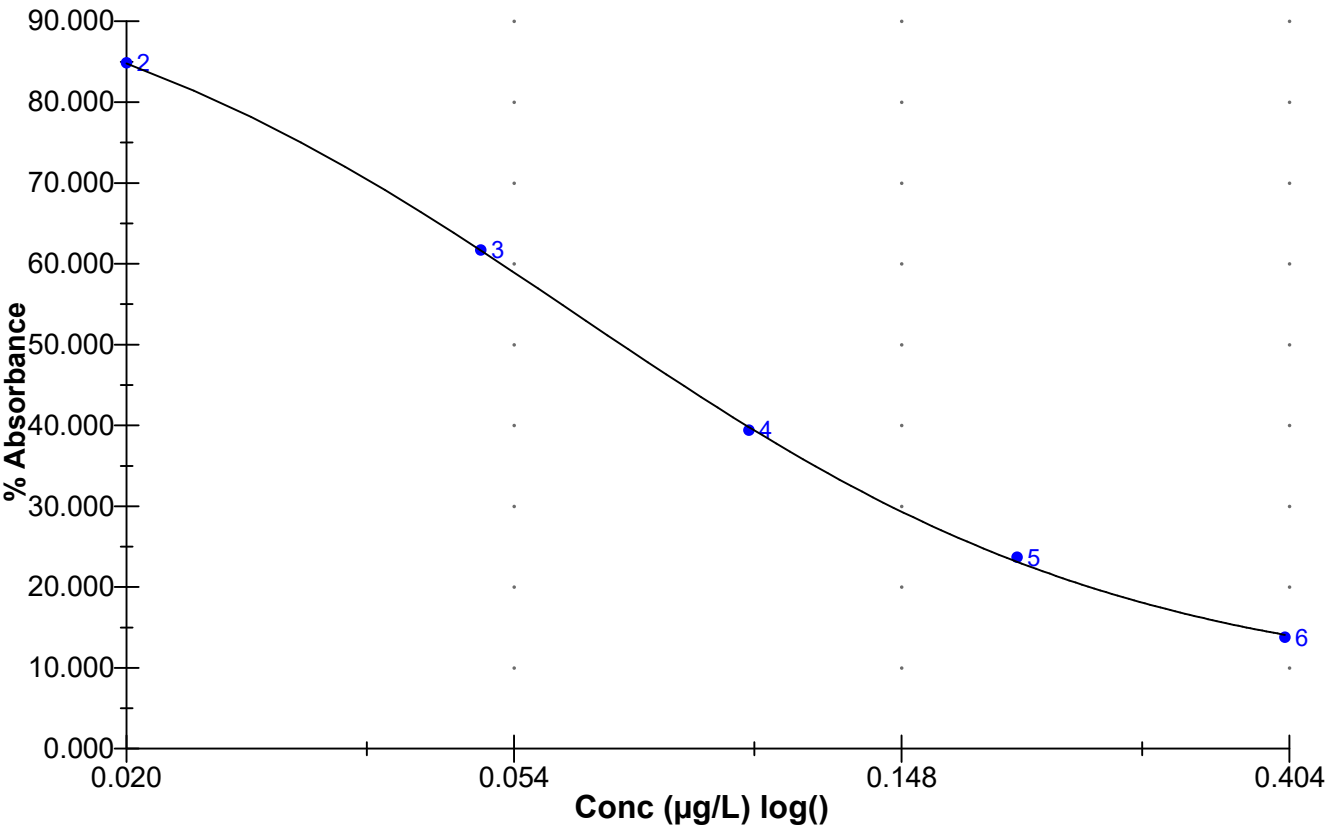
Name	Absorbance	Concentration	Interpretation	Position
8/21/2019 11:51:48 AM				
STX Std 0	1.611 Abs		R ² =0.99990, 101.576 %Abs	RK1:23->A01@2
STX Std 0	1.562 Abs [1.5865] {2.2 CV}		R ² =0.99990, 98.487 %Abs	RK1:23->B01@2
STX Std 1	1.341 Abs		R ² =0.99990, 84.552 %Abs	RK1:24->C01@2
STX Std 1	1.351 Abs [1.3460] {0.5 CV}		R ² =0.99990, 85.183 %Abs	RK1:24->D01@2
STX Std 2	1.007 Abs		R ² =0.99990, 63.493 %Abs	RK1:25->E01@2
STX Std 2	0.951 Abs [0.9790] {4.0 CV}		R ² =0.99990, 59.962 %Abs	RK1:25->F01@3
STX Std 3	0.633 Abs		R ² =0.99990, 39.912 %Abs	RK1:26->G01@3
STX Std 3	0.618 Abs [0.6255] {1.7 CV}		R ² =0.99990, 38.966 %Abs	RK1:26->H01@3
STX Std 4	0.381 Abs		R ² =0.99990, 24.023 %Abs	RK1:27->A02@2
STX Std 4	0.371 Abs [0.3760] {1.9 CV}		R ² =0.99990, 23.392 %Abs	RK1:27->B02@2
STX Std 5	0.221 Abs		13.934 %Abs	RK1:28->C02@2
STX Std 5	0.217 Abs [0.2190] {1.3 CV}		13.682 %Abs	RK1:28->D02@2
+++++				
8/21/2019 11:51:48 AM				
STX Control (0.060-0.090)	0.797 Abs		50.252 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.764 Abs [0.7805] {3.0 CV}		48.172 %Abs [49.212 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.5865			
STX Std 0 [SD]	0.0346			
STX Std 0 [%CV]	2.1839			
STX Std 1 [MEAN]	1.3460			
STX Std 1 [SD]	0.0071			
STX Std 1 [%CV]	0.5253			
STX Std 1 [%DIFF]				
STX Std 2 [MEAN]	0.9790			
STX Std 2 [SD]	0.0396			
STX Std 2 [%CV]	4.0447			
STX Std 2 [%DIFF]				
STX Std 3 [MEAN]	0.6255			
STX Std 3 [SD]	0.0106			
STX Std 3 [%CV]	1.6957			
STX Std 3 [%DIFF]				
STX Std 4 [MEAN]	0.3760			
STX Std 4 [SD]	0.0071			
STX Std 4 [%CV]	1.8806			
STX Std 4 [%DIFF]				
STX Std 5 [MEAN]	0.2190			
STX Std 5 [SD]	0.0028			
STX Std 5 [%CV]	1.2915			

Name	Absorbance	Concentration	Interpretation	Position	
STX Control (0.060-0.090) [MEAN]	0.7805				
STX Control (0.060-0.090) [SD]	0.0233				
STX Control (0.060-0.090) [%CV]	2.9897				

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.5868
 B = 1.3939
 C = 0.064097
 D = 0.11723
 R2 coef = 0.99990
 50% = 0.072



Test Information

Request: 8/21/2019 11:51:48 AM
Date: 8/21/2019

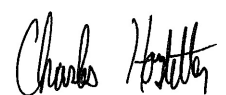
Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #	
STX Std 0	SAXITOXIN	1.611 Abs	0.000 µg/L	R^2=0.99990, 101.57		19G0236	
STX Std 0	SAXITOXIN	1.562 Abs [1.5865] {2.2 CV}	0.003 µg/L [0.002] {1.7 CV}	R^2=0.99990, 98.487		19G0236	
STX Std 1	SAXITOXIN	1.341 Abs	0.020 µg/L	R^2=0.99990, 84.552		19G0236	
STX Std 1	SAXITOXIN	1.351 Abs [1.3460] {0.5 CV}	0.020 µg/L [0.020] {0.5 CV}	R^2=0.99990, 85.183		19G0236	
STX Std 2	SAXITOXIN	1.007 Abs	0.047 µg/L	R^2=0.99990, 63.493		19G0236	
STX Std 2	SAXITOXIN	0.951 Abs [0.9790] {4.0 CV}	0.053 µg/L [0.050] {8.0 CV}	R^2=0.99990, 59.962		19G0236	
STX Std 3	SAXITOXIN	0.633 Abs	0.100 µg/L	R^2=0.99990, 39.912		19G0236	
STX Std 3	SAXITOXIN	0.618 Abs [0.6255] {1.7 CV}	0.103 µg/L [0.102] {2.0 CV}	R^2=0.99990, 38.966		19G0236	
STX Std 4	SAXITOXIN	0.381 Abs	0.191 µg/L	R^2=0.99990, 24.023		19G0236	
STX Std 4	SAXITOXIN	0.371 Abs [0.3760] {1.9 CV}	0.197 µg/L [0.194] {2.0 CV}	R^2=0.99990, 23.392		19G0236	
STX Std 5	SAXITOXIN	0.221 Abs	> 0.400 µg/L	13.934 %Abs		19G0236	
STX Std 5	SAXITOXIN	0.217 Abs [0.2190] {1.3 CV}	> 0.400 µg/L	13.682 %Abs		19G0236	
STX Control (0.060-0.090)	SAXITOXIN	0.797 Abs	0.071 µg/L	50.252 %Abs		19G0236	
STX Control (0.060-0.090)	SAXITOXIN	0.764 Abs [0.7805] {3.0 CV}	0.076 µg/L [0.074] {4.0 CV}	48.172 %Abs [49.212]		19G0236	

Test Report (by Request)

Test Information

Request: 8/21/2019 11:56:28 AM
Date: 8/21/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.590 Abs	0.000 µg/L	LOW, 100.252 %ABS	0.020 - 0.400	19G0236
LRB	SAXITOXIN	1.584 Abs [1.5870] {0.3 CV}	0.001 µg/L [0.001] {1}	LOW, 99.874 %ABS	0.020 - 0.400	19G0236
LFB	SAXITOXIN	0.815 Abs	0.069 µg/L	51.387 %Abs	0.020 - 0.400	19G0236
LFB	SAXITOXIN	0.809 Abs [0.8120] {0.5 CV}	0.070 µg/L [0.069] {1}	51.009 %Abs [51.198]	0.020 - 0.400	19G0236
AB40163	SAXITOXIN	1.399 Abs	0.018 µg/L	LOW, 88.209 %ABS	0.020 - 0.400	19G0236
AB40163	SAXITOXIN	1.416 Abs [1.4075] {0.9 CV}	0.016 µg/L [0.017] {8}	LOW, 89.281 %ABS	0.020 - 0.400	19G0236
AB40163LD	SAXITOXIN	1.414 Abs	0.016 µg/L	LOW, 89.155 %ABS	0.020 - 0.400	19G0236
AB40163LD	SAXITOXIN	1.404 Abs [1.4090] {0.5 CV}	0.018 µg/L [0.017] {8}	LOW, 88.525 %ABS	0.020 - 0.400	19G0236
AB40162	SAXITOXIN	1.562 Abs	0.003 µg/L	LOW, 98.487 %ABS	0.020 - 0.400	19G0236
AB40162	SAXITOXIN	1.587 Abs [1.5745] {1.1 CV}	0.000 µg/L [0.002] {1}	LOW, 100.000 %ABS	0.020 - 0.400	19G0236
AB40152	SAXITOXIN	1.539 Abs	0.007 µg/L	LOW, 97.037 %ABS	0.020 - 0.400	19G0236
AB40152	SAXITOXIN	1.535 Abs [1.5370] {0.2 CV}	0.007 µg/L [0.007] {0}	LOW, 96.784 %ABS	0.020 - 0.400	19G0236
AB40157	SAXITOXIN	1.489 Abs	0.011 µg/L	LOW, 93.884 %ABS	0.020 - 0.400	19G0236
AB40157	SAXITOXIN	1.503 Abs [1.4960] {0.7 CV}	0.010 µg/L [0.010] {6}	LOW, 94.767 %ABS	0.020 - 0.400	19G0236
AB40157MS	SAXITOXIN	0.755 Abs	0.078 µg/L	47.604 %Abs	0.020 - 0.400	19G0236
AB40157MS	SAXITOXIN	0.739 Abs [0.7470] {1.5 CV}	0.080 µg/L [0.079] {1}	46.595 %Abs [47.100]	0.020 - 0.400	19G0236
AB40157MSD	SAXITOXIN	0.736 Abs	0.081 µg/L	46.406 %Abs	0.020 - 0.400	19G0236
AB40157MSD	SAXITOXIN	0.728 Abs [0.7320] {0.8 CV}	0.082 µg/L [0.082] {0}	45.902 %Abs [46.154]	0.020 - 0.400	19G0236
AB40151	SAXITOXIN	1.505 Abs	0.009 µg/L	LOW, 94.893 %ABS	0.020 - 0.400	19G0236
AB40151	SAXITOXIN	1.508 Abs [1.5065] {0.1 CV}	0.009 µg/L [0.009] {0}	LOW, 95.082 %ABS	0.020 - 0.400	19G0236
AB40155	SAXITOXIN	1.510 Abs	0.009 µg/L	LOW, 95.208 %ABS	0.020 - 0.400	19G0236
AB40155	SAXITOXIN	1.503 Abs [1.5065] {0.3 CV}	0.010 µg/L [0.009] {7}	LOW, 94.767 %ABS	0.020 - 0.400	19G0236
AB40156	SAXITOXIN	0.467 Abs	0.163 µg/L	29.445 %Abs	0.020 - 0.400	19G0236
AB40156	SAXITOXIN	0.457 Abs [0.4620] {1.5 CV}	0.167 µg/L [0.165] {1}	28.815 %Abs [29.130]	0.020 - 0.400	19G0236
AB40153	SAXITOXIN	0.393 Abs	0.201 µg/L	24.779 %Abs	0.020 - 0.400	19G0236
AB40153	SAXITOXIN	0.405 Abs [0.3990] {2.1 CV}	0.195 µg/L [0.198] {2}	25.536 %Abs [25.158]	0.020 - 0.400	19G0236
AB40154	SAXITOXIN	0.924 Abs	0.062 µg/L	58.260 %Abs	0.020 - 0.400	19G0236
AB40154	SAXITOXIN	0.925 Abs [0.9245] {0.1 CV}	0.062 µg/L [0.062] {0}	58.323 %Abs [58.294]	0.020 - 0.400	19G0236
AB40158	SAXITOXIN	1.499 Abs	0.010 µg/L	LOW, 94.515 %ABS	0.020 - 0.400	19G0236
AB40158	SAXITOXIN	1.499 Abs [1.4990] {0.0 CV}	0.010 µg/L [0.010] {0}	LOW, 94.515 %ABS	0.020 - 0.400	19G0236
AB40159	SAXITOXIN	1.533 Abs	0.007 µg/L	LOW, 96.658 %ABS	0.020 - 0.400	19G0236
AB40159	SAXITOXIN	1.539 Abs [1.5360] {0.3 CV}	0.007 µg/L [0.007] {0}	LOW, 97.037 %ABS	0.020 - 0.400	19G0236
LRB 2	SAXITOXIN	1.583 Abs	0.001 µg/L	LOW, 99.811 %ABS	0.020 - 0.400	19G0236
LRB 2	SAXITOXIN	1.581 Abs [1.5820] {0.1 CV}	0.001 µg/L [0.001] {0}	LOW, 99.685 %ABS	0.020 - 0.400	19G0236
LFB 2	SAXITOXIN	0.752 Abs	0.078 µg/L	47.415 %Abs	0.020 - 0.400	19G0236
LFB 2	SAXITOXIN	0.671 Abs [0.7115] {8.0 CV}	0.092 µg/L [0.085] {1}	42.308 %Abs [44.864]	0.020 - 0.400	19G0236



Charles Hostetter 8/21/19