



## 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	7/10/2019	7/10/2019	<0.050	
LFB 1	Lab Fortified Blank	7/10/2019	7/10/2019	<0.050	37
AB39825	Hardy Lake SRA	7/8/2019	7/10/2019	0.064	
AB39825MS	Hardy Lake SRA Matrix Spike	7/8/2019	7/10/2019	0.100	36
AB39825MSD	Hardy Lake SRA Matrix Spike Dup.	7/8/2019	7/10/2019	0.106	42
AB39824	Deam Lake SRA	7/8/2019	7/10/2019	<0.050	
AB39821	Deam Lake SRA Field Dup.	7/8/2019	7/10/2019	<0.050	
AB39822	Field Blank	7/8/2019	7/10/2019	<0.050	
AB39823	Starve Hollow SRA	7/8/2019	7/10/2019	<0.050	
AB39829	Raccoon Lake SRA	7/8/2019	7/10/2019	<0.050	
AB39826	Raccoon Lake SRA Field Dup.	7/8/2019	7/10/2019	<0.050	
AB39827	Field Blank	7/8/2019	7/10/2019	<0.050	
AB39831	Whitewater Memorial SP	7/8/2019	7/10/2019	<0.050	
AB39828	Quakertown SRA	7/8/2019	7/10/2019	<0.050	
AB39830	Mounds SRA	7/8/2019	7/10/2019	<0.050	
LRB 2	Lab Reagent Blank 2	7/10/2019	7/10/2019	<0.050	
LFB 2	Lab Fortified Blank 2	7/10/2019	7/10/2019	<0.050	44

## Test Information

Request: 7/10/2019 12:57:07 PM  
Date: 7/9/2019 - 7/10/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
STX Std 0	SAXITOXIN	1.001 Abs	0.003 µg/L	R^2=0.99920	0.000
STX Std 0	SAXITOXIN	1.042 Abs [1.0215] {2.8 CV}	0.000 µg/L [0.002] {141.1}	R^2=0.99920	0.000
STX Std 1	SAXITOXIN	0.848 Abs	0.019 µg/L	R^2=0.99920	0.020
STX Std 1	SAXITOXIN	0.824 Abs [0.8360] {2.0 CV}	0.022 µg/L [0.021] {10.3}	R^2=0.99920	0.020
STX Std 2	SAXITOXIN	0.617 Abs	0.047 µg/L	R^2=0.99920	0.050
STX Std 2	SAXITOXIN	0.600 Abs [0.6085] {2.0 CV}	0.050 µg/L [0.049] {4.4}	R^2=0.99920	0.050
STX Std 3	SAXITOXIN	0.381 Abs	0.102 µg/L	R^2=0.99920	0.100
STX Std 3	SAXITOXIN	0.365 Abs [0.3730] {3.0 CV}	0.108 µg/L [0.105] {4.0}	R^2=0.99920	0.100
STX Std 4	SAXITOXIN	0.235 Abs	0.188 µg/L	R^2=0.99920	0.200
STX Std 4	SAXITOXIN	0.240 Abs [0.2375] {1.5 CV}	0.183 µg/L [0.185] {1.9}	R^2=0.99920	0.200
STX Std 5	SAXITOXIN	0.127 Abs	> 0.400 µg/L		0.400
STX Std 5	SAXITOXIN	0.123 Abs [0.1250] {2.3 CV}	> 0.400 µg/L		0.400
STX Control (0.060-0.090)	SAXITOXIN	0.486 Abs	0.072 µg/L		0.075 +-0.010
STX Control (0.060-0.090)	SAXITOXIN	0.469 Abs [0.4775] {2.5 CV}	0.076 µg/L [0.074] {3.8}		0.075 +-0.010
LRB 1	SAXITOXIN	1.003 Abs	0.003 µg/L	LOW	0.020 - 0.040
LRB 1	SAXITOXIN	0.977 Abs [0.9900] {1.9 CV}	0.006 µg/L [0.004] {47.1}	LOW [LOW]	0.020 - 0.040
LFB 1	SAXITOXIN	0.691 Abs	0.037 µg/L		0.020 - 0.040
LFB 1	SAXITOXIN	0.691 Abs [0.6910] {0.0 CV}	0.037 µg/L [0.037] {0.0}		0.020 - 0.040
AB39825	SAXITOXIN	0.562 Abs	0.063 µg/L		0.020 - 0.040
AB39825	SAXITOXIN	0.554 Abs [0.5580] {1.0 CV}	0.064 µg/L [0.064] {1.1}		0.020 - 0.040
AB39825MS	SAXITOXIN	0.396 Abs	0.097 µg/L		0.020 - 0.040
AB39825MS	SAXITOXIN	0.382 Abs [0.3890] {2.5 CV}	0.102 µg/L [0.100] {3.6}		0.020 - 0.040
AB39825MSD	SAXITOXIN	0.375 Abs	0.104 µg/L		0.020 - 0.040
AB39825MSD	SAXITOXIN	0.367 Abs [0.3710] {1.5 CV}	0.108 µg/L [0.106] {2.7}		0.020 - 0.040
AB39824	SAXITOXIN	1.028 Abs	0.000 µg/L	LOW	0.020 - 0.040
AB39824	SAXITOXIN	1.026 Abs [1.0270] {0.1 CV}	0.000 µg/L [0.000]	LOW	0.020 - 0.040
AB39821	SAXITOXIN	0.987 Abs	0.005 µg/L	LOW	0.020 - 0.040
AB39821	SAXITOXIN	1.005 Abs [0.9960] {1.3 CV}	0.003 µg/L [0.004] {35.4}	LOW	0.020 - 0.040
AB39822	SAXITOXIN	0.983 Abs	0.005 µg/L	LOW	0.020 - 0.040
AB39822	SAXITOXIN	0.967 Abs [0.9750] {1.2 CV}	0.008 µg/L [0.007] {32.6}	LOW	0.020 - 0.040
AB39823	SAXITOXIN	0.909 Abs	0.014 µg/L	LOW	0.020 - 0.040
AB39823	SAXITOXIN	0.887 Abs [0.8980] {1.7 CV}	0.016 µg/L [0.015] {9.4}	LOW	0.020 - 0.040
AB39829	SAXITOXIN	0.984 Abs	0.005 µg/L	LOW	0.020 - 0.040
AB39829	SAXITOXIN	0.981 Abs [0.9825] {0.2 CV}	0.007 µg/L [0.006] {23.6}	LOW	0.020 - 0.040
AB39826	SAXITOXIN	0.969 Abs	0.008 µg/L	LOW	0.020 - 0.040
AB39826	SAXITOXIN	0.956 Abs [0.9625] {1.0 CV}	0.009 µg/L [0.009] {8.3}	LOW	0.020 - 0.040
AB39827	SAXITOXIN	1.000 Abs	0.003 µg/L	LOW	0.020 - 0.040
AB39827	SAXITOXIN	1.004 Abs [1.0020] {0.3 CV}	0.003 µg/L [0.003] {0.0}	LOW	0.020 - 0.040
AB39831	SAXITOXIN	0.972 Abs	0.008 µg/L	LOW	0.020 - 0.040
AB39831	SAXITOXIN	0.968 Abs [0.9700] {0.3 CV}	0.008 µg/L [0.008] {0.0}	LOW	0.020 - 0.040
AB39828	SAXITOXIN	0.967 Abs	0.008 µg/L	LOW	0.020 - 0.040
AB39828	SAXITOXIN	0.962 Abs [0.9645] {0.4 CV}	0.009 µg/L [0.009] {8.3}	LOW	0.020 - 0.040
AB39830	SAXITOXIN	0.956 Abs	0.009 µg/L	LOW	0.020 - 0.040
AB39830	SAXITOXIN	0.935 Abs [0.9455] {1.6 CV}	0.011 µg/L [0.010] {14.1}	LOW	0.020 - 0.040
LRB 2	SAXITOXIN	1.041 Abs	0.000 µg/L	LOW	0.020 - 0.040
LRB 2	SAXITOXIN	1.023 Abs [1.0320] {1.2 CV}	0.000 µg/L [0.000]	LOW [LOW]	0.020 - 0.040
LFB 2	SAXITOXIN	0.647 Abs	0.043 µg/L		0.020 - 0.040
LFB 2	SAXITOXIN	0.636 Abs [0.6415] {1.2 CV}	0.045 µg/L [0.044] {3.2}		0.020 - 0.040



# Test Report (by Request)

Note

Signature 

Charles Hostetter 7/12/2019



# SAXITOXIN - Assay Calibration Report

## Assay Information

Assay Name: SAXITOXIN  
Version: 1  
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: 7 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: 12/5/2017 3:33:23 PM  
Normal: 0.020 - 0.400  
# of decimals: 3

## Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position	
7/10/2019 12:57:07 PM					
STX Std 0	1.001 Abs	0.003 µg/L	R^2=0.99920	RK1:23->A01@2	
STX Std 0	1.042 Abs [1.0215] {2.8 CV}	0.000 µg/L [0.002] {141.4 CV}	R^2=0.99920	RK1:23->B01@2	
STX Std 1	0.848 Abs	0.019 µg/L	R^2=0.99920	RK1:24->C01@2	
STX Std 1	0.824 Abs [0.8360] {2.0 CV}	0.022 µg/L [0.021] {10.3 CV}	R^2=0.99920	RK1:24->D01@2	
STX Std 2	0.617 Abs	0.047 µg/L	R^2=0.99920	RK1:25->E01@2	
STX Std 2	0.600 Abs [0.6085] {2.0 CV}	0.050 µg/L [0.049] {4.4 CV}	R^2=0.99920	RK1:25->F01@3	
STX Std 3	0.381 Abs	0.102 µg/L	R^2=0.99920	RK1:26->G01@3	
STX Std 3	0.365 Abs [0.3730] {3.0 CV}	0.108 µg/L [0.105] {4.0 CV}	R^2=0.99920	RK1:26->H01@3	
STX Std 4	0.235 Abs	0.188 µg/L	R^2=0.99920	RK1:27->A02@2	
STX Std 4	0.240 Abs [0.2375] {1.5 CV}	0.183 µg/L [0.185] {1.9 CV}	R^2=0.99920	RK1:27->B02@2	
STX Std 5	0.127 Abs	> 0.400 µg/L		RK1:28->C02@2	
STX Std 5	0.123 Abs [0.1250] {2.3 CV}	> 0.400 µg/L		RK1:28->D02@2	
+++++					
7/10/2019 12:57:07 PM					
STX Control (0.060-0.090)	0.486 Abs	0.072 µg/L		RK1:29->E02@2	
STX Control (0.060-0.090)	0.469 Abs [0.4775] {2.5 CV}	0.076 µg/L [0.074] {3.8 CV}		RK1:29->F02@3	
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Statistic					
STX Std 0 [MEAN]	1.0215	0.0015			
STX Std 0 [SD]	0.0290	0.0021			
STX Std 0 [%CV]	2.8381	141.4214			
STX Std 1 [MEAN]	0.8360	0.0205			
STX Std 1 [SD]	0.0170	0.0021			
STX Std 1 [%CV]	2.0300	10.3479			
STX Std 1 [%DIFF]		2.5000			
STX Std 2 [MEAN]	0.6085	0.0485			
STX Std 2 [SD]	0.0120	0.0021			
STX Std 2 [%CV]	1.9755	4.3739			
STX Std 2 [%DIFF]		-3.0000			
STX Std 3 [MEAN]	0.3730	0.1050			
STX Std 3 [SD]	0.0113	0.0042			
STX Std 3 [%CV]	3.0332	4.0406			
STX Std 3 [%DIFF]		5.0000			
STX Std 4 [MEAN]	0.2375	0.1855			
STX Std 4 [SD]	0.0035	0.0035			
STX Std 4 [%CV]	1.4886	1.9059			
STX Std 4 [%DIFF]		-7.2500			
STX Std 5 [MEAN]	0.1250				
STX Std 5 [SD]	0.0028				
STX Std 5 [%CV]	2.2627				

Name	Absorbance	Concentration	Interpretation	Position	
STX Control (0.060-0.090) [MEAN]	0.4775	0.0740			
STX Control (0.060-0.090) [SD]	0.0120	0.0028			
STX Control (0.060-0.090) [%CV]	2.5174	3.8222			
STX Control (0.060-0.090) [%DIFF]		-1.3333			

Assay Curve

y = (A-D)/(1+(x/C)^B) + D  
Weight: NONE  
A = 1.0218  
B = 1.3007  
C = 0.061180  
D = 0.053062  
R2 coef = 0.99916

