



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC02954	Cecil M. Harden Lake - Raccoon Lake SRA Beach	5/30/2023	6/1/2023	< 0.050
AC02955	Whitewater Memorial SP - Whitewater Lake Beach	5/30/2023	6/1/2023	< 0.050
AC02956	Brookville Lake - Quakertown SRA Beach	5/30/2023	6/1/2023	< 0.050
AC02957	Brookville Lake - Mounds SRA Beach	5/30/2023	6/1/2023	< 0.050
AC02958	Whitewater Memorial SP - Whitewater Lake Beach (Field Dup)	5/30/2023	6/1/2023	< 0.050
AC02959	Field Blank	5/30/2023	6/1/2023	< 0.050

Test Report (by Request)

Test Information

Request: 6/1/2023 1:32:41 PM
Date: 6/1/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.375 Abs	0.002 µg/L	R^2=0.99946, 99.3%			M22L2865
STX Std 0	SAXITOXIN	1.393 Abs [1.3840] {0.9 C	0.000 µg/L [0.001]	R^2=0.99946, 100.6%			M22L2865
STX Std 1	SAXITOXIN	1.170 Abs	0.019 µg/L	R^2=0.99946, 84.5%			M22L2865
STX Std 1	SAXITOXIN	1.154 Abs [1.1620] {1.0 C	0.020 µg/L [0.019]	R^2=0.99946, 83.3%			M22L2865
STX Std 2	SAXITOXIN	0.870 Abs	0.048 µg/L	R^2=0.99946, 62.8%			M22L2865
STX Std 2	SAXITOXIN	0.835 Abs [0.8525] {2.9 C	0.053 µg/L [0.050]	R^2=0.99946, 60.3%			M22L2865
STX Std 3	SAXITOXIN	0.584 Abs	0.100 µg/L	R^2=0.99946, 42.1%			M22L2865
STX Std 3	SAXITOXIN	0.563 Abs [0.5735] {2.6 C	0.105 µg/L [0.102]	R^2=0.99946, 40.6%			M22L2865
STX Std 4	SAXITOXIN	0.392 Abs	0.182 µg/L	R^2=0.99946, 28.3%			M22L2865
STX Std 4	SAXITOXIN	0.380 Abs [0.3860] {2.2 C	0.191 µg/L [0.186]	R^2=0.99946, 27.4%			M22L2865
STX Std 5	SAXITOXIN	0.239 Abs	> 0.400 µg/L	17.269 %Abs			M22L2865
STX Std 5	SAXITOXIN	0.230 Abs [0.2345] {2.7 C	> 0.400 µg/L	16.618 %Abs			M22L2865
STX Control (0.060-0.090)	SAXITOXIN	0.767 Abs	0.062 µg/L	55.419 %Abs			M22L2865
STX Control (0.060-0.090)	SAXITOXIN	0.740 Abs [0.7535] {2.5 C	0.067 µg/L [0.065]	53.468 %Abs [54.4			M22L2865

Note

Signature _____

Test Report (by Request)

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Date: 6/1/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.331 Abs	0.006 µg/L	Low, 96.171 %Abs		0.020 - 0.400	M22L2865
LRB	SAXITOXIN	1.362 Abs [1.3465] {1.6 C	0.003 µg/L [0.004]	Low, 98.410 %Abs		0.020 - 0.400	M22L2865
LFB (SAX)	SAXITOXIN	0.642 Abs	0.085 µg/L	46.387 %Abs		0.020 - 0.400	M22L2865
LFB (SAX)	SAXITOXIN	0.621 Abs [0.6315] {2.4 C	0.090 µg/L [0.088]	44.870 %Abs [45.6		0.020 - 0.400	M22L2865
AC02954	SAXITOXIN	1.328 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC02954	SAXITOXIN	1.327 Abs [1.3275] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC02954MS	SAXITOXIN	0.802 Abs	0.057 µg/L	57.948 %Abs		0.020 - 0.400	M22L2865
AC02954MS	SAXITOXIN	0.773 Abs [0.7875] {2.6 C	0.062 µg/L [0.060]	55.853 %Abs [56.9		0.020 - 0.400	M22L2865
AC02954MSD	SAXITOXIN	0.792 Abs	0.059 µg/L	57.225 %Abs		0.020 - 0.400	M22L2865
AC02954MSD	SAXITOXIN	0.778 Abs [0.7850] {1.3 C	0.061 µg/L [0.060]	56.214 %Abs [56.7		0.020 - 0.400	M22L2865
AC02955	SAXITOXIN	1.341 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC02955	SAXITOXIN	1.314 Abs [1.3275] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC02956	SAXITOXIN	1.310 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC02956	SAXITOXIN	1.296 Abs [1.3030] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC02957	SAXITOXIN	1.295 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC02957	SAXITOXIN	1.313 Abs [1.3040] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC02958	SAXITOXIN	1.313 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC02958	SAXITOXIN	1.315 Abs [1.3140] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC02959	SAXITOXIN	1.361 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC02959	SAXITOXIN	1.344 Abs [1.3525] {0.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L2865

Note

Signature _____

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: M22L2865

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
6/1/2023 1:32:41 PM				
STX Std 0	1.375 Abs	0.002 µg/L	R ² =0.99946, 99.350 %Abs	RK1:23->A01@2
STX Std 0	1.393 Abs [1.3840] {0.9 CV}	0.000 µg/L [0.001] {141.4 CV}	R ² =0.99946, 100.650 %Abs	RK1:23->B01@2
STX Std 1	1.170 Abs	0.019 µg/L	R ² =0.99946, 84.538 %Abs	RK1:24->C01@2
STX Std 1	1.154 Abs [1.1620] {1.0 CV}	0.020 µg/L [0.019] {3.6 CV}	R ² =0.99946, 83.382 %Abs	RK1:24->D01@2
STX Std 2	0.870 Abs	0.048 µg/L	R ² =0.99946, 62.861 %Abs	RK1:25->E01@2
STX Std 2	0.835 Abs [0.8525] {2.9 CV}	0.053 µg/L [0.050] {7.0 CV}	R ² =0.99946, 60.332 %Abs	RK1:25->F01@3
STX Std 3	0.584 Abs	0.100 µg/L	R ² =0.99946, 42.197 %Abs	RK1:26->G01@3
STX Std 3	0.563 Abs [0.5735] {2.6 CV}	0.105 µg/L [0.102] {3.4 CV}	R ² =0.99946, 40.679 %Abs	RK1:26->H01@3
STX Std 4	0.392 Abs	0.182 µg/L	R ² =0.99946, 28.324 %Abs	RK1:27->A02@2
STX Std 4	0.380 Abs [0.3860] {2.2 CV}	0.191 µg/L [0.186] {3.4 CV}	R ² =0.99946, 27.457 %Abs	RK1:27->B02@2
STX Std 5	0.239 Abs	> 0.400 µg/L	17.269 %Abs	RK1:28->C02@2
STX Std 5	0.230 Abs [0.2345] {2.7 CV}	> 0.400 µg/L	16.618 %Abs	RK1:28->D02@2

6/1/2023 1:32:41 PM				
STX Control (0.060-0.090)	0.767 Abs	0.062 µg/L	55.419 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.740 Abs [0.7535] {2.5 CV}	0.067 µg/L [0.065] {5.5 CV}	53.468 %Abs [54.444 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.3840	0.0010		
STX Std 0 [SD]	0.0127	0.0014		
STX Std 0 [%CV]	0.9196	141.4214		
STX Std 1 [MEAN]	1.1620	0.0195		
STX Std 1 [SD]	0.0113	0.0007		
STX Std 1 [%CV]	0.9736	3.6262		
STX Std 1 [%DIFF]		-2.5000		
STX Std 2 [MEAN]	0.8525	0.0505		
STX Std 2 [SD]	0.0247	0.0035		
STX Std 2 [%CV]	2.9031	7.0011		
STX Std 2 [%DIFF]		1.0000		
STX Std 3 [MEAN]	0.5735	0.1025		
STX Std 3 [SD]	0.0148	0.0035		
STX Std 3 [%CV]	2.5892	3.4493		
STX Std 3 [%DIFF]		2.5000		
STX Std 4 [MEAN]	0.3860	0.1865		
STX Std 4 [SD]	0.0085	0.0064		
STX Std 4 [%CV]	2.1983	3.4123		
STX Std 4 [%DIFF]		-6.7500		
STX Std 5 [MEAN]	0.2345			
STX Std 5 [SD]	0.0064			
STX Std 5 [%CV]	2.7138			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7535	0.0645		
STX Control (0.060-0.090) [SD]	0.0191	0.0035		
STX Control (0.060-0.090) [%CV]	2.5338	5.4815		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3863
 B = 1.2903
 C = 0.063233
 D = 0.13764
 R2 coef = 0.99946
 50% = 0.075

