



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC03317	Cecil M. Harden Lake - Raccoon Lake SRA Beach	7/10/2023	7/13/2023	< 0.050
AC03318	Cagles Mill Lake - Lieber SRA Beach	7/10/2023	7/13/2023	0.051
AC03319	Monroe Lake - Paynetown SRA Beach	7/10/2023	7/13/2023	< 0.050
AC03320	Monroe Lake - Fairfax SRA Beach	7/10/2023	7/13/2023	< 0.050
AC03321	Starve Hollow SRA - Starve Hollow Lake Beach	7/10/2023	7/13/2023	0.26
AC03322	Whitewater Memorial SP - Whitewater Lake Beach	7/11/2023	7/13/2023	< 0.050
AC03323	Brookville Lake - Quakertown SRA Beach	7/11/2023	7/13/2023	< 0.050
AC03324	Brookville Lake - Mounds SRA Beach	7/11/2023	7/13/2023	< 0.050
AC03325	Hardy Lake SRA - Hardy Lake SRA Beach	7/11/2023	7/13/2023	< 0.050
AC03326	Deam Lake SRA - Deam Lake Beach	7/11/2023	7/13/2023	< 0.050
AC03327	Whitewater Memorial SP - Whitewater Lake Beach (Field Duplicate)	7/11/2023	7/13/2023	< 0.050
AC03328	Field Blank	7/11/2023	7/13/2023	< 0.050
AC03342	Ft. Ben Harrison SP Dog Lake	7/10/2023	7/13/2023	< 0.050

Test Report (by Request)

Test Information

Request: 7/13/2023 1:40:18 PM
 Date: 7/13/2023 - 7/13/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.345 Abs	0.000 µg/L	R^2=0.99956, 100.4			M22L2865
STX Std 0	SAXITOXIN	1.332 Abs [1.3385] {0.7 C	0.001 µg/L [0.001]	R^2=0.99956, 99.47			M22L2865
STX Std 1	SAXITOXIN	1.086 Abs	0.020 µg/L	R^2=0.99956, 81.10			M22L2865
STX Std 1	SAXITOXIN	1.095 Abs [1.0905] {0.6 C	0.020 µg/L [0.020]	R^2=0.99956, 81.77			M22L2865
STX Std 2	SAXITOXIN	0.817 Abs	0.048 µg/L	R^2=0.99956, 61.01			M22L2865
STX Std 2	SAXITOXIN	0.795 Abs [0.8060] {1.9 C	0.051 µg/L [0.049]	R^2=0.99956, 59.37			M22L2865
STX Std 3	SAXITOXIN	0.544 Abs	0.101 µg/L	R^2=0.99956, 40.62			M22L2865
STX Std 3	SAXITOXIN	0.528 Abs [0.5360] {2.1 C	0.106 µg/L [0.104]	R^2=0.99956, 39.43			M22L2865
STX Std 4	SAXITOXIN	0.365 Abs	0.184 µg/L	R^2=0.99956, 27.25			M22L2865
STX Std 4	SAXITOXIN	0.352 Abs [0.3585] {2.6 C	0.194 µg/L [0.189]	R^2=0.99956, 26.28			M22L2865
STX Std 5	SAXITOXIN	0.215 Abs	> 0.400 µg/L	16.057 %Abs			M22L2865
STX Std 5	SAXITOXIN	0.211 Abs [0.2130] {1.3 C	> 0.400 µg/L	15.758 %Abs			M22L2865
STX Control (0.060-0.090)	SAXITOXIN	0.700 Abs	0.066 µg/L	52.278 %Abs			M22L2865
STX Control (0.060-0.090)	SAXITOXIN	0.682 Abs [0.6910] {1.8 C	0.069 µg/L [0.067]	50.934 %Abs [51.6			M22L2865

Note

Signature

Charles Hostetter 7/14/2023

Test Report (by Request)

Test Information

Request: 7/13/2023 1:41:40 PM
Date: 7/13/2023 - 7/13/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.282 Abs	0.005 µg/L	Low, 95.743 %Abs		0.020 - 0.400	M22L2865
LRB	SAXITOXIN	1.276 Abs [1.2790] {0.3 C	0.006 µg/L [0.006]			0.020 - 0.400	M22L2865
LFB	SAXITOXIN	0.578 Abs	0.092 µg/L	43.167 %Abs		0.020 - 0.400	M22L2865
LFB	SAXITOXIN	0.565 Abs [0.5715] {1.6 C	0.095 µg/L [0.094]	42.196 %Abs [42.6		0.020 - 0.400	M22L2865
AC03317	SAXITOXIN	1.253 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC03317	SAXITOXIN	1.253 Abs [1.2530] {0.0 C	< LOD [< LOD]		MDF=1.100		M22L2865
AC03318	SAXITOXIN	0.841 Abs	0.050 µg/L	62.808 %Abs	MDF=1.100	0.020 - 0.400	M22L2865
AC03318	SAXITOXIN	0.823 Abs [0.8320] {1.5 C	0.052 µg/L [0.051]	61.464 %Abs [62.1	MDF=1.100	0.020 - 0.400	M22L2865
AC03319	SAXITOXIN	1.260 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC03319	SAXITOXIN	1.240 Abs [1.2500] {1.1 C	< LOD [< LOD]		MDF=1.100		M22L2865
AC03320	SAXITOXIN	1.328 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC03320	SAXITOXIN	1.307 Abs [1.3175] {1.1 C	< LOD [< LOD]		MDF=1.100		M22L2865
AC03321	SAXITOXIN	0.310 Abs	0.256 µg/L	23.152 %Abs	MDF=1.100	0.020 - 0.400	M22L2865
AC03321	SAXITOXIN	0.304 Abs [0.3070] {1.4 C	0.264 µg/L [0.260]	22.704 %Abs [22.9	MDF=1.100	0.020 - 0.400	M22L2865
AC03321 10X	SAXITOXIN	1.079 Abs	0.231 µg/L	80.583 %Abs	MDF=11.000	0.020 - 0.400	M22L2865
AC03321 10X	SAXITOXIN	1.071 Abs [1.0750] {0.5 C	0.242 µg/L [0.236]	79.985 %Abs [80.2	MDF=11.000	0.020 - 0.400	M22L2865
AC03322	SAXITOXIN	1.223 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC03322	SAXITOXIN	1.220 Abs [1.2215] {0.2 C	< LOD [< LOD]		MDF=1.100		M22L2865
AC03323	SAXITOXIN	1.235 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC03323	SAXITOXIN	1.198 Abs [1.2165] {2.2 C	< LOD [< LOD]		MDF=1.100		M22L2865
AC03323MS	SAXITOXIN	0.538 Abs	0.103 µg/L	40.179 %Abs		0.020 - 0.400	M22L2865
AC03323MS	SAXITOXIN	0.539 Abs [0.5385] {0.1 C	0.103 µg/L [0.103]	40.254 %Abs [40.2		0.020 - 0.400	M22L2865
AC03323MSD	SAXITOXIN	0.530 Abs	0.105 µg/L	39.582 %Abs		0.020 - 0.400	M22L2865
AC03323MSD	SAXITOXIN	0.518 Abs [0.5240] {1.6 C	0.109 µg/L [0.107]	38.686 %Abs [39.1		0.020 - 0.400	M22L2865
AC03324	SAXITOXIN	1.222 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC03324	SAXITOXIN	1.204 Abs [1.2130] {1.0 C	< LOD [< LOD]		MDF=1.100		M22L2865
AC03325	SAXITOXIN	1.202 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC03325	SAXITOXIN	1.194 Abs [1.1980] {0.5 C	< LOD [< LOD]		MDF=1.100		M22L2865
AC03326	SAXITOXIN	1.297 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC03326	SAXITOXIN	1.285 Abs [1.2910] {0.7 C	< LOD [< LOD]		MDF=1.100		M22L2865
AC03327	SAXITOXIN	1.245 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC03327	SAXITOXIN	1.228 Abs [1.2365] {1.0 C	< LOD [< LOD]		MDF=1.100		M22L2865
AC03328	SAXITOXIN	1.291 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC03328	SAXITOXIN	1.278 Abs [1.2845] {0.7 C	< LOD [< LOD]		MDF=1.100		M22L2865
AC03342	SAXITOXIN	1.227 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L2865
AC03342	SAXITOXIN	1.211 Abs [1.2190] {0.9 C	< LOD [< LOD]		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
7/13/2023 1:40:18 PM				
STX Std 0	1.345 Abs	0.000 µg/L	R ² =0.99956, 100.448 %Abs	RK1:23->A01@2
STX Std 0	1.332 Abs [1.3385] {0.7 CV}	0.001 µg/L [0.001] {141.4 CV}	R ² =0.99956, 99.477 %Abs	RK1:23->B01@2
STX Std 1	1.086 Abs	0.020 µg/L	R ² =0.99956, 81.105 %Abs	RK1:24->C01@2
STX Std 1	1.095 Abs [1.0905] {0.6 CV}	0.020 µg/L [0.020] {0.0 CV}	R ² =0.99956, 81.777 %Abs	RK1:24->D01@2
STX Std 2	0.817 Abs	0.048 µg/L	R ² =0.99956, 61.016 %Abs	RK1:25->E01@2
STX Std 2	0.795 Abs [0.8060] {1.9 CV}	0.051 µg/L [0.049] {4.3 CV}	R ² =0.99956, 59.373 %Abs	RK1:25->F01@3
STX Std 3	0.544 Abs	0.101 µg/L	R ² =0.99956, 40.627 %Abs	RK1:26->G01@3
STX Std 3	0.528 Abs [0.5360] {2.1 CV}	0.106 µg/L [0.104] {3.4 CV}	R ² =0.99956, 39.432 %Abs	RK1:26->H01@3
STX Std 4	0.365 Abs	0.184 µg/L	R ² =0.99956, 27.259 %Abs	RK1:27->A02@2
STX Std 4	0.352 Abs [0.3585] {2.6 CV}	0.194 µg/L [0.189] {3.7 CV}	R ² =0.99956, 26.288 %Abs	RK1:27->B02@2
STX Std 5	0.215 Abs	> 0.400 µg/L	16.057 %Abs	RK1:28->C02@2
STX Std 5	0.211 Abs [0.2130] {1.3 CV}	> 0.400 µg/L	15.758 %Abs	RK1:28->D02@2

7/13/2023 1:40:18 PM				
STX Control (0.060-0.090)	0.700 Abs	0.066 µg/L	52.278 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.682 Abs [0.6910] {1.8 CV}	0.069 µg/L [0.067] {3.1 CV}	50.934 %Abs [51.606 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.3385	0.0005		
STX Std 0 [SD]	0.0092	0.0007		
STX Std 0 [%CV]	0.6868	141.4214		
STX Std 1 [MEAN]	1.0905	0.0200		
STX Std 1 [SD]	0.0064	0.0000		
STX Std 1 [%CV]	0.5836	0.0000		
STX Std 1 [%DIFF]		0.0000		
STX Std 2 [MEAN]	0.8060	0.0495		
STX Std 2 [SD]	0.0156	0.0021		
STX Std 2 [%CV]	1.9301	4.2855		
STX Std 2 [%DIFF]		-1.0000		
STX Std 3 [MEAN]	0.5360	0.1035		
STX Std 3 [SD]	0.0113	0.0035		
STX Std 3 [%CV]	2.1108	3.4160		
STX Std 3 [%DIFF]		3.5000		
STX Std 4 [MEAN]	0.3585	0.1890		
STX Std 4 [SD]	0.0092	0.0071		
STX Std 4 [%CV]	2.5641	3.7413		
STX Std 4 [%DIFF]		-5.5000		
STX Std 5 [MEAN]	0.2130			
STX Std 5 [SD]	0.0028			
STX Std 5 [%CV]	1.3279			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.6910	0.0675		
STX Control (0.060-0.090) [SD]	0.0127	0.0021		
STX Control (0.060-0.090) [%CV]	1.8420	3.1427		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3396
 B = 1.2076
 C = 0.062360
 D = 0.10067
 R2 coef = 0.99956
 50% = 0.071

