



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC39721	Cecil M. Harden Lake - Raccoon Lake SRA Beach	5/13/2024	5/15/2024	< 0.05
AC39722	Cagles Mill Lake - Lieber SRA Beach	5/13/2024	5/15/2024	< 0.05
AC39723	Monroe Lake - Fairfax SRA Beach	5/13/2024	5/15/2024	< 0.05
AC39724	Monroe Lake - Paynetown SRA Beach	5/13/2024	5/15/2024	< 0.05
AC39725	Starve Hollow SRA - Starve Hollow Lake Beach	5/13/2024	5/15/2024	< 0.05
AC39726	Whitewater Memorial SP - Whitewater Lake Beach	5/14/2024	5/15/2024	< 0.05
AC39727	Brookville Lake - Quakertown SRA Beach	5/14/2024	5/15/2024	< 0.05
AC39728	Brookville Lake - Mounds SRA Beach	5/14/2024	5/15/2024	< 0.05
AC39729	Hardy Lake SRA - Hardy Lake SRA Beach	5/14/2024	5/15/2024	< 0.05
AC39730	Deam Lake SRA - Deam Lake Beach	5/14/2024	5/15/2024	< 0.05
AC39731	Ft. Ben Harrison SP Dog Lake	5/13/2024	5/15/2024	< 0.05
AC39732	Monroe Lake - Fairfax SRA Beach (Field Duplicate)	5/13/2024	5/15/2024	< 0.05
AC39733	Field Blank	5/13/2024	5/15/2024	< 0.05

Test Report (by Request)

Test Information

Request: 5/15/2024 3:18:05 PM
 Date: 5/15/2024 - 5/15/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	0.981 Abs	0.000 µg/L	R^2=0.99810, 100.7		0.000	Kit:M22L2
STX Std 0	SAXITOXIN	0.967 Abs [0.9740] {1.0 C	0.000 µg/L [0.000]	R^2=0.99810, 99.28		0.000	Kit:M22L2
STX Std 1	SAXITOXIN	0.709 Abs	0.026 µg/L	R^2=0.99810, 72.79		0.020	Kit:M22L2
STX Std 1	SAXITOXIN	0.770 Abs [0.7395] {5.8 C	0.018 µg/L [0.022]	R^2=0.99810, 79.05		0.020	Kit:M22L2
STX Std 2	SAXITOXIN	0.594 Abs	0.045 µg/L	R^2=0.99810, 60.98		0.050	Kit:M22L2
STX Std 2	SAXITOXIN	0.579 Abs [0.5865] {1.8 C	0.048 µg/L [0.047]	R^2=0.99810, 59.44		0.050	Kit:M22L2
STX Std 3	SAXITOXIN	0.409 Abs	0.097 µg/L	R^2=0.99810, 41.95		0.100	Kit:M22L2
STX Std 3	SAXITOXIN	0.395 Abs [0.4020] {2.5 C	0.103 µg/L [0.100]	R^2=0.99810, 40.55		0.100	Kit:M22L2
STX Std 4	SAXITOXIN	0.249 Abs	0.204 µg/L	R^2=0.99810, 25.56		0.200	Kit:M22L2
STX Std 4	SAXITOXIN	0.222 Abs [0.2355] {8.1 C	0.237 µg/L [0.221]	R^2=0.99810, 22.79		0.200	Kit:M22L2
STX Std 5	SAXITOXIN	0.150 Abs	0.375 µg/L	R^2=0.99810, 15.40		0.400	Kit:M22L2
STX Std 5	SAXITOXIN	0.151 Abs [0.1505] {0.5 C	0.373 µg/L [0.374]	R^2=0.99810, 15.50		0.400	Kit:M22L2
STX Control (0.060-0.090)	SAXITOXIN	0.513 Abs	0.063 µg/L	52.669 %Abs			Kit:M22L2
STX Control (0.060-0.090)	SAXITOXIN	0.512 Abs [0.5125] {0.1 C	0.063 µg/L [0.063]	52.567 %Abs [52.6			Kit:M22L2

Note

Signature *David Jordan*

David Jordan 5/15/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

* Generated by software version (6.4.1.1171/1085/1.00/0.95) 5/15/2024 3:33:36 PM

Test Report (by Request)

Test Information

Request: 5/15/2024 3:19:18 PM
Date: 5/15/2024 - 5/15/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.013 Abs	0.000 µg/L	Low, 104.004 %Abs		0.020 - 0.400	Kit:M22L2
LRB	SAXITOXIN	0.982 Abs [0.9975] {2.2 C	0.000 µg/L [0.000]			0.020 - 0.400	Kit:M22L2
LFB (SAX)	SAXITOXIN	0.460 Abs	0.079 µg/L	47.228 %Abs		0.020 - 0.400	Kit:M22L2
LFB (SAX)	SAXITOXIN	0.465 Abs [0.4625] {0.8 C	0.077 µg/L [0.078]	47.741 %Abs [47.4		0.020 - 0.400	Kit:M22L2
AC39721	SAXITOXIN	0.966 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39721	SAXITOXIN	0.964 Abs [0.9650] {0.1 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39722	SAXITOXIN	0.967 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39722	SAXITOXIN	0.981 Abs [0.9740] {1.0 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39723	SAXITOXIN	1.004 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39723	SAXITOXIN	0.999 Abs [1.0015] {0.4 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39724	SAXITOXIN	1.002 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39724	SAXITOXIN	0.995 Abs [0.9985] {0.5 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39725	SAXITOXIN	0.932 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39725	SAXITOXIN	0.928 Abs [0.9300] {0.3 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39726	SAXITOXIN	0.954 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39726	SAXITOXIN	0.964 Abs [0.9590] {0.7 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39727	SAXITOXIN	0.971 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39727	SAXITOXIN	0.969 Abs [0.9700] {0.1 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39727MS	SAXITOXIN	0.420 Abs	0.093 µg/L	43.121 %Abs		0.020 - 0.400	Kit:M22L2
AC39727MS	SAXITOXIN	0.420 Abs [0.4200] {0.0 C	0.093 µg/L [0.093]	43.121 %Abs [43.1		0.020 - 0.400	Kit:M22L2
AC39727MSD	SAXITOXIN	0.426 Abs	0.091 µg/L	43.737 %Abs		0.020 - 0.400	Kit:M22L2
AC39727MSD	SAXITOXIN	0.422 Abs [0.4240] {0.7 C	0.092 µg/L [0.092]	43.326 %Abs [43.5		0.020 - 0.400	Kit:M22L2
AC39728	SAXITOXIN	0.887 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39728	SAXITOXIN	0.898 Abs [0.8925] {0.9 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39729	SAXITOXIN	0.892 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39729	SAXITOXIN	0.896 Abs [0.8940] {0.3 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39730	SAXITOXIN	1.009 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39730	SAXITOXIN	0.998 Abs [1.0035] {0.8 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39731	SAXITOXIN	0.960 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39731	SAXITOXIN	0.948 Abs [0.9540] {0.9 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39732	SAXITOXIN	0.987 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39732	SAXITOXIN	0.995 Abs [0.9910] {0.6 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39733	SAXITOXIN	1.010 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC39733	SAXITOXIN	1.013 Abs [1.0115] {0.2 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2

Note

Signature *David Jordan*

David Jordan 5/15/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

* Generated by software version (6.4.1.1171/1085/1.00/0.95) 5/15/2024 3:33:36 PM

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: Kit: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
5/15/2024 3:18:05 PM				
STX Std 0	0.981 Abs	0.000 µg/L	R ² =0.99810, 100.719 %Abs	RK1:30->A07@2
STX Std 0	0.967 Abs [0.9740] {1.0 CV}	0.000 µg/L [0.000]	R ² =0.99810, 99.281 %Abs	RK1:30->B07@2
STX Std 1	0.709 Abs	0.026 µg/L	R ² =0.99810, 72.793 %Abs	RK1:31->C07@2
STX Std 1	0.770 Abs [0.7395] {5.8 CV}	0.018 µg/L [0.022] {25.7 CV}	R ² =0.99810, 79.055 %Abs	RK1:31->D07@2
STX Std 2	0.594 Abs	0.045 µg/L	R ² =0.99810, 60.986 %Abs	RK1:32->E07@2
STX Std 2	0.579 Abs [0.5865] {1.8 CV}	0.048 µg/L [0.047] {4.6 CV}	R ² =0.99810, 59.446 %Abs	RK1:32->F07@3
STX Std 3	0.409 Abs	0.097 µg/L	R ² =0.99810, 41.992 %Abs	RK1:33->G07@3
STX Std 3	0.395 Abs [0.4020] {2.5 CV}	0.103 µg/L [0.100] {4.2 CV}	R ² =0.99810, 40.554 %Abs	RK1:33->H07@3
STX Std 4	0.249 Abs	0.204 µg/L	R ² =0.99810, 25.565 %Abs	RK1:34->A08@2
STX Std 4	0.222 Abs [0.2355] {8.1 CV}	0.237 µg/L [0.221] {10.6 CV}	R ² =0.99810, 22.793 %Abs	RK1:34->B08@2
STX Std 5	0.150 Abs	0.375 µg/L	R ² =0.99810, 15.400 %Abs	RK1:35->C08@2
STX Std 5	0.151 Abs [0.1505] {0.5 CV}	0.373 µg/L [0.374] {0.4 CV}	R ² =0.99810, 15.503 %Abs	RK1:35->D08@2

5/15/2024 3:18:05 PM				
STX Control (0.060-0.090)	0.513 Abs	0.063 µg/L	52.669 %Abs	RK1:36->E08@2
STX Control (0.060-0.090)	0.512 Abs [0.5125] {0.1 CV}	0.063 µg/L [0.063] {0.0 CV}	52.567 %Abs [52.618 %Abs]	RK1:36->F08@3

Statistic				
STX Std 0 [MEAN]	0.9740	0.0000		
STX Std 0 [SD]	0.0099	0.0000		
STX Std 0 [%CV]	1.0164	0.0000		
STX Std 1 [MEAN]	0.7395	0.0220		
STX Std 1 [SD]	0.0431	0.0057		
STX Std 1 [%CV]	5.8328	25.7130		
STX Std 1 [%DIFF]		10.0000		
STX Std 2 [MEAN]	0.5865	0.0465		
STX Std 2 [SD]	0.0106	0.0021		
STX Std 2 [%CV]	1.8085	4.5620		
STX Std 2 [%DIFF]		-7.0000		
STX Std 3 [MEAN]	0.4020	0.1000		
STX Std 3 [SD]	0.0099	0.0042		
STX Std 3 [%CV]	2.4626	4.2426		
STX Std 3 [%DIFF]		-0.0000		
STX Std 4 [MEAN]	0.2355	0.2205		
STX Std 4 [SD]	0.0191	0.0233		
STX Std 4 [%CV]	8.1070	10.5826		
STX Std 4 [%DIFF]		10.2500		
STX Std 5 [MEAN]	0.1505	0.3740		
STX Std 5 [SD]	0.0007	0.0014		
STX Std 5 [%CV]	0.4698	0.3781		

Name	Absorbance	Concentration	Interpretation	Position
STX Std 5 [%DIFF]		-6.5000		
STX Control (0.060-0.090) [MEAN]	0.5125	0.0630		
STX Control (0.060-0.090) [SD]	0.0007	0.0000		
STX Control (0.060-0.090) [%CV]	0.1380	0.0000		

Assay Curve

$$y = (A-D)/(1+(x/C)^B) + D$$

Weight: NONE

A = 0.97128

B = 0.97323

C = 0.073355

D = -0.017720

R2 coef = 0.99810

50% = 0.070

