



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC40789	Pokagon SP - Main Beach	7/15/2024	7/17/2024	< 0.05
AC40790	Pokagon SP - Potawatomi Inn Beach	7/15/2024	7/17/2024	< 0.05
AC40791	Chain O'Lakes SP - Sand Lake Beach	7/15/2024	7/17/2024	< 0.05
AC40792	Ouabache SP - Kunkel Lake Beach	7/15/2024	7/17/2024	< 0.05
AC40793	Potato Creek SP - Worster Lake Beach	7/16/2024	7/17/2024	< 0.05
AC40794	Mississinewa Lake - Miami SRA Beach	7/16/2024	7/17/2024	< 0.05
AC40795	Salamonie Lake - Lost Bridge West SRA Beach	7/16/2024	7/17/2024	< 0.05
AC40796	Summit Lake SP - Summit Lake Beach	7/16/2024	7/17/2024	< 0.05
AC40797	Potato Creek SP - Worster Lake Beach (Field Duplicate)	7/16/2024	7/17/2024	< 0.05
AC40798	Field Blank	7/16/2024	7/17/2024	< 0.05
AC40799	Ferdinand State Forest - Ferdinand Lake Beach	7/15/2024	7/17/2024	< 0.05
AC40800	Lincoln SP - Lake Lincoln Beach	7/15/2024	7/17/2024	< 0.05
AC40801	Patoka Lake - Newton Stewart SRA	7/15/2024	7/17/2024	< 0.05

Test Report (by Request)

Test Information

Request: 7/17/2024 2:28:42 PM
Date: 7/17/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.376 Abs	0.004 µg/L	R^2=0.99979, 98.4%		0.000	Kit:P24A3
STX Std 0	SAXITOXIN	1.420 Abs [1.3980] {2.2 C	0.000 µg/L [0.002]	R^2=0.99979, 101.5%		0.000	Kit:P24A3
STX Std 1	SAXITOXIN	1.210 Abs	0.019 µg/L	R^2=0.99979, 86.5%		0.020	Kit:P24A3
STX Std 1	SAXITOXIN	1.201 Abs [1.2055] {0.5 C	0.020 µg/L [0.020]	R^2=0.99979, 85.9%		0.020	Kit:P24A3
STX Std 2	SAXITOXIN	0.899 Abs	0.051 µg/L	R^2=0.99979, 64.3%		0.050	Kit:P24A3
STX Std 2	SAXITOXIN	0.915 Abs [0.9070] {1.2 C	0.049 µg/L [0.050]	R^2=0.99979, 65.4%		0.050	Kit:P24A3
STX Std 3	SAXITOXIN	0.617 Abs	0.100 µg/L	R^2=0.99979, 44.1%		0.100	Kit:P24A3
STX Std 3	SAXITOXIN	0.606 Abs [0.6115] {1.3 C	0.103 µg/L [0.102]	R^2=0.99979, 43.3%		0.100	Kit:P24A3
STX Std 4	SAXITOXIN	0.398 Abs	0.191 µg/L	R^2=0.99979, 28.4%		0.200	Kit:P24A3
STX Std 4	SAXITOXIN	0.395 Abs [0.3965] {0.5 C	0.193 µg/L [0.192]	R^2=0.99979, 28.2%		0.200	Kit:P24A3
STX Std 5	SAXITOXIN	0.250 Abs	> 0.400 µg/L	17.883 %Abs		0.400	Kit:P24A3
STX Std 5	SAXITOXIN	0.242 Abs [0.2460] {2.3 C	> 0.400 µg/L	17.310 %Abs		0.400	Kit:P24A3
STX Control (0.060-0.090)	SAXITOXIN	0.774 Abs	0.069 µg/L	55.365 %Abs			Kit:P24A3
STX Control (0.060-0.090)	SAXITOXIN	0.773 Abs [0.7735] {0.1 C	0.069 µg/L [0.069]	55.293 %Abs [55.3			Kit:P24A3

Note

Signature *David Jordan*

David Jordan 7/17/2024

* 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) 7/17/2024 2:40:21 PM

Test Report (by Request)

Test Information

Request: 7/17/2024 2:29:57 PM
Date: 7/17/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.405 Abs	0.000 µg/L	Low, 100.501 %Abs		0.020 - 0.400	Kit:P24A3
LRB	SAXITOXIN	1.430 Abs [1.4175] {1.2 C	0.000 µg/L [0.000]	Low, 102.289 %Abs		0.020 - 0.400	Kit:P24A3
LFB (SAX)	SAXITOXIN	0.710 Abs	0.080 µg/L	50.787 %Abs		0.020 - 0.400	Kit:P24A3
LFB (SAX)	SAXITOXIN	0.696 Abs [0.7030] {1.4 C	0.083 µg/L [0.082]	49.785 %Abs [50.2		0.020 - 0.400	Kit:P24A3
AC40789	SAXITOXIN	1.326 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40789	SAXITOXIN	1.347 Abs [1.3365] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40790	SAXITOXIN	1.344 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40790	SAXITOXIN	1.344 Abs [1.3440] {0.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40791	SAXITOXIN	1.153 Abs	0.027 µg/L	82.475 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40791	SAXITOXIN	1.163 Abs [1.1580] {0.6 C	0.026 µg/L [0.027]	83.190 %Abs [82.8	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40792	SAXITOXIN	1.070 Abs	0.035 µg/L	76.538 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40792	SAXITOXIN	1.053 Abs [1.0615] {1.1 C	0.037 µg/L [0.036]	75.322 %Abs [75.9	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40793	SAXITOXIN	1.301 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40793	SAXITOXIN	1.309 Abs [1.3050] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40794	SAXITOXIN	1.383 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40794	SAXITOXIN	1.394 Abs [1.3885] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40794MS	SAXITOXIN	0.669 Abs	0.088 µg/L	47.854 %Abs		0.020 - 0.400	Kit:P24A3
AC40794MS	SAXITOXIN	0.675 Abs [0.6720] {0.6 C	0.087 µg/L [0.088]	48.283 %Abs [48.0		0.020 - 0.400	Kit:P24A3
AC40794MSD	SAXITOXIN	0.697 Abs	0.083 µg/L	49.857 %Abs		0.020 - 0.400	Kit:P24A3
AC40794MSD	SAXITOXIN	0.692 Abs [0.6945] {0.5 C	0.084 µg/L [0.084]	49.499 %Abs [49.6		0.020 - 0.400	Kit:P24A3
AC40795	SAXITOXIN	1.178 Abs	0.024 µg/L	84.263 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40795	SAXITOXIN	1.200 Abs [1.1890] {1.3 C	0.022 µg/L [0.023]	85.837 %Abs [85.0	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40796	SAXITOXIN	1.385 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40796	SAXITOXIN	1.398 Abs [1.3915] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40797	SAXITOXIN	1.278 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40797	SAXITOXIN	1.334 Abs [1.3060] {3.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40798	SAXITOXIN	1.452 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40798	SAXITOXIN	1.448 Abs [1.4500] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40799	SAXITOXIN	1.080 Abs	0.034 µg/L	77.253 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40799	SAXITOXIN	1.103 Abs [1.0915] {1.5 C	0.032 µg/L [0.033]	78.898 %Abs [78.0	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40800	SAXITOXIN	1.121 Abs	0.030 µg/L	80.186 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40800	SAXITOXIN	1.119 Abs [1.1200] {0.1 C	0.031 µg/L [0.031]	80.043 %Abs [80.1	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40801	SAXITOXIN	1.393 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40801	SAXITOXIN	1.468 Abs [1.4305] {3.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3

Note

Signature *David Jordan*

David Jordan 7/17/2024

* 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) 7/17/2024 2:40:21 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:P24A3229

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
7/17/2024 2:28:42 PM				
STX Std 0	1.376 Abs	0.004 µg/L	R ² =0.99979, 98.426 %Abs	RK1:30->A07@2
STX Std 0	1.420 Abs [1.3980] {2.2 CV}	0.000 µg/L [0.002] {141.4 CV}	R ² =0.99979, 101.574 %Abs	RK1:30->B07@2
STX Std 1	1.210 Abs	0.019 µg/L	R ² =0.99979, 86.552 %Abs	RK1:31->C07@2
STX Std 1	1.201 Abs [1.2055] {0.5 CV}	0.020 µg/L [0.020] {3.6 CV}	R ² =0.99979, 85.908 %Abs	RK1:31->D07@2
STX Std 2	0.899 Abs	0.051 µg/L	R ² =0.99979, 64.306 %Abs	RK1:32->E07@2
STX Std 2	0.915 Abs [0.9070] {1.2 CV}	0.049 µg/L [0.050] {2.8 CV}	R ² =0.99979, 65.451 %Abs	RK1:32->F07@3
STX Std 3	0.617 Abs	0.100 µg/L	R ² =0.99979, 44.134 %Abs	RK1:33->G07@3
STX Std 3	0.606 Abs [0.6115] {1.3 CV}	0.103 µg/L [0.102] {2.1 CV}	R ² =0.99979, 43.348 %Abs	RK1:33->H07@3
STX Std 4	0.398 Abs	0.191 µg/L	R ² =0.99979, 28.469 %Abs	RK1:34->A08@2
STX Std 4	0.395 Abs [0.3965] {0.5 CV}	0.193 µg/L [0.192] {0.7 CV}	R ² =0.99979, 28.255 %Abs	RK1:34->B08@2
STX Std 5	0.250 Abs	> 0.400 µg/L	17.883 %Abs	RK1:35->C08@2
STX Std 5	0.242 Abs [0.2460] {2.3 CV}	> 0.400 µg/L	17.310 %Abs	RK1:35->D08@2

7/17/2024 2:28:42 PM				
STX Control (0.060-0.090)	0.774 Abs	0.069 µg/L	55.365 %Abs	RK1:36->E08@2
STX Control (0.060-0.090)	0.773 Abs [0.7735] {0.1 CV}	0.069 µg/L [0.069] {0.0 CV}	55.293 %Abs [55.329 %Abs]	RK1:36->F08@3

Statistic				
STX Std 0 [MEAN]	1.3980	0.0020		
STX Std 0 [SD]	0.0311	0.0028		
STX Std 0 [%CV]	2.2255	141.4214		
STX Std 1 [MEAN]	1.2055	0.0195		
STX Std 1 [SD]	0.0064	0.0007		
STX Std 1 [%CV]	0.5279	3.6262		
STX Std 1 [%DIFF]		-2.5000		
STX Std 2 [MEAN]	0.9070	0.0500		
STX Std 2 [SD]	0.0113	0.0014		
STX Std 2 [%CV]	1.2474	2.8284		
STX Std 2 [%DIFF]		-0.0000		
STX Std 3 [MEAN]	0.6115	0.1015		
STX Std 3 [SD]	0.0078	0.0021		
STX Std 3 [%CV]	1.2720	2.0900		
STX Std 3 [%DIFF]		1.5000		
STX Std 4 [MEAN]	0.3965	0.1920		
STX Std 4 [SD]	0.0021	0.0014		
STX Std 4 [%CV]	0.5350	0.7366		
STX Std 4 [%DIFF]		-4.0000		
STX Std 5 [MEAN]	0.2460			
STX Std 5 [SD]	0.0057			
STX Std 5 [%CV]	2.2995			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7735	0.0690		
STX Control (0.060-0.090) [SD]	0.0007	0.0000		
STX Control (0.060-0.090) [%CV]	0.0914	0.0000		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3996
 B = 1.3547
 C = 0.069119
 D = 0.14527
 R2 coef = 0.99979
 50% = 0.082

