



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC40384	Pokagon SP - Main Beach	6/17/2024	6/19/2024	< 0.05
AC40385	Pokagon SP - Potawatomi Inn Beach	6/17/2024	6/19/2024	< 0.05
AC40386	Chain O'Lakes SP - Sand Lake Beach	6/17/2024	6/19/2024	< 0.05
AC40387	Ouabache SP - Kunkel Lake Beach	6/17/2024	6/19/2024	0.06
AC40388	Potato Creek SP - Worster Lake Beach	6/18/2024	6/19/2024	< 0.05
AC40389	Mississinewa Lake - Miami SRA Beach	6/18/2024	6/19/2024	< 0.05
AC40390	Salamonie Lake - Lost Bridge West SRA Beach	6/18/2024	6/19/2024	< 0.05
AC40391	Summit Lake SP - Summit Lake Beach	6/18/2024	6/19/2024	< 0.05
AC40392	Chain O'Lakes SP - Sand Lake Beach (Field Duplicate)	6/17/2024	6/19/2024	< 0.05
AC40393	Field Blank	6/17/2024	6/19/2024	< 0.05
AC40394	Lincoln SP - Lake Lincoln Beach	6/17/2024	6/19/2024	< 0.05
AC40395	Ferdinand State Forest - Ferdinand Lake Beach	6/17/2024	6/19/2024	< 0.05
AC40396	Patoka Lake - Newton Stewart SRA	6/17/2024	6/19/2024	< 0.05

Test Report (by Request)

Test Information

Request: 6/19/2024 2:25:19 PM
 Date: 6/19/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.487 Abs	0.000 µg/L	R^2=0.99993, 100.3		0.000	Kit:P24A3
STX Std 0	SAXITOXIN	1.476 Abs [1.4815] {0.5 C	0.001 µg/L [0.001]	R^2=0.99993, 99.5		0.000	Kit:P24A3
STX Std 1	SAXITOXIN	1.267 Abs	0.020 µg/L	R^2=0.99993, 85.4		0.020	Kit:P24A3
STX Std 1	SAXITOXIN	1.259 Abs [1.2630] {0.4 C	0.020 µg/L [0.020]	R^2=0.99993, 84.9		0.020	Kit:P24A3
STX Std 2	SAXITOXIN	0.938 Abs	0.052 µg/L	R^2=0.99993, 63.2		0.050	Kit:P24A3
STX Std 2	SAXITOXIN	0.962 Abs [0.9500] {1.8 C	0.049 µg/L [0.051]	R^2=0.99993, 64.9		0.050	Kit:P24A3
STX Std 3	SAXITOXIN	0.654 Abs	0.099 µg/L	R^2=0.99993, 44.1		0.100	Kit:P24A3
STX Std 3	SAXITOXIN	0.638 Abs [0.6460] {1.8 C	0.103 µg/L [0.101]	R^2=0.99993, 43.0		0.100	Kit:P24A3
STX Std 4	SAXITOXIN	0.417 Abs	0.191 µg/L	R^2=0.99993, 28.1		0.200	Kit:P24A3
STX Std 4	SAXITOXIN	0.402 Abs [0.4095] {2.6 C	0.201 µg/L [0.196]	R^2=0.99993, 27.1		0.200	Kit:P24A3
STX Std 5	SAXITOXIN	0.256 Abs	> 0.400 µg/L	17.274 %Abs		0.400	Kit:P24A3
STX Std 5	SAXITOXIN	0.250 Abs [0.2530] {1.7 C	> 0.400 µg/L	16.869 %Abs		0.400	Kit:P24A3
STX Control (0.060-0.090)	SAXITOXIN	0.813 Abs	0.069 µg/L	54.858 %Abs			Kit:P24A3
STX Control (0.060-0.090)	SAXITOXIN	0.804 Abs [0.8085] {0.8 C	0.070 µg/L [0.070]	54.251 %Abs [54.5			Kit:P24A3

Note

Signature *David Jordan*
 David Jordan 6/19/2024

* 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) 6/19/2024 2:35:40 PM

Test Report (by Request)

Test Information

Request: 6/19/2024 2:26:32 PM
Date: 6/19/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.479 Abs	0.001 µg/L	Low, 99.798 %Abs		0.020 - 0.400	Kit:P24A3
LRB	SAXITOXIN	1.476 Abs [1.4775] {0.1 C	0.001 µg/L [0.001]	Low, 99.595 %Abs		0.020 - 0.400	Kit:P24A3
LFB (SAX)	SAXITOXIN	0.729 Abs	0.083 µg/L	49.190 %Abs		0.020 - 0.400	Kit:P24A3
LFB (SAX)	SAXITOXIN	0.720 Abs [0.7245] {0.9 C	0.085 µg/L [0.084]	48.583 %Abs [48.8		0.020 - 0.400	Kit:P24A3
AC40384	SAXITOXIN	1.406 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40384	SAXITOXIN	1.412 Abs [1.4090] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40385	SAXITOXIN	1.407 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40385	SAXITOXIN	1.413 Abs [1.4100] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40386	SAXITOXIN	1.345 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40386	SAXITOXIN	1.329 Abs [1.3370] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40387	SAXITOXIN	0.909 Abs	0.060 µg/L	61.336 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40387	SAXITOXIN	0.896 Abs [0.9025] {1.0 C	0.063 µg/L [0.062]	60.459 %Abs [60.8	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40388	SAXITOXIN	1.419 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40388	SAXITOXIN	1.433 Abs [1.4260] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40389	SAXITOXIN	1.431 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40389	SAXITOXIN	1.453 Abs [1.4420] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40389MS	SAXITOXIN	0.728 Abs	0.083 µg/L	49.123 %Abs		0.020 - 0.400	Kit:P24A3
AC40389MS	SAXITOXIN	0.719 Abs [0.7235] {0.9 C	0.085 µg/L [0.084]	48.516 %Abs [48.8		0.020 - 0.400	Kit:P24A3
AC40389MSD	SAXITOXIN	0.737 Abs	0.082 µg/L	49.730 %Abs		0.020 - 0.400	Kit:P24A3
AC40389MSD	SAXITOXIN	0.721 Abs [0.7290] {1.6 C	0.085 µg/L [0.084]	48.650 %Abs [49.1		0.020 - 0.400	Kit:P24A3
AC40390	SAXITOXIN	1.426 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40390	SAXITOXIN	1.419 Abs [1.4225] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40391	SAXITOXIN	1.456 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40391	SAXITOXIN	1.457 Abs [1.4565] {0.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40392	SAXITOXIN	1.343 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40392	SAXITOXIN	1.353 Abs [1.3480] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40393	SAXITOXIN	1.530 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40393	SAXITOXIN	1.516 Abs [1.5230] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40394	SAXITOXIN	1.117 Abs	0.036 µg/L	75.371 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40394	SAXITOXIN	1.102 Abs [1.1095] {1.0 C	0.037 µg/L [0.037]	74.359 %Abs [74.8	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40395	SAXITOXIN	1.366 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40395	SAXITOXIN	1.375 Abs [1.3705] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40396	SAXITOXIN	1.491 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40396	SAXITOXIN	1.522 Abs [1.5065] {1.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3

Note

Signature *David Jordan*

David Jordan 6/19/2024

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

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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: "

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Name	Absorbance	Concentration	Interpretation	Position
6/19/2024 2:25:19 PM				
STX Std 0	1.487 Abs	0.000 µg/L	R ² =0.99993, 100.337 %Abs	RK1:30->A07@2
STX Std 0	1.476 Abs [1.4815] {0.5 CV}	0.001 µg/L [0.001] {141.4 CV}	R ² =0.99993, 99.595 %Abs	RK1:30->B07@2
STX Std 1	1.267 Abs	0.020 µg/L	R ² =0.99993, 85.493 %Abs	RK1:31->C07@2
STX Std 1	1.259 Abs [1.2630] {0.4 CV}	0.020 µg/L [0.020] {0.0 CV}	R ² =0.99993, 84.953 %Abs	RK1:31->D07@2
STX Std 2	0.938 Abs	0.052 µg/L	R ² =0.99993, 63.293 %Abs	RK1:32->E07@2
STX Std 2	0.962 Abs [0.9500] {1.8 CV}	0.049 µg/L [0.051] {4.2 CV}	R ² =0.99993, 64.912 %Abs	RK1:32->F07@3
STX Std 3	0.654 Abs	0.099 µg/L	R ² =0.99993, 44.130 %Abs	RK1:33->G07@3
STX Std 3	0.638 Abs [0.6460] {1.8 CV}	0.103 µg/L [0.101] {2.8 CV}	R ² =0.99993, 43.050 %Abs	RK1:33->H07@3
STX Std 4	0.417 Abs	0.191 µg/L	R ² =0.99993, 28.138 %Abs	RK1:34->A08@2
STX Std 4	0.402 Abs [0.4095] {2.6 CV}	0.201 µg/L [0.196] {3.6 CV}	R ² =0.99993, 27.126 %Abs	RK1:34->B08@2
STX Std 5	0.256 Abs	> 0.400 µg/L	17.274 %Abs	RK1:35->C08@2
STX Std 5	0.250 Abs [0.2530] {1.7 CV}	> 0.400 µg/L	16.869 %Abs	RK1:35->D08@2

6/19/2024 2:25:19 PM				
STX Control (0.060-0.090)	0.813 Abs	0.069 µg/L	54.858 %Abs	RK1:36->E08@2
STX Control (0.060-0.090)	0.804 Abs [0.8085] {0.8 CV}	0.070 µg/L [0.070] {1.0 CV}	54.251 %Abs [54.555 %Abs]	RK1:36->F08@3

Statistic				
STX Std 0 [MEAN]	1.4815	0.0005		
STX Std 0 [SD]	0.0078	0.0007		
STX Std 0 [%CV]	0.5250	141.4214		
STX Std 1 [MEAN]	1.2630	0.0200		
STX Std 1 [SD]	0.0057	0.0000		
STX Std 1 [%CV]	0.4479	0.0000		
STX Std 1 [%DIFF]		0.0000		
STX Std 2 [MEAN]	0.9500	0.0505		
STX Std 2 [SD]	0.0170	0.0021		
STX Std 2 [%CV]	1.7864	4.2006		
STX Std 2 [%DIFF]		1.0000		
STX Std 3 [MEAN]	0.6460	0.1010		
STX Std 3 [SD]	0.0113	0.0028		
STX Std 3 [%CV]	1.7513	2.8004		
STX Std 3 [%DIFF]		1.0000		
STX Std 4 [MEAN]	0.4095	0.1960		
STX Std 4 [SD]	0.0106	0.0071		
STX Std 4 [%CV]	2.5901	3.6077		
STX Std 4 [%DIFF]		-2.0000		
STX Std 5 [MEAN]	0.2530			
STX Std 5 [SD]	0.0042			
STX Std 5 [%CV]	1.6769			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.8085	0.0695		
STX Control (0.060-0.090) [SD]	0.0064	0.0007		
STX Control (0.060-0.090) [%CV]	0.7871	1.0174		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.4829
 B = 1.3052
 C = 0.069581
 D = 0.13119
 R2 coef = 0.99993
 50% = 0.081

