Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC45898	Tippecanoe River at Monterey Boat Ramp	7/15/2025	7/17/2025	< 0.05
AC45899	Tippecanoe River at Pulaski Boat Ramp	7/15/2025	7/17/2025	< 0.05
AC45900	Tippecanoe River at the SR 16/SR 39 bridge (Buffalo)	7/15/2025	7/17/2025	< 0.05

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Test Report (by Request)

Test Information

Request: 7/17/2025 2:54:19 PM
Date: 7/17/2025

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.643 Abs	0.000 µg/L	R^2=0.99846, 100.1		0.000	Kit:25065(
STX Std 0	SAXITOXIN	1.639 Abs [1.6410] {0.2 C	0.000 µg/L [0.000]	R^2=0.99846, 99.87		0.000	Kit:25065(
STX Std 1	SAXITOXIN	1.375 Abs	0.020 µg/L	R^2=0.99846, 83.79		0.020	Kit:25065(
STX Std 1	SAXITOXIN	1.350 Abs [1.3625] {1.3 C	0.021 µg/L [0.021]	R^2=0.99846, 82.26		0.020	Kit:25065(
STX Std 2	SAXITOXIN	1.019 Abs	0.049 µg/L	R^2=0.99846, 62.09		0.050	Kit:25065(
STX Std 2	SAXITOXIN	1.041 Abs [1.0300] {1.5 C	0.047 µg/L [0.048]	R^2=0.99846, 63.43		0.050	Kit:25065(
STX Std 3	SAXITOXIN	0.657 Abs	0.106 µg/L	R^2=0.99846, 40.03		0.100	Kit:25065(
STX Std 3	SAXITOXIN	0.646 Abs [0.6515] {1.2 C	0.109 µg/L [0.108]	R^2=0.99846, 39.36		0.100	Kit:25065(
STX Std 4	SAXITOXIN	0.463 Abs	0.175 µg/L	R^2=0.99846, 28.21		0.200	Kit:25065(
STX Std 4	SAXITOXIN	0.434 Abs [0.4485] {4.6 C	0.191 µg/L [0.183]	R^2=0.99846, 26.44		0.200	Kit:25065(
STX Std 5	SAXITOXIN	0.267 Abs	0.395 µg/L	R^2=0.99846, 16.27		0.400	Kit:25065(
STX Std 5	SAXITOXIN	0.240 Abs [0.2535] {7.5 C	> 0.400 µg/L [0.39	14.625 %Abs		0.400	Kit:25065(
STX Control (0.060-0.090)	SAXITOXIN	0.865 Abs	0.068 µg/L	52.712 %Abs			Kit:25065(
STX Control (0.060-0.090)	SAXITOXIN	0.857 Abs [0.8610] {0.7 C	0.069 µg/L [0.069]	52.224 %Abs [52.4			Kit:25065(

Note

Signature David Jordan

David Jordan 7/17/2025

* 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) 7/17/2025 3:22:55 PM

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Test Report (by Request)

Test Information

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Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (SAX)	SAXITOXIN	1.541 Abs	0.008 µg/L	Low, 93.906 %Abs		0.020 - 0.400	Kit:25065(
LRB (SAX)	SAXITOXIN	1.517 Abs [1.5290] {1.1 C	0.010 µg/L [0.009]	Low, 92.444 %Abs		0.020 - 0.400	Kit:25065(
LFB (SAX)	SAXITOXIN	0.751 Abs	0.086 µg/L	45.765 %Abs		0.020 - 0.400	Kit:25065(
LFB (SAX)	SAXITOXIN	0.712 Abs [0.7315] {3.8 C	0.094 µg/L [0.090]	43.388 %Abs [44.5		0.020 - 0.400	Kit:25065(
AC45898	SAXITOXIN	1.461 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:25065(
AC45898	SAXITOXIN	1.462 Abs [1.4615] {0.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:25065(
AC45899	SAXITOXIN	1.454 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:25065(
AC45899	SAXITOXIN	1.469 Abs [1.4615] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:25065(
AC45900	SAXITOXIN	1.436 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:25065(
AC45900	SAXITOXIN	1.453 Abs [1.4445] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:25065(
AC45900LD	SAXITOXIN	1.472 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:25065(
AC45900LD	SAXITOXIN	1.438 Abs [1.4550] {1.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:25065(

Note

Signature David Jordan

David Jordan 7/17/2025

* 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) 7/17/2025 3:22:55 PM

SAXITOXIN - Assay Calibration Report

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:
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 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:2506505967

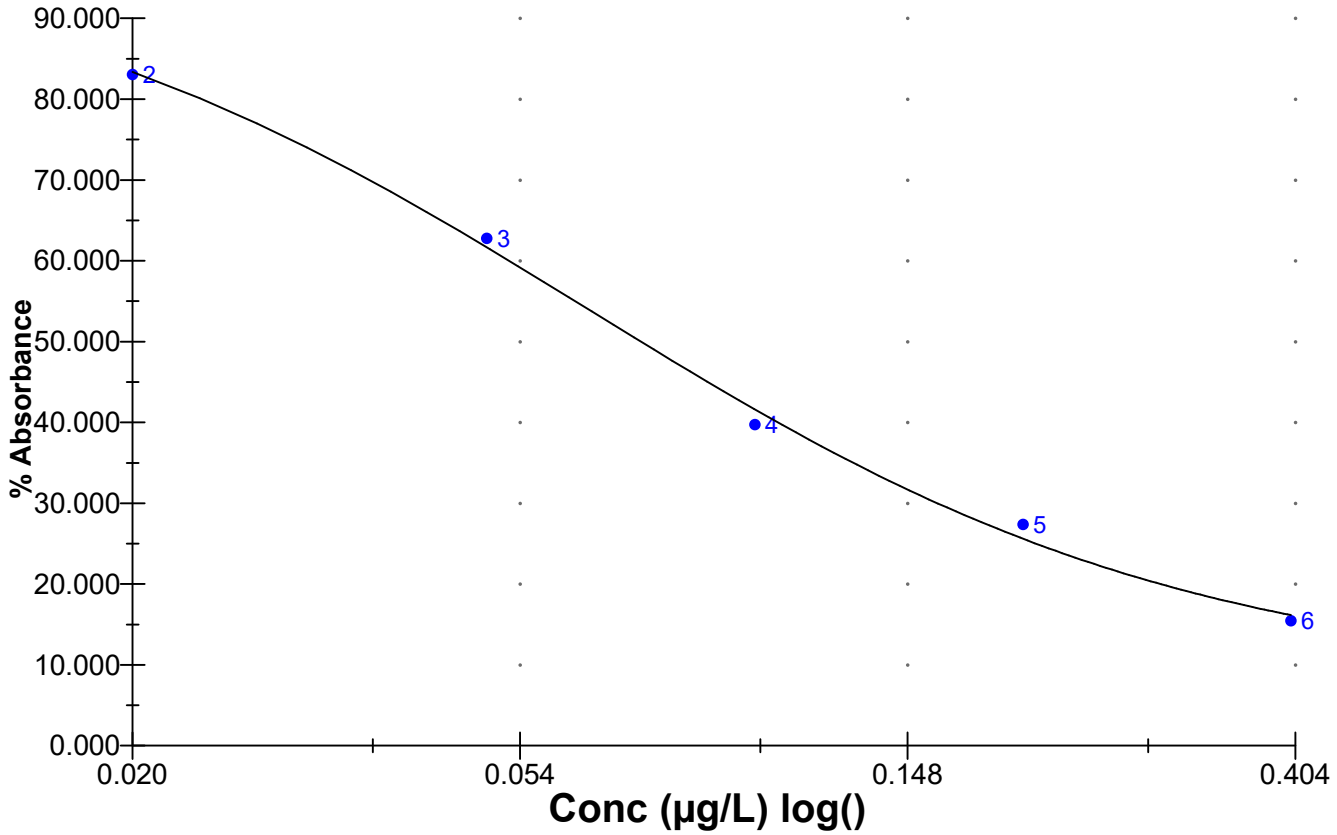
Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
7/17/2025 2:54:19 PM				
STX Std 0	1.643 Abs	0.000 µg/L	R^2=0.99846, 100.122 %Abs	RK1:23->A01@2
STX Std 0	1.639 Abs [1.6410] {0.2 CV}	0.000 µg/L [0.000]	R^2=0.99846, 99.878 %Abs	RK1:23->B01@2
STX Std 1	1.375 Abs	0.020 µg/L	R^2=0.99846, 83.790 %Abs	RK1:24->C01@2
STX Std 1	1.350 Abs [1.3625] {1.3 CV}	0.021 µg/L [0.021] {3.4 CV}	R^2=0.99846, 82.267 %Abs	RK1:24->D01@2
STX Std 2	1.019 Abs	0.049 µg/L	R^2=0.99846, 62.096 %Abs	RK1:25->E01@2
STX Std 2	1.041 Abs [1.0300] {1.5 CV}	0.047 µg/L [0.048] {2.9 CV}	R^2=0.99846, 63.437 %Abs	RK1:25->F01@3
STX Std 3	0.657 Abs	0.106 µg/L	R^2=0.99846, 40.037 %Abs	RK1:26->G01@3
STX Std 3	0.646 Abs [0.6515] {1.2 CV}	0.109 µg/L [0.108] {2.0 CV}	R^2=0.99846, 39.366 %Abs	RK1:26->H01@3
STX Std 4	0.463 Abs	0.175 µg/L	R^2=0.99846, 28.215 %Abs	RK1:27->A02@2
STX Std 4	0.434 Abs [0.4485] {4.6 CV}	0.191 µg/L [0.183] {6.2 CV}	R^2=0.99846, 26.447 %Abs	RK1:27->B02@2
STX Std 5	0.267 Abs	0.395 µg/L	R^2=0.99846, 16.271 %Abs	RK1:28->C02@2
STX Std 5	0.240 Abs [0.2535] {7.5 CV}	> 0.400 µg/L [0.395]	14.625 %Abs	RK1:28->D02@2
++++++++++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++
7/17/2025 2:54:19 PM				
STX Control (0.060-0.090)	0.865 Abs	0.068 µg/L	52.712 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.857 Abs [0.8610] {0.7 CV}	0.069 µg/L [0.069] {1.0 CV}	52.224 %Abs [52.468 %Abs]	RK1:29->F02@3
**********	**********	**********	**********	**********
Statistic				
STX Std 0 [MEAN]	1.6410	0.0000		
STX Std 0 [SD]	0.0028	0.0000		
STX Std 0 [%CV]	0.1724	0.0000		
STX Std 1 [MEAN]	1.3625	0.0205		
STX Std 1 [SD]	0.0177	0.0007		
STX Std 1 [%CV]	1.2974	3.4493		
STX Std 1 [%DIFF]		2.5000		
STX Std 2 [MEAN]	1.0300	0.0480		
STX Std 2 [SD]	0.0156	0.0014		
STX Std 2 [%CV]	1.5103	2.9463		
STX Std 2 [%DIFF]		-4.0000		
STX Std 3 [MEAN]	0.6515	0.1075		
STX Std 3 [SD]	0.0078	0.0021		
STX Std 3 [%CV]	1.1939	1.9733		
STX Std 3 [%DIFF]		7.5000		
STX Std 4 [MEAN]	0.4485	0.1830		
STX Std 4 [SD]	0.0205	0.0113		
STX Std 4 [%CV]	4.5722	6.1824		
STX Std 4 [%DIFF]		-8.5000		
STX Std 5 [MEAN]	0.2535			
STX Std 5 [SD]	0.0191			
STX Std 5 [%CV]	7.5313			

SAXITOXIN - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.8610	0.0685		
STX Control (0.060-0.090) [SD]	0.0057	0.0007		
STX Control (0.060-0.090) [%CV]	0.6570	1.0323		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.6406
B = 1.2825
C = 0.065039
D = 0.13134
R2 coef = 0.99846
50% = 0.074