



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC41517	Potato Creek SP - Worster Lake Beach	8/26/2024	8/27/2024	< 0.050
AC41518	Chain O'Lakes SP - Sand Lake Beach	8/26/2024	8/27/2024	0.059
AC41519	Mississinewa Lake - Miami SRA Beach	8/26/2024	8/27/2024	< 0.050
AC41520	Salamonie Lake - Lost Bridge West SRA Beach	8/26/2024	8/27/2024	< 0.050
AC41521	Chain O'Lakes SP - Sand Lake Beach (Field Duplicate)	8/26/2024	8/27/2024	0.063
AC41522	Field Blank	8/26/2024	8/27/2024	< 0.050
AC41523	Ferdinand State Forest - Ferdinand Lake Beach	8/26/2024	8/27/2024	0.063
AC41524	Lincoln SP - Lake Lincoln Beach	8/26/2024	8/27/2024	0.050
AC41525	Patoka Lake - Newton Stewart SRA	8/26/2024	8/27/2024	< 0.050

Test Report (by Request)

Test Information

Request: 8/27/2024 2:52:09 PM
 Date: 8/27/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.359 Abs	0.000 µg/L	R^2=0.99942, 100.2		0.000	Kit:P24A3
STX Std 0	SAXITOXIN	1.352 Abs [1.3555] {0.4 C	0.001 µg/L [0.001]	R^2=0.99942, 99.70		0.000	Kit:P24A3
STX Std 1	SAXITOXIN	1.144 Abs	0.020 µg/L	R^2=0.99942, 84.36		0.020	Kit:P24A3
STX Std 1	SAXITOXIN	1.131 Abs [1.1375] {0.8 C	0.021 µg/L [0.021]	R^2=0.99942, 83.40		0.020	Kit:P24A3
STX Std 2	SAXITOXIN	0.894 Abs	0.046 µg/L	R^2=0.99942, 65.92		0.050	Kit:P24A3
STX Std 2	SAXITOXIN	0.864 Abs [0.8790] {2.4 C	0.050 µg/L [0.048]	R^2=0.99942, 63.71		0.050	Kit:P24A3
STX Std 3	SAXITOXIN	0.596 Abs	0.100 µg/L	R^2=0.99942, 43.95		0.100	Kit:P24A3
STX Std 3	SAXITOXIN	0.562 Abs [0.5790] {4.2 C	0.109 µg/L [0.105]	R^2=0.99942, 41.44		0.100	Kit:P24A3
STX Std 4	SAXITOXIN	0.380 Abs	0.191 µg/L	R^2=0.99942, 28.02		0.200	Kit:P24A3
STX Std 4	SAXITOXIN	0.374 Abs [0.3770] {1.1 C	0.196 µg/L [0.194]	R^2=0.99942, 27.58		0.200	Kit:P24A3
STX Std 5	SAXITOXIN	0.230 Abs	0.398 µg/L	R^2=0.99942, 16.96		0.400	Kit:P24A3
STX Std 5	SAXITOXIN	0.224 Abs [0.2270] {1.9 C	> 0.400 µg/L [0.39	16.519 %Abs		0.400	Kit:P24A3
STX Control (0.060-0.090)	SAXITOXIN	0.748 Abs	0.068 µg/L	55.162 %Abs			Kit:P24A3
STX Control (0.060-0.090)	SAXITOXIN	0.732 Abs [0.7400] {1.5 C	0.070 µg/L [0.069]	53.982 %Abs [54.5			Kit:P24A3

Note

Signature *David Jordan*

David Jordan 8/27/2024

* 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) 8/27/2024 3:00:06 PM

Test Report (by Request)

Test Information

Request: 8/27/2024 2:53:04 PM
Date: 8/27/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.365 Abs	0.000 µg/L	Low, 100.664 %Abs		0.020 - 0.400	Kit:P24A3
LRB	SAXITOXIN	1.346 Abs [1.3555] {1.0 C	0.001 µg/L [0.001]	Low, 99.263 %Abs		0.020 - 0.400	Kit:P24A3
LFB (SAX)	SAXITOXIN	0.648 Abs	0.087 µg/L	47.788 %Abs		0.020 - 0.400	Kit:P24A3
LFB (SAX)	SAXITOXIN	0.632 Abs [0.6400] {1.8 C	0.091 µg/L [0.089]	46.608 %Abs [47.1		0.020 - 0.400	Kit:P24A3
AC41517	SAXITOXIN	1.170 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41517	SAXITOXIN	1.152 Abs [1.1610] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41517MS	SAXITOXIN	0.584 Abs	0.103 µg/L	43.068 %Abs		0.020 - 0.400	Kit:P24A3
AC41517MS	SAXITOXIN	0.562 Abs [0.5730] {2.7 C	0.109 µg/L [0.106]	41.445 %Abs [42.2		0.020 - 0.400	Kit:P24A3
AC41517MSD	SAXITOXIN	0.581 Abs	0.104 µg/L	42.847 %Abs		0.020 - 0.400	Kit:P24A3
AC41517MSD	SAXITOXIN	0.557 Abs [0.5690] {3.0 C	0.111 µg/L [0.108]	41.077 %Abs [41.9		0.020 - 0.400	Kit:P24A3
AC41518	SAXITOXIN	0.842 Abs	0.058 µg/L	62.094 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41518	SAXITOXIN	0.830 Abs [0.8360] {1.0 C	0.060 µg/L [0.059]	61.209 %Abs [61.6	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41519	SAXITOXIN	1.323 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41519	SAXITOXIN	1.322 Abs [1.3225] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41520	SAXITOXIN	1.250 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41520	SAXITOXIN	1.227 Abs [1.2385] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41521	SAXITOXIN	0.828 Abs	0.060 µg/L	61.062 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41521	SAXITOXIN	0.795 Abs [0.8115] {2.9 C	0.066 µg/L [0.063]	58.628 %Abs [59.8	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41522	SAXITOXIN	1.390 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41522	SAXITOXIN	1.354 Abs [1.3720] {1.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41523	SAXITOXIN	0.823 Abs	0.062 µg/L	60.693 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41523	SAXITOXIN	0.810 Abs [0.8165] {1.1 C	0.064 µg/L [0.063]	59.735 %Abs [60.2	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41524	SAXITOXIN	0.922 Abs	0.047 µg/L	67.994 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41524	SAXITOXIN	0.891 Abs [0.9065] {2.4 C	0.052 µg/L [0.050]	65.708 %Abs [66.8	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41525	SAXITOXIN	1.350 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41525	SAXITOXIN	1.334 Abs [1.3420] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3

Note

Signature *David Jordan*

David Jordan 8/27/2024

* 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) 8/27/2024 3:00:06 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
8/27/2024 2:52:09 PM				
STX Std 0	1.359 Abs	0.000 µg/L	R ² =0.99942, 100.221 %Abs	RK1:30->A06@1
STX Std 0	1.352 Abs [1.3555] {0.4 CV}	0.001 µg/L [0.001] {141.4 CV}	R ² =0.99942, 99.705 %Abs	RK1:30->B06@1
STX Std 1	1.144 Abs	0.020 µg/L	R ² =0.99942, 84.366 %Abs	RK1:31->C06@1
STX Std 1	1.131 Abs [1.1375] {0.8 CV}	0.021 µg/L [0.021] {3.4 CV}	R ² =0.99942, 83.407 %Abs	RK1:31->D06@1
STX Std 2	0.894 Abs	0.046 µg/L	R ² =0.99942, 65.929 %Abs	RK1:32->E06@1
STX Std 2	0.864 Abs [0.8790] {2.4 CV}	0.050 µg/L [0.048] {5.9 CV}	R ² =0.99942, 63.717 %Abs	RK1:32->F06@4
STX Std 3	0.596 Abs	0.100 µg/L	R ² =0.99942, 43.953 %Abs	RK1:33->G06@4
STX Std 3	0.562 Abs [0.5790] {4.2 CV}	0.109 µg/L [0.105] {6.1 CV}	R ² =0.99942, 41.445 %Abs	RK1:33->H06@4
STX Std 4	0.380 Abs	0.191 µg/L	R ² =0.99942, 28.024 %Abs	RK1:34->A07@2
STX Std 4	0.374 Abs [0.3770] {1.1 CV}	0.196 µg/L [0.194] {1.8 CV}	R ² =0.99942, 27.581 %Abs	RK1:34->B07@2
STX Std 5	0.230 Abs	0.398 µg/L	R ² =0.99942, 16.962 %Abs	RK1:35->C07@2
STX Std 5	0.224 Abs [0.2270] {1.9 CV}	> 0.400 µg/L [0.398]	16.519 %Abs	RK1:35->D07@2

8/27/2024 2:52:09 PM				
STX Control (0.060-0.090)	0.748 Abs	0.068 µg/L	55.162 %Abs	RK1:36->E07@2
STX Control (0.060-0.090)	0.732 Abs [0.7400] {1.5 CV}	0.070 µg/L [0.069] {2.0 CV}	53.982 %Abs [54.572 %Abs]	RK1:36->F07@3

Statistic				
STX Std 0 [MEAN]	1.3555	0.0005		
STX Std 0 [SD]	0.0049	0.0007		
STX Std 0 [%CV]	0.3652	141.4214		
STX Std 1 [MEAN]	1.1375	0.0205		
STX Std 1 [SD]	0.0092	0.0007		
STX Std 1 [%CV]	0.8081	3.4493		
STX Std 1 [%DIFF]		2.5000		
STX Std 2 [MEAN]	0.8790	0.0480		
STX Std 2 [SD]	0.0212	0.0028		
STX Std 2 [%CV]	2.4133	5.8926		
STX Std 2 [%DIFF]		-4.0000		
STX Std 3 [MEAN]	0.5790	0.1045		
STX Std 3 [SD]	0.0240	0.0064		
STX Std 3 [%CV]	4.1523	6.0899		
STX Std 3 [%DIFF]		4.5000		
STX Std 4 [MEAN]	0.3770	0.1935		
STX Std 4 [SD]	0.0042	0.0035		
STX Std 4 [%CV]	1.1254	1.8271		
STX Std 4 [%DIFF]		-3.2500		
STX Std 5 [MEAN]	0.2270			
STX Std 5 [SD]	0.0042			
STX Std 5 [%CV]	1.8690			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7400	0.0690		
STX Control (0.060-0.090) [SD]	0.0113	0.0014		
STX Control (0.060-0.090) [%CV]	1.5289	2.0496		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3543
 B = 1.2695
 C = 0.070744
 D = 0.10451
 R2 coef = 0.99942
 50% = 0.081

