



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB52631	Chain O'Lakes SP	8/29/2022	8/31/2022	0.24
AB52632	Kunkel Lake @ Oubache SP	8/29/2022	8/31/2022	1.46
AB52633	Potato Creek State Park	8/30/2022	8/31/2022	< 0.05
AB52634	Mississinewa Lake Miami SRA	8/30/2022	8/31/2022	< 0.05
AB52635	Lost Bridge West SRA	8/30/2022	8/31/2022	< 0.05
AB52636	Mississinewa Lake Miami SRA (Field Dup)	8/30/2022	8/31/2022	< 0.05
AB52637	Field Blank	8/30/2022	8/31/2022	< 0.05
AB52638	Patoka SRA Beach	8/29/2022	8/31/2022	< 0.30
AB52642	Ft. Ben Harrison SP Dog Lake	8/30/2022	8/31/2022	< 0.30
AB52643	Lincoln State Park	8/29/2022	8/31/2022	0.40

Test Information

Request: 9/1/2022 11:02:12 AM
Date: 8/31/2022 - 9/1/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.144 Abs	0.000 µg/L	R^2=0.99959, 100.0			M22B127
STX Std 0	SAXITOXIN	1.143 Abs [1.1435] {0.1 C	0.000 µg/L [0.000]	R^2=0.99959, 100.0			M22B127
STX Std 1	SAXITOXIN	0.962 Abs	0.019 µg/L	R^2=0.99959, 84.0%			M22B127
STX Std 1	SAXITOXIN	0.941 Abs [0.9515] {1.6 C	0.021 µg/L [0.020]	R^2=0.99959, 82.2%			M22B127
STX Std 2	SAXITOXIN	0.735 Abs	0.048 µg/L	R^2=0.99959, 64.2%			M22B127
STX Std 2	SAXITOXIN	0.719 Abs [0.7270] {1.6 C	0.050 µg/L [0.049]	R^2=0.99959, 62.8%			M22B127
STX Std 3	SAXITOXIN	0.502 Abs	0.102 µg/L	R^2=0.99959, 43.8%			M22B127
STX Std 3	SAXITOXIN	0.493 Abs [0.4975] {1.3 C	0.105 µg/L [0.103]	R^2=0.99959, 43.0%			M22B127
STX Std 4	SAXITOXIN	0.346 Abs	0.186 µg/L	R^2=0.99959, 30.2%			M22B127
STX Std 4	SAXITOXIN	0.336 Abs [0.3410] {2.1 C	0.195 µg/L [0.190]	R^2=0.99959, 29.3%			M22B127
STX Std 5	SAXITOXIN	0.218 Abs	> 0.400 µg/L	19.056 %Abs			M22B127
STX Std 5	SAXITOXIN	0.210 Abs [0.2140] {2.6 C	> 0.400 µg/L	18.357 %Abs			M22B127
STX Control (0.060-0.090)	SAXITOXIN	0.622 Abs	0.069 µg/L	54.371 %Abs			M22B127
STX Control (0.060-0.090)	SAXITOXIN	0.600 Abs [0.6110] {2.5 C	0.074 µg/L [0.072]	52.448 %Abs [53.4			M22B127

Note

Signature

David Jordan

David Jordan 9/01/2022

Test Report (by Request)

Test Information

Request: 9/1/2022 11:03:18 AM
Date: 8/31/2022 - 9/1/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.165 Abs	0.000 µg/L	Low, 101.836 %Abs		0.020 - 0.400	M22B127
LRB	SAXITOXIN	1.160 Abs [1.1625] {0.3 C	0.000 µg/L [0.000]			0.020 - 0.400	M22B127
LFB (SAX)	SAXITOXIN	0.644 Abs	0.064 µg/L	56.294 %Abs		0.020 - 0.400	M22B127
LFB (SAX)	SAXITOXIN	0.625 Abs [0.6345] {2.1 C	0.068 µg/L [0.066]	54.633 %Abs [55.4		0.020 - 0.400	M22B127
AB52631	SAXITOXIN	0.318 Abs	0.234 µg/L	27.797 %Abs	MDF=1.100	0.020 - 0.400	M22B127
AB52631	SAXITOXIN	0.306 Abs [0.3120] {2.7 C	0.249 µg/L [0.241]	26.748 %Abs [27.2	MDF=1.100	0.020 - 0.400	M22B127
AB52631MS	SAXITOXIN	0.272 Abs	0.273 µg/L	23.776 %Abs		0.020 - 0.400	M22B127
AB52631MS	SAXITOXIN	0.245 Abs [0.2585] {7.4 C	0.325 µg/L [0.299]	21.416 %Abs [22.5		0.020 - 0.400	M22B127
AB52631MSD	SAXITOXIN	0.273 Abs	0.271 µg/L	23.864 %Abs		0.020 - 0.400	M22B127
AB52631MSD	SAXITOXIN	0.255 Abs [0.2640] {4.8 C	0.304 µg/L [0.287]	22.290 %Abs [23.0		0.020 - 0.400	M22B127
AB52632	SAXITOXIN	0.073 Abs	> 0.400	High, Out Adjust Dil	MDF=1.100		M22B127
AB52632	SAXITOXIN	0.072 Abs [0.0725] {1.0 C	> 0.400 [> 0.400]		MDF=1.100		M22B127
AB52632-10X	SAXITOXIN	0.435 Abs	1.430 µg/L	High, 38.024 %Abs	MDF=11.000	0.020 - 0.400	M22B127
AB52632-10X	SAXITOXIN	0.424 Abs [0.4295] {1.8 C	1.485 µg/L [1.457]		MDF=11.000	0.020 - 0.400	M22B127
AB52633	SAXITOXIN	1.046 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52633	SAXITOXIN	1.033 Abs [1.0395] {0.9 C	< LOD [< LOD]		MDF=1.100		M22B127
AB52634	SAXITOXIN	1.077 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52634	SAXITOXIN	1.061 Abs [1.0690] {1.1 C	< LOD [< LOD]		MDF=1.100		M22B127
AB52635	SAXITOXIN	1.049 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52635	SAXITOXIN	1.053 Abs [1.0510] {0.3 C	< LOD [< LOD]		MDF=1.100		M22B127
AB52636	SAXITOXIN	1.035 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52636	SAXITOXIN	1.057 Abs [1.0460] {1.5 C	< LOD [< LOD]		MDF=1.100		M22B127
AB52637	SAXITOXIN	1.169 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52637	SAXITOXIN	1.155 Abs [1.1620] {0.9 C	< LOD [< LOD]		MDF=1.100		M22B127
AB52638	SAXITOXIN	1.137 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52638	SAXITOXIN	1.132 Abs [1.1345] {0.3 C	< LOD [< LOD]		MDF=1.100		M22B127
AB52642	SAXITOXIN	1.120 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52642	SAXITOXIN	1.102 Abs [1.1110] {1.1 C	< LOD [< LOD]		MDF=1.100		M22B127
AB52643	SAXITOXIN	0.199 Abs	> 0.400	High, Out Adjust Dil	MDF=1.100		M22B127
AB52643	SAXITOXIN	0.201 Abs [0.2000] {0.7 C	> 0.400 [> 0.400]		MDF=1.100		M22B127
AB52643-10X	SAXITOXIN	0.816 Abs	0.396 µg/L	71.329 %Abs	MDF=11.000	0.020 - 0.400	M22B127
AB52643-10X	SAXITOXIN	0.815 Abs [0.8155] {0.1 C	0.396 µg/L [0.396]	71.241 %Abs [71.2	MDF=11.000	0.020 - 0.400	M22B127

Note

Signature 

David Jordan 9/01/2022

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: M22B1271

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
9/1/2022 11:02:12 AM				
STX Std 0	1.144 Abs	0.000 µg/L	R ² =0.99959, 100.000 %Abs	RK1:30->A07@2
STX Std 0	1.143 Abs [1.1435] {0.1 CV}	0.000 µg/L [0.000]	R ² =0.99959, 100.000 %Abs	RK1:30->B07@2
STX Std 1	0.962 Abs	0.019 µg/L	R ² =0.99959, 84.091 %Abs	RK1:31->C07@2
STX Std 1	0.941 Abs [0.9515] {1.6 CV}	0.021 µg/L [0.020] {7.1 CV}	R ² =0.99959, 82.255 %Abs	RK1:31->D07@2
STX Std 2	0.735 Abs	0.048 µg/L	R ² =0.99959, 64.248 %Abs	RK1:32->E07@2
STX Std 2	0.719 Abs [0.7270] {1.6 CV}	0.050 µg/L [0.049] {2.9 CV}	R ² =0.99959, 62.850 %Abs	RK1:32->F07@3
STX Std 3	0.502 Abs	0.102 µg/L	R ² =0.99959, 43.881 %Abs	RK1:33->G07@3
STX Std 3	0.493 Abs [0.4975] {1.3 CV}	0.105 µg/L [0.103] {2.0 CV}	R ² =0.99959, 43.094 %Abs	RK1:33->H07@3
STX Std 4	0.346 Abs	0.186 µg/L	R ² =0.99959, 30.245 %Abs	RK1:34->A08@2
STX Std 4	0.336 Abs [0.3410] {2.1 CV}	0.195 µg/L [0.190] {3.3 CV}	R ² =0.99959, 29.371 %Abs	RK1:34->B08@2
STX Std 5	0.218 Abs	> 0.400 µg/L	19.056 %Abs	RK1:35->C08@2
STX Std 5	0.210 Abs [0.2140] {2.6 CV}	> 0.400 µg/L	18.357 %Abs	RK1:35->D08@2

9/1/2022 11:02:12 AM				
STX Control (0.060-0.090)	0.622 Abs	0.069 µg/L	54.371 %Abs	RK1:36->E08@2
STX Control (0.060-0.090)	0.600 Abs [0.6110] {2.5 CV}	0.074 µg/L [0.072] {4.9 CV}	52.448 %Abs [53.409 %Abs]	RK1:36->F08@3

Statistic				
STX Std 0 [MEAN]	1.1435	0.0000		
STX Std 0 [SD]	0.0007	0.0000		
STX Std 0 [%CV]	0.0618	0.0000		
STX Std 1 [MEAN]	0.9515	0.0200		
STX Std 1 [SD]	0.0148	0.0014		
STX Std 1 [%CV]	1.5606	7.0711		
STX Std 1 [%DIFF]		0.0000		
STX Std 2 [MEAN]	0.7270	0.0490		
STX Std 2 [SD]	0.0113	0.0014		
STX Std 2 [%CV]	1.5562	2.8862		
STX Std 2 [%DIFF]		-2.0000		
STX Std 3 [MEAN]	0.4975	0.1035		
STX Std 3 [SD]	0.0064	0.0021		
STX Std 3 [%CV]	1.2792	2.0496		
STX Std 3 [%DIFF]		3.5000		
STX Std 4 [MEAN]	0.3410	0.1905		
STX Std 4 [SD]	0.0071	0.0064		
STX Std 4 [%CV]	2.0736	3.3407		
STX Std 4 [%DIFF]		-4.7500		
STX Std 5 [MEAN]	0.2140			
STX Std 5 [SD]	0.0057			
STX Std 5 [%CV]	2.6434			

Name	Absorbance	Concentration	Interpretation	Position	
STX Control (0.060-0.090) [MEAN]	0.6110	0.0715			
STX Control (0.060-0.090) [SD]	0.0156	0.0035			
STX Control (0.060-0.090) [%CV]	2.5460	4.9448			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1442
 B = 1.2061
 C = 0.068102
 D = 0.10868
 R2 coef = 0.99959
 50% = 0.081

