Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB51886	Mississinewa Lake Miami SRA	7/5/2022	7/6/2022	< 0.05
AB51887	Potato Creek State Park	7/5/2022	7/6/2022	< 0.05
AB51888	Lost Bridge West SRA	7/5/2022	7/6/2022	< 0.05
AB51884	Potato Creek State Park (Field Dup)	7/5/2022	7/6/2022	< 0.05
AB51885	Field Blank	7/5/2022	7/6/2022	< 0.05

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Test Report (by Request)

Test Information

Request: 7/6/2022 4:59:22 PM
Date: 7/6/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.205 Abs	0.003 µg/L	R^2=0.99924, 98.2(			M22B127´
STX Std 0	SAXITOXIN	1.249 Abs [1.2270] {2.5 C	0.000 µg/L [0.002]	R^2=0.99924, 101.7			M22B127´
STX Std 1	SAXITOXIN	1.034 Abs	0.019 µg/L	R^2=0.99924, 84.27			M22B127´
STX Std 1	SAXITOXIN	1.019 Abs [1.0265] {1.0 C	0.020 µg/L [0.019]	R^2=0.99924, 83.04			M22B127´
STX Std 2	SAXITOXIN	0.793 Abs	0.047 µg/L	R^2=0.99924, 64.62			M22B127´
STX Std 2	SAXITOXIN	0.761 Abs [0.7770] {2.9 C	0.052 µg/L [0.049]	R^2=0.99924, 62.02			M22B127´
STX Std 3	SAXITOXIN	0.541 Abs	0.101 µg/L	R^2=0.99924, 44.09			M22B127´
STX Std 3	SAXITOXIN	0.518 Abs [0.5295] {3.1 C	0.109 µg/L [0.105]	R^2=0.99924, 42.21			M22B127´
STX Std 4	SAXITOXIN	0.371 Abs	0.186 µg/L	R^2=0.99924, 30.23			M22B127´
STX Std 4	SAXITOXIN	0.372 Abs [0.3715] {0.2 C	0.185 µg/L [0.185]	R^2=0.99924, 30.31			M22B127´
STX Std 5	SAXITOXIN	0.235 Abs	> 0.400 µg/L	19.152 %Abs			M22B127´
STX Std 5	SAXITOXIN	0.226 Abs [0.2305] {2.8 C	> 0.400 µg/L	18.419 %Abs			M22B127´
STX Control (0.060-0.090)	SAXITOXIN	0.657 Abs	0.071 µg/L	53.545 %Abs			M22B127´
STX Control (0.060-0.090)	SAXITOXIN	0.620 Abs [0.6385] {4.1 C	0.079 µg/L [0.075]	50.530 %Abs [52.0			M22B127´

Note

Signature

Charles Hostetter 7/7/2022

* 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 (6.4.1.1139/1085/1.00/0.95) 7/7/2022 7:56:21 AM

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Test Report (by Request)

Test Information

Request: 7/6/2022 4:59:53 PM
Date: 7/6/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.203 Abs	0.003 µg/L	Low, 98.044 %Abs		0.020 - 0.400	M22B127
LRB	SAXITOXIN	1.201 Abs [1.2020] {0.1 C	0.003 µg/L [0.003]	Low, 97.881 %Abs		0.020 - 0.400	M22B127
LFB	SAXITOXIN	0.587 Abs	0.087 µg/L	47.840 %Abs		0.020 - 0.400	M22B127
LFB	SAXITOXIN	0.573 Abs [0.5800] {1.7 C	0.091 µg/L [0.089]	46.699 %Abs [47.2		0.020 - 0.400	M22B127
AB51886	SAXITOXIN	1.167 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB51886	SAXITOXIN	1.180 Abs [1.1735] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB51886MS	SAXITOXIN	0.558 Abs	0.096 µg/L	45.477 %Abs		0.020 - 0.400	M22B127
AB51886MS	SAXITOXIN	0.516 Abs [0.5370] {5.5 C	0.109 µg/L [0.102]	42.054 %Abs [43.7		0.020 - 0.400	M22B127
AB51886MSD	SAXITOXIN	0.548 Abs	0.099 µg/L	44.662 %Abs		0.020 - 0.400	M22B127
AB51886MSD	SAXITOXIN	0.533 Abs [0.5405] {2.0 C	0.103 µg/L [0.101]	43.439 %Abs [44.0		0.020 - 0.400	M22B127
AB51887	SAXITOXIN	1.120 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB51887	SAXITOXIN	1.108 Abs [1.1140] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB51888	SAXITOXIN	0.886 Abs	0.038 µg/L	72.209 %Abs	MDF=1.100	0.020 - 0.400	M22B127
AB51888	SAXITOXIN	0.878 Abs [0.8820] {0.6 C	0.040 µg/L [0.039]	71.557 %Abs [71.8	MDF=1.100	0.020 - 0.400	M22B127
AB51884	SAXITOXIN	1.080 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB51884	SAXITOXIN	1.059 Abs [1.0695] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB51885	SAXITOXIN	1.182 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB51885	SAXITOXIN	1.162 Abs [1.1720] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127

Note

Signature

Charles Hostetter 7/7/2022

* 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 (6.4.1.1139/1085/1.00/0.95) 7/7/2022 7:56:21 AM

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: M22B1271

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
7/6/2022 4:59:22 PM				
STX Std 0	1.205 Abs	0.003 µg/L	R^2=0.99924, 98.207 %Abs	RK1:23->A01@2
STX Std 0	1.249 Abs [1.2270] {2.5 CV}	0.000 µg/L [0.002] {141.4 C\	R^2=0.99924, 101.793 %Abs	RK1:23->B01@2
STX Std 1	1.034 Abs	0.019 µg/L	R^2=0.99924, 84.271 %Abs	RK1:24->C01@2
STX Std 1	1.019 Abs [1.0265] {1.0 CV}	0.020 µg/L [0.019] {3.6 CV}	R^2=0.99924, 83.048 %Abs	RK1:24->D01@2
STX Std 2	0.793 Abs	0.047 µg/L	R^2=0.99924, 64.629 %Abs	RK1:25->E01@2
STX Std 2	0.761 Abs [0.7770] {2.9 CV}	0.052 µg/L [0.049] {7.1 CV}	R^2=0.99924, 62.021 %Abs	RK1:25->F01@3
STX Std 3	0.541 Abs	0.101 µg/L	R^2=0.99924, 44.091 %Abs	RK1:26->G01@3
STX Std 3	0.518 Abs [0.5295] {3.1 CV}	0.109 µg/L [0.105] {5.4 CV}	R^2=0.99924, 42.217 %Abs	RK1:26->H01@3
STX Std 4	0.371 Abs	0.186 µg/L	R^2=0.99924, 30.236 %Abs	RK1:27->A02@2
STX Std 4	0.372 Abs [0.3715] {0.2 CV}	0.185 µg/L [0.185] {0.4 CV}	R^2=0.99924, 30.318 %Abs	RK1:27->B02@2
STX Std 5	0.235 Abs	> 0.400 µg/L	19.152 %Abs	RK1:28->C02@2
STX Std 5	0.226 Abs [0.2305] {2.8 CV}	> 0.400 µg/L	18.419 %Abs	RK1:28->D02@2
++++++++++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++
7/6/2022 4:59:22 PM				
STX Control (0.060-0.090)	0.657 Abs	0.071 µg/L	53.545 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.620 Abs [0.6385] {4.1 CV}	0.079 µg/L [0.075] {7.5 CV}	50.530 %Abs [52.037 %Abs]	RK1:29->F02@3
**********	**********	**********	**********	**********
Statistic				
STX Std 0 [MEAN]	1.2270	0.0015		
STX Std 0 [SD]	0.0311	0.0021		
STX Std 0 [%CV]	2.5357	141.4214		
STX Std 1 [MEAN]	1.0265	0.0195		
STX Std 1 [SD]	0.0106	0.0007		
STX Std 1 [%CV]	1.0333	3.6262		
STX Std 1 [%DIFF]		-2.5000		
STX Std 2 [MEAN]	0.7770	0.0495		
STX Std 2 [SD]	0.0226	0.0035		
STX Std 2 [%CV]	2.9122	7.1425		
STX Std 2 [%DIFF]		-1.0000		
STX Std 3 [MEAN]	0.5295	0.1050		
STX Std 3 [SD]	0.0163	0.0057		
STX Std 3 [%CV]	3.0715	5.3875		
STX Std 3 [%DIFF]		5.0000		
STX Std 4 [MEAN]	0.3715	0.1855		
STX Std 4 [SD]	0.0007	0.0007		
STX Std 4 [%CV]	0.1903	0.3812		
STX Std 4 [%DIFF]		-7.2500		
STX Std 5 [MEAN]	0.2305			
STX Std 5 [SD]	0.0064			
STX Std 5 [%CV]	2.7609			

SAXITOXIN - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.6385	0.0750		
STX Control (0.060-0.090) [SD]	0.0262	0.0057		
STX Control (0.060-0.090) [%CV]	4.0976	7.5425		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.2281
B = 1.2294
C = 0.066548
D = 0.12866
R2 coef = 0.99924
50% = 0.081