Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC00558	Raccoon Lake SRA	5/15/2023	5/18/2023	< 0.050
AC00561	Cagles Mill Lake Beach	5/15/2023	5/18/2023	< 0.050
AC00562	Paynetown SRA	5/15/2023	5/18/2023	< 0.050
AC00563	Fairfax SRA	5/15/2023	5/18/2023	< 0.050
AC00564	Starve Hollow SRA	5/15/2023	5/18/2023	< 0.050
AC00565	Whitewater Memorial SP	5/16/2023	5/18/2023	< 0.050
AC00566	Quakertown SRA	5/16/2023	5/18/2023	< 0.050
AC00567	Mounds SRA	5/16/2023	5/18/2023	< 0.050
AC00568	Hardy Lake SRA	5/16/2023	5/18/2023	< 0.050
AC00559	Deam Lake SRA	5/16/2023	5/18/2023	< 0.050
AC00580	Starve Hollow SRA (Field Duplicate)	5/15/2023	5/18/2023	< 0.050
AC00581	Field Blank	5/15/2023	5/18/2023	< 0.050

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Test Report (by Request)

Test Information

Request: 5/18/2023 1:50:15 PM
Date: 5/18/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.336 Abs	0.006 µg/L	R^2=0.99923, 96.8			M22L286
STX Std 0	SAXITOXIN	1.424 Abs [1.3800] {4.5 C	0.000 µg/L [0.003]	R^2=0.99923, 103.1			M22L286
STX Std 1	SAXITOXIN	1.200 Abs	0.018 µg/L	R^2=0.99923, 86.9			M22L286
STX Std 1	SAXITOXIN	1.158 Abs [1.1790] {2.5 C	0.021 µg/L [0.019]	R^2=0.99923, 83.9			M22L286
STX Std 2	SAXITOXIN	0.883 Abs	0.049 µg/L	R^2=0.99923, 63.9			M22L286
STX Std 2	SAXITOXIN	0.868 Abs [0.8755] {1.2 C	0.051 µg/L [0.050]	R^2=0.99923, 62.8			M22L286
STX Std 3	SAXITOXIN	0.594 Abs	0.100 µg/L	R^2=0.99923, 43.0			M22L286
STX Std 3	SAXITOXIN	0.572 Abs [0.5830] {2.7 C	0.107 µg/L [0.104]	R^2=0.99923, 41.4			M22L286
STX Std 4	SAXITOXIN	0.403 Abs	0.180 µg/L	R^2=0.99923, 29.2			M22L286
STX Std 4	SAXITOXIN	0.394 Abs [0.3985] {1.6 C	0.187 µg/L [0.184]	R^2=0.99923, 28.5			M22L286
STX Std 5	SAXITOXIN	0.248 Abs	> 0.400 µg/L	17.971 %Abs			M22L286
STX Std 5	SAXITOXIN	0.236 Abs [0.2420] {3.5 C	> 0.400 µg/L	17.101 %Abs			M22L286
STX Control (0.060-0.090)	SAXITOXIN	0.782 Abs	0.063 µg/L	56.667 %Abs			M22L286
STX Control (0.060-0.090)	SAXITOXIN	0.758 Abs [0.7700] {2.2 C	0.067 µg/L [0.065]	54.928 %Abs [55.7			M22L286

Note

Signature _____

Charles Hostetter 5/18/2023

* 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) 5/18/2023 2:08:41 PM

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Test Report (by Request)

Test Information

Request: 5/18/2023 1:51:24 PM
Date: 5/18/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.424 Abs	0.000 µg/L	Low, 103.188 %Abs		0.020 - 0.400	M22L286E
LRB	SAXITOXIN	1.423 Abs [1.4235] {0.0 C	0.000 µg/L [0.000]	Low, 103.116 %Abs		0.020 - 0.400	M22L286E
LFB (SAX)	SAXITOXIN	0.663 Abs	0.084 µg/L	48.043 %Abs		0.020 - 0.400	M22L286E
LFB (SAX)	SAXITOXIN	0.650 Abs [0.6565] {1.4 C	0.087 µg/L [0.086]	47.101 %Abs [47.5		0.020 - 0.400	M22L286E
AC00558	SAXITOXIN	1.168 Abs	0.022 µg/L	84.638 %Abs	MDF=1.100	0.020 - 0.400	M22L286E
AC00558	SAXITOXIN	1.317 Abs [1.2425] {8.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00561	SAXITOXIN	1.380 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00561	SAXITOXIN	1.371 Abs [1.3755] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00561MS	SAXITOXIN	0.662 Abs	0.084 µg/L	47.971 %Abs		0.020 - 0.400	M22L286E
AC00561MS	SAXITOXIN	0.647 Abs [0.6545] {1.6 C	0.088 µg/L [0.086]	46.884 %Abs [47.4		0.020 - 0.400	M22L286E
AC00561MSD	SAXITOXIN	0.686 Abs	0.080 µg/L	49.710 %Abs		0.020 - 0.400	M22L286E
AC00561MSD	SAXITOXIN	0.664 Abs [0.6750] {2.3 C	0.084 µg/L [0.082]	48.116 %Abs [48.9		0.020 - 0.400	M22L286E
AC00562	SAXITOXIN	1.425 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00562	SAXITOXIN	1.379 Abs [1.4020] {2.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00563	SAXITOXIN	1.414 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00563	SAXITOXIN	1.377 Abs [1.3955] {1.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00564	SAXITOXIN	1.366 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00564	SAXITOXIN	1.378 Abs [1.3720] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00565	SAXITOXIN	1.394 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00565	SAXITOXIN	1.404 Abs [1.3990] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00566	SAXITOXIN	1.384 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00566	SAXITOXIN	1.357 Abs [1.3705] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00567	SAXITOXIN	1.394 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00567	SAXITOXIN	1.368 Abs [1.3810] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00568	SAXITOXIN	1.396 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00568	SAXITOXIN	1.386 Abs [1.3910] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00559	SAXITOXIN	1.434 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00559	SAXITOXIN	1.441 Abs [1.4375] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00580	SAXITOXIN	1.397 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00580	SAXITOXIN	1.375 Abs [1.3860] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00581	SAXITOXIN	1.440 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22L286E
AC00581	SAXITOXIN	1.423 Abs [1.4315] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22L286E

Note

Signature _____

* 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) 5/18/2023 2:08:41 PM

Charles Hostetter 5/18/2023

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: M22L2865

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
5/18/2023 1:50:15 PM				
STX Std 0	1.336 Abs	0.006 µg/L	R^2=0.99923, 96.812 %Abs	RK1:30->A07@2
STX Std 0	1.424 Abs [1.3800] {4.5 CV}	0.000 µg/L [0.003] {141.4 C\	R^2=0.99923, 103.188 %Abs	RK1:30->B07@2
STX Std 1	1.200 Abs	0.018 µg/L	R^2=0.99923, 86.957 %Abs	RK1:31->C07@2
STX Std 1	1.158 Abs [1.1790] {2.5 CV}	0.021 µg/L [0.019] {10.9 CV}	R^2=0.99923, 83.913 %Abs	RK1:31->D07@2
STX Std 2	0.883 Abs	0.049 µg/L	R^2=0.99923, 63.986 %Abs	RK1:32->E07@2
STX Std 2	0.868 Abs [0.8755] {1.2 CV}	0.051 µg/L [0.050] {2.8 CV}	R^2=0.99923, 62.899 %Abs	RK1:32->F07@3
STX Std 3	0.594 Abs	0.100 µg/L	R^2=0.99923, 43.043 %Abs	RK1:33->G07@3
STX Std 3	0.572 Abs [0.5830] {2.7 CV}	0.107 µg/L [0.104] {4.8 CV}	R^2=0.99923, 41.449 %Abs	RK1:33->H07@3
STX Std 4	0.403 Abs	0.180 µg/L	R^2=0.99923, 29.203 %Abs	RK1:34->A08@2
STX Std 4	0.394 Abs [0.3985] {1.6 CV}	0.187 µg/L [0.184] {2.7 CV}	R^2=0.99923, 28.551 %Abs	RK1:34->B08@2
STX Std 5	0.248 Abs	> 0.400 µg/L	17.971 %Abs	RK1:35->C08@2
STX Std 5	0.236 Abs [0.2420] {3.5 CV}	> 0.400 µg/L	17.101 %Abs	RK1:35->D08@2
++++++++++++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++
5/18/2023 1:50:15 PM				
STX Control (0.060-0.090)	0.782 Abs	0.063 µg/L	56.667 %Abs	RK1:36->E08@2
STX Control (0.060-0.090)	0.758 Abs [0.7700] {2.2 CV}	0.067 µg/L [0.065] {4.4 CV}	54.928 %Abs [55.797 %Abs]	RK1:36->F08@3
**********	**********	**********	**********	**********
Statistic				
STX Std 0 [MEAN]	1.3800	0.0030		
STX Std 0 [SD]	0.0622	0.0042		
STX Std 0 [%CV]	4.5091	141.4214		
STX Std 1 [MEAN]	1.1790	0.0195		
STX Std 1 [SD]	0.0297	0.0021		
STX Std 1 [%CV]	2.5190	10.8786		
STX Std 1 [%DIFF]		-2.5000		
STX Std 2 [MEAN]	0.8755	0.0500		
STX Std 2 [SD]	0.0106	0.0014		
STX Std 2 [%CV]	1.2115	2.8284		
STX Std 2 [%DIFF]		-0.0000		
STX Std 3 [MEAN]	0.5830	0.1035		
STX Std 3 [SD]	0.0156	0.0049		
STX Std 3 [%CV]	2.6683	4.7824		
STX Std 3 [%DIFF]		3.5000		
STX Std 4 [MEAN]	0.3985	0.1835		
STX Std 4 [SD]	0.0064	0.0049		
STX Std 4 [%CV]	1.5970	2.6974		
STX Std 4 [%DIFF]		-8.2500		
STX Std 5 [MEAN]	0.2420			
STX Std 5 [SD]	0.0085			
STX Std 5 [%CV]	3.5063			

SAXITOXIN - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7700	0.0650		
STX Control (0.060-0.090) [SD]	0.0170	0.0028		
STX Control (0.060-0.090) [%CV]	2.2040	4.3514		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.3824
B = 1.3439
C = 0.065047
D = 0.15438
R2 coef = 0.99923
50% = 0.079