



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB48329	Raccoon Lake SRA	8/23/2021	8/25/2021	< 0.05
AB48330	Cagles Mill Lake Beach	8/23/2021	8/25/2021	< 0.05
AB48331	Paynetown SRA	8/23/2021	8/25/2021	< 0.05
AB48332	Fairfax SRA	8/23/2021	8/25/2021	< 0.05
AB48333	Starve Hollow SRA	8/23/2021	8/25/2021	< 0.05
AB48334	Whitewater Memorial SP	8/24/2021	8/25/2021	< 0.05
AB48335	Mounds SRA	8/24/2021	8/25/2021	0.076
AB48336	Hardy Lake SRA	8/24/2021	8/25/2021	< 0.05
AB48337	Starve Hollow SRA (Field Duplicate)	8/23/2021	8/25/2021	< 0.05
AB48338	Field Blank	8/23/2021	8/25/2021	< 0.05
AB48373	Kunkel Beach @ Ouabache SP	8/23/2021	8/25/2021	2.9

Test Report (by Request)

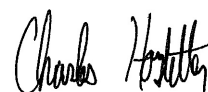
Test Information

Request: 8/25/2021 4:00:20 PM
Date: 8/25/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.590 Abs	0.000 µg/L	R ² =0.99875, 100.2			M21E518
STX Std 0	SAXITOXIN	1.582 Abs [1.5860] {0.4 C	0.001 µg/L [0.001]	R ² =0.99875, 99.74			M21E518
STX Std 1	SAXITOXIN	1.279 Abs	0.019 µg/L	R ² =0.99875, 80.64			M21E518
STX Std 1	SAXITOXIN	1.279 Abs [1.2790] {0.0 C	0.019 µg/L [0.019]	R ² =0.99875, 80.64			M21E518
STX Std 2	SAXITOXIN	0.947 Abs	0.048 µg/L	R ² =0.99875, 59.71			M21E518
STX Std 2	SAXITOXIN	0.896 Abs [0.9215] {3.9 C	0.054 µg/L [0.051]	R ² =0.99875, 56.45			M21E518
STX Std 3	SAXITOXIN	0.644 Abs	0.099 µg/L	R ² =0.99875, 40.60			M21E518
STX Std 3	SAXITOXIN	0.612 Abs [0.6280] {3.6 C	0.108 µg/L [0.104]	R ² =0.99875, 38.58			M21E518
STX Std 4	SAXITOXIN	0.450 Abs	0.174 µg/L	R ² =0.99875, 28.37			M21E518
STX Std 4	SAXITOXIN	0.434 Abs [0.4420] {2.6 C	0.184 µg/L [0.179]	R ² =0.99875, 27.36			M21E518
STX Std 5	SAXITOXIN	0.256 Abs	> 0.400 µg/L	16.141 %Abs			M21E518
STX Std 5	SAXITOXIN	0.245 Abs [0.2505] {3.1 C	> 0.400 µg/L	15.448 %Abs			M21E518
STX Control (0.060-0.090)	SAXITOXIN	0.830 Abs	0.063 µg/L	52.333 %Abs			M21E518
STX Control (0.060-0.090)	SAXITOXIN	0.821 Abs [0.8255] {0.8 C	0.065 µg/L [0.064]	51.765 %Abs [52.0			M21E518

Note

Signature



Test Report (by Request)

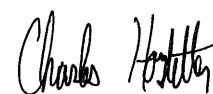
Test Information

Request: 8/25/2021 4:05:15 PM
Date: 8/25/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.505 Abs	0.005 µg/L	Low, 94.893 %Abs		0.020 - 0.400	M21E518(
LRB	SAXITOXIN	1.511 Abs [1.5080] {0.3 C	0.005 µg/L [0.005]	Low, 95.271 %Abs		0.020 - 0.400	M21E518(
LFB	SAXITOXIN	0.710 Abs	0.084 µg/L	44.767 %Abs		0.020 - 0.400	M21E518(
LFB	SAXITOXIN	0.693 Abs [0.7015] {1.7 C	0.088 µg/L [0.086]	43.695 %Abs [44.2		0.020 - 0.400	M21E518(
AB48329	SAXITOXIN	1.458 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB48329	SAXITOXIN	1.455 Abs [1.4565] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB48330	SAXITOXIN	1.373 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB48330	SAXITOXIN	1.342 Abs [1.3575] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB48331	SAXITOXIN	1.087 Abs	0.037 µg/L	68.537 %Abs	MDF=1.100	0.020 - 0.400	M21E518(
AB48331	SAXITOXIN	1.039 Abs [1.0630] {3.2 C	0.042 µg/L [0.039]	65.511 %Abs [67.0	MDF=1.100	0.020 - 0.400	M21E518(
AB48332	SAXITOXIN	1.078 Abs	0.038 µg/L	67.970 %Abs	MDF=1.100	0.020 - 0.400	M21E518(
AB48332	SAXITOXIN	1.026 Abs [1.0520] {3.5 C	0.044 µg/L [0.041]	64.691 %Abs [66.3	MDF=1.100	0.020 - 0.400	M21E518(
AB48333	SAXITOXIN	1.154 Abs	0.031 µg/L	72.762 %Abs	MDF=1.100	0.020 - 0.400	M21E518(
AB48333	SAXITOXIN	1.135 Abs [1.1445] {1.2 C	0.033 µg/L [0.032]	71.564 %Abs [72.1	MDF=1.100	0.020 - 0.400	M21E518(
AB48334	SAXITOXIN	1.433 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB48334	SAXITOXIN	1.408 Abs [1.4205] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB48334MS	SAXITOXIN	0.625 Abs	0.104 µg/L	39.407 %Abs		0.020 - 0.400	M21E518(
AB48334MS	SAXITOXIN	0.628 Abs [0.6265] {0.3 C	0.104 µg/L [0.104]	39.596 %Abs [39.5		0.020 - 0.400	M21E518(
AB48334MSD	SAXITOXIN	0.663 Abs	0.095 µg/L	41.803 %Abs		0.020 - 0.400	M21E518(
AB48334MSD	SAXITOXIN	0.622 Abs [0.6425] {4.5 C	0.105 µg/L [0.100]	39.218 %Abs [40.5		0.020 - 0.400	M21E518(
AB48335	SAXITOXIN	0.803 Abs	0.075 µg/L	50.631 %Abs	MDF=1.100	0.020 - 0.400	M21E518(
AB48335	SAXITOXIN	0.782 Abs [0.7925] {1.9 C	0.078 µg/L [0.076]	49.306 %Abs [49.9	MDF=1.100	0.020 - 0.400	M21E518(
AB48336	SAXITOXIN	1.356 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB48336	SAXITOXIN	1.347 Abs [1.3515] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB48337	SAXITOXIN	1.118 Abs	0.034 µg/L	70.492 %Abs	MDF=1.100	0.020 - 0.400	M21E518(
AB48337	SAXITOXIN	1.112 Abs [1.1150] {0.4 C	0.035 µg/L [0.035]	70.113 %Abs [70.3	MDF=1.100	0.020 - 0.400	M21E518(
AB48338	SAXITOXIN	1.551 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB48338	SAXITOXIN	1.509 Abs [1.5300] {1.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB48373 10X	SAXITOXIN	0.346 Abs	2.871 µg/L	High, 21.816 %Abs	MDF=11.000	0.020 - 0.400	M21E518(
AB48373 10X	SAXITOXIN	0.338 Abs [0.3420] {1.7 C	2.981 µg/L [2.926]	High, 21.311 %Abs	MDF=11.000	0.020 - 0.400	M21E518(

Note

Signature



Charles Hostetter 8/26/2021

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: M21E5180

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
8/25/2021 4:00:20 PM				
STX Std 0	1.590 Abs	0.000 µg/L	R^2=0.99875, 100.252 %Abs	RK1:23->A01@2
STX Std 0	1.582 Abs [1.5860] {0.4 CV}	0.001 µg/L [0.001] {141.4 CV}	R^2=0.99875, 99.748 %Abs	RK1:23->B01@2
STX Std 1	1.279 Abs	0.019 µg/L	R^2=0.99875, 80.643 %Abs	RK1:24->C01@2
STX Std 1	1.279 Abs [1.2790] {0.0 CV}	0.019 µg/L [0.019] {0.0 CV}	R^2=0.99875, 80.643 %Abs	RK1:24->D01@2
STX Std 2	0.947 Abs	0.048 µg/L	R^2=0.99875, 59.710 %Abs	RK1:25->E01@2
STX Std 2	0.896 Abs [0.9215] {3.9 CV}	0.054 µg/L [0.051] {8.3 CV}	R^2=0.99875, 56.494 %Abs	RK1:25->F01@3
STX Std 3	0.644 Abs	0.099 µg/L	R^2=0.99875, 40.605 %Abs	RK1:26->G01@3
STX Std 3	0.612 Abs [0.6280] {3.6 CV}	0.108 µg/L [0.104] {6.1 CV}	R^2=0.99875, 38.588 %Abs	RK1:26->H01@3
STX Std 4	0.450 Abs	0.174 µg/L	R^2=0.99875, 28.373 %Abs	RK1:27->A02@2
STX Std 4	0.434 Abs [0.4420] {2.6 CV}	0.184 µg/L [0.179] {4.0 CV}	R^2=0.99875, 27.364 %Abs	RK1:27->B02@2
STX Std 5	0.256 Abs	> 0.400 µg/L	16.141 %Abs	RK1:28->C02@2
STX Std 5	0.245 Abs [0.2505] {3.1 CV}	> 0.400 µg/L	15.448 %Abs	RK1:28->D02@2

8/25/2021 4:00:20 PM				
STX Control (0.060-0.090)	0.830 Abs	0.063 µg/L	52.333 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.821 Abs [0.8255] {0.8 CV}	0.065 µg/L [0.064] {2.2 CV}	51.765 %Abs [52.049 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.5860	0.0005		
STX Std 0 [SD]	0.0057	0.0007		
STX Std 0 [%CV]	0.3567	141.4214		
STX Std 1 [MEAN]	1.2790	0.0190		
STX Std 1 [SD]	0.0000	0.0000		
STX Std 1 [%CV]	0.0000	0.0000		
STX Std 1 [%DIFF]		-5.0000		
STX Std 2 [MEAN]	0.9215	0.0510		
STX Std 2 [SD]	0.0361	0.0042		
STX Std 2 [%CV]	3.9135	8.3189		
STX Std 2 [%DIFF]		2.0000		
STX Std 3 [MEAN]	0.6280	0.1035		
STX Std 3 [SD]	0.0226	0.0064		
STX Std 3 [%CV]	3.6031	6.1488		
STX Std 3 [%DIFF]		3.5000		
STX Std 4 [MEAN]	0.4420	0.1790		
STX Std 4 [SD]	0.0113	0.0071		
STX Std 4 [%CV]	2.5597	3.9503		
STX Std 4 [%DIFF]		-10.5000		
STX Std 5 [MEAN]	0.2505			
STX Std 5 [SD]	0.0078			
STX Std 5 [%CV]	3.1051			

Name	Absorbance	Concentration	Interpretation	Position	
STX Control (0.060-0.090) [MEAN]	0.8255	0.0640			
STX Control (0.060-0.090) [SD]	0.0064	0.0014			
STX Control (0.060-0.090) [%CV]	0.7709	2.2097			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.5892
 B = 1.1654
 C = 0.059569
 D = 0.12355
 R2 coef = 0.99875
 50% = 0.069

