



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB52159	Raccoon Lake SRA	7/25/2022	7/28/2022	< 0.05
AB52161	Cagles Mill Lake Beach	7/25/2022	7/28/2022	< 0.05
AB52162	Paynetown SRA	7/25/2022	7/28/2022	< 0.05
AB52163	Fairfax SRA	7/25/2022	7/28/2022	< 0.05
AB52165	Whitewater Memorial SP	7/26/2022	7/28/2022	< 0.05
AB52166	Quakertown SRA	7/26/2022	7/28/2022	< 0.05
AB52167	Mounds SRA	7/26/2022	7/28/2022	< 0.05
AB52168	Hardy Lake SRA	7/26/2022	7/28/2022	< 0.05
AB52169	Whitewater Memorial SP (Field Duplicate)	7/26/2022	7/28/2022	< 0.05
AB52170	Field Blank	7/26/2022	7/28/2022	< 0.05
AB52174	Ft. Ben Harrison SP Dog Lake	7/26/2022	7/28/2022	< 0.05

Test Report (by Request)

Test Information

Request: 7/28/2022 1:08:57 PM
Date: 7/28/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.224 Abs	0.000 µg/L	R^2=0.99955, 100.3			M22B127
STX Std 0	SAXITOXIN	1.217 Abs [1.2205] {0.4 C	0.001 µg/L [0.001]	R^2=0.99955, 99.75			M22B127
STX Std 1	SAXITOXIN	1.044 Abs	0.018 µg/L	R^2=0.99955, 85.57			M22B127
STX Std 1	SAXITOXIN	1.000 Abs [1.0220] {3.0 C	0.022 µg/L [0.020]	R^2=0.99955, 81.96			M22B127
STX Std 2	SAXITOXIN	0.797 Abs	0.047 µg/L	R^2=0.99955, 65.32			M22B127
STX Std 2	SAXITOXIN	0.768 Abs [0.7825] {2.6 C	0.052 µg/L [0.049]	R^2=0.99955, 62.95			M22B127
STX Std 3	SAXITOXIN	0.556 Abs	0.099 µg/L	R^2=0.99955, 45.57			M22B127
STX Std 3	SAXITOXIN	0.529 Abs [0.5425] {3.5 C	0.108 µg/L [0.104]	R^2=0.99955, 43.36			M22B127
STX Std 4	SAXITOXIN	0.382 Abs	0.186 µg/L	R^2=0.99955, 31.31			M22B127
STX Std 4	SAXITOXIN	0.374 Abs [0.3780] {1.5 C	0.192 µg/L [0.189]	R^2=0.99955, 30.65			M22B127
STX Std 5	SAXITOXIN	0.247 Abs	0.398 µg/L	R^2=0.99955, 20.24			M22B127
STX Std 5	SAXITOXIN	0.234 Abs [0.2405] {3.8 C	> 0.400 µg/L [0.39	19.180 %Abs			M22B127
STX Control (0.060-0.090)	SAXITOXIN	0.671 Abs	0.070 µg/L	55.000 %Abs			M22B127
STX Control (0.060-0.090)	SAXITOXIN	0.643 Abs [0.6570] {3.0 C	0.076 µg/L [0.073]	52.705 %Abs [53.8			M22B127

Note

Signature



Test Report (by Request)

Test Information

Request: 7/28/2022 1:10:03 PM
Date: 7/28/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.240 Abs	0.000 µg/L	Low, 101.639 %Abs		0.020 - 0.400	M22B127
LRB	SAXITOXIN	1.216 Abs [1.2280] {1.4 C	0.001 µg/L [0.001]	Low, 99.672 %Abs		0.020 - 0.400	M22B127
LFB (SAX)	SAXITOXIN	0.625 Abs	0.080 µg/L	51.230 %Abs		0.020 - 0.400	M22B127
LFB (SAX)	SAXITOXIN	0.605 Abs [0.6150] {2.3 C	0.085 µg/L [0.082]	49.590 %Abs [50.4		0.020 - 0.400	M22B127
AB52159	SAXITOXIN	1.215 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52159	SAXITOXIN	1.188 Abs [1.2015] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52159MS	SAXITOXIN	0.589 Abs	0.090 µg/L	48.279 %Abs		0.020 - 0.400	M22B127
AB52159MS	SAXITOXIN	0.558 Abs [0.5735] {3.8 C	0.099 µg/L [0.095]	45.738 %Abs [47.0		0.020 - 0.400	M22B127
AB52159MSD	SAXITOXIN	0.576 Abs	0.093 µg/L	47.213 %Abs		0.020 - 0.400	M22B127
AB52159MSD	SAXITOXIN	0.557 Abs [0.5665] {2.4 C	0.099 µg/L [0.096]	45.656 %Abs [46.4		0.020 - 0.400	M22B127
AB52161	SAXITOXIN	0.893 Abs	0.037 µg/L	73.197 %Abs	MDF=1.100	0.020 - 0.400	M22B127
AB52161	SAXITOXIN	0.877 Abs [0.8850] {1.3 C	0.040 µg/L [0.038]	71.885 %Abs [72.5	MDF=1.100	0.020 - 0.400	M22B127
AB52162	SAXITOXIN	1.011 Abs	0.023 µg/L	82.869 %Abs	MDF=1.100	0.020 - 0.400	M22B127
AB52162	SAXITOXIN	0.990 Abs [1.0005] {1.5 C	0.025 µg/L [0.024]	81.148 %Abs [82.0	MDF=1.100	0.020 - 0.400	M22B127
AB52163	SAXITOXIN	1.056 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52163	SAXITOXIN	1.041 Abs [1.0485] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52165	SAXITOXIN	1.209 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52165	SAXITOXIN	1.197 Abs [1.2030] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52166	SAXITOXIN	1.198 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52166	SAXITOXIN	1.176 Abs [1.1870] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52167	SAXITOXIN	1.123 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52167	SAXITOXIN	1.083 Abs [1.1030] {2.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52168	SAXITOXIN	1.168 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52168	SAXITOXIN	1.156 Abs [1.1620] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52169	SAXITOXIN	1.216 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52169	SAXITOXIN	1.193 Abs [1.2045] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52170	SAXITOXIN	1.256 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52170	SAXITOXIN	1.248 Abs [1.2520] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52174	SAXITOXIN	1.145 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52174	SAXITOXIN	1.091 Abs [1.1180] {3.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127

Note

Signature



Charles Hostetter 7/28/2022

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: "

"

Name	Absorbance	Concentration	Interpretation	Position
7/28/2022 1:08:57 PM				
STX Std 0	1.224 Abs	0.000 µg/L	R ² =0.99955, 100.328 %Abs	RK1:30->A07@2
STX Std 0	1.217 Abs [1.2205] {0.4 CV}	0.001 µg/L [0.001] {141.4 CV}	R ² =0.99955, 99.754 %Abs	RK1:30->B07@2
STX Std 1	1.044 Abs	0.018 µg/L	R ² =0.99955, 85.574 %Abs	RK1:31->C07@2
STX Std 1	1.000 Abs [1.0220] {3.0 CV}	0.022 µg/L [0.020] {14.1 CV}	R ² =0.99955, 81.967 %Abs	RK1:31->D07@2
STX Std 2	0.797 Abs	0.047 µg/L	R ² =0.99955, 65.328 %Abs	RK1:32->E07@2
STX Std 2	0.768 Abs [0.7825] {2.6 CV}	0.052 µg/L [0.049] {7.1 CV}	R ² =0.99955, 62.951 %Abs	RK1:32->F07@3
STX Std 3	0.556 Abs	0.099 µg/L	R ² =0.99955, 45.574 %Abs	RK1:33->G07@3
STX Std 3	0.529 Abs [0.5425] {3.5 CV}	0.108 µg/L [0.104] {6.1 CV}	R ² =0.99955, 43.361 %Abs	RK1:33->H07@3
STX Std 4	0.382 Abs	0.186 µg/L	R ² =0.99955, 31.311 %Abs	RK1:34->A08@2
STX Std 4	0.374 Abs [0.3780] {1.5 CV}	0.192 µg/L [0.189] {2.2 CV}	R ² =0.99955, 30.656 %Abs	RK1:34->B08@2
STX Std 5	0.247 Abs	0.398 µg/L	R ² =0.99955, 20.246 %Abs	RK1:35->C08@2
STX Std 5	0.234 Abs [0.2405] {3.8 CV}	> 0.400 µg/L [0.398]	19.180 %Abs	RK1:35->D08@2

7/28/2022 1:08:57 PM				
STX Control (0.060-0.090)	0.671 Abs	0.070 µg/L	55.000 %Abs	RK1:36->E08@2
STX Control (0.060-0.090)	0.643 Abs [0.6570] {3.0 CV}	0.076 µg/L [0.073] {5.8 CV}	52.705 %Abs [53.852 %Abs]	RK1:36->F08@3

Statistic				
STX Std 0 [MEAN]	1.2205	0.0005		
STX Std 0 [SD]	0.0049	0.0007		
STX Std 0 [%CV]	0.4055	141.4214		
STX Std 1 [MEAN]	1.0220	0.0200		
STX Std 1 [SD]	0.0311	0.0028		
STX Std 1 [%CV]	3.0443	14.1421		
STX Std 1 [%DIFF]		0.0000		
STX Std 2 [MEAN]	0.7825	0.0495		
STX Std 2 [SD]	0.0205	0.0035		
STX Std 2 [%CV]	2.6206	7.1425		
STX Std 2 [%DIFF]		-1.0000		
STX Std 3 [MEAN]	0.5425	0.1035		
STX Std 3 [SD]	0.0191	0.0064		
STX Std 3 [%CV]	3.5192	6.1488		
STX Std 3 [%DIFF]		3.5000		
STX Std 4 [MEAN]	0.3780	0.1890		
STX Std 4 [SD]	0.0057	0.0042		
STX Std 4 [%CV]	1.4965	2.2448		
STX Std 4 [%DIFF]		-5.5000		
STX Std 5 [MEAN]	0.2405			
STX Std 5 [SD]	0.0092			
STX Std 5 [%CV]	3.8222			

Name	Absorbance	Concentration	Interpretation	Position	
STX Control (0.060-0.090) [MEAN]	0.6570	0.0730			
STX Control (0.060-0.090) [SD]	0.0198	0.0042			
STX Control (0.060-0.090) [%CV]	3.0135	5.8118			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.2206
 B = 1.2129
 C = 0.068637
 D = 0.13156
 R2 coef = 0.99955
 50% = 0.084

