



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB52419	Raccoon Lake SRA	8/8/2022	8/10/2022	< 0.050
AB52421	Cagles Mill Lake Beach	8/8/2022	8/10/2022	< 0.050
AB52422	Paynetown SRA	8/8/2022	8/10/2022	< 0.050
AB52423	Fairfax SRA	8/8/2022	8/10/2022	< 0.050
AB52424	Starve Hollow SRA	8/8/2022	8/10/2022	0.18
AB52425	Whitewater Memorial SP	8/9/2022	8/10/2022	< 0.050
AB52426	Quakertown SRA	8/9/2022	8/10/2022	< 0.050
AB52427	Mounds SRA	8/9/2022	8/10/2022	< 0.050
AB52428	Hardy Lake SRA	8/9/2022	8/10/2022	< 0.050
AB52420	Deam Lake SRA	8/9/2022	8/10/2022	< 0.050
AB52429	Hardy Lake SRA (Field Duplicate)	8/9/2022	8/10/2022	< 0.050
AB52430	Field Blank	8/9/2022	8/10/2022	< 0.050
AB52431	Ft. Ben Harrison SP Dog Lake	8/9/2022	8/10/2022	< 0.050

Test Information

Request: 8/11/2022 12:41:38 PM
Date: 8/11/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.185 Abs	0.002 µg/L	R ² =0.99977, 99.4%			M22B127
STX Std 0	SAXITOXIN	1.200 Abs [1.1925] {0.9 C	0.000 µg/L [0.001]	R ² =0.99977, 100.6%			M22B127
STX Std 1	SAXITOXIN	1.019 Abs	0.019 µg/L	R ² =0.99977, 85.4%			M22B127
STX Std 1	SAXITOXIN	1.007 Abs [1.0130] {0.8 C	0.020 µg/L [0.019]	R ² =0.99977, 84.4%			M22B127
STX Std 2	SAXITOXIN	0.783 Abs	0.047 µg/L	R ² =0.99977, 65.6%			M22B127
STX Std 2	SAXITOXIN	0.746 Abs [0.7645] {3.4 C	0.053 µg/L [0.050]	R ² =0.99977, 62.5%			M22B127
STX Std 3	SAXITOXIN	0.539 Abs	0.098 µg/L	R ² =0.99977, 45.2%			M22B127
STX Std 3	SAXITOXIN	0.512 Abs [0.5255] {3.6 C	0.106 µg/L [0.102]	R ² =0.99977, 42.9%			M22B127
STX Std 4	SAXITOXIN	0.359 Abs	0.187 µg/L	R ² =0.99977, 30.1%			M22B127
STX Std 4	SAXITOXIN	0.350 Abs [0.3545] {1.8 C	0.195 µg/L [0.191]	R ² =0.99977, 29.3%			M22B127
STX Std 5	SAXITOXIN	0.233 Abs	> 0.400 µg/L	19.547 %Abs			M22B127
STX Std 5	SAXITOXIN	0.224 Abs [0.2285] {2.8 C	> 0.400 µg/L	18.792 %Abs			M22B127
STX Control (0.060-0.090)	SAXITOXIN	0.641 Abs	0.072 µg/L	53.775 %Abs			M22B127
STX Control (0.060-0.090)	SAXITOXIN	0.617 Abs [0.6290] {2.7 C	0.077 µg/L [0.074]	51.762 %Abs [52.7			M22B127

Note

Signature 

David Jordan 8/11/2022

Test Report (by Request)

Test Information

Request: 8/11/2022 12:42:44 PM
Date: 8/11/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.174 Abs	0.003 µg/L	Low, 98.490 %Abs		0.020 - 0.400	M22B127
LRB	SAXITOXIN	1.191 Abs [1.1825] {1.0 C	0.001 µg/L [0.002]	Low, 100.000 %Abs		0.020 - 0.400	M22B127
LFB (SAX)	SAXITOXIN	0.554 Abs	0.093 µg/L	46.477 %Abs		0.020 - 0.400	M22B127
LFB (SAX)	SAXITOXIN	0.549 Abs [0.5515] {0.6 C	0.095 µg/L [0.094]	46.057 %Abs [46.2		0.020 - 0.400	M22B127
AB52419	SAXITOXIN	1.172 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52419	SAXITOXIN	1.176 Abs [1.1740] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52421	SAXITOXIN	0.998 Abs	0.023 µg/L	83.725 %Abs	MDF=1.100	0.020 - 0.400	M22B127
AB52421	SAXITOXIN	0.970 Abs [0.9840] {2.0 C	0.026 µg/L [0.025]	81.376 %Abs [82.5	MDF=1.100	0.020 - 0.400	M22B127
AB52422	SAXITOXIN	1.021 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52422	SAXITOXIN	1.015 Abs [1.0180] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52423	SAXITOXIN	1.047 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52423	SAXITOXIN	1.019 Abs [1.0330] {1.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52424	SAXITOXIN	0.404 Abs	0.170 µg/L	33.893 %Abs	MDF=1.100	0.020 - 0.400	M22B127
AB52424	SAXITOXIN	0.389 Abs [0.3965] {2.7 C	0.182 µg/L [0.176]	32.634 %Abs [33.2	MDF=1.100	0.020 - 0.400	M22B127
AB52425	SAXITOXIN	1.152 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52425	SAXITOXIN	1.147 Abs [1.1495] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52426	SAXITOXIN	1.139 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52426	SAXITOXIN	1.135 Abs [1.1370] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52426MS	SAXITOXIN	0.561 Abs	0.091 µg/L	47.064 %Abs		0.020 - 0.400	M22B127
AB52426MS	SAXITOXIN	0.542 Abs [0.5515] {2.4 C	0.097 µg/L [0.094]	45.470 %Abs [46.2		0.020 - 0.400	M22B127
AB52426MSD	SAXITOXIN	0.573 Abs	0.088 µg/L	48.070 %Abs		0.020 - 0.400	M22B127
AB52426MSD	SAXITOXIN	0.545 Abs [0.5590] {3.5 C	0.096 µg/L [0.092]	45.721 %Abs [46.8		0.020 - 0.400	M22B127
AB52427	SAXITOXIN	1.090 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52427	SAXITOXIN	1.070 Abs [1.0800] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52428	SAXITOXIN	1.088 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52428	SAXITOXIN	1.113 Abs [1.1005] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52420	SAXITOXIN	1.203 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52420	SAXITOXIN	1.196 Abs [1.1995] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52429	SAXITOXIN	1.146 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52429	SAXITOXIN	1.130 Abs [1.1380] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52430	SAXITOXIN	1.204 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52430	SAXITOXIN	1.191 Abs [1.1975] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52431	SAXITOXIN	1.147 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127
AB52431	SAXITOXIN	1.144 Abs [1.1455] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127

Note

Signature 

David Jordan 8/11/2022

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
8/11/2022 12:41:38 PM				
STX Std 0	1.185 Abs	0.002 µg/L	R ² =0.99977, 99.413 %Abs	RK1:30->A07@2
STX Std 0	1.200 Abs [1.1925] {0.9 CV}	0.000 µg/L [0.001] {141.4 CV}	R ² =0.99977, 100.671 %Abs	RK1:30->B07@2
STX Std 1	1.019 Abs	0.019 µg/L	R ² =0.99977, 85.487 %Abs	RK1:31->C07@2
STX Std 1	1.007 Abs [1.0130] {0.8 CV}	0.020 µg/L [0.019] {3.6 CV}	R ² =0.99977, 84.480 %Abs	RK1:31->D07@2
STX Std 2	0.783 Abs	0.047 µg/L	R ² =0.99977, 65.688 %Abs	RK1:32->E07@2
STX Std 2	0.746 Abs [0.7645] {3.4 CV}	0.053 µg/L [0.050] {8.5 CV}	R ² =0.99977, 62.584 %Abs	RK1:32->F07@3
STX Std 3	0.539 Abs	0.098 µg/L	R ² =0.99977, 45.218 %Abs	RK1:33->G07@3
STX Std 3	0.512 Abs [0.5255] {3.6 CV}	0.106 µg/L [0.102] {5.5 CV}	R ² =0.99977, 42.953 %Abs	RK1:33->H07@3
STX Std 4	0.359 Abs	0.187 µg/L	R ² =0.99977, 30.117 %Abs	RK1:34->A08@2
STX Std 4	0.350 Abs [0.3545] {1.8 CV}	0.195 µg/L [0.191] {3.0 CV}	R ² =0.99977, 29.362 %Abs	RK1:34->B08@2
STX Std 5	0.233 Abs	> 0.400 µg/L	19.547 %Abs	RK1:35->C08@2
STX Std 5	0.224 Abs [0.2285] {2.8 CV}	> 0.400 µg/L	18.792 %Abs	RK1:35->D08@2

8/11/2022 12:41:38 PM				
STX Control (0.060-0.090)	0.641 Abs	0.072 µg/L	53.775 %Abs	RK1:36->E08@2
STX Control (0.060-0.090)	0.617 Abs [0.6290] {2.7 CV}	0.077 µg/L [0.074] {4.7 CV}	51.762 %Abs [52.768 %Abs]	RK1:36->F08@3

Statistic				
STX Std 0 [MEAN]	1.1925	0.0010		
STX Std 0 [SD]	0.0106	0.0014		
STX Std 0 [%CV]	0.8894	141.4214		
STX Std 1 [MEAN]	1.0130	0.0195		
STX Std 1 [SD]	0.0085	0.0007		
STX Std 1 [%CV]	0.8376	3.6262		
STX Std 1 [%DIFF]		-2.5000		
STX Std 2 [MEAN]	0.7645	0.0500		
STX Std 2 [SD]	0.0262	0.0042		
STX Std 2 [%CV]	3.4222	8.4853		
STX Std 2 [%DIFF]		-0.0000		
STX Std 3 [MEAN]	0.5255	0.1020		
STX Std 3 [SD]	0.0191	0.0057		
STX Std 3 [%CV]	3.6331	5.5459		
STX Std 3 [%DIFF]		2.0000		
STX Std 4 [MEAN]	0.3545	0.1910		
STX Std 4 [SD]	0.0064	0.0057		
STX Std 4 [%CV]	1.7952	2.9617		
STX Std 4 [%DIFF]		-4.5000		
STX Std 5 [MEAN]	0.2285			
STX Std 5 [SD]	0.0064			
STX Std 5 [%CV]	2.7851			

Name	Absorbance	Concentration	Interpretation	Position	
STX Control (0.060-0.090) [MEAN]	0.6290	0.0745			
STX Control (0.060-0.090) [SD]	0.0170	0.0035			
STX Control (0.060-0.090) [%CV]	2.6980	4.7457			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1929
 B = 1.2984
 C = 0.066854
 D = 0.13966
 R2 coef = 0.99977
 50% = 0.082

