



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43914	Kunkel Lake @ Ouabache SP	8/31/2020	9/3/2020	0.23
AB43915	Deam Lake SRA	8/31/2020	9/3/2020	< 0.05
AB43916	Chain O'Lakes SP	8/31/2020	9/3/2020	< 0.05
AB43917	Deam Lake SRA (Field Duplicate)	8/31/2020	9/3/2020	< 0.05
AB43918	Field Blank	8/31/2020	9/3/2020	< 0.05
AB44105	Ft. Harrison SP Dog Lake	9/1/2020	9/3/2020	< 0.05

Test Information

Request: 9/3/2020 11:45:57 AM

Date: 9/3/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
STX Std 0	SAXITOXIN	1.721 Abs	0.000 µg/L	R ² =0.99988, 100.00		19J2082
STX Std 0	SAXITOXIN	1.724 Abs [1.7225] {0.1 CV}	0.000 µg/L [0.000]	R ² =0.99988, 100.11		19J2082
STX Std 1	SAXITOXIN	1.390 Abs	0.018 µg/L	R ² =0.99988, 80.720		19J2082
STX Std 1	SAXITOXIN	1.344 Abs [1.3670] {2.4 CV}	0.021 µg/L [0.019] {1}	R ² =0.99988, 78.049		19J2082
STX Std 2	SAXITOXIN	0.962 Abs	0.050 µg/L	R ² =0.99988, 55.865		19J2082
STX Std 2	SAXITOXIN	0.952 Abs [0.9570] {0.7 CV}	0.051 µg/L [0.050] {1}	R ² =0.99988, 55.285		19J2082
STX Std 3	SAXITOXIN	0.638 Abs	0.098 µg/L	R ² =0.99988, 37.050		19J2082
STX Std 3	SAXITOXIN	0.615 Abs [0.6265] {2.6 CV}	0.104 µg/L [0.101] {4}	R ² =0.99988, 35.714		19J2082
STX Std 4	SAXITOXIN	0.390 Abs	0.195 µg/L	R ² =0.99988, 22.648		19J2082
STX Std 4	SAXITOXIN	0.397 Abs [0.3935] {1.3 CV}	0.191 µg/L [0.193] {1}	R ² =0.99988, 23.055		19J2082
STX Std 5	SAXITOXIN	0.243 Abs	0.398 µg/L	R ² =0.99988, 14.111		19J2082
STX Std 5	SAXITOXIN	0.228 Abs [0.2355] {4.5 CV}	> 0.400 µg/L [0.398]	13.240 %Abs		19J2082
STX Control (0.060-0.090)	SAXITOXIN	0.760 Abs	0.075 µg/L	44.135 %Abs		19J2082
STX Control (0.060-0.090)	SAXITOXIN	0.748 Abs [0.7540] {1.1 CV}	0.077 µg/L [0.076] {1}	43.438 %Abs [43.786]		19J2082

Note

Signature David Jordan

Date: 9/04/2020

Test Report (by Request)

Test Information

 Request: 9/3/2020 11:54:02 AM
 Date: 9/3/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.620 Abs	0.006 µg/L	LOW, 94.077 %ABS	0.020 - 0.400	19J2082
LRB	SAXITOXIN	1.624 Abs [1.6220] {0.2 CV}	0.006 µg/L [0.006] {0.2 CV}	LOW, 94.309 %ABS	0.020 - 0.400	19J2082
LFB	SAXITOXIN	0.826 Abs	0.066 µg/L	47.967 %Abs	0.020 - 0.400	19J2082
LFB	SAXITOXIN	0.806 Abs [0.8160] {1.7 CV}	0.068 µg/L [0.067] {1.7 CV}	46.806 %Abs [47.38]	0.020 - 0.400	19J2082
AB43914	SAXITOXIN	0.380 Abs	0.223 µg/L	22.067 %Abs	0.020 - 0.400	19J2082
AB43914	SAXITOXIN	0.359 Abs [0.3695] {4.0 CV}	0.241 µg/L [0.232] {4.0 CV}	20.848 %Abs [21.45]	0.020 - 0.400	19J2082
AB43915	SAXITOXIN	1.587 Abs	0.009 µg/L	LOW, 92.160 %ABS	0.020 - 0.400	19J2082
AB43915	SAXITOXIN	1.580 Abs [1.5835] {0.3 CV}	0.009 µg/L [0.009] {0.3 CV}	LOW, 91.754 %ABS	0.020 - 0.400	19J2082
AB43915MS	SAXITOXIN	0.782 Abs	0.072 µg/L	45.412 %Abs	0.020 - 0.400	19J2082
AB43915MS	SAXITOXIN	0.785 Abs [0.7835] {0.3 CV}	0.071 µg/L [0.072] {0.3 CV}	45.587 %Abs [45.49]	0.020 - 0.400	19J2082
AB43915MSD	SAXITOXIN	0.779 Abs	0.072 µg/L	45.238 %Abs	0.020 - 0.400	19J2082
AB43915MSD	SAXITOXIN	0.746 Abs [0.7625] {3.1 CV}	0.077 µg/L [0.074] {3.1 CV}	43.322 %Abs [44.28]	0.020 - 0.400	19J2082
AB43916	SAXITOXIN	1.295 Abs	0.026 µg/L	75.203 %Abs	0.020 - 0.400	19J2082
AB43916	SAXITOXIN	1.296 Abs [1.2955] {0.1 CV}	0.026 µg/L [0.026] {0.1 CV}	75.261 %Abs [75.23]	0.020 - 0.400	19J2082
AB43917	SAXITOXIN	1.587 Abs	0.009 µg/L	LOW, 92.160 %ABS	0.020 - 0.400	19J2082
AB43917	SAXITOXIN	1.584 Abs [1.5855] {0.1 CV}	0.009 µg/L [0.009] {0.1 CV}	LOW, 91.986 %ABS	0.020 - 0.400	19J2082
AB43918	SAXITOXIN	1.660 Abs	0.004 µg/L	LOW, 96.400 %ABS	0.020 - 0.400	19J2082
AB43918	SAXITOXIN	1.651 Abs [1.6555] {0.4 CV}	0.005 µg/L [0.004] {0.4 CV}	LOW, 95.877 %ABS	0.020 - 0.400	19J2082
AB44105	SAXITOXIN	1.538 Abs	0.012 µg/L	LOW, 89.315 %ABS	0.020 - 0.400	19J2082
AB44105	SAXITOXIN	1.521 Abs [1.5295] {0.8 CV}	0.012 µg/L [0.012] {0.8 CV}	LOW, 88.328 %ABS	0.020 - 0.400	19J2082

Note

 Signature *David Jordan*

Date: 09/04/2020

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: 19J2082

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: "

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Name	Absorbance	Concentration	Interpretation	Position
9/3/2020 11:45:57 AM				
STX Std 0	1.721 Abs		R ² =0.99988, 100.000 %Abs	RK1:23->A01@2
STX Std 0	1.724 Abs [1.7225] {0.1 CV}		R ² =0.99988, 100.116 %Abs	RK1:23->B01@2
STX Std 1	1.390 Abs		R ² =0.99988, 80.720 %Abs	RK1:24->C01@2
STX Std 1	1.344 Abs [1.3670] {2.4 CV}		R ² =0.99988, 78.049 %Abs	RK1:24->D01@2
STX Std 2	0.962 Abs		R ² =0.99988, 55.865 %Abs	RK1:25->E01@2
STX Std 2	0.952 Abs [0.9570] {0.7 CV}		R ² =0.99988, 55.285 %Abs	RK1:25->F01@3
STX Std 3	0.638 Abs		R ² =0.99988, 37.050 %Abs	RK1:26->G01@3
STX Std 3	0.615 Abs [0.6265] {2.6 CV}		R ² =0.99988, 35.714 %Abs	RK1:26->H01@3
STX Std 4	0.390 Abs		R ² =0.99988, 22.648 %Abs	RK1:27->A02@2
STX Std 4	0.397 Abs [0.3935] {1.3 CV}		R ² =0.99988, 23.055 %Abs	RK1:27->B02@2
STX Std 5	0.243 Abs		R ² =0.99988, 14.111 %Abs	RK1:28->C02@2
STX Std 5	0.228 Abs [0.2355] {4.5 CV}		13.240 %Abs	RK1:28->D02@2

9/3/2020 11:45:57 AM				
STX Control (0.060-0.090)	0.760 Abs		44.135 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.748 Abs [0.7540] {1.1 CV}		43.438 %Abs [43.786 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.7225			
STX Std 0 [SD]	0.0021			
STX Std 0 [%CV]	0.1232			
STX Std 1 [MEAN]	1.3670			
STX Std 1 [SD]	0.0325			
STX Std 1 [%CV]	2.3794			
STX Std 1 [%DIFF]				
STX Std 2 [MEAN]	0.9570			
STX Std 2 [SD]	0.0071			
STX Std 2 [%CV]	0.7389			
STX Std 2 [%DIFF]				
STX Std 3 [MEAN]	0.6265			
STX Std 3 [SD]	0.0163			
STX Std 3 [%CV]	2.5959			
STX Std 3 [%DIFF]				
STX Std 4 [MEAN]	0.3935			
STX Std 4 [SD]	0.0049			
STX Std 4 [%CV]	1.2579			
STX Std 4 [%DIFF]				
STX Std 5 [MEAN]	0.2355			
STX Std 5 [SD]	0.0106			
STX Std 5 [%CV]	4.5039			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7540			
STX Control (0.060-0.090) [SD]	0.0085			
STX Control (0.060-0.090) [%CV]	1.1254			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.7232
 B = 1.2415
 C = 0.054271
 D = 0.11806
 R2 coef = 0.99988
 50% = 0.061

