



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB47837	Potato Creek State Park	7/6/2021	7/7/2021	< 0.05
AB47838	Lost Bridge West SRA	7/6/2021	7/7/2021	< 0.05
AB47839	Mississinewa Lake Miami SRA	7/6/2021	7/7/2021	< 0.05
AB47840	Potato Creek State Park (Field Dup)	7/6/2021	7/7/2021	< 0.05
AB47841	Field Blank	7/6/2021	7/7/2021	< 0.05
AB47842	Ft. Ben Harrison SP Dog Lake - East	7/6/2021	7/7/2021	< 0.05

Test Report (by Request)

Test Information

 Request: 7/7/2021 2:56:25 PM
 Date: 7/7/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.219 Abs	0.000 µg/L	R^2=0.99885, 99.83%			20G3584
STX Std 0	SAXITOXIN	1.224 Abs [1.2215] {0.3 C	0.000 µg/L [0.000]	R^2=0.99885, 100.2%			20G3584
STX Std 1	SAXITOXIN	1.022 Abs	0.020 µg/L	R^2=0.99885, 83.7%			20G3584
STX Std 1	SAXITOXIN	1.011 Abs [1.0165] {0.8 C	0.021 µg/L [0.021]	R^2=0.99885, 82.8%			20G3584
STX Std 2	SAXITOXIN	0.784 Abs	0.046 µg/L	R^2=0.99885, 64.2%			20G3584
STX Std 2	SAXITOXIN	0.763 Abs [0.7735] {1.9 C	0.049 µg/L [0.047]	R^2=0.99885, 62.4%			20G3584
STX Std 3	SAXITOXIN	0.487 Abs	0.103 µg/L	R^2=0.99885, 39.8%			20G3584
STX Std 3	SAXITOXIN	0.472 Abs [0.4795] {2.2 C	0.108 µg/L [0.105]	R^2=0.99885, 38.6%			20G3584
STX Std 4	SAXITOXIN	0.315 Abs	0.186 µg/L	R^2=0.99885, 25.7%			20G3584
STX Std 4	SAXITOXIN	0.304 Abs [0.3095] {2.5 C	0.195 µg/L [0.190]	R^2=0.99885, 24.8%			20G3584
STX Std 5	SAXITOXIN	0.186 Abs	0.397 µg/L	R^2=0.99885, 15.2%			20G3584
STX Std 5	SAXITOXIN	0.179 Abs [0.1825] {2.7 C	> 0.400 µg/L [0.39	14.660 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.644 Abs	0.067 µg/L	52.744 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.623 Abs [0.6335] {2.3 C	0.071 µg/L [0.069]	51.024 %Abs [51.8			20G3584

Note

 Signature *David Jordan*

David Jordan 7/7/2021

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Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.195 Abs	0.004 µg/L	Low, 97.871 %Abs		0.020 - 0.400	20G3584
LRB	SAXITOXIN	1.204 Abs [1.1995] {0.5 C	0.003 µg/L [0.004]	Low, 98.608 %Abs		0.020 - 0.400	20G3584
LFB (SAX)	SAXITOXIN	0.522 Abs	0.094 µg/L	42.752 %Abs		0.020 - 0.400	20G3584
LFB (SAX)	SAXITOXIN	0.498 Abs [0.5100] {3.3 C	0.100 µg/L [0.097]	40.786 %Abs [41.7		0.020 - 0.400	20G3584
AB47837	SAXITOXIN	1.059 Abs	0.017 µg/L	Low, 86.732 %Abs		0.020 - 0.400	20G3584
AB47837	SAXITOXIN	1.054 Abs [1.0565] {0.3 C	0.017 µg/L [0.017]	Low, 86.323 %Abs		0.020 - 0.400	20G3584
AB47838	SAXITOXIN	1.088 Abs	0.014 µg/L	Low, 89.107 %Abs		0.020 - 0.400	20G3584
AB47838	SAXITOXIN	1.089 Abs [1.0885] {0.1 C	0.014 µg/L [0.014]	Low, 89.189 %Abs		0.020 - 0.400	20G3584
AB47838MS	SAXITOXIN	0.486 Abs	0.104 µg/L	39.803 %Abs		0.020 - 0.400	20G3584
AB47838MS	SAXITOXIN	0.474 Abs [0.4800] {1.8 C	0.107 µg/L [0.105]	38.821 %Abs [39.3		0.020 - 0.400	20G3584
AB47838MSD	SAXITOXIN	0.510 Abs	0.097 µg/L	41.769 %Abs		0.020 - 0.400	20G3584
AB47838MSD	SAXITOXIN	0.496 Abs [0.5030] {2.0 C	0.101 µg/L [0.099]	40.622 %Abs [41.1		0.020 - 0.400	20G3584
AB47839	SAXITOXIN	0.983 Abs	0.024 µg/L	80.508 %Abs		0.020 - 0.400	20G3584
AB47839	SAXITOXIN	0.976 Abs [0.9795] {0.5 C	0.025 µg/L [0.025]	79.934 %Abs [80.2		0.020 - 0.400	20G3584
AB47840	SAXITOXIN	1.046 Abs	0.018 µg/L	Low, 85.667 %Abs		0.020 - 0.400	20G3584
AB47840	SAXITOXIN	1.043 Abs [1.0445] {0.2 C	0.018 µg/L [0.018]	Low, 85.422 %Abs		0.020 - 0.400	20G3584
AB47841	SAXITOXIN	1.196 Abs	0.004 µg/L	Low, 97.953 %Abs		0.020 - 0.400	20G3584
AB47841	SAXITOXIN	1.195 Abs [1.1955] {0.1 C	0.004 µg/L [0.004]	Low, 97.871 %Abs		0.020 - 0.400	20G3584
AB47842	SAXITOXIN	1.103 Abs	0.013 µg/L	Low, 90.336 %Abs		0.020 - 0.400	20G3584
AB47842	SAXITOXIN	1.069 Abs [1.0860] {2.2 C	0.016 µg/L [0.015]	Low, 87.551 %Abs		0.020 - 0.400	20G3584

Note

 Signature *David Jordan*

David Jordan 7/7/2021

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: 20G3584

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
7/7/2021 2:56:25 PM				
STX Std 0	1.219 Abs	0.000 µg/L	R ² =0.99885, 99.836 %Abs	RK1:30->A06@1
STX Std 0	1.224 Abs [1.2215] {0.3 CV}	0.000 µg/L [0.000]	R ² =0.99885, 100.246 %Abs	RK1:30->B06@1
STX Std 1	1.022 Abs	0.020 µg/L	R ² =0.99885, 83.702 %Abs	RK1:31->C06@1
STX Std 1	1.011 Abs [1.0165] {0.8 CV}	0.021 µg/L [0.021] {3.4 CV}	R ² =0.99885, 82.801 %Abs	RK1:31->D06@1
STX Std 2	0.784 Abs	0.046 µg/L	R ² =0.99885, 64.210 %Abs	RK1:32->E06@1
STX Std 2	0.763 Abs [0.7735] {1.9 CV}	0.049 µg/L [0.047] {4.5 CV}	R ² =0.99885, 62.490 %Abs	RK1:32->F06@4
STX Std 3	0.487 Abs	0.103 µg/L	R ² =0.99885, 39.885 %Abs	RK1:33->G06@4
STX Std 3	0.472 Abs [0.4795] {2.2 CV}	0.108 µg/L [0.105] {3.4 CV}	R ² =0.99885, 38.657 %Abs	RK1:33->H06@4
STX Std 4	0.315 Abs	0.186 µg/L	R ² =0.99885, 25.799 %Abs	RK1:34->A07@2
STX Std 4	0.304 Abs [0.3095] {2.5 CV}	0.195 µg/L [0.190] {3.3 CV}	R ² =0.99885, 24.898 %Abs	RK1:34->B07@2
STX Std 5	0.186 Abs	0.397 µg/L	R ² =0.99885, 15.233 %Abs	RK1:35->C07@2
STX Std 5	0.179 Abs [0.1825] {2.7 CV}	> 0.400 µg/L [0.397]	14.660 %Abs	RK1:35->D07@2

7/7/2021 2:56:25 PM				
STX Control (0.060-0.090)	0.644 Abs	0.067 µg/L	52.744 %Abs	RK1:36->E07@2
STX Control (0.060-0.090)	0.623 Abs [0.6335] {2.3 CV}	0.071 µg/L [0.069] {4.1 CV}	51.024 %Abs [51.884 %Abs]	RK1:36->F07@3

Statistic				
STX Std 0 [MEAN]	1.2215	0.0000		
STX Std 0 [SD]	0.0035	0.0000		
STX Std 0 [%CV]	0.2894	0.0000		
STX Std 1 [MEAN]	1.0165	0.0205		
STX Std 1 [SD]	0.0078	0.0007		
STX Std 1 [%CV]	0.7652	3.4493		
STX Std 1 [%DIFF]		2.5000		
STX Std 2 [MEAN]	0.7735	0.0475		
STX Std 2 [SD]	0.0148	0.0021		
STX Std 2 [%CV]	1.9197	4.4659		
STX Std 2 [%DIFF]		-5.0000		
STX Std 3 [MEAN]	0.4795	0.1055		
STX Std 3 [SD]	0.0106	0.0035		
STX Std 3 [%CV]	2.2120	3.3512		
STX Std 3 [%DIFF]		5.5000		
STX Std 4 [MEAN]	0.3095	0.1905		
STX Std 4 [SD]	0.0078	0.0064		
STX Std 4 [%CV]	2.5131	3.3407		
STX Std 4 [%DIFF]		-4.7500		
STX Std 5 [MEAN]	0.1825			
STX Std 5 [SD]	0.0049			
STX Std 5 [%CV]	2.7122			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.6335	0.0690		
STX Control (0.060-0.090) [SD]	0.0148	0.0028		
STX Control (0.060-0.090) [%CV]	2.3440	4.0992		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.2183
 B = 1.3399
 C = 0.064980
 D = 0.094690
 R2 coef = 0.99885
 50% = 0.073

