



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)	% Recovery
LRB	Lab Reagent Blank	6/18/2019	6/18/2019	<0.05	
LFB	Lab Fortified Blank	6/18/2019	6/18/2019	0.065	65
AB39228	Pokagon State Park	6/17/2019	6/18/2019	<0.05	
AB39229	Potawatomi Inn's Beach	6/17/2019	6/18/2019	<0.05	
AB39230	Chain O'Lakes SP	6/17/2019	6/18/2019	<0.05	
AB39231	Kunkel Beach @ Ouabache State Park	6/17/2019	6/18/2019	0.10	
AB39235	Field Blank	6/17/2019	6/18/2019	<0.05	
AB39236	Kunkel Beach @ Ouabache State Park (Field Dup.)	6/17/2019	6/18/2019	0.11	
AB39232	Potato Creek State Park	6/17/2019	6/18/2019	<0.05	
AB39232MS	Potato Creek State Park (Matrix Spk.)	6/17/2019	6/18/2019	0.10	78
AB39232MSD	Potato Creek State Park (Matrix Spk. Dup.)	6/17/2019	6/18/2019	0.11	88
AB39233	Mississinewa Lake Miami SRA	6/17/2019	6/18/2019	<0.05	
AB39234	Lost Bridge West SRA	6/17/2019	6/18/2019	<0.05	
AB39237	Mississinewa Lake Miami SRA	6/17/2019	6/18/2019	<0.05	
AB39238	Field Blank	6/17/2019	6/18/2019	<0.05	

Test Information

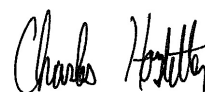
Request: 6/18/2019 2:29:51 PM
Date: 6/18/2019 - 6/19/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
STX Std 0	SAXITOXIN	0.917 Abs	0.001 µg/L	R^2=0.99973	0.000
STX Std 0	SAXITOXIN	0.926 Abs [0.9215] {0.7 CV}	0.000 µg/L [0.001] {141.1}	R^2=0.99973	0.000
STX Std 1	SAXITOXIN	0.775 Abs	0.020 µg/L	R^2=0.99973	0.020
STX Std 1	SAXITOXIN	0.772 Abs [0.7735] {0.3 CV}	0.021 µg/L [0.021] {3.4}	R^2=0.99973	0.020
STX Std 2	SAXITOXIN	0.572 Abs	0.047 µg/L	R^2=0.99973	0.050
STX Std 2	SAXITOXIN	0.557 Abs [0.5645] {1.9 CV}	0.050 µg/L [0.049] {4.4}	R^2=0.99973	0.050
STX Std 3	SAXITOXIN	0.343 Abs	0.102 µg/L	R^2=0.99973	0.100
STX Std 3	SAXITOXIN	0.341 Abs [0.3420] {0.4 CV}	0.103 µg/L [0.102] {0.7}	R^2=0.99973	0.100
STX Std 4	SAXITOXIN	0.197 Abs	0.197 µg/L	R^2=0.99973	0.200
STX Std 4	SAXITOXIN	0.199 Abs [0.1980] {0.7 CV}	0.195 µg/L [0.196] {0.7}	R^2=0.99973	0.200
STX Std 5	SAXITOXIN	0.115 Abs	0.388 µg/L	R^2=0.99973	0.400
STX Std 5	SAXITOXIN	0.110 Abs [0.1125] {3.1 CV}	> 0.400 µg/L [0.388]		0.400
STX Control (0.060-0.090)	SAXITOXIN	0.427 Abs	0.077 µg/L		0.075 +-
STX Control (0.060-0.090)	SAXITOXIN	0.411 Abs [0.4190] {2.7 CV}	0.081 µg/L [0.079] {3.6}		0.075 +-
LRB	SAXITOXIN	0.877 Abs	0.008 µg/L	LOW	0.020 - C
LRB	SAXITOXIN	0.877 Abs [0.8770] {0.0 CV}	0.008 µg/L [0.008] {0.0}	LOW [LOW]	0.020 - C
LFB	SAXITOXIN	0.480 Abs	0.064 µg/L		0.020 - C
LFB	SAXITOXIN	0.479 Abs [0.4795] {0.1 CV}	0.065 µg/L [0.065] {1.1}		0.020 - C
AB39228	SAXITOXIN	0.822 Abs	0.016 µg/L	LOW	0.020 - C
AB39228	SAXITOXIN	0.816 Abs [0.8190] {0.5 CV}	0.016 µg/L [0.016] {0.0}	LOW	0.020 - C
AB39229	SAXITOXIN	0.812 Abs	0.018 µg/L	LOW	0.020 - C
AB39229	SAXITOXIN	0.806 Abs [0.8090] {0.5 CV}	0.019 µg/L [0.019] {3.8}	LOW	0.020 - C
AB39230	SAXITOXIN	0.793 Abs	0.020 µg/L	LOW	0.020 - C
AB39230	SAXITOXIN	0.788 Abs [0.7905] {0.4 CV}	0.021 µg/L [0.021] {3.4}		0.020 - C
AB39231	SAXITOXIN	0.370 Abs	0.102 µg/L		0.020 - C
AB39231	SAXITOXIN	0.372 Abs [0.3710] {0.4 CV}	0.101 µg/L [0.102] {0.7}		0.020 - C
AB39235	SAXITOXIN	0.872 Abs	0.009 µg/L	LOW	0.020 - C
AB39235	SAXITOXIN	0.862 Abs [0.8670] {0.8 CV}	0.011 µg/L [0.010] {14.1}	LOW	0.020 - C
AB39236	SAXITOXIN	0.363 Abs	0.104 µg/L		0.020 - C
AB39236	SAXITOXIN	0.350 Abs [0.3565] {2.6 CV}	0.110 µg/L [0.107] {4.0}		0.020 - C
AB39232	SAXITOXIN	0.779 Abs	0.022 µg/L		0.020 - C
AB39232	SAXITOXIN	0.775 Abs [0.7770] {0.4 CV}	0.022 µg/L [0.022] {0.0}		0.020 - C
AB39232MS	SAXITOXIN	0.339 Abs	0.104 µg/L		0.020 - C
AB39232MS	SAXITOXIN	0.335 Abs [0.3370] {0.8 CV}	0.105 µg/L [0.104] {0.7}		0.020 - C
AB39232MSD	SAXITOXIN	0.335 Abs	0.105 µg/L		0.020 - C
AB39232MSD	SAXITOXIN	0.326 Abs [0.3305] {1.9 CV}	0.109 µg/L [0.107] {2.6}		0.020 - C
AB39233	SAXITOXIN	0.828 Abs	0.015 µg/L	LOW	0.020 - C
AB39233	SAXITOXIN	0.811 Abs [0.8195] {1.5 CV}	0.018 µg/L [0.017] {12.9}	LOW	0.020 - C
AB39234	SAXITOXIN	0.821 Abs	0.016 µg/L	LOW	0.020 - C
AB39234	SAXITOXIN	0.800 Abs [0.8105] {1.8 CV}	0.019 µg/L [0.018] {12.1}	LOW	0.020 - C
AB39237	SAXITOXIN	0.831 Abs	0.015 µg/L	LOW	0.020 - C
AB39237	SAXITOXIN	0.821 Abs [0.8260] {0.9 CV}	0.016 µg/L [0.015] {4.6}	LOW	0.020 - C
AB39238	SAXITOXIN	0.866 Abs	0.010 µg/L	LOW	0.020 - C
AB39238	SAXITOXIN	0.834 Abs [0.8500] {2.7 CV}	0.014 µg/L [0.012] {23.6}	LOW	0.020 - C

Note

LFB and MS/MSD spiked at 0.10 ug/L

Signature



Charles Hostetter 6/19/2019



SAXITOXIN - Assay Calibration Report

Assay Information

Assay Name: SAXITOXIN
Version: 1
Temperature: Room Temperature
Last Modified By: Security disabled
Units: µg/L
Assay Description: PN. 52255B
Assay Substances: Controls:

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: 7 days 0 hours

Axis Mode: Y = Abs, X = Log(Conc)

Assay Mode: 4-Parameter Logistic Weight by:None
Well Type: Flat bottom
Last Modified On: 12/5/2017 3:33:23 PM
Normal: 0.020 - 0.400
of decimals: 3

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position	
6/18/2019 2:29:51 PM					
STX Std 0	0.917 Abs	0.001 µg/L	R^2=0.99973	RK1:23->A01@2	
STX Std 0	0.926 Abs [0.9215] {0.7 CV}	0.000 µg/L [0.001] {141.4 CV}	R^2=0.99973	RK1:23->B01@2	
STX Std 1	0.775 Abs	0.020 µg/L	R^2=0.99973	RK1:24->C01@2	
STX Std 1	0.772 Abs [0.7735] {0.3 CV}	0.021 µg/L [0.021] {3.4 CV}	R^2=0.99973	RK1:24->D01@2	
STX Std 2	0.572 Abs	0.047 µg/L	R^2=0.99973	RK1:25->E01@2	
STX Std 2	0.557 Abs [0.5645] {1.9 CV}	0.050 µg/L [0.049] {4.4 CV}	R^2=0.99973	RK1:25->F01@3	
STX Std 3	0.343 Abs	0.102 µg/L	R^2=0.99973	RK1:26->G01@3	
STX Std 3	0.341 Abs [0.3420] {0.4 CV}	0.103 µg/L [0.102] {0.7 CV}	R^2=0.99973	RK1:26->H01@3	
STX Std 4	0.197 Abs	0.197 µg/L	R^2=0.99973	RK1:27->A02@2	
STX Std 4	0.199 Abs [0.1980] {0.7 CV}	0.195 µg/L [0.196] {0.7 CV}	R^2=0.99973	RK1:27->B02@2	
STX Std 5	0.115 Abs	0.388 µg/L	R^2=0.99973	RK1:28->C02@2	
STX Std 5	0.110 Abs [0.1125] {3.1 CV}	> 0.400 µg/L [0.388]		RK1:28->D02@2	
+++++					
6/18/2019 2:29:51 PM					
STX Control (0.060-0.090)	0.427 Abs	0.077 µg/L		RK1:29->E02@2	
STX Control (0.060-0.090)	0.411 Abs [0.4190] {2.7 CV}	0.081 µg/L [0.079] {3.6 CV}		RK1:29->F02@3	

Statistic					
STX Std 0 [MEAN]	0.9215	0.0005			
STX Std 0 [SD]	0.0064	0.0007			
STX Std 0 [%CV]	0.6906	141.4214			
STX Std 1 [MEAN]	0.7735	0.0205			
STX Std 1 [SD]	0.0021	0.0007			
STX Std 1 [%CV]	0.2742	3.4493			
STX Std 1 [%DIFF]		2.5000			
STX Std 2 [MEAN]	0.5645	0.0485			
STX Std 2 [SD]	0.0106	0.0021			
STX Std 2 [%CV]	1.8789	4.3739			
STX Std 2 [%DIFF]		-3.0000			
STX Std 3 [MEAN]	0.3420	0.1025			
STX Std 3 [SD]	0.0014	0.0007			
STX Std 3 [%CV]	0.4135	0.6899			
STX Std 3 [%DIFF]		2.5000			
STX Std 4 [MEAN]	0.1980	0.1960			
STX Std 4 [SD]	0.0014	0.0014			
STX Std 4 [%CV]	0.7143	0.7215			
STX Std 4 [%DIFF]		-2.0000			
STX Std 5 [MEAN]	0.1125				
STX Std 5 [SD]	0.0035				
STX Std 5 [%CV]	3.1427				

Name	Absorbance	Concentration	Interpretation	Position	
STX Control (0.060-0.090) [MEAN]	0.4190	0.0790			
STX Control (0.060-0.090) [SD]	0.0113	0.0028			
STX Control (0.060-0.090) [%CV]	2.7002	3.5803			
STX Control (0.060-0.090) [%DIFF]		5.3333			

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 0.91978
B = 1.4243
C = 0.062811
D = 0.054920
R2 coef = 0.99975

