



Saxitoxin Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ug/L)	% Recovery
LRB	Lab Reagent Blank	6/26/2019	6/26/2019	< 0.05	
LFB	Lab Fortified Blank (True value = 0.10)	6/26/2019	6/26/2019	0.065	65
AB39444	Quakertown SRA	6/24/2019	6/26/2019	< 0.05	
AB39445	Raccoon Lake SRA	6/24/2019	6/26/2019	< 0.05	
AB39446	Whitewater Memorial SP	6/24/2019	6/26/2019	< 0.05	
AB39446MS	Whitewater (Matrix Spike, True Value = 0.10)	6/26/2019	6/26/2019	0.082	72
AB39446MSD	Whitewater (Matrix Spike Duplicate, TV = 0.10)	6/26/2019	6/26/2019	0.083	73
AB39447	Hardy Lake SRA	6/24/2019	6/26/2019	0.056	
AB39448	Raccoon Lake (Field Duplicate)	6/24/2019	6/26/2019	< 0.05	
AB39449	Field Blank	6/24/2019	6/26/2019	< 0.05	

Test Information

Request: 6/26/2019 12:09:18 PM
Date: 6/26/2019 - 6/26/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
STX Std 0	SAXITOXIN	0.970 Abs	0.000 µg/L	R^2=0.99951	0.000
STX Std 0	SAXITOXIN	0.951 Abs [0.9605] {1.4 CV}	0.002 µg/L [0.001] {141.1}	R^2=0.99951	0.000
STX Std 1	SAXITOXIN	0.782 Abs	0.020 µg/L	R^2=0.99951	0.020
STX Std 1	SAXITOXIN	0.776 Abs [0.7790] {0.5 CV}	0.021 µg/L [0.021] {3.4}	R^2=0.99951	0.020
STX Std 2	SAXITOXIN	0.567 Abs	0.047 µg/L	R^2=0.99951	0.050
STX Std 2	SAXITOXIN	0.540 Abs [0.5535] {3.4 CV}	0.051 µg/L [0.049] {5.8}	R^2=0.99951	0.050
STX Std 3	SAXITOXIN	0.336 Abs	0.103 µg/L	R^2=0.99951	0.100
STX Std 3	SAXITOXIN	0.329 Abs [0.3325] {1.5 CV}	0.105 µg/L [0.104] {1.4}	R^2=0.99951	0.100
STX Std 4	SAXITOXIN	0.205 Abs	0.188 µg/L	R^2=0.99951	0.200
STX Std 4	SAXITOXIN	0.204 Abs [0.2045] {0.3 CV}	0.189 µg/L [0.188] {0.4}	R^2=0.99951	0.200
STX Std 5	SAXITOXIN	0.113 Abs	> 0.400 µg/L		0.400
STX Std 5	SAXITOXIN	0.108 Abs [0.1105] {3.2 CV}	> 0.400 µg/L		0.400
STX Control (0.060-0.090)	SAXITOXIN	0.448 Abs	0.069 µg/L		0.075 +-
STX Control (0.060-0.090)	SAXITOXIN	0.430 Abs [0.4390] {2.9 CV}	0.073 µg/L [0.071] {4.0}		0.075 +-
LRB	SAXITOXIN	0.990 Abs	0.000 µg/L	LOW	0.020 - C
LRB	SAXITOXIN	0.990 Abs [0.9900] {0.0 CV}	0.000 µg/L [0.000]	LOW [LOW]	0.020 - C
LFB	SAXITOXIN	0.466 Abs	0.065 µg/L		0.020 - C
LFB	SAXITOXIN	0.471 Abs [0.4685] {0.8 CV}	0.064 µg/L [0.065] {1.1}		0.020 - C
AB39444	SAXITOXIN	0.905 Abs	0.008 µg/L	LOW	0.020 - C
AB39444	SAXITOXIN	0.893 Abs [0.8990] {0.9 CV}	0.010 µg/L [0.009] {15.7}	LOW	0.020 - C
AB39445	SAXITOXIN	0.888 Abs	0.010 µg/L	LOW	0.020 - C
AB39445	SAXITOXIN	0.871 Abs [0.8795] {1.4 CV}	0.012 µg/L [0.011] {12.9}	LOW	0.020 - C
AB39446	SAXITOXIN	0.886 Abs	0.010 µg/L	LOW	0.020 - C
AB39446	SAXITOXIN	0.885 Abs [0.8855] {0.1 CV}	0.011 µg/L [0.010] {6.7}	LOW	0.020 - C
AB39446MS	SAXITOXIN	0.396 Abs	0.082 µg/L		0.020 - C
AB39446MS	SAXITOXIN	0.402 Abs [0.3990] {1.1 CV}	0.081 µg/L [0.082] {0.9}		0.020 - C
AB39446MSD	SAXITOXIN	0.395 Abs	0.083 µg/L		0.020 - C
AB39446MSD	SAXITOXIN	0.395 Abs [0.3950] {0.0 CV}	0.083 µg/L [0.083] {0.0}		0.020 - C
AB39447	SAXITOXIN	0.537 Abs	0.057 µg/L		0.020 - C
AB39447	SAXITOXIN	0.547 Abs [0.5420] {1.3 CV}	0.055 µg/L [0.056] {2.5}		0.020 - C
AB39448	SAXITOXIN	0.891 Abs	0.010 µg/L	LOW	0.020 - C
AB39448	SAXITOXIN	0.911 Abs [0.9010] {1.6 CV}	0.008 µg/L [0.009] {15.7}	LOW	0.020 - C
AB39449	SAXITOXIN	0.959 Abs	0.000 µg/L	LOW	0.020 - C
AB39449	SAXITOXIN	0.934 Abs [0.9465] {1.9 CV}	0.004 µg/L [0.002] {141.1}	LOW	0.020 - C

Note

Signature _____



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
6/26/2019 12:09:18 PM				
STX Std 0	0.970 Abs	0.000 µg/L	R^2=0.99951	RK1:23->A01@2
STX Std 0	0.951 Abs [0.9605] {1.4 CV}	0.002 µg/L [0.001] {141.4 CV}	R^2=0.99951	RK1:23->B01@2
STX Std 1	0.782 Abs	0.020 µg/L	R^2=0.99951	RK1:24->C01@2
STX Std 1	0.776 Abs [0.7790] {0.5 CV}	0.021 µg/L [0.021] {3.4 CV}	R^2=0.99951	RK1:24->D01@2
STX Std 2	0.540 Abs	0.051 µg/L	R^2=0.99951	RK1:25->F01@3
STX Std 2	0.567 Abs [0.5535] {3.4 CV}	0.047 µg/L [0.049] {5.8 CV}	R^2=0.99951	RK1:25->E01@2
STX Std 3	0.336 Abs	0.103 µg/L	R^2=0.99951	RK1:26->G01@3
STX Std 3	0.329 Abs [0.3325] {1.5 CV}	0.105 µg/L [0.104] {1.4 CV}	R^2=0.99951	RK1:26->H01@3
STX Std 4	0.205 Abs	0.188 µg/L	R^2=0.99951	RK1:27->A02@2
STX Std 4	0.204 Abs [0.2045] {0.3 CV}	0.189 µg/L [0.188] {0.4 CV}	R^2=0.99951	RK1:27->B02@2
STX Std 5	0.113 Abs	> 0.400 µg/L		RK1:28->C02@2
STX Std 5	0.108 Abs [0.1105] {3.2 CV}	> 0.400 µg/L		RK1:28->D02@2
+++++				
6/26/2019 12:09:18 PM				
STX Control (0.060-0.090)	0.448 Abs	0.069 µg/L		RK1:29->E02@2
STX Control (0.060-0.090)	0.430 Abs [0.4390] {2.9 CV}	0.073 µg/L [0.071] {4.0 CV}		RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	0.9605	0.0010		
STX Std 0 [SD]	0.0134	0.0014		
STX Std 0 [%CV]	1.3988	141.4214		
STX Std 1 [MEAN]	0.7790	0.0205		
STX Std 1 [SD]	0.0042	0.0007		
STX Std 1 [%CV]	0.5446	3.4493		
STX Std 1 [%DIFF]		2.5000		
STX Std 2 [MEAN]	0.5535	0.0490		
STX Std 2 [SD]	0.0191	0.0028		
STX Std 2 [%CV]	3.4493	5.7723		
STX Std 2 [%DIFF]		-2.0000		
STX Std 3 [MEAN]	0.3325	0.1040		
STX Std 3 [SD]	0.0049	0.0014		
STX Std 3 [%CV]	1.4886	1.3598		
STX Std 3 [%DIFF]		4.0000		
STX Std 4 [MEAN]	0.2045	0.1885		
STX Std 4 [SD]	0.0007	0.0007		
STX Std 4 [%CV]	0.3458	0.3751		
STX Std 4 [%DIFF]		-5.7500		
STX Std 5 [MEAN]	0.1105			
STX Std 5 [SD]	0.0035			
STX Std 5 [%CV]	3.1996			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.4390	0.0710		
STX Control (0.060-0.090) [SD]	0.0127	0.0028		
STX Control (0.060-0.090) [%CV]	2.8993	3.9837		
STX Control (0.060-0.090) [%DIFF]		-5.3333		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
Weight: NONE
A = 0.96058
B = 1.3386
C = 0.057070
D = 0.052004
R2 coef = 0.99955

