



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	6/10/2019	6/12/2019	< 0.050	
LFB	Lab Fortified Blank (True Value = 0.10)	6/10/2019	6/12/2019	0.105	105
AB39109	Paynetown (Field Duplicate)	6/10/2019	6/12/2019	< 0.050	
AB39110	Field Blank	6/10/2019	6/12/2019	< 0.050	
AB39111	Raccoon Lake SRA	6/10/2019	6/12/2019	< 0.050	
AB39112	Paynetown SRA	6/10/2019	6/12/2019	< 0.050	
AB39113	Fairfax SRA	6/10/2019	6/12/2019	< 0.050	
AB39113MS	Fairfax (Matrix Spike, True Value = 0.10)	6/10/2019	6/12/2019	0.109	101
AB39113MS D	Fairfax (Matrix Spike Duplicate, True Value = 0.10)	6/10/2019	6/12/2019	0.111	103
AB39114	Starve Hollow SRA	6/10/2019	6/12/2019	< 0.050	
AB39115	Whitewater Memorial S P	6/11/2019	6/12/2019	< 0.050	
AB39116	Quakertown SRA	6/11/2019	6/12/2019	< 0.050	
AB39117	Mounds SRA	6/11/2019	6/12/2019	< 0.050	
AB39118	Hardy Lake SRA	6/11/2019	6/12/2019	< 0.050	
AB39119	Deam Lake SRA	6/11/2019	6/12/2019	< 0.050	

Test Information

Request: 6/12/2019 2:13:21 PM
Date: 6/12/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
STX Std 0	SAXITOXIN	0.987 Abs	0.000 µg/L	R^2=0.99983	0.000
STX Std 0	SAXITOXIN	0.988 Abs [0.9875] {0.1 CV}	0.000 µg/L [0.000]	R^2=0.99983	0.000
STX Std 1	SAXITOXIN	0.826 Abs	0.020 µg/L	R^2=0.99983	0.020
STX Std 1	SAXITOXIN	0.829 Abs [0.8275] {0.3 CV}	0.020 µg/L [0.020] {0.0 CV}	R^2=0.99983	0.020
STX Std 2	SAXITOXIN	0.607 Abs	0.048 µg/L	R^2=0.99983	0.050
STX Std 2	SAXITOXIN	0.583 Abs [0.5950] {2.9 CV}	0.051 µg/L [0.049] {4.3 CV}	R^2=0.99983	0.050
STX Std 3	SAXITOXIN	0.366 Abs	0.102 µg/L	R^2=0.99983	0.100
STX Std 3	SAXITOXIN	0.363 Abs [0.3645] {0.6 CV}	0.103 µg/L [0.102] {0.7 CV}	R^2=0.99983	0.100
STX Std 4	SAXITOXIN	0.212 Abs	0.194 µg/L	R^2=0.99983	0.200
STX Std 4	SAXITOXIN	0.212 Abs [0.2120] {0.0 CV}	0.194 µg/L [0.194] {0.0 CV}	R^2=0.99983	0.200
STX Std 5	SAXITOXIN	0.116 Abs	> 0.400 µg/L		0.400
STX Std 5	SAXITOXIN	0.116 Abs [0.1160] {0.0 CV}	> 0.400 µg/L		0.400
STX Control (0.060-0.090)	SAXITOXIN	0.463 Abs	0.074 µg/L		0.075 +-0.010
STX Control (0.060-0.090)	SAXITOXIN	0.446 Abs [0.4545] {2.6 CV}	0.078 µg/L [0.076] {3.7 CV}		0.075 +-0.010
LRB	SAXITOXIN	0.966 Abs	0.004 µg/L	LOW	0.020 - 0.040
LRB	SAXITOXIN	0.967 Abs [0.9665] {0.1 CV}	0.004 µg/L [0.004] {0.0 CV}	LOW	0.020 - 0.040
LFB	SAXITOXIN	0.379 Abs	0.107 µg/L		0.020 - 0.040
LFB	SAXITOXIN	0.388 Abs [0.3835] {1.7 CV}	0.103 µg/L [0.105] {2.7 CV}		0.020 - 0.040
AB39109	SAXITOXIN	0.973 Abs	0.003 µg/L	LOW	0.020 - 0.040
AB39109	SAXITOXIN	0.961 Abs [0.9670] {0.9 CV}	0.005 µg/L [0.004] {35.4 CV}	LOW	0.020 - 0.040
AB39110	SAXITOXIN	0.975 Abs	0.003 µg/L	LOW	0.020 - 0.040
AB39110	SAXITOXIN	0.960 Abs [0.9675] {1.1 CV}	0.005 µg/L [0.004] {35.4 CV}	LOW	0.020 - 0.040
AB39111	SAXITOXIN	0.911 Abs	0.012 µg/L	LOW	0.020 - 0.040
AB39111	SAXITOXIN	0.901 Abs [0.9060] {0.8 CV}	0.013 µg/L [0.013] {5.7 CV}	LOW	0.020 - 0.040
AB39112	SAXITOXIN	0.953 Abs	0.007 µg/L	LOW	0.020 - 0.040
AB39112	SAXITOXIN	0.964 Abs [0.9585] {0.8 CV}	0.004 µg/L [0.006] {38.6 CV}	LOW	0.020 - 0.040
AB39113	SAXITOXIN	0.955 Abs	0.007 µg/L	LOW	0.020 - 0.040
AB39113	SAXITOXIN	0.944 Abs [0.9495] {0.8 CV}	0.008 µg/L [0.008] {9.4 CV}	LOW	0.020 - 0.040
AB39113MS	SAXITOXIN	0.381 Abs	0.107 µg/L		0.020 - 0.040
AB39113MS	SAXITOXIN	0.371 Abs [0.3760] {1.9 CV}	0.110 µg/L [0.109] {2.0 CV}		0.020 - 0.040
AB39113MSD	SAXITOXIN	0.367 Abs	0.111 µg/L		0.020 - 0.040
AB39113MSD	SAXITOXIN	0.369 Abs [0.3680] {0.4 CV}	0.111 µg/L [0.111] {0.0 CV}		0.020 - 0.040
AB39114	SAXITOXIN	0.910 Abs	0.012 µg/L	LOW	0.020 - 0.040
AB39114	SAXITOXIN	0.918 Abs [0.9140] {0.6 CV}	0.011 µg/L [0.012] {6.1 CV}	LOW	0.020 - 0.040
AB39115	SAXITOXIN	0.896 Abs	0.014 µg/L	LOW	0.020 - 0.040
AB39115	SAXITOXIN	0.893 Abs [0.8945] {0.2 CV}	0.014 µg/L [0.014] {0.0 CV}	LOW	0.020 - 0.040
AB39116	SAXITOXIN	0.908 Abs	0.012 µg/L	LOW	0.020 - 0.040
AB39116	SAXITOXIN	0.896 Abs [0.9020] {0.9 CV}	0.014 µg/L [0.013] {10.9 CV}	LOW	0.020 - 0.040
AB39117	SAXITOXIN	0.914 Abs	0.012 µg/L	LOW	0.020 - 0.040
AB39117	SAXITOXIN	0.912 Abs [0.9130] {0.2 CV}	0.012 µg/L [0.012] {0.0 CV}	LOW	0.020 - 0.040
AB39118	SAXITOXIN	0.889 Abs	0.014 µg/L	LOW	0.020 - 0.040
AB39118	SAXITOXIN	0.888 Abs [0.8885] {0.1 CV}	0.015 µg/L [0.014] {4.9 CV}	LOW	0.020 - 0.040
AB39119	SAXITOXIN	0.920 Abs	0.011 µg/L	LOW	0.020 - 0.040
AB39119	SAXITOXIN	0.906 Abs [0.9130] {1.1 CV}	0.013 µg/L [0.012] {11.8 CV}	LOW	0.020 - 0.040

Note

Signature

David Jordan

Date: 6/12/2019



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
6/12/2019 2:13:21 PM				
STX Std 0	0.987 Abs	0.000 µg/L	R^2=0.99983	RK1:23->A01@2
STX Std 0	0.988 Abs [0.9875] {0.1 CV}	0.000 µg/L [0.000]	R^2=0.99983	RK1:23->B01@2
STX Std 1	0.826 Abs	0.020 µg/L	R^2=0.99983	RK1:24->C01@2
STX Std 1	0.829 Abs [0.8275] {0.3 CV}	0.020 µg/L [0.020] {0.0 CV}	R^2=0.99983	RK1:24->D01@2
STX Std 2	0.607 Abs	0.048 µg/L	R^2=0.99983	RK1:25->E01@2
STX Std 2	0.583 Abs [0.5950] {2.9 CV}	0.051 µg/L [0.049] {4.3 CV}	R^2=0.99983	RK1:25->F01@3
STX Std 3	0.366 Abs	0.102 µg/L	R^2=0.99983	RK1:26->G01@3
STX Std 3	0.363 Abs [0.3645] {0.6 CV}	0.103 µg/L [0.102] {0.7 CV}	R^2=0.99983	RK1:26->H01@3
STX Std 4	0.212 Abs	0.194 µg/L	R^2=0.99983	RK1:27->A02@2
STX Std 4	0.212 Abs [0.2120] {0.0 CV}	0.194 µg/L [0.194] {0.0 CV}	R^2=0.99983	RK1:27->B02@2
STX Std 5	0.116 Abs	> 0.400 µg/L		RK1:28->C02@2
STX Std 5	0.116 Abs [0.1160] {0.0 CV}	> 0.400 µg/L		RK1:28->D02@2

6/12/2019 2:13:21 PM				
STX Control (0.060-0.090)	0.463 Abs	0.074 µg/L		RK1:29->E02@2
STX Control (0.060-0.090)	0.446 Abs [0.4545] {2.6 CV}	0.078 µg/L [0.076] {3.7 CV}		RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	0.9875	0.0000		
STX Std 0 [SD]	0.0007	0.0000		
STX Std 0 [%CV]	0.0716	0.0000		
STX Std 1 [MEAN]	0.8275	0.0200		
STX Std 1 [SD]	0.0021	0.0000		
STX Std 1 [%CV]	0.2564	0.0000		
STX Std 1 [%DIFF]		0.0000		
STX Std 2 [MEAN]	0.5950	0.0495		
STX Std 2 [SD]	0.0170	0.0021		
STX Std 2 [%CV]	2.8522	4.2855		
STX Std 2 [%DIFF]		-1.0000		
STX Std 3 [MEAN]	0.3645	0.1025		
STX Std 3 [SD]	0.0021	0.0007		
STX Std 3 [%CV]	0.5820	0.6899		
STX Std 3 [%DIFF]		2.5000		
STX Std 4 [MEAN]	0.2120	0.1940		
STX Std 4 [SD]	0.0000	0.0000		
STX Std 4 [%CV]	0.0000	0.0000		
STX Std 4 [%DIFF]		-3.0000		
STX Std 5 [MEAN]	0.1160			
STX Std 5 [SD]	0.0000			
STX Std 5 [%CV]	0.0000			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.4545	0.0760		
STX Control (0.060-0.090) [SD]	0.0120	0.0028		
STX Control (0.060-0.090) [%CV]	2.6448	3.7216		
STX Control (0.060-0.090) [%DIFF]		1.3333		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 0.98680
B = 1.4063
C = 0.062042
D = 0.055323
R2 coef = 0.99983

