Saxitoxin Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ug/L)
AB42857	Summit Lake - State Park	6/8/2020	6/10/2020	< 0.050
AB42858	Kunkel Beach @ Oubache State Park	6/8/2020	6/10/2020	< 0.050
AB42859	Pokagon State Park	6/8/2020	6/10/2020	< 0.050
AB42860	Potowatomi Inn's Beach	6/8/2020	6/10/2020	< 0.050
AB42861	Chain O'Lakes SP	6/8/2020	6/10/2020	< 0.050
AB42862	Potato Creek State Park	6/9/2020	6/10/2020	< 0.050
AB42863	Lost Bridge West SRA	6/9/2020	6/10/2020	< 0.050
AB42864	Mississinewa Lake Miami SRA	6/9/2020	6/10/2020	< 0.050
AB42865	Field Blank	6/9/2020	6/10/2020	< 0.050
AB42866	Lost Bridge West SRA (Field Duplicate)	6/9/2020	6/10/2020	< 0.050

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Test Report (by Request)

Test Information

Request: 6/10/2020 1:58:39 PM
Date: 6/10/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
STX Std 0	SAXITOXIN	1.755 Abs	0.000 µg/L	R^2=1.00000, 100.40		19J1672
STX Std 0	SAXITOXIN	1.741 Abs [1.7480] {0.6 CV}	0.001 µg/L [0.001] {1	R^2=1.00000, 99.600		19J1672
STX Std 1	SAXITOXIN	1.420 Abs	0.020 µg/L	R^2=1.00000, 81.236		19J1672
STX Std 1	SAXITOXIN	1.418 Abs [1.4190] {0.1 CV}	0.020 µg/L [0.020] {0	R^2=1.00000, 81.121		19J1672
STX Std 2	SAXITOXIN	1.023 Abs	0.049 µg/L	R^2=1.00000, 58.524		19J1672
STX Std 2	SAXITOXIN	1.013 Abs [1.0180] {0.7 CV}	0.050 µg/L [0.049] {1	R^2=1.00000, 57.952		19J1672
STX Std 3	SAXITOXIN	0.670 Abs	0.099 µg/L	R^2=1.00000, 38.330		19J1672
STX Std 3	SAXITOXIN	0.663 Abs [0.6665] {0.7 CV}	0.101 µg/L [0.100] {1	R^2=1.00000, 37.929		19J1672
STX Std 4	SAXITOXIN	0.400 Abs	0.201 µg/L	R^2=1.00000, 22.883		19J1672
STX Std 4	SAXITOXIN	0.403 Abs [0.4015] {0.5 CV}	0.199 µg/L [0.200] {0	R^2=1.00000, 23.055		19J1672
STX Std 5	SAXITOXIN	0.252 Abs	0.394 µg/L	R^2=1.00000, 14.416		19J1672
STX Std 5	SAXITOXIN	0.248 Abs [0.2500] {1.1 CV}	> 0.400 µg/L [0.394]	14.188 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.810 Abs	0.075 µg/L	46.339 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.785 Abs [0.7975] {2.2 CV}	0.078 µg/L [0.076] {2	44.908 %Abs [45.624		19J1672

Note

Signature David Jordan

Date: 6/10/2020

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests
* Generated by software version (6.4.1.1073/1085/1.00/0.95) 6/10/2020 2:40:48 PM

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Test Report (by Request)

Test Information

Request: 6/10/2020 1:59:45 PM
Date: 6/10/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.727 Abs	0.002 µg/L	**LOW, 98.799 %ABS**	0.020 - 0.400	19J1672
LRB	SAXITOXIN	1.767 Abs [1.7470] {1.6 CV}	0.000 µg/L [0.001] {1	**LOW, 101.087 %ABS**	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.810 Abs	0.075 µg/L	46.339 %Abs	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.800 Abs [0.8050] {0.9 CV}	0.076 µg/L [0.075] {0	45.767 %Abs [46.05	0.020 - 0.400	19J1672
AB42857	SAXITOXIN	1.682 Abs	0.005 µg/L	**LOW, 96.224 %ABS**	0.020 - 0.400	19J1672
AB42857	SAXITOXIN	1.693 Abs [1.6875] {0.5 CV}	0.004 µg/L [0.004] {1	**LOW, 96.854 %ABS**	0.020 - 0.400	19J1672
AB42857MS	SAXITOXIN	0.858 Abs	0.068 µg/L	49.085 %Abs	0.020 - 0.400	19J1672
AB42857MS	SAXITOXIN	0.849 Abs [0.8535] {0.7 CV}	0.069 µg/L [0.068] {1	48.570 %Abs [48.82	0.020 - 0.400	19J1672
AB42857MSD	SAXITOXIN	0.877 Abs	0.065 µg/L	50.172 %Abs	0.020 - 0.400	19J1672
AB42857MSD	SAXITOXIN	0.876 Abs [0.8765] {0.1 CV}	0.066 µg/L [0.065] {1	50.114 %Abs [50.14	0.020 - 0.400	19J1672
AB42858	SAXITOXIN	1.685 Abs	0.005 µg/L	**LOW, 96.396 %ABS**	0.020 - 0.400	19J1672
AB42858	SAXITOXIN	1.657 Abs [1.6710] {1.2 CV}	0.007 µg/L [0.006] {2	**LOW, 94.794 %ABS**	0.020 - 0.400	19J1672
AB42859	SAXITOXIN	1.651 Abs	0.008 µg/L	**LOW, 94.451 %ABS**	0.020 - 0.400	19J1672
AB42859	SAXITOXIN	1.631 Abs [1.6410] {0.9 CV}	0.009 µg/L [0.009] {8	**LOW, 93.307 %ABS**	0.020 - 0.400	19J1672
AB42860	SAXITOXIN	1.646 Abs	0.008 µg/L	**LOW, 94.165 %ABS**	0.020 - 0.400	19J1672
AB42860	SAXITOXIN	1.627 Abs [1.6365] {0.8 CV}	0.009 µg/L [0.009] {8	**LOW, 93.078 %ABS**	0.020 - 0.400	19J1672
AB42861	SAXITOXIN	1.590 Abs	0.011 µg/L	**LOW, 90.961 %ABS**	0.020 - 0.400	19J1672
AB42861	SAXITOXIN	1.634 Abs [1.6120] {1.9 CV}	0.009 µg/L [0.010] {1	**LOW, 93.478 %ABS**	0.020 - 0.400	19J1672
AB42862	SAXITOXIN	1.654 Abs	0.008 µg/L	**LOW, 94.622 %ABS**	0.020 - 0.400	19J1672
AB42862	SAXITOXIN	1.627 Abs [1.6405] {1.2 CV}	0.009 µg/L [0.009] {8	**LOW, 93.078 %ABS**	0.020 - 0.400	19J1672
AB42863	SAXITOXIN	1.692 Abs	0.004 µg/L	**LOW, 96.796 %ABS**	0.020 - 0.400	19J1672
AB42863	SAXITOXIN	1.694 Abs [1.6930] {0.1 CV}	0.004 µg/L [0.004] {0	**LOW, 96.911 %ABS**	0.020 - 0.400	19J1672
AB42864	SAXITOXIN	1.680 Abs	0.005 µg/L	**LOW, 96.110 %ABS**	0.020 - 0.400	19J1672
AB42864	SAXITOXIN	1.662 Abs [1.6710] {0.8 CV}	0.007 µg/L [0.006] {2	**LOW, 95.080 %ABS**	0.020 - 0.400	19J1672
AB42865	SAXITOXIN	1.749 Abs	0.000 µg/L	**LOW, 100.000 %ABS**	0.020 - 0.400	19J1672
AB42865	SAXITOXIN	1.726 Abs [1.7375] {0.9 CV}	0.002 µg/L [0.001] {1	**LOW, 98.741 %ABS**	0.020 - 0.400	19J1672
AB42866	SAXITOXIN	1.674 Abs	0.005 µg/L	**LOW, 95.767 %ABS**	0.020 - 0.400	19J1672
AB42866	SAXITOXIN	1.685 Abs [1.6795] {0.5 CV}	0.005 µg/L [0.005] {0	**LOW, 96.396 %ABS**	0.020 - 0.400	19J1672

Note

Signature David Jordan

Date: 6/10/2020

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests
* Generated by software version (6.4.1.1073/1085/1.00/0.95) 6/10/2020 2:40:48 PM

SAXITOXIN - Assay Calibration Report

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:
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 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: 19J1672

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
6/10/2020 1:58:39 PM				
STX Std 0	1.755 Abs		R^2=1.00000, 100.400 %Abs	RK1:30->A07@2
STX Std 0	1.741 Abs [1.7480] {0.6 CV}		R^2=1.00000, 99.600 %Abs	RK1:30->B07@2
STX Std 1	1.420 Abs		R^2=1.00000, 81.236 %Abs	RK1:31->C07@2
STX Std 1	1.418 Abs [1.4190] {0.1 CV}		R^2=1.00000, 81.121 %Abs	RK1:31->D07@2
STX Std 2	1.023 Abs		R^2=1.00000, 58.524 %Abs	RK1:32->E07@2
STX Std 2	1.013 Abs [1.0180] {0.7 CV}		R^2=1.00000, 57.952 %Abs	RK1:32->F07@3
STX Std 3	0.670 Abs		R^2=1.00000, 38.330 %Abs	RK1:33->G07@3
STX Std 3	0.663 Abs [0.6665] {0.7 CV}		R^2=1.00000, 37.929 %Abs	RK1:33->H07@3
STX Std 4	0.400 Abs		R^2=1.00000, 22.883 %Abs	RK1:34->A08@2
STX Std 4	0.403 Abs [0.4015] {0.5 CV}		R^2=1.00000, 23.055 %Abs	RK1:34->B08@2
STX Std 5	0.252 Abs		R^2=1.00000, 14.416 %Abs	RK1:35->C08@2
STX Std 5	0.248 Abs [0.2500] {1.1 CV}		14.188 %Abs	RK1:35->D08@2
++++++++++++++++++++++++++++++++	++++++++++++++++++++++++		++++++++++++++++++++++++	++++++++++++++++++++++++
6/10/2020 1:58:39 PM				
STX Control (0.060-0.090)	0.810 Abs		46.339 %Abs	RK1:36->E08@2
STX Control (0.060-0.090)	0.785 Abs [0.7975] {2.2 CV}		44.908 %Abs [45.624 %Abs]	RK1:36->F08@3
**********	**********	**********	**********	**********
Statistic				
STX Std 0 [MEAN]	1.7480			
STX Std 0 [SD]	0.0099			
STX Std 0 [%CV]	0.5663			
STX Std 1 [MEAN]	1.4190			
STX Std 1 [SD]	0.0014			
STX Std 1 [%CV]	0.0997			
STX Std 1 [%DIFF]				
STX Std 2 [MEAN]	1.0180			
STX Std 2 [SD]	0.0071			
STX Std 2 [%CV]	0.6946			
STX Std 2 [%DIFF]				
STX Std 3 [MEAN]	0.6665			
STX Std 3 [SD]	0.0049			
STX Std 3 [%CV]	0.7427			
STX Std 3 [%DIFF]				
STX Std 4 [MEAN]	0.4015			
STX Std 4 [SD]	0.0021			
STX Std 4 [%CV]	0.5283			
STX Std 4 [%DIFF]				
STX Std 5 [MEAN]	0.2500			
STX Std 5 [SD]	0.0028			
STX Std 5 [%CV]	1.1314			

SAXITOXIN - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7975			
STX Control (0.060-0.090) [SD]	0.0177			
STX Control (0.060-0.090) [%CV]	2.2166			

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.7478
B = 1.2800
C = 0.058578
D = 0.12158
R2 coef = 1.00000
50% = 0.066