



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB49895	Raccoon Lake SRA	5/16/2022	5/19/2022	< 0.05
AB49897	Cagles Mill Lake Beach	5/16/2022	5/19/2022	< 0.05
AB49898	Paynetown SRA	5/16/2022	5/19/2022	< 0.05
AB49899	Fairfax SRA	5/16/2022	5/19/2022	< 0.05
AB49900	Starve Hollow SRA	5/16/2022	5/19/2022	< 0.05
AB49901	Whitewater Memorial SP	5/17/2022	5/19/2022	< 0.05
AB49902	Quakertown SRA	5/17/2022	5/19/2022	< 0.05
AB49903	Mounds SRA	5/17/2022	5/19/2022	< 0.05
AB49904	Hardy Lake SRA	5/17/2022	5/19/2022	< 0.05
AB49896	Deam Lake SRA	5/17/2022	5/19/2022	< 0.05
AB49905	Field Blank	5/16/2022	5/19/2022	< 0.05
AB49906	Raccoon Lake SRA (Field Duplicate)	5/16/2022	5/19/2022	< 0.05
AB51245	Ft. Ben Harrison SP Dog Lake	5/16/2022	5/19/2022	< 0.05

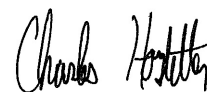
Test Information

Request: 5/19/2022 2:33:02 PM
Date: 5/19/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.442 Abs	0.000 µg/L	R ² =0.99839, 100.5			M21E518(
STX Std 0	SAXITOXIN	1.414 Abs [1.4280] {1.4 C	0.002 µg/L [0.001]	R ² =0.99839, 99.02			M21E518(
STX Std 1	SAXITOXIN	1.169 Abs	0.019 µg/L	R ² =0.99839, 81.86			M21E518(
STX Std 1	SAXITOXIN	1.154 Abs [1.1615] {0.9 C	0.020 µg/L [0.019]	R ² =0.99839, 80.81			M21E518(
STX Std 2	SAXITOXIN	0.857 Abs	0.048 µg/L	R ² =0.99839, 60.01			M21E518(
STX Std 2	SAXITOXIN	0.835 Abs [0.8460] {1.8 C	0.051 µg/L [0.049]	R ² =0.99839, 58.47			M21E518(
STX Std 3	SAXITOXIN	0.571 Abs	0.102 µg/L	R ² =0.99839, 39.98			M21E518(
STX Std 3	SAXITOXIN	0.539 Abs [0.5550] {4.1 C	0.111 µg/L [0.106]	R ² =0.99839, 37.74			M21E518(
STX Std 4	SAXITOXIN	0.412 Abs	0.171 µg/L	R ² =0.99839, 28.85			M21E518(
STX Std 4	SAXITOXIN	0.397 Abs [0.4045] {2.6 C	0.181 µg/L [0.176]	R ² =0.99839, 27.80			M21E518(
STX Std 5	SAXITOXIN	0.249 Abs	> 0.400 µg/L	17.437 %Abs			M21E518(
STX Std 5	SAXITOXIN	0.233 Abs [0.2410] {4.7 C	> 0.400 µg/L	16.317 %Abs			M21E518(
STX Control (0.060-0.090)	SAXITOXIN	0.784 Abs	0.058 µg/L	54.902 %Abs			M21E518(
STX Control (0.060-0.090)	SAXITOXIN	0.750 Abs [0.7670] {3.1 C	0.063 µg/L [0.060]	52.521 %Abs [53.7			M21E518(

Note

Signature



Charles Hostetter, May 19, 2022

Test Report (by Request)

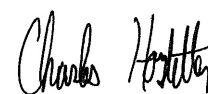
Test Information

Request: 5/19/2022 2:34:09 PM
Date: 5/19/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.391 Abs	0.004 µg/L	Low, 97.409 %Abs		0.020 - 0.400	M21E518(
LRB	SAXITOXIN	1.370 Abs [1.3805] {1.1 C	0.005 µg/L [0.004]	Low, 95.938 %Abs		0.020 - 0.400	M21E518(
LFB (SAX)	SAXITOXIN	0.665 Abs	0.079 µg/L	46.569 %Abs		0.020 - 0.400	M21E518(
LFB (SAX)	SAXITOXIN	0.619 Abs [0.6420] {5.1 C	0.089 µg/L [0.084]	43.347 %Abs [44.9		0.020 - 0.400	M21E518(
AB49895	SAXITOXIN	1.377 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49895	SAXITOXIN	1.352 Abs [1.3645] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49897	SAXITOXIN	1.370 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49897	SAXITOXIN	1.343 Abs [1.3565] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49898	SAXITOXIN	1.368 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49898	SAXITOXIN	1.358 Abs [1.3630] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49899	SAXITOXIN	1.415 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49899	SAXITOXIN	1.383 Abs [1.3990] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49900	SAXITOXIN	1.339 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49900	SAXITOXIN	1.328 Abs [1.3335] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49901	SAXITOXIN	1.326 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49901	SAXITOXIN	1.338 Abs [1.3320] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49902	SAXITOXIN	1.344 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49902	SAXITOXIN	1.336 Abs [1.3400] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49902MS	SAXITOXIN	0.630 Abs	0.086 µg/L	44.118 %Abs		0.020 - 0.400	M21E518(
AB49902MS	SAXITOXIN	0.588 Abs [0.6090] {4.9 C	0.097 µg/L [0.091]	41.176 %Abs [42.6		0.020 - 0.400	M21E518(
AB49902MSD	SAXITOXIN	0.589 Abs	0.097 µg/L	41.246 %Abs		0.020 - 0.400	M21E518(
AB49902MSD	SAXITOXIN	0.569 Abs [0.5790] {2.4 C	0.102 µg/L [0.100]	39.846 %Abs [40.5		0.020 - 0.400	M21E518(
AB49903	SAXITOXIN	1.325 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49903	SAXITOXIN	1.330 Abs [1.3275] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49904	SAXITOXIN	1.329 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49904	SAXITOXIN	1.331 Abs [1.3300] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49896	SAXITOXIN	1.429 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49896	SAXITOXIN	1.408 Abs [1.4185] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49905	SAXITOXIN	1.410 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49905	SAXITOXIN	1.413 Abs [1.4115] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49906	SAXITOXIN	1.355 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49906	SAXITOXIN	1.357 Abs [1.3560] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB51245	SAXITOXIN	1.349 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB51245	SAXITOXIN	1.340 Abs [1.3445] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(

Note

Signature



Charles Hostetter, May 19, 2022

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: M21E5180

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
5/19/2022 2:33:02 PM				
STX Std 0	1.442 Abs	0.000 µg/L	R ² =0.99839, 100.980 %Abs	RK1:30->A07@2
STX Std 0	1.414 Abs [1.4280] {1.4 CV}	0.002 µg/L [0.001] {141.4 CV}	R ² =0.99839, 99.020 %Abs	RK1:30->B07@2
STX Std 1	1.169 Abs	0.019 µg/L	R ² =0.99839, 81.863 %Abs	RK1:31->C07@2
STX Std 1	1.154 Abs [1.1615] {0.9 CV}	0.020 µg/L [0.019] {3.6 CV}	R ² =0.99839, 80.812 %Abs	RK1:31->D07@2
STX Std 2	0.857 Abs	0.048 µg/L	R ² =0.99839, 60.014 %Abs	RK1:32->E07@2
STX Std 2	0.835 Abs [0.8460] {1.8 CV}	0.051 µg/L [0.049] {4.3 CV}	R ² =0.99839, 58.473 %Abs	RK1:32->F07@3
STX Std 3	0.571 Abs	0.102 µg/L	R ² =0.99839, 39.986 %Abs	RK1:33->G07@3
STX Std 3	0.539 Abs [0.5550] {4.1 CV}	0.111 µg/L [0.106] {6.0 CV}	R ² =0.99839, 37.745 %Abs	RK1:33->H07@3
STX Std 4	0.412 Abs	0.171 µg/L	R ² =0.99839, 28.852 %Abs	RK1:34->A08@2
STX Std 4	0.397 Abs [0.4045] {2.6 CV}	0.181 µg/L [0.176] {4.0 CV}	R ² =0.99839, 27.801 %Abs	RK1:34->B08@2
STX Std 5	0.249 Abs	> 0.400 µg/L	17.437 %Abs	RK1:35->C08@2
STX Std 5	0.233 Abs [0.2410] {4.7 CV}	> 0.400 µg/L	16.317 %Abs	RK1:35->D08@2

5/19/2022 2:33:02 PM				
STX Control (0.060-0.090)	0.784 Abs	0.058 µg/L	54.902 %Abs	RK1:36->E08@2
STX Control (0.060-0.090)	0.750 Abs [0.7670] {3.1 CV}	0.063 µg/L [0.060] {5.8 CV}	52.521 %Abs [53.711 %Abs]	RK1:36->F08@3

Statistic				
STX Std 0 [MEAN]	1.4280	0.0010		
STX Std 0 [SD]	0.0198	0.0014		
STX Std 0 [%CV]	1.3865	141.4214		
STX Std 1 [MEAN]	1.1615	0.0195		
STX Std 1 [SD]	0.0106	0.0007		
STX Std 1 [%CV]	0.9132	3.6262		
STX Std 1 [%DIFF]		-2.5000		
STX Std 2 [MEAN]	0.8460	0.0495		
STX Std 2 [SD]	0.0156	0.0021		
STX Std 2 [%CV]	1.8388	4.2855		
STX Std 2 [%DIFF]		-1.0000		
STX Std 3 [MEAN]	0.5550	0.1065		
STX Std 3 [SD]	0.0226	0.0064		
STX Std 3 [%CV]	4.0770	5.9756		
STX Std 3 [%DIFF]		6.5000		
STX Std 4 [MEAN]	0.4045	0.1760		
STX Std 4 [SD]	0.0106	0.0071		
STX Std 4 [%CV]	2.6221	4.0176		
STX Std 4 [%DIFF]		-12.0000		
STX Std 5 [MEAN]	0.2410			
STX Std 5 [SD]	0.0113			
STX Std 5 [%CV]	4.6945			

Name	Absorbance	Concentration	Interpretation	Position	
STX Control (0.060-0.090) [MEAN]	0.7670	0.0605			
STX Control (0.060-0.090) [SD]	0.0240	0.0035			
STX Control (0.060-0.090) [%CV]	3.1345	5.8439			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.4298
 B = 1.2444
 C = 0.057044
 D = 0.15199
 R2 coef = 0.99839
 50% = 0.069

