Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC02954	Cecil M. Harden Lake - Raccoon Lake SRA Beach	5/30/2023	6/1/2023	< 0.40
AC02955	Whitewater Memorial SP - Whitewater Lake Beach	5/30/2023	6/1/2023	< 0.40
AC02956	Brookville Lake - Quakertown SRA Beach	5/30/2023	6/1/2023	< 0.40
AC02957	Brookville Lake - Mounds SRA Beach	5/30/2023	6/1/2023	< 0.40
AC02958	Whitewater Memorial SP - Whitewater Lake Beach (Field Dup)	5/30/2023	6/1/2023	< 0.40
AC02959	Field Blank	5/30/2023	6/1/2023	< 0.40

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Test Report (by Request)

Test Information

Request: 6/1/2023 11:08:20 AM
Date: 6/1/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.356 Abs	0.000 µg/L	R^2=0.99970, 100.5			P23B0244
ATX Std 0	ANATOXIN	1.340 Abs [1.3480] {0.8 C	0.005 µg/L [0.003]	R^2=0.99970, 99.4(			P23B0244
ATX Std 1	ANATOXIN	1.141 Abs	0.126 µg/L	R^2=0.99970, 84.64			P23B0244
ATX Std 1	ANATOXIN	1.092 Abs [1.1165] {3.1 C	0.163 µg/L [0.145]	R^2=0.99970, 81.0(			P23B0244
ATX Std 2	ANATOXIN	0.867 Abs	0.384 µg/L	R^2=0.99970, 64.31			P23B0244
ATX Std 2	ANATOXIN	0.826 Abs [0.8465] {3.4 C	0.438 µg/L [0.411]	R^2=0.99970, 61.27			P23B0244
ATX Std 3	ANATOXIN	0.564 Abs	0.971 µg/L	R^2=0.99970, 41.84			P23B0244
ATX Std 3	ANATOXIN	0.541 Abs [0.5525] {2.9 C	1.043 µg/L [1.007]	R^2=0.99970, 40.13			P23B0244
ATX Std 4	ANATOXIN	0.319 Abs	2.301 µg/L	R^2=0.99970, 23.66			P23B0244
ATX Std 4	ANATOXIN	0.303 Abs [0.3110] {3.6 C	2.467 µg/L [2.384]	R^2=0.99970, 22.47			P23B0244
ATX Std 5	ANATOXIN	0.174 Abs	> 5.000 µg/L	12.908 %Abs			P23B0244
ATX Std 5	ANATOXIN	0.162 Abs [0.1680] {5.1 C	> 5.000 µg/L	12.018 %Abs			P23B0244
ATX Control	ANATOXIN	0.672 Abs	0.700 µg/L	49.852 %Abs			P23B0244
ATX Control	ANATOXIN	0.647 Abs [0.6595] {2.7 C	0.754 µg/L [0.727]	47.997 %Abs [48.9			P23B0244

Note

Signature _____

Charles Hostetter 6/1/2023

* 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 (6.4.1.1139/1085/1.00/0.95) 6/1/2023 1:26:11 PM

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Test Report (by Request)

Test Information

Request: 6/1/2023 11:48:20 AM
Date: 6/1/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.211 Abs	0.079 µg/L	Low, 89.837 %Abs		0.150 - 5.000	P23B0244
LRB	ANATOXIN	1.238 Abs [1.2245] {1.6 C	0.062 µg/L [0.071]	Low, 91.840 %Abs		0.150 - 5.000	P23B0244
LFB (ANA)	ANATOXIN	0.712 Abs	0.621 µg/L	52.819 %Abs		0.150 - 5.000	P23B0244
LFB (ANA)	ANATOXIN	0.671 Abs [0.6915] {4.2 C	0.702 µg/L [0.661]	49.777 %Abs [51.2		0.150 - 5.000	P23B0244
AC02954	ANATOXIN	1.285 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC02954	ANATOXIN	1.281 Abs [1.2830] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC02954MS	ANATOXIN	0.661 Abs	0.723 µg/L	49.036 %Abs		0.150 - 5.000	P23B0244
AC02954MS	ANATOXIN	0.626 Abs [0.6435] {3.8 C	0.803 µg/L [0.763]	46.439 %Abs [47.7		0.150 - 5.000	P23B0244
AC02954MSD	ANATOXIN	0.642 Abs	0.765 µg/L	47.626 %Abs		0.150 - 5.000	P23B0244
AC02954MSD	ANATOXIN	0.607 Abs [0.6245] {4.0 C	0.851 µg/L [0.808]	45.030 %Abs [46.3		0.150 - 5.000	P23B0244
AC02955	ANATOXIN	1.334 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC02955	ANATOXIN	1.318 Abs [1.3260] {0.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC02956	ANATOXIN	1.303 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC02956	ANATOXIN	1.290 Abs [1.2965] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC02957	ANATOXIN	1.246 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC02957	ANATOXIN	1.248 Abs [1.2470] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC02958	ANATOXIN	1.253 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC02958	ANATOXIN	1.235 Abs [1.2440] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC02959	ANATOXIN	1.327 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC02959	ANATOXIN	1.237 Abs [1.2820] {5.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244

Note

Signature _____

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* Generated by software version (6.4.1.1139/1085/1.00/0.95) 6/1/2023 1:26:11 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: M22L2865

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
6/1/2023 11:28:27 AM				
STX Std 0	1.441 Abs	0.000 µg/L	R^2=0.99984, 101.766 %Abs	RK1:30->A06@1
STX Std 0	1.391 Abs [1.4160] {2.5 CV}	0.003 µg/L [0.002] {141.4 C\	R^2=0.99984, 98.234 %Abs	RK1:30->B06@1
STX Std 1	1.185 Abs	0.019 µg/L	R^2=0.99984, 83.686 %Abs	RK1:31->C06@1
STX Std 1	1.161 Abs [1.1730] {1.4 CV}	0.021 µg/L [0.020] {7.1 CV}	R^2=0.99984, 81.992 %Abs	RK1:31->D06@1
STX Std 2	0.887 Abs	0.049 µg/L	R^2=0.99984, 62.641 %Abs	RK1:32->E06@1
STX Std 2	0.863 Abs [0.8750] {1.9 CV}	0.052 µg/L [0.050] {4.2 CV}	R^2=0.99984, 60.946 %Abs	RK1:32->F06@4
STX Std 3	0.618 Abs	0.098 µg/L	R^2=0.99984, 43.644 %Abs	RK1:33->G06@4
STX Std 3	0.590 Abs [0.6040] {3.3 CV}	0.105 µg/L [0.101] {4.9 CV}	R^2=0.99984, 41.667 %Abs	RK1:33->H06@4
STX Std 4	0.405 Abs	0.188 µg/L	R^2=0.99984, 28.602 %Abs	RK1:34->A07@2
STX Std 4	0.391 Abs [0.3980] {2.5 CV}	0.198 µg/L [0.193] {3.7 CV}	R^2=0.99984, 27.613 %Abs	RK1:34->B07@2
STX Std 5	0.252 Abs	0.394 µg/L	R^2=0.99984, 17.797 %Abs	RK1:35->C07@2
STX Std 5	0.238 Abs [0.2450] {4.0 CV}	> 0.400 µg/L [0.394]	16.808 %Abs	RK1:35->D07@2
++++++++++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++
6/1/2023 11:28:27 AM				
STX Control (0.060-0.090)	0.791 Abs	0.062 µg/L	55.862 %Abs	RK1:36->E07@2
STX Control (0.060-0.090)	0.757 Abs [0.7740] {3.1 CV}	0.068 µg/L [0.065] {6.5 CV}	53.460 %Abs [54.661 %Abs]	RK1:36->F07@3
**********	**********	**********	**********	**********
Statistic				
STX Std 0 [MEAN]	1.4160	0.0015		
STX Std 0 [SD]	0.0354	0.0021		
STX Std 0 [%CV]	2.4968	141.4214		
STX Std 1 [MEAN]	1.1730	0.0200		
STX Std 1 [SD]	0.0170	0.0014		
STX Std 1 [%CV]	1.4468	7.0711		
STX Std 1 [%DIFF]		0.0000		
STX Std 2 [MEAN]	0.8750	0.0505		
STX Std 2 [SD]	0.0170	0.0021		
STX Std 2 [%CV]	1.9395	4.2006		
STX Std 2 [%DIFF]		1.0000		
STX Std 3 [MEAN]	0.6040	0.1015		
STX Std 3 [SD]	0.0198	0.0049		
STX Std 3 [%CV]	3.2780	4.8766		
STX Std 3 [%DIFF]		1.5000		
STX Std 4 [MEAN]	0.3980	0.1930		
STX Std 4 [SD]	0.0099	0.0071		
STX Std 4 [%CV]	2.4873	3.6638		
STX Std 4 [%DIFF]		-3.5000		
STX Std 5 [MEAN]	0.2450			
STX Std 5 [SD]	0.0099			
STX Std 5 [%CV]	4.0406			

SAXITOXIN - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7740	0.0650		
STX Control (0.060-0.090) [SD]	0.0240	0.0042		
STX Control (0.060-0.090) [%CV]	3.1062	6.5271		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.4172
B = 1.2070
C = 0.066391
D = 0.11632
R2 coef = 0.99984
50% = 0.077