Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC03626	Cecil M. Harden Lake - Raccoon Lake SRA Beach	7/24/2023	7/27/2023	< 0.40
AC03627	Cagles Mill Lake - Lieber SRA Beach	7/24/2023	7/27/2023	< 0.40
AC03628	Starve Hollow SRA - Starve Hollow Lake Beach	7/24/2023	7/27/2023	< 0.40
AC03629	Whitewater Memorial SP - Whitewater Lake Beach	7/25/2023	7/27/2023	< 0.40
AC03630	Brookville Lake - Quakertown SRA Beach	7/25/2023	7/27/2023	< 0.40
AC03631	Hardy Lake SRA - Hardy Lake SRA Beach	7/25/2023	7/27/2023	< 0.40
AC03632	Cagles Mill Lake - Lieber SRA Beach (Field Duplicate)	7/24/2023	7/27/2023	< 0.40
AC03633	Field Blank	7/24/2023	7/27/2023	< 0.40
AC03634	Ft. Ben Harrison SP Dog Lake	7/25/2023	7/27/2023	< 0.40

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Test Report (by Request)

Test Information

Request: 7/27/2023 2:00:57 PM
Date: 7/27/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.268 Abs	0.000 µg/L	R^2=0.99926, 101.1		0.000	Kit:P23B0
ATX Std 0	ANATOXIN	1.237 Abs [1.2525] {1.8 C	0.012 µg/L [0.006]	R^2=0.99926, 98.72		0.000	Kit:P23B0
ATX Std 1	ANATOXIN	1.057 Abs	0.129 µg/L	R^2=0.99926, 84.35		0.150	Kit:P23B0
ATX Std 1	ANATOXIN	1.020 Abs [1.0385] {2.5 C	0.157 µg/L [0.143]	R^2=0.99926, 81.40		0.150	Kit:P23B0
ATX Std 2	ANATOXIN	0.787 Abs	0.391 µg/L	R^2=0.99926, 62.80		0.400	Kit:P23B0
ATX Std 2	ANATOXIN	0.754 Abs [0.7705] {3.0 C	0.435 µg/L [0.413]	R^2=0.99926, 60.17		0.400	Kit:P23B0
ATX Std 3	ANATOXIN	0.497 Abs	0.990 µg/L	R^2=0.99926, 39.66		1.000	Kit:P23B0
ATX Std 3	ANATOXIN	0.481 Abs [0.4890] {2.3 C	1.045 µg/L [1.018]	R^2=0.99926, 38.38		1.000	Kit:P23B0
ATX Std 4	ANATOXIN	0.291 Abs	2.228 µg/L	R^2=0.99926, 23.22		2.500	Kit:P23B0
ATX Std 4	ANATOXIN	0.283 Abs [0.2870] {2.0 C	2.318 µg/L [2.273]	R^2=0.99926, 22.58		2.500	Kit:P23B0
ATX Std 5	ANATOXIN	0.157 Abs	> 5.000 µg/L	12.530 %Abs		5.000	Kit:P23B0
ATX Std 5	ANATOXIN	0.151 Abs [0.1540] {2.8 C	> 5.000 µg/L	12.051 %Abs		5.000	Kit:P23B0
ATX Control	ANATOXIN	0.619 Abs	0.667 µg/L	49.401 %Abs			Kit:P23B0
ATX Control	ANATOXIN	0.603 Abs [0.6110] {1.9 C	0.702 µg/L [0.685]	48.125 %Abs [48.7			Kit:P23B0

Note

Signature _____

Charles Hostetter 7/27/2023

* 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 (6.4.1.1171/1085/1.00/0.95) 7/27/2023 2:48:38 PM

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Test Report (by Request)

Test Information

Request: 7/27/2023 2:22:09 PM
Date: 7/27/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.133 Abs	0.076 µg/L	Low, 90.423 %Abs		0.150 - 5.000	Kit:P23B0
LRB	ANATOXIN	1.103 Abs [1.1180] {1.9 C	0.096 µg/L [0.086]	Low, 88.029 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.639 Abs	0.626 µg/L	50.998 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.634 Abs [0.6365] {0.6 C	0.636 µg/L [0.631]	50.599 %Abs [50.7		0.150 - 5.000	Kit:P23B0
AC03626	ANATOXIN	1.097 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03626	ANATOXIN	1.082 Abs [1.0895] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03627	ANATOXIN	1.114 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03627	ANATOXIN	1.087 Abs [1.1005] {1.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03628	ANATOXIN	1.125 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03628	ANATOXIN	1.089 Abs [1.1070] {2.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03629	ANATOXIN	1.137 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03629	ANATOXIN	1.142 Abs [1.1395] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03629MS	ANATOXIN	0.605 Abs	0.697 µg/L	48.284 %Abs		0.150 - 5.000	Kit:P23B0
AC03629MS	ANATOXIN	0.590 Abs [0.5975] {1.8 C	0.731 µg/L [0.714]	47.087 %Abs [47.6		0.150 - 5.000	Kit:P23B0
AC03629MSD	ANATOXIN	0.581 Abs	0.752 µg/L	46.369 %Abs		0.150 - 5.000	Kit:P23B0
AC03629MSD	ANATOXIN	0.561 Abs [0.5710] {2.5 C	0.802 µg/L [0.777]	44.773 %Abs [45.5		0.150 - 5.000	Kit:P23B0
AC03630	ANATOXIN	1.103 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03630	ANATOXIN	1.081 Abs [1.0920] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03631	ANATOXIN	0.916 Abs	0.272 µg/L	73.105 %Abs	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03631	ANATOXIN	0.908 Abs [0.9120] {0.6 C	0.280 µg/L [0.276]	72.466 %Abs [72.7	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03632	ANATOXIN	1.108 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03632	ANATOXIN	1.095 Abs [1.1015] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03633	ANATOXIN	1.130 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03633	ANATOXIN	1.125 Abs [1.1275] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03634	ANATOXIN	1.126 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC03634	ANATOXIN	1.098 Abs [1.1120] {1.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0

Note

Signature

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* 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 (6.4.1.1171/1085/1.00/0.95) 7/27/2023 2:48:38 PM

ANATOXIN - Assay Calibration Report

Assay Information

Assay Name: ANATOXIN
Version: 2
Temperature: Room Temperature
Last Modified By: Security disabled
Units: µg/L
Assay Description: PN 520060
Assay Substances: Controls:
ATX Control
Standards:
ATX Std 0, Concentration = 0.000, Minimum number to use: 2
ATX Std 1, Concentration = 0.150, Minimum number to use: 2
ATX Std 2, Concentration = 0.400, Minimum number to use: 2
ATX Std 3, Concentration = 1.000, Minimum number to use: 2
ATX Std 4, Concentration = 2.500, Minimum number to use: 2
ATX Std 5, Concentration = 5.000, 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 3:49:23 PM
Normal: 0.150 - 5.000
# of decimals: 3
Kit Lot Number: Kit:P23B0244

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
7/27/2023 2:00:57 PM				
ATX Std 0	1.268 Abs	0.000 µg/L	R^2=0.99926, 101.197 %Abs	RK1:23->A01@2
ATX Std 0	1.237 Abs [1.2525] {1.8 CV}	0.012 µg/L [0.006] {141.4 C\	R^2=0.99926, 98.723 %Abs	RK1:23->B01@2
ATX Std 1	1.057 Abs	0.129 µg/L	R^2=0.99926, 84.358 %Abs	RK1:24->C01@2
ATX Std 1	1.020 Abs [1.0385] {2.5 CV}	0.157 µg/L [0.143] {13.8 CV}	R^2=0.99926, 81.405 %Abs	RK1:24->D01@2
ATX Std 2	0.787 Abs	0.391 µg/L	R^2=0.99926, 62.809 %Abs	RK1:25->E01@2
ATX Std 2	0.754 Abs [0.7705] {3.0 CV}	0.435 µg/L [0.413] {7.5 CV}	R^2=0.99926, 60.176 %Abs	RK1:25->F01@3
ATX Std 3	0.497 Abs	0.990 µg/L	R^2=0.99926, 39.665 %Abs	RK1:26->G01@3
ATX Std 3	0.481 Abs [0.4890] {2.3 CV}	1.045 µg/L [1.018] {3.8 CV}	R^2=0.99926, 38.388 %Abs	RK1:26->H01@3
ATX Std 4	0.291 Abs	2.228 µg/L	R^2=0.99926, 23.224 %Abs	RK1:27->A02@2
ATX Std 4	0.283 Abs [0.2870] {2.0 CV}	2.318 µg/L [2.273] {2.8 CV}	R^2=0.99926, 22.586 %Abs	RK1:27->B02@2
ATX Std 5	0.157 Abs	> 5.000 µg/L	12.530 %Abs	RK1:28->C02@2
ATX Std 5	0.151 Abs [0.1540] {2.8 CV}	> 5.000 µg/L	12.051 %Abs	RK1:28->D02@2
++++++++++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++
7/27/2023 2:00:57 PM				
ATX Control	0.619 Abs	0.667 µg/L	49.401 %Abs	RK1:29->E02@2
ATX Control	0.603 Abs [0.6110] {1.9 CV}	0.702 µg/L [0.685] {3.6 CV}	48.125 %Abs [48.763 %Abs]	RK1:29->F02@3
**********	**********	**********	**********	**********
Statistic				
ATX Std 0 [MEAN]	1.2525	0.0060		
ATX Std 0 [SD]	0.0219	0.0085		
ATX Std 0 [%CV]	1.7501	141.4214		
ATX Std 1 [MEAN]	1.0385	0.1430		
ATX Std 1 [SD]	0.0262	0.0198		
ATX Std 1 [%CV]	2.5193	13.8455		
ATX Std 1 [%DIFF]		-4.6667		
ATX Std 2 [MEAN]	0.7705	0.4130		
ATX Std 2 [SD]	0.0233	0.0311		
ATX Std 2 [%CV]	3.0285	7.5333		
ATX Std 2 [%DIFF]		3.2500		
ATX Std 3 [MEAN]	0.4890	1.0175		
ATX Std 3 [SD]	0.0113	0.0389		
ATX Std 3 [%CV]	2.3136	3.8222		
ATX Std 3 [%DIFF]		1.7500		
ATX Std 4 [MEAN]	0.2870	2.2730		
ATX Std 4 [SD]	0.0057	0.0636		
ATX Std 4 [%CV]	1.9710	2.7998		
ATX Std 4 [%DIFF]		-9.0800		
ATX Std 5 [MEAN]	0.1540			
ATX Std 5 [SD]	0.0042			
ATX Std 5 [%CV]	2.7550			

ANATOXIN - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.6110	0.6845		
ATX Control [SD]	0.0113	0.0247		
ATX Control [%CV]	1.8517	3.6156		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.2561
B = 1.0552
C = 0.60011
D = 0.049220
R2 coef = 0.99926
50% = 0.652