Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43871	Summit Lake - State Park	8/17/2020	8/20/2020	< 0.40
AB43872	Kunkel Beach @ Ouabache SP	8/17/2020	8/20/2020	< 0.40
AB43873	Pokagon State Park	8/17/2020	8/20/2020	< 0.40
AB43874	Potawatomi Inn's Beach	8/17/2020	8/20/2020	< 0.40
AB43875	Chain O'Lakes SP	8/17/2020	8/20/2020	< 0.40
AB43876	Potato Creek State Park	8/17/2020	8/20/2020	< 0.40
AB43877	Lost Bridge West SRA	8/17/2020	8/20/2020	< 0.40
AB43878	Mississinewa Lake Miami SRA	8/17/2020	8/20/2020	< 0.40
AB43879	Summit Lake - State Park (Field Duplicate)	8/17/2020	8/20/2020	< 0.40
AB43880	Field Blank	8/17/2020	8/20/2020	< 0.40
AB43881	Ft. Harrison SP Dog Lake	8/19/2020	8/20/2020	< 0.40

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Test Report (by Request)

Test Information

Request: 8/20/2020 5:19:41 PM
Date: 8/20/2020 - 8/20/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
ATX Std 0	ANATOXIN	1.225 Abs	0.000 µg/L	R^2=0.99807, 102.16		20A2174
ATX Std 0	ANATOXIN	1.172 Abs [1.1985] {3.1 CV}	0.019 µg/L [0.009] {1	R^2=0.99807, 97.748		20A2174
ATX Std 1	ANATOXIN	1.017 Abs	0.125 µg/L	R^2=0.99807, 84.821		20A2174
ATX Std 1	ANATOXIN	0.978 Abs [0.9975] {2.8 CV}	0.157 µg/L [0.141] {1	R^2=0.99807, 81.568		20A2174
ATX Std 2	ANATOXIN	0.769 Abs	0.380 µg/L	R^2=0.99807, 64.137		20A2174
ATX Std 2	ANATOXIN	0.729 Abs [0.7490] {3.8 CV}	0.438 µg/L [0.409] {1	R^2=0.99807, 60.801		20A2174
ATX Std 3	ANATOXIN	0.474 Abs	1.045 µg/L	R^2=0.99807, 39.533		20A2174
ATX Std 3	ANATOXIN	0.470 Abs [0.4720] {0.6 CV}	1.060 µg/L [1.053] {1	R^2=0.99807, 39.199		20A2174
ATX Std 4	ANATOXIN	0.306 Abs	2.065 µg/L	R^2=0.99807, 25.521		20A2174
ATX Std 4	ANATOXIN	0.292 Abs [0.2990] {3.3 CV}	2.211 µg/L [2.138] {4	R^2=0.99807, 24.354		20A2174
ATX Std 5	ANATOXIN	0.152 Abs	> 5.000 µg/L	12.677 %Abs		20A2174
ATX Std 5	ANATOXIN	0.145 Abs [0.1485] {3.3 CV}	> 5.000 µg/L	12.093 %Abs		20A2174
ATX Control	ANATOXIN	0.573 Abs	0.742 µg/L	47.790 %Abs		20A2174
ATX Control	ANATOXIN	0.544 Abs [0.5585] {3.7 CV}	0.818 µg/L [0.780] {6	45.371 %Abs [46.58(		20A2174

Note

Signature David Jordan

Date: 8/20/2020

* 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) 8/20/2020 8:46:46 PM

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Test Report (by Request)

Test Information

Request: 8/20/2020 5:24:42 PM
Date: 8/20/2020 - 8/20/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	ANATOXIN	1.016 Abs	0.126 µg/L	**LOW, 84.737 %ABS**	0.150 - 5.000	20A2174
LRB	ANATOXIN	0.985 Abs [1.0005] {2.2 CV}	0.151 µg/L [0.139] {1		0.150 - 5.000	20A2174
LFB	ANATOXIN	0.611 Abs	0.653 µg/L	50.959 %Abs	0.150 - 5.000	20A2174
LFB	ANATOXIN	0.599 Abs [0.6050] {1.4 CV}	0.679 µg/L [0.666] {2	49.958 %Abs [50.45	0.150 - 5.000	20A2174
AB43871	ANATOXIN	1.097 Abs	0.074 µg/L	**LOW, 91.493 %ABS**	0.150 - 5.000	20A2174
AB43871	ANATOXIN	1.060 Abs [1.0785] {2.4 CV}	0.102 µg/L [0.088] {2		0.150 - 5.000	20A2174
AB43871MS	ANATOXIN	0.548 Abs	0.807 µg/L	45.705 %Abs	0.150 - 5.000	20A2174
AB43871MS	ANATOXIN	0.524 Abs [0.5360] {3.2 CV}	0.876 µg/L [0.841] {5	43.703 %Abs [44.70	0.150 - 5.000	20A2174
AB43871MSD	ANATOXIN	0.516 Abs	0.901 µg/L	43.036 %Abs	0.150 - 5.000	20A2174
AB43871MSD	ANATOXIN	0.521 Abs [0.5185] {0.7 CV}	0.885 µg/L [0.893] {1	43.453 %Abs [43.24	0.150 - 5.000	20A2174
AB43872	ANATOXIN	1.132 Abs	0.048 µg/L	**LOW, 94.412 %ABS**	0.150 - 5.000	20A2174
AB43872	ANATOXIN	1.122 Abs [1.1270] {0.6 CV}	0.056 µg/L [0.052] {1		0.150 - 5.000	20A2174
AB43873	ANATOXIN	1.071 Abs	0.094 µg/L	**LOW, 89.324 %ABS**	0.150 - 5.000	20A2174
AB43873	ANATOXIN	1.058 Abs [1.0645] {0.9 CV}	0.104 µg/L [0.099] {7		0.150 - 5.000	20A2174
AB43874	ANATOXIN	1.043 Abs	0.117 µg/L	**LOW, 86.989 %ABS**	0.150 - 5.000	20A2174
AB43874	ANATOXIN	1.011 Abs [1.0270] {2.2 CV}	0.143 µg/L [0.130] {1		0.150 - 5.000	20A2174
AB43875	ANATOXIN	0.973 Abs	0.177 µg/L	81.151 %Abs	0.150 - 5.000	20A2174
AB43875	ANATOXIN	0.986 Abs [0.9795] {0.9 CV}	0.165 µg/L [0.171] {5	82.235 %Abs [81.69	0.150 - 5.000	20A2174
AB43876	ANATOXIN	1.077 Abs	0.089 µg/L	**LOW, 89.825 %ABS**	0.150 - 5.000	20A2174
AB43876	ANATOXIN	1.073 Abs [1.0750] {0.3 CV}	0.092 µg/L [0.090] {2		0.150 - 5.000	20A2174
AB43877	ANATOXIN	1.029 Abs	0.128 µg/L	**LOW, 85.822 %ABS**	0.150 - 5.000	20A2174
AB43877	ANATOXIN	0.999 Abs [1.0140] {2.1 CV}	0.154 µg/L [0.141] {1	83.319 %Abs [84.57	0.150 - 5.000	20A2174
AB43878	ANATOXIN	1.032 Abs	0.125 µg/L	**LOW, 86.072 %ABS**	0.150 - 5.000	20A2174
AB43878	ANATOXIN	1.029 Abs [1.0305] {0.2 CV}	0.128 µg/L [0.127] {1		0.150 - 5.000	20A2174
AB43879	ANATOXIN	1.010 Abs	0.144 µg/L	**LOW, 84.237 %ABS**	0.150 - 5.000	20A2174
AB43879	ANATOXIN	1.011 Abs [1.0105] {0.1 CV}	0.143 µg/L [0.144] {0		0.150 - 5.000	20A2174
AB43880	ANATOXIN	1.151 Abs	0.035 µg/L	**LOW, 95.997 %ABS**	0.150 - 5.000	20A2174
AB43880	ANATOXIN	1.108 Abs [1.1295] {2.7 CV}	0.066 µg/L [0.050] {4		0.150 - 5.000	20A2174
AB43881	ANATOXIN	1.066 Abs	0.098 µg/L	**LOW, 88.907 %ABS**	0.150 - 5.000	20A2174
AB43881	ANATOXIN	1.057 Abs [1.0615] {0.6 CV}	0.104 µg/L [0.101] {4		0.150 - 5.000	20A2174
LFB 2	ANATOXIN	0.602 Abs	0.673 µg/L	50.209 %Abs	0.150 - 5.000	20A2174
LFB 2	ANATOXIN	0.590 Abs [0.5960] {1.4 CV}	0.700 µg/L [0.686] {2	49.208 %Abs [49.708	0.150 - 5.000	20A2174
LRB 2	ANATOXIN	1.097 Abs	0.067 µg/L	**LOW, 91.493 %ABS**	0.150 - 5.000	20A2174
LRB 2	ANATOXIN	1.048 Abs [1.0725] {3.2 CV}	0.102 µg/L [0.084] {2		0.150 - 5.000	20A2174

Note

Signature David Jordan

Date: 8/20/2020

* 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) 8/20/2020 8:46:46 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: 20A2174

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
8/20/2020 5:19:41 PM				
ATX Std 0	1.225 Abs		R^2=0.99807, 102.168 %Abs	RK1:23->A01@2
ATX Std 0	1.172 Abs [1.1985] {3.1 CV}		R^2=0.99807, 97.748 %Abs	RK1:23->B01@2
ATX Std 1	1.017 Abs		R^2=0.99807, 84.821 %Abs	RK1:24->C01@2
ATX Std 1	0.978 Abs [0.9975] {2.8 CV}		R^2=0.99807, 81.568 %Abs	RK1:24->D01@2
ATX Std 2	0.769 Abs		R^2=0.99807, 64.137 %Abs	RK1:25->E01@2
ATX Std 2	0.729 Abs [0.7490] {3.8 CV}		R^2=0.99807, 60.801 %Abs	RK1:25->F01@3
ATX Std 3	0.470 Abs		R^2=0.99807, 39.199 %Abs	RK1:26->H01@3
ATX Std 3	0.474 Abs [0.4720] {0.6 CV}		R^2=0.99807, 39.533 %Abs	RK1:26->G01@3
ATX Std 4	0.306 Abs		R^2=0.99807, 25.521 %Abs	RK1:27->A02@2
ATX Std 4	0.292 Abs [0.2990] {3.3 CV}		R^2=0.99807, 24.354 %Abs	RK1:27->B02@2
ATX Std 5	0.152 Abs		12.677 %Abs	RK1:28->C02@2
ATX Std 5	0.145 Abs [0.1485] {3.3 CV}		12.093 %Abs	RK1:28->D02@2
++++++++++++++++++++++++++++++++	++++++++++++++++++++++++		++++++++++++++++++++++++	++++++++++++++++++++++++
8/20/2020 5:19:41 PM				
ATX Control	0.573 Abs		47.790 %Abs	RK1:29->E02@2
ATX Control	0.544 Abs [0.5585] {3.7 CV}		45.371 %Abs [46.580 %Abs]	RK1:29->F02@3
**********	**********	**********	**********	**********
Statistic				
ATX Std 0 [MEAN]	1.1985			
ATX Std 0 [SD]	0.0375			
ATX Std 0 [%CV]	3.1270			
ATX Std 1 [MEAN]	0.9975			
ATX Std 1 [SD]	0.0276			
ATX Std 1 [%CV]	2.7646			
ATX Std 1 [%DIFF]				
ATX Std 2 [MEAN]	0.7490			
ATX Std 2 [SD]	0.0283			
ATX Std 2 [%CV]	3.7763			
ATX Std 2 [%DIFF]				
ATX Std 3 [MEAN]	0.4720			
ATX Std 3 [SD]	0.0028			
ATX Std 3 [%CV]	0.5992			
ATX Std 3 [%DIFF]				
ATX Std 4 [MEAN]	0.2990			
ATX Std 4 [SD]	0.0099			
ATX Std 4 [%CV]	3.3109			
ATX Std 4 [%DIFF]				
ATX Std 5 [MEAN]	0.1485			
ATX Std 5 [SD]	0.0049			
ATX Std 5 [%CV]	3.3332			

ANATOXIN - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.5585			
ATX Control [SD]	0.0205			
ATX Control [%CV]	3.6716			

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.2026
B = 1.0303
C = 0.62682
D = 0.043522
R2 coef = 0.99807
50% = 0.678