



## Anatoxin-a Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ug/L)	% Recovery
LRB	Lab Reagent Blank	7/17/2019	7/17/2019	< 0.40	
LFB	Lab Fortified Blank (True value = 0.80)	7/17/2019	7/17/2019	0.64	80
AB39870	Pokagon State Park	7/16/2019	7/17/2019	< 0.40	
AB39870MS	Pokagon (Matrix Spike, True Value = 0.80)	7/17/2019	7/17/2019	0.78	92
AB39870MSD	Pokagon (Matrix Spike Duplicate, True Value = 0.80)	7/17/2019	7/17/2019	0.80	94
AB39871	Potawatomi Inn's Beach	7/16/2019	7/17/2019	< 0.40	
AB39872	Chain O'Lakes SP	7/16/2019	7/17/2019	< 0.40	
AB39873	Kunkel Beach @ Ouabache State Park	7/16/2019	7/17/2019	< 0.40	
AB39874	Potato Creek State Park	7/15/2019	7/17/2019	< 0.40	
AB39875	Mississinewa Lake Miami SRA	7/15/2019	7/17/2019	< 0.40	
AB39876	Lost Bridge West SRA @ Salamonie Lake	7/15/2019	7/17/2019	< 0.40	
AB39877	Kunkel Beach (Field Duplicate)	7/16/2019	7/17/2019	< 0.40	
AB39878	Field Blank	7/16/2019	7/17/2019	< 0.40	

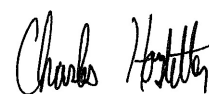
## Test Information

Request: 7/17/2019 8:56:37 AM  
Date: 7/17/2019 - 7/17/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
ATX Std 0	ANATOXIN	0.995 Abs	0.000 µg/L	R^2=0.99838	0.000
ATX Std 0	ANATOXIN	0.960 Abs [0.9775] {2.5 CV}	0.006 µg/L [0.003] {141}	R^2=0.99838	0.000
ATX Std 1	ANATOXIN	0.766 Abs	0.131 µg/L	R^2=0.99838	0.150
ATX Std 1	ANATOXIN	0.754 Abs [0.7600] {1.1 CV}	0.142 µg/L [0.137] {5.7}	R^2=0.99838	0.150
ATX Std 2	ANATOXIN	0.557 Abs	0.424 µg/L	R^2=0.99838	0.400
ATX Std 2	ANATOXIN	0.542 Abs [0.5495] {1.9 CV}	0.456 µg/L [0.440] {5.1}	R^2=0.99838	0.400
ATX Std 3	ANATOXIN	0.380 Abs	0.993 µg/L	R^2=0.99838	1.000
ATX Std 3	ANATOXIN	0.388 Abs [0.3840] {1.5 CV}	0.955 µg/L [0.974] {2.8}	R^2=0.99838	1.000
ATX Std 4	ANATOXIN	0.236 Abs	2.190 µg/L	R^2=0.99838	2.500
ATX Std 4	ANATOXIN	0.220 Abs [0.2280] {5.0 CV}	2.427 µg/L [2.309] {7.3}	R^2=0.99838	2.500
ATX Std 5	ANATOXIN	0.119 Abs	> 5.000 µg/L		5.000
ATX Std 5	ANATOXIN	0.120 Abs [0.1195] {0.6 CV}	> 5.000 µg/L		5.000
ATX Control	ANATOXIN	0.435 Abs	0.760 µg/L		0.75 +- 0
ATX Control	ANATOXIN	0.414 Abs [0.4245] {3.5 CV}	0.841 µg/L [0.801] {7.2}		0.75 +- 0
LRB	ANATOXIN	0.845 Abs	0.068 µg/L	LOW	0.150 - 5
LRB	ANATOXIN	0.843 Abs [0.8440] {0.2 CV}	0.069 µg/L [0.068] {1.0}	LOW [LOW]	0.150 - 5
LFB	ANATOXIN	0.488 Abs	0.590 µg/L		0.150 - 5
LFB	ANATOXIN	0.455 Abs [0.4715] {4.9 CV}	0.691 µg/L [0.640] {11.2}		0.150 - 5
AB39870	ANATOXIN	0.887 Abs	0.045 µg/L	LOW	0.150 - 5
AB39870	ANATOXIN	0.869 Abs [0.8780] {1.4 CV}	0.057 µg/L [0.051] {16.6}	LOW	0.150 - 5
AB39870MS	ANATOXIN	0.441 Abs	0.738 µg/L		0.150 - 5
AB39870MS	ANATOXIN	0.416 Abs [0.4285] {4.1 CV}	0.833 µg/L [0.785] {8.6}		0.150 - 5
AB39870MSD	ANATOXIN	0.419 Abs	0.821 µg/L		0.150 - 5
AB39870MSD	ANATOXIN	0.430 Abs [0.4245] {1.8 CV}	0.778 µg/L [0.799] {3.8}		0.150 - 5
AB39871	ANATOXIN	0.947 Abs	0.012 µg/L	LOW	0.150 - 5
AB39871	ANATOXIN	0.913 Abs [0.9300] {2.6 CV}	0.030 µg/L [0.021] {60.6}	LOW	0.150 - 5
AB39872	ANATOXIN	0.892 Abs	0.042 µg/L	LOW	0.150 - 5
AB39872	ANATOXIN	0.895 Abs [0.8935] {0.2 CV}	0.041 µg/L [0.042] {1.7}	LOW	0.150 - 5
AB39873	ANATOXIN	0.803 Abs	0.109 µg/L	LOW	0.150 - 5
AB39873	ANATOXIN	0.816 Abs [0.8095] {1.1 CV}	0.098 µg/L [0.103] {7.5}	LOW	0.150 - 5
AB39874	ANATOXIN	0.664 Abs	0.270 µg/L		0.150 - 5
AB39874	ANATOXIN	0.682 Abs [0.6730] {1.9 CV}	0.244 µg/L [0.257] {7.2}		0.150 - 5
AB39875	ANATOXIN	0.902 Abs	0.036 µg/L	LOW	0.150 - 5
AB39875	ANATOXIN	0.901 Abs [0.9015] {0.1 CV}	0.036 µg/L [0.036] {0.0}	LOW	0.150 - 5
AB39876	ANATOXIN	0.877 Abs	0.052 µg/L	LOW	0.150 - 5
AB39876	ANATOXIN	0.874 Abs [0.8755] {0.2 CV}	0.054 µg/L [0.053] {2.7}	LOW	0.150 - 5
AB39877	ANATOXIN	0.827 Abs	0.089 µg/L	LOW	0.150 - 5
AB39877	ANATOXIN	0.826 Abs [0.8265] {0.1 CV}	0.089 µg/L [0.089] {0.0}	LOW	0.150 - 5
AB39878	ANATOXIN	0.856 Abs	0.066 µg/L	LOW	0.150 - 5
AB39878	ANATOXIN	0.846 Abs [0.8510] {0.8 CV}	0.074 µg/L [0.070] {8.1}	LOW	0.150 - 5

## Note

Signature



Charles Hostetter 7/19/2019



# ANATOXIN - Assay Calibration Report

## Assay Information

Assay Name: ANATOXIN  
Version: 1  
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: 7 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: 1/16/2017 8:49:03 AM

Normal: 0.150 - 5.000

# of decimals: 3

## Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
7/17/2019 8:56:37 AM				
ATX Std 0	0.995 Abs	0.000 µg/L	R^2=0.99838	RK1:23->A01@2
ATX Std 0	0.960 Abs [0.9775] {2.5 CV}	0.006 µg/L [0.003] {141.4 CV}	R^2=0.99838	RK1:23->B01@2
ATX Std 1	0.766 Abs	0.131 µg/L	R^2=0.99838	RK1:24->C01@2
ATX Std 1	0.754 Abs [0.7600] {1.1 CV}	0.142 µg/L [0.137] {5.7 CV}	R^2=0.99838	RK1:24->D01@2
ATX Std 2	0.557 Abs	0.424 µg/L	R^2=0.99838	RK1:25->E01@2
ATX Std 2	0.542 Abs [0.5495] {1.9 CV}	0.456 µg/L [0.440] {5.1 CV}	R^2=0.99838	RK1:25->F01@3
ATX Std 3	0.380 Abs	0.993 µg/L	R^2=0.99838	RK1:26->G01@3
ATX Std 3	0.388 Abs [0.3840] {1.5 CV}	0.955 µg/L [0.974] {2.8 CV}	R^2=0.99838	RK1:26->H01@3
ATX Std 4	0.236 Abs	2.190 µg/L	R^2=0.99838	RK1:27->A02@2
ATX Std 4	0.220 Abs [0.2280] {5.0 CV}	2.427 µg/L [2.309] {7.3 CV}	R^2=0.99838	RK1:27->B02@2
ATX Std 5	0.119 Abs	> 5.000 µg/L		RK1:28->C02@2
ATX Std 5	0.120 Abs [0.1195] {0.6 CV}	> 5.000 µg/L		RK1:28->D02@2
*****				
7/17/2019 8:56:37 AM				
ATX Control	0.435 Abs	0.760 µg/L		RK1:29->E02@2
ATX Control	0.414 Abs [0.4245] {3.5 CV}	0.841 µg/L [0.801] {7.2 CV}		RK1:29->F02@3
*****				
Statistic				
ATX Std 0 [MEAN]	0.9775	0.0030		
ATX Std 0 [SD]	0.0247	0.0042		
ATX Std 0 [%CV]	2.5318	141.4214		
ATX Std 1 [MEAN]	0.7600	0.1365		
ATX Std 1 [SD]	0.0085	0.0078		
ATX Std 1 [%CV]	1.1165	5.6983		
ATX Std 1 [%DIFF]		-9.0000		
ATX Std 2 [MEAN]	0.5495	0.4400		
ATX Std 2 [SD]	0.0106	0.0226		
ATX Std 2 [%CV]	1.9302	5.1426		
ATX Std 2 [%DIFF]		10.0000		
ATX Std 3 [MEAN]	0.3840	0.9740		
ATX Std 3 [SD]	0.0057	0.0269		
ATX Std 3 [%CV]	1.4731	2.7587		
ATX Std 3 [%DIFF]		-2.6000		
ATX Std 4 [MEAN]	0.2280	2.3085		
ATX Std 4 [SD]	0.0113	0.1676		
ATX Std 4 [%CV]	4.9622	7.2594		
ATX Std 4 [%DIFF]		-7.6600		
ATX Std 5 [MEAN]	0.1195			
ATX Std 5 [SD]	0.0007			
ATX Std 5 [%CV]	0.5917			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.4245	0.8005			
ATX Control [SD]	0.0148	0.0573			
ATX Control [%CV]	3.4981	7.1550			
ATX Control [%DIFF]		6.7333			

Assay Curve

y = (A-D)/(1+(x/C)^B) + D  
Weight: NONE  
A = 0.97940  
B = 0.84929  
C = 0.60377  
D = -0.012456  
R2 coef = 0.99848

