



## Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)	% Recovery
LRB	Lab Reagent Blank	7/24/2019	7/25/2019	<0.40	
LFB	Lab Fortified Blank (True value = 0.800)	7/24/2019	7/25/2019	0.77	96
AB39883	Whitewater Memorial S P	7/22/2019	7/25/2019	<0.40	
AB39883MS	Whitewater (Matrix Spike, True Value = 0.80)	7/24/2019	7/25/2019	0.88	97
AB39883MS D	Whitewater (Matrix Spike Duplicate, True Value = 0.80)	7/24/2019	7/25/2019	1.02	113
AB39879	Hardy Lake S R A	7/22/2019	7/25/2019	<0.40	
AB39880	Quakertown S R A	7/22/2019	7/25/2019	<0.40	
AB39881	Raccoon Lake S R A	7/22/2019	7/25/2019	<0.40	
AB39884	Hardy Lake S R A Field Dup.	7/22/2019	7/25/2019	0.52	
AB39885	Field Blank	7/22/2019	7/25/2019	<0.40	
AB39886	Mounds S R A	7/22/2019	7/25/2019	<0.40	
AB39899	Lost Bridge West S R A @ Salamonie Lake	7/23/2019	7/25/2019	<0.40	
AB39900	Lost Bridge West S R A Field Dup.	7/23/2019	7/25/2019	<0.40	
AB39901	Field Blank	7/23/2019	7/25/2019	<0.40	

## Test Information

Request: 7/25/2019 11:47:08 AM  
Date: 7/25/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
ATX Std 0	ANATOXIN	1.049 Abs	0.000 µg/L	R^2=0.99957	0.000
ATX Std 0	ANATOXIN	1.042 Abs [1.0455] {0.5 CV}	0.002 µg/L [0.001] {141.0}	R^2=0.99957	0.000
ATX Std 1	ANATOXIN	0.873 Abs	0.132 µg/L	R^2=0.99957	0.150
ATX Std 1	ANATOXIN	0.856 Abs [0.8645] {1.4 CV}	0.151 µg/L [0.141] {9.5}	R^2=0.99957	0.150
ATX Std 2	ANATOXIN	0.692 Abs	0.390 µg/L	R^2=0.99957	0.400
ATX Std 2	ANATOXIN	0.659 Abs [0.6755] {3.5 CV}	0.456 µg/L [0.423] {11.0}	R^2=0.99957	0.400
ATX Std 3	ANATOXIN	0.484 Abs	0.982 µg/L	R^2=0.99957	1.000
ATX Std 3	ANATOXIN	0.483 Abs [0.4835] {0.1 CV}	0.986 µg/L [0.984] {0.3}	R^2=0.99957	1.000
ATX Std 4	ANATOXIN	0.281 Abs	2.493 µg/L	R^2=0.99957	2.500
ATX Std 4	ANATOXIN	0.287 Abs [0.2840] {1.5 CV}	2.417 µg/L [2.455] {2.2}	R^2=0.99957	2.500
ATX Std 5	ANATOXIN	0.168 Abs	4.890 µg/L	R^2=0.99957	5.000
ATX Std 5	ANATOXIN	0.155 Abs [0.1615] {5.7 CV}	> 5.000 µg/L [4.890]		5.000
ATX Control	ANATOXIN	0.521 Abs	0.838 µg/L		0.75 +- 0.05
ATX Control	ANATOXIN	0.503 Abs [0.5120] {2.5 CV}	0.905 µg/L [0.872] {5.4}		0.75 +- 0.05
ANA LRB 1	ANATOXIN	0.959 Abs	0.054 µg/L	LOW	0.150 - 5.000
ANA LRB 1	ANATOXIN	0.955 Abs [0.9570] {0.3 CV}	0.057 µg/L [0.056] {3.8}	LOW [LOW]	0.150 - 5.000
LFB	ANATOXIN	0.539 Abs	0.776 µg/L		0.150 - 5.000
LFB	ANATOXIN	0.542 Abs [0.5405] {0.4 CV}	0.766 µg/L [0.771] {0.9}		0.150 - 5.000
AB39883	ANATOXIN	0.914 Abs	0.101 µg/L	LOW	0.150 - 5.000
AB39883	ANATOXIN	0.901 Abs [0.9075] {1.0 CV}	0.114 µg/L [0.108] {8.6}	LOW	0.150 - 5.000
AB39883MS	ANATOXIN	0.515 Abs	0.860 µg/L		0.150 - 5.000
AB39883MS	ANATOXIN	0.503 Abs [0.5090] {1.7 CV}	0.905 µg/L [0.882] {3.6}		0.150 - 5.000
AB39883MSD	ANATOXIN	0.470 Abs	1.043 µg/L		0.150 - 5.000
AB39883MSD	ANATOXIN	0.483 Abs [0.4765] {1.9 CV}	0.986 µg/L [1.015] {4.0}		0.150 - 5.000
AB39879	ANATOXIN	0.703 Abs	0.369 µg/L		0.150 - 5.000
AB39879	ANATOXIN	0.673 Abs [0.6880] {3.1 CV}	0.427 µg/L [0.398] {10.3}		0.150 - 5.000
AB39880	ANATOXIN	0.904 Abs	0.111 µg/L	LOW	0.150 - 5.000
AB39880	ANATOXIN	0.927 Abs [0.9155] {1.8 CV}	0.089 µg/L [0.100] {15.6}	LOW	0.150 - 5.000
AB39881	ANATOXIN	0.815 Abs	0.219 µg/L		0.150 - 5.000
AB39881	ANATOXIN	0.807 Abs [0.8110] {0.7 CV}	0.230 µg/L [0.225] {3.5}		0.150 - 5.000
AB39884	ANATOXIN	0.646 Abs	0.532 µg/L		0.150 - 5.000
AB39884	ANATOXIN	0.661 Abs [0.6535] {1.6 CV}	0.497 µg/L [0.515] {4.8}		0.150 - 5.000
AB39885	ANATOXIN	0.937 Abs	0.079 µg/L	LOW	0.150 - 5.000
AB39885	ANATOXIN	0.915 Abs [0.9260] {1.7 CV}	0.100 µg/L [0.090] {16.6}	LOW	0.150 - 5.000
AB39886	ANATOXIN	0.859 Abs	0.162 µg/L		0.150 - 5.000
AB39886	ANATOXIN	0.856 Abs [0.8575] {0.2 CV}	0.166 µg/L [0.164] {1.7}		0.150 - 5.000
AB39899	ANATOXIN	0.877 Abs	0.141 µg/L	LOW	0.150 - 5.000
AB39899	ANATOXIN	0.876 Abs [0.8765] {0.1 CV}	0.142 µg/L [0.141] {0.5}	LOW	0.150 - 5.000
AB39899LD	ANATOXIN	0.871 Abs	0.147 µg/L	LOW	0.150 - 5.000
AB39899LD	ANATOXIN	0.894 Abs [0.8825] {1.8 CV}	0.122 µg/L [0.134] {13.1}	LOW	0.150 - 5.000
AB39900	ANATOXIN	0.915 Abs	0.100 µg/L	LOW	0.150 - 5.000
AB39900	ANATOXIN	0.903 Abs [0.9090] {0.9 CV}	0.112 µg/L [0.106] {8.0}	LOW	0.150 - 5.000
AB39901	ANATOXIN	0.878 Abs	0.127 µg/L	LOW	0.150 - 5.000
AB39901	ANATOXIN	0.882 Abs [0.8800] {0.3 CV}	0.123 µg/L [0.125] {2.3}	LOW [LOW]	0.150 - 5.000

## Note

Signature

*David Jordan*

Date: 7/25/2019



# 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
7/25/2019 11:47:08 AM				
ATX Std 0	1.049 Abs	0.000 µg/L	R^2=0.99957	RK1:23->A01@2
ATX Std 0	1.042 Abs [1.0455] {0.5 CV}	0.002 µg/L [0.001] {141.4 CV}	R^2=0.99957	RK1:23->B01@2
ATX Std 1	0.873 Abs	0.132 µg/L	R^2=0.99957	RK1:24->C01@2
ATX Std 1	0.856 Abs [0.8645] {1.4 CV}	0.151 µg/L [0.141] {9.5 CV}	R^2=0.99957	RK1:24->D01@2
ATX Std 2	0.692 Abs	0.390 µg/L	R^2=0.99957	RK1:25->E01@2
ATX Std 2	0.659 Abs [0.6755] {3.5 CV}	0.456 µg/L [0.423] {11.0 CV}	R^2=0.99957	RK1:25->F01@3
ATX Std 3	0.484 Abs	0.982 µg/L	R^2=0.99957	RK1:26->G01@3
ATX Std 3	0.483 Abs [0.4835] {0.1 CV}	0.986 µg/L [0.984] {0.3 CV}	R^2=0.99957	RK1:26->H01@3
ATX Std 4	0.281 Abs	2.493 µg/L	R^2=0.99957	RK1:27->A02@2
ATX Std 4	0.287 Abs [0.2840] {1.5 CV}	2.417 µg/L [2.455] {2.2 CV}	R^2=0.99957	RK1:27->B02@2
ATX Std 5	0.168 Abs	4.890 µg/L	R^2=0.99957	RK1:28->C02@2
ATX Std 5	0.155 Abs [0.1615] {5.7 CV}	> 5.000 µg/L [4.890]		RK1:28->D02@2
*****				
7/25/2019 11:47:08 AM				
ATX Control	0.521 Abs	0.838 µg/L		RK1:29->E02@2
ATX Control	0.503 Abs [0.5120] {2.5 CV}	0.905 µg/L [0.872] {5.4 CV}		RK1:29->F02@3
*****				
Statistic				
ATX Std 0 [MEAN]	1.0455	0.0010		
ATX Std 0 [SD]	0.0049	0.0014		
ATX Std 0 [%CV]	0.4734	141.4214		
ATX Std 1 [MEAN]	0.8645	0.1415		
ATX Std 1 [SD]	0.0120	0.0134		
ATX Std 1 [%CV]	1.3905	9.4947		
ATX Std 1 [%DIFF]		-5.6667		
ATX Std 2 [MEAN]	0.6755	0.4230		
ATX Std 2 [SD]	0.0233	0.0467		
ATX Std 2 [%CV]	3.4544	11.0329		
ATX Std 2 [%DIFF]		5.7500		
ATX Std 3 [MEAN]	0.4835	0.9840		
ATX Std 3 [SD]	0.0007	0.0028		
ATX Std 3 [%CV]	0.1462	0.2874		
ATX Std 3 [%DIFF]		-1.6000		
ATX Std 4 [MEAN]	0.2840	2.4550		
ATX Std 4 [SD]	0.0042	0.0537		
ATX Std 4 [%CV]	1.4939	2.1890		
ATX Std 4 [%DIFF]		-1.8000		
ATX Std 5 [MEAN]	0.1615			
ATX Std 5 [SD]	0.0092			
ATX Std 5 [%CV]	5.6919			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.5120	0.8715			
ATX Control [SD]	0.0127	0.0474			
ATX Control [%CV]	2.4859	5.4362			
ATX Control [%DIFF]		16.2000			

Assay Curve

y = (A-D)/(1+(x/C)^B) + D  
Weight: NONE  
A = 1.0478  
B = 0.86408  
C = 0.89005  
D = -0.034738  
R2 coef = 0.99957

