



## Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

<b>Sample #</b>	<b>Location</b>	<b>Date Collected</b>	<b>Date Analyzed</b>	<b>Conc. (ppb)</b>
AB47550	Ft. Ben Harrison SP Dog Lake - East	6/7/2021	6/8/2021	< 0.40
AB47551	Ferdinand State Forest Lake	6/7/2021	6/8/2021	< 0.40
AB47552	Patoka SRA Beach	6/7/2021	6/8/2021	< 0.40
AB47578	Ft. Ben Harrison SP Dog Lake - East (Field Dup)	6/7/2021	6/8/2021	< 0.40
AB47579	Field Blank	6/7/2021	6/8/2021	< 0.40

# Test Report (by Request)

**Test Information**

Request: 6/8/2021 5:09:03 PM

Date: 6/8/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.961 Abs	0.000 µg/L	R <sup>2</sup> =0.99954, 101.1			20L4352
ATX Std 0	ANATOXIN	1.917 Abs [1.9390] {1.6 C	0.005 µg/L [0.003]	R <sup>2</sup> =0.99954, 98.86			20L4352
ATX Std 1	ANATOXIN	1.600 Abs	0.131 µg/L	R <sup>2</sup> =0.99954, 82.51			20L4352
ATX Std 1	ANATOXIN	1.565 Abs [1.5825] {1.6 C	0.151 µg/L [0.141]	R <sup>2</sup> =0.99954, 80.71			20L4352
ATX Std 2	ANATOXIN	1.237 Abs	0.416 µg/L	R <sup>2</sup> =0.99954, 63.79			20L4352
ATX Std 2	ANATOXIN	1.235 Abs [1.2360] {0.1 C	0.418 µg/L [0.417]	R <sup>2</sup> =0.99954, 63.69			20L4352
ATX Std 3	ANATOXIN	0.885 Abs	0.971 µg/L	R <sup>2</sup> =0.99954, 45.64			20L4352
ATX Std 3	ANATOXIN	0.854 Abs [0.8695] {2.5 C	1.044 µg/L [1.008]	R <sup>2</sup> =0.99954, 44.04			20L4352
ATX Std 4	ANATOXIN	0.542 Abs	2.253 µg/L	R <sup>2</sup> =0.99954, 27.95			20L4352
ATX Std 4	ANATOXIN	0.502 Abs [0.5220] {5.4 C	2.513 µg/L [2.383]	R <sup>2</sup> =0.99954, 25.85			20L4352
ATX Std 5	ANATOXIN	0.275 Abs	> 5.000 µg/L	14.183 %Abs			20L4352
ATX Std 5	ANATOXIN	0.276 Abs [0.2755] {0.3 C	> 5.000 µg/L	14.234 %Abs			20L4352
ATX Control	ANATOXIN	0.963 Abs	0.809 µg/L	49.665 %Abs			20L4352
ATX Control	ANATOXIN	0.954 Abs [0.9585] {0.7 C	0.827 µg/L [0.818]	49.201 %Abs [49.4			20L4352

**Note**

Signature

David Jordan 6/8/2021

# Test Report (by Request)

**Test Information**

Request: 6/8/2021 5:09:33 PM

Date: 6/8/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (ANA)	ANATOXIN	1.685 Abs	0.088 µg/L	Low, 86.900 %Abs		0.150 - 5.000	20L4352
LRB (ANA)	ANATOXIN	1.699 Abs [1.6920] {0.6 C	0.082 µg/L [0.085]	Low, 87.622 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	1.077 Abs	0.618 µg/L	55.544 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	1.049 Abs [1.0630] {1.9 C	0.661 µg/L [0.640]	54.100 %Abs [54.8		0.150 - 5.000	20L4352
AB47550	ANATOXIN	1.826 Abs	0.031 µg/L	Low, 94.172 %Abs		0.150 - 5.000	20L4352
AB47550	ANATOXIN	1.815 Abs [1.8205] {0.4 C	0.035 µg/L [0.033]	Low, 93.605 %Abs		0.150 - 5.000	20L4352
AB47551	ANATOXIN	1.680 Abs	0.090 µg/L	Low, 86.643 %Abs		0.150 - 5.000	20L4352
AB47551	ANATOXIN	1.742 Abs [1.7110] {2.6 C	0.063 µg/L [0.076]	Low, 89.840 %Abs		0.150 - 5.000	20L4352
AB47551MS	ANATOXIN	1.094 Abs	0.594 µg/L	56.421 %Abs		0.150 - 5.000	20L4352
AB47551MS	ANATOXIN	1.043 Abs [1.0685] {3.4 C	0.671 µg/L [0.632]	53.791 %Abs [55.1		0.150 - 5.000	20L4352
AB47551MSD	ANATOXIN	1.189 Abs	0.470 µg/L	61.320 %Abs		0.150 - 5.000	20L4352
AB47551MSD	ANATOXIN	1.146 Abs [1.1675] {2.6 C	0.523 µg/L [0.497]	59.103 %Abs [60.2		0.150 - 5.000	20L4352
AB47552	ANATOXIN	1.894 Abs	0.010 µg/L	Low, 97.679 %Abs		0.150 - 5.000	20L4352
AB47552	ANATOXIN	1.863 Abs [1.8785] {1.2 C	0.019 µg/L [0.014]	Low, 96.080 %Abs		0.150 - 5.000	20L4352
AB47578	ANATOXIN	1.826 Abs	0.031 µg/L	Low, 94.172 %Abs		0.150 - 5.000	20L4352
AB47578	ANATOXIN	1.790 Abs [1.8080] {1.4 C	0.044 µg/L [0.038]	Low, 92.316 %Abs		0.150 - 5.000	20L4352
AB47579	ANATOXIN	1.787 Abs	0.045 µg/L	Low, 92.161 %Abs		0.150 - 5.000	20L4352
AB47579	ANATOXIN	1.746 Abs [1.7665] {1.6 C	0.061 µg/L [0.053]	Low, 90.046 %Abs		0.150 - 5.000	20L4352

**Note**

Signature

David Jordan 6/8/2021

**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:

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: 20L4352

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 Calibration**

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
<b>6/8/2021 5:09:03 PM</b>				
ATX Std 0	1.961 Abs	0.000 µg/L	R <sup>2</sup> =0.99954, 101.135 %Abs	RK1:23->A01@2
ATX Std 0	1.917 Abs [1.9390] {1.6 CV}	0.005 µg/L [0.003] {141.4 CV}	R <sup>2</sup> =0.99954, 98.865 %Abs	RK1:23->B01@2
ATX Std 1	1.600 Abs	0.131 µg/L	R <sup>2</sup> =0.99954, 82.517 %Abs	RK1:24->C01@2
ATX Std 1	1.565 Abs [1.5825] {1.6 CV}	0.151 µg/L [0.141] {10.0 CV}	R <sup>2</sup> =0.99954, 80.712 %Abs	RK1:24->D01@2
ATX Std 2	1.237 Abs	0.416 µg/L	R <sup>2</sup> =0.99954, 63.796 %Abs	RK1:25->E01@2
ATX Std 2	1.235 Abs [1.2360] {0.1 CV}	0.418 µg/L [0.417] {0.3 CV}	R <sup>2</sup> =0.99954, 63.693 %Abs	RK1:25->F01@3
ATX Std 3	0.885 Abs	0.971 µg/L	R <sup>2</sup> =0.99954, 45.642 %Abs	RK1:26->G01@3
ATX Std 3	0.854 Abs [0.8695] {2.5 CV}	1.044 µg/L [1.008] {5.1 CV}	R <sup>2</sup> =0.99954, 44.043 %Abs	RK1:26->H01@3
ATX Std 4	0.542 Abs	2.253 µg/L	R <sup>2</sup> =0.99954, 27.953 %Abs	RK1:27->A02@2
ATX Std 4	0.502 Abs [0.5220] {5.4 CV}	2.513 µg/L [2.383] {7.7 CV}	R <sup>2</sup> =0.99954, 25.890 %Abs	RK1:27->B02@2
ATX Std 5	0.275 Abs	> 5.000 µg/L	14.183 %Abs	RK1:28->C02@2
ATX Std 5	0.276 Abs [0.2755] {0.3 CV}	> 5.000 µg/L	14.234 %Abs	RK1:28->D02@2
*****				
<b>6/8/2021 5:09:03 PM</b>				
ATX Control	0.963 Abs	0.809 µg/L	49.665 %Abs	RK1:29->E02@2
ATX Control	0.954 Abs [0.9585] {0.7 CV}	0.827 µg/L [0.818] {1.6 CV}	49.201 %Abs [49.433 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
ATX Std 0 [MEAN]	1.9390	0.0025		
ATX Std 0 [SD]	0.0311	0.0035		
ATX Std 0 [%CV]	1.6046	141.4214		
ATX Std 1 [MEAN]	1.5825	0.1410		
ATX Std 1 [SD]	0.0247	0.0141		
ATX Std 1 [%CV]	1.5639	10.0299		
ATX Std 1 [%DIFF]		-6.0000		
ATX Std 2 [MEAN]	1.2360	0.4170		
ATX Std 2 [SD]	0.0014	0.0014		
ATX Std 2 [%CV]	0.1144	0.3391		
ATX Std 2 [%DIFF]		4.2500		
ATX Std 3 [MEAN]	0.8695	1.0075		
ATX Std 3 [SD]	0.0219	0.0516		
ATX Std 3 [%CV]	2.5210	5.1235		
ATX Std 3 [%DIFF]		0.7500		
ATX Std 4 [MEAN]	0.5220	2.3830		
ATX Std 4 [SD]	0.0283	0.1838		
ATX Std 4 [%CV]	5.4184	7.7150		
ATX Std 4 [%DIFF]		-4.6800		
ATX Std 5 [MEAN]	0.2755			
ATX Std 5 [SD]	0.0007			
ATX Std 5 [%CV]	0.2567			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.9585	0.8180		
ATX Control [SD]	0.0064	0.0127		
ATX Control [%CV]	0.6640	1.5560		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.9423  
 B = 0.83339  
 C = 0.90766  
 D = -0.11447  
 R2 coef = 0.99954  
 50% = 0.797

