



## 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>
AC41517	Potato Creek SP - Worster Lake Beach	8/26/2024	8/27/2024	< 0.40
AC41518	Chain O'Lakes SP - Sand Lake Beach	8/26/2024	8/27/2024	< 0.40
AC41519	Mississinewa Lake - Miami SRA Beach	8/26/2024	8/27/2024	< 0.40
AC41520	Salamonie Lake - Lost Bridge West SRA Beach	8/26/2024	8/27/2024	< 0.40
AC41521	Chain O'Lakes SP - Sand Lake Beach (Field Duplicate)	8/26/2024	8/27/2024	< 0.40
AC41522	Field Blank	8/26/2024	8/27/2024	< 0.40
AC41523	Ferdinand State Forest - Ferdinand Lake Beach	8/26/2024	8/27/2024	< 0.40
AC41524	Lincoln SP - Lake Lincoln Beach	8/26/2024	8/27/2024	< 0.40
AC41525	Patoka Lake - Newton Stewart SRA	8/26/2024	8/27/2024	< 0.40

# Test Report (by Request)

**Test Information**

Request: 8/27/2024 2:32:22 PM  
Date: 8/27/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.778 Abs	0.000 µg/L	R^2=0.99936, 100.6		0.000	Kit:P23L3t
ATX Std 0	ANATOXIN	1.753 Abs [1.7655] {1.0 C	0.010 µg/L [0.005]	R^2=0.99936, 99.26		0.000	Kit:P23L3t
ATX Std 1	ANATOXIN	1.524 Abs	0.131 µg/L	R^2=0.99936, 86.25		0.150	Kit:P23L3t
ATX Std 1	ANATOXIN	1.486 Abs [1.5050] {1.8 C	0.153 µg/L [0.142]	R^2=0.99936, 84.14		0.150	Kit:P23L3t
ATX Std 2	ANATOXIN	1.168 Abs	0.394 µg/L	R^2=0.99936, 66.13		0.400	Kit:P23L3t
ATX Std 2	ANATOXIN	1.132 Abs [1.1500] {2.2 C	0.429 µg/L [0.412]	R^2=0.99936, 64.10		0.400	Kit:P23L3t
ATX Std 3	ANATOXIN	0.757 Abs	1.007 µg/L	R^2=0.99936, 42.86		1.000	Kit:P23L3t
ATX Std 3	ANATOXIN	0.748 Abs [0.7525] {0.8 C	1.028 µg/L [1.018]	R^2=0.99936, 42.35		1.000	Kit:P23L3t
ATX Std 4	ANATOXIN	0.443 Abs	2.364 µg/L	R^2=0.99936, 25.08		2.500	Kit:P23L3t
ATX Std 4	ANATOXIN	0.456 Abs [0.4495] {2.0 C	2.263 µg/L [2.314]	R^2=0.99936, 25.82		2.500	Kit:P23L3t
ATX Std 5	ANATOXIN	0.279 Abs	4.778 µg/L	R^2=0.99936, 15.79		5.000	Kit:P23L3t
ATX Std 5	ANATOXIN	0.235 Abs [0.2570] {12.1	> 5.000 µg/L [4.77	13.307 %Abs		5.000	Kit:P23L3t
ATX Control	ANATOXIN	0.923 Abs	0.691 µg/L	52.265 %Abs			Kit:P23L3t
ATX Control	ANATOXIN	0.900 Abs [0.9115] {1.8 C	0.727 µg/L [0.709]	50.963 %Abs [51.6			Kit:P23L3t

**Note**

Signature *David Jordan*

David Jordan 8/27/2024

# Test Report (by Request)

**Test Information**

Request: 8/27/2024 2:54:59 PM  
Date: 8/27/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.592 Abs	0.092 µg/L	Low, 90.147 %Abs		0.150 - 5.000	Kit:P23L3f
LRB	ANATOXIN	1.562 Abs [1.5770] {1.3 C	0.109 µg/L [0.101]	Low, 88.448 %Abs		0.150 - 5.000	Kit:P23L3f
LFB (ANA)	ANATOXIN	1.005 Abs	0.575 µg/L	56.908 %Abs		0.150 - 5.000	Kit:P23L3f
LFB (ANA)	ANATOXIN	0.980 Abs [0.9925] {1.8 C	0.608 µg/L [0.592]	55.493 %Abs [56.2		0.150 - 5.000	Kit:P23L3f
AC41517	ANATOXIN	1.616 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41517	ANATOXIN	1.618 Abs [1.6170] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41517MS	ANATOXIN	0.935 Abs	0.672 µg/L	52.945 %Abs		0.150 - 5.000	Kit:P23L3f
AC41517MS	ANATOXIN	0.860 Abs [0.8975] {5.9 C	0.795 µg/L [0.734]	48.698 %Abs [50.8		0.150 - 5.000	Kit:P23L3f
AC41517MSD	ANATOXIN	0.896 Abs	0.734 µg/L	50.736 %Abs		0.150 - 5.000	Kit:P23L3f
AC41517MSD	ANATOXIN	0.851 Abs [0.8735] {3.6 C	0.812 µg/L [0.773]	48.188 %Abs [49.4		0.150 - 5.000	Kit:P23L3f
AC41518	ANATOXIN	1.661 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41518	ANATOXIN	1.640 Abs [1.6505] {0.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41519	ANATOXIN	1.605 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41519	ANATOXIN	1.578 Abs [1.5915] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41520	ANATOXIN	1.581 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41520	ANATOXIN	1.523 Abs [1.5520] {2.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41521	ANATOXIN	1.532 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41521	ANATOXIN	1.407 Abs [1.4695] {6.0 C	0.223 µg/L	79.672 %Abs	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41522	ANATOXIN	1.711 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41522	ANATOXIN	1.700 Abs [1.7055] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41523	ANATOXIN	1.608 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41523	ANATOXIN	1.620 Abs [1.6140] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41524	ANATOXIN	1.591 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41524	ANATOXIN	1.531 Abs [1.5610] {2.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41525	ANATOXIN	1.505 Abs	0.156 µg/L	85.221 %Abs	MDF=1.100	0.150 - 5.000	Kit:P23L3f
AC41525	ANATOXIN	1.445 Abs [1.4750] {2.9 C	0.197 µg/L [0.177]	81.823 %Abs [83.5	MDF=1.100	0.150 - 5.000	Kit:P23L3f

**Note**

Signature *David Jordan*

David Jordan 8/27/2024

\* 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) 8/27/2024 2:57:50 PM

**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: Kit:P23L3054

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>8/27/2024 2:32:22 PM</b>				
ATX Std 0	1.778 Abs	0.000 µg/L	R <sup>2</sup> =0.99936, 100.679 %Abs	RK1:23->A01@2
ATX Std 0	1.753 Abs [1.7655] {1.0 CV}	0.010 µg/L [0.005] {141.4 CV}	R <sup>2</sup> =0.99936, 99.264 %Abs	RK1:23->B01@2
ATX Std 1	1.524 Abs	0.131 µg/L	R <sup>2</sup> =0.99936, 86.297 %Abs	RK1:24->C01@2
ATX Std 1	1.486 Abs [1.5050] {1.8 CV}	0.153 µg/L [0.142] {11.0 CV}	R <sup>2</sup> =0.99936, 84.145 %Abs	RK1:24->D01@2
ATX Std 2	1.168 Abs	0.394 µg/L	R <sup>2</sup> =0.99936, 66.138 %Abs	RK1:25->E01@2
ATX Std 2	1.132 Abs [1.1500] {2.2 CV}	0.429 µg/L [0.412] {6.0 CV}	R <sup>2</sup> =0.99936, 64.100 %Abs	RK1:25->F01@3
ATX Std 3	0.757 Abs	1.007 µg/L	R <sup>2</sup> =0.99936, 42.865 %Abs	RK1:26->G01@3
ATX Std 3	0.748 Abs [0.7525] {0.8 CV}	1.028 µg/L [1.018] {1.5 CV}	R <sup>2</sup> =0.99936, 42.356 %Abs	RK1:26->H01@3
ATX Std 4	0.443 Abs	2.364 µg/L	R <sup>2</sup> =0.99936, 25.085 %Abs	RK1:27->A02@2
ATX Std 4	0.456 Abs [0.4495] {2.0 CV}	2.263 µg/L [2.314] {3.1 CV}	R <sup>2</sup> =0.99936, 25.821 %Abs	RK1:27->B02@2
ATX Std 5	0.279 Abs	4.778 µg/L	R <sup>2</sup> =0.99936, 15.798 %Abs	RK1:28->C02@2
ATX Std 5	0.235 Abs [0.2570] {12.1 CV}	> 5.000 µg/L [4.778]	13.307 %Abs	RK1:28->D02@2
*****				
<b>8/27/2024 2:32:22 PM</b>				
ATX Control	0.923 Abs	0.691 µg/L	52.265 %Abs	RK1:29->E02@2
ATX Control	0.900 Abs [0.9115] {1.8 CV}	0.727 µg/L [0.709] {3.6 CV}	50.963 %Abs [51.614 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
ATX Std 0 [MEAN]	1.7655	0.0050		
ATX Std 0 [SD]	0.0177	0.0071		
ATX Std 0 [%CV]	1.0013	141.4214		
ATX Std 1 [MEAN]	1.5050	0.1420		
ATX Std 1 [SD]	0.0269	0.0156		
ATX Std 1 [%CV]	1.7854	10.9552		
ATX Std 1 [%DIFF]		-5.3333		
ATX Std 2 [MEAN]	1.1500	0.4115		
ATX Std 2 [SD]	0.0255	0.0247		
ATX Std 2 [%CV]	2.2136	6.0143		
ATX Std 2 [%DIFF]		2.8750		
ATX Std 3 [MEAN]	0.7525	1.0175		
ATX Std 3 [SD]	0.0064	0.0148		
ATX Std 3 [%CV]	0.8457	1.4594		
ATX Std 3 [%DIFF]		1.7500		
ATX Std 4 [MEAN]	0.4495	2.3135		
ATX Std 4 [SD]	0.0092	0.0714		
ATX Std 4 [%CV]	2.0450	3.0870		
ATX Std 4 [%DIFF]		-7.4600		
ATX Std 5 [MEAN]	0.2570			
ATX Std 5 [SD]	0.0311			
ATX Std 5 [%CV]	12.1061			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.9115	0.7090		
ATX Control [SD]	0.0163	0.0255		
ATX Control [%CV]	1.7843	3.5904		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.7707  
 B = 1.0681  
 C = 0.67627  
 D = 0.094157  
 R2 coef = 0.99936  
 50% = 0.755

