



## 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>
AC19228	Cecil M. Harden Lake - Raccoon Lake SRA Beach	8/7/2023	8/10/2023	< 0.40
AC19229	Cagles Mill Lake - Lieber SRA Beach	8/7/2023	8/10/2023	< 0.40
AC19230	Monroe Lake - Fairfax SRA Beach	8/7/2023	8/10/2023	< 0.40
AC19231	Monroe Lake - Paynetown SRA Beach	8/7/2023	8/10/2023	< 0.40
AC19232	Starve Hollow SRA - Starve Hollow Lake Beach	8/7/2023	8/10/2023	< 0.40
AC19333	Whitewater Memorial SP - Whitewater Lake Beach	8/8/2023	8/10/2023	< 0.40
AC19234	Brookville Lake - Quakertown SRA Beach	8/8/2023	8/10/2023	< 0.40
AC19235	Brookville Lake - Mounds SRA Beach	8/8/2023	8/10/2023	< 0.40
AC19236	Hardy Lake SRA - Hardy Lake SRA Beach	8/8/2023	8/10/2023	0.43
AC19237	Deam Lake SRA - Deam Lake Beach	8/8/2023	8/10/2023	< 0.40
AC19238	Monroe Lake - Paynetown SRA Beach (Field Duplicate)	8/7/2023	8/10/2023	< 0.40
AC19239	Field Blank	8/7/2023	8/10/2023	< 0.40
AC19240	Ft. Ben Harrison SP Dog Lake	8/7/2023	8/10/2023	< 0.40

# Test Report (by Request)

**Test Information**

Request: 8/10/2023 11:56:57 AM  
 Date: 8/10/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.346 Abs	0.000 µg/L	R^2=0.99923, 102.0		0.000	Kit:P23B0
ATX Std 0	ANATOXIN	1.292 Abs [1.3190] {2.9 C	0.013 µg/L [0.007]	R^2=0.99923, 97.95		0.000	Kit:P23B0
ATX Std 1	ANATOXIN	1.089 Abs	0.129 µg/L	R^2=0.99923, 82.56		0.150	Kit:P23B0
ATX Std 1	ANATOXIN	1.051 Abs [1.0700] {2.5 C	0.156 µg/L [0.143]	R^2=0.99923, 79.68		0.150	Kit:P23B0
ATX Std 2	ANATOXIN	0.804 Abs	0.401 µg/L	R^2=0.99923, 60.95		0.400	Kit:P23B0
ATX Std 2	ANATOXIN	0.784 Abs [0.7940] {1.8 C	0.427 µg/L [0.414]	R^2=0.99923, 59.43		0.400	Kit:P23B0
ATX Std 3	ANATOXIN	0.518 Abs	1.000 µg/L	R^2=0.99923, 39.27		1.000	Kit:P23B0
ATX Std 3	ANATOXIN	0.508 Abs [0.5130] {1.4 C	1.034 µg/L [1.017]	R^2=0.99923, 38.51		1.000	Kit:P23B0
ATX Std 4	ANATOXIN	0.315 Abs	2.163 µg/L	R^2=0.99923, 23.88		2.500	Kit:P23B0
ATX Std 4	ANATOXIN	0.293 Abs [0.3040] {5.1 C	2.396 µg/L [2.280]	R^2=0.99923, 22.21		2.500	Kit:P23B0
ATX Std 5	ANATOXIN	0.162 Abs	> 5.000 µg/L	12.282 %Abs		5.000	Kit:P23B0
ATX Std 5	ANATOXIN	0.156 Abs [0.1590] {2.7 C	> 5.000 µg/L	11.827 %Abs		5.000	Kit:P23B0
ATX Control	ANATOXIN	0.635 Abs	0.685 µg/L	48.143 %Abs			Kit:P23B0
ATX Control	ANATOXIN	0.614 Abs [0.6245] {2.4 C	0.732 µg/L [0.709]	46.550 %Abs [47.3			Kit:P23B0

**Note**

Signature \_\_\_\_\_

# Test Report (by Request)

**Test Information**

 Request: 8/10/2023 12:22:41 PM  
 Date: 8/10/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.159 Abs	0.084 µg/L	Low, 87.870 %Abs		0.150 - 5.000	Kit:P23B0
LRB	ANATOXIN	1.146 Abs [1.1525] {0.8 C	0.092 µg/L [0.088]	Low, 86.884 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.675 Abs	0.604 µg/L	51.175 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.654 Abs [0.6645] {2.2 C	0.646 µg/L [0.625]	49.583 %Abs [50.3		0.150 - 5.000	Kit:P23B0
AC19228	ANATOXIN	1.123 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19228	ANATOXIN	1.104 Abs [1.1135] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19229	ANATOXIN	1.133 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19229	ANATOXIN	1.114 Abs [1.1235] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19230	ANATOXIN	1.156 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19230	ANATOXIN	1.135 Abs [1.1455] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19231	ANATOXIN	1.271 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19231	ANATOXIN	1.260 Abs [1.2655] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19232	ANATOXIN	1.213 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19232	ANATOXIN	1.189 Abs [1.2010] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19233	ANATOXIN	1.150 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19233	ANATOXIN	1.134 Abs [1.1420] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19234	ANATOXIN	1.157 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19234	ANATOXIN	1.141 Abs [1.1490] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19234MS	ANATOXIN	0.672 Abs	0.610 µg/L	50.948 %Abs		0.150 - 5.000	Kit:P23B0
AC19234MS	ANATOXIN	0.644 Abs [0.6580] {3.0 C	0.666 µg/L [0.638]	48.825 %Abs [49.8		0.150 - 5.000	Kit:P23B0
AC19234MSD	ANATOXIN	0.644 Abs	0.666 µg/L	48.825 %Abs		0.150 - 5.000	Kit:P23B0
AC19234MSD	ANATOXIN	0.633 Abs [0.6385] {1.2 C	0.690 µg/L [0.678]	47.991 %Abs [48.4		0.150 - 5.000	Kit:P23B0
AC19235	ANATOXIN	1.186 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19235	ANATOXIN	1.162 Abs [1.1740] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19236	ANATOXIN	0.813 Abs	0.428 µg/L	61.638 %Abs	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19236	ANATOXIN	0.816 Abs [0.8145] {0.3 C	0.424 µg/L [0.426]	61.865 %Abs [61.7	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19237	ANATOXIN	1.279 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19237	ANATOXIN	1.248 Abs [1.2635] {1.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19238	ANATOXIN	1.237 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19238	ANATOXIN	1.228 Abs [1.2325] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19239	ANATOXIN	1.220 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19239	ANATOXIN	1.180 Abs [1.2000] {2.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19240	ANATOXIN	1.182 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC19240	ANATOXIN	1.156 Abs [1.1690] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0

**Note**

Signature \_\_\_\_\_

**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:P23B0244

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>8/10/2023 11:56:57 AM</b>				
ATX Std 0	1.346 Abs	0.000 µg/L	R <sup>2</sup> =0.99923, 102.047 %Abs	RK1:23->A01@2
ATX Std 0	1.292 Abs [1.3190] {2.9 CV}	0.013 µg/L [0.007] {141.4 CV}	R <sup>2</sup> =0.99923, 97.953 %Abs	RK1:23->B01@2
ATX Std 1	1.089 Abs	0.129 µg/L	R <sup>2</sup> =0.99923, 82.563 %Abs	RK1:24->C01@2
ATX Std 1	1.051 Abs [1.0700] {2.5 CV}	0.156 µg/L [0.143] {13.4 CV}	R <sup>2</sup> =0.99923, 79.682 %Abs	RK1:24->D01@2
ATX Std 2	0.804 Abs	0.401 µg/L	R <sup>2</sup> =0.99923, 60.955 %Abs	RK1:25->E01@2
ATX Std 2	0.784 Abs [0.7940] {1.8 CV}	0.427 µg/L [0.414] {4.4 CV}	R <sup>2</sup> =0.99923, 59.439 %Abs	RK1:25->F01@3
ATX Std 3	0.518 Abs	1.000 µg/L	R <sup>2</sup> =0.99923, 39.272 %Abs	RK1:26->G01@3
ATX Std 3	0.508 Abs [0.5130] {1.4 CV}	1.034 µg/L [1.017] {2.4 CV}	R <sup>2</sup> =0.99923, 38.514 %Abs	RK1:26->H01@3
ATX Std 4	0.315 Abs	2.163 µg/L	R <sup>2</sup> =0.99923, 23.882 %Abs	RK1:27->A02@2
ATX Std 4	0.293 Abs [0.3040] {5.1 CV}	2.396 µg/L [2.280] {7.2 CV}	R <sup>2</sup> =0.99923, 22.214 %Abs	RK1:27->B02@2
ATX Std 5	0.162 Abs	> 5.000 µg/L	12.282 %Abs	RK1:28->C02@2
ATX Std 5	0.156 Abs [0.1590] {2.7 CV}	> 5.000 µg/L	11.827 %Abs	RK1:28->D02@2
*****				
<b>8/10/2023 11:56:57 AM</b>				
ATX Control	0.635 Abs	0.685 µg/L	48.143 %Abs	RK1:29->E02@2
ATX Control	0.614 Abs [0.6245] {2.4 CV}	0.732 µg/L [0.709] {4.7 CV}	46.550 %Abs [47.346 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
ATX Std 0 [MEAN]	1.3190	0.0065		
ATX Std 0 [SD]	0.0382	0.0092		
ATX Std 0 [%CV]	2.8949	141.4214		
ATX Std 1 [MEAN]	1.0700	0.1425		
ATX Std 1 [SD]	0.0269	0.0191		
ATX Std 1 [%CV]	2.5112	13.3978		
ATX Std 1 [%DIFF]		-5.0000		
ATX Std 2 [MEAN]	0.7940	0.4140		
ATX Std 2 [SD]	0.0141	0.0184		
ATX Std 2 [%CV]	1.7811	4.4408		
ATX Std 2 [%DIFF]		3.5000		
ATX Std 3 [MEAN]	0.5130	1.0170		
ATX Std 3 [SD]	0.0071	0.0240		
ATX Std 3 [%CV]	1.3784	2.3640		
ATX Std 3 [%DIFF]		1.7000		
ATX Std 4 [MEAN]	0.3040	2.2795		
ATX Std 4 [SD]	0.0156	0.1648		
ATX Std 4 [%CV]	5.1172	7.2277		
ATX Std 4 [%DIFF]		-8.8200		
ATX Std 5 [MEAN]	0.1590			
ATX Std 5 [SD]	0.0042			
ATX Std 5 [%CV]	2.6683			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.6245	0.7085		
ATX Control [SD]	0.0148	0.0332		
ATX Control [%CV]	2.3778	4.6908		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.3219  
 B = 0.98139  
 C = 0.60633  
 D = 0.025920  
 R2 coef = 0.99923  
 50% = 0.634

