



## 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>
AB47694	Raccoon Lake SRA	6/28/2021	6/29/2021	< 0.40
AB47693	Cagles Mill Lake Beach	6/28/2021	6/29/2021	< 0.40
AB47697	Whitewater Memorial SP	6/28/2021	6/29/2021	< 0.40
AB47696	Mounds SRA	6/28/2021	6/29/2021	< 0.40
AB47695	Hardy Lake SRA	6/28/2021	6/29/2021	< 0.40
AB47698	Mounds SRA (Field Duplicate)	6/28/2021	6/29/2021	< 0.40
AB47699	Field Blank	6/28/2021	6/29/2021	< 0.40
AB47700	Ft. Ben Harrison SP Dog Lake - East	6/28/2021	6/29/2021	< 0.40

# Test Report (by Request)

**Test Information**

 Request: 6/29/2021 5:15:29 PM  
 Date: 6/29/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.557 Abs	0.000 µg/L	R^2=0.99998, 100.6			20L4352
ATX Std 0	ANATOXIN	1.537 Abs [1.5470] {0.9 C	0.003 µg/L [0.002]	R^2=0.99998, 99.35			20L4352
ATX Std 1	ANATOXIN	1.283 Abs	0.131 µg/L	R^2=0.99998, 82.93			20L4352
ATX Std 1	ANATOXIN	1.234 Abs [1.2585] {2.8 C	0.166 µg/L [0.148]	R^2=0.99998, 79.76			20L4352
ATX Std 2	ANATOXIN	1.015 Abs	0.374 µg/L	R^2=0.99998, 65.61			20L4352
ATX Std 2	ANATOXIN	0.965 Abs [0.9900] {3.6 C	0.437 µg/L [0.405]	R^2=0.99998, 62.37			20L4352
ATX Std 3	ANATOXIN	0.684 Abs	0.980 µg/L	R^2=0.99998, 44.21			20L4352
ATX Std 3	ANATOXIN	0.673 Abs [0.6785] {1.1 C	1.011 µg/L [0.996]	R^2=0.99998, 43.50			20L4352
ATX Std 4	ANATOXIN	0.395 Abs	2.354 µg/L	R^2=0.99998, 25.53			20L4352
ATX Std 4	ANATOXIN	0.363 Abs [0.3790] {6.0 C	2.631 µg/L [2.493]	R^2=0.99998, 23.46			20L4352
ATX Std 5	ANATOXIN	0.212 Abs	4.882 µg/L	R^2=0.99998, 13.70			20L4352
ATX Std 5	ANATOXIN	0.200 Abs [0.2060] {4.1 C	> 5.000 µg/L [4.88	12.928 %Abs			20L4352
ATX Control	ANATOXIN	0.751 Abs	0.812 µg/L	48.546 %Abs			20L4352
ATX Control	ANATOXIN	0.771 Abs [0.7610] {1.9 C	0.767 µg/L [0.789]	49.838 %Abs [49.1			20L4352

**Note**

Signature

# Test Report (by Request)

**Test Information**

 Request: 6/30/2021 8:23:47 AM  
 Date: 6/29/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.410 Abs	0.056 µg/L	Low, 91.144 %Abs		0.150 - 5.000	20L4352
LRB	ANATOXIN	1.392 Abs [1.4010] {0.9 C	0.065 µg/L [0.060]	Low, 89.981 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.814 Abs	0.680 µg/L	52.618 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.782 Abs [0.7980] {2.8 C	0.744 µg/L [0.712]	50.549 %Abs [51.5		0.150 - 5.000	20L4352
AB47694	ANATOXIN	1.393 Abs	0.065 µg/L	Low, 90.045 %Abs		0.150 - 5.000	20L4352
AB47694	ANATOXIN	1.371 Abs [1.3820] {1.1 C	0.077 µg/L [0.071]	Low, 88.623 %Abs		0.150 - 5.000	20L4352
AB47694MS	ANATOXIN	0.736 Abs	0.847 µg/L	47.576 %Abs		0.150 - 5.000	20L4352
AB47694MS	ANATOXIN	0.732 Abs [0.7340] {0.4 C	0.856 µg/L [0.852]	47.317 %Abs [47.4		0.150 - 5.000	20L4352
AB47694MSD	ANATOXIN	0.730 Abs	0.861 µg/L	47.188 %Abs		0.150 - 5.000	20L4352
AB47694MSD	ANATOXIN	0.737 Abs [0.7335] {0.7 C	0.844 µg/L [0.852]	47.641 %Abs [47.4		0.150 - 5.000	20L4352
AB47693	ANATOXIN	1.467 Abs	0.029 µg/L	Low, 94.829 %Abs		0.150 - 5.000	20L4352
AB47693	ANATOXIN	1.428 Abs [1.4475] {1.9 C	0.047 µg/L [0.038]	Low, 92.308 %Abs		0.150 - 5.000	20L4352
AB47697	ANATOXIN	1.402 Abs	0.060 µg/L	Low, 90.627 %Abs		0.150 - 5.000	20L4352
AB47697	ANATOXIN	1.380 Abs [1.3910] {1.1 C	0.072 µg/L [0.066]	Low, 89.205 %Abs		0.150 - 5.000	20L4352
AB47696	ANATOXIN	1.395 Abs	0.064 µg/L	Low, 90.175 %Abs		0.150 - 5.000	20L4352
AB47696	ANATOXIN	1.382 Abs [1.3885] {0.7 C	0.071 µg/L [0.068]	Low, 89.334 %Abs		0.150 - 5.000	20L4352
AB47695	ANATOXIN	1.332 Abs	0.099 µg/L	Low, 86.102 %Abs		0.150 - 5.000	20L4352
AB47695	ANATOXIN	1.315 Abs [1.3235] {0.9 C	0.110 µg/L [0.104]	Low, 85.003 %Abs		0.150 - 5.000	20L4352
AB47698	ANATOXIN	1.477 Abs	0.025 µg/L	Low, 95.475 %Abs		0.150 - 5.000	20L4352
AB47698	ANATOXIN	1.458 Abs [1.4675] {0.9 C	0.033 µg/L [0.029]	Low, 94.247 %Abs		0.150 - 5.000	20L4352
AB47699	ANATOXIN	1.416 Abs	0.053 µg/L	Low, 91.532 %Abs		0.150 - 5.000	20L4352
AB47699	ANATOXIN	1.396 Abs [1.4060] {1.0 C	0.063 µg/L [0.058]	Low, 90.239 %Abs		0.150 - 5.000	20L4352
AB47700	ANATOXIN	1.373 Abs	0.076 µg/L	Low, 88.752 %Abs		0.150 - 5.000	20L4352
AB47700	ANATOXIN	1.355 Abs [1.3640] {0.9 C	0.086 µg/L [0.081]	Low, 87.589 %Abs		0.150 - 5.000	20L4352

**Note**

Signature

Charles Hostetter 6/30/2021

**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>6/29/2021 5:15:29 PM</b>				
ATX Std 0	1.557 Abs	0.000 µg/L	R <sup>2</sup> =0.99998, 100.646 %Abs	RK1:23->A01@2
ATX Std 0	1.537 Abs [1.5470] {0.9 CV}	0.003 µg/L [0.002] {141.4 CV}	R <sup>2</sup> =0.99998, 99.354 %Abs	RK1:23->B01@2
ATX Std 1	1.283 Abs	0.131 µg/L	R <sup>2</sup> =0.99998, 82.935 %Abs	RK1:24->C01@2
ATX Std 1	1.234 Abs [1.2585] {2.8 CV}	0.166 µg/L [0.148] {16.7 CV}	R <sup>2</sup> =0.99998, 79.767 %Abs	RK1:24->D01@2
ATX Std 2	1.015 Abs	0.374 µg/L	R <sup>2</sup> =0.99998, 65.611 %Abs	RK1:25->E01@2
ATX Std 2	0.965 Abs [0.9900] {3.6 CV}	0.437 µg/L [0.405] {11.0 CV}	R <sup>2</sup> =0.99998, 62.379 %Abs	RK1:25->F01@3
ATX Std 3	0.684 Abs	0.980 µg/L	R <sup>2</sup> =0.99998, 44.215 %Abs	RK1:26->G01@3
ATX Std 3	0.673 Abs [0.6785] {1.1 CV}	1.011 µg/L [0.996] {2.2 CV}	R <sup>2</sup> =0.99998, 43.504 %Abs	RK1:26->H01@3
ATX Std 4	0.395 Abs	2.354 µg/L	R <sup>2</sup> =0.99998, 25.533 %Abs	RK1:27->A02@2
ATX Std 4	0.363 Abs [0.3790] {6.0 CV}	2.631 µg/L [2.493] {7.9 CV}	R <sup>2</sup> =0.99998, 23.465 %Abs	RK1:27->B02@2
ATX Std 5	0.212 Abs	4.882 µg/L	R <sup>2</sup> =0.99998, 13.704 %Abs	RK1:28->C02@2
ATX Std 5	0.200 Abs [0.2060] {4.1 CV}	> 5.000 µg/L [4.882]	12.928 %Abs	RK1:28->D02@2
*****				
<b>6/29/2021 5:15:29 PM</b>				
ATX Control	0.751 Abs	0.812 µg/L	48.546 %Abs	RK1:29->E02@2
ATX Control	0.771 Abs [0.7610] {1.9 CV}	0.767 µg/L [0.789] {4.0 CV}	49.838 %Abs [49.192 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
ATX Std 0 [MEAN]	1.5470	0.0015		
ATX Std 0 [SD]	0.0141	0.0021		
ATX Std 0 [%CV]	0.9142	141.4214		
ATX Std 1 [MEAN]	1.2585	0.1485		
ATX Std 1 [SD]	0.0346	0.0247		
ATX Std 1 [%CV]	2.7531	16.6658		
ATX Std 1 [%DIFF]		-1.0000		
ATX Std 2 [MEAN]	0.9900	0.4055		
ATX Std 2 [SD]	0.0354	0.0445		
ATX Std 2 [%CV]	3.5712	10.9859		
ATX Std 2 [%DIFF]		1.3750		
ATX Std 3 [MEAN]	0.6785	0.9955		
ATX Std 3 [SD]	0.0078	0.0219		
ATX Std 3 [%CV]	1.1464	2.2019		
ATX Std 3 [%DIFF]		-0.4500		
ATX Std 4 [MEAN]	0.3790	2.4925		
ATX Std 4 [SD]	0.0226	0.1959		
ATX Std 4 [%CV]	5.9703	7.8583		
ATX Std 4 [%DIFF]		-0.3000		
ATX Std 5 [MEAN]	0.2060			
ATX Std 5 [SD]	0.0085			
ATX Std 5 [%CV]	4.1191			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.7610	0.7895		
ATX Control [SD]	0.0141	0.0318		
ATX Control [%CV]	1.8584	4.0304		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.5476  
 B = 0.87584  
 C = 0.84759  
 D = -0.076177  
 R2 coef = 0.99998  
 50% = 0.762

