



## Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB52419	Raccoon Lake SRA	8/8/2022	8/10/2022	< 0.40
AB52421	Cagles Mill Lake Beach	8/8/2022	8/10/2022	< 0.40
AB52422	Paynetown SRA	8/8/2022	8/10/2022	< 0.40
AB52423	Fairfax SRA	8/8/2022	8/10/2022	< 0.40
AB52424	Starve Hollow SRA	8/8/2022	8/10/2022	< 0.40
AB52425	Whitewater Memorial SP	8/9/2022	8/10/2022	< 0.40
AB52426	Quakertown SRA	8/9/2022	8/10/2022	< 0.40
AB52427	Mounds SRA	8/9/2022	8/10/2022	< 0.40
AB52428	Hardy Lake SRA	8/9/2022	8/10/2022	0.64
AB52420	Deam Lake SRA	8/9/2022	8/10/2022	< 0.40
AB52429	Hardy Lake SRA (Field Duplicate)	8/9/2022	8/10/2022	0.52
AB52430	Field Blank	8/9/2022	8/10/2022	< 0.40
AB52431	Ft. Ben Harrison SP Dog Lake	8/9/2022	8/10/2022	< 0.40

# Test Report (by Request)

## Test Information

Request: 8/11/2022 12:20:33 PM  
Date: 8/11/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.593 Abs	0.000 µg/L	R <sup>2</sup> =0.99961, 101.4			M21L0919
ATX Std 0	ANATOXIN	1.548 Abs [1.5705] {2.0 C	0.011 µg/L [0.006]	R <sup>2</sup> =0.99961, 98.53			M21L0919
ATX Std 1	ANATOXIN	1.308 Abs	0.138 µg/L	R <sup>2</sup> =0.99961, 83.25			M21L0919
ATX Std 1	ANATOXIN	1.276 Abs [1.2920] {1.8 C	0.159 µg/L [0.148]	R <sup>2</sup> =0.99961, 81.22			M21L0919
ATX Std 2	ANATOXIN	1.007 Abs	0.379 µg/L	R <sup>2</sup> =0.99961, 64.09			M21L0919
ATX Std 2	ANATOXIN	0.971 Abs [0.9890] {2.6 C	0.418 µg/L [0.399]	R <sup>2</sup> =0.99961, 61.80			M21L0919
ATX Std 3	ANATOXIN	0.631 Abs	1.010 µg/L	R <sup>2</sup> =0.99961, 40.16			M21L0919
ATX Std 3	ANATOXIN	0.616 Abs [0.6235] {1.7 C	1.052 µg/L [1.031]	R <sup>2</sup> =0.99961, 39.21			M21L0919
ATX Std 4	ANATOXIN	0.369 Abs	2.292 µg/L	R <sup>2</sup> =0.99961, 23.48			M21L0919
ATX Std 4	ANATOXIN	0.361 Abs [0.3650] {1.5 C	2.364 µg/L [2.328]	R <sup>2</sup> =0.99961, 22.97			M21L0919
ATX Std 5	ANATOXIN	0.205 Abs	> 5.000 µg/L	13.049 %Abs			M21L0919
ATX Std 5	ANATOXIN	0.197 Abs [0.2010] {2.8 C	> 5.000 µg/L	12.540 %Abs			M21L0919
ATX Control	ANATOXIN	0.799 Abs	0.652 µg/L	50.859 %Abs			M21L0919
ATX Control	ANATOXIN	0.780 Abs [0.7895] {1.7 C	0.685 µg/L [0.669]	49.650 %Abs [50.2			M21L0919

## Note

Signature

David Jordan

David Jordan 8/11/2022

# Test Report (by Request)

## Test Information

Request: 8/11/2022 12:43:41 PM  
Date: 8/11/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.443 Abs	0.062 µg/L	Low, 91.852 %Abs		0.150 - 5.000	M21L0919
LRB	ANATOXIN	1.403 Abs [1.4230] {2.0 C	0.084 µg/L [0.073]	Low, 89.306 %Abs		0.150 - 5.000	M21L0919
LFB (ANA)	ANATOXIN	0.820 Abs	0.618 µg/L	52.196 %Abs		0.150 - 5.000	M21L0919
LFB (ANA)	ANATOXIN	0.769 Abs [0.7945] {4.5 C	0.704 µg/L [0.661]	48.950 %Abs [50.5		0.150 - 5.000	M21L0919
AB52419	ANATOXIN	1.426 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52419	ANATOXIN	1.391 Abs [1.4085] {1.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52421	ANATOXIN	1.375 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52421	ANATOXIN	1.360 Abs [1.3675] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52422	ANATOXIN	1.325 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52422	ANATOXIN	1.304 Abs [1.3145] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52423	ANATOXIN	1.428 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52423	ANATOXIN	1.419 Abs [1.4235] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52424	ANATOXIN	1.404 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52424	ANATOXIN	1.404 Abs [1.4040] {0.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52425	ANATOXIN	1.335 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52425	ANATOXIN	1.316 Abs [1.3255] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52426	ANATOXIN	1.384 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52426	ANATOXIN	1.385 Abs [1.3845] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52426MS	ANATOXIN	0.799 Abs	0.652 µg/L	50.859 %Abs		0.150 - 5.000	M21L0919
AB52426MS	ANATOXIN	0.779 Abs [0.7890] {1.8 C	0.686 µg/L [0.669]	49.586 %Abs [50.2		0.150 - 5.000	M21L0919
AB52426MSD	ANATOXIN	0.798 Abs	0.654 µg/L	50.796 %Abs		0.150 - 5.000	M21L0919
AB52426MSD	ANATOXIN	0.768 Abs [0.7830] {2.7 C	0.706 µg/L [0.680]	48.886 %Abs [49.8		0.150 - 5.000	M21L0919
AB52427	ANATOXIN	1.387 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52427	ANATOXIN	1.360 Abs [1.3735] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52428	ANATOXIN	0.851 Abs	0.628 µg/L	54.169 %Abs	MDF=1.100	0.150 - 5.000	M21L0919
AB52428	ANATOXIN	0.836 Abs [0.8435] {1.3 C	0.652 µg/L [0.640]	53.215 %Abs [53.6	MDF=1.100	0.150 - 5.000	M21L0919
AB52420	ANATOXIN	1.492 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52420	ANATOXIN	1.470 Abs [1.4810] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52429	ANATOXIN	0.941 Abs	0.497 µg/L	59.898 %Abs	MDF=1.100	0.150 - 5.000	M21L0919
AB52429	ANATOXIN	0.915 Abs [0.9280] {2.0 C	0.532 µg/L [0.515]	58.243 %Abs [59.0	MDF=1.100	0.150 - 5.000	M21L0919
AB52430	ANATOXIN	1.416 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52430	ANATOXIN	1.400 Abs [1.4080] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52431	ANATOXIN	1.382 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52431	ANATOXIN	1.376 Abs [1.3790] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919

## Note

Signature

David Jordan

David Jordan 8/11/2022

## 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: M21L0919

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
8/11/2022 12:20:33 PM				
ATX Std 0	1.593 Abs	0.000 µg/L	R <sup>2</sup> =0.99961, 101.400 %Abs	RK1:23->A01@2
ATX Std 0	1.548 Abs [1.5705] {2.0 CV}	0.011 µg/L [0.006] {141.4 CV}	R <sup>2</sup> =0.99961, 98.536 %Abs	RK1:23->B01@2
ATX Std 1	1.308 Abs	0.138 µg/L	R <sup>2</sup> =0.99961, 83.259 %Abs	RK1:24->C01@2
ATX Std 1	1.276 Abs [1.2920] {1.8 CV}	0.159 µg/L [0.148] {10.0 CV}	R <sup>2</sup> =0.99961, 81.222 %Abs	RK1:24->D01@2
ATX Std 2	1.007 Abs	0.379 µg/L	R <sup>2</sup> =0.99961, 64.099 %Abs	RK1:25->E01@2
ATX Std 2	0.971 Abs [0.9890] {2.6 CV}	0.418 µg/L [0.399] {6.9 CV}	R <sup>2</sup> =0.99961, 61.808 %Abs	RK1:25->F01@3
ATX Std 3	0.631 Abs	1.010 µg/L	R <sup>2</sup> =0.99961, 40.166 %Abs	RK1:26->G01@3
ATX Std 3	0.616 Abs [0.6235] {1.7 CV}	1.052 µg/L [1.031] {2.9 CV}	R <sup>2</sup> =0.99961, 39.211 %Abs	RK1:26->H01@3
ATX Std 4	0.369 Abs	2.292 µg/L	R <sup>2</sup> =0.99961, 23.488 %Abs	RK1:27->A02@2
ATX Std 4	0.361 Abs [0.3650] {1.5 CV}	2.364 µg/L [2.328] {2.2 CV}	R <sup>2</sup> =0.99961, 22.979 %Abs	RK1:27->B02@2
ATX Std 5	0.205 Abs	> 5.000 µg/L	13.049 %Abs	RK1:28->C02@2
ATX Std 5	0.197 Abs [0.2010] {2.8 CV}	> 5.000 µg/L	12.540 %Abs	RK1:28->D02@2
*****				
8/11/2022 12:20:33 PM				
ATX Control	0.799 Abs	0.652 µg/L	50.859 %Abs	RK1:29->E02@2
ATX Control	0.780 Abs [0.7895] {1.7 CV}	0.685 µg/L [0.669] {3.5 CV}	49.650 %Abs [50.255 %Abs]	RK1:29->F02@3
*****				
Statistic				
ATX Std 0 [MEAN]	1.5705	0.0055		
ATX Std 0 [SD]	0.0318	0.0078		
ATX Std 0 [%CV]	2.0261	141.4214		
ATX Std 1 [MEAN]	1.2920	0.1485		
ATX Std 1 [SD]	0.0226	0.0148		
ATX Std 1 [%CV]	1.7513	9.9995		
ATX Std 1 [%DIFF]		-1.0000		
ATX Std 2 [MEAN]	0.9890	0.3985		
ATX Std 2 [SD]	0.0255	0.0276		
ATX Std 2 [%CV]	2.5739	6.9202		
ATX Std 2 [%DIFF]		-0.3750		
ATX Std 3 [MEAN]	0.6235	1.0310		
ATX Std 3 [SD]	0.0106	0.0297		
ATX Std 3 [%CV]	1.7011	2.8806		
ATX Std 3 [%DIFF]		3.1000		
ATX Std 4 [MEAN]	0.3650	2.3280		
ATX Std 4 [SD]	0.0057	0.0509		
ATX Std 4 [%CV]	1.5498	2.1869		
ATX Std 4 [%DIFF]		-6.8800		
ATX Std 5 [MEAN]	0.2010			
ATX Std 5 [SD]	0.0057			
ATX Std 5 [%CV]	2.8144			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.7895	0.6685		
ATX Control [SD]	0.0134	0.0233		
ATX Control [%CV]	1.7017	3.4906		

## Assay Curve

$$y = (A-D)/(1+(x/C)^B) + D$$

Weight: NONE

A = 1.5723

B = 1.0262

C = 0.63485

D = 0.046737

R2 coef = 0.99961

50% = 0.675

