



## Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB51524	Raccoon Lake SRA	6/13/2022	6/16/2022	< 0.40
AB51526	Cagles Mill Lake Beach	6/13/2022	6/16/2022	< 0.40
AB51527	Paynetown SRA	6/13/2022	6/16/2022	< 0.40
AB51528	Fairfax SRA	6/13/2022	6/16/2022	< 0.40
AB51529	Starve Hollow SRA	6/13/2022	6/16/2022	< 0.40
AB51530	Whitewater Memorial SP	6/14/2022	6/16/2022	< 0.40
AB51531	Quakertown SRA	6/14/2022	6/16/2022	< 0.40
AB51532	Mounds SRA	6/14/2022	6/16/2022	< 0.40
AB51533	Hardy Lake SRA	6/14/2022	6/16/2022	< 0.40
AB51525	Deam Lake SRA	6/14/2022	6/16/2022	< 0.40
AB51534	Paynetown SRA (Field Duplicate)	6/13/2022	6/16/2022	< 0.40
AB51535	Field Blank	6/13/2022	6/16/2022	< 0.40

# Test Report (by Request)

## Test Information

Request: 6/16/2022 1:25:43 PM  
Date: 6/16/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.497 Abs	0.000 µg/L	R^2=0.99919, 101.1			M21L0919
ATX Std 0	ANATOXIN	1.462 Abs [1.4795] {1.7 C	0.009 µg/L [0.004]	R^2=0.99919, 98.78			M21L0919
ATX Std 1	ANATOXIN	1.224 Abs	0.141 µg/L	R^2=0.99919, 82.70			M21L0919
ATX Std 1	ANATOXIN	1.204 Abs [1.2140] {1.2 C	0.154 µg/L [0.148]	R^2=0.99919, 81.35			M21L0919
ATX Std 2	ANATOXIN	0.960 Abs	0.367 µg/L	R^2=0.99919, 64.86			M21L0919
ATX Std 2	ANATOXIN	0.907 Abs [0.9335] {4.0 C	0.428 µg/L [0.398]	R^2=0.99919, 61.28			M21L0919
ATX Std 3	ANATOXIN	0.600 Abs	1.015 µg/L	R^2=0.99919, 40.54			M21L0919
ATX Std 3	ANATOXIN	0.577 Abs [0.5885] {2.8 C	1.085 µg/L [1.050]	R^2=0.99919, 38.98			M21L0919
ATX Std 4	ANATOXIN	0.355 Abs	2.290 µg/L	R^2=0.99919, 23.98			M21L0919
ATX Std 4	ANATOXIN	0.360 Abs [0.3575] {1.0 C	2.245 µg/L [2.267]	R^2=0.99919, 24.32			M21L0919
ATX Std 5	ANATOXIN	0.198 Abs	> 5.000 µg/L	13.378 %Abs			M21L0919
ATX Std 5	ANATOXIN	0.180 Abs [0.1890] {6.7 C	> 5.000 µg/L	12.162 %Abs			M21L0919
ATX Control	ANATOXIN	0.763 Abs	0.642 µg/L	51.554 %Abs			M21L0919
ATX Control	ANATOXIN	0.752 Abs [0.7575] {1.0 C	0.662 µg/L [0.652]	50.811 %Abs [51.1			M21L0919

## Note

Signature 

David Jordan 6/16/2022

# Test Report (by Request)

## Test Information

Request: 6/16/2022 1:49:52 PM  
Date: 6/16/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.384 Abs	0.047 µg/L	Low, 93.514 %Abs		0.150 - 5.000	M21L0919
LRB	ANATOXIN	1.336 Abs [1.3600] {2.5 C	0.073 µg/L [0.060]	Low, 90.270 %Abs		0.150 - 5.000	M21L0919
LFB (ANA)	ANATOXIN	0.761 Abs	0.645 µg/L	51.419 %Abs		0.150 - 5.000	M21L0919
LFB (ANA)	ANATOXIN	0.756 Abs [0.7585] {0.5 C	0.654 µg/L [0.650]	51.081 %Abs [51.2		0.150 - 5.000	M21L0919
AB51524	ANATOXIN	1.370 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51524	ANATOXIN	1.339 Abs [1.3545] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51526	ANATOXIN	1.334 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51526	ANATOXIN	1.289 Abs [1.3115] {2.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51527	ANATOXIN	1.359 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51527	ANATOXIN	1.309 Abs [1.3340] {2.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51528	ANATOXIN	1.423 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51528	ANATOXIN	1.421 Abs [1.4220] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51529	ANATOXIN	1.405 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51529	ANATOXIN	1.332 Abs [1.3685] {3.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51529MS	ANATOXIN	0.721 Abs	0.721 µg/L	48.716 %Abs		0.150 - 5.000	M21L0919
AB51529MS	ANATOXIN	0.707 Abs [0.7140] {1.4 C	0.749 µg/L [0.735]	47.770 %Abs [48.2		0.150 - 5.000	M21L0919
AB51529MSD	ANATOXIN	0.686 Abs	0.795 µg/L	46.351 %Abs		0.150 - 5.000	M21L0919
AB51529MSD	ANATOXIN	0.650 Abs [0.6680] {3.8 C	0.879 µg/L [0.837]	43.919 %Abs [45.1		0.150 - 5.000	M21L0919
AB51530	ANATOXIN	1.327 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51530	ANATOXIN	1.311 Abs [1.3190] {0.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51531	ANATOXIN	1.328 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51531	ANATOXIN	1.350 Abs [1.3390] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51532	ANATOXIN	1.331 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51532	ANATOXIN	1.319 Abs [1.3250] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51533	ANATOXIN	1.175 Abs	0.192 µg/L	79.392 %Abs	MDF=1.100	0.150 - 5.000	M21L0919
AB51533	ANATOXIN	1.159 Abs [1.1670] {1.0 C	0.206 µg/L [0.199]	78.311 %Abs [78.8	MDF=1.100	0.150 - 5.000	M21L0919
AB51525	ANATOXIN	1.351 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51525	ANATOXIN	1.367 Abs [1.3590] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51534	ANATOXIN	1.352 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51534	ANATOXIN	1.325 Abs [1.3385] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51535	ANATOXIN	1.319 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51535	ANATOXIN	1.271 Abs [1.2950] {2.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919

## Note

Signature 

David Jordan 6/16/2022

## 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
<b>6/16/2022 1:25:43 PM</b>				
ATX Std 0	1.497 Abs	0.000 µg/L	R <sup>2</sup> =0.99919, 101.149 %Abs	RK1:23->A01@2
ATX Std 0	1.462 Abs [1.4795] {1.7 CV}	0.009 µg/L [0.004] {141.4 CV}	R <sup>2</sup> =0.99919, 98.784 %Abs	RK1:23->B01@2
ATX Std 1	1.224 Abs	0.141 µg/L	R <sup>2</sup> =0.99919, 82.703 %Abs	RK1:24->C01@2
ATX Std 1	1.204 Abs [1.2140] {1.2 CV}	0.154 µg/L [0.148] {6.2 CV}	R <sup>2</sup> =0.99919, 81.351 %Abs	RK1:24->D01@2
ATX Std 2	0.960 Abs	0.367 µg/L	R <sup>2</sup> =0.99919, 64.865 %Abs	RK1:25->E01@2
ATX Std 2	0.907 Abs [0.9335] {4.0 CV}	0.428 µg/L [0.398] {10.9 CV}	R <sup>2</sup> =0.99919, 61.284 %Abs	RK1:25->F01@3
ATX Std 3	0.600 Abs	1.015 µg/L	R <sup>2</sup> =0.99919, 40.541 %Abs	RK1:26->G01@3
ATX Std 3	0.577 Abs [0.5885] {2.8 CV}	1.085 µg/L [1.050] {4.7 CV}	R <sup>2</sup> =0.99919, 38.986 %Abs	RK1:26->H01@3
ATX Std 4	0.355 Abs	2.290 µg/L	R <sup>2</sup> =0.99919, 23.986 %Abs	RK1:27->A02@2
ATX Std 4	0.360 Abs [0.3575] {1.0 CV}	2.245 µg/L [2.267] {1.4 CV}	R <sup>2</sup> =0.99919, 24.324 %Abs	RK1:27->B02@2
ATX Std 5	0.198 Abs	> 5.000 µg/L	13.378 %Abs	RK1:28->C02@2
ATX Std 5	0.180 Abs [0.1890] {6.7 CV}	> 5.000 µg/L	12.162 %Abs	RK1:28->D02@2
*****				
<b>6/16/2022 1:25:43 PM</b>				
ATX Control	0.763 Abs	0.642 µg/L	51.554 %Abs	RK1:29->E02@2
ATX Control	0.752 Abs [0.7575] {1.0 CV}	0.662 µg/L [0.652] {2.2 CV}	50.811 %Abs [51.182 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
ATX Std 0 [MEAN]	1.4795	0.0045		
ATX Std 0 [SD]	0.0247	0.0064		
ATX Std 0 [%CV]	1.6728	141.4214		
ATX Std 1 [MEAN]	1.2140	0.1475		
ATX Std 1 [SD]	0.0141	0.0092		
ATX Std 1 [%CV]	1.1649	6.2321		
ATX Std 1 [%DIFF]		-1.6667		
ATX Std 2 [MEAN]	0.9335	0.3975		
ATX Std 2 [SD]	0.0375	0.0431		
ATX Std 2 [%CV]	4.0146	10.8512		
ATX Std 2 [%DIFF]		-0.6250		
ATX Std 3 [MEAN]	0.5885	1.0500		
ATX Std 3 [SD]	0.0163	0.0495		
ATX Std 3 [%CV]	2.7635	4.7140		
ATX Std 3 [%DIFF]		5.0000		
ATX Std 4 [MEAN]	0.3575	2.2675		
ATX Std 4 [SD]	0.0035	0.0318		
ATX Std 4 [%CV]	0.9890	1.4033		
ATX Std 4 [%DIFF]		-9.3000		
ATX Std 5 [MEAN]	0.1890			
ATX Std 5 [SD]	0.0127			
ATX Std 5 [%CV]	6.7343			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.7575	0.6520			
ATX Control [SD]	0.0078	0.0141			
ATX Control [%CV]	1.0268	2.1690			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.4817  
 B = 0.99988  
 C = 0.64980  
 D = 0.035263  
 R2 coef = 0.99919  
 50% = 0.684

