



## 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>
AB47312	Raccoon Lake SRA	6/1/2021	6/2/2021	< 0.40
AB47313	Whitewater Memorial SP	6/1/2021	6/2/2021	< 0.40
AB47314	Quakertown SRA	6/1/2021	6/2/2021	< 0.40
AB47315	Mounds SRA	6/1/2021	6/2/2021	< 0.40
AB47316	Whitewater Memorial SP (Field Dup.)	6/1/2021	6/2/2021	< 0.40
AB47317	Field Blank	6/1/2021	6/2/2021	< 0.40

## Test Report (by Request)

## Test Information

Request: 6/2/2021 6:38:51 PM

Date: 6/2/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.512 Abs	0.000 µg/L	R <sup>2</sup> =0.99935, 103.0			20L4352
ATX Std 0	ANATOXIN	1.421 Abs [1.4665] {4.4 C	0.018 µg/L [0.009]	R <sup>2</sup> =0.99935, 96.86			20L4352
ATX Std 1	ANATOXIN	1.228 Abs	0.126 µg/L	R <sup>2</sup> =0.99935, 83.70			20L4352
ATX Std 1	ANATOXIN	1.168 Abs [1.1980] {3.5 C	0.170 µg/L [0.148]	R <sup>2</sup> =0.99935, 79.61			20L4352
ATX Std 2	ANATOXIN	0.968 Abs	0.370 µg/L	R <sup>2</sup> =0.99935, 65.98			20L4352
ATX Std 2	ANATOXIN	0.924 Abs [0.9460] {3.3 C	0.427 µg/L [0.398]	R <sup>2</sup> =0.99935, 62.98			20L4352
ATX Std 3	ANATOXIN	0.632 Abs	1.046 µg/L	R <sup>2</sup> =0.99935, 43.08			20L4352
ATX Std 3	ANATOXIN	0.632 Abs [0.6320] {0.0 C	1.046 µg/L [1.046]	R <sup>2</sup> =0.99935, 43.08			20L4352
ATX Std 4	ANATOXIN	0.405 Abs	2.217 µg/L	R <sup>2</sup> =0.99935, 27.60			20L4352
ATX Std 4	ANATOXIN	0.382 Abs [0.3935] {4.1 C	2.418 µg/L [2.318]	R <sup>2</sup> =0.99935, 26.04			20L4352
ATX Std 5	ANATOXIN	0.223 Abs	> 5.000 µg/L	15.201 %Abs			20L4352
ATX Std 5	ANATOXIN	0.203 Abs [0.2130] {6.6 C	> 5.000 µg/L	13.838 %Abs			20L4352
ATX Control	ANATOXIN	0.737 Abs	0.761 µg/L	50.239 %Abs			20L4352
ATX Control	ANATOXIN	0.724 Abs [0.7305] {1.3 C	0.791 µg/L [0.776]	49.352 %Abs [49.7			20L4352

## Note

Signature

David Jordan

David Jordan 6/2/2021

# Test Report (by Request)

**Test Information**

 Request: 6/2/2021 6:39:36 PM  
 Date: 6/2/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (ANA)	ANATOXIN	1.242 Abs	0.116 µg/L	Low, 84.663 %Abs		0.150 - 5.000	20L4352
LRB (ANA)	ANATOXIN	1.262 Abs [1.2520] {1.1 C	0.103 µg/L [0.109]	Low, 86.026 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.750 Abs	0.732 µg/L	51.125 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.716 Abs [0.7330] {3.3 C	0.811 µg/L [0.771]	48.807 %Abs [49.9		0.150 - 5.000	20L4352
AB47312	ANATOXIN	1.370 Abs	0.041 µg/L	Low, 93.388 %Abs		0.150 - 5.000	20L4352
AB47312	ANATOXIN	1.312 Abs [1.3410] {3.1 C	0.072 µg/L [0.056]	Low, 89.434 %Abs		0.150 - 5.000	20L4352
AB47312MS	ANATOXIN	0.489 Abs	1.649 µg/L	33.333 %Abs		0.150 - 5.000	20L4352
AB47312MS	ANATOXIN	0.497 Abs [0.4930] {1.1 C	1.605 µg/L [1.627]	33.879 %Abs [33.6		0.150 - 5.000	20L4352
AB47312MSD	ANATOXIN	0.650 Abs	0.990 µg/L	44.308 %Abs		0.150 - 5.000	20L4352
AB47312MSD	ANATOXIN	0.636 Abs [0.6430] {1.5 C	1.033 µg/L [1.012]	43.354 %Abs [43.8		0.150 - 5.000	20L4352
AB47313	ANATOXIN	1.480 Abs	0.000 µg/L	Low, 100.886 %Abs		0.150 - 5.000	20L4352
AB47313	ANATOXIN	1.429 Abs [1.4545] {2.5 C	0.014 µg/L [0.007]	Low, 97.410 %Abs		0.150 - 5.000	20L4352
AB47314	ANATOXIN	1.440 Abs	0.010 µg/L	Low, 98.160 %Abs		0.150 - 5.000	20L4352
AB47314	ANATOXIN	1.391 Abs [1.4155] {2.4 C	0.031 µg/L [0.021]	Low, 94.819 %Abs		0.150 - 5.000	20L4352
AB47315	ANATOXIN	1.371 Abs	0.041 µg/L	Low, 93.456 %Abs		0.150 - 5.000	20L4352
AB47315	ANATOXIN	1.342 Abs [1.3565] {1.5 C	0.056 µg/L [0.049]	Low, 91.479 %Abs		0.150 - 5.000	20L4352
AB47316	ANATOXIN	1.292 Abs	0.084 µg/L	Low, 88.071 %Abs		0.150 - 5.000	20L4352
AB47316	ANATOXIN	1.290 Abs [1.2910] {0.1 C	0.085 µg/L [0.084]	Low, 87.935 %Abs		0.150 - 5.000	20L4352
AB47317	ANATOXIN	1.477 Abs	0.000 µg/L	Low, 100.682 %Abs		0.150 - 5.000	20L4352
AB47317	ANATOXIN	1.393 Abs [1.4350] {4.1 C	0.030 µg/L [0.015]	Low, 94.956 %Abs		0.150 - 5.000	20L4352

**Note**

 Signature *David Jordan*

David Jordan 6/2/2021

**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>6/2/2021 6:38:51 PM</b>				
ATX Std 0	1.512 Abs	0.000 µg/L	R <sup>2</sup> =0.99935, 103.067 %Abs	RK1:23->A01@2
ATX Std 0	1.421 Abs [1.4665] {4.4 CV}	0.018 µg/L [0.009] {141.4 CV}	R <sup>2</sup> =0.99935, 96.864 %Abs	RK1:23->B01@2
ATX Std 1	1.228 Abs	0.126 µg/L	R <sup>2</sup> =0.99935, 83.708 %Abs	RK1:24->C01@2
ATX Std 1	1.168 Abs [1.1980] {3.5 CV}	0.170 µg/L [0.148] {21.0 CV}	R <sup>2</sup> =0.99935, 79.618 %Abs	RK1:24->D01@2
ATX Std 2	0.968 Abs	0.370 µg/L	R <sup>2</sup> =0.99935, 65.985 %Abs	RK1:25->E01@2
ATX Std 2	0.924 Abs [0.9460] {3.3 CV}	0.427 µg/L [0.398] {10.1 CV}	R <sup>2</sup> =0.99935, 62.986 %Abs	RK1:25->F01@3
ATX Std 3	0.632 Abs	1.046 µg/L	R <sup>2</sup> =0.99935, 43.081 %Abs	RK1:26->G01@3
ATX Std 3	0.632 Abs [0.6320] {0.0 CV}	1.046 µg/L [1.046] {0.0 CV}	R <sup>2</sup> =0.99935, 43.081 %Abs	RK1:26->H01@3
ATX Std 4	0.405 Abs	2.217 µg/L	R <sup>2</sup> =0.99935, 27.607 %Abs	RK1:27->A02@2
ATX Std 4	0.382 Abs [0.3935] {4.1 CV}	2.418 µg/L [2.318] {6.1 CV}	R <sup>2</sup> =0.99935, 26.040 %Abs	RK1:27->B02@2
ATX Std 5	0.223 Abs	> 5.000 µg/L	15.201 %Abs	RK1:28->C02@2
ATX Std 5	0.203 Abs [0.2130] {6.6 CV}	> 5.000 µg/L	13.838 %Abs	RK1:28->D02@2
*****				
<b>6/2/2021 6:38:51 PM</b>				
ATX Control	0.737 Abs	0.761 µg/L	50.239 %Abs	RK1:29->E02@2
ATX Control	0.724 Abs [0.7305] {1.3 CV}	0.791 µg/L [0.776] {2.7 CV}	49.352 %Abs [49.796 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
ATX Std 0 [MEAN]	1.4665	0.0090		
ATX Std 0 [SD]	0.0643	0.0127		
ATX Std 0 [%CV]	4.3878	141.4214		
ATX Std 1 [MEAN]	1.1980	0.1480		
ATX Std 1 [SD]	0.0424	0.0311		
ATX Std 1 [%CV]	3.5414	21.0221		
ATX Std 1 [%DIFF]		-1.3333		
ATX Std 2 [MEAN]	0.9460	0.3985		
ATX Std 2 [SD]	0.0311	0.0403		
ATX Std 2 [%CV]	3.2889	10.1142		
ATX Std 2 [%DIFF]		-0.3750		
ATX Std 3 [MEAN]	0.6320	1.0460		
ATX Std 3 [SD]	0.0000	0.0000		
ATX Std 3 [%CV]	0.0000	0.0000		
ATX Std 3 [%DIFF]		4.6000		
ATX Std 4 [MEAN]	0.3935	2.3175		
ATX Std 4 [SD]	0.0163	0.1421		
ATX Std 4 [%CV]	4.1330	6.1328		
ATX Std 4 [%DIFF]		-7.3000		
ATX Std 5 [MEAN]	0.2130			
ATX Std 5 [SD]	0.0141			
ATX Std 5 [%CV]	6.6395			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.7305	0.7760		
ATX Control [SD]	0.0092	0.0212		
ATX Control [%CV]	1.2584	2.7337		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.4685  
 B = 0.89703  
 C = 0.78227  
 D = -0.012811  
 R2 coef = 0.99935  
 50% = 0.769

