



## Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43893	Raccoon Lake SRA	8/24/2020	8/27/2020	< 0.40
AB43895	Cagles Mill Lake Beach	8/24/2020	8/27/2020	< 0.40
AB43896	Paynetown SRA	8/24/2020	8/27/2020	< 0.40
AB43897	Fairfax SRA	8/24/2020	8/27/2020	< 0.40
AB43898	Starve Hollow SRA	8/24/2020	8/27/2020	< 0.40
AB43899	Whitewater Memorial SP	8/25/2020	8/27/2020	< 0.40
AB43900	Quakertown SRA	8/25/2020	8/27/2020	< 0.40
AB43901	Mounds SRA	8/25/2020	8/27/2020	< 0.40
AB43902	Hardy Lake SRA	8/25/2020	8/27/2020	0.41
AB43903	Ft. Harrison SP Dog Lake	8/25/2020	8/27/2020	< 0.40
AB43904	Ferdinand State Forest Lake	8/25/2020	8/27/2020	< 0.40
AB43905	Patoka Lake	8/25/2020	8/27/2020	< 0.40
AB43906	Paynetown SRA (Field Duplicate)	8/24/2020	8/27/2020	< 0.40
AB43907	Field Blank	8/24/2020	8/27/2020	< 0.40
AB43908	Kunkel Lake @ Ouabache SP	8/24/2020	8/27/2020	< 0.40

## Test Information

Request: 8/27/2020 12:44:36 PM

Date: 8/27/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
ATX Std 0	ANATOXIN	1.098 Abs	0.000 µg/L	R <sup>2</sup> =0.99907, 102.14		20A2174
ATX Std 0	ANATOXIN	1.051 Abs [1.0745] {3.1 CV}	0.016 µg/L [0.008] {1}	R <sup>2</sup> =0.99907, 97.767		20A2174
ATX Std 1	ANATOXIN	0.928 Abs	0.113 µg/L	R <sup>2</sup> =0.99907, 86.326		20A2174
ATX Std 1	ANATOXIN	0.867 Abs [0.8975] {4.8 CV}	0.173 µg/L [0.143] {2}	R <sup>2</sup> =0.99907, 80.651		20A2174
ATX Std 2	ANATOXIN	0.716 Abs	0.374 µg/L	R <sup>2</sup> =0.99907, 66.605		20A2174
ATX Std 2	ANATOXIN	0.675 Abs [0.6955] {4.2 CV}	0.445 µg/L [0.410] {1}	R <sup>2</sup> =0.99907, 62.791		20A2174
ATX Std 3	ANATOXIN	0.460 Abs	1.038 µg/L	R <sup>2</sup> =0.99907, 42.791		20A2174
ATX Std 3	ANATOXIN	0.460 Abs [0.4600] {0.0 CV}	1.038 µg/L [1.038] {0}	R <sup>2</sup> =0.99907, 42.791		20A2174
ATX Std 4	ANATOXIN	0.285 Abs	2.209 µg/L	R <sup>2</sup> =0.99907, 26.512		20A2174
ATX Std 4	ANATOXIN	0.273 Abs [0.2790] {3.0 CV}	2.345 µg/L [2.277] {4}	R <sup>2</sup> =0.99907, 25.395		20A2174
ATX Std 5	ANATOXIN	0.141 Abs	> 5.000 µg/L	13.116 %Abs		20A2174
ATX Std 5	ANATOXIN	0.139 Abs [0.1400] {1.0 CV}	> 5.000 µg/L	12.930 %Abs		20A2174
ATX Control	ANATOXIN	0.531 Abs	0.787 µg/L	49.395 %Abs		20A2174
ATX Control	ANATOXIN	0.515 Abs [0.5230] {2.2 CV}	0.837 µg/L [0.812] {4}	47.907 %Abs [48.65]		20A2174

## Note

Signature David Jordan

Date: 8/27/2020

# Test Report (by Request)

**Test Information**

Request: 8/27/2020 12:46:55 PM

Date: 8/27/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	ANATOXIN	0.980 Abs	0.068 µg/L	<b>LOW, 91.163 %ABS</b>	0.150 - 5.000	20A2174
LRB	ANATOXIN	0.967 Abs [0.9735] {0.9 CV}	0.079 µg/L [0.074] {1	<b>LOW, 89.953 %ABS</b>	0.150 - 5.000	20A2174
LFB	ANATOXIN	0.577 Abs	0.658 µg/L	53.674 %Abs	0.150 - 5.000	20A2174
LFB	ANATOXIN	0.549 Abs [0.5630] {3.5 CV}	0.734 µg/L [0.696] {7	51.070 %Abs [52.37	0.150 - 5.000	20A2174
AB43893	ANATOXIN	1.012 Abs	0.047 µg/L	<b>LOW, 94.140 %ABS</b>	0.150 - 5.000	20A2174
AB43893	ANATOXIN	0.955 Abs [0.9835] {4.1 CV}	0.098 µg/L [0.072] {4	<b>LOW, 88.837 %ABS</b>	0.150 - 5.000	20A2174
AB43895	ANATOXIN	1.012 Abs	0.047 µg/L	<b>LOW, 94.140 %ABS</b>	0.150 - 5.000	20A2174
AB43895	ANATOXIN	0.975 Abs [0.9935] {2.6 CV}	0.079 µg/L [0.063] {3	<b>LOW, 90.698 %ABS</b>	0.150 - 5.000	20A2174
AB43895MS	ANATOXIN	0.513 Abs	0.844 µg/L	47.721 %Abs	0.150 - 5.000	20A2174
AB43895MS	ANATOXIN	0.513 Abs [0.5130] {0.0 CV}	0.844 µg/L [0.844] {0	47.721 %Abs [47.72	0.150 - 5.000	20A2174
AB43895MSD	ANATOXIN	0.554 Abs	0.720 µg/L	51.535 %Abs	0.150 - 5.000	20A2174
AB43895MSD	ANATOXIN	0.529 Abs [0.5415] {3.3 CV}	0.793 µg/L [0.757] {6	49.209 %Abs [50.37	0.150 - 5.000	20A2174
AB43896	ANATOXIN	0.989 Abs	0.067 µg/L	<b>LOW, 92.000 %ABS</b>	0.150 - 5.000	20A2174
AB43896	ANATOXIN	0.953 Abs [0.9710] {2.6 CV}	0.099 µg/L [0.083] {2	<b>LOW, 88.651 %ABS</b>	0.150 - 5.000	20A2174
AB43897	ANATOXIN	0.976 Abs	0.078 µg/L	<b>LOW, 90.791 %ABS</b>	0.150 - 5.000	20A2174
AB43897	ANATOXIN	0.942 Abs [0.9590] {2.5 CV}	0.110 µg/L [0.094] {2	<b>LOW, 87.628 %ABS</b>	0.150 - 5.000	20A2174
AB43898	ANATOXIN	0.976 Abs	0.078 µg/L	<b>LOW, 90.791 %ABS</b>	0.150 - 5.000	20A2174
AB43898	ANATOXIN	0.979 Abs [0.9775] {0.2 CV}	0.076 µg/L [0.077] {1	<b>LOW, 91.070 %ABS</b>	0.150 - 5.000	20A2174
AB43899	ANATOXIN	1.040 Abs	0.025 µg/L	<b>LOW, 96.744 %ABS</b>	0.150 - 5.000	20A2174
AB43899	ANATOXIN	1.016 Abs [1.0280] {1.7 CV}	0.044 µg/L [0.034] {3	<b>LOW, 94.512 %ABS</b>	0.150 - 5.000	20A2174
AB43900	ANATOXIN	1.009 Abs	0.050 µg/L	<b>LOW, 93.860 %ABS</b>	0.150 - 5.000	20A2174
AB43900	ANATOXIN	0.978 Abs [0.9935] {2.2 CV}	0.077 µg/L [0.064] {3	<b>LOW, 90.977 %ABS</b>	0.150 - 5.000	20A2174
AB43901	ANATOXIN	0.960 Abs	0.092 µg/L	<b>LOW, 89.302 %ABS</b>	0.150 - 5.000	20A2174
AB43901	ANATOXIN	0.987 Abs [0.9735] {2.0 CV}	0.068 µg/L [0.080] {2	<b>LOW, 91.814 %ABS</b>	0.150 - 5.000	20A2174
AB43902	ANATOXIN	0.726 Abs	0.394 µg/L	67.535 %Abs	0.150 - 5.000	20A2174
AB43902	ANATOXIN	0.708 Abs [0.7170] {1.8 CV}	0.426 µg/L [0.410] {5	65.860 %Abs [66.69	0.150 - 5.000	20A2174
AB43903	ANATOXIN	1.041 Abs	0.025 µg/L	<b>LOW, 96.837 %ABS</b>	0.150 - 5.000	20A2174
AB43903	ANATOXIN	0.993 Abs [1.0170] {3.3 CV}	0.064 µg/L [0.045] {6	<b>LOW, 92.372 %ABS</b>	0.150 - 5.000	20A2174
AB43904	ANATOXIN	0.970 Abs	0.084 µg/L	<b>LOW, 90.233 %ABS</b>	0.150 - 5.000	20A2174
AB43904	ANATOXIN	0.994 Abs [0.9820] {1.7 CV}	0.063 µg/L [0.074] {2	<b>LOW, 92.465 %ABS</b>	0.150 - 5.000	20A2174
AB43905	ANATOXIN	0.984 Abs	0.071 µg/L	<b>LOW, 91.535 %ABS</b>	0.150 - 5.000	20A2174
AB43905	ANATOXIN	1.003 Abs [0.9935] {1.4 CV}	0.055 µg/L [0.063] {1	<b>LOW, 93.302 %ABS</b>	0.150 - 5.000	20A2174
AB43906	ANATOXIN	0.987 Abs	0.068 µg/L	<b>LOW, 91.814 %ABS</b>	0.150 - 5.000	20A2174
AB43906	ANATOXIN	0.975 Abs [0.9810] {0.9 CV}	0.079 µg/L [0.074] {1	<b>LOW, 90.698 %ABS</b>	0.150 - 5.000	20A2174
AB43907	ANATOXIN	1.026 Abs	0.036 µg/L	<b>LOW, 95.442 %ABS</b>	0.150 - 5.000	20A2174
AB43907	ANATOXIN	1.005 Abs [1.0155] {1.5 CV}	0.053 µg/L [0.045] {2	<b>LOW, 93.488 %ABS</b>	0.150 - 5.000	20A2174
AB43908	ANATOXIN	1.020 Abs	0.041 µg/L	<b>LOW, 94.884 %ABS</b>	0.150 - 5.000	20A2174
AB43908	ANATOXIN	0.987 Abs [1.0035] {2.3 CV}	0.068 µg/L [0.055] {3	<b>LOW, 91.814 %ABS</b>	0.150 - 5.000	20A2174

**Note**

 Signature *David Jordan*

Date: 8/27/2020

**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: 20A2174

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>8/27/2020 12:44:36 PM</b>				
ATX Std 0	1.098 Abs		R <sup>2</sup> =0.99907, 102.140 %Abs	RK1:23->A01@2
ATX Std 0	1.051 Abs [1.0745] {3.1 CV}		R <sup>2</sup> =0.99907, 97.767 %Abs	RK1:23->B01@2
ATX Std 1	0.928 Abs		R <sup>2</sup> =0.99907, 86.326 %Abs	RK1:24->C01@2
ATX Std 1	0.867 Abs [0.8975] {4.8 CV}		R <sup>2</sup> =0.99907, 80.651 %Abs	RK1:24->D01@2
ATX Std 2	0.716 Abs		R <sup>2</sup> =0.99907, 66.605 %Abs	RK1:25->E01@2
ATX Std 2	0.675 Abs [0.6955] {4.2 CV}		R <sup>2</sup> =0.99907, 62.791 %Abs	RK1:25->F01@3
ATX Std 3	0.460 Abs		R <sup>2</sup> =0.99907, 42.791 %Abs	RK1:26->G01@3
ATX Std 3	0.460 Abs [0.4600] {0.0 CV}		R <sup>2</sup> =0.99907, 42.791 %Abs	RK1:26->H01@3
ATX Std 4	0.285 Abs		R <sup>2</sup> =0.99907, 26.512 %Abs	RK1:27->A02@2
ATX Std 4	0.273 Abs [0.2790] {3.0 CV}		R <sup>2</sup> =0.99907, 25.395 %Abs	RK1:27->B02@2
ATX Std 5	0.141 Abs		13.116 %Abs	RK1:28->C02@2
ATX Std 5	0.139 Abs [0.1400] {1.0 CV}		12.930 %Abs	RK1:28->D02@2
*****				
<b>8/27/2020 12:44:36 PM</b>				
ATX Control	0.531 Abs		49.395 %Abs	RK1:29->E02@2
ATX Control	0.515 Abs [0.5230] {2.2 CV}		47.907 %Abs [48.651 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
ATX Std 0 [MEAN]	1.0745			
ATX Std 0 [SD]	0.0332			
ATX Std 0 [%CV]	3.0930			
ATX Std 1 [MEAN]	0.8975			
ATX Std 1 [SD]	0.0431			
ATX Std 1 [%CV]	4.8060			
ATX Std 1 [%DIFF]				
ATX Std 2 [MEAN]	0.6955			
ATX Std 2 [SD]	0.0290			
ATX Std 2 [%CV]	4.1684			
ATX Std 2 [%DIFF]				
ATX Std 3 [MEAN]	0.4600			
ATX Std 3 [SD]	0.0000			
ATX Std 3 [%CV]	0.0000			
ATX Std 3 [%DIFF]				
ATX Std 4 [MEAN]	0.2790			
ATX Std 4 [SD]	0.0085			
ATX Std 4 [%CV]	3.0413			
ATX Std 4 [%DIFF]				
ATX Std 5 [MEAN]	0.1400			
ATX Std 5 [SD]	0.0014			
ATX Std 5 [%CV]	1.0102			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.5230			
ATX Control [SD]	0.0113			
ATX Control [%CV]	2.1632			

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.0775  
 B = 0.95137  
 C = 0.77504  
 D = -0.0075737  
 R2 coef = 0.99907  
 50% = 0.767

