



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43619	Raccoon Lake SRA	7/27/2020	7/29/2020	< 0.40
AB43620	Cagles Mill Lake Beach	7/27/2020	7/29/2020	< 0.40
AB43621	Paynetown SRA	7/27/2020	7/29/2020	< 0.40
AB43622	Starve Hollow SRA	7/28/2020	7/29/2020	< 0.40
AB43623	Whitewater Memorial SP	7/28/2020	7/29/2020	< 0.40
AB43624	Quakertown SRA	7/28/2020	7/29/2020	< 0.40
AB43625	Mounds SRA	7/28/2020	7/29/2020	< 0.40
AB43626	Hardy Lake SRA	7/28/2020	7/29/2020	0.84
AB43627	Ferdinand State Forest Lake	7/27/2020	7/29/2020	< 0.40
AB43628	Patoka Lake	7/27/2020	7/29/2020	< 0.40
AB43629	Raccoon Lake SRA (Field Duplicate)	7/27/2020	7/29/2020	< 0.40
AB43630	Field Blank	7/27/2020	7/29/2020	< 0.40

Test Information

Request: 7/29/2020 10:05:52 PM

Date: 7/29/2020 - 7/29/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
ATX Std 0	ANATOXIN	1.090 Abs	0.010 µg/L	R ² =0.99848, 99.181		20A2174
ATX Std 0	ANATOXIN	1.108 Abs [1.0990] {1.2 CV}	0.000 µg/L [0.005] {1}	R ² =0.99848, 100.81		20A2174
ATX Std 1	ANATOXIN	0.950 Abs	0.117 µg/L	R ² =0.99848, 86.442		20A2174
ATX Std 1	ANATOXIN	0.899 Abs [0.9245] {3.9 CV}	0.163 µg/L [0.140] {2}	R ² =0.99848, 81.802		20A2174
ATX Std 2	ANATOXIN	0.691 Abs	0.410 µg/L	R ² =0.99848, 62.875		20A2174
ATX Std 2	ANATOXIN	0.687 Abs [0.6890] {0.4 CV}	0.416 µg/L [0.413] {1}	R ² =0.99848, 62.511		20A2174
ATX Std 3	ANATOXIN	0.443 Abs	1.006 µg/L	R ² =0.99848, 40.309		20A2174
ATX Std 3	ANATOXIN	0.429 Abs [0.4360] {2.3 CV}	1.061 µg/L [1.033] {3}	R ² =0.99848, 39.035		20A2174
ATX Std 4	ANATOXIN	0.267 Abs	2.171 µg/L	R ² =0.99848, 24.295		20A2174
ATX Std 4	ANATOXIN	0.264 Abs [0.2655] {0.8 CV}	2.206 µg/L [2.188] {1}	R ² =0.99848, 24.022		20A2174
ATX Std 5	ANATOXIN	0.139 Abs	> 5.000 µg/L	12.648 %Abs		20A2174
ATX Std 5	ANATOXIN	0.129 Abs [0.1340] {5.3 CV}	> 5.000 µg/L	11.738 %Abs		20A2174
ATX Control	ANATOXIN	0.535 Abs	0.719 µg/L	48.681 %Abs		20A2174
ATX Control	ANATOXIN	0.500 Abs [0.5175] {4.8 CV}	0.815 µg/L [0.767] {8}	45.496 %Abs [47.088]		20A2174

Note

Signature David Jordan

Date: 7/29/2020

Test Report (by Request)

Test Information

 Request: 7/29/2020 10:07:35 PM
 Date: 7/29/2020 - 7/29/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	ANATOXIN	0.958 Abs	0.111 µg/L	LOW, 87.170 %ABS	0.150 - 5.000	20A2174
LRB	ANATOXIN	0.969 Abs [0.9635] {0.8 CV}	0.102 µg/L [0.106] {6		0.150 - 5.000	20A2174
LFB	ANATOXIN	0.532 Abs	0.727 µg/L	48.408 %Abs	0.150 - 5.000	20A2174
LFB	ANATOXIN	0.522 Abs [0.5270] {1.3 CV}	0.753 µg/L [0.740] {2	47.498 %Abs [47.95	0.150 - 5.000	20A2174
AB43619	ANATOXIN	1.002 Abs	0.083 µg/L	LOW, 91.174 %ABS	0.150 - 5.000	20A2174
AB43619	ANATOXIN	0.962 Abs [0.9820] {2.9 CV}	0.118 µg/L [0.101] {2		0.150 - 5.000	20A2174
AB43620	ANATOXIN	0.971 Abs	0.110 µg/L	LOW, 88.353 %ABS	0.150 - 5.000	20A2174
AB43620	ANATOXIN	0.965 Abs [0.9680] {0.4 CV}	0.115 µg/L [0.112] {3		0.150 - 5.000	20A2174
AB43621	ANATOXIN	0.956 Abs	0.123 µg/L	LOW, 86.988 %ABS	0.150 - 5.000	20A2174
AB43621	ANATOXIN	0.970 Abs [0.9630] {1.0 CV}	0.111 µg/L [0.117] {7		0.150 - 5.000	20A2174
AB43622	ANATOXIN	0.994 Abs	0.090 µg/L	LOW, 90.446 %ABS	0.150 - 5.000	20A2174
AB43622	ANATOXIN	0.973 Abs [0.9835] {1.5 CV}	0.108 µg/L [0.099] {1		0.150 - 5.000	20A2174
AB43622MS	ANATOXIN	0.508 Abs	0.792 µg/L	46.224 %Abs	0.150 - 5.000	20A2174
AB43622MS	ANATOXIN	0.485 Abs [0.4965] {3.3 CV}	0.861 µg/L [0.826] {5	44.131 %Abs [45.17	0.150 - 5.000	20A2174
AB43622MSD	ANATOXIN	0.489 Abs	0.848 µg/L	44.495 %Abs	0.150 - 5.000	20A2174
AB43622MSD	ANATOXIN	0.483 Abs [0.4860] {0.9 CV}	0.867 µg/L [0.857] {1	43.949 %Abs [44.22	0.150 - 5.000	20A2174
AB43623	ANATOXIN	0.927 Abs	0.151 µg/L	84.349 %Abs	0.150 - 5.000	20A2174
AB43623	ANATOXIN	0.927 Abs [0.9270] {0.0 CV}	0.151 µg/L [0.151] {0	84.349 %Abs [84.34	0.150 - 5.000	20A2174
AB43624	ANATOXIN	0.966 Abs	0.114 µg/L	LOW, 87.898 %ABS	0.150 - 5.000	20A2174
AB43624	ANATOXIN	0.929 Abs [0.9475] {2.8 CV}	0.150 µg/L [0.132] {1		0.150 - 5.000	20A2174
AB43625	ANATOXIN	0.957 Abs	0.123 µg/L	LOW, 87.079 %ABS	0.150 - 5.000	20A2174
AB43625	ANATOXIN	0.953 Abs [0.9550] {0.3 CV}	0.126 µg/L [0.125] {1		0.150 - 5.000	20A2174
AB43626	ANATOXIN	0.521 Abs	0.832 µg/L	47.407 %Abs	0.150 - 5.000	20A2174
AB43626	ANATOXIN	0.518 Abs [0.5195] {0.4 CV}	0.840 µg/L [0.836] {0	47.134 %Abs [47.27	0.150 - 5.000	20A2174
AB43627	ANATOXIN	0.964 Abs	0.117 µg/L	LOW, 87.716 %ABS	0.150 - 5.000	20A2174
AB43627	ANATOXIN	0.979 Abs [0.9715] {1.1 CV}	0.103 µg/L [0.110] {9		0.150 - 5.000	20A2174
AB43628	ANATOXIN	0.952 Abs	0.128 µg/L	LOW, 86.624 %ABS	0.150 - 5.000	20A2174
AB43628	ANATOXIN	0.953 Abs [0.9525] {0.1 CV}	0.126 µg/L [0.127] {1		0.150 - 5.000	20A2174
AB43629	ANATOXIN	0.985 Abs	0.098 µg/L	LOW, 89.627 %ABS	0.150 - 5.000	20A2174
AB43629	ANATOXIN	0.990 Abs [0.9875] {0.4 CV}	0.094 µg/L [0.096] {2		0.150 - 5.000	20A2174
AB43630	ANATOXIN	1.006 Abs	0.079 µg/L	LOW, 91.538 %ABS	0.150 - 5.000	20A2174
AB43630	ANATOXIN	0.999 Abs [1.0025] {0.5 CV}	0.086 µg/L [0.083] {6		0.150 - 5.000	20A2174

Note

 Signature *David Jordan*

Date: 7/29/2020

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
7/29/2020 10:05:52 PM				
ATX Std 0	1.090 Abs		R ² =0.99848, 99.181 %Abs	RK1:23->A01@2
ATX Std 0	1.108 Abs [1.0990] {1.2 CV}		R ² =0.99848, 100.819 %Abs	RK1:23->B01@2
ATX Std 1	0.950 Abs		R ² =0.99848, 86.442 %Abs	RK1:24->C01@2
ATX Std 1	0.899 Abs [0.9245] {3.9 CV}		R ² =0.99848, 81.802 %Abs	RK1:24->D01@2
ATX Std 2	0.691 Abs		R ² =0.99848, 62.875 %Abs	RK1:25->E01@2
ATX Std 2	0.687 Abs [0.6890] {0.4 CV}		R ² =0.99848, 62.511 %Abs	RK1:25->F01@3
ATX Std 3	0.443 Abs		R ² =0.99848, 40.309 %Abs	RK1:26->G01@3
ATX Std 3	0.429 Abs [0.4360] {2.3 CV}		R ² =0.99848, 39.035 %Abs	RK1:26->H01@3
ATX Std 4	0.267 Abs		R ² =0.99848, 24.295 %Abs	RK1:27->A02@2
ATX Std 4	0.264 Abs [0.2655] {0.8 CV}		R ² =0.99848, 24.022 %Abs	RK1:27->B02@2
ATX Std 5	0.139 Abs		12.648 %Abs	RK1:28->C02@2
ATX Std 5	0.129 Abs [0.1340] {5.3 CV}		11.738 %Abs	RK1:28->D02@2

7/29/2020 10:05:52 PM				
ATX Control	0.535 Abs		48.681 %Abs	RK1:29->E02@2
ATX Control	0.500 Abs [0.5175] {4.8 CV}		45.496 %Abs [47.088 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.0990			
ATX Std 0 [SD]	0.0127			
ATX Std 0 [%CV]	1.1581			
ATX Std 1 [MEAN]	0.9245			
ATX Std 1 [SD]	0.0361			
ATX Std 1 [%CV]	3.9008			
ATX Std 1 [%DIFF]				
ATX Std 2 [MEAN]	0.6890			
ATX Std 2 [SD]	0.0028			
ATX Std 2 [%CV]	0.4105			
ATX Std 2 [%DIFF]				
ATX Std 3 [MEAN]	0.4360			
ATX Std 3 [SD]	0.0099			
ATX Std 3 [%CV]	2.2705			
ATX Std 3 [%DIFF]				
ATX Std 4 [MEAN]	0.2655			
ATX Std 4 [SD]	0.0021			
ATX Std 4 [%CV]	0.7990			
ATX Std 4 [%DIFF]				
ATX Std 5 [MEAN]	0.1340			
ATX Std 5 [SD]	0.0071			
ATX Std 5 [%CV]	5.2769			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.5175			
ATX Control [SD]	0.0247			
ATX Control [%CV]	4.7824			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1028
 B = 1.0625
 C = 0.62769
 D = 0.043385
 R2 coef = 0.99848
 50% = 0.683

