



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43631	Summit Lake - State Park	8/3/2020	8/6/2020	< 0.40
AB43632	Kunkel Beach @ Ouabache SP	8/3/2020	8/6/2020	< 0.40
AB43633	Pokagon State Park	8/3/2020	8/6/2020	< 0.40
AB43634	Potawatomi Inn's Beach	8/3/2020	8/6/2020	< 0.40
AB43635	Chain O'Lakes SP	8/3/2020	8/6/2020	< 0.40
AB43636	Potato Creek State Park	8/3/2020	8/6/2020	< 0.40
AB43637	Lost Bridge West SRA	8/3/2020	8/6/2020	< 0.40
AB43638	Mississinewa Lake Miami SRA	8/3/2020	8/6/2020	< 0.40
AB43639	Chain O'Lakes SP (Field Duplicate)	8/3/2020	8/6/2020	< 0.40
AB43640	Field Blank	8/3/2020	8/6/2020	< 0.40
AB43641	Ft. Harrison SP Dog Lake	8/5/2020	8/6/2020	< 0.40

Test Report (by Request)

Test Information

Request: 8/6/2020 2:57:33 PM

Date: 8/6/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
ATX Std 0	ANATOXIN	1.133 Abs	0.004 µg/L	R ² =0.99812, 99.824		20A2174
ATX Std 0	ANATOXIN	1.138 Abs [1.1355] {0.3 CV}	0.000 µg/L [0.002] {1}	R ² =0.99812, 100.26		20A2174
ATX Std 1	ANATOXIN	0.952 Abs	0.128 µg/L	R ² =0.99812, 83.877		20A2174
ATX Std 1	ANATOXIN	0.919 Abs [0.9355] {2.5 CV}	0.155 µg/L [0.141] {1}	R ² =0.99812, 80.969		20A2174
ATX Std 2	ANATOXIN	0.699 Abs	0.401 µg/L	R ² =0.99812, 61.586		20A2174
ATX Std 2	ANATOXIN	0.684 Abs [0.6915] {1.5 CV}	0.424 µg/L [0.412] {3}	R ² =0.99812, 60.264		20A2174
ATX Std 3	ANATOXIN	0.430 Abs	1.056 µg/L	R ² =0.99812, 37.885		20A2174
ATX Std 3	ANATOXIN	0.435 Abs [0.4325] {0.8 CV}	1.036 µg/L [1.046] {1}	R ² =0.99812, 38.326		20A2174
ATX Std 4	ANATOXIN	0.279 Abs	2.043 µg/L	R ² =0.99812, 24.581		20A2174
ATX Std 4	ANATOXIN	0.262 Abs [0.2705] {4.4 CV}	2.236 µg/L [2.140] {6}	R ² =0.99812, 23.084		20A2174
ATX Std 5	ANATOXIN	0.138 Abs	> 5.000 µg/L	12.159 %Abs		20A2174
ATX Std 5	ANATOXIN	0.127 Abs [0.1325] {5.9 CV}	> 5.000 µg/L	11.189 %Abs		20A2174
ATX Control	ANATOXIN	0.513 Abs	0.777 µg/L	45.198 %Abs		20A2174
ATX Control	ANATOXIN	0.475 Abs [0.4940] {5.4 CV}	0.892 µg/L [0.835] {9}	41.850 %Abs [43.524]		20A2174

Note

Signature David Jordan

Date: 8/06/2020

Test Report (by Request)

Test Information

 Request: 8/6/2020 3:00:22 PM
 Date: 8/6/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	ANATOXIN	0.976 Abs	0.109 µg/L	LOW, 85.991 %ABS	0.150 - 5.000	20A2174
LRB	ANATOXIN	0.949 Abs [0.9625] {2.0 CV}	0.130 µg/L [0.119] {1}	LOW, 83.612 %ABS	0.150 - 5.000	20A2174
LFB	ANATOXIN	0.571 Abs	0.633 µg/L	50.308 %Abs	0.150 - 5.000	20A2174
LFB	ANATOXIN	0.555 Abs [0.5630] {2.0 CV}	0.669 µg/L [0.651] {3}	48.899 %Abs [49.604]	0.150 - 5.000	20A2174
AB43631	ANATOXIN	1.029 Abs	0.078 µg/L	LOW, 90.661 %ABS	0.150 - 5.000	20A2174
AB43631	ANATOXIN	0.988 Abs [1.0085] {2.9 CV}	0.110 µg/L [0.094] {2}	LOW, 87.048 %ABS	0.150 - 5.000	20A2174
AB43632	ANATOXIN	0.905 Abs	0.184 µg/L	79.736 %Abs	0.150 - 5.000	20A2174
AB43632	ANATOXIN	0.914 Abs [0.9095] {0.7 CV}	0.176 µg/L [0.180] {3}	80.529 %Abs [80.132]	0.150 - 5.000	20A2174
AB43633	ANATOXIN	0.927 Abs	0.163 µg/L	81.674 %Abs	0.150 - 5.000	20A2174
AB43633	ANATOXIN	0.956 Abs [0.9415] {2.2 CV}	0.138 µg/L [0.150] {1}	LOW, 84.229 %ABS	0.150 - 5.000	20A2174
AB43634	ANATOXIN	1.089 Abs	0.034 µg/L	LOW, 95.947 %ABS	0.150 - 5.000	20A2174
AB43634	ANATOXIN	1.057 Abs [1.0730] {2.1 CV}	0.057 µg/L [0.046] {3}	LOW, 93.128 %ABS	0.150 - 5.000	20A2174
AB43635	ANATOXIN	0.993 Abs	0.107 µg/L	LOW, 87.489 %ABS	0.150 - 5.000	20A2174
AB43635	ANATOXIN	0.958 Abs [0.9755] {2.5 CV}	0.135 µg/L [0.121] {1}	LOW, 84.405 %ABS	0.150 - 5.000	20A2174
AB43635MS	ANATOXIN	0.475 Abs	0.892 µg/L	41.850 %Abs	0.150 - 5.000	20A2174
AB43635MS	ANATOXIN	0.464 Abs [0.4695] {1.7 CV}	0.929 µg/L [0.911] {2}	40.881 %Abs [41.366]	0.150 - 5.000	20A2174
AB43635MSD	ANATOXIN	0.463 Abs	0.932 µg/L	40.793 %Abs	0.150 - 5.000	20A2174
AB43635MSD	ANATOXIN	0.461 Abs [0.4620] {0.3 CV}	0.939 µg/L [0.936] {0}	40.617 %Abs [40.705]	0.150 - 5.000	20A2174
AB43636	ANATOXIN	1.061 Abs	0.054 µg/L	LOW, 93.480 %ABS	0.150 - 5.000	20A2174
AB43636	ANATOXIN	0.993 Abs [1.0270] {4.7 CV}	0.107 µg/L [0.080] {4}	LOW, 87.489 %ABS	0.150 - 5.000	20A2174
AB43637	ANATOXIN	0.955 Abs	0.139 µg/L	LOW, 84.141 %ABS	0.150 - 5.000	20A2174
AB43637	ANATOXIN	0.909 Abs [0.9320] {3.5 CV}	0.180 µg/L [0.160] {1}	80.088 %Abs [82.115]	0.150 - 5.000	20A2174
AB43638	ANATOXIN	0.943 Abs	0.149 µg/L	LOW, 83.084 %ABS	0.150 - 5.000	20A2174
AB43638	ANATOXIN	0.937 Abs [0.9400] {0.5 CV}	0.154 µg/L [0.152] {2}	82.555 %Abs [82.819]	0.150 - 5.000	20A2174
AB43639	ANATOXIN	0.911 Abs	0.178 µg/L	80.264 %Abs	0.150 - 5.000	20A2174
AB43639	ANATOXIN	0.921 Abs [0.9160] {0.8 CV}	0.169 µg/L [0.174] {3}	81.145 %Abs [80.705]	0.150 - 5.000	20A2174
AB43640	ANATOXIN	1.079 Abs	0.041 µg/L	LOW, 95.066 %ABS	0.150 - 5.000	20A2174
AB43640	ANATOXIN	1.034 Abs [1.0565] {3.0 CV}	0.074 µg/L [0.058] {4}	LOW, 91.101 %ABS	0.150 - 5.000	20A2174
AB43641	ANATOXIN	0.993 Abs	0.107 µg/L	LOW, 87.489 %ABS	0.150 - 5.000	20A2174
AB43641	ANATOXIN	0.984 Abs [0.9885] {0.6 CV}	0.113 µg/L [0.110] {3}	LOW, 86.696 %ABS	0.150 - 5.000	20A2174
LFB 2	ANATOXIN	0.555 Abs	0.669 µg/L	48.899 %Abs	0.150 - 5.000	20A2174
LFB 2	ANATOXIN	0.529 Abs [0.5420] {3.4 CV}	0.734 µg/L [0.702] {6}	46.608 %Abs [47.753]	0.150 - 5.000	20A2174
LRB 2	ANATOXIN	1.031 Abs	0.069 µg/L	LOW, 90.837 %ABS	0.150 - 5.000	20A2174
LRB 2	ANATOXIN	0.992 Abs [1.0115] {2.7 CV}	0.097 µg/L [0.083] {2}	LOW, 87.401 %ABS	0.150 - 5.000	20A2174

Note

 Signature David Jordan

Date: 8/06/2020

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
8/6/2020 2:57:33 PM				
ATX Std 0	1.133 Abs		R ² =0.99812, 99.824 %Abs	RK1:23->A01@2
ATX Std 0	1.138 Abs [1.1355] {0.3 CV}		R ² =0.99812, 100.264 %Abs	RK1:23->B01@2
ATX Std 1	0.952 Abs		R ² =0.99812, 83.877 %Abs	RK1:24->C01@2
ATX Std 1	0.919 Abs [0.9355] {2.5 CV}		R ² =0.99812, 80.969 %Abs	RK1:24->D01@2
ATX Std 2	0.699 Abs		R ² =0.99812, 61.586 %Abs	RK1:25->E01@2
ATX Std 2	0.684 Abs [0.6915] {1.5 CV}		R ² =0.99812, 60.264 %Abs	RK1:25->F01@3
ATX Std 3	0.430 Abs		R ² =0.99812, 37.885 %Abs	RK1:26->G01@3
ATX Std 3	0.435 Abs [0.4325] {0.8 CV}		R ² =0.99812, 38.326 %Abs	RK1:26->H01@3
ATX Std 4	0.279 Abs		R ² =0.99812, 24.581 %Abs	RK1:27->A02@2
ATX Std 4	0.262 Abs [0.2705] {4.4 CV}		R ² =0.99812, 23.084 %Abs	RK1:27->B02@2
ATX Std 5	0.138 Abs		12.159 %Abs	RK1:28->C02@2
ATX Std 5	0.127 Abs [0.1325] {5.9 CV}		11.189 %Abs	RK1:28->D02@2

8/6/2020 2:57:33 PM				
ATX Control	0.513 Abs		45.198 %Abs	RK1:29->E02@2
ATX Control	0.475 Abs [0.4940] {5.4 CV}		41.850 %Abs [43.524 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.1355			
ATX Std 0 [SD]	0.0035			
ATX Std 0 [%CV]	0.3114			
ATX Std 1 [MEAN]	0.9355			
ATX Std 1 [SD]	0.0233			
ATX Std 1 [%CV]	2.4943			
ATX Std 1 [%DIFF]				
ATX Std 2 [MEAN]	0.6915			
ATX Std 2 [SD]	0.0106			
ATX Std 2 [%CV]	1.5339			
ATX Std 2 [%DIFF]				
ATX Std 3 [MEAN]	0.4325			
ATX Std 3 [SD]	0.0035			
ATX Std 3 [%CV]	0.8175			
ATX Std 3 [%DIFF]				
ATX Std 4 [MEAN]	0.2705			
ATX Std 4 [SD]	0.0120			
ATX Std 4 [%CV]	4.4439			
ATX Std 4 [%DIFF]				
ATX Std 5 [MEAN]	0.1325			
ATX Std 5 [SD]	0.0078			
ATX Std 5 [%CV]	5.8703			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.4940			
ATX Control [SD]	0.0269			
ATX Control [%CV]	5.4393			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1385
 B = 1.0349
 C = 0.59322
 D = 0.039993
 R2 coef = 0.99812
 50% = 0.640

