



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB46769	Summit Lake - State Park	5/25/2021	5/26/2021	< 0.40
AB46770	Kunkel Beach @ Oubache State Park	5/24/2021	5/26/2021	< 0.40
AB46771	Pokagon State Park	5/24/2021	5/26/2021	< 0.40
AB46772	Potawatomi Inn's Beach	5/24/2021	5/26/2021	< 0.40
AB46773	Chain O'Lakes SP	5/24/2021	5/26/2021	< 0.40
AB46774	Potato Creek State Park	5/24/2021	5/26/2021	< 0.40
AB46775	Lost Bridge West SRA	5/24/2021	5/26/2021	< 0.40
AB46776	Mississinewa Lake Miami SRA	5/24/2021	5/26/2021	< 0.40
AB46777	Field Blank	5/25/2021	5/26/2021	< 0.40
AB46778	Kunkel Beach @ Oubache SP (Field Dup)	5/24/2021	5/26/2021	< 0.40
AB47260	Lincoln State Park	5/24/2021	5/26/2021	< 0.40
AB47261	Ferdinand State Forest Lake	5/24/2021	5/26/2021	< 0.40
AB47262	Patoka SRA Beach	5/24/2021	5/26/2021	< 0.40
AB47263	Ft. Ben Harrison SP Dog Lake - East	5/24/2021	5/26/2021	< 0.40

Test Report (by Request)

Test Information

Request: 5/26/2021 10:40:04 AM

Date: 5/26/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.592 Abs	0.000 µg/L	R^2=0.99963, 101.5			20L4352
ATX Std 0	ANATOXIN	1.542 Abs [1.5670] {2.3 C	0.006 µg/L [0.003]	R^2=0.99963, 98.40			20L4352
ATX Std 1	ANATOXIN	1.275 Abs	0.122 µg/L	R^2=0.99963, 81.36			20L4352
ATX Std 1	ANATOXIN	1.206 Abs [1.2405] {3.9 C	0.167 µg/L [0.145]	R^2=0.99963, 76.96			20L4352
ATX Std 2	ANATOXIN	0.958 Abs	0.400 µg/L	R^2=0.99963, 61.13			20L4352
ATX Std 2	ANATOXIN	0.941 Abs [0.9495] {1.3 C	0.421 µg/L [0.410]	R^2=0.99963, 60.05			20L4352
ATX Std 3	ANATOXIN	0.658 Abs	0.970 µg/L	R^2=0.99963, 41.95			20L4352
ATX Std 3	ANATOXIN	0.628 Abs [0.6430] {3.3 C	1.060 µg/L [1.015]	R^2=0.99963, 40.07			20L4352
ATX Std 4	ANATOXIN	0.398 Abs	2.226 µg/L	R^2=0.99963, 25.35			20L4352
ATX Std 4	ANATOXIN	0.366 Abs [0.3820] {5.9 C	2.505 µg/L [2.365]	R^2=0.99963, 23.35			20L4352
ATX Std 5	ANATOXIN	0.204 Abs	> 5.000 µg/L	13.019 %Abs			20L4352
ATX Std 5	ANATOXIN	0.198 Abs [0.2010] {2.1 C	> 5.000 µg/L	12.636 %Abs			20L4352
ATX Control	ANATOXIN	0.727 Abs	0.792 µg/L	46.394 %Abs			20L4352
ATX Control	ANATOXIN	0.726 Abs [0.7265] {0.1 C	0.795 µg/L [0.794]	46.331 %Abs [46.3			20L4352

David Jordan
David Jordan 5/26/2021

Test Report (by Request)

Test Information

Request: 5/26/2021 10:41:22 AM

Date: 5/26/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (ANA)	ANATOXIN	1.349 Abs	0.082 µg/L	Low, 86.088 %Abs		0.150 - 5.000	20L4352
LRB (ANA)	ANATOXIN	1.311 Abs [1.3300] {2.0 C	0.102 µg/L [0.092]	Low, 83.663 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.860 Abs	0.537 µg/L	54.882 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.818 Abs [0.8390] {3.5 C	0.608 µg/L [0.572]	52.202 %Abs [53.5		0.150 - 5.000	20L4352
AB46769	ANATOXIN	1.398 Abs	0.058 µg/L	Low, 89.215 %Abs		0.150 - 5.000	20L4352
AB46769	ANATOXIN	1.343 Abs [1.3705] {2.8 C	0.085 µg/L [0.072]	Low, 85.705 %Abs		0.150 - 5.000	20L4352
AB46770	ANATOXIN	1.372 Abs	0.070 µg/L	Low, 87.556 %Abs		0.150 - 5.000	20L4352
AB46770	ANATOXIN	1.329 Abs [1.3505] {2.3 C	0.092 µg/L [0.081]	Low, 84.812 %Abs		0.150 - 5.000	20L4352
AB46771	ANATOXIN	1.348 Abs	0.082 µg/L	Low, 86.024 %Abs		0.150 - 5.000	20L4352
AB46771	ANATOXIN	1.316 Abs [1.3320] {1.7 C	0.099 µg/L [0.090]	Low, 83.982 %Abs		0.150 - 5.000	20L4352
AB46772	ANATOXIN	1.544 Abs	0.005 µg/L	Low, 98.532 %Abs		0.150 - 5.000	20L4352
AB46772	ANATOXIN	1.515 Abs [1.5295] {1.3 C	0.014 µg/L [0.010]	Low, 96.682 %Abs		0.150 - 5.000	20L4352
AB46772MS	ANATOXIN	0.788 Abs	0.664 µg/L	50.287 %Abs		0.150 - 5.000	20L4352
AB46772MS	ANATOXIN	0.783 Abs [0.7855] {0.5 C	0.673 µg/L [0.668]	49.968 %Abs [50.1		0.150 - 5.000	20L4352
AB46772MSD	ANATOXIN	0.763 Abs	0.714 µg/L	48.692 %Abs		0.150 - 5.000	20L4352
AB46772MSD	ANATOXIN	0.752 Abs [0.7575] {1.0 C	0.737 µg/L [0.725]	47.990 %Abs [48.3		0.150 - 5.000	20L4352
AB46773	ANATOXIN	1.328 Abs	0.092 µg/L	Low, 84.748 %Abs		0.150 - 5.000	20L4352
AB46773	ANATOXIN	1.324 Abs [1.3260] {0.2 C	0.095 µg/L [0.094]	Low, 84.493 %Abs		0.150 - 5.000	20L4352
AB46774	ANATOXIN	1.541 Abs	0.006 µg/L	Low, 98.341 %Abs		0.150 - 5.000	20L4352
AB46774	ANATOXIN	1.483 Abs [1.5120] {2.7 C	0.024 µg/L [0.015]	Low, 94.639 %Abs		0.150 - 5.000	20L4352
AB46775	ANATOXIN	1.421 Abs	0.048 µg/L	Low, 90.683 %Abs		0.150 - 5.000	20L4352
AB46775	ANATOXIN	1.419 Abs [1.4200] {0.1 C	0.049 µg/L [0.049]	Low, 90.555 %Abs		0.150 - 5.000	20L4352
AB46776	ANATOXIN	1.421 Abs	0.048 µg/L	Low, 90.683 %Abs		0.150 - 5.000	20L4352
AB46776	ANATOXIN	1.368 Abs [1.3945] {2.7 C	0.072 µg/L [0.060]	Low, 87.301 %Abs		0.150 - 5.000	20L4352
AB46777	ANATOXIN	1.376 Abs	0.068 µg/L	Low, 87.811 %Abs		0.150 - 5.000	20L4352
AB46777	ANATOXIN	1.366 Abs [1.3710] {0.5 C	0.073 µg/L [0.071]	Low, 87.173 %Abs		0.150 - 5.000	20L4352
AB46778	ANATOXIN	1.543 Abs	0.006 µg/L	Low, 98.468 %Abs		0.150 - 5.000	20L4352
AB46778	ANATOXIN	1.521 Abs [1.5320] {1.0 C	0.012 µg/L [0.009]	Low, 97.064 %Abs		0.150 - 5.000	20L4352
AB47260	ANATOXIN	1.499 Abs	0.019 µg/L	Low, 95.660 %Abs		0.150 - 5.000	20L4352
AB47260	ANATOXIN	1.489 Abs [1.4940] {0.5 C	0.022 µg/L [0.021]	Low, 95.022 %Abs		0.150 - 5.000	20L4352
AB47261	ANATOXIN	1.461 Abs	0.032 µg/L	Low, 93.235 %Abs		0.150 - 5.000	20L4352
AB47261	ANATOXIN	1.465 Abs [1.4630] {0.2 C	0.031 µg/L [0.032]	Low, 93.491 %Abs		0.150 - 5.000	20L4352
AB47262	ANATOXIN	1.425 Abs	0.047 µg/L	Low, 90.938 %Abs		0.150 - 5.000	20L4352
AB47262	ANATOXIN	1.402 Abs [1.4135] {1.2 C	0.056 µg/L [0.052]	Low, 89.470 %Abs		0.150 - 5.000	20L4352
AB47263	ANATOXIN	1.584 Abs	0.000 µg/L	Low, 101.085 %Abs		0.150 - 5.000	20L4352
AB47263	ANATOXIN	1.476 Abs [1.5300] {5.0 C	0.027 µg/L [0.014]	Low, 94.193 %Abs		0.150 - 5.000	20L4352

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: "

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Name	Absorbance	Concentration	Interpretation	Position
5/26/2021 10:40:04 AM				
ATX Std 0	1.592 Abs	0.000 µg/L	R ² =0.99963, 101.595 %Abs	RK1:23->A01@2
ATX Std 0	1.542 Abs [1.5670] {2.3 CV}	0.006 µg/L [0.003] {141.4 CV}	R ² =0.99963, 98.405 %Abs	RK1:23->B01@2
ATX Std 1	1.275 Abs	0.122 µg/L	R ² =0.99963, 81.366 %Abs	RK1:24->C01@2
ATX Std 1	1.206 Abs [1.2405] {3.9 CV}	0.167 µg/L [0.145] {22.0 CV}	R ² =0.99963, 76.962 %Abs	RK1:24->D01@2
ATX Std 2	0.958 Abs	0.400 µg/L	R ² =0.99963, 61.136 %Abs	RK1:25->E01@2
ATX Std 2	0.941 Abs [0.9495] {1.3 CV}	0.421 µg/L [0.410] {3.6 CV}	R ² =0.99963, 60.051 %Abs	RK1:25->F01@3
ATX Std 3	0.658 Abs	0.970 µg/L	R ² =0.99963, 41.991 %Abs	RK1:26->G01@3
ATX Std 3	0.628 Abs [0.6430] {3.3 CV}	1.060 µg/L [1.015] {6.3 CV}	R ² =0.99963, 40.077 %Abs	RK1:26->H01@3
ATX Std 4	0.398 Abs	2.226 µg/L	R ² =0.99963, 25.399 %Abs	RK1:27->A02@2
ATX Std 4	0.366 Abs [0.3820] {5.9 CV}	2.505 µg/L [2.365] {8.3 CV}	R ² =0.99963, 23.357 %Abs	RK1:27->B02@2
ATX Std 5	0.204 Abs	> 5.000 µg/L	13.019 %Abs	RK1:28->C02@2
ATX Std 5	0.198 Abs [0.2010] {2.1 CV}	> 5.000 µg/L	12.636 %Abs	RK1:28->D02@2

5/26/2021 10:40:04 AM				
ATX Control	0.727 Abs	0.792 µg/L	46.394 %Abs	RK1:29->E02@2
ATX Control	0.726 Abs [0.7265] {0.1 CV}	0.795 µg/L [0.794] {0.3 CV}	46.331 %Abs [46.362 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.5670	0.0030		
ATX Std 0 [SD]	0.0354	0.0042		
ATX Std 0 [%CV]	2.2562	141.4214		
ATX Std 1 [MEAN]	1.2405	0.1445		
ATX Std 1 [SD]	0.0488	0.0318		
ATX Std 1 [%CV]	3.9331	22.0206		
ATX Std 1 [%DIFF]		-3.6667		
ATX Std 2 [MEAN]	0.9495	0.4105		
ATX Std 2 [SD]	0.0120	0.0148		
ATX Std 2 [%CV]	1.2660	3.6174		
ATX Std 2 [%DIFF]		2.6250		
ATX Std 3 [MEAN]	0.6430	1.0150		
ATX Std 3 [SD]	0.0212	0.0636		
ATX Std 3 [%CV]	3.2991	6.2699		
ATX Std 3 [%DIFF]		1.5000		
ATX Std 4 [MEAN]	0.3820	2.3655		
ATX Std 4 [SD]	0.0226	0.1973		
ATX Std 4 [%CV]	5.9234	8.3400		
ATX Std 4 [%DIFF]		-5.3800		
ATX Std 5 [MEAN]	0.2010			
ATX Std 5 [SD]	0.0042			
ATX Std 5 [%CV]	2.1108			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.7265	0.7935		
ATX Control [SD]	0.0007	0.0021		
ATX Control [%CV]	0.0973	0.2673		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.5690
 B = 0.84788
 C = 0.72621
 D = -0.055010
 R2 coef = 0.99963
 50% = 0.672

