



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB48399	Kunkel Beach @ Ouabache State Park	8/30/2021	8/31/2021	2.3
AB48400	Chain O'Lakes SP	8/30/2021	8/31/2021	< 0.40
AB48401	Potato Creek State Park	8/30/2021	8/31/2021	< 0.40
AB48402	Lost Bridge West SRA	8/30/2021	8/31/2021	< 0.40
AB48403	Mississinewa Lake Miami SRA	8/30/2021	8/31/2021	< 0.40
AB48404	Ferdinand State Forest Lake	8/30/2021	8/31/2021	< 0.40
AB48405	Patoka SRA Beach	8/30/2021	8/31/2021	< 0.40
AB48406	Lost Bridge West SRA (Field Dup)	8/30/2021	8/31/2021	< 0.40
AB48407	Field Blank	8/30/2021	8/31/2021	< 0.40

Test Report (by Request)

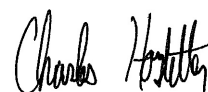
Test Information

Request: 8/31/2021 2:39:34 PM
Date: 8/31/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.539 Abs	0.000 µg/L	R^2=0.99998, 101.6			20L4352
ATX Std 0	ANATOXIN	1.489 Abs [1.5140] {2.3 C	0.006 µg/L [0.003]	R^2=0.99998, 98.34			20L4352
ATX Std 1	ANATOXIN	1.231 Abs	0.143 µg/L	R^2=0.99998, 81.30			20L4352
ATX Std 1	ANATOXIN	1.211 Abs [1.2210] {1.2 C	0.158 µg/L [0.150]	R^2=0.99998, 79.98			20L4352
ATX Std 2	ANATOXIN	0.990 Abs	0.379 µg/L	R^2=0.99998, 65.35			20L4352
ATX Std 2	ANATOXIN	0.962 Abs [0.9760] {2.0 C	0.416 µg/L [0.398]	R^2=0.99998, 63.54			20L4352
ATX Std 3	ANATOXIN	0.683 Abs	0.971 µg/L	R^2=0.99998, 45.11			20L4352
ATX Std 3	ANATOXIN	0.657 Abs [0.6700] {2.7 C	1.048 µg/L [1.010]	R^2=0.99998, 43.35			20L4352
ATX Std 4	ANATOXIN	0.392 Abs	2.394 µg/L	R^2=0.99998, 25.85			20L4352
ATX Std 4	ANATOXIN	0.371 Abs [0.3815] {3.9 C	2.575 µg/L [2.484]	R^2=0.99998, 24.50			20L4352
ATX Std 5	ANATOXIN	0.210 Abs	4.885 µg/L	R^2=0.99998, 13.87			20L4352
ATX Std 5	ANATOXIN	0.198 Abs [0.2040] {4.2 C	> 5.000 µg/L [4.88]	13.078 %Abs			20L4352
ATX Control	ANATOXIN	0.752 Abs	0.793 µg/L	49.670 %Abs			20L4352
ATX Control	ANATOXIN	0.737 Abs [0.7445] {1.4 C	0.829 µg/L [0.811]	48.679 %Abs [49.1			20L4352

Note

Signature



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Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.399 Abs	0.042 µg/L	Low, 92.404 %Abs		0.150 - 5.000	20L4352
LRB	ANATOXIN	1.359 Abs [1.3790] {2.1 C	0.063 µg/L [0.053]	Low, 89.762 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.820 Abs	0.648 µg/L	54.161 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.761 Abs [0.7905] {5.3 C	0.772 µg/L [0.710]	50.264 %Abs [52.2		0.150 - 5.000	20L4352
AB48399	ANATOXIN	0.439 Abs	2.251 µg/L	28.996 %Abs	MDF=1.100	0.150 - 5.000	20L4352
AB48399	ANATOXIN	0.422 Abs [0.4305] {2.8 C	2.380 µg/L [2.316]	27.873 %Abs [28.4	MDF=1.100	0.150 - 5.000	20L4352
AB48400	ANATOXIN	1.314 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48400	ANATOXIN	1.346 Abs [1.3300] {1.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48401	ANATOXIN	1.283 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48401	ANATOXIN	1.260 Abs [1.2715] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48401MS	ANATOXIN	0.826 Abs	0.636 µg/L	54.557 %Abs		0.150 - 5.000	20L4352
AB48401MS	ANATOXIN	0.799 Abs [0.8125] {2.3 C	0.690 µg/L [0.663]	52.774 %Abs [53.6		0.150 - 5.000	20L4352
AB48401MSD	ANATOXIN	0.777 Abs	0.736 µg/L	51.321 %Abs		0.150 - 5.000	20L4352
AB48401MSD	ANATOXIN	0.761 Abs [0.7690] {1.5 C	0.772 µg/L [0.754]	50.264 %Abs [50.7		0.150 - 5.000	20L4352
AB48402	ANATOXIN	1.388 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48402	ANATOXIN	1.381 Abs [1.3845] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48403	ANATOXIN	1.410 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48403	ANATOXIN	1.401 Abs [1.4055] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48404	ANATOXIN	1.499 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48404	ANATOXIN	1.433 Abs [1.4660] {3.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48405	ANATOXIN	1.402 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48405	ANATOXIN	1.394 Abs [1.3980] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48406	ANATOXIN	1.385 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48406	ANATOXIN	1.365 Abs [1.3750] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48407	ANATOXIN	1.412 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48407	ANATOXIN	1.385 Abs [1.3985] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352

Note

Signature



Charles Hostetter 9/1/2021

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
8/31/2021 2:39:34 PM				
ATX Std 0	1.539 Abs	0.000 µg/L	R ² =0.99998, 101.651 %Abs	RK1:23->A01@2
ATX Std 0	1.489 Abs [1.5140] {2.3 CV}	0.006 µg/L [0.003] {141.4 CV}	R ² =0.99998, 98.349 %Abs	RK1:23->B01@2
ATX Std 1	1.231 Abs	0.143 µg/L	R ² =0.99998, 81.308 %Abs	RK1:24->C01@2
ATX Std 1	1.211 Abs [1.2210] {1.2 CV}	0.158 µg/L [0.150] {7.0 CV}	R ² =0.99998, 79.987 %Abs	RK1:24->D01@2
ATX Std 2	0.990 Abs	0.379 µg/L	R ² =0.99998, 65.390 %Abs	RK1:25->E01@2
ATX Std 2	0.962 Abs [0.9760] {2.0 CV}	0.416 µg/L [0.398] {6.6 CV}	R ² =0.99998, 63.540 %Abs	RK1:25->F01@3
ATX Std 3	0.683 Abs	0.971 µg/L	R ² =0.99998, 45.112 %Abs	RK1:26->G01@3
ATX Std 3	0.657 Abs [0.6700] {2.7 CV}	1.048 µg/L [1.010] {5.4 CV}	R ² =0.99998, 43.395 %Abs	RK1:26->H01@3
ATX Std 4	0.392 Abs	2.394 µg/L	R ² =0.99998, 25.892 %Abs	RK1:27->A02@2
ATX Std 4	0.371 Abs [0.3815] {3.9 CV}	2.575 µg/L [2.484] {5.2 CV}	R ² =0.99998, 24.505 %Abs	RK1:27->B02@2
ATX Std 5	0.210 Abs	4.885 µg/L	R ² =0.99998, 13.871 %Abs	RK1:28->C02@2
ATX Std 5	0.198 Abs [0.2040] {4.2 CV}	> 5.000 µg/L [4.885]	13.078 %Abs	RK1:28->D02@2

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ATX Control	0.752 Abs	0.793 µg/L	49.670 %Abs	RK1:29->E02@2
ATX Control	0.737 Abs [0.7445] {1.4 CV}	0.829 µg/L [0.811] {3.1 CV}	48.679 %Abs [49.174 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.5140	0.0030		
ATX Std 0 [SD]	0.0354	0.0042		
ATX Std 0 [%CV]	2.3352	141.4214		
ATX Std 1 [MEAN]	1.2210	0.1505		
ATX Std 1 [SD]	0.0141	0.0106		
ATX Std 1 [%CV]	1.1582	7.0476		
ATX Std 1 [%DIFF]		0.3333		
ATX Std 2 [MEAN]	0.9760	0.3975		
ATX Std 2 [SD]	0.0198	0.0262		
ATX Std 2 [%CV]	2.0286	6.5819		
ATX Std 2 [%DIFF]		-0.6250		
ATX Std 3 [MEAN]	0.6700	1.0095		
ATX Std 3 [SD]	0.0184	0.0544		
ATX Std 3 [%CV]	2.7440	5.3935		
ATX Std 3 [%DIFF]		0.9500		
ATX Std 4 [MEAN]	0.3815	2.4845		
ATX Std 4 [SD]	0.0148	0.1280		
ATX Std 4 [%CV]	3.8923	5.1514		
ATX Std 4 [%DIFF]		-0.6200		
ATX Std 5 [MEAN]	0.2040			
ATX Std 5 [SD]	0.0085			
ATX Std 5 [%CV]	4.1594			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.7445	0.8110		
ATX Control [SD]	0.0106	0.0255		
ATX Control [%CV]	1.4247	3.1388		

Assay Curve

$$y = (A-D)/(1+(x/C)^B) + D$$

Weight: NONE

A = 1.5140

B = 0.83607

C = 0.92395

D = -0.11407

R2 coef = 0.99998

50% = 0.781

