



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB51536	Summit Lake - State Park	6/21/2022	6/28/2022	< 0.40
AB51537	Kunkel Beach @ Oubache State Park	6/20/2022	6/28/2022	< 0.40
AB51538	Pokagon State Park	6/20/2022	6/28/2022	< 0.40
AB51539	Potawatomi Inn's Beach	6/20/2022	6/28/2022	< 0.40
AB51540	Chain O'Lakes SP	6/20/2022	6/28/2022	< 0.40
AB51541	Potato Creek State Park	6/21/2022	6/28/2022	< 0.40
AB51542	Lost Bridge West SRA	6/21/2022	6/28/2022	< 0.40
AB51543	Mississinewa Lake Miami SRA	6/21/2022	6/28/2022	< 0.40
AB51544	Lost Bridge West SRA (Field Dup)	6/21/2022	6/28/2022	< 0.40
AB51545	Field Blank	6/20/2022	6/28/2022	< 0.40
AB51546	Lincoln State Park	6/20/2022	6/28/2022	< 0.40
AB51547	Patoka SRA Beach	6/20/2022	6/28/2022	< 0.40
AB51548	Ferdinand State Forest Lake	6/20/2022	6/28/2022	< 0.40

Test Report (by Request)

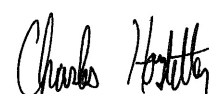
Test Information

Request: 6/28/2022 2:15:34 PM
Date: 6/28/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.571 Abs	0.000 µg/L	R^2=0.99954, 100.7			M21L0919
ATX Std 0	ANATOXIN	1.549 Abs [1.5600] {1.0 C	0.007 µg/L [0.004]	R^2=0.99954, 99.25			M21L0919
ATX Std 1	ANATOXIN	1.308 Abs	0.140 µg/L	R^2=0.99954, 83.84			M21L0919
ATX Std 1	ANATOXIN	1.287 Abs [1.2975] {1.1 C	0.154 µg/L [0.147]	R^2=0.99954, 82.50			M21L0919
ATX Std 2	ANATOXIN	1.004 Abs	0.381 µg/L	R^2=0.99954, 64.35			M21L0919
ATX Std 2	ANATOXIN	0.968 Abs [0.9860] {2.6 C	0.419 µg/L [0.400]	R^2=0.99954, 62.05			M21L0919
ATX Std 3	ANATOXIN	0.636 Abs	0.975 µg/L	R^2=0.99954, 40.76			M21L0919
ATX Std 3	ANATOXIN	0.595 Abs [0.6155] {4.7 C	1.088 µg/L [1.032]	R^2=0.99954, 38.14			M21L0919
ATX Std 4	ANATOXIN	0.367 Abs	2.236 µg/L	R^2=0.99954, 23.52			M21L0919
ATX Std 4	ANATOXIN	0.352 Abs [0.3595] {3.0 C	2.372 µg/L [2.304]	R^2=0.99954, 22.56			M21L0919
ATX Std 5	ANATOXIN	0.201 Abs	> 5.000 µg/L	12.885 %Abs			M21L0919
ATX Std 5	ANATOXIN	0.192 Abs [0.1965] {3.2 C	> 5.000 µg/L	12.308 %Abs			M21L0919
ATX Control	ANATOXIN	0.802 Abs	0.639 µg/L	51.410 %Abs			M21L0919
ATX Control	ANATOXIN	0.769 Abs [0.7855] {3.0 C	0.694 µg/L [0.666]	49.295 %Abs [50.3			M21L0919

Note

Signature



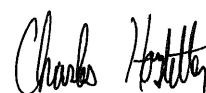
Test Report (by Request)

Test Information

Request: 6/28/2022 2:40:18 PM
Date: 6/28/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.416 Abs	0.077 µg/L	Low, 90.769 %Abs		0.150 - 5.000	M21L091E
LRB	ANATOXIN	1.368 Abs [1.3920] {2.4 C	0.104 µg/L [0.090]	Low, 87.692 %Abs		0.150 - 5.000	M21L091E
LFB (ANA)	ANATOXIN	0.946 Abs	0.444 µg/L	60.641 %Abs		0.150 - 5.000	M21L091E
LFB (ANA)	ANATOXIN	0.921 Abs [0.9335] {1.9 C	0.473 µg/L [0.458]	59.038 %Abs [59.8		0.150 - 5.000	M21L091E
AB51536	ANATOXIN	1.465 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51536	ANATOXIN	1.473 Abs [1.4690] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51537	ANATOXIN	1.434 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51537	ANATOXIN	1.404 Abs [1.4190] {1.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51537MS	ANATOXIN	0.885 Abs	0.519 µg/L	56.731 %Abs		0.150 - 5.000	M21L091E
AB51537MS	ANATOXIN	0.868 Abs [0.8765] {1.4 C	0.541 µg/L [0.530]	55.641 %Abs [56.1		0.150 - 5.000	M21L091E
AB51537MSD	ANATOXIN	0.889 Abs	0.514 µg/L	56.987 %Abs		0.150 - 5.000	M21L091E
AB51537MSD	ANATOXIN	0.859 Abs [0.8740] {2.4 C	0.554 µg/L [0.534]	55.064 %Abs [56.0		0.150 - 5.000	M21L091E
AB51538	ANATOXIN	1.483 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51538	ANATOXIN	1.451 Abs [1.4670] {1.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51539	ANATOXIN	1.426 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51539	ANATOXIN	1.389 Abs [1.4075] {1.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51540	ANATOXIN	1.380 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51540	ANATOXIN	1.359 Abs [1.3695] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51541	ANATOXIN	1.453 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51541	ANATOXIN	1.452 Abs [1.4525] {0.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51542	ANATOXIN	1.424 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51542	ANATOXIN	1.421 Abs [1.4225] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51543	ANATOXIN	1.400 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51543	ANATOXIN	1.385 Abs [1.3925] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51544	ANATOXIN	1.354 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51544	ANATOXIN	1.333 Abs [1.3435] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51545	ANATOXIN	1.489 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51545	ANATOXIN	1.496 Abs [1.4925] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51546	ANATOXIN	1.358 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51546	ANATOXIN	1.334 Abs [1.3460] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51547	ANATOXIN	1.418 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51547	ANATOXIN	1.381 Abs [1.3995] {1.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51548	ANATOXIN	1.354 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091E
AB51548	ANATOXIN	1.319 Abs [1.3365] {1.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091E

Note



Signature

Charles Hostetter 6/28/2022

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: M21L0919

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
6/28/2022 2:15:34 PM				
ATX Std 0	1.571 Abs	0.000 µg/L	R ² =0.99954, 100.705 %Abs	RK1:23->A01@2
ATX Std 0	1.549 Abs [1.5600] {1.0 CV}	0.007 µg/L [0.004] {141.4 CV}	R ² =0.99954, 99.295 %Abs	RK1:23->B01@2
ATX Std 1	1.308 Abs	0.140 µg/L	R ² =0.99954, 83.846 %Abs	RK1:24->C01@2
ATX Std 1	1.287 Abs [1.2975] {1.1 CV}	0.154 µg/L [0.147] {6.7 CV}	R ² =0.99954, 82.500 %Abs	RK1:24->D01@2
ATX Std 2	1.004 Abs	0.381 µg/L	R ² =0.99954, 64.359 %Abs	RK1:25->E01@2
ATX Std 2	0.968 Abs [0.9860] {2.6 CV}	0.419 µg/L [0.400] {6.7 CV}	R ² =0.99954, 62.051 %Abs	RK1:25->F01@3
ATX Std 3	0.636 Abs	0.975 µg/L	R ² =0.99954, 40.769 %Abs	RK1:26->G01@3
ATX Std 3	0.595 Abs [0.6155] {4.7 CV}	1.088 µg/L [1.032] {7.7 CV}	R ² =0.99954, 38.141 %Abs	RK1:26->H01@3
ATX Std 4	0.367 Abs	2.236 µg/L	R ² =0.99954, 23.526 %Abs	RK1:27->A02@2
ATX Std 4	0.352 Abs [0.3595] {3.0 CV}	2.372 µg/L [2.304] {4.2 CV}	R ² =0.99954, 22.564 %Abs	RK1:27->B02@2
ATX Std 5	0.201 Abs	> 5.000 µg/L	12.885 %Abs	RK1:28->C02@2
ATX Std 5	0.192 Abs [0.1965] {3.2 CV}	> 5.000 µg/L	12.308 %Abs	RK1:28->D02@2

6/28/2022 2:15:34 PM				
ATX Control	0.802 Abs	0.639 µg/L	51.410 %Abs	RK1:29->E02@2
ATX Control	0.769 Abs [0.7855] {3.0 CV}	0.694 µg/L [0.666] {5.8 CV}	49.295 %Abs [50.353 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.5600	0.0035		
ATX Std 0 [SD]	0.0156	0.0049		
ATX Std 0 [%CV]	0.9972	141.4214		
ATX Std 1 [MEAN]	1.2975	0.1470		
ATX Std 1 [SD]	0.0148	0.0099		
ATX Std 1 [%CV]	1.1445	6.7343		
ATX Std 1 [%DIFF]		-2.0000		
ATX Std 2 [MEAN]	0.9860	0.4000		
ATX Std 2 [SD]	0.0255	0.0269		
ATX Std 2 [%CV]	2.5817	6.7175		
ATX Std 2 [%DIFF]		-0.0000		
ATX Std 3 [MEAN]	0.6155	1.0315		
ATX Std 3 [SD]	0.0290	0.0799		
ATX Std 3 [%CV]	4.7102	7.7463		
ATX Std 3 [%DIFF]		3.1500		
ATX Std 4 [MEAN]	0.3595	2.3040		
ATX Std 4 [SD]	0.0106	0.0962		
ATX Std 4 [%CV]	2.9504	4.1739		
ATX Std 4 [%DIFF]		-7.8400		
ATX Std 5 [MEAN]	0.1965			
ATX Std 5 [SD]	0.0064			
ATX Std 5 [%CV]	3.2387			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.7855	0.6665			
ATX Control [SD]	0.0233	0.0389			
ATX Control [%CV]	2.9707	5.8351			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.5619
 B = 1.0673
 C = 0.62349
 D = 0.061297
 R2 coef = 0.99954
 50% = 0.675

