Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB52176	Kunkel Lake @ Oubache State Park	8/1/2022	8/3/2022	< 0.40
AB52177	Pokagon State Park	8/1/2022	8/3/2022	< 0.40
AB52178	Potawatomi Inn's Beach	8/1/2022	8/3/2022	< 0.40
AB52179	Chain O'Lakes SP	8/1/2022	8/3/2022	< 0.40
AB52180	Potato Creek State Park	8/2/2022	8/3/2022	< 0.40
AB52181	Lost Bridge West SRA	8/2/2022	8/3/2022	< 0.40
AB52182	Mississinewa Lake Miami SRA	8/2/2022	8/3/2022	< 0.40
AB52183	Kunkel Lake @ Oubache State Park (Field Dup)	8/1/2022	8/3/2022	< 0.40
AB52184	Field Blank	8/1/2022	8/3/2022	< 0.40
AB52185	Patoka SRA Beach	8/1/2022	8/3/2022	< 0.40

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Test Report (by Request)

Test Information

Request: 8/3/2022 3:53:08 PM
Date: 8/3/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.593 Abs	0.000 µg/L	R^2=0.99946, 100.3			M21L091
ATX Std 0	ANATOXIN	1.581 Abs [1.5870] {0.5 C	0.004 µg/L [0.002]	R^2=0.99946, 99.62			M21L091
ATX Std 1	ANATOXIN	1.330 Abs	0.143 µg/L	R^2=0.99946, 83.80			M21L091
ATX Std 1	ANATOXIN	1.317 Abs [1.3235] {0.7 C	0.152 µg/L [0.148]	R^2=0.99946, 82.98			M21L091
ATX Std 2	ANATOXIN	1.030 Abs	0.385 µg/L	R^2=0.99946, 64.90			M21L091
ATX Std 2	ANATOXIN	1.003 Abs [1.0165] {1.9 C	0.414 µg/L [0.400]	R^2=0.99946, 63.20			M21L091
ATX Std 3	ANATOXIN	0.661 Abs	0.982 µg/L	R^2=0.99946, 41.65			M21L091
ATX Std 3	ANATOXIN	0.621 Abs [0.6410] {4.4 C	1.090 µg/L [1.036]	R^2=0.99946, 39.13			M21L091
ATX Std 4	ANATOXIN	0.385 Abs	2.243 µg/L	R^2=0.99946, 24.26			M21L091
ATX Std 4	ANATOXIN	0.371 Abs [0.3780] {2.6 C	2.363 µg/L [2.303]	R^2=0.99946, 23.37			M21L091
ATX Std 5	ANATOXIN	0.209 Abs	> 5.000 µg/L	13.170 %Abs			M21L091
ATX Std 5	ANATOXIN	0.200 Abs [0.2045] {3.1 C	> 5.000 µg/L	12.602 %Abs			M21L091
ATX Control	ANATOXIN	0.821 Abs	0.656 µg/L	51.733 %Abs			M21L091
ATX Control	ANATOXIN	0.794 Abs [0.8075] {2.4 C	0.701 µg/L [0.678]	50.032 %Abs [50.8			M21L091

Note

Signature David Jordan

David Jordan 8/3/2022

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests
* Generated by software version (6.4.1.1139/1085/1.00/0.95) 8/4/2022 8:45:36 AM

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Test Report (by Request)

Test Information

Request: 8/3/2022 4:16:16 PM
Date: 8/3/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.426 Abs	0.086 µg/L	Low, 89.855 %Abs		0.150 - 5.000	M21L091
LRB	ANATOXIN	1.383 Abs [1.4045] {2.2 C	0.111 µg/L [0.098]	Low, 87.146 %Abs		0.150 - 5.000	M21L091
LFB (ANA)	ANATOXIN	0.818 Abs	0.661 µg/L	51.544 %Abs		0.150 - 5.000	M21L091
LFB (ANA)	ANATOXIN	0.805 Abs [0.8115] {1.1 C	0.682 µg/L [0.671]	50.725 %Abs [51.1		0.150 - 5.000	M21L091
AB52176	ANATOXIN	1.245 Abs	0.220 µg/L	78.450 %Abs	MDF=1.100	0.150 - 5.000	M21L091
AB52176	ANATOXIN	1.224 Abs [1.2345] {1.2 C	0.238 µg/L [0.229]	77.127 %Abs [77.7	MDF=1.100	0.150 - 5.000	M21L091
AB52177	ANATOXIN	1.426 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091
AB52177	ANATOXIN	1.403 Abs [1.4145] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091
AB52178	ANATOXIN	1.507 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091
AB52178	ANATOXIN	1.481 Abs [1.4940] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091
AB52179	ANATOXIN	1.447 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091
AB52179	ANATOXIN	1.431 Abs [1.4390] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091
AB52180	ANATOXIN	1.403 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091
AB52180	ANATOXIN	1.389 Abs [1.3960] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091
AB52180MS	ANATOXIN	0.738 Abs	0.807 µg/L	46.503 %Abs		0.150 - 5.000	M21L091
AB52180MS	ANATOXIN	0.707 Abs [0.7225] {3.0 C	0.872 µg/L [0.839]	44.549 %Abs [45.5		0.150 - 5.000	M21L091
AB52180MSD	ANATOXIN	0.789 Abs	0.710 µg/L	49.716 %Abs		0.150 - 5.000	M21L091
AB52180MSD	ANATOXIN	0.781 Abs [0.7850] {0.7 C	0.724 µg/L [0.717]	49.212 %Abs [49.4		0.150 - 5.000	M21L091
AB52181	ANATOXIN	1.412 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091
AB52181	ANATOXIN	1.404 Abs [1.4080] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091
AB52182	ANATOXIN	1.296 Abs	0.182 µg/L	81.664 %Abs	MDF=1.100	0.150 - 5.000	M21L091
AB52182	ANATOXIN	1.281 Abs [1.2885] {0.8 C	0.192 µg/L [0.187]	80.718 %Abs [81.1	MDF=1.100	0.150 - 5.000	M21L091
AB52183	ANATOXIN	1.145 Abs	0.306 µg/L	72.149 %Abs	MDF=1.100	0.150 - 5.000	M21L091
AB52183	ANATOXIN	1.134 Abs [1.1395] {0.7 C	0.316 µg/L [0.311]	71.456 %Abs [71.8	MDF=1.100	0.150 - 5.000	M21L091
AB52184	ANATOXIN	1.513 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091
AB52184	ANATOXIN	1.489 Abs [1.5010] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091
AB52185	ANATOXIN	1.415 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L091
AB52185	ANATOXIN	1.344 Abs [1.3795] {3.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L091

Note

Signature David Jordan

David Jordan 8/3/2022

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests
* Generated by software version (6.4.1.1139/1085/1.00/0.95) 8/4/2022 8:45:36 AM

ANATOXIN - Assay Calibration Report

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:
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 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

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
8/3/2022 3:53:08 PM				
ATX Std 0	1.593 Abs	0.000 µg/L	R^2=0.99946, 100.378 %Abs	RK1:23->A01@2
ATX Std 0	1.581 Abs [1.5870] {0.5 CV}	0.004 µg/L [0.002] {141.4 C\	R^2=0.99946, 99.622 %Abs	RK1:23->B01@2
ATX Std 1	1.330 Abs	0.143 µg/L	R^2=0.99946, 83.806 %Abs	RK1:24->C01@2
ATX Std 1	1.317 Abs [1.3235] {0.7 CV}	0.152 µg/L [0.148] {4.3 CV}	R^2=0.99946, 82.987 %Abs	RK1:24->D01@2
ATX Std 2	1.030 Abs	0.385 µg/L	R^2=0.99946, 64.902 %Abs	RK1:25->E01@2
ATX Std 2	1.003 Abs [1.0165] {1.9 CV}	0.414 µg/L [0.400] {5.1 CV}	R^2=0.99946, 63.201 %Abs	RK1:25->F01@3
ATX Std 3	0.661 Abs	0.982 µg/L	R^2=0.99946, 41.651 %Abs	RK1:26->G01@3
ATX Std 3	0.621 Abs [0.6410] {4.4 CV}	1.090 µg/L [1.036] {7.4 CV}	R^2=0.99946, 39.130 %Abs	RK1:26->H01@3
ATX Std 4	0.385 Abs	2.243 µg/L	R^2=0.99946, 24.260 %Abs	RK1:27->A02@2
ATX Std 4	0.371 Abs [0.3780] {2.6 CV}	2.363 µg/L [2.303] {3.7 CV}	R^2=0.99946, 23.377 %Abs	RK1:27->B02@2
ATX Std 5	0.209 Abs	> 5.000 µg/L	13.170 %Abs	RK1:28->C02@2
ATX Std 5	0.200 Abs [0.2045] {3.1 CV}	> 5.000 µg/L	12.602 %Abs	RK1:28->D02@2
++++++++++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++
8/3/2022 3:53:08 PM				
ATX Control	0.821 Abs	0.656 µg/L	51.733 %Abs	RK1:29->E02@2
ATX Control	0.794 Abs [0.8075] {2.4 CV}	0.701 µg/L [0.678] {4.7 CV}	50.032 %Abs [50.882 %Abs]	RK1:29->F02@3
**********	**********	**********	**********	**********
Statistic				
ATX Std 0 [MEAN]	1.5870	0.0020		
ATX Std 0 [SD]	0.0085	0.0028		
ATX Std 0 [%CV]	0.5347	141.4214		
ATX Std 1 [MEAN]	1.3235	0.1475		
ATX Std 1 [SD]	0.0092	0.0064		
ATX Std 1 [%CV]	0.6946	4.3145		
ATX Std 1 [%DIFF]		-1.6667		
ATX Std 2 [MEAN]	1.0165	0.3995		
ATX Std 2 [SD]	0.0191	0.0205		
ATX Std 2 [%CV]	1.8782	5.1329		
ATX Std 2 [%DIFF]		-0.1250		
ATX Std 3 [MEAN]	0.6410	1.0360		
ATX Std 3 [SD]	0.0283	0.0764		
ATX Std 3 [%CV]	4.4125	7.3714		
ATX Std 3 [%DIFF]		3.6000		
ATX Std 4 [MEAN]	0.3780	2.3030		
ATX Std 4 [SD]	0.0099	0.0849		
ATX Std 4 [%CV]	2.6189	3.6844		
ATX Std 4 [%DIFF]		-7.8800		
ATX Std 5 [MEAN]	0.2045			
ATX Std 5 [SD]	0.0064			
ATX Std 5 [%CV]	3.1120			

ANATOXIN - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.8075	0.6785		
ATX Control [SD]	0.0191	0.0318		
ATX Control [%CV]	2.3643	4.6897		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.5890
B = 1.0489
C = 0.65490
D = 0.053971
R2 coef = 0.99946
50% = 0.702