



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB47638	Summit Lake - State Park	6/22/2021	6/22/2021	< 0.40
AB47639	Kunkel Beach @ Oubache State Park	6/21/2021	6/22/2021	< 0.40
AB47640	Pokagon State Park	6/21/2021	6/22/2021	< 0.40
AB47641	Potawatomi Inn's Beach	6/21/2021	6/22/2021	< 0.40
AB47642	Chain O'Lakes SP	6/21/2021	6/22/2021	< 0.40
AB47643	Potato Creek State Park	6/21/2021	6/22/2021	< 0.40
AB47644	Lost Bridge West SRA	6/21/2021	6/22/2021	< 0.40
AB47645	Mississinewa Lake Miami SRA	6/21/2021	6/22/2021	< 0.40
AB47646	Summit Lake - State Park (Field Dup)	6/22/2021	6/22/2021	< 0.40
AB47647	Field Blank	6/21/2021	6/22/2021	< 0.40
AB47648	Lincoln State Park	6/21/2021	6/22/2021	< 0.40
AB47649	Ferdinand State Forest Lake	6/21/2021	6/22/2021	< 0.40
AB47650	Patoka SRA Beach	6/21/2021	6/22/2021	< 0.40
AB47652	Ft. Ben Harrison SP Dog Lake - East	6/21/2021	6/22/2021	< 0.40

Test Report (by Request)

Test Information

 Request: 6/22/2021 6:26:42 PM
 Date: 6/22/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.793 Abs	0.000 µg/L	R^2=0.99989, 101.8			20L4352
ATX Std 0	ANATOXIN	1.729 Abs [1.7610] {2.6 C	0.012 µg/L [0.006]	R^2=0.99989, 98.18			20L4352
ATX Std 1	ANATOXIN	1.471 Abs	0.140 µg/L	R^2=0.99989, 83.53			20L4352
ATX Std 1	ANATOXIN	1.446 Abs [1.4585] {1.2 C	0.155 µg/L [0.148]	R^2=0.99989, 82.11			20L4352
ATX Std 2	ANATOXIN	1.168 Abs	0.374 µg/L	R^2=0.99989, 66.32			20L4352
ATX Std 2	ANATOXIN	1.113 Abs [1.1405] {3.4 C	0.431 µg/L [0.403]	R^2=0.99989, 63.20			20L4352
ATX Std 3	ANATOXIN	0.782 Abs	0.952 µg/L	R^2=0.99989, 44.40			20L4352
ATX Std 3	ANATOXIN	0.729 Abs [0.7555] {5.0 C	1.081 µg/L [1.016]	R^2=0.99989, 41.35			20L4352
ATX Std 4	ANATOXIN	0.449 Abs	2.285 µg/L	R^2=0.99989, 25.45			20L4352
ATX Std 4	ANATOXIN	0.412 Abs [0.4305] {6.1 C	2.570 µg/L [2.428]	R^2=0.99989, 23.35			20L4352
ATX Std 5	ANATOXIN	0.246 Abs	4.915 µg/L	R^2=0.99989, 13.96			20L4352
ATX Std 5	ANATOXIN	0.228 Abs [0.2370] {5.4 C	> 5.000 µg/L [4.91	12.947 %Abs			20L4352
ATX Control	ANATOXIN	0.885 Abs	0.746 µg/L	50.256 %Abs			20L4352
ATX Control	ANATOXIN	0.824 Abs [0.8545] {5.0 C	0.861 µg/L [0.803]	46.792 %Abs [48.5			20L4352

Note

Signature

David Jordan 6/22/2021

Test Report (by Request)

Test Information

 Request: 6/22/2021 6:28:19 PM
 Date: 6/22/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (ANA)	ANATOXIN	1.616 Abs	0.062 µg/L	Low, 91.766 %Abs		0.150 - 5.000	20L4352
LRB (ANA)	ANATOXIN	1.500 Abs [1.5580] {5.3 C	0.123 µg/L [0.093]	Low, 85.179 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	1.036 Abs	0.521 µg/L	58.830 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	1.003 Abs [1.0195] {2.3 C	0.564 µg/L [0.543]	56.956 %Abs [57.8		0.150 - 5.000	20L4352
AB47638	ANATOXIN	1.672 Abs	0.036 µg/L	Low, 94.946 %Abs		0.150 - 5.000	20L4352
AB47638	ANATOXIN	1.629 Abs [1.6505] {1.8 C	0.056 µg/L [0.046]	Low, 92.504 %Abs		0.150 - 5.000	20L4352
AB47639	ANATOXIN	1.595 Abs	0.072 µg/L	Low, 90.574 %Abs		0.150 - 5.000	20L4352
AB47639	ANATOXIN	1.544 Abs [1.5695] {2.3 C	0.099 µg/L [0.086]	Low, 87.677 %Abs		0.150 - 5.000	20L4352
AB47640	ANATOXIN	1.565 Abs	0.088 µg/L	Low, 88.870 %Abs		0.150 - 5.000	20L4352
AB47640	ANATOXIN	1.496 Abs [1.5305] {3.2 C	0.125 µg/L [0.106]	Low, 84.952 %Abs		0.150 - 5.000	20L4352
AB47641	ANATOXIN	1.748 Abs	0.005 µg/L	Low, 99.262 %Abs		0.150 - 5.000	20L4352
AB47641	ANATOXIN	1.670 Abs [1.7090] {3.2 C	0.037 µg/L [0.021]	Low, 94.832 %Abs		0.150 - 5.000	20L4352
AB47642	ANATOXIN	1.654 Abs	0.044 µg/L	Low, 93.924 %Abs		0.150 - 5.000	20L4352
AB47642	ANATOXIN	1.588 Abs [1.6210] {2.9 C	0.076 µg/L [0.060]	Low, 90.176 %Abs		0.150 - 5.000	20L4352
AB47643	ANATOXIN	1.562 Abs	0.089 µg/L	Low, 88.700 %Abs		0.150 - 5.000	20L4352
AB47643	ANATOXIN	1.511 Abs [1.5365] {2.3 C	0.117 µg/L [0.103]	Low, 85.804 %Abs		0.150 - 5.000	20L4352
AB47643MS	ANATOXIN	0.913 Abs	0.699 µg/L	51.846 %Abs		0.150 - 5.000	20L4352
AB47643MS	ANATOXIN	0.887 Abs [0.9000] {2.0 C	0.743 µg/L [0.721]	50.369 %Abs [51.1		0.150 - 5.000	20L4352
AB47643MSD	ANATOXIN	1.021 Abs	0.540 µg/L	57.978 %Abs		0.150 - 5.000	20L4352
AB47643MSD	ANATOXIN	0.944 Abs [0.9825] {5.5 C	0.649 µg/L [0.595]	53.606 %Abs [55.7		0.150 - 5.000	20L4352
AB47644	ANATOXIN	1.578 Abs	0.081 µg/L	Low, 89.608 %Abs		0.150 - 5.000	20L4352
AB47644	ANATOXIN	1.534 Abs [1.5560] {2.0 C	0.104 µg/L [0.093]	Low, 87.110 %Abs		0.150 - 5.000	20L4352
AB47645	ANATOXIN	1.491 Abs	0.128 µg/L	Low, 84.668 %Abs		0.150 - 5.000	20L4352
AB47645	ANATOXIN	1.469 Abs [1.4800] {1.1 C	0.141 µg/L [0.134]	Low, 83.419 %Abs		0.150 - 5.000	20L4352
AB47646	ANATOXIN	1.498 Abs	0.124 µg/L	Low, 85.065 %Abs		0.150 - 5.000	20L4352
AB47646	ANATOXIN	1.522 Abs [1.5100] {1.1 C	0.111 µg/L [0.117]	Low, 86.428 %Abs		0.150 - 5.000	20L4352
AB47647	ANATOXIN	1.734 Abs	0.010 µg/L	Low, 98.467 %Abs		0.150 - 5.000	20L4352
AB47647	ANATOXIN	1.608 Abs [1.6710] {5.3 C	0.066 µg/L [0.038]	Low, 91.312 %Abs		0.150 - 5.000	20L4352
AB47648	ANATOXIN	1.586 Abs	0.077 µg/L	Low, 90.062 %Abs		0.150 - 5.000	20L4352
AB47648	ANATOXIN	1.539 Abs [1.5625] {2.1 C	0.101 µg/L [0.089]	Low, 87.394 %Abs		0.150 - 5.000	20L4352
AB47649	ANATOXIN	1.542 Abs	0.100 µg/L	Low, 87.564 %Abs		0.150 - 5.000	20L4352
AB47649	ANATOXIN	1.498 Abs [1.5200] {2.0 C	0.124 µg/L [0.112]	Low, 85.065 %Abs		0.150 - 5.000	20L4352
AB47650	ANATOXIN	1.473 Abs	0.139 µg/L	Low, 83.646 %Abs		0.150 - 5.000	20L4352
AB47650	ANATOXIN	1.502 Abs [1.4875] {1.4 C	0.122 µg/L [0.131]	Low, 85.292 %Abs		0.150 - 5.000	20L4352
AB47652	ANATOXIN	1.717 Abs	0.017 µg/L	Low, 97.501 %Abs		0.150 - 5.000	20L4352
AB47652	ANATOXIN	1.658 Abs [1.6875] {2.5 C	0.043 µg/L [0.030]	Low, 94.151 %Abs		0.150 - 5.000	20L4352

Note

 Signature *David Jordan*

David Jordan 6/22/2021

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
6/22/2021 6:26:42 PM				
ATX Std 0	1.793 Abs	0.000 µg/L	R ² =0.99989, 101.817 %Abs	RK1:23->A01@2
ATX Std 0	1.729 Abs [1.7610] {2.6 CV}	0.012 µg/L [0.006] {141.4 CV}	R ² =0.99989, 98.183 %Abs	RK1:23->B01@2
ATX Std 1	1.471 Abs	0.140 µg/L	R ² =0.99989, 83.532 %Abs	RK1:24->C01@2
ATX Std 1	1.446 Abs [1.4585] {1.2 CV}	0.155 µg/L [0.148] {7.2 CV}	R ² =0.99989, 82.112 %Abs	RK1:24->D01@2
ATX Std 2	1.168 Abs	0.374 µg/L	R ² =0.99989, 66.326 %Abs	RK1:25->E01@2
ATX Std 2	1.113 Abs [1.1405] {3.4 CV}	0.431 µg/L [0.403] {10.0 CV}	R ² =0.99989, 63.203 %Abs	RK1:25->F01@3
ATX Std 3	0.782 Abs	0.952 µg/L	R ² =0.99989, 44.407 %Abs	RK1:26->G01@3
ATX Std 3	0.729 Abs [0.7555] {5.0 CV}	1.081 µg/L [1.016] {9.0 CV}	R ² =0.99989, 41.397 %Abs	RK1:26->H01@3
ATX Std 4	0.449 Abs	2.285 µg/L	R ² =0.99989, 25.497 %Abs	RK1:27->A02@2
ATX Std 4	0.412 Abs [0.4305] {6.1 CV}	2.570 µg/L [2.428] {8.3 CV}	R ² =0.99989, 23.396 %Abs	RK1:27->B02@2
ATX Std 5	0.246 Abs	4.915 µg/L	R ² =0.99989, 13.969 %Abs	RK1:28->C02@2
ATX Std 5	0.228 Abs [0.2370] {5.4 CV}	> 5.000 µg/L [4.915]	12.947 %Abs	RK1:28->D02@2

6/22/2021 6:26:42 PM				
ATX Control	0.885 Abs	0.746 µg/L	50.256 %Abs	RK1:29->E02@2
ATX Control	0.824 Abs [0.8545] {5.0 CV}	0.861 µg/L [0.803] {10.1 CV}	46.792 %Abs [48.524 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.7610	0.0060		
ATX Std 0 [SD]	0.0453	0.0085		
ATX Std 0 [%CV]	2.5698	141.4214		
ATX Std 1 [MEAN]	1.4585	0.1475		
ATX Std 1 [SD]	0.0177	0.0106		
ATX Std 1 [%CV]	1.2120	7.1909		
ATX Std 1 [%DIFF]		-1.6667		
ATX Std 2 [MEAN]	1.1405	0.4025		
ATX Std 2 [SD]	0.0389	0.0403		
ATX Std 2 [%CV]	3.4100	10.0137		
ATX Std 2 [%DIFF]		0.6250		
ATX Std 3 [MEAN]	0.7555	1.0165		
ATX Std 3 [SD]	0.0375	0.0912		
ATX Std 3 [%CV]	4.9605	8.9736		
ATX Std 3 [%DIFF]		1.6500		
ATX Std 4 [MEAN]	0.4305	2.4275		
ATX Std 4 [SD]	0.0262	0.2015		
ATX Std 4 [%CV]	6.0773	8.3018		
ATX Std 4 [%DIFF]		-2.9000		
ATX Std 5 [MEAN]	0.2370			
ATX Std 5 [SD]	0.0127			
ATX Std 5 [%CV]	5.3704			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.8545	0.8035		
ATX Control [SD]	0.0431	0.0813		
ATX Control [%CV]	5.0478	10.1204		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.7622
 B = 0.96221
 C = 0.75729
 D = -0.0047002
 R2 coef = 0.99989
 50% = 0.754

