



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB48329	Raccoon Lake SRA	8/23/2021	8/25/2021	< 0.40
AB48330	Cagles Mill Lake Beach	8/23/2021	8/25/2021	< 0.40
AB48331	Paynetown SRA	8/23/2021	8/25/2021	< 0.40
AB48332	Fairfax SRA	8/23/2021	8/25/2021	< 0.40
AB48333	Starve Hollow SRA	8/23/2021	8/25/2021	< 0.40
AB48334	Whitewater Memorial SP	8/24/2021	8/25/2021	< 0.40
AB48335	Mounds SRA	8/24/2021	8/25/2021	< 0.40
AB48336	Hardy Lake SRA	8/24/2021	8/25/2021	0.64
AB48337	Starve Hollow SRA (Field Duplicate)	8/23/2021	8/25/2021	< 0.40
AB48338	Field Blank	8/23/2021	8/25/2021	< 0.40
AB48373	Kunkel Beach @ Ouabache SP	8/23/2021	8/25/2021	1.7

Test Report (by Request)

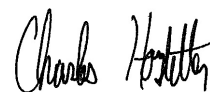
Test Information

Request: 8/25/2021 1:58:10 PM
Date: 8/25/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.539 Abs	0.000 µg/L	R ² =0.99991, 100.0			20L4352
ATX Std 0	ANATOXIN	1.537 Abs [1.5380] {0.1 C	0.001 µg/L [0.001]	R ² =0.99991, 100.0			20L4352
ATX Std 1	ANATOXIN	1.258 Abs	0.142 µg/L	R ² =0.99991, 81.7%			20L4352
ATX Std 1	ANATOXIN	1.243 Abs [1.2505] {0.8 C	0.152 µg/L [0.147]	R ² =0.99991, 80.8%			20L4352
ATX Std 2	ANATOXIN	0.970 Abs	0.401 µg/L	R ² =0.99991, 63.0%			20L4352
ATX Std 2	ANATOXIN	0.966 Abs [0.9680] {0.3 C	0.406 µg/L [0.403]	R ² =0.99991, 62.8%			20L4352
ATX Std 3	ANATOXIN	0.655 Abs	0.973 µg/L	R ² =0.99991, 42.5%			20L4352
ATX Std 3	ANATOXIN	0.629 Abs [0.6420] {2.9 C	1.047 µg/L [1.010]	R ² =0.99991, 40.8%			20L4352
ATX Std 4	ANATOXIN	0.364 Abs	2.400 µg/L	R ² =0.99991, 23.6%			20L4352
ATX Std 4	ANATOXIN	0.358 Abs [0.3610] {1.2 C	2.453 µg/L [2.427]	R ² =0.99991, 23.2%			20L4352
ATX Std 5	ANATOXIN	0.199 Abs	4.931 µg/L	R ² =0.99991, 12.9%			20L4352
ATX Std 5	ANATOXIN	0.185 Abs [0.1920] {5.2 C	> 5.000 µg/L [4.93]	12.029 %Abs			20L4352
ATX Control	ANATOXIN	0.701 Abs	0.856 µg/L	45.579 %Abs			20L4352
ATX Control	ANATOXIN	0.717 Abs [0.7090] {1.6 C	0.819 µg/L [0.837]	46.619 %Abs [46.0			20L4352

Note

Signature



Test Report (by Request)

Test Information

Request: 8/25/2021 2:01:57 PM
Date: 8/25/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.368 Abs	0.076 µg/L	Low, 88.947 %Abs		0.150 - 5.000	20L4352
LRB	ANATOXIN	1.394 Abs [1.3810] {1.3 C	0.062 µg/L [0.069]	Low, 90.637 %Abs		0.150 - 5.000	20L4352
LFB	ANATOXIN	0.799 Abs	0.653 µg/L	51.951 %Abs		0.150 - 5.000	20L4352
LFB	ANATOXIN	0.768 Abs [0.7835] {2.8 C	0.712 µg/L [0.683]	49.935 %Abs [50.9		0.150 - 5.000	20L4352
AB48329	ANATOXIN	1.364 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48329	ANATOXIN	1.358 Abs [1.3610] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48330	ANATOXIN	1.342 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48330	ANATOXIN	1.320 Abs [1.3310] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48331	ANATOXIN	1.334 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48331	ANATOXIN	1.315 Abs [1.3245] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48332	ANATOXIN	1.466 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48332	ANATOXIN	1.367 Abs [1.4165] {4.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48333	ANATOXIN	1.314 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48333	ANATOXIN	1.335 Abs [1.3245] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48334	ANATOXIN	1.319 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48334	ANATOXIN	1.292 Abs [1.3055] {1.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48334MS	ANATOXIN	0.680 Abs	0.908 µg/L	44.213 %Abs		0.150 - 5.000	20L4352
AB48334MS	ANATOXIN	0.686 Abs [0.6830] {0.6 C	0.893 µg/L [0.900]	44.603 %Abs [44.4		0.150 - 5.000	20L4352
AB48334MSD	ANATOXIN	0.772 Abs	0.704 µg/L	50.195 %Abs		0.150 - 5.000	20L4352
AB48334MSD	ANATOXIN	0.728 Abs [0.7500] {4.1 C	0.795 µg/L [0.750]	47.334 %Abs [48.7		0.150 - 5.000	20L4352
AB48335	ANATOXIN	1.280 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48335	ANATOXIN	1.292 Abs [1.2860] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48336	ANATOXIN	0.862 Abs	0.603 µg/L	56.047 %Abs	MDF=1.100	0.150 - 5.000	20L4352
AB48336	ANATOXIN	0.822 Abs [0.8420] {3.4 C	0.674 µg/L [0.638]	53.446 %Abs [54.7	MDF=1.100	0.150 - 5.000	20L4352
AB48337	ANATOXIN	1.211 Abs	0.192 µg/L	78.739 %Abs	MDF=1.100	0.150 - 5.000	20L4352
AB48337	ANATOXIN	1.238 Abs [1.2245] {1.6 C	0.172 µg/L [0.182]	80.494 %Abs [79.6	MDF=1.100	0.150 - 5.000	20L4352
AB48338	ANATOXIN	1.456 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48338	ANATOXIN	1.384 Abs [1.4200] {3.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		20L4352
AB48373	ANATOXIN	0.498 Abs	1.692 µg/L	32.380 %Abs	MDF=1.100	0.150 - 5.000	20L4352
AB48373	ANATOXIN	0.504 Abs [0.5010] {0.8 C	1.661 µg/L [1.677]	32.770 %Abs [32.5	MDF=1.100	0.150 - 5.000	20L4352

Note

Signature



Charles Hostetter 8/26/2021

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
8/25/2021 1:58:10 PM				
ATX Std 0	1.539 Abs	0.000 µg/L	R^2=0.99991, 100.000 %Abs	RK1:23->A01@2
ATX Std 0	1.537 Abs [1.5380] {0.1 CV}	0.001 µg/L [0.001] {141.4 CV}	R^2=0.99991, 100.000 %Abs	RK1:23->B01@2
ATX Std 1	1.258 Abs	0.142 µg/L	R^2=0.99991, 81.795 %Abs	RK1:24->C01@2
ATX Std 1	1.243 Abs [1.2505] {0.8 CV}	0.152 µg/L [0.147] {4.8 CV}	R^2=0.99991, 80.819 %Abs	RK1:24->D01@2
ATX Std 2	0.970 Abs	0.401 µg/L	R^2=0.99991, 63.069 %Abs	RK1:25->E01@2
ATX Std 2	0.966 Abs [0.9680] {0.3 CV}	0.406 µg/L [0.403] {0.9 CV}	R^2=0.99991, 62.809 %Abs	RK1:25->F01@3
ATX Std 3	0.655 Abs	0.973 µg/L	R^2=0.99991, 42.588 %Abs	RK1:26->G01@3
ATX Std 3	0.629 Abs [0.6420] {2.9 CV}	1.047 µg/L [1.010] {5.2 CV}	R^2=0.99991, 40.897 %Abs	RK1:26->H01@3
ATX Std 4	0.364 Abs	2.400 µg/L	R^2=0.99991, 23.667 %Abs	RK1:27->A02@2
ATX Std 4	0.358 Abs [0.3610] {1.2 CV}	2.453 µg/L [2.427] {1.5 CV}	R^2=0.99991, 23.277 %Abs	RK1:27->B02@2
ATX Std 5	0.199 Abs	4.931 µg/L	R^2=0.99991, 12.939 %Abs	RK1:28->C02@2
ATX Std 5	0.185 Abs [0.1920] {5.2 CV}	> 5.000 µg/L [4.931]	12.029 %Abs	RK1:28->D02@2

8/25/2021 1:58:10 PM				
ATX Control	0.701 Abs	0.856 µg/L	45.579 %Abs	RK1:29->E02@2
ATX Control	0.717 Abs [0.7090] {1.6 CV}	0.819 µg/L [0.837] {3.1 CV}	46.619 %Abs [46.099 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.5380	0.0005		
ATX Std 0 [SD]	0.0014	0.0007		
ATX Std 0 [%CV]	0.0920	141.4214		
ATX Std 1 [MEAN]	1.2505	0.1470		
ATX Std 1 [SD]	0.0106	0.0071		
ATX Std 1 [%CV]	0.8482	4.8102		
ATX Std 1 [%DIFF]		-2.0000		
ATX Std 2 [MEAN]	0.9680	0.4035		
ATX Std 2 [SD]	0.0028	0.0035		
ATX Std 2 [%CV]	0.2922	0.8762		
ATX Std 2 [%DIFF]		0.8750		
ATX Std 3 [MEAN]	0.6420	1.0100		
ATX Std 3 [SD]	0.0184	0.0523		
ATX Std 3 [%CV]	2.8637	5.1808		
ATX Std 3 [%DIFF]		1.0000		
ATX Std 4 [MEAN]	0.3610	2.4265		
ATX Std 4 [SD]	0.0042	0.0375		
ATX Std 4 [%CV]	1.1752	1.5445		
ATX Std 4 [%DIFF]		-2.9400		
ATX Std 5 [MEAN]	0.1920			
ATX Std 5 [SD]	0.0099			
ATX Std 5 [%CV]	5.1560			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.7090	0.8375			
ATX Control [SD]	0.0113	0.0262			
ATX Control [%CV]	1.5957	3.1239			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.5391
 B = 0.92098
 C = 0.74492
 D = -0.036044
 R2 coef = 0.99991
 50% = 0.710

