



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB46757	Raccoon Lake SRA	5/17/2021	5/20/2021	< 0.40
AB46758	Deam Lake SRA	5/18/2021	5/20/2021	< 0.40
AB46759	Cagles Mill Lake Beach	5/17/2021	5/20/2021	< 0.40
AB46760	Paynetown SRA	5/17/2021	5/20/2021	< 0.40
AB46761	Fairfax SRA	5/17/2021	5/20/2021	< 0.40
AB46762	Starve Hollow SRA	5/17/2021	5/20/2021	< 0.40
AB46763	Whitewater Memorial SP	5/18/2021	5/20/2021	< 0.40
AB46764	Quakertown SRA	5/18/2021	5/20/2021	< 0.40
AB46765	Mounds SRA	5/18/2021	5/20/2021	< 0.40
AB46766	Hardy Lake SRA	5/18/2021	5/20/2021	< 0.40
AB46767	Field Blank	5/17/2021	5/20/2021	< 0.40
AB46768	Deam Lake SRA (Field Duplicate)	5/18/2021	5/20/2021	< 0.40
AB47247	Ft. Ben Harrison SP Dog Lake - East	5/17/2021	5/20/2021	< 0.40
AB47248	Ft. Ben Harrison SP Dog Lake - West	5/17/2021	5/20/2021	< 0.40

Test Information

Request: 5/20/2021 3:43:40 PM

Date: 5/20/2021 - 5/21/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.749 Abs	0.000 µg/L	R ² =0.99980, 100.5			20L4352
ATX Std 0	ANATOXIN	1.729 Abs [1.7390] {0.8 C	0.002 µg/L [0.001]	R ² =0.99980, 99.42			20L4352
ATX Std 1	ANATOXIN	1.420 Abs	0.137 µg/L	R ² =0.99980, 81.65			20L4352
ATX Std 1	ANATOXIN	1.380 Abs [1.4000] {2.0 C	0.162 µg/L [0.149]	R ² =0.99980, 79.35			20L4352
ATX Std 2	ANATOXIN	1.114 Abs	0.389 µg/L	R ² =0.99980, 64.06			20L4352
ATX Std 2	ANATOXIN	1.100 Abs [1.1070] {0.9 C	0.404 µg/L [0.396]	R ² =0.99980, 63.25			20L4352
ATX Std 3	ANATOXIN	0.733 Abs	1.055 µg/L	R ² =0.99980, 42.15			20L4352
ATX Std 3	ANATOXIN	0.753 Abs [0.7430] {1.9 C	1.002 µg/L [1.028]	R ² =0.99980, 43.30			20L4352
ATX Std 4	ANATOXIN	0.448 Abs	2.339 µg/L	R ² =0.99980, 25.76			20L4352
ATX Std 4	ANATOXIN	0.431 Abs [0.4395] {2.7 C	2.468 µg/L [2.404]	R ² =0.99980, 24.78			20L4352
ATX Std 5	ANATOXIN	0.242 Abs	> 5.000 µg/L	13.916 %Abs			20L4352
ATX Std 5	ANATOXIN	0.231 Abs [0.2365] {3.3 C	> 5.000 µg/L	13.283 %Abs			20L4352
ATX Control	ANATOXIN	0.853 Abs	0.775 µg/L	49.051 %Abs			20L4352
ATX Control	ANATOXIN	0.832 Abs [0.8425] {1.8 C	0.818 µg/L [0.796]	47.844 %Abs [48.4			20L4352

Test Report (by Request)

Test Information

 Request: 5/20/2021 3:45:00 PM
 Date: 5/20/2021 - 5/21/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (ANA)	ANATOXIN	1.525 Abs	0.080 µg/L	Low, 87.694 %Abs		0.150 - 5.000	20L4352
LRB (ANA)	ANATOXIN	1.544 Abs [1.5345] {0.9 C	0.071 µg/L [0.075]			0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.963 Abs	0.584 µg/L	55.377 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.930 Abs [0.9465] {2.5 C	0.636 µg/L [0.610]	53.479 %Abs [54.4		0.150 - 5.000	20L4352
AB46757	ANATOXIN	1.573 Abs	0.058 µg/L	Low, 90.454 %Abs		0.150 - 5.000	20L4352
AB46757	ANATOXIN	1.572 Abs [1.5725] {0.0 C	0.058 µg/L [0.058]			0.150 - 5.000	20L4352
AB46758	ANATOXIN	1.517 Abs	0.084 µg/L	Low, 87.234 %Abs		0.150 - 5.000	20L4352
AB46758	ANATOXIN	1.503 Abs [1.5100] {0.7 C	0.091 µg/L [0.087]			0.150 - 5.000	20L4352
AB46759	ANATOXIN	1.522 Abs	0.081 µg/L	Low, 87.522 %Abs		0.150 - 5.000	20L4352
AB46759	ANATOXIN	1.563 Abs [1.5425] {1.9 C	0.062 µg/L [0.072]			0.150 - 5.000	20L4352
AB46760	ANATOXIN	1.770 Abs	0.000 µg/L	Low, 101.783 %Abs		0.150 - 5.000	20L4352
AB46760	ANATOXIN	1.677 Abs [1.7235] {3.8 C	0.017 µg/L [0.009]			0.150 - 5.000	20L4352
AB46760MS	ANATOXIN	0.911 Abs	0.668 µg/L	52.386 %Abs		0.150 - 5.000	20L4352
AB46760MS	ANATOXIN	0.886 Abs [0.8985] {2.0 C	0.713 µg/L [0.691]	50.949 %Abs [51.6		0.150 - 5.000	20L4352
AB46760MSD	ANATOXIN	0.875 Abs	0.733 µg/L	50.316 %Abs		0.150 - 5.000	20L4352
AB46760MSD	ANATOXIN	0.854 Abs [0.8645] {1.7 C	0.773 µg/L [0.753]	49.109 %Abs [49.7		0.150 - 5.000	20L4352
AB46761	ANATOXIN	1.525 Abs	0.080 µg/L	Low, 87.694 %Abs		0.150 - 5.000	20L4352
AB46761	ANATOXIN	1.506 Abs [1.5155] {0.9 C	0.089 µg/L [0.084]			0.150 - 5.000	20L4352
AB46762	ANATOXIN	1.751 Abs	0.000 µg/L	Low, 100.690 %Abs		0.150 - 5.000	20L4352
AB46762	ANATOXIN	1.708 Abs [1.7295] {1.8 C	0.008 µg/L [0.004]			0.150 - 5.000	20L4352
AB46763	ANATOXIN	1.674 Abs	0.018 µg/L	Low, 96.262 %Abs		0.150 - 5.000	20L4352
AB46763	ANATOXIN	1.645 Abs [1.6595] {1.2 C	0.029 µg/L [0.023]			0.150 - 5.000	20L4352
AB46764	ANATOXIN	1.624 Abs	0.037 µg/L	Low, 93.387 %Abs		0.150 - 5.000	20L4352
AB46764	ANATOXIN	1.582 Abs [1.6030] {1.9 C	0.054 µg/L [0.046]			0.150 - 5.000	20L4352
AB46765	ANATOXIN	1.584 Abs	0.053 µg/L	Low, 91.087 %Abs		0.150 - 5.000	20L4352
AB46765	ANATOXIN	1.569 Abs [1.5765] {0.7 C	0.059 µg/L [0.056]			0.150 - 5.000	20L4352
AB46766	ANATOXIN	1.731 Abs	0.002 µg/L	Low, 99.540 %Abs		0.150 - 5.000	20L4352
AB46766	ANATOXIN	1.690 Abs [1.7105] {1.7 C	0.013 µg/L [0.008]			0.150 - 5.000	20L4352
AB46767	ANATOXIN	1.727 Abs	0.003 µg/L	Low, 99.310 %Abs		0.150 - 5.000	20L4352
AB46767	ANATOXIN	1.731 Abs [1.7290] {0.2 C	0.002 µg/L [0.003]			0.150 - 5.000	20L4352
AB46768	ANATOXIN	1.661 Abs	0.023 µg/L	Low, 95.515 %Abs		0.150 - 5.000	20L4352
AB46768	ANATOXIN	1.633 Abs [1.6470] {1.2 C	0.033 µg/L [0.028]			0.150 - 5.000	20L4352
AB47247	ANATOXIN	1.630 Abs	0.034 µg/L	Low, 93.732 %Abs		0.150 - 5.000	20L4352
AB47247	ANATOXIN	1.559 Abs [1.5945] {3.1 C	0.064 µg/L [0.049]			0.150 - 5.000	20L4352
AB47248	ANATOXIN	1.702 Abs	0.009 µg/L	Low, 97.872 %Abs		0.150 - 5.000	20L4352
AB47248	ANATOXIN	1.646 Abs [1.6740] {2.4 C	0.028 µg/L [0.019]			0.150 - 5.000	20L4352

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
5/20/2021 3:43:40 PM				
ATX Std 0	1.749 Abs	0.000 µg/L	R ² =0.99980, 100.575 %Abs	RK1:23->A01@2
ATX Std 0	1.729 Abs [1.7390] {0.8 CV}	0.002 µg/L [0.001] {141.4 CV}	R ² =0.99980, 99.425 %Abs	RK1:23->B01@2
ATX Std 1	1.420 Abs	0.137 µg/L	R ² =0.99980, 81.656 %Abs	RK1:24->C01@2
ATX Std 1	1.380 Abs [1.4000] {2.0 CV}	0.162 µg/L [0.149] {11.8 CV}	R ² =0.99980, 79.356 %Abs	RK1:24->D01@2
ATX Std 2	1.114 Abs	0.389 µg/L	R ² =0.99980, 64.060 %Abs	RK1:25->E01@2
ATX Std 2	1.100 Abs [1.1070] {0.9 CV}	0.404 µg/L [0.396] {2.7 CV}	R ² =0.99980, 63.255 %Abs	RK1:25->F01@3
ATX Std 3	0.733 Abs	1.055 µg/L	R ² =0.99980, 42.151 %Abs	RK1:26->G01@3
ATX Std 3	0.753 Abs [0.7430] {1.9 CV}	1.002 µg/L [1.028] {3.6 CV}	R ² =0.99980, 43.301 %Abs	RK1:26->H01@3
ATX Std 4	0.448 Abs	2.339 µg/L	R ² =0.99980, 25.762 %Abs	RK1:27->A02@2
ATX Std 4	0.431 Abs [0.4395] {2.7 CV}	2.468 µg/L [2.404] {3.8 CV}	R ² =0.99980, 24.784 %Abs	RK1:27->B02@2
ATX Std 5	0.242 Abs	> 5.000 µg/L	13.916 %Abs	RK1:28->C02@2
ATX Std 5	0.231 Abs [0.2365] {3.3 CV}	> 5.000 µg/L	13.283 %Abs	RK1:28->D02@2

5/20/2021 3:43:40 PM				
ATX Control	0.853 Abs	0.775 µg/L	49.051 %Abs	RK1:29->E02@2
ATX Control	0.832 Abs [0.8425] {1.8 CV}	0.818 µg/L [0.796] {3.8 CV}	47.844 %Abs [48.447 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.7390	0.0010		
ATX Std 0 [SD]	0.0141	0.0014		
ATX Std 0 [%CV]	0.8132	141.4214		
ATX Std 1 [MEAN]	1.4000	0.1495		
ATX Std 1 [SD]	0.0283	0.0177		
ATX Std 1 [%CV]	2.0203	11.8245		
ATX Std 1 [%DIFF]		-0.3333		
ATX Std 2 [MEAN]	1.1070	0.3965		
ATX Std 2 [SD]	0.0099	0.0106		
ATX Std 2 [%CV]	0.8943	2.6751		
ATX Std 2 [%DIFF]		-0.8750		
ATX Std 3 [MEAN]	0.7430	1.0285		
ATX Std 3 [SD]	0.0141	0.0375		
ATX Std 3 [%CV]	1.9034	3.6438		
ATX Std 3 [%DIFF]		2.8500		
ATX Std 4 [MEAN]	0.4395	2.4035		
ATX Std 4 [SD]	0.0120	0.0912		
ATX Std 4 [%CV]	2.7351	3.7952		
ATX Std 4 [%DIFF]		-3.8600		
ATX Std 5 [MEAN]	0.2365			
ATX Std 5 [SD]	0.0078			
ATX Std 5 [%CV]	3.2889			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.8425	0.7965		
ATX Control [SD]	0.0148	0.0304		
ATX Control [%CV]	1.7625	3.8174		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.7397
 B = 0.86576
 C = 0.80983
 D = -0.067700
 R2 coef = 0.99980
 50% = 0.743

