



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB48106	Raccoon Lake SRA	8/9/2021	8/11/2021	< 0.40
AB48108	Cagles Mill Lake Beach	8/9/2021	8/11/2021	< 0.40
AB48109	Paynetown SRA	8/9/2021	8/11/2021	< 0.40
AB48110	Fairfax SRA	8/9/2021	8/11/2021	< 0.40
AB48111	Starve Hollow SRA	8/9/2021	8/11/2021	< 0.40
AB48112	Whitewater Memorial SP	8/10/2021	8/11/2021	< 0.40
AB48113	Quakertown SRA	8/10/2021	8/11/2021	< 0.40
AB48114	Mounds SRA	8/10/2021	8/11/2021	< 0.40
AB48115	Hardy Lake SRA	8/10/2021	8/11/2021	< 0.40
AB48107	Deam Lake SRA	8/10/2021	8/11/2021	< 0.40
AB48116	Cagles Mill Lake Beach (Field Duplicate)	8/9/2021	8/11/2021	< 0.40
AB48117	Field Blank	8/9/2021	8/11/2021	< 0.40

Test Report (by Request)

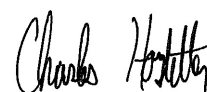
Test Information

Request: 8/11/2021 5:02:38 PM
Date: 8/11/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.770 Abs	0.000 µg/L	R ² =0.99871, 102.1			20L4352
ATX Std 0	ANATOXIN	1.696 Abs [1.7330] {3.0 C	0.008 µg/L [0.004]	R ² =0.99871, 97.86			20L4352
ATX Std 1	ANATOXIN	1.398 Abs	0.127 µg/L	R ² =0.99871, 80.66			20L4352
ATX Std 1	ANATOXIN	1.355 Abs [1.3765] {2.2 C	0.152 µg/L [0.139]	R ² =0.99871, 78.18			20L4352
ATX Std 2	ANATOXIN	1.054 Abs	0.404 µg/L	R ² =0.99871, 60.81			20L4352
ATX Std 2	ANATOXIN	1.019 Abs [1.0365] {2.4 C	0.446 µg/L [0.425]	R ² =0.99871, 58.80			20L4352
ATX Std 3	ANATOXIN	0.715 Abs	1.016 µg/L	R ² =0.99871, 41.25			20L4352
ATX Std 3	ANATOXIN	0.716 Abs [0.7155] {0.1 C	1.013 µg/L [1.015]	R ² =0.99871, 41.31			20L4352
ATX Std 4	ANATOXIN	0.464 Abs	2.143 µg/L	R ² =0.99871, 26.77			20L4352
ATX Std 4	ANATOXIN	0.434 Abs [0.4490] {4.7 C	2.373 µg/L [2.258]	R ² =0.99871, 25.04			20L4352
ATX Std 5	ANATOXIN	0.245 Abs	> 5.000 µg/L	14.137 %Abs			20L4352
ATX Std 5	ANATOXIN	0.223 Abs [0.2340] {6.6 C	> 5.000 µg/L	12.868 %Abs			20L4352
ATX Control	ANATOXIN	0.817 Abs	0.771 µg/L	47.144 %Abs			20L4352
ATX Control	ANATOXIN	0.793 Abs [0.8050] {2.1 C	0.822 µg/L [0.797]	45.759 %Abs [46.4			20L4352

Note

Signature



Test Report (by Request)

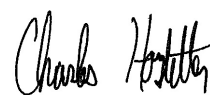
Test Information

Request: 8/11/2021 5:04:30 PM
Date: 8/11/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.448 Abs	0.101 µg/L	Low, 83.555 %Abs		0.150 - 5.000	20L4352
LRB	ANATOXIN	1.473 Abs [1.4605] {1.2 C	0.089 µg/L [0.095]	Low, 84.997 %Abs		0.150 - 5.000	20L4352
LFB	ANATOXIN	0.962 Abs	0.521 µg/L	55.511 %Abs		0.150 - 5.000	20L4352
LFB	ANATOXIN	0.884 Abs [0.9230] {6.0 C	0.644 µg/L [0.582]	51.010 %Abs [53.2		0.150 - 5.000	20L4352
AB48106	ANATOXIN	1.474 Abs	0.088 µg/L	Low, 85.055 %Abs		0.150 - 5.000	20L4352
AB48106	ANATOXIN	1.398 Abs [1.4360] {3.7 C	0.127 µg/L [0.108]	Low, 80.669 %Abs		0.150 - 5.000	20L4352
AB48108	ANATOXIN	1.415 Abs	0.118 µg/L	Low, 81.650 %Abs		0.150 - 5.000	20L4352
AB48108	ANATOXIN	1.396 Abs [1.4055] {1.0 C	0.128 µg/L [0.123]	Low, 80.554 %Abs		0.150 - 5.000	20L4352
AB48109	ANATOXIN	1.384 Abs	0.135 µg/L	Low, 79.862 %Abs		0.150 - 5.000	20L4352
AB48109	ANATOXIN	1.418 Abs [1.4010] {1.7 C	0.116 µg/L [0.125]	Low, 81.823 %Abs		0.150 - 5.000	20L4352
AB48109MS	ANATOXIN	0.922 Abs	0.581 µg/L	53.203 %Abs		0.150 - 5.000	20L4352
AB48109MS	ANATOXIN	0.882 Abs [0.9020] {3.1 C	0.647 µg/L [0.614]	50.894 %Abs [52.0		0.150 - 5.000	20L4352
AB48109MSD	ANATOXIN	0.855 Abs	0.696 µg/L	49.336 %Abs		0.150 - 5.000	20L4352
AB48109MSD	ANATOXIN	0.805 Abs [0.8300] {4.3 C	0.796 µg/L [0.746]	46.451 %Abs [47.8		0.150 - 5.000	20L4352
AB48110	ANATOXIN	1.356 Abs	0.151 µg/L	78.246 %Abs		0.150 - 5.000	20L4352
AB48110	ANATOXIN	1.357 Abs [1.3565] {0.1 C	0.151 µg/L [0.151]	78.304 %Abs [78.2		0.150 - 5.000	20L4352
AB48111	ANATOXIN	1.449 Abs	0.100 µg/L	Low, 83.612 %Abs		0.150 - 5.000	20L4352
AB48111	ANATOXIN	1.446 Abs [1.4475] {0.1 C	0.102 µg/L [0.101]	Low, 83.439 %Abs		0.150 - 5.000	20L4352
AB48112	ANATOXIN	1.647 Abs	0.022 µg/L	Low, 95.038 %Abs		0.150 - 5.000	20L4352
AB48112	ANATOXIN	1.584 Abs [1.6155] {2.8 C	0.043 µg/L [0.032]	Low, 91.402 %Abs		0.150 - 5.000	20L4352
AB48113	ANATOXIN	1.582 Abs	0.043 µg/L	Low, 91.287 %Abs		0.150 - 5.000	20L4352
AB48113	ANATOXIN	1.513 Abs [1.5475] {3.2 C	0.071 µg/L [0.057]	Low, 87.305 %Abs		0.150 - 5.000	20L4352
AB48114	ANATOXIN	1.455 Abs	0.097 µg/L	Low, 83.958 %Abs		0.150 - 5.000	20L4352
AB48114	ANATOXIN	1.467 Abs [1.4610] {0.6 C	0.092 µg/L [0.095]	Low, 84.651 %Abs		0.150 - 5.000	20L4352
AB48115	ANATOXIN	1.212 Abs	0.252 µg/L	69.937 %Abs		0.150 - 5.000	20L4352
AB48115	ANATOXIN	1.181 Abs [1.1965] {1.8 C	0.278 µg/L [0.265]	68.148 %Abs [69.0		0.150 - 5.000	20L4352
AB48107	ANATOXIN	1.701 Abs	0.007 µg/L	Low, 98.153 %Abs		0.150 - 5.000	20L4352
AB48107	ANATOXIN	1.597 Abs [1.6490] {4.5 C	0.038 µg/L [0.022]	Low, 92.152 %Abs		0.150 - 5.000	20L4352
AB48116	ANATOXIN	1.529 Abs	0.064 µg/L	Low, 88.229 %Abs		0.150 - 5.000	20L4352
AB48116	ANATOXIN	1.471 Abs [1.5000] {2.7 C	0.090 µg/L [0.077]	Low, 84.882 %Abs		0.150 - 5.000	20L4352
AB48117	ANATOXIN	1.537 Abs	0.061 µg/L	Low, 88.690 %Abs		0.150 - 5.000	20L4352
AB48117	ANATOXIN	1.516 Abs [1.5265] {1.0 C	0.070 µg/L [0.065]	Low, 87.478 %Abs		0.150 - 5.000	20L4352

Note

Signature



Charles Hostetter 8/12/2021

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
8/11/2021 5:02:38 PM				
ATX Std 0	1.770 Abs	0.000 µg/L	R ² =0.99871, 102.135 %Abs	RK1:23->A01@2
ATX Std 0	1.696 Abs [1.7330] {3.0 CV}	0.008 µg/L [0.004] {141.4 CV}	R ² =0.99871, 97.865 %Abs	RK1:23->B01@2
ATX Std 1	1.398 Abs	0.127 µg/L	R ² =0.99871, 80.669 %Abs	RK1:24->C01@2
ATX Std 1	1.355 Abs [1.3765] {2.2 CV}	0.152 µg/L [0.139] {12.7 CV}	R ² =0.99871, 78.188 %Abs	RK1:24->D01@2
ATX Std 2	1.054 Abs	0.404 µg/L	R ² =0.99871, 60.819 %Abs	RK1:25->E01@2
ATX Std 2	1.019 Abs [1.0365] {2.4 CV}	0.446 µg/L [0.425] {7.0 CV}	R ² =0.99871, 58.800 %Abs	RK1:25->F01@3
ATX Std 3	0.715 Abs	1.016 µg/L	R ² =0.99871, 41.258 %Abs	RK1:26->G01@3
ATX Std 3	0.716 Abs [0.7155] {0.1 CV}	1.013 µg/L [1.015] {0.2 CV}	R ² =0.99871, 41.316 %Abs	RK1:26->H01@3
ATX Std 4	0.464 Abs	2.143 µg/L	R ² =0.99871, 26.774 %Abs	RK1:27->A02@2
ATX Std 4	0.434 Abs [0.4490] {4.7 CV}	2.373 µg/L [2.258] {7.2 CV}	R ² =0.99871, 25.043 %Abs	RK1:27->B02@2
ATX Std 5	0.245 Abs	> 5.000 µg/L	14.137 %Abs	RK1:28->C02@2
ATX Std 5	0.223 Abs [0.2340] {6.6 CV}	> 5.000 µg/L	12.868 %Abs	RK1:28->D02@2

8/11/2021 5:02:38 PM				
ATX Control	0.817 Abs	0.771 µg/L	47.144 %Abs	RK1:29->E02@2
ATX Control	0.793 Abs [0.8050] {2.1 CV}	0.822 µg/L [0.797] {4.5 CV}	45.759 %Abs [46.451 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.7330	0.0040		
ATX Std 0 [SD]	0.0523	0.0057		
ATX Std 0 [%CV]	3.0194	141.4214		
ATX Std 1 [MEAN]	1.3765	0.1395		
ATX Std 1 [SD]	0.0304	0.0177		
ATX Std 1 [%CV]	2.2089	12.6722		
ATX Std 1 [%DIFF]		-7.0000		
ATX Std 2 [MEAN]	1.0365	0.4250		
ATX Std 2 [SD]	0.0247	0.0297		
ATX Std 2 [%CV]	2.3877	6.9879		
ATX Std 2 [%DIFF]		6.2500		
ATX Std 3 [MEAN]	0.7155	1.0145		
ATX Std 3 [SD]	0.0007	0.0021		
ATX Std 3 [%CV]	0.0988	0.2091		
ATX Std 3 [%DIFF]		1.4500		
ATX Std 4 [MEAN]	0.4490	2.2580		
ATX Std 4 [SD]	0.0212	0.1626		
ATX Std 4 [%CV]	4.7245	7.2026		
ATX Std 4 [%DIFF]		-9.6800		
ATX Std 5 [MEAN]	0.2340			
ATX Std 5 [SD]	0.0156			
ATX Std 5 [%CV]	6.6480			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.8050	0.7965			
ATX Control [SD]	0.0170	0.0361			
ATX Control [%CV]	2.1081	4.5276			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.7370
 B = 0.84315
 C = 0.70009
 D = -0.031552
 R2 coef = 0.99871
 50% = 0.675

