



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC00558	Raccoon Lake SRA	5/15/2023	5/18/2023	< 0.40
AC00561	Cagles Mill Lake Beach	5/15/2023	5/18/2023	< 0.40
AC00562	Paynetown SRA	5/15/2023	5/18/2023	< 0.40
AC00563	Fairfax SRA	5/15/2023	5/18/2023	< 0.40
AC00564	Starve Hollow SRA	5/15/2023	5/18/2023	< 0.40
AC00565	Whitewater Memorial SP	5/16/2023	5/18/2023	< 0.40
AC00566	Quakertown SRA	5/16/2023	5/18/2023	< 0.40
AC00567	Mounds SRA	5/16/2023	5/18/2023	< 0.40
AC00568	Hardy Lake SRA	5/16/2023	5/18/2023	< 0.40
AC00559	Deam Lake SRA	5/16/2023	5/18/2023	< 0.40
AC00580	Starve Hollow SRA (Field Duplicate)	5/15/2023	5/18/2023	< 0.40
AC00581	Field Blank	5/15/2023	5/18/2023	< 0.40

Test Report (by Request)

Test Information

Request: 5/18/2023 1:29:08 PM
 Date: 5/18/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.494 Abs	0.000 µg/L	R^2=0.99950, 102.2			P23B2044
ATX Std 0	ANATOXIN	1.429 Abs [1.4615] {3.1 C	0.015 µg/L [0.007]	R^2=0.99950, 97.81			P23B2044
ATX Std 1	ANATOXIN	1.220 Abs	0.127 µg/L	R^2=0.99950, 83.50			P23B2044
ATX Std 1	ANATOXIN	1.164 Abs [1.1920] {3.3 C	0.164 µg/L [0.146]	R^2=0.99950, 79.67			P23B2044
ATX Std 2	ANATOXIN	0.912 Abs	0.389 µg/L	R^2=0.99950, 62.42			P23B2044
ATX Std 2	ANATOXIN	0.882 Abs [0.8970] {2.4 C	0.425 µg/L [0.407]	R^2=0.99950, 60.37			P23B2044
ATX Std 3	ANATOXIN	0.584 Abs	0.987 µg/L	R^2=0.99950, 39.97			P23B2044
ATX Std 3	ANATOXIN	0.561 Abs [0.5725] {2.8 C	1.057 µg/L [1.022]	R^2=0.99950, 38.35			P23B2044
ATX Std 4	ANATOXIN	0.345 Abs	2.198 µg/L	R^2=0.99950, 23.61			P23B2044
ATX Std 4	ANATOXIN	0.321 Abs [0.3330] {5.1 C	2.428 µg/L [2.313]	R^2=0.99950, 21.97			P23B2044
ATX Std 5	ANATOXIN	0.181 Abs	> 5.000 µg/L	12.389 %Abs			P23B2044
ATX Std 5	ANATOXIN	0.169 Abs [0.1750] {4.8 C	> 5.000 µg/L	11.567 %Abs			P23B2044
ATX Control	ANATOXIN	0.702 Abs	0.705 µg/L	48.049 %Abs			P23B2044
ATX Control	ANATOXIN	0.694 Abs [0.6980] {0.8 C	0.721 µg/L [0.713]	47.502 %Abs [47.7			P23B2044

Note

Signature _____

Test Report (by Request)

Test Information

Request: 5/18/2023 1:55:23 PM
Date: 5/18/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.287 Abs	0.087 µg/L	Low, 88.090 %Abs		0.150 - 5.000	P23B2044
LRB	ANATOXIN	1.230 Abs [1.2585] {3.2 C	0.121 µg/L [0.104]	Low, 84.189 %Abs		0.150 - 5.000	P23B2044
LFB (ANA)	ANATOXIN	0.739 Abs	0.636 µg/L	50.582 %Abs		0.150 - 5.000	P23B2044
LFB (ANA)	ANATOXIN	0.706 Abs [0.7225] {3.2 C	0.697 µg/L [0.666]	48.323 %Abs [49.4		0.150 - 5.000	P23B2044
AC00558	ANATOXIN	1.354 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00558	ANATOXIN	1.331 Abs [1.3425] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00561	ANATOXIN	1.304 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00561	ANATOXIN	1.292 Abs [1.2980] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00561MS	ANATOXIN	0.666 Abs	0.780 µg/L	45.585 %Abs		0.150 - 5.000	P23B2044
AC00561MS	ANATOXIN	0.625 Abs [0.6455] {4.5 C	0.877 µg/L [0.828]	42.779 %Abs [44.1		0.150 - 5.000	P23B2044
AC00561MSD	ANATOXIN	0.740 Abs	0.634 µg/L	50.650 %Abs		0.150 - 5.000	P23B2044
AC00561MSD	ANATOXIN	0.702 Abs [0.7210] {3.7 C	0.705 µg/L [0.669]	48.049 %Abs [49.3		0.150 - 5.000	P23B2044
AC00562	ANATOXIN	1.340 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00562	ANATOXIN	1.327 Abs [1.3335] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00563	ANATOXIN	1.296 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00563	ANATOXIN	1.279 Abs [1.2875] {0.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00564	ANATOXIN	1.270 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00564	ANATOXIN	1.167 Abs [1.2185] {6.0 C	0.178 µg/L [< LOD]	79.877 %Abs [Low,	MDF=1.100	0.150 - 5.000	P23B2044
AC00565	ANATOXIN	1.424 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00565	ANATOXIN	1.372 Abs [1.3980] {2.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00566	ANATOXIN	1.322 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00566	ANATOXIN	1.301 Abs [1.3115] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00567	ANATOXIN	1.299 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00567	ANATOXIN	1.284 Abs [1.2915] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00568	ANATOXIN	1.309 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00568	ANATOXIN	1.240 Abs [1.2745] {3.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00559	ANATOXIN	1.389 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00559	ANATOXIN	1.349 Abs [1.3690] {2.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00580	ANATOXIN	1.324 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00580	ANATOXIN	1.329 Abs [1.3265] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00581	ANATOXIN	1.285 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B2044
AC00581	ANATOXIN	1.265 Abs [1.2750] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B2044

Note

Signature _____

Charles Hostetter 5/18/2023

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: P23B2044

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
5/18/2023 1:29:08 PM				
ATX Std 0	1.494 Abs	0.000 µg/L	R ² =0.99950, 102.259 %Abs	RK1:23->A01@2
ATX Std 0	1.429 Abs [1.4615] {3.1 CV}	0.015 µg/L [0.007] {141.4 CV}	R ² =0.99950, 97.810 %Abs	RK1:23->B01@2
ATX Std 1	1.220 Abs	0.127 µg/L	R ² =0.99950, 83.504 %Abs	RK1:24->C01@2
ATX Std 1	1.164 Abs [1.1920] {3.3 CV}	0.164 µg/L [0.146] {18.0 CV}	R ² =0.99950, 79.671 %Abs	RK1:24->D01@2
ATX Std 2	0.912 Abs	0.389 µg/L	R ² =0.99950, 62.423 %Abs	RK1:25->E01@2
ATX Std 2	0.882 Abs [0.8970] {2.4 CV}	0.425 µg/L [0.407] {6.3 CV}	R ² =0.99950, 60.370 %Abs	RK1:25->F01@3
ATX Std 3	0.584 Abs	0.987 µg/L	R ² =0.99950, 39.973 %Abs	RK1:26->G01@3
ATX Std 3	0.561 Abs [0.5725] {2.8 CV}	1.057 µg/L [1.022] {4.8 CV}	R ² =0.99950, 38.398 %Abs	RK1:26->H01@3
ATX Std 4	0.345 Abs	2.198 µg/L	R ² =0.99950, 23.614 %Abs	RK1:27->A02@2
ATX Std 4	0.321 Abs [0.3330] {5.1 CV}	2.428 µg/L [2.313] {7.0 CV}	R ² =0.99950, 21.971 %Abs	RK1:27->B02@2
ATX Std 5	0.181 Abs	> 5.000 µg/L	12.389 %Abs	RK1:28->C02@2
ATX Std 5	0.169 Abs [0.1750] {4.8 CV}	> 5.000 µg/L	11.567 %Abs	RK1:28->D02@2

5/18/2023 1:29:08 PM				
ATX Control	0.702 Abs	0.705 µg/L	48.049 %Abs	RK1:29->E02@2
ATX Control	0.694 Abs [0.6980] {0.8 CV}	0.721 µg/L [0.713] {1.6 CV}	47.502 %Abs [47.775 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.4615	0.0075		
ATX Std 0 [SD]	0.0460	0.0106		
ATX Std 0 [%CV]	3.1448	141.4214		
ATX Std 1 [MEAN]	1.1920	0.1455		
ATX Std 1 [SD]	0.0396	0.0262		
ATX Std 1 [%CV]	3.3220	17.9814		
ATX Std 1 [%DIFF]		-3.0000		
ATX Std 2 [MEAN]	0.8970	0.4070		
ATX Std 2 [SD]	0.0212	0.0255		
ATX Std 2 [%CV]	2.3649	6.2545		
ATX Std 2 [%DIFF]		1.7500		
ATX Std 3 [MEAN]	0.5725	1.0220		
ATX Std 3 [SD]	0.0163	0.0495		
ATX Std 3 [%CV]	2.8408	4.8432		
ATX Std 3 [%DIFF]		2.2000		
ATX Std 4 [MEAN]	0.3330	2.3130		
ATX Std 4 [SD]	0.0170	0.1626		
ATX Std 4 [%CV]	5.0963	7.0313		
ATX Std 4 [%DIFF]		-7.4800		
ATX Std 5 [MEAN]	0.1750			
ATX Std 5 [SD]	0.0085			
ATX Std 5 [%CV]	4.8487			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.6980	0.7130		
ATX Control [SD]	0.0057	0.0113		
ATX Control [%CV]	0.8104	1.5868		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.4633
 B = 0.99640
 C = 0.62728
 D = 0.024406
 R2 coef = 0.99950
 50% = 0.651

