



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC41195	Cecil M. Harden Lake - Raccoon Lake SRA Beach	8/5/2024	8/7/2024	< 0.40
AC41196	Cagles Mill Lake - Lieber SRA Beach	8/5/2024	8/7/2024	< 0.40
AC41197	Monroe Lake - Fairfax SRA Beach	8/5/2024	8/7/2024	< 0.40
AC41198	Monroe Lake - Paynetown SRA Beach	8/5/2024	8/7/2024	< 0.40
AC41199	Starve Hollow SRA - Starve Hollow Lake Beach	8/5/2024	8/7/2024	< 0.40
AC41200	Whitewater Memorial SP - Whitewater Lake Beach	8/6/2024	8/7/2024	< 0.40
AC41201	Brookville Lake - Quakertown SRA Beach	8/6/2024	8/7/2024	< 0.40
AC41202	Brookville Lake - Mounds SRA Beach	8/6/2024	8/7/2024	< 0.40
AC41203	Hardy Lake SRA - Hardy Lake SRA Beach	8/6/2024	8/7/2024	< 0.40
AC41204	Deam Lake SRA - Deam Lake Beach	8/6/2024	8/7/2024	< 0.40
AC41205	Cagles Mill Lake - Lieber SRA Beach (Field Duplicate)	8/5/2024	8/7/2024	< 0.40
AC41206	Field Blank	8/5/2024	8/7/2024	< 0.40
AC41207	Ft. Ben Harrison SP Dog Lake	8/6/2024	8/7/2024	< 0.40

Test Report (by Request)

Test Information

Request: 8/7/2024 1:43:59 PM
Date: 8/7/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.462 Abs	0.000 µg/L	R^2=0.99935, 101.5		0.000	Kit:P23L3t
ATX Std 0	ANATOXIN	1.417 Abs [1.4395] {2.2 C	0.009 µg/L [0.005]	R^2=0.99935, 98.40		0.000	Kit:P23L3t
ATX Std 1	ANATOXIN	1.187 Abs	0.137 µg/L	R^2=0.99935, 82.43		0.150	Kit:P23L3t
ATX Std 1	ANATOXIN	1.168 Abs [1.1775] {1.1 C	0.151 µg/L [0.144]	R^2=0.99935, 81.11		0.150	Kit:P23L3t
ATX Std 2	ANATOXIN	0.915 Abs	0.401 µg/L	R^2=0.99935, 63.54		0.400	Kit:P23L3t
ATX Std 2	ANATOXIN	0.905 Abs [0.9100] {0.8 C	0.415 µg/L [0.408]	R^2=0.99935, 62.84		0.400	Kit:P23L3t
ATX Std 3	ANATOXIN	0.611 Abs	1.017 µg/L	R^2=0.99935, 42.43		1.000	Kit:P23L3t
ATX Std 3	ANATOXIN	0.602 Abs [0.6065] {1.0 C	1.046 µg/L [1.032]	R^2=0.99935, 41.80		1.000	Kit:P23L3t
ATX Std 4	ANATOXIN	0.371 Abs	2.272 µg/L	R^2=0.99935, 25.76		2.500	Kit:P23L3t
ATX Std 4	ANATOXIN	0.362 Abs [0.3665] {1.7 C	2.352 µg/L [2.312]	R^2=0.99935, 25.13		2.500	Kit:P23L3t
ATX Std 5	ANATOXIN	0.192 Abs	> 5.000 µg/L	13.333 %Abs		5.000	Kit:P23L3t
ATX Std 5	ANATOXIN	0.187 Abs [0.1895] {1.9 C	> 5.000 µg/L	12.986 %Abs		5.000	Kit:P23L3t
ATX Control	ANATOXIN	0.742 Abs	0.686 µg/L	51.528 %Abs			Kit:P23L3t
ATX Control	ANATOXIN	0.743 Abs [0.7425] {0.1 C	0.683 µg/L [0.685]	51.597 %Abs [51.5			Kit:P23L3t

Note

Signature *David Jordan*

David Jordan 8/7/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

* Generated by software version (6.4.1.1171/1085/1.00/0.95) 8/7/2024 2:11:35 PM

Test Report (by Request)

Test Information

Request: 8/7/2024 2:08:53 PM
Date: 8/7/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.332 Abs	0.048 µg/L	Low, 92.500 %Abs		0.150 - 5.000	Kit:P23L3i
LRB	ANATOXIN	1.337 Abs [1.3345] {0.3 C	0.046 µg/L [0.047]	Low, 92.847 %Abs		0.150 - 5.000	Kit:P23L3i
LFB (ANA)	ANATOXIN	0.785 Abs	0.602 µg/L	54.514 %Abs		0.150 - 5.000	Kit:P23L3i
LFB (ANA)	ANATOXIN	0.756 Abs [0.7705] {2.7 C	0.657 µg/L [0.630]	52.500 %Abs [53.5		0.150 - 5.000	Kit:P23L3i
AC41195	ANATOXIN	1.242 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41195	ANATOXIN	1.198 Abs [1.2200] {2.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41196	ANATOXIN	1.312 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41196	ANATOXIN	1.312 Abs [1.3120] {0.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41197	ANATOXIN	1.325 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41197	ANATOXIN	1.302 Abs [1.3135] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41198	ANATOXIN	1.398 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41198	ANATOXIN	1.361 Abs [1.3795] {1.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41199	ANATOXIN	1.305 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41199	ANATOXIN	1.272 Abs [1.2885] {1.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41200	ANATOXIN	1.233 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41200	ANATOXIN	1.244 Abs [1.2385] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41200MS	ANATOXIN	0.699 Abs	0.780 µg/L	48.542 %Abs		0.150 - 5.000	Kit:P23L3i
AC41200MS	ANATOXIN	0.686 Abs [0.6925] {1.3 C	0.811 µg/L [0.796]	47.639 %Abs [48.0		0.150 - 5.000	Kit:P23L3i
AC41200MSD	ANATOXIN	0.737 Abs	0.696 µg/L	51.181 %Abs		0.150 - 5.000	Kit:P23L3i
AC41200MSD	ANATOXIN	0.725 Abs [0.7310] {1.2 C	0.721 µg/L [0.709]	50.347 %Abs [50.7		0.150 - 5.000	Kit:P23L3i
AC41201	ANATOXIN	1.332 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41201	ANATOXIN	1.330 Abs [1.3310] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41202	ANATOXIN	1.213 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41202	ANATOXIN	1.225 Abs [1.2190] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41203	ANATOXIN	1.085 Abs	0.240 µg/L	75.347 %Abs	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41203	ANATOXIN	1.033 Abs [1.0590] {3.5 C	0.294 µg/L [0.267]	71.736 %Abs [73.5	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41204	ANATOXIN	1.425 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41204	ANATOXIN	1.408 Abs [1.4165] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41205	ANATOXIN	1.391 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41205	ANATOXIN	1.375 Abs [1.3830] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41206	ANATOXIN	1.360 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41206	ANATOXIN	1.370 Abs [1.3650] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41207	ANATOXIN	1.363 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41207	ANATOXIN	1.332 Abs [1.3475] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i

Note

Signature *David Jordan*

David Jordan 8/7/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

* Generated by software version (6.4.1.1171/1085/1.00/0.95) 8/7/2024 2:11:35 PM

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: Kit:P23L3054

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
8/7/2024 1:43:59 PM				
ATX Std 0	1.462 Abs	0.000 µg/L	R ² =0.99935, 101.528 %Abs	RK1:23->A01@2
ATX Std 0	1.417 Abs [1.4395] {2.2 CV}	0.009 µg/L [0.005] {141.4 CV}	R ² =0.99935, 98.403 %Abs	RK1:23->B01@2
ATX Std 1	1.187 Abs	0.137 µg/L	R ² =0.99935, 82.431 %Abs	RK1:24->C01@2
ATX Std 1	1.168 Abs [1.1775] {1.1 CV}	0.151 µg/L [0.144] {6.9 CV}	R ² =0.99935, 81.111 %Abs	RK1:24->D01@2
ATX Std 2	0.915 Abs	0.401 µg/L	R ² =0.99935, 63.542 %Abs	RK1:25->E01@2
ATX Std 2	0.905 Abs [0.9100] {0.8 CV}	0.415 µg/L [0.408] {2.4 CV}	R ² =0.99935, 62.847 %Abs	RK1:25->F01@3
ATX Std 3	0.611 Abs	1.017 µg/L	R ² =0.99935, 42.431 %Abs	RK1:26->G01@3
ATX Std 3	0.602 Abs [0.6065] {1.0 CV}	1.046 µg/L [1.032] {2.0 CV}	R ² =0.99935, 41.806 %Abs	RK1:26->H01@3
ATX Std 4	0.371 Abs	2.272 µg/L	R ² =0.99935, 25.764 %Abs	RK1:27->A02@2
ATX Std 4	0.362 Abs [0.3665] {1.7 CV}	2.352 µg/L [2.312] {2.4 CV}	R ² =0.99935, 25.139 %Abs	RK1:27->B02@2
ATX Std 5	0.192 Abs	> 5.000 µg/L	13.333 %Abs	RK1:28->C02@2
ATX Std 5	0.187 Abs [0.1895] {1.9 CV}	> 5.000 µg/L	12.986 %Abs	RK1:28->D02@2

8/7/2024 1:43:59 PM				
ATX Control	0.742 Abs	0.686 µg/L	51.528 %Abs	RK1:29->E02@2
ATX Control	0.743 Abs [0.7425] {0.1 CV}	0.683 µg/L [0.685] {0.3 CV}	51.597 %Abs [51.562 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.4395	0.0045		
ATX Std 0 [SD]	0.0318	0.0064		
ATX Std 0 [%CV]	2.2105	141.4214		
ATX Std 1 [MEAN]	1.1775	0.1440		
ATX Std 1 [SD]	0.0134	0.0099		
ATX Std 1 [%CV]	1.1410	6.8746		
ATX Std 1 [%DIFF]		-4.0000		
ATX Std 2 [MEAN]	0.9100	0.4080		
ATX Std 2 [SD]	0.0071	0.0099		
ATX Std 2 [%CV]	0.7770	2.4263		
ATX Std 2 [%DIFF]		2.0000		
ATX Std 3 [MEAN]	0.6065	1.0315		
ATX Std 3 [SD]	0.0064	0.0205		
ATX Std 3 [%CV]	1.0493	1.9880		
ATX Std 3 [%DIFF]		3.1500		
ATX Std 4 [MEAN]	0.3665	2.3120		
ATX Std 4 [SD]	0.0064	0.0566		
ATX Std 4 [%CV]	1.7364	2.4467		
ATX Std 4 [%DIFF]		-7.5200		
ATX Std 5 [MEAN]	0.1895			
ATX Std 5 [SD]	0.0035			
ATX Std 5 [%CV]	1.8657			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.7425	0.6845		
ATX Control [SD]	0.0007	0.0021		
ATX Control [%CV]	0.0952	0.3099		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.4425
 B = 0.91284
 C = 0.75028
 D = -0.018758
 R2 coef = 0.99935
 50% = 0.732

