



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC40371	Cecil M. Harden Lake - Raccoon Lake SRA Beach	6/10/2024	6/12/2024	< 0.40
AC40372	Cagles Mill Lake - Lieber SRA Beach	6/10/2024	6/12/2024	< 0.40
AC40373	Monroe Lake - Fairfax SRA Beach	6/10/2024	6/12/2024	< 0.40
AC40374	Monroe Lake - Paynetown SRA Beach	6/10/2024	6/12/2024	< 0.40
AC40375	Starve Hollow SRA - Starve Hollow Lake Beach	6/10/2024	6/12/2024	< 0.40
AC40376	Whitewater Memorial SP - Whitewater Lake Beach	6/11/2024	6/12/2024	< 0.40
AC40377	Brookville Lake - Quakertown SRA Beach	6/11/2024	6/12/2024	< 0.40
AC40378	Brookville Lake - Mounds SRA Beach	6/11/2024	6/12/2024	< 0.40
AC40379	Hardy Lake SRA - Hardy Lake SRA Beach	6/11/2024	6/12/2024	< 0.40
AC40380	Deam Lake SRA - Deam Lake Beach	6/11/2024	6/12/2024	< 0.40
AC40381	Cecil M. Harden Lake - Raccoon Lake SRA Beach (Field Duplicate)	6/11/2024	6/12/2024	< 0.40
AC40382	Field Blank	6/10/2024	6/12/2024	< 0.40
AC40383	Ft. Ben Harrison SP Dog Lake	6/10/2024	6/12/2024	< 0.40

Test Report (by Request)

Test Information

Request: 6/12/2024 2:10:21 PM
Date: 6/12/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.337 Abs	0.001 µg/L	R^2=0.99878, 100.0		0.000	Kit:P23B0
ATX Std 0	ANATOXIN	1.335 Abs [1.3360] {0.1 C	0.002 µg/L [0.002]	R^2=0.99878, 100.0		0.000	Kit:P23B0
ATX Std 1	ANATOXIN	1.126 Abs	0.114 µg/L	R^2=0.99878, 84.28		0.150	Kit:P23B0
ATX Std 1	ANATOXIN	1.062 Abs [1.0940] {4.1 C	0.161 µg/L [0.138]	R^2=0.99878, 79.45		0.150	Kit:P23B0
ATX Std 2	ANATOXIN	0.820 Abs	0.418 µg/L	R^2=0.99878, 61.37		0.400	Kit:P23B0
ATX Std 2	ANATOXIN	0.796 Abs [0.8080] {2.1 C	0.453 µg/L [0.436]	R^2=0.99878, 59.58		0.400	Kit:P23B0
ATX Std 3	ANATOXIN	0.561 Abs	0.975 µg/L	R^2=0.99878, 41.95		1.000	Kit:P23B0
ATX Std 3	ANATOXIN	0.562 Abs [0.5615] {0.1 C	0.972 µg/L [0.974]	R^2=0.99878, 42.06		1.000	Kit:P23B0
ATX Std 4	ANATOXIN	0.325 Abs	2.342 µg/L	R^2=0.99878, 24.32		2.500	Kit:P23B0
ATX Std 4	ANATOXIN	0.317 Abs [0.3210] {1.8 C	2.426 µg/L [2.384]	R^2=0.99878, 23.72		2.500	Kit:P23B0
ATX Std 5	ANATOXIN	0.184 Abs	4.988 µg/L	R^2=0.99878, 13.77		5.000	Kit:P23B0
ATX Std 5	ANATOXIN	0.165 Abs [0.1745] {7.7 C	> 5.000 µg/L [4.98	12.350 %Abs		5.000	Kit:P23B0
ATX Control	ANATOXIN	0.649 Abs	0.732 µg/L	48.578 %Abs			Kit:P23B0
ATX Control	ANATOXIN	0.641 Abs [0.6450] {0.9 C	0.751 µg/L [0.742]	47.979 %Abs [48.2			Kit:P23B0

Note

Signature *David Jordan*

David Jordan 6/12/2024

* 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) 6/12/2024 2:52:22 PM

Test Report (by Request)

Test Information

Request: 6/12/2024 2:39:29 PM
Date: 6/12/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.184 Abs	0.077 µg/L	Low, 88.623 %Abs		0.150 - 5.000	Kit:P23B0
LRB	ANATOXIN	1.183 Abs [1.1835] {0.1 C	0.077 µg/L [0.077]	Low, 88.548 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.718 Abs	0.586 µg/L	53.743 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.693 Abs [0.7055] {2.5 C	0.635 µg/L [0.611]	51.871 %Abs [52.8		0.150 - 5.000	Kit:P23B0
AC40371	ANATOXIN	1.210 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40371	ANATOXIN	1.193 Abs [1.2015] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40372	ANATOXIN	1.191 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40372	ANATOXIN	1.187 Abs [1.1890] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40373	ANATOXIN	1.169 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40373	ANATOXIN	1.157 Abs [1.1630] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40374	ANATOXIN	1.284 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40374	ANATOXIN	1.256 Abs [1.2700] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40375	ANATOXIN	1.235 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40375	ANATOXIN	1.219 Abs [1.2270] {0.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40376	ANATOXIN	1.202 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40376	ANATOXIN	1.201 Abs [1.2015] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40377	ANATOXIN	1.165 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40377	ANATOXIN	1.177 Abs [1.1710] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40377MS	ANATOXIN	0.700 Abs	0.621 µg/L	52.395 %Abs		0.150 - 5.000	Kit:P23B0
AC40377MS	ANATOXIN	0.686 Abs [0.6930] {1.4 C	0.649 µg/L [0.635]	51.347 %Abs [51.8		0.150 - 5.000	Kit:P23B0
AC40377MSD	ANATOXIN	0.693 Abs	0.635 µg/L	51.871 %Abs		0.150 - 5.000	Kit:P23B0
AC40377MSD	ANATOXIN	0.677 Abs [0.6850] {1.7 C	0.669 µg/L [0.652]	50.674 %Abs [51.2		0.150 - 5.000	Kit:P23B0
AC40378	ANATOXIN	1.214 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40378	ANATOXIN	1.212 Abs [1.2130] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40379	ANATOXIN	1.175 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40379	ANATOXIN	1.164 Abs [1.1695] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40380	ANATOXIN	1.281 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40380	ANATOXIN	1.252 Abs [1.2665] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40381	ANATOXIN	1.234 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40381	ANATOXIN	1.239 Abs [1.2365] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40382	ANATOXIN	1.224 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40382	ANATOXIN	1.229 Abs [1.2265] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40383	ANATOXIN	1.223 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40383	ANATOXIN	1.205 Abs [1.2140] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0

Note

Signature *David Jordan*

David Jordan 6/12/2024

* 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) 6/12/2024 2:52:22 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:P23B0244

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
6/12/2024 2:10:21 PM				
ATX Std 0	1.337 Abs	0.001 µg/L	R ² =0.99878, 100.000 %Abs	RK1:23->A01@2
ATX Std 0	1.335 Abs [1.3360] {0.1 CV}	0.002 µg/L [0.002] {47.1 CV}	R ² =0.99878, 100.000 %Abs	RK1:23->B01@2
ATX Std 1	1.126 Abs	0.114 µg/L	R ² =0.99878, 84.281 %Abs	RK1:24->C01@2
ATX Std 1	1.062 Abs [1.0940] {4.1 CV}	0.161 µg/L [0.138] {24.2 CV}	R ² =0.99878, 79.491 %Abs	RK1:24->D01@2
ATX Std 2	0.820 Abs	0.418 µg/L	R ² =0.99878, 61.377 %Abs	RK1:25->E01@2
ATX Std 2	0.796 Abs [0.8080] {2.1 CV}	0.453 µg/L [0.436] {5.7 CV}	R ² =0.99878, 59.581 %Abs	RK1:25->F01@3
ATX Std 3	0.561 Abs	0.975 µg/L	R ² =0.99878, 41.991 %Abs	RK1:26->G01@3
ATX Std 3	0.562 Abs [0.5615] {0.1 CV}	0.972 µg/L [0.974] {0.2 CV}	R ² =0.99878, 42.066 %Abs	RK1:26->H01@3
ATX Std 4	0.325 Abs	2.342 µg/L	R ² =0.99878, 24.326 %Abs	RK1:27->A02@2
ATX Std 4	0.317 Abs [0.3210] {1.8 CV}	2.426 µg/L [2.384] {2.5 CV}	R ² =0.99878, 23.728 %Abs	RK1:27->B02@2
ATX Std 5	0.184 Abs	4.988 µg/L	R ² =0.99878, 13.772 %Abs	RK1:28->C02@2
ATX Std 5	0.165 Abs [0.1745] {7.7 CV}	> 5.000 µg/L [4.988]	12.350 %Abs	RK1:28->D02@2

6/12/2024 2:10:21 PM				
ATX Control	0.649 Abs	0.732 µg/L	48.578 %Abs	RK1:29->E02@2
ATX Control	0.641 Abs [0.6450] {0.9 CV}	0.751 µg/L [0.742] {1.8 CV}	47.979 %Abs [48.278 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.3360	0.0015		
ATX Std 0 [SD]	0.0014	0.0007		
ATX Std 0 [%CV]	0.1059	47.1405		
ATX Std 1 [MEAN]	1.0940	0.1375		
ATX Std 1 [SD]	0.0453	0.0332		
ATX Std 1 [%CV]	4.1366	24.1702		
ATX Std 1 [%DIFF]		-8.3333		
ATX Std 2 [MEAN]	0.8080	0.4355		
ATX Std 2 [SD]	0.0170	0.0247		
ATX Std 2 [%CV]	2.1003	5.6828		
ATX Std 2 [%DIFF]		8.8750		
ATX Std 3 [MEAN]	0.5615	0.9735		
ATX Std 3 [SD]	0.0007	0.0021		
ATX Std 3 [%CV]	0.1259	0.2179		
ATX Std 3 [%DIFF]		-2.6500		
ATX Std 4 [MEAN]	0.3210	2.3840		
ATX Std 4 [SD]	0.0057	0.0594		
ATX Std 4 [%CV]	1.7623	2.4915		
ATX Std 4 [%DIFF]		-4.6400		
ATX Std 5 [MEAN]	0.1745			
ATX Std 5 [SD]	0.0134			
ATX Std 5 [%CV]	7.6992			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.6450	0.7415		
ATX Control [SD]	0.0057	0.0134		
ATX Control [%CV]	0.8770	1.8119		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3400
 B = 0.92575
 C = 0.68328
 D = 0.00044117
 R2 coef = 0.99878
 50% = 0.688

