



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC37294	Potato Creek SP - Worster Lake Beach	8/28/2023	8/30/2023	< 0.40
AC37295	Mississinewa Lake - Miami SRA Beach	8/28/2023	8/30/2023	< 0.40
AC37296	Salamonie Lake - Lost Bridge West SRA Beach	8/28/2023	8/30/2023	< 0.40
AC37297	Ouabache SP - Kunkel Lake Beach	8/28/2023	8/30/2023	< 0.40
AC37298	Potato Creek SP - Worster Lake Beach (Field Duplicate)	8/28/2023	8/30/2023	< 0.40
AC37299	Field Blank	8/28/2023	8/30/2023	< 0.40
AC37300	Ferdinand State Forest - Ferdinand Lake Beach	8/28/2023	8/30/2023	< 0.40
AC37301	Patoka Lake - Newton Stewart SRA	8/28/2023	8/30/2023	< 0.40

Test Report (by Request)

Test Information

 Request: 8/30/2023 1:11:05 PM
 Date: 8/30/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.345 Abs	0.000 µg/L	R ² =0.99979, 100.5		0.000	Kit:M22J2
ATX Std 0	ANATOXIN	1.321 Abs [1.3330] {1.3 C	0.007 µg/L [0.004]	R ² =0.99979, 99.10		0.000	Kit:M22J2
ATX Std 1	ANATOXIN	1.120 Abs	0.135 µg/L	R ² =0.99979, 84.02		0.150	Kit:M22J2
ATX Std 1	ANATOXIN	1.096 Abs [1.1080] {1.5 C	0.154 µg/L [0.145]	R ² =0.99979, 82.22		0.150	Kit:M22J2
ATX Std 2	ANATOXIN	0.866 Abs	0.392 µg/L	R ² =0.99979, 64.96		0.400	Kit:M22J2
ATX Std 2	ANATOXIN	0.838 Abs [0.8520] {2.3 C	0.431 µg/L [0.412]	R ² =0.99979, 62.86		0.400	Kit:M22J2
ATX Std 3	ANATOXIN	0.574 Abs	0.994 µg/L	R ² =0.99979, 43.06		1.000	Kit:M22J2
ATX Std 3	ANATOXIN	0.569 Abs [0.5715] {0.6 C	1.010 µg/L [1.002]	R ² =0.99979, 42.68		1.000	Kit:M22J2
ATX Std 4	ANATOXIN	0.332 Abs	2.392 µg/L	R ² =0.99979, 24.90		2.500	Kit:M22J2
ATX Std 4	ANATOXIN	0.327 Abs [0.3295] {1.1 C	2.445 µg/L [2.419]	R ² =0.99979, 24.53		2.500	Kit:M22J2
ATX Std 5	ANATOXIN	0.194 Abs	> 5.000 µg/L	14.554 %Abs		5.000	Kit:M22J2
ATX Std 5	ANATOXIN	0.185 Abs [0.1895] {3.4 C	> 5.000 µg/L	13.878 %Abs		5.000	Kit:M22J2
ATX Control	ANATOXIN	0.694 Abs	0.682 µg/L	52.063 %Abs			Kit:M22J2
ATX Control	ANATOXIN	0.681 Abs [0.6875] {1.3 C	0.710 µg/L [0.696]	51.088 %Abs [51.5			Kit:M22J2

Note

Test Report (by Request)

Test Information

 Request: 8/30/2023 1:44:46 PM
 Date: 8/30/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.207 Abs	0.073 µg/L	Low, 90.548 %Abs		0.150 - 5.000	Kit:M22J2
LRB	ANATOXIN	1.195 Abs [1.2010] {0.7 C	0.081 µg/L [0.077]	Low, 89.647 %Abs		0.150 - 5.000	Kit:M22J2
LFB (ANA)	ANATOXIN	0.707 Abs	0.654 µg/L	53.038 %Abs		0.150 - 5.000	Kit:M22J2
LFB (ANA)	ANATOXIN	0.689 Abs [0.6980] {1.8 C	0.692 µg/L [0.673]	51.688 %Abs [52.3		0.150 - 5.000	Kit:M22J2
AC37294	ANATOXIN	1.230 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37294	ANATOXIN	1.212 Abs [1.2210] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37295	ANATOXIN	1.210 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37295	ANATOXIN	1.196 Abs [1.2030] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37295MS	ANATOXIN	0.630 Abs	0.833 µg/L	47.262 %Abs		0.150 - 5.000	Kit:M22J2
AC37295MS	ANATOXIN	0.619 Abs [0.6245] {1.2 C	0.862 µg/L [0.848]	46.437 %Abs [46.8		0.150 - 5.000	Kit:M22J2
AC37295MSD	ANATOXIN	0.687 Abs	0.697 µg/L	51.538 %Abs		0.150 - 5.000	Kit:M22J2
AC37295MSD	ANATOXIN	0.669 Abs [0.6780] {1.9 C	0.737 µg/L [0.717]	50.188 %Abs [50.8		0.150 - 5.000	Kit:M22J2
AC37296	ANATOXIN	1.253 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37296	ANATOXIN	1.241 Abs [1.2470] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37297	ANATOXIN	0.989 Abs	0.275 µg/L	74.194 %Abs	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37297	ANATOXIN	0.985 Abs [0.9870] {0.3 C	0.279 µg/L [0.277]	73.893 %Abs [74.0	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37298	ANATOXIN	1.172 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37298	ANATOXIN	1.177 Abs [1.1745] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37299	ANATOXIN	1.320 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37299	ANATOXIN	1.291 Abs [1.3055] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37300	ANATOXIN	1.240 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37300	ANATOXIN	1.237 Abs [1.2385] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37301	ANATOXIN	1.201 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2
AC37301	ANATOXIN	1.165 Abs [1.1830] {2.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:M22J2

Note

Signature

Charles Hostetter 8/31/2023

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: Kit:M22J2558

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
8/30/2023 1:11:05 PM				
ATX Std 0	1.345 Abs	0.000 µg/L	R ² =0.99979, 100.900 %Abs	RK1:23->A01@2
ATX Std 0	1.321 Abs [1.3330] {1.3 CV}	0.007 µg/L [0.004] {141.4 CV}	R ² =0.99979, 99.100 %Abs	RK1:23->B01@2
ATX Std 1	1.120 Abs	0.135 µg/L	R ² =0.99979, 84.021 %Abs	RK1:24->C01@2
ATX Std 1	1.096 Abs [1.1080] {1.5 CV}	0.154 µg/L [0.145] {9.3 CV}	R ² =0.99979, 82.221 %Abs	RK1:24->D01@2
ATX Std 2	0.866 Abs	0.392 µg/L	R ² =0.99979, 64.966 %Abs	RK1:25->E01@2
ATX Std 2	0.838 Abs [0.8520] {2.3 CV}	0.431 µg/L [0.412] {6.7 CV}	R ² =0.99979, 62.866 %Abs	RK1:25->F01@3
ATX Std 3	0.574 Abs	0.994 µg/L	R ² =0.99979, 43.061 %Abs	RK1:26->G01@3
ATX Std 3	0.569 Abs [0.5715] {0.6 CV}	1.010 µg/L [1.002] {1.1 CV}	R ² =0.99979, 42.686 %Abs	RK1:26->H01@3
ATX Std 4	0.332 Abs	2.392 µg/L	R ² =0.99979, 24.906 %Abs	RK1:27->A02@2
ATX Std 4	0.327 Abs [0.3295] {1.1 CV}	2.445 µg/L [2.419] {1.5 CV}	R ² =0.99979, 24.531 %Abs	RK1:27->B02@2
ATX Std 5	0.194 Abs	> 5.000 µg/L	14.554 %Abs	RK1:28->C02@2
ATX Std 5	0.185 Abs [0.1895] {3.4 CV}	> 5.000 µg/L	13.878 %Abs	RK1:28->D02@2

8/30/2023 1:11:05 PM				
ATX Control	0.694 Abs	0.682 µg/L	52.063 %Abs	RK1:29->E02@2
ATX Control	0.681 Abs [0.6875] {1.3 CV}	0.710 µg/L [0.696] {2.8 CV}	51.088 %Abs [51.575 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.3330	0.0035		
ATX Std 0 [SD]	0.0170	0.0049		
ATX Std 0 [%CV]	1.2731	141.4214		
ATX Std 1 [MEAN]	1.1080	0.1445		
ATX Std 1 [SD]	0.0170	0.0134		
ATX Std 1 [%CV]	1.5316	9.2976		
ATX Std 1 [%DIFF]		-3.6667		
ATX Std 2 [MEAN]	0.8520	0.4115		
ATX Std 2 [SD]	0.0198	0.0276		
ATX Std 2 [%CV]	2.3238	6.7016		
ATX Std 2 [%DIFF]		2.8750		
ATX Std 3 [MEAN]	0.5715	1.0020		
ATX Std 3 [SD]	0.0035	0.0113		
ATX Std 3 [%CV]	0.6186	1.1291		
ATX Std 3 [%DIFF]		0.2000		
ATX Std 4 [MEAN]	0.3295	2.4185		
ATX Std 4 [SD]	0.0035	0.0375		
ATX Std 4 [%CV]	1.0730	1.5496		
ATX Std 4 [%DIFF]		-3.2600		
ATX Std 5 [MEAN]	0.1895			
ATX Std 5 [SD]	0.0064			
ATX Std 5 [%CV]	3.3583			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.6875	0.6960		
ATX Control [SD]	0.0092	0.0198		
ATX Control [%CV]	1.3371	2.8447		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3350
 B = 0.97909
 C = 0.71040
 D = 0.026463
 R2 coef = 0.99979
 50% = 0.743

