



Saxitoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB42919	Kunkel Beach @ Ouabache State Park	6/22/2020	7/1/2020	<0.05
AB42917	Kunkel Beach (Field Duplicate)	6/22/2020	7/1/2020	<0.05
AB42918	Field Blank	6/22/2020	7/1/2020	<0.05
AB42994	Cagles Mill Lake Beach	6/29/2020	7/1/2020	<0.05
AB42995	Quakertown SRA	6/29/2020	7/1/2020	<0.05
AB42996	Raccoon Lake SRA	6/29/2020	7/1/2020	<0.05
AB42997	Mounds SRA	6/29/2020	7/1/2020	<0.05
AB42998	Whitewater Memorial SP	6/29/2020	7/1/2020	<0.05
AB42999	Mounds SRA (Field Duplicate)	6/29/2020	7/1/2020	<0.05
AB42300	Field Blank	6/29/2020	7/1/2020	<0.05

Test Information

Request: 7/1/2020 4:26:30 PM

Date: 7/1/2020 - 7/2/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
STX Std 0	SAXITOXIN	1.710 Abs	0.001 µg/L	R ² =0.99984, 99.592		19J1672
STX Std 0	SAXITOXIN	1.723 Abs [1.7165] {0.5 CV}	0.000 µg/L [0.001] {1}	R ² =0.99984, 100.34		19J1672
STX Std 1	SAXITOXIN	1.411 Abs	0.019 µg/L	R ² =0.99984, 82.178		19J1672
STX Std 1	SAXITOXIN	1.399 Abs [1.4050] {0.6 CV}	0.020 µg/L [0.019] {3}	R ² =0.99984, 81.479		19J1672
STX Std 2	SAXITOXIN	1.008 Abs	0.049 µg/L	R ² =0.99984, 58.707		19J1672
STX Std 2	SAXITOXIN	0.972 Abs [0.9900] {2.6 CV}	0.052 µg/L [0.050] {4}	R ² =0.99984, 56.610		19J1672
STX Std 3	SAXITOXIN	0.659 Abs	0.097 µg/L	R ² =0.99984, 38.381		19J1672
STX Std 3	SAXITOXIN	0.624 Abs [0.6415] {3.9 CV}	0.105 µg/L [0.101] {5}	R ² =0.99984, 36.342		19J1672
STX Std 4	SAXITOXIN	0.410 Abs	0.188 µg/L	R ² =0.99984, 23.879		19J1672
STX Std 4	SAXITOXIN	0.399 Abs [0.4045] {1.9 CV}	0.195 µg/L [0.191] {2}	R ² =0.99984, 23.238		19J1672
STX Std 5	SAXITOXIN	0.247 Abs	> 0.400 µg/L	14.386 %Abs		19J1672
STX Std 5	SAXITOXIN	0.248 Abs [0.2475] {0.3 CV}	> 0.400 µg/L	14.444 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.800 Abs	0.073 µg/L	46.593 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.771 Abs [0.7855] {2.6 CV}	0.077 µg/L [0.075] {3}	44.904 %Abs [45.748]		19J1672

Note

Signature *David Jordan*

Date: 7/01/2020

Test Report (by Request)

Test Information

 Request: 7/1/2020 4:27:36 PM
 Date: 7/1/2020 - 7/2/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.613 Abs	0.008 µg/L	LOW, 93.943 %ABS	0.020 - 0.400	19J1672
LRB	SAXITOXIN	1.621 Abs [1.6170] {0.3 CV}	0.007 µg/L [0.008] {9}		0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.811 Abs	0.071 µg/L	47.234 %Abs	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.793 Abs [0.8020] {1.6 CV}	0.074 µg/L [0.073] {2}	46.185 %Abs [46.709]	0.020 - 0.400	19J1672
AB42917	SAXITOXIN	1.658 Abs	0.005 µg/L	LOW, 96.564 %ABS	0.020 - 0.400	19J1672
AB42917	SAXITOXIN	1.638 Abs [1.6480] {0.9 CV}	0.007 µg/L [0.006] {2}		0.020 - 0.400	19J1672
AB42919	SAXITOXIN	1.706 Abs	0.001 µg/L	LOW, 99.359 %ABS	0.020 - 0.400	19J1672
AB42919	SAXITOXIN	1.697 Abs [1.7015] {0.4 CV}	0.002 µg/L [0.002] {4}		0.020 - 0.400	19J1672
AB42918	SAXITOXIN	1.643 Abs	0.007 µg/L	LOW, 95.690 %ABS	0.020 - 0.400	19J1672
AB42918	SAXITOXIN	1.623 Abs [1.6330] {0.9 CV}	0.008 µg/L [0.008] {9}		0.020 - 0.400	19J1672
AB42994	SAXITOXIN	1.342 Abs	0.026 µg/L	78.160 %Abs	0.020 - 0.400	19J1672
AB42994	SAXITOXIN	1.316 Abs [1.3290] {1.4 CV}	0.027 µg/L [0.027] {2}	76.645 %Abs [77.402]	0.020 - 0.400	19J1672
AB42995	SAXITOXIN	0.785 Abs	0.083 µg/L	45.719 %Abs	0.020 - 0.400	19J1672
AB42995	SAXITOXIN	0.767 Abs [0.7760] {1.6 CV}	0.086 µg/L [0.084] {2}	44.671 %Abs [45.195]	0.020 - 0.400	19J1672
AB42995MS	SAXITOXIN	0.772 Abs	0.077 µg/L	44.962 %Abs	0.020 - 0.400	19J1672
AB42995MS	SAXITOXIN	0.761 Abs [0.7665] {1.0 CV}	0.078 µg/L [0.078] {0}	44.321 %Abs [44.642]	0.020 - 0.400	19J1672
AB42995MSD	SAXITOXIN	1.661 Abs	0.005 µg/L	LOW, 96.738 %ABS	0.020 - 0.400	19J1672
AB42995MSD	SAXITOXIN	1.656 Abs [1.6585] {0.2 CV}	0.005 µg/L [0.005] {0}		0.020 - 0.400	19J1672
AB42996	SAXITOXIN	1.683 Abs	0.003 µg/L	LOW, 98.020 %ABS	0.020 - 0.400	19J1672
AB42996	SAXITOXIN	1.687 Abs [1.6850] {0.2 CV}	0.003 µg/L [0.003] {0}		0.020 - 0.400	19J1672
AB42997	SAXITOXIN	1.682 Abs	0.003 µg/L	LOW, 97.962 %ABS	0.020 - 0.400	19J1672
AB42997	SAXITOXIN	1.655 Abs [1.6685] {1.1 CV}	0.005 µg/L [0.004] {3}		0.020 - 0.400	19J1672
AB42998	SAXITOXIN	1.664 Abs	0.005 µg/L	LOW, 96.913 %ABS	0.020 - 0.400	19J1672
AB42998	SAXITOXIN	1.656 Abs [1.6600] {0.3 CV}	0.005 µg/L [0.005] {0}		0.020 - 0.400	19J1672
AB42999	SAXITOXIN	1.563 Abs	0.012 µg/L	LOW, 91.031 %ABS	0.020 - 0.400	19J1672
AB42999	SAXITOXIN	1.671 Abs [1.6170] {4.7 CV}	0.004 µg/L [0.008] {7}		0.020 - 0.400	19J1672
AB43000	SAXITOXIN	1.746 Abs	0.000 µg/L	LOW, 101.689 %ABS	0.020 - 0.400	19J1672
AB43000	SAXITOXIN	1.696 Abs [1.7210] {2.1 CV}	0.002 µg/L [0.001] {1}		0.020 - 0.400	19J1672

Note

 Signature David Jordan

Date: 7/01/2020

Assay Information

Assay Name: SAXITOXIN
 Version: 2
 Temperature: Room Temperature
 Last Modified By: Security disabled
 Units: µg/L
 Assay Description: PN. 52255B
 Assay Substances: Controls:

Assay Mode: 4-Parameter Logistic Weight by:None
 Well Type: Flat bottom
 Last Modified On: 7/25/2019 3:55:28 PM
 Normal: 0.020 - 0.400
 # of decimals: 3
 Kit Lot Number: 19J1672

STX Control (0.060-0.090)
 Standards:
 STX Std 0, Concentration = 0.000, Minimum number to use: 2
 STX Std 1, Concentration = 0.020, Minimum number to use: 2
 STX Std 2, Concentration = 0.050, Minimum number to use: 2
 STX Std 3, Concentration = 0.100, Minimum number to use: 2
 STX Std 4, Concentration = 0.200, Minimum number to use: 2
 STX Std 5, Concentration = 0.400, 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
7/1/2020 4:26:30 PM				
STX Std 0	1.710 Abs		R ² =0.99984, 99.592 %Abs	RK1:30->A07@2
STX Std 0	1.723 Abs [1.7165] {0.5 CV}		R ² =0.99984, 100.349 %Abs	RK1:30->B07@2
STX Std 1	1.411 Abs		R ² =0.99984, 82.178 %Abs	RK1:31->C07@2
STX Std 1	1.399 Abs [1.4050] {0.6 CV}		R ² =0.99984, 81.479 %Abs	RK1:31->D07@2
STX Std 2	1.008 Abs		R ² =0.99984, 58.707 %Abs	RK1:32->E07@2
STX Std 2	0.972 Abs [0.9900] {2.6 CV}		R ² =0.99984, 56.610 %Abs	RK1:32->F07@3
STX Std 3	0.659 Abs		R ² =0.99984, 38.381 %Abs	RK1:33->G07@3
STX Std 3	0.624 Abs [0.6415] {3.9 CV}		R ² =0.99984, 36.342 %Abs	RK1:33->H07@3
STX Std 4	0.410 Abs		R ² =0.99984, 23.879 %Abs	RK1:34->A08@2
STX Std 4	0.399 Abs [0.4045] {1.9 CV}		R ² =0.99984, 23.238 %Abs	RK1:34->B08@2
STX Std 5	0.247 Abs		14.386 %Abs	RK1:35->C08@2
STX Std 5	0.248 Abs [0.2475] {0.3 CV}		14.444 %Abs	RK1:35->D08@2

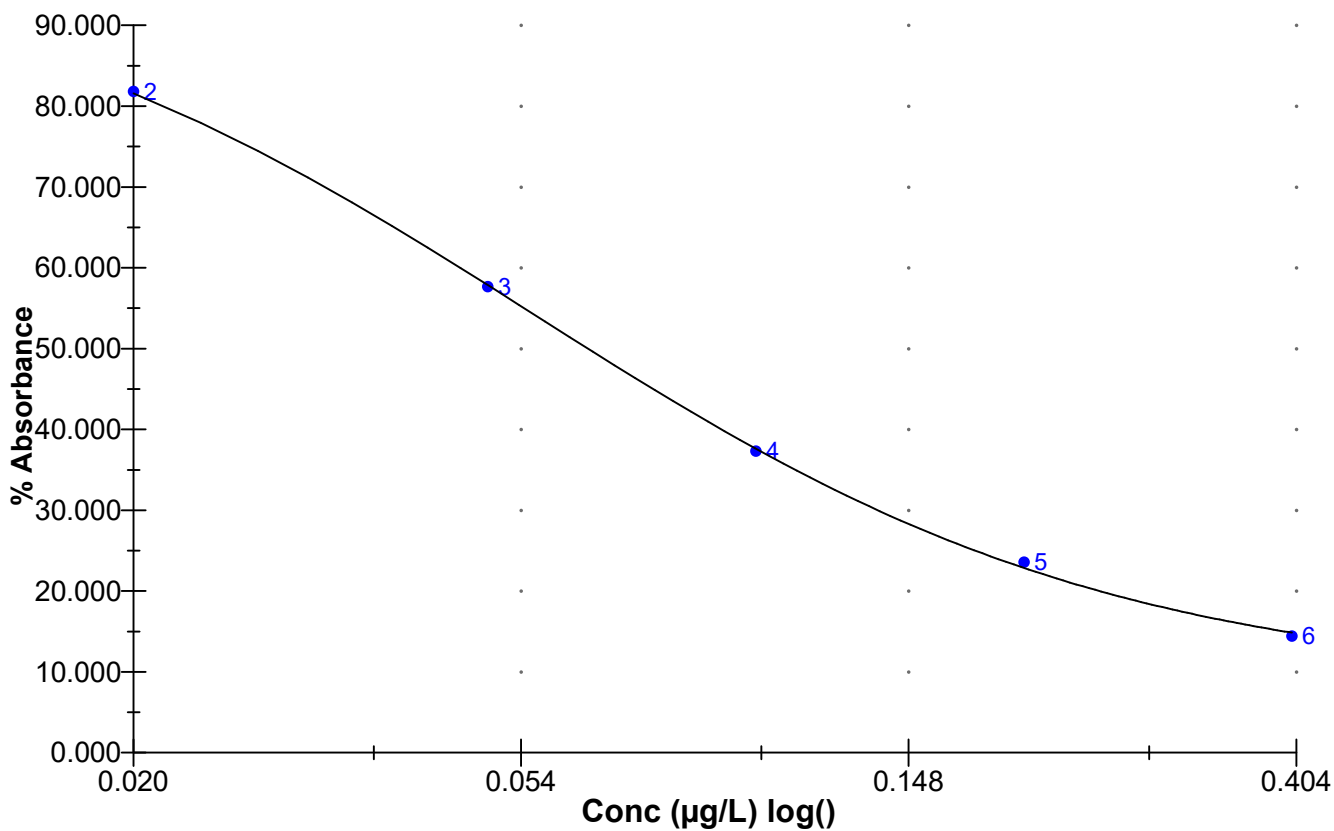
7/1/2020 4:26:30 PM				
STX Control (0.060-0.090)	0.800 Abs		46.593 %Abs	RK1:36->E08@2
STX Control (0.060-0.090)	0.771 Abs [0.7855] {2.6 CV}		44.904 %Abs [45.748 %Abs]	RK1:36->F08@3

Statistic				
STX Std 0 [MEAN]	1.7165			
STX Std 0 [SD]	0.0092			
STX Std 0 [%CV]	0.5355			
STX Std 1 [MEAN]	1.4050			
STX Std 1 [SD]	0.0085			
STX Std 1 [%CV]	0.6039			
STX Std 1 [%DIFF]				
STX Std 2 [MEAN]	0.9900			
STX Std 2 [SD]	0.0255			
STX Std 2 [%CV]	2.5713			
STX Std 2 [%DIFF]				
STX Std 3 [MEAN]	0.6415			
STX Std 3 [SD]	0.0247			
STX Std 3 [%CV]	3.8579			
STX Std 3 [%DIFF]				
STX Std 4 [MEAN]	0.4045			
STX Std 4 [SD]	0.0078			
STX Std 4 [%CV]	1.9229			
STX Std 4 [%DIFF]				
STX Std 5 [MEAN]	0.2475			
STX Std 5 [SD]	0.0007			
STX Std 5 [%CV]	0.2857			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7855			
STX Control (0.060-0.090) [SD]	0.0205			
STX Control (0.060-0.090) [%CV]	2.6106			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.7185
 B = 1.3290
 C = 0.056162
 D = 0.14734
 R2 coef = 0.99984
 50% = 0.065



Test Report (by Request)

Test Information

 Request: 7/2/2020 10:50:16 AM
 Date: 7/2/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
STX Std 0	SAXITOXIN	1.851 Abs	0.000 µg/L	R^2=0.99977, 100.00		19J1672
STX Std 0	SAXITOXIN	1.849 Abs [1.8500] {0.1 CV}	0.000 µg/L [0.000]	R^2=0.99977, 100.00		19J1672
STX Std 1	SAXITOXIN	1.452 Abs	0.020 µg/L	R^2=0.99977, 78.486		19J1672
STX Std 1	SAXITOXIN	1.460 Abs [1.4560] {0.4 CV}	0.020 µg/L [0.020] {0.2 CV}	R^2=0.99977, 78.919		19J1672
STX Std 2	SAXITOXIN	0.993 Abs	0.051 µg/L	R^2=0.99977, 53.676		19J1672
STX Std 2	SAXITOXIN	1.014 Abs [1.0035] {1.5 CV}	0.049 µg/L [0.050] {2.1 CV}	R^2=0.99977, 54.811		19J1672
STX Std 3	SAXITOXIN	0.644 Abs	0.101 µg/L	R^2=0.99977, 34.811		19J1672
STX Std 3	SAXITOXIN	0.639 Abs [0.6415] {0.6 CV}	0.102 µg/L [0.102] {0.6 CV}	R^2=0.99977, 34.541		19J1672
STX Std 4	SAXITOXIN	0.420 Abs	0.182 µg/L	R^2=0.99977, 22.703		19J1672
STX Std 4	SAXITOXIN	0.399 Abs [0.4095] {3.6 CV}	0.196 µg/L [0.189] {5.1 CV}	R^2=0.99977, 21.568		19J1672
STX Std 5	SAXITOXIN	0.250 Abs	> 0.400 µg/L	13.514 %Abs		19J1672
STX Std 5	SAXITOXIN	0.235 Abs [0.2425] {4.4 CV}	> 0.400 µg/L	12.703 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.786 Abs	0.075 µg/L	42.486 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.763 Abs [0.7745] {2.1 CV}	0.079 µg/L [0.077] {2.1 CV}	41.243 %Abs [41.865]		19J1672

Note

 Signature David Jordan

Date: 7/02/2020

Test Report (by Request)

Test Information

 Request: 7/2/2020 11:26:13 AM
 Date: 7/2/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.748 Abs	0.006 µg/L	LOW, 94.486 %ABS	0.020 - 0.400	19J1672
LRB	SAXITOXIN	1.683 Abs [1.7155] {2.7 CV}	0.009 µg/L [0.007] {2.7 CV}	LOW, 90.973 %ABS	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.829 Abs	0.069 µg/L	44.811 %Abs	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.811 Abs [0.8200] {1.6 CV}	0.072 µg/L [0.071] {1.6 CV}	43.838 %Abs [44.324]	0.020 - 0.400	19J1672
AB42995	SAXITOXIN	1.712 Abs	0.009 µg/L	LOW, 92.541 %ABS	0.020 - 0.400	19J1672
AB42995	SAXITOXIN	1.670 Abs [1.6910] {1.8 CV}	0.011 µg/L [0.010] {1.8 CV}	LOW, 90.270 %ABS	0.020 - 0.400	19J1672
AB42995MS	SAXITOXIN	0.766 Abs	0.078 µg/L	41.405 %Abs	0.020 - 0.400	19J1672
AB42995MS	SAXITOXIN	0.753 Abs [0.7595] {1.2 CV}	0.080 µg/L [0.079] {1.2 CV}	40.703 %Abs [41.054]	0.020 - 0.400	19J1672
AB42995MSD	SAXITOXIN	0.735 Abs	0.083 µg/L	39.730 %Abs	0.020 - 0.400	19J1672
AB42995MSD	SAXITOXIN	0.778 Abs [0.7565] {4.0 CV}	0.077 µg/L [0.080] {4.0 CV}	42.054 %Abs [40.892]	0.020 - 0.400	19J1672

Note

Signature

Date: 7/02/2020

Assay Information

Assay Name: SAXITOXIN
 Version: 2
 Temperature: Room Temperature
 Last Modified By: Security disabled
 Units: µg/L
 Assay Description: PN. 52255B
 Assay Substances: Controls:

Assay Mode: 4-Parameter Logistic Weight by:None
 Well Type: Flat bottom
 Last Modified On: 7/25/2019 3:55:28 PM
 Normal: 0.020 - 0.400
 # of decimals: 3
 Kit Lot Number: 19J1672

STX Control (0.060-0.090)
 Standards:
 STX Std 0, Concentration = 0.000, Minimum number to use: 2
 STX Std 1, Concentration = 0.020, Minimum number to use: 2
 STX Std 2, Concentration = 0.050, Minimum number to use: 2
 STX Std 3, Concentration = 0.100, Minimum number to use: 2
 STX Std 4, Concentration = 0.200, Minimum number to use: 2
 STX Std 5, Concentration = 0.400, 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
7/2/2020 10:50:16 AM				
STX Std 0	1.851 Abs		R ² =0.99977, 100.000 %Abs	RK1:23->A01@2
STX Std 0	1.849 Abs [1.8500] {0.1 CV}		R ² =0.99977, 100.000 %Abs	RK1:23->B01@2
STX Std 1	1.452 Abs		R ² =0.99977, 78.486 %Abs	RK1:24->C01@2
STX Std 1	1.460 Abs [1.4560] {0.4 CV}		R ² =0.99977, 78.919 %Abs	RK1:24->D01@2
STX Std 2	0.993 Abs		R ² =0.99977, 53.676 %Abs	RK1:25->E01@2
STX Std 2	1.014 Abs [1.0035] {1.5 CV}		R ² =0.99977, 54.811 %Abs	RK1:25->F01@3
STX Std 3	0.644 Abs		R ² =0.99977, 34.811 %Abs	RK1:26->G01@3
STX Std 3	0.639 Abs [0.6415] {0.6 CV}		R ² =0.99977, 34.541 %Abs	RK1:26->H01@3
STX Std 4	0.420 Abs		R ² =0.99977, 22.703 %Abs	RK1:27->A02@2
STX Std 4	0.399 Abs [0.4095] {3.6 CV}		R ² =0.99977, 21.568 %Abs	RK1:27->B02@2
STX Std 5	0.250 Abs		13.514 %Abs	RK1:28->C02@2
STX Std 5	0.235 Abs [0.2425] {4.4 CV}		12.703 %Abs	RK1:28->D02@2

7/2/2020 10:50:16 AM				
STX Control (0.060-0.090)	0.786 Abs		42.486 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.763 Abs [0.7745] {2.1 CV}		41.243 %Abs [41.865 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.8500			
STX Std 0 [SD]	0.0014			
STX Std 0 [%CV]	0.0764			
STX Std 1 [MEAN]	1.4560			
STX Std 1 [SD]	0.0057			
STX Std 1 [%CV]	0.3885			
STX Std 1 [%DIFF]				
STX Std 2 [MEAN]	1.0035			
STX Std 2 [SD]	0.0148			
STX Std 2 [%CV]	1.4798			
STX Std 2 [%DIFF]				
STX Std 3 [MEAN]	0.6415			
STX Std 3 [SD]	0.0035			
STX Std 3 [%CV]	0.5511			
STX Std 3 [%DIFF]				
STX Std 4 [MEAN]	0.4095			
STX Std 4 [SD]	0.0148			
STX Std 4 [%CV]	3.6262			
STX Std 4 [%DIFF]				
STX Std 5 [MEAN]	0.2425			
STX Std 5 [SD]	0.0106			
STX Std 5 [%CV]	4.3739			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7745			
STX Control (0.060-0.090) [SD]	0.0163			
STX Control (0.060-0.090) [%CV]	2.0999			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.8513
 B = 1.2697
 C = 0.051190
 D = 0.13467
 R2 coef = 0.99977
 50% = 0.058

