

DRILLING LOG		DIVISION: South Atlantic	INSTALLATION: Jacksonville District	SHEET 1 of 1
1. PROJECT CAPTIVA ISLAND SAND STUDY		10. SIZE AND TYPE OF BIT 3 5/8"		
2. LOCATION (Coordinates or Station) X= 549939.30 Y= 767512.88		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) NGVD		
3. DRILLING AGENCY: Alpine Ocean Seismic Survey Inc.		12. MANUFACTURER'S DESIGNATION OF DRILL ALPINE PNEUMATIC VIBRACORE		
4. HOLE NO. (As shown on drawing title and file number) CIVC-00-38		13. TOT NO. OF OVERBURDEN SAMPLES TAKEN Disturbed: 0.0 Undisturbed: 0.0		
5. NAME OF DRILLER MAURIZIO ROSSI		14. TOTAL NO. OF CORE BOXES		
6. DIRECTION OF HOLE VERTICAL		15. ELEVATION GROUND WATER		
7. THICKNESS OF BURDEN 0.0 FT		16. DATE HOLE Started 8/11/00 Completed 10/23		
8. DEPTH DRILLED INTO ROCK N/A		17. ELEVATION TOP OF HOLE -32.6 FT		
9. TOTAL DEPTH OF HOLE 14.4 ft		18. TOTAL CORE RECOVERY FOR BORING 100%		
		19. SIGNATURE OF GEOLOGIST ID		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS
-32.6	0					
	1				1	Sample #1, Depth = 2.0' Mean (mm): 0.33, Phi Sorting: 1.09 Silt: 1.03% (SP)
	2					
-35.6	3				2	Sample #2, Depth = 4.0' Mean (mm): 0.30, Phi Sorting: 1.20 Silt: 1.08% (SW)
	4					
	5				3	Sample #3, Depth = 6.0' Mean (mm): 0.36, Phi Sorting: 1.24 Silt: 1.85% (SW)
	6					
	7					
	8				4	Sample #4, Depth = 8.0 Mean (mm): 0.41, Phi Sorting: 1.42 Silt: 1.55% (SW)
	9					
-42.6	10					
	11					
	12				5	Sample #5, Depth = 12.0 Mean (mm): 0.37, Phi Sorting: 1.35 Silt: 2.15% (SW)
	13					
	14					
-47.4	15					
	16					
-49.1	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-38#1
 Date: 1/1/2001
 By: ID



2841 N. W. Boca Raton Blvd. Boca Raton FL 33428

Elevation:	-34.6	Feet	Easting:	549939.30	State Plane	1983
Reference:	NGVD 29		Northing:	767512.88	FLA West	Feet

USCS:	SP	Munsel Dry:	5Y-6/1	Munsel Wet:	5Y-6/1
Comments:	0				

Dry Wt.	73.05	Percent Silt:	1.03
Wash Wt.	72.30		

Sieve Size	PHI Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.000	8.000	0.000	0.000	0.000	0.000
5	-2.000	4.000	1.050	1.437	1.050	1.437
7	-1.500	2.828	0.140	0.192	1.190	1.629
10	-1.000	2.000	0.490	0.671	1.680	2.300
14	-0.500	1.414	1.090	1.492	2.770	3.792
18	0.000	1.000	1.910	2.615	4.680	6.407
25	0.500	0.707	3.740	5.120	8.420	11.526
35	1.000	0.500	6.060	8.296	14.480	19.822
45	1.500	0.354	8.510	11.650	22.990	31.472
60	2.000	0.250	18.210	24.928	41.200	56.400
80	2.500	0.177	23.050	31.554	64.250	87.953
120	3.000	0.125	7.660	10.486	71.910	98.439
170	3.500	0.088	0.360	0.493	72.270	98.932
200	3.750	0.074	0.030	0.041	72.300	98.973
230	4.000	0.063	0.000	0.000	72.300	98.973
Pan	Pan	0.053	0.750	1.027	73.050	100.000

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-0.27	0.77	1.22	1.87	2.29	2.44	2.84

Median phi:	1.87	Median mm:	0.27
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.53	0.35	0.89	-0.61	1.19
Moment	1.59	0.33	1.09	-0.54	1.86

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-38#2
 Date: 1/1/2001
 By: ID



2841 N. W. Boca Raton Blvd. Boca Raton FL 33428

Elevation:	-36.6	Feet	Easting:	549939.30	State Plane	1983
Reference:	NGVD 29		Northing:	767512.88	FLA West	Feet

USCS:	SW	Munsel Dry:	5Y-6/1	Munsel Wet:	5Y-6/1
Comments:	0				

Dry Wt.	78.61	Percent Silt:	1.08
Wash Wt.	77.76		

Sieve Size	PHI Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.000	8.000	0.000	0.000	0.000	0.000
5	-2.000	4.000	1.200	1.527	1.200	1.527
7	-1.500	2.828	0.940	1.196	2.140	2.722
10	-1.000	2.000	0.990	1.259	3.130	3.982
14	-0.500	1.414	1.070	1.361	4.200	5.343
18	0.000	1.000	1.430	1.819	5.630	7.162
25	0.500	0.707	2.000	2.544	7.630	9.706
35	1.000	0.500	3.310	4.211	10.940	13.917
45	1.500	0.354	5.850	7.442	16.790	21.359
60	2.000	0.250	15.600	19.845	32.390	41.203
80	2.500	0.177	32.240	41.013	64.630	82.216
120	3.000	0.125	12.270	15.609	76.900	97.825
170	3.500	0.088	0.740	0.941	77.640	98.766
200	3.750	0.074	0.090	0.114	77.730	98.881
230	4.000	0.063	0.020	0.025	77.750	98.906
Pan	Pan	0.053	0.850	1.081	78.600	99.987

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-0.63	1.14	1.59	2.11	2.41	2.56	2.91

Median phi:	2.11	Median mm:	0.23
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.62	0.33	0.89	-1.15	1.77
Moment	1.73	0.30	1.20	-1.03	2.71

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-38#3
 Date: 1/1/2001
 By: ID



2841 N. W. Boca Raton Blvd. Boca Raton FL 33428

Elevation:	-38.6	Feet	Easting:	549939.30	State Plane	1983
Reference:	NGVD 29		Northing:	767512.88	FLA West	Feet

USCS:	SW	Munsel Dry:	5Y-6/1	Munsel Wet:	5Y-6/1
Comments:	0				

Dry Wt.	71.16	Percent Silt:	1.85
Wash Wt.	69.84		

Sieve Size	PHI Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.000	8.000	0.000	0.000	0.000	0.000
5	-2.000	4.000	1.240	1.743	1.240	1.743
7	-1.500	2.828	0.260	0.365	1.500	2.108
10	-1.000	2.000	0.810	1.138	2.310	3.246
14	-0.500	1.414	1.620	2.277	3.930	5.523
18	0.000	1.000	2.540	3.569	6.470	9.092
25	0.500	0.707	4.810	6.759	11.280	15.852
35	1.000	0.500	6.890	9.682	18.170	25.534
45	1.500	0.354	8.550	12.015	26.720	37.549
60	2.000	0.250	16.460	23.131	43.180	60.680
80	2.500	0.177	19.150	26.911	62.330	87.591
120	3.000	0.125	6.870	9.654	69.200	97.246
170	3.500	0.088	0.530	0.745	69.730	97.990
200	3.750	0.074	0.100	0.141	69.830	98.131
230	4.000	0.063	0.010	0.014	69.840	98.145
Pan	Pan	0.053	1.320	1.855	71.160	100.000

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-0.61	0.51	0.97	1.77	2.27	2.43	2.88

Median phi:	1.77	Median mm:	0.29
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.40	0.38	1.01	-0.56	1.11
Moment	1.46	0.36	1.24	-0.49	1.77

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-38#4
 Date: 1/1/2001
 By: ID



2841 N. W. Boca Raton Blvd. Boca Raton FL 33428

Elevation:	-40.6	Feet	Easting:	549939.30	State Plane	1983
Reference:	NGVD 29		Northing:	767512.88	FLA West	Feet

USCS:	SW	Munsel Dry:	5Y-6/1	Munsel Wet:	5Y-6/1
Comments:	0				

Dry Wt.	81.21	Percent Silt:	1.55
Wash Wt.	79.96		

Sieve Size	PHI Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.000	8.000	0.000	0.000	0.000	0.000
5	-2.000	4.000	1.550	1.909	1.550	1.909
7	-1.500	2.828	1.100	1.355	2.650	3.263
10	-1.000	2.000	1.560	1.921	4.210	5.184
14	-0.500	1.414	2.700	3.325	6.910	8.509
18	0.000	1.000	4.420	5.443	11.330	13.951
25	0.500	0.707	6.190	7.622	17.520	21.574
35	1.000	0.500	8.000	9.851	25.520	31.425
45	1.500	0.354	9.680	11.920	35.200	43.344
60	2.000	0.250	14.570	17.941	49.770	61.286
80	2.500	0.177	21.090	25.970	70.860	87.255
120	3.000	0.125	8.360	10.294	79.220	97.550
170	3.500	0.088	0.650	0.800	79.870	98.350
200	3.750	0.074	0.050	0.062	79.920	98.412
230	4.000	0.063	0.020	0.025	79.940	98.436
Pan	Pan	0.053	1.260	1.552	81.200	99.988

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-1.05	0.13	0.67	1.69	2.26	2.44	2.88

Median phi:	1.69	Median mm:	0.31
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.22	0.43	1.17	-0.57	1.01
Moment	1.29	0.41	1.42	-0.47	1.67

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-38#5
 Date: 1/1/2001
 By: ID



2841 N. W. Boca Raton Blvd. Boca Raton FL 33428

Elevation:	-44.6	Feet	Easting:	549939.30	State Plane	1983
Reference:	NGVD 29		Northing:	767512.88	FLA West	Feet

USCS:	SW	Munsel Dry:	5Y-6/1	Munsel Wet:	5Y-6/1
Comments:	0				

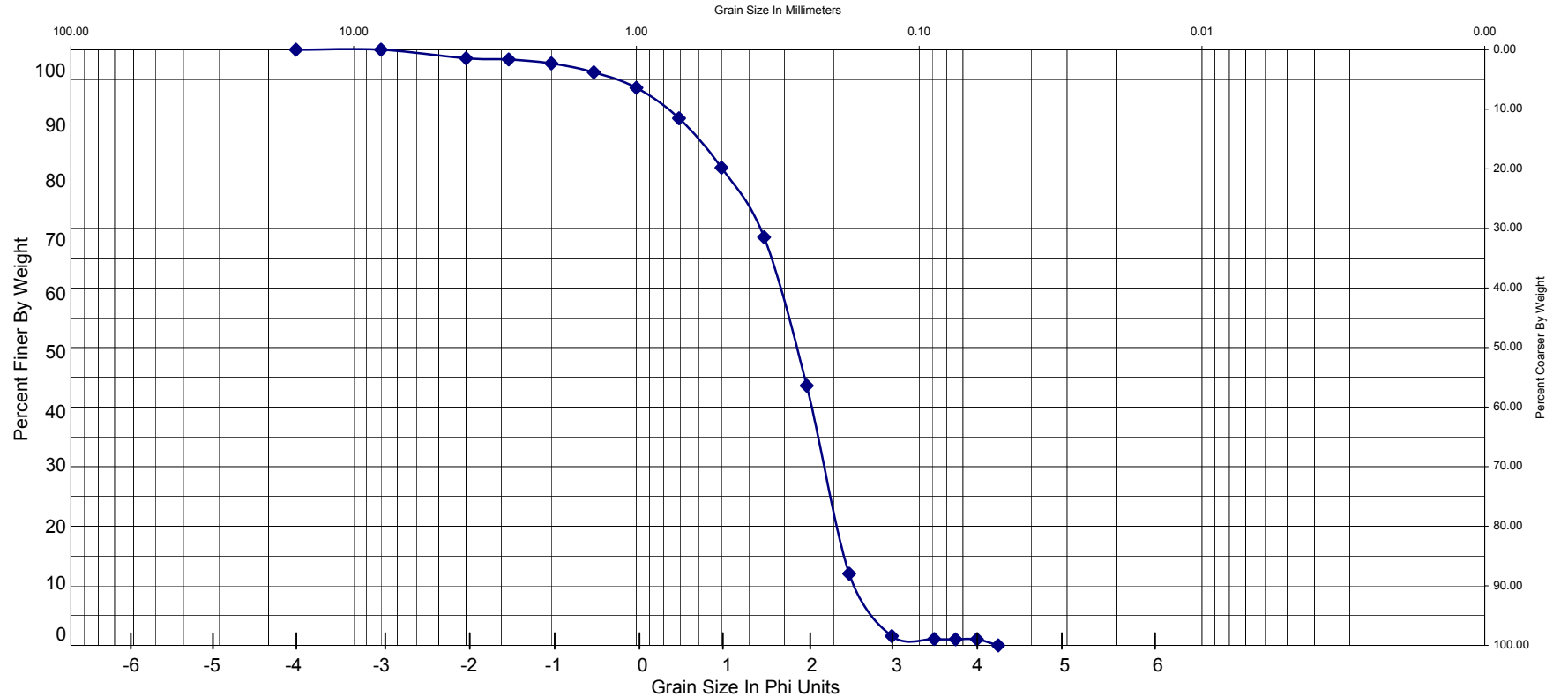
Dry Wt.	81.58	Percent Silt:	2.15
Wash Wt.	79.84		

Sieve Size	PHI Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.000	8.000	0.000	0.000	0.000	0.000
5	-2.000	4.000	0.770	0.944	0.770	0.944
7	-1.500	2.828	0.510	0.625	1.280	1.569
10	-1.000	2.000	1.150	1.410	2.430	2.979
14	-0.500	1.414	2.390	2.930	4.820	5.908
18	0.000	1.000	3.980	4.879	8.800	10.787
25	0.500	0.707	7.070	8.666	15.870	19.453
35	1.000	0.500	9.010	11.044	24.880	30.498
45	1.500	0.354	9.920	12.160	34.800	42.658
60	2.000	0.250	13.040	15.984	47.840	58.642
80	2.500	0.177	17.500	21.451	65.340	80.093
120	3.000	0.125	12.950	15.874	78.290	95.967
170	3.500	0.088	1.290	1.581	79.580	97.548
200	3.750	0.074	0.230	0.282	79.810	97.830
230	4.000	0.063	0.010	0.012	79.820	97.843
Pan	Pan	0.053	1.750	2.145	81.570	99.988

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-0.66	0.30	0.75	1.73	2.38	2.62	2.97

Median phi:	1.73	Median mm:	0.30
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.39	0.38	1.13	-0.40	0.91
Moment	1.44	0.37	1.35	-0.34	1.50

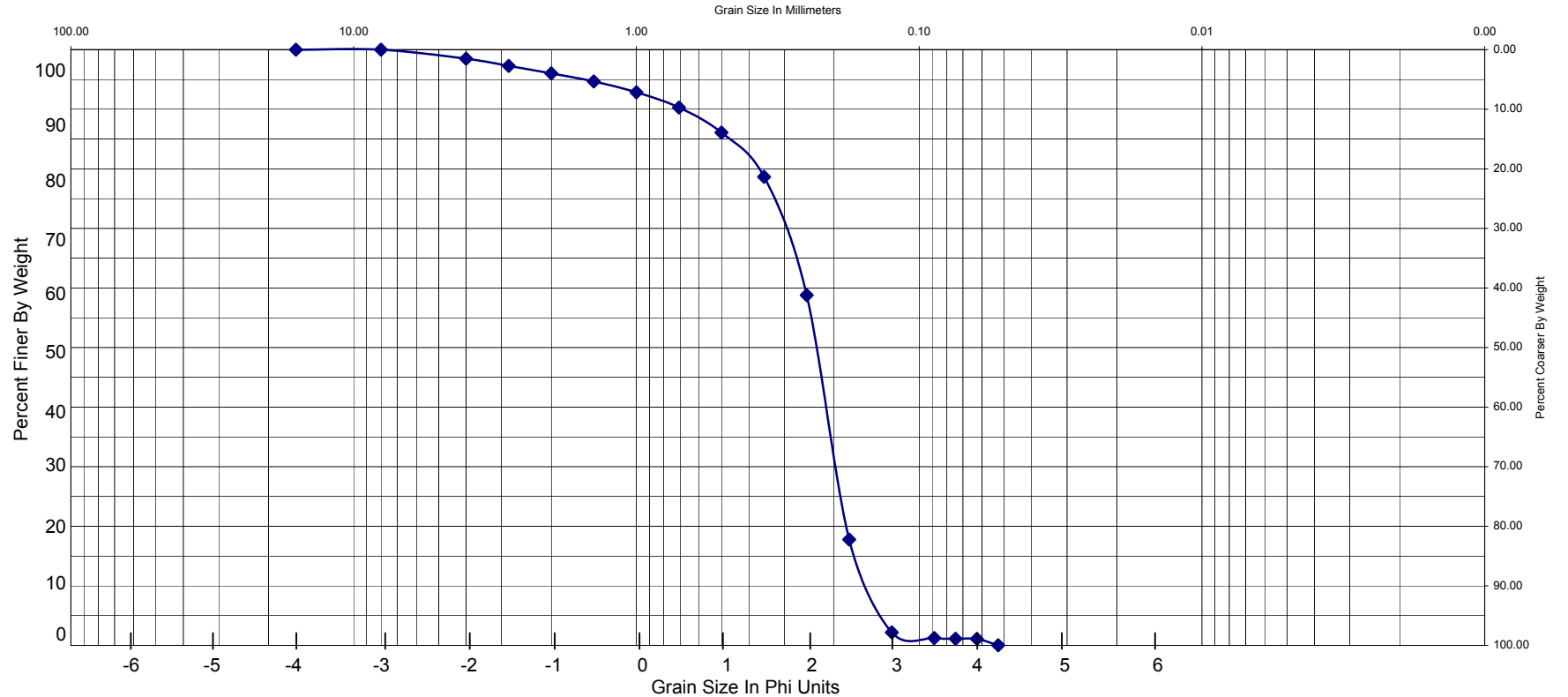


Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-38#1	2.0		SP	1.03	0.27	0.33	-0.54	1.86	1.09	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID
													Easting (X): 549939.30 Feet
													Northing (Y): 767512.88 Feet
													Sample Elevation: -34.6 NGVD 29
													Coord. System: State Plane 1983 FLA West



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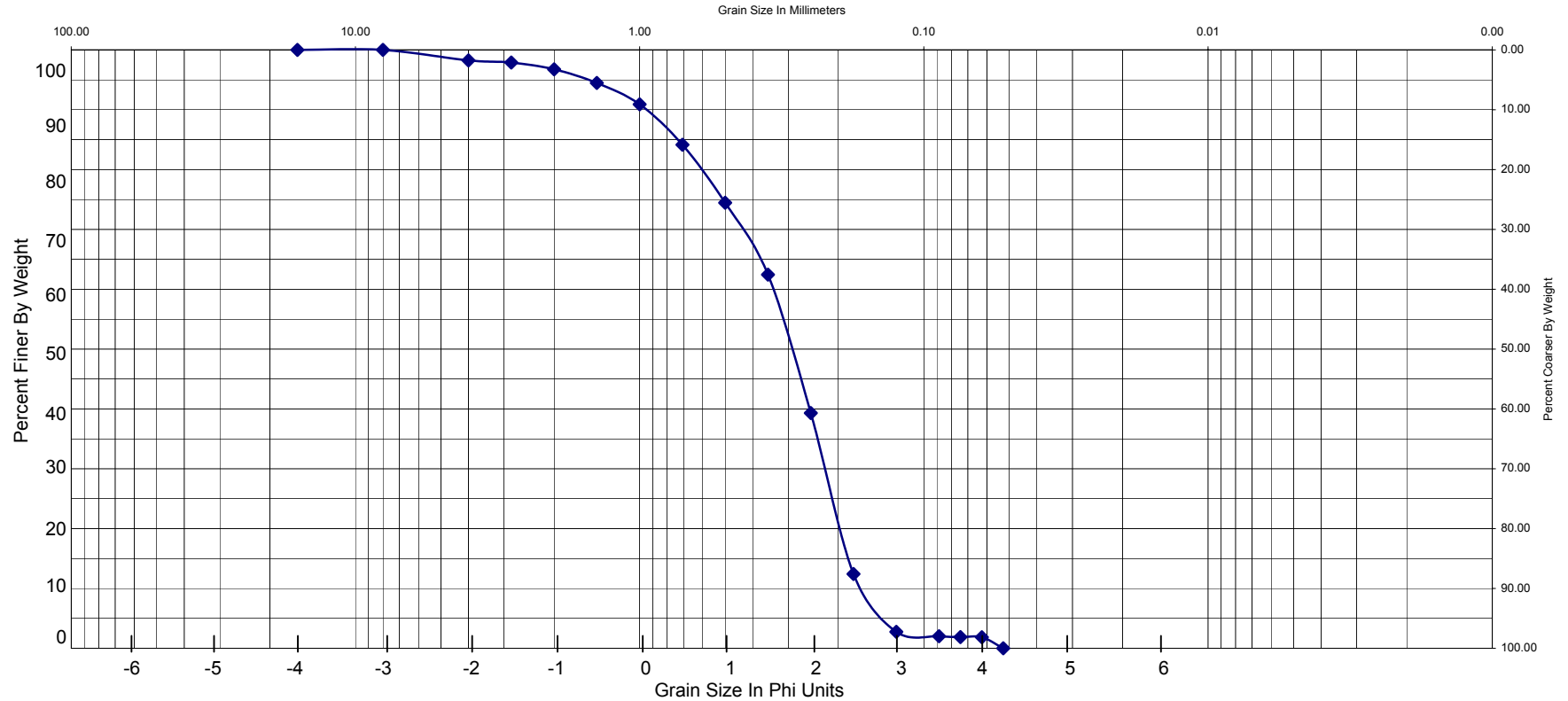


Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-38#2	4.0		SW	1.08	0.23	0.3	-1.03	2.71	1.2	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID
													Easting (X): 549939.30 Feet
													Northing (Y): 767512.88 Feet
													Sample Elevation: -36.6 NGVD 29
													Coord. System: State Plane 1983 FLA West



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Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

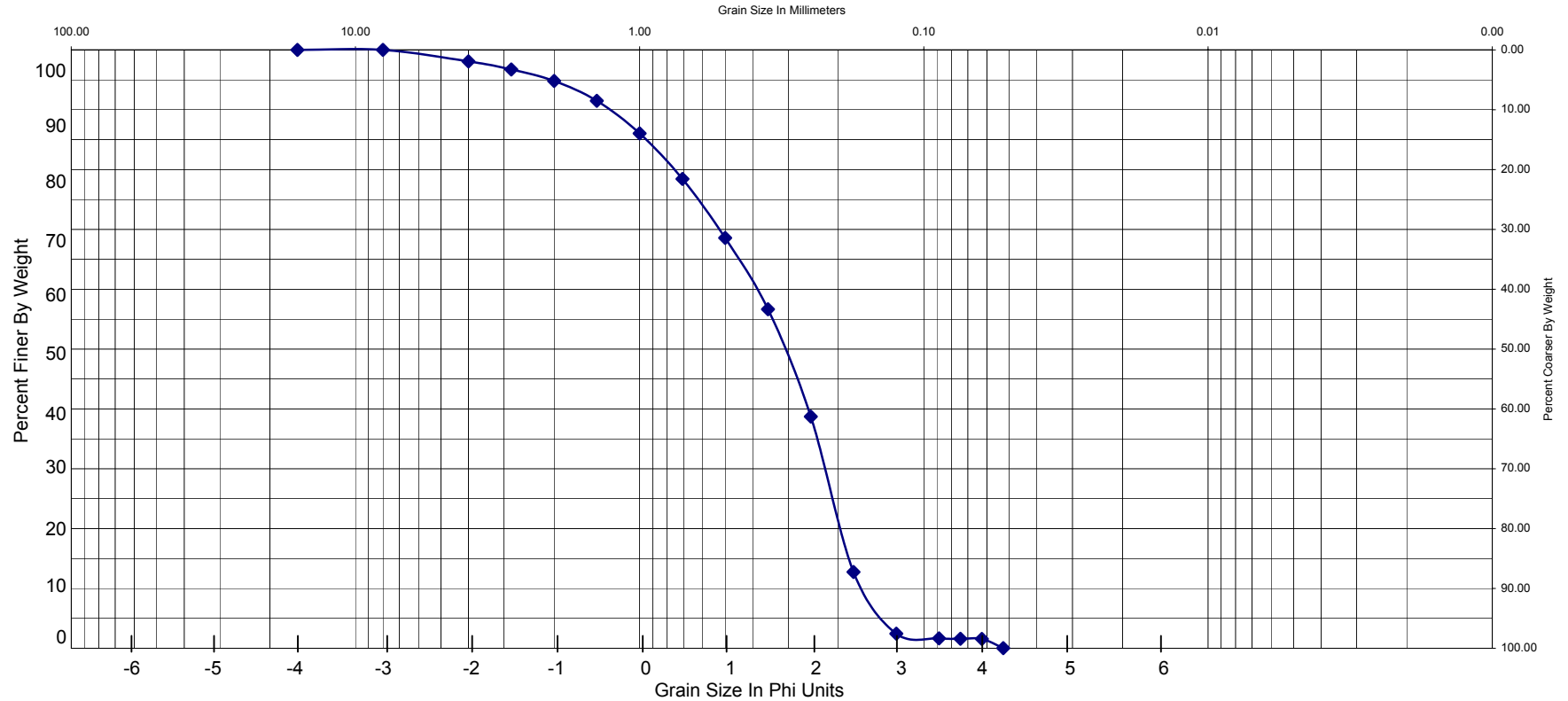
Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-38#3	6.0		SW	1.85	0.29	0.36	-0.49	1.77	1.24	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID



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Easting (X):	549939.30 Feet
Northing (Y):	767512.88 Feet
Sample Elevation:	-38.6 NGVD 29
Coord. System:	State Plane 1983 FLA West

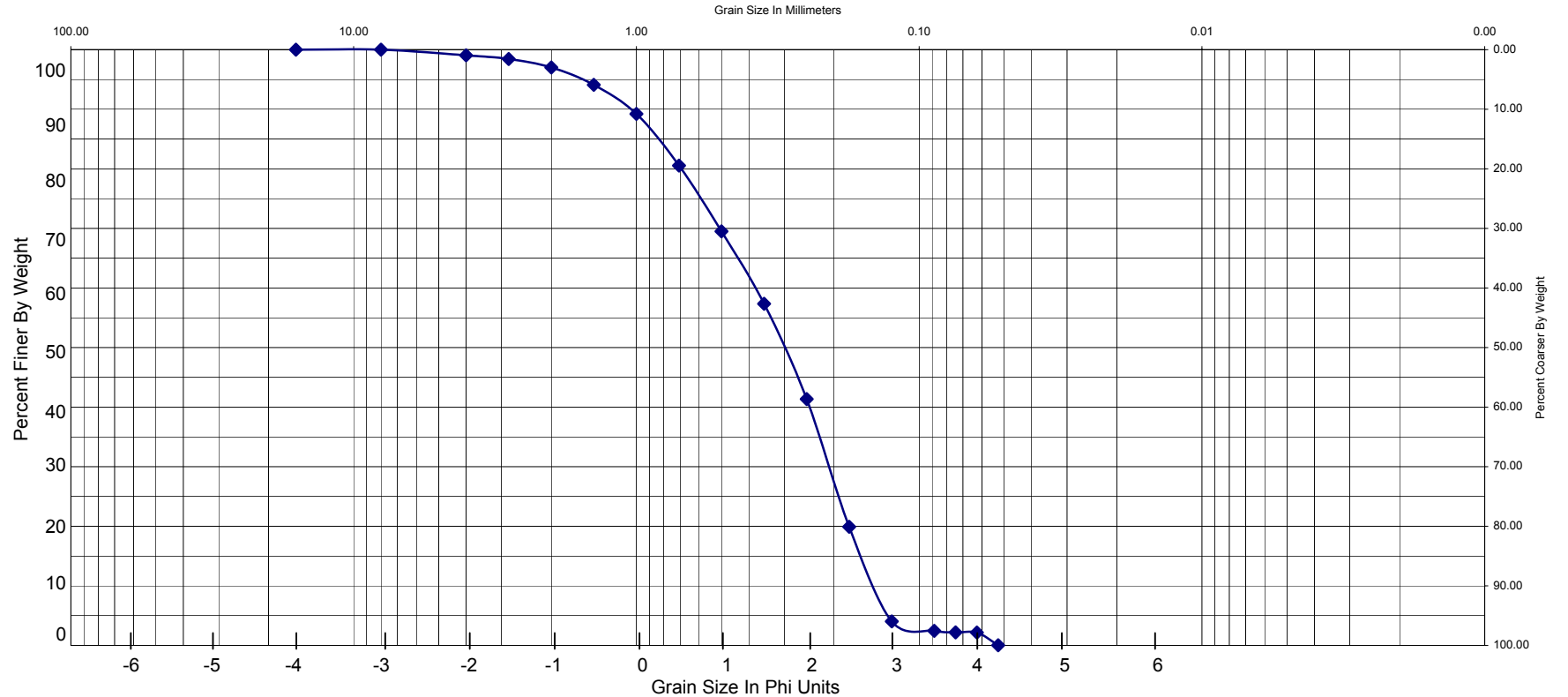


Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-38#4	8.0		SW	1.55	0.31	0.41	-0.47	1.67	1.42	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID
													Easting (X): 549939.30 Feet
													Northing (Y): 767512.88 Feet
													Sample Elevation: -40.6 NGVD 29
													Coord. System: State Plane 1983 FLA West




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Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-38#5	12.0		SW	2.15	0.3	0.37	-0.34	1.5	1.35	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID



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Easting (X):	549939.30 Feet
Northing (Y):	767512.88 Feet
Sample Elevation:	-44.6 NGVD 29
Coord. System:	State Plane 1983 FLA West



