

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=563225.87 Y=832017.71		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-00-12		13. TOT NO. OF OVERBURDEN SAMPLES TAKEN Disturbed: 0 Undisturbed: 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 Completed 8/10/00 12:14		
8. DEPTH DRILLED INTO ROCK N/A		17. ELEVATION TOP OF HOLE -27.8 FT		
9. TOTAL DEPTH OF HOLE 18.9 FT		18. TOTAL CORE RECOVERY FOR BORING 97.4%		
		19. SIGNATURE OF GEOLOGIST SK/ID		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS
-27.8	0					Sample #1, Depth = 0.5'
-28.8	1		SAND, fine grained, some shell hash/shell fragments, gray (5Y-5/1), (SP).		1	Mean (mm): 0.49, Phi Sorting: 2.03 Silt: 3.85% (SW)
-29.8	2		SAND, fine grained, little shell hash/shell fragments, gray (5Y-5/1), (SP).		2	Sample #2, Depth = 2.0'
-31.4	3		fine grained, little silt/clay (calcareous), trace shell hash/shell fragments, gray (5Y-5/1), (SM).		3	Mean (mm): 0.17, Phi Sorting: 1.98 Silt: 30.39% (SM)
	4					Sample #3, Depth = 3.0'
	5					Mean (mm): 0.20, Phi Sorting: 1.97 Silt: 20.26% (SM)
	6					
	7					
	8		CARBONATE CLASTS, ranges from fine sand sized to 2", hard & compact, white (5Y-8/1), (GP).			
	9					
	10					
-39	11					
	12					
	13		CARBONATE CLASTS, predominantly sand (calcareous) size clasts with gravel size common, little calcareous silt/clay, pale yellow (2.5Y-7/4) to white (5Y-8/1), (GM).		4	Sample #4, Depth = 12.5'
-43	14					Mean (mm): 0.14, Phi Sorting: 1.21 Silt: 35.44% (SM)
	15					
	16					
	17		SILTY CLAY, little calcareous sand, white (5Y-8/1), at places pale yellow (2.5Y-7/4), (ML-CL).			
-46.2	18					
-46.7	19		No Recovery			
	20		End of Boring			
	21		Note:			Note:
	22		1) Soils are field visually classified in accordance with the Unified Soil Classification System.			This column contains laboratory data.
	23					
	24					

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-12#1
 Date: 1/1/2001
 By: ID



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

Elevation:	-28.3	Feet	Easting:	563225.87	State Plane	1983
Reference:	NGVD 29		Northing:	832017.71	FLA West	Feet

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

Dry Wt.	74.82	Percent Silt:	3.85
Wash Wt.	71.98		

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	0.980	1.310	0.980	1.310
5	-2.000	4.000	3.220	4.304	4.200	5.613
7	-1.500	2.828	2.460	3.288	6.660	8.901
10	-1.000	2.000	2.760	3.689	9.420	12.590
14	-0.500	1.414	3.870	5.172	13.290	17.763
18	0.000	1.000	5.000	6.683	18.290	24.445
25	0.500	0.707	6.050	8.086	24.340	32.531
35	1.000	0.500	5.760	7.698	30.100	40.230
45	1.500	0.354	8.060	10.773	38.160	51.002
60	2.000	0.250	13.400	17.910	51.560	68.912
80	2.500	0.177	8.450	11.294	60.010	80.206
120	3.000	0.125	7.270	9.717	67.280	89.922
170	3.500	0.088	3.720	4.972	71.000	94.894
200	3.750	0.074	0.830	1.109	71.830	96.004
230	4.000	0.063	0.090	0.120	71.920	96.124
Pan	Pan	0.053	2.880	3.849	74.800	99.973

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-2.14	-0.67	0.03	1.45	2.27	2.69	3.52

Median phi:	1.45	Median mm:	0.37
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	0.97	0.51	1.70	-0.41	1.04
Moment	1.02	0.49	2.03	-0.31	1.57

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-12#2
 Date: 1/1/2001
 By: ID



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

Elevation:	-29.8	Feet	Easting:	563225.87	State Plane	1983
Reference:	NGVD 29		Northing:	832017.71	FLA West	Feet

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

Dry Wt.	61.02	Percent Silt:	30.39
Wash Wt.	42.66		

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	0.480	0.787	0.480	0.787
5	-2.000	4.000	0.860	1.409	1.340	2.196
7	-1.500	2.828	1.030	1.688	2.370	3.884
10	-1.000	2.000	1.040	1.704	3.410	5.588
14	-0.500	1.414	1.170	1.917	4.580	7.506
18	0.000	1.000	1.370	2.245	5.950	9.751
25	0.500	0.707	1.420	2.327	7.370	12.078
35	1.000	0.500	1.550	2.540	8.920	14.618
45	1.500	0.354	1.890	3.097	10.810	17.716
60	2.000	0.250	3.000	4.916	13.810	22.632
80	2.500	0.177	3.830	6.277	17.640	28.909
120	3.000	0.125	9.710	15.913	27.350	44.821
170	3.500	0.088	11.380	18.650	38.730	63.471
200	3.750	0.074	2.970	4.867	41.700	68.338
230	4.000	0.063	0.750	1.229	42.450	69.567
Pan	Pan	0.053	18.530	30.367	60.980	99.934

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-1.17	1.22	2.19	3.14	4.04	4.12	4.21

Median phi:	3.14	Median mm:	0.11
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	2.30	0.20	1.54	-0.88	1.19
Moment	2.53	0.17	1.98	-0.88	2.29

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-12#3
 Date: 1/1/2001
 By: ID



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

Elevation:	-30.8	Feet	Easting:	563225.87	State Plane	1983
Reference:	NGVD 29		Northing:	832017.71	FLA West	Feet

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

Dry Wt.	70.05	Percent Silt:	20.26
Wash Wt.	56.05		

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	0.290	0.414	0.290	0.414
7	-1.500	2.828	1.400	1.999	1.690	2.413
10	-1.000	2.000	1.770	2.527	3.460	4.939
14	-0.500	1.414	2.640	3.769	6.100	8.708
18	0.000	1.000	2.360	3.369	8.460	12.077
25	0.500	0.707	2.620	3.740	11.080	15.817
35	1.000	0.500	2.340	3.340	13.420	19.158
45	1.500	0.354	1.780	2.541	15.200	21.699
60	2.000	0.250	2.960	4.226	18.160	25.924
80	2.500	0.177	3.250	4.640	21.410	30.564
120	3.000	0.125	10.370	14.804	31.780	45.368
170	3.500	0.088	17.410	24.854	49.190	70.221
200	3.750	0.074	5.620	8.023	54.810	78.244
230	4.000	0.063	1.040	1.485	55.850	79.729
Pan	Pan	0.053	14.190	20.257	70.040	99.986

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-0.99	0.53	1.89	3.09	3.65	4.05	4.19

Median phi:	3.09	Median mm:	0.12
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	2.17	0.22	1.67	-0.92	1.21
Moment	2.34	0.20	1.97	-0.64	1.76

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-12#4
 Date: 1/1/2001
 By: ID



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

Elevation:	-40.3	Feet	Easting:	563225.87	State Plane	1983
Reference:	NGVD 29		Northing:	832017.71	FLA West	Feet

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

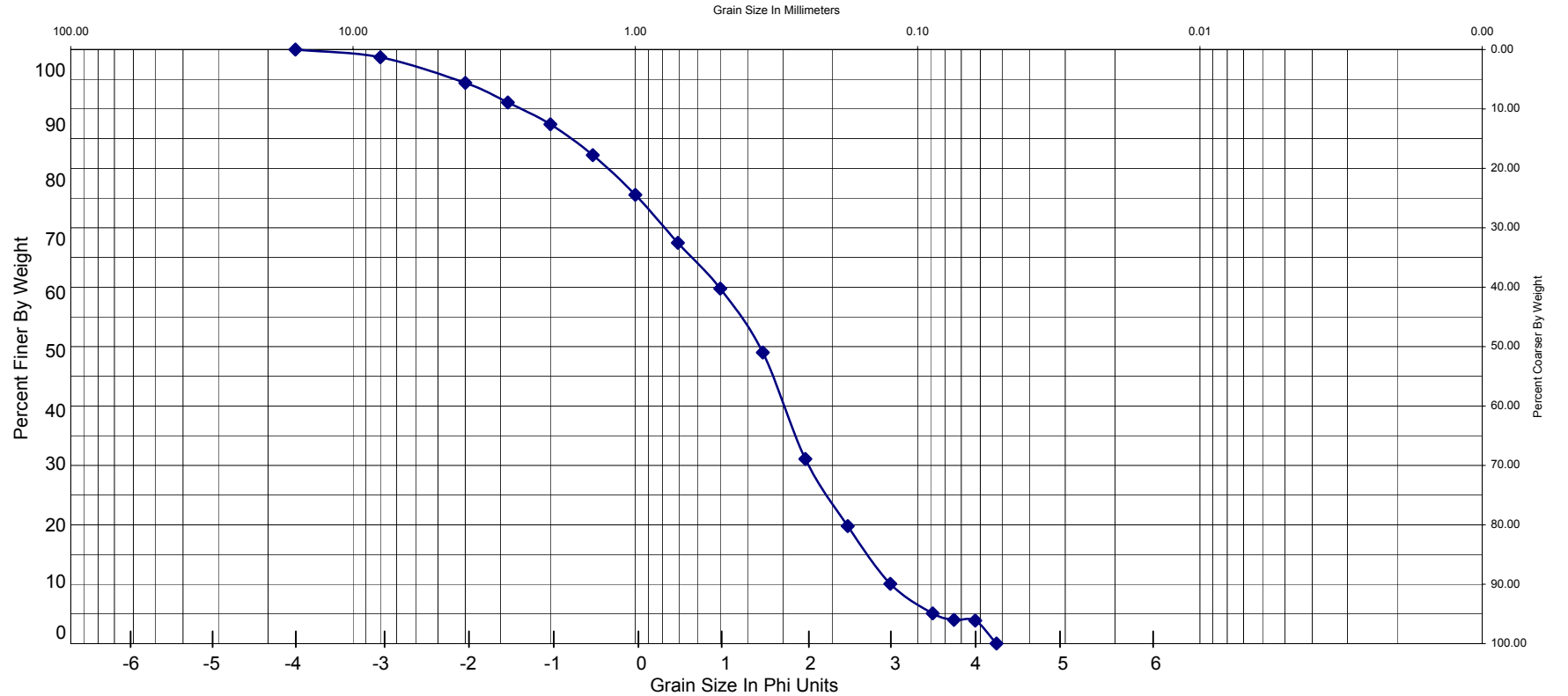
Dry Wt.	80.17	Percent Silt:	35.44
Wash Wt.	51.76		

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	0.000	0.000	0.000	0.000
7	-1.500	2.828	0.000	0.000	0.000	0.000
10	-1.000	2.000	0.000	0.000	0.000	0.000
14	-0.500	1.414	0.000	0.000	0.000	0.000
18	0.000	1.000	0.050	0.062	0.050	0.062
25	0.500	0.707	0.090	0.112	0.140	0.175
35	1.000	0.500	0.330	0.412	0.470	0.586
45	1.500	0.354	1.990	2.482	2.460	3.068
60	2.000	0.250	17.290	21.567	19.750	24.635
80	2.500	0.177	25.440	31.733	45.190	56.368
120	3.000	0.125	6.190	7.721	51.380	64.089
170	3.500	0.088	0.340	0.424	51.720	64.513
200	3.750	0.074	0.030	0.037	51.750	64.550
230	4.000	0.063	0.010	0.012	51.760	64.563
Pan	Pan	0.053	28.410	35.437	80.170	100.000

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
1.54	1.80	2.01	2.40	4.07	4.14	4.21

Median phi:	2.40	Median mm:	0.19
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	2.82	0.14	0.99	0.43	0.53
Moment	2.88	0.14	1.21	0.15	1.01



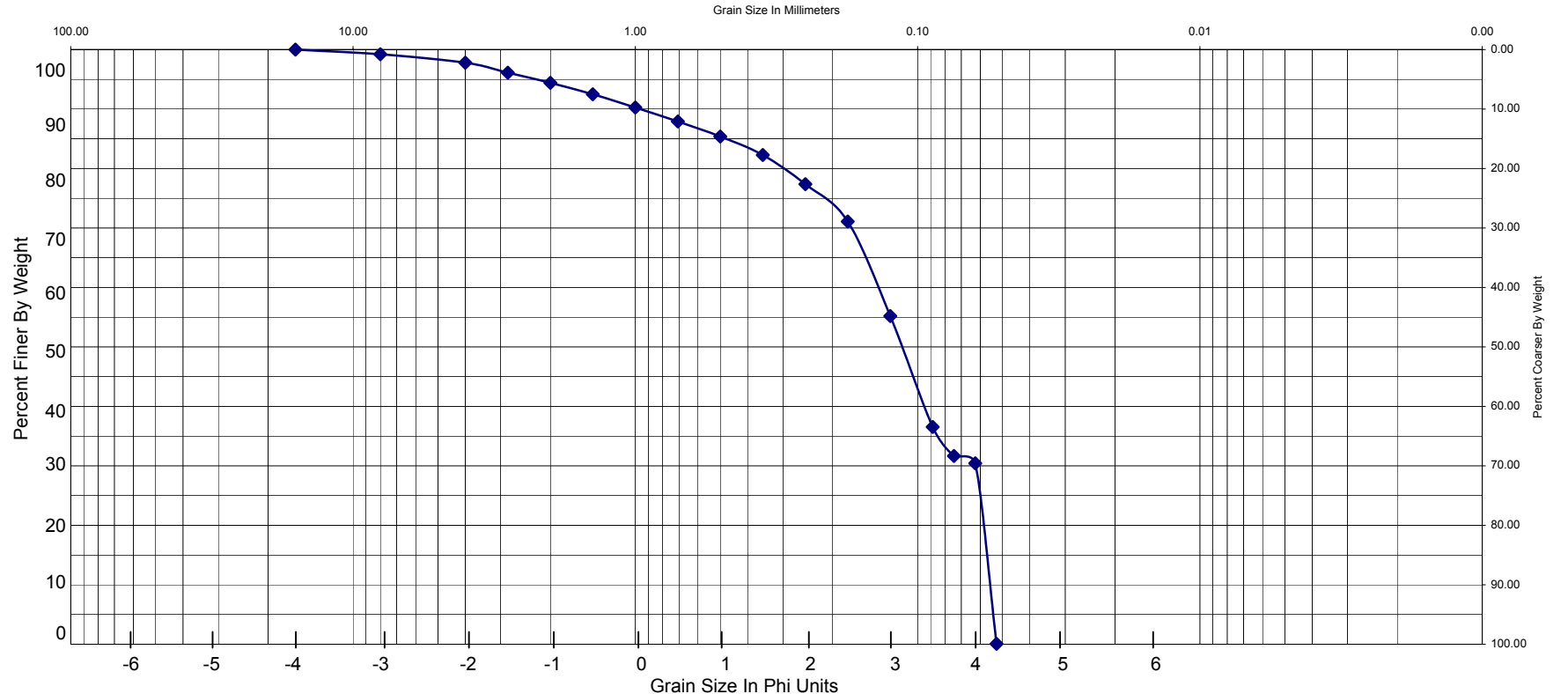
Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-12#1	0.5		SW	3.85	0.37	0.49	-0.31	1.57	2.03	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID



COASTAL PLANNING & ENGINEERING, INC.
2481 N. W. BOCA RATON BLVD.
BOCA RATON, FLORIDA 33431

Easting (X):	563225.87 Feet
Northing (Y):	832017.71 Feet
Sample Elevation:	-28.3 NGVD 29
Coord. System:	State Plane 1983 FLA West



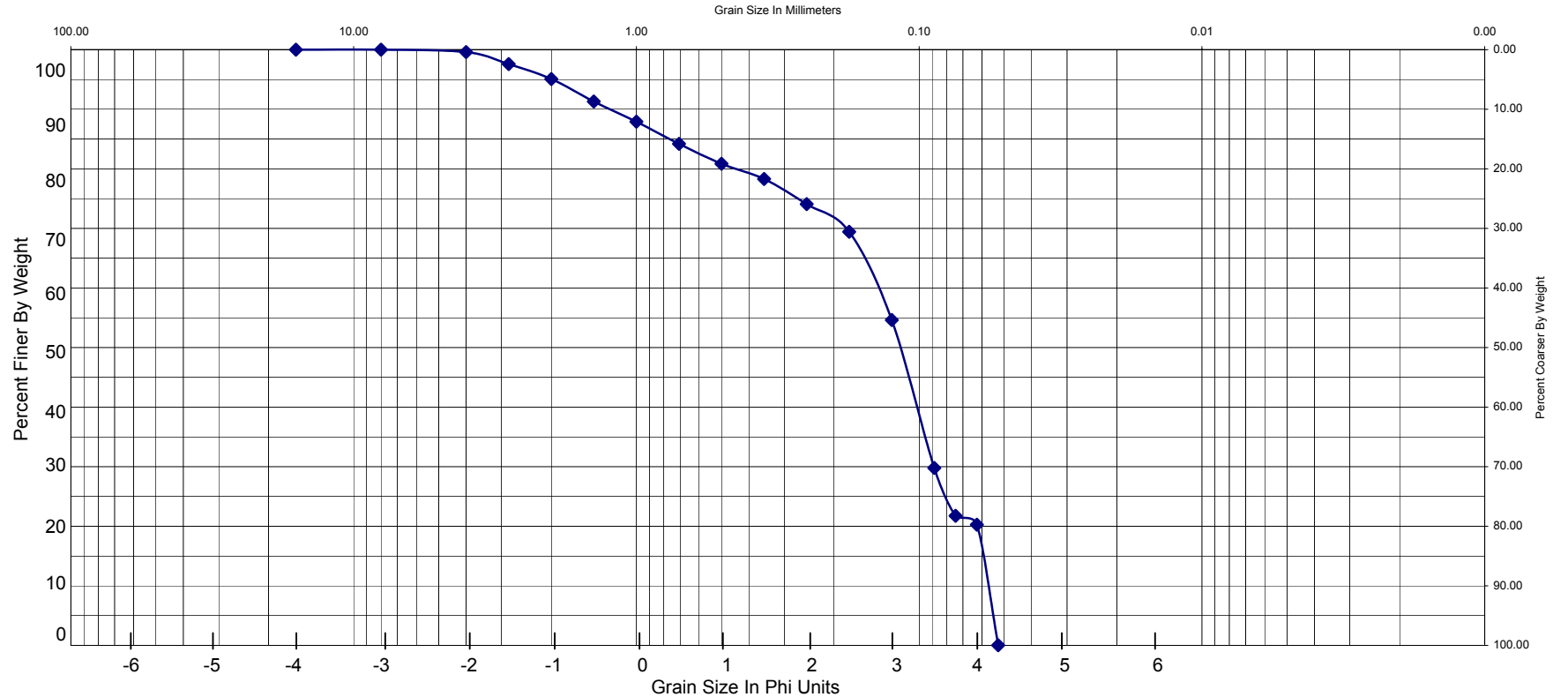
Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-12#2	2.0		SM	30.39	0.11	0.17	-0.88	2.29	1.98	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID



COASTAL PLANNING & ENGINEERING, INC.
2481 N. W. BOCA RATON BLVD.
BOCA RATON, FLORIDA 33431

Easting (X):	563225.87 Feet
Northing (Y):	832017.71 Feet
Sample Elevation:	-29.8 NGVD 29
Coord. System:	State Plane 1983 FLA West

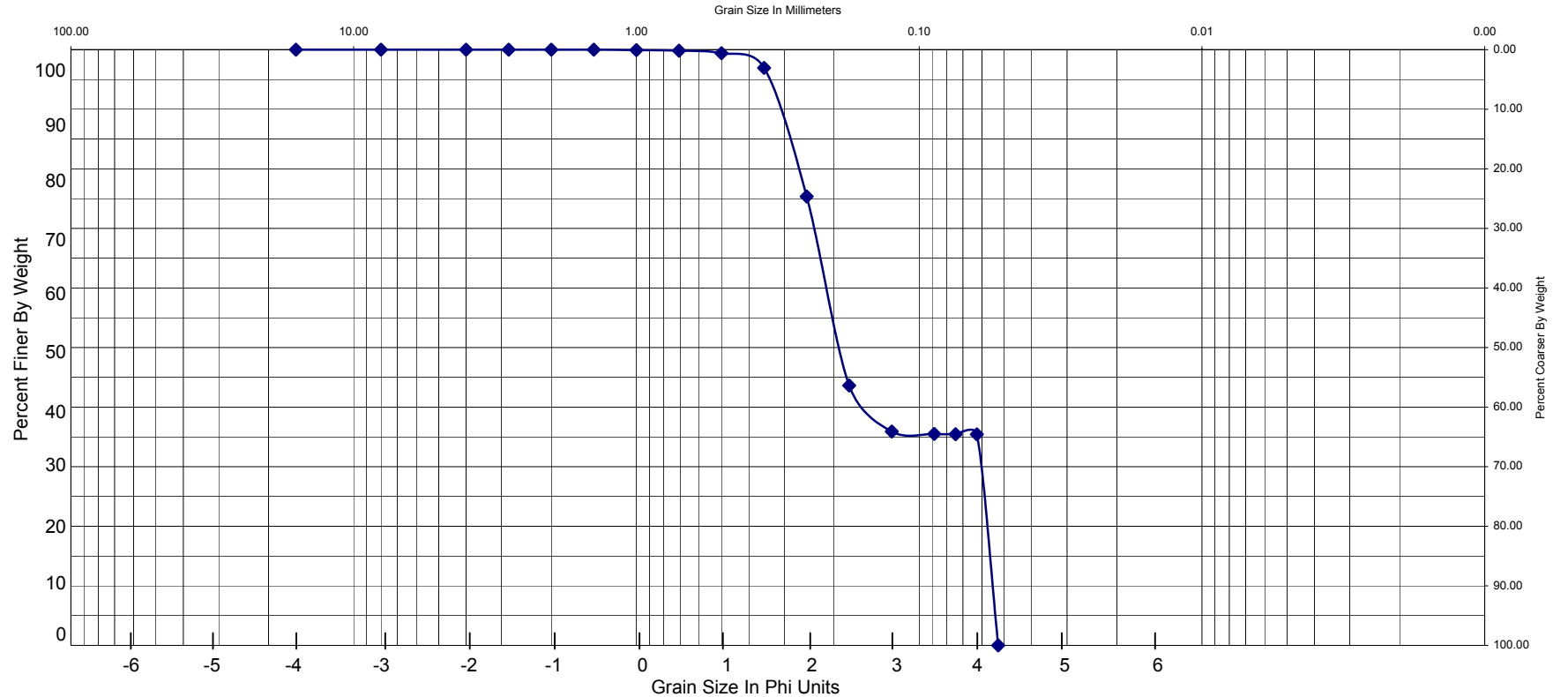


Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-12#3	3.0		SM	20.26	0.12	0.2	-0.64	1.76	1.97	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID
													Easting (X): 563225.87 Feet
													Northing (Y): 832017.71 Feet
													Sample Elevation:-30.8 NGVD 29
													Coord. System: State Plane 1983 FLA West




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BOCA RATON, FLORIDA 33431



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-00-12#4	12.5		SM	35.44	0.19	0.14	0.15	1.01	1.21	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID

	COASTAL PLANNING & ENGINEERING, INC. 2481 N. W. BOCA RATON BLVD. BOCA RATON, FLORIDA 33431	Easting (X): 563225.87 Feet
		Northing (Y): 832017.71 Feet
		Sample Elevation: -40.3 NGVD 29
		Coord. System: State Plane 1983 FLA West



