

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=560134.87 Y=835970.59		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-00-03		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 8/7/00 Completed 16:45		
8. DEPTH DRILLED INTO ROCK N/A		17. ELEVATION TOP OF HOLE -28.0 FT		
9. TOTAL DEPTH OF HOLE 20.0 FT		18. TOTAL CORE RECOVERY FOR BORING 100%		
		19. SIGNATURE OF GEOLOGIST SK/ID		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS
-28	0					
	1		SAND, medium grained, some shell hash/ shell fragments/whole shells, gray (5Y-6/1), (SP).		1	Sample #1, Depth = 0.8' Mean (mm): 0.36, Phi Sorting: 1.57 Silt: 5.45% (SW-SM)
	2					
	3				2	Sample #2, Depth = 3.3' Mean (mm): 0.32, Phi Sorting: 1.63 Silt: 8.42% (SW-SM)
-31.7	4		SHELLY SAND, little silt, gray (5Y-6/1), (SW-SM). 2" sand dollar @ 5.8', 2" shell @ 5.9'.			
	5				3	Sample #3, Depth = 5.5' Mean (mm): 0.38, Phi Sorting: 1.75 Silt: 5.72% (SW-SM)
-34	6		SILTY SHELLY SAND, gray (5Y-5/1), (SM).			
	7					
	8				4	Sample #4, Depth = 7.4' Mean (mm): 0.64, Phi Sorting: 2.25 Silt: 10.11% (SW-SM)
-37	9		SILTY SAND, little shell hash, little shell fragments, gray (5Y-5/1), (SM).			
	10					
	11					
-39.5	12		SILTY CLAY, calcareous, pale yellow (5Y-7/3) to white (5Y-8/1), (ML-CL).			
	13					
	14					
	15					
	16					
-44.7	17		CARBONATE CLASTS, ranges from fine sand sized to 2.0", pale yellow (5Y-7/1) to white (5Y-8/1), (GP).			
	18					
	19					
-48	20		End of Boring Note: 1) Soils are field visually classified in accordance with the Unified Soil Classification System.			
	21					
	22					
	23					
	24					

Gradation Analysis Report

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



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

Elevation: -28.8 Feet Easting: 560134.87 State Plane 1983
 Reference: NGVD 29 Northing: 835970.59 FLA West Feet

USCS: SW-SM Munsel Dry: 5Y-7/1 Munsel Wet: 5Y-6/1
 Comments: 0

Dry Wt. 85.74 Percent Silt: 5.45
 Wash Wt. 81.08

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	0.440	0.513	0.440	0.513
7	-1.500	2.828	0.690	0.805	1.130	1.318
10	-1.000	2.000	1.360	1.586	2.490	2.904
14	-0.500	1.414	3.280	3.826	5.770	6.730
18	0.000	1.000	4.510	5.260	10.280	11.990
25	0.500	0.707	7.440	8.677	17.720	20.667
35	1.000	0.500	9.550	11.138	27.270	31.805
45	1.500	0.354	14.150	16.503	41.420	48.309
60	2.000	0.250	20.530	23.944	61.950	72.253
80	2.500	0.177	11.770	13.728	73.720	85.981
120	3.000	0.125	5.820	6.788	79.540	92.769
170	3.500	0.088	1.170	1.365	80.710	94.133
200	3.750	0.074	0.280	0.327	80.990	94.460
230	4.000	0.063	0.060	0.070	81.050	94.530
Pan	Pan	0.053	4.670	5.447	85.720	99.977

PHI 5 PHI 16 PHI 25 PHI 50 PHI 75 PHI 84 PHI 95
 -0.73 0.23 0.69 1.54 2.10 2.43 4.02

Median phi: 1.54 Median mm: 0.35

	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.50	0.35	1.27	-0.03	1.38
Moment	1.47	0.36	1.57	0.21	1.90

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-3#2
 Date: 1/1/2001
 By: ID



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

Elevation: -31.3 Feet Easting: 560134.87 State Plane 1983
 Reference: NGVD 29 Northing: 835970.59 FLA West Feet

USCS: SW-SM Munsel Dry: 5Y-7/1 Munsel Wet: 5Y-6/1
 Comments: 0

Dry Wt. 80.70 Percent Silt: 8.42
 Wash Wt. 73.93

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	0.210	0.260	0.210	0.260
7	-1.500	2.828	0.620	0.768	0.830	1.029
10	-1.000	2.000	1.620	2.007	2.450	3.036
14	-0.500	1.414	2.860	3.544	5.310	6.580
18	0.000	1.000	4.360	5.403	9.670	11.983
25	0.500	0.707	5.550	6.877	15.220	18.860
35	1.000	0.500	6.880	8.525	22.100	27.385
45	1.500	0.354	10.940	13.556	33.040	40.942
60	2.000	0.250	16.360	20.273	49.400	61.214
80	2.500	0.177	14.380	17.819	63.780	79.033
120	3.000	0.125	7.680	9.517	71.460	88.550
170	3.500	0.088	2.040	2.528	73.500	91.078
200	3.750	0.074	0.310	0.384	73.810	91.462
230	4.000	0.063	0.080	0.099	73.890	91.561
Pan	Pan	0.053	6.790	8.414	80.680	99.975

PHI 5 PHI 16 PHI 25 PHI 50 PHI 75 PHI 84 PHI 95
 -0.72 0.29 0.86 1.72 2.39 2.76 4.10

Median phi: 1.72 Median mm: 0.30

	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.63	0.32	1.35	-0.10	1.30
Moment	1.63	0.32	1.63	0.04	1.75

Gradation Analysis Report

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



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

Elevation:	-33.5	Feet	Easting:	560134.87	State Plane	1983
Reference:	NGVD 29		Northing:	835970.59	FLA West	Feet

USCS:	SW-SM	Munsel Dry:	5Y-7/1	Munsel Wet:	5Y-6/1
Comments:	0				

Dry Wt.	83.92	Percent Silt:	5.72
Wash Wt.	79.13		

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	1.320	1.573	1.320	1.573
7	-1.500	2.828	1.520	1.811	2.840	3.384
10	-1.000	2.000	2.370	2.824	5.210	6.208
14	-0.500	1.414	3.790	4.516	9.000	10.724
18	0.000	1.000	4.510	5.374	13.510	16.099
25	0.500	0.707	6.460	7.698	19.970	23.796
35	1.000	0.500	6.890	8.210	26.860	32.007
45	1.500	0.354	8.640	10.296	35.500	42.302
60	2.000	0.250	18.740	22.331	54.240	64.633
80	2.500	0.177	16.870	20.102	71.110	84.735
120	3.000	0.125	6.640	7.912	77.750	92.648
170	3.500	0.088	1.110	1.323	78.860	93.970
200	3.750	0.074	0.200	0.238	79.060	94.209
230	4.000	0.063	0.050	0.060	79.110	94.268
Pan	Pan	0.053	4.800	5.720	83.910	99.988

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-1.21	-0.01	0.57	1.67	2.26	2.48	4.03

Median phi:	1.67	Median mm:	0.31
-------------	------	------------	------

	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.39	0.38	1.42	-0.30	1.28
Moment	1.40	0.38	1.75	-0.03	1.79

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-3#4
 Date: 1/1/2001
 By: ID



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

Elevation:	-35.4	Feet	Easting:	560134.87	State Plane	1983
Reference:	NGVD 29		Northing:	835970.59	FLA West	Feet

USCS:	SW-SM	Munsel Dry:	5Y 7/1	Munsel Wet:	5Y 6/1
Comments:	0				

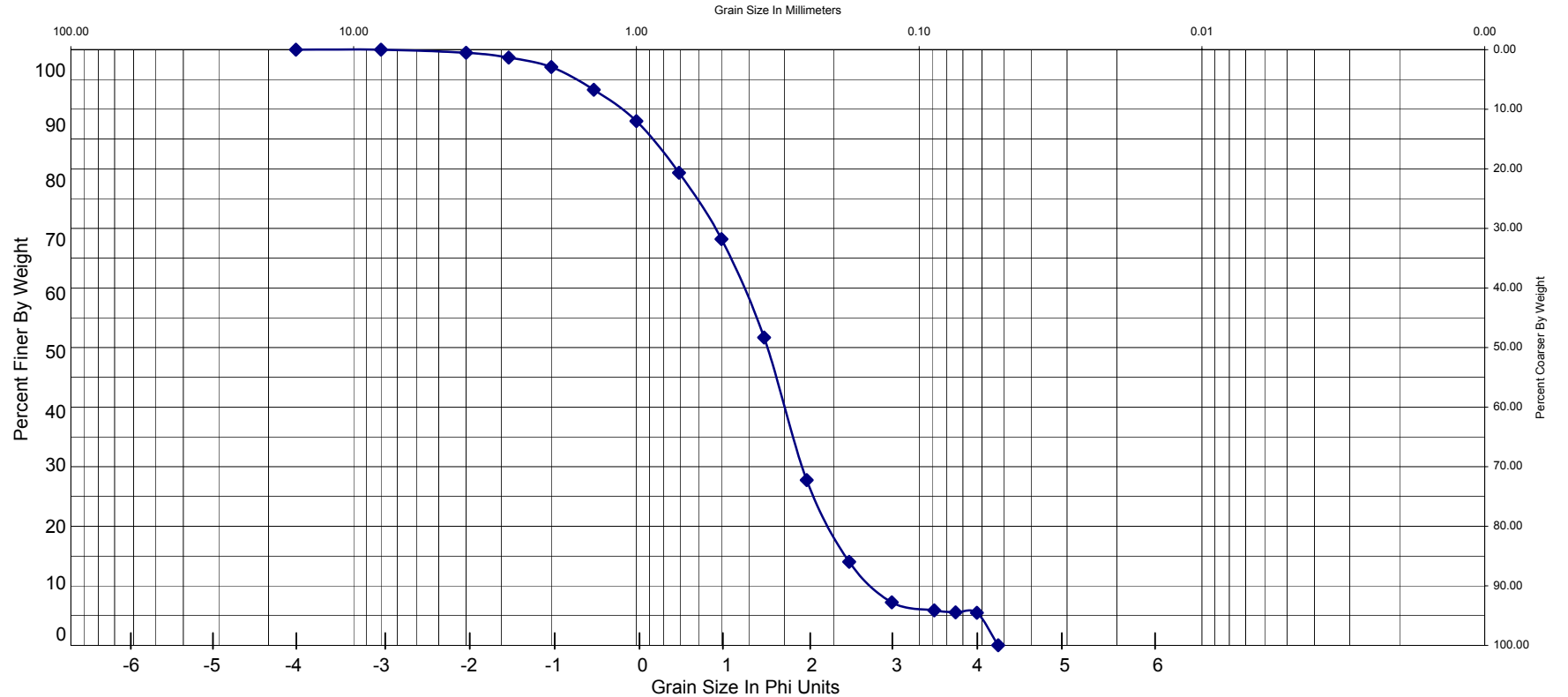
Dry Wt.	77.62	Percent Silt:	10.11
Wash Wt.	69.79		

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	0.600	0.773	0.600	0.773
5	-2.000	4.000	3.610	4.651	4.210	5.424
7	-1.500	2.828	4.480	5.772	8.690	11.196
10	-1.000	2.000	8.030	10.345	16.720	21.541
14	-0.500	1.414	10.850	13.978	27.570	35.519
18	0.000	1.000	7.750	9.985	35.320	45.504
25	0.500	0.707	6.480	8.348	41.800	53.852
35	1.000	0.500	5.430	6.996	47.230	60.848
45	1.500	0.354	5.840	7.524	53.070	68.372
60	2.000	0.250	7.290	9.392	60.360	77.763
80	2.500	0.177	5.380	6.931	65.740	84.695
120	3.000	0.125	2.740	3.530	68.480	88.225
170	3.500	0.088	1.030	1.327	69.510	89.552
200	3.750	0.074	0.200	0.258	69.710	89.809
230	4.000	0.063	0.050	0.064	69.760	89.874
Pan	Pan	0.053	7.850	10.113	77.610	99.987

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-2.09	-1.27	-0.88	0.27	1.85	2.45	4.13

Median phi:	0.27	Median mm:	0.83
-------------	------	------------	------

	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	0.70	0.62	1.87	0.31	0.93
Moment	0.64	0.64	2.25	0.28	1.52

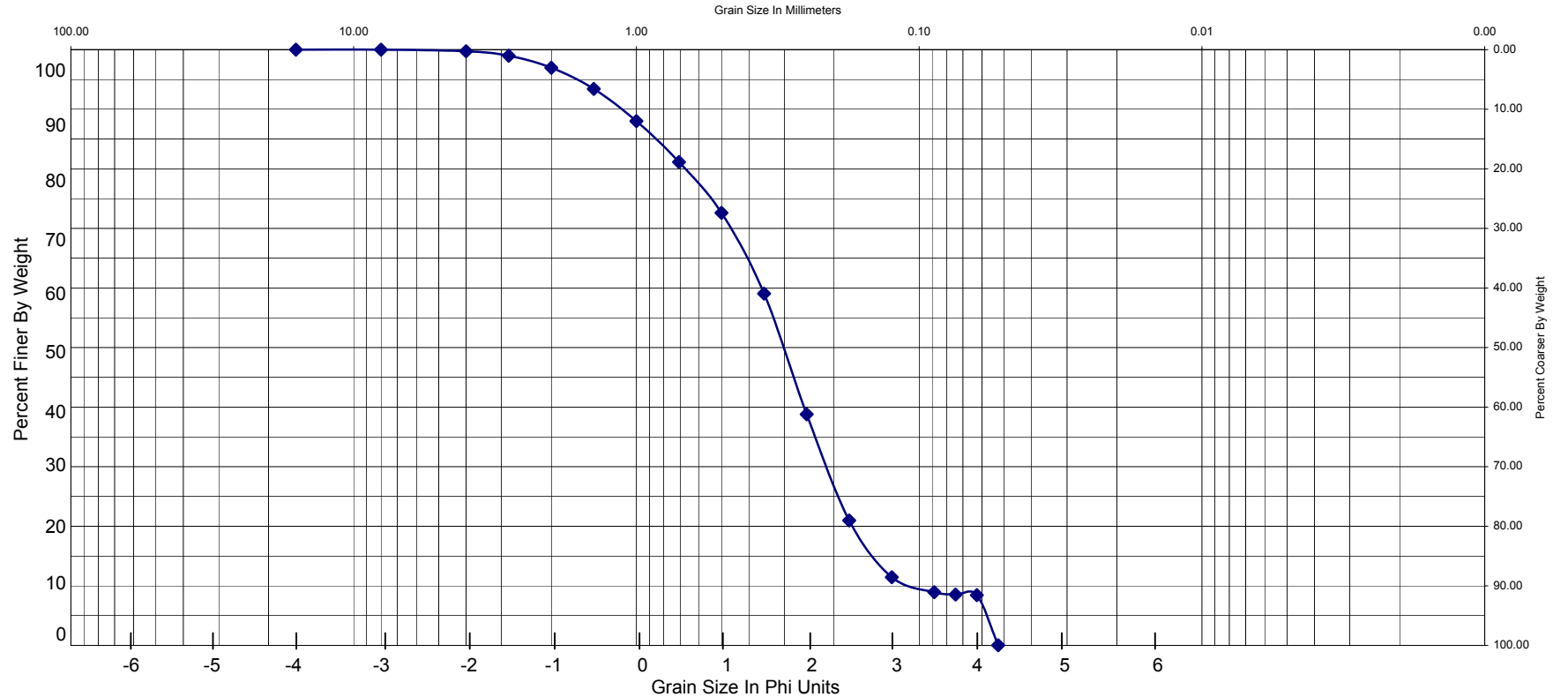


Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-3#1	0.8		SW-SM	5.45	0.34	0.36	0.21	1.9	1.57	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID
													Easting (X): 560134.87 Feet
													Northing (Y): 835970.59 Feet
													Sample Elevation:-28.8 NGVD 29
													Coord. System: State Plane 1983 FLA West



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

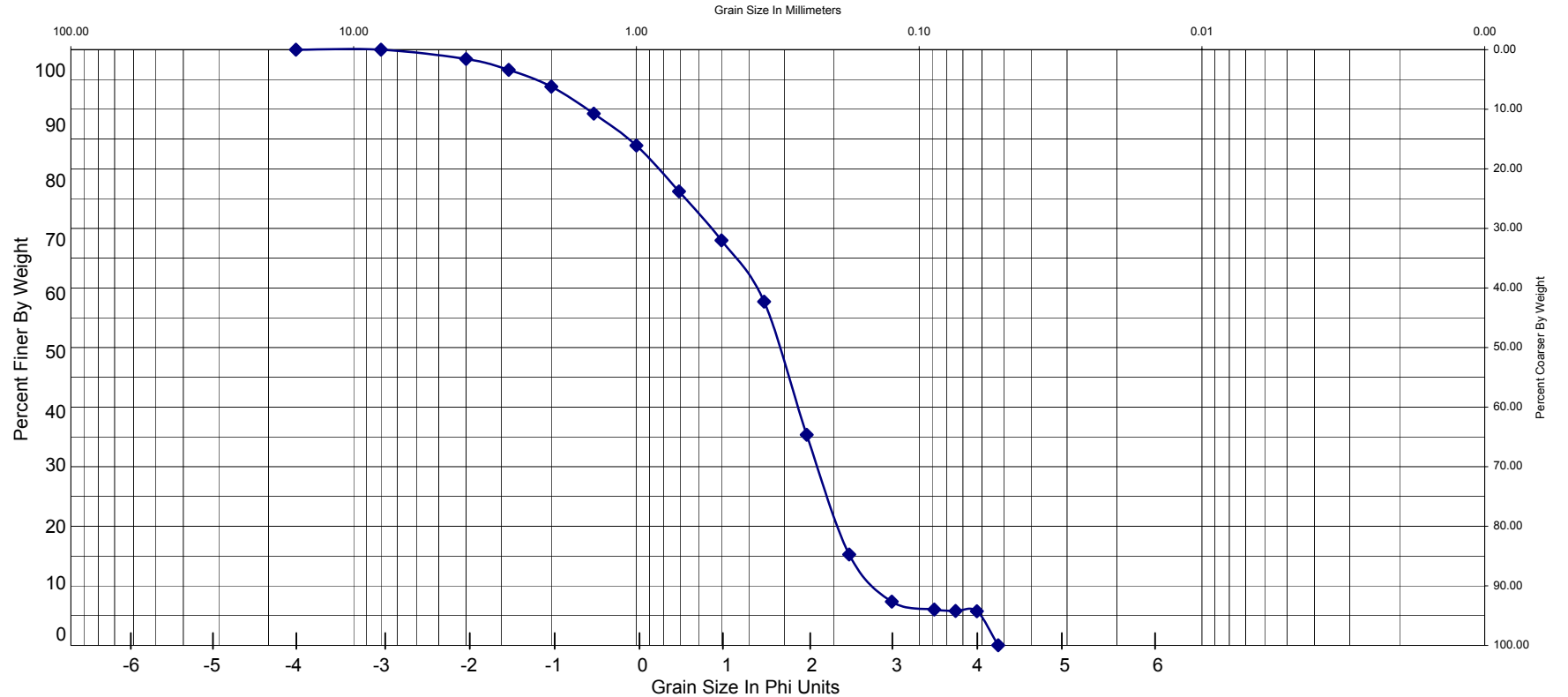


Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-3#2	3.3		SW-SM	8.42	0.3	0.32	0.04	1.75	1.63	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID
													Easting (X): 560134.87 Feet
													Northing (Y): 835970.59 Feet
													Sample Elevation:-31.3 NGVD 29
													Coord. System: State Plane 1983 FLA West



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

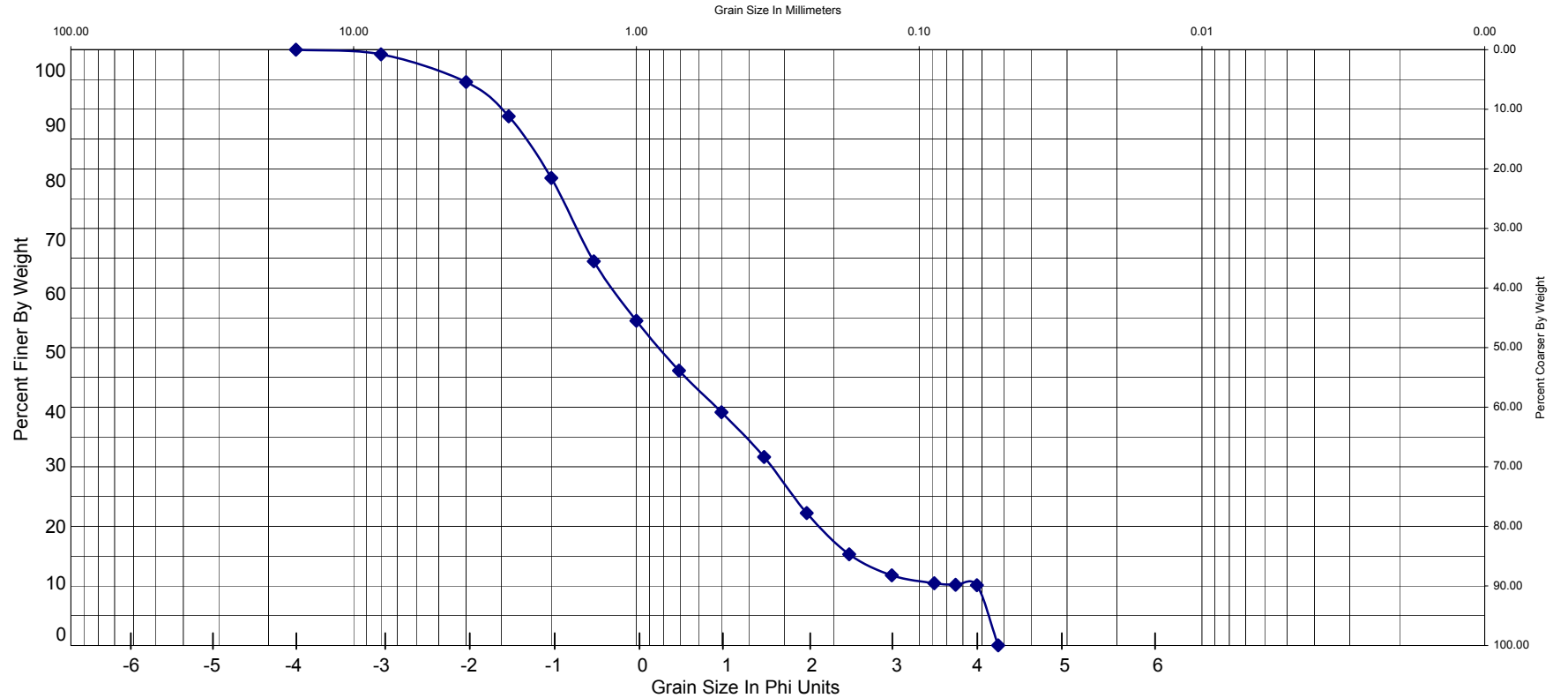


Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-3#3	5.5		SW-SM	5.72	0.31	0.38	-0.03	1.79	1.75	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID
													Easting (X): 560134.87 Feet
													Northing (Y): 835970.59 Feet
													Sample Elevation:-33.5 NGVD 29
													Coord. System: State Plane 1983 FLA West



COASTAL PLANNING & ENGINEERING, INC.
2481 N. W. BOCA RATON BLVD.
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-00-3#4	7.4		SW-SM	10.11	0.83	0.64	0.28	1.52	2.25	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):	560134.87 Feet
Northing (Y):	835970.59 Feet
Sample Elevation:	-35.4 NGVD 29
Coord. System:	State Plane 1983 FLA West



Note: This core has been shifted 0.7ft. The end of the core was not cut at the 0 ft. mark, therefore the true 0 ft. mark is 0.7 ft. from the edge.





