

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= 529017.25 Y= 739858.88		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-00-41		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 Completed 8/18/00 12:01		
8. DEPTH DRILLED INTO ROCK N/A		17. ELEVATION TOP OF HOLE -38.3 ft		
9. TOTAL DEPTH OF HOLE 18.7 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
-38.3	0					
	1		SAND, fine grained, trace shell hash, shell fragments @ depth 1.3' & 1.6', light gray (5Y-7/1), (SP).		1	Sample #1, Depth = 1.0' Mean (mm): 0.38, Phi Sorting: 0.77 Silt: 0.38% (SP)
	2					
	3				2	Sample #2, Depth = 4.5' Mean (mm): 0.27, Phi Sorting: 0.54 Silt: 0.81% (SP)
	4					
-43.5	5		fine grained, light gray (5Y-7/1), (SP).			
	6					
	7				3	Sample #3, Depth = 8.0' Mean (mm): 0.24, Phi Sorting: 0.56 Silt: 1.59% (SP)
	8					
	9		fine grained, trace shell hash, gray (5Y-6/1), (SP).			
	10				4	Sample #4, Depth = 12.0 Mean (mm): 0.24, Phi Sorting: 0.58 Silt: 2.04% (SP)
	11					
	12					
-50.5	13		fine grained, trace shell hash, gray (5Y-6/1), (SP).			
	14					
	15				5	Sample #5, Depth = 17.0 Mean (mm): 0.24, Phi Sorting : 0.68 Silt:2.50% (SP)
	16					
	17		End of Boring			
	18					
-57	19					
	20					
	21		Note: 1) Soils are field visually classified in accordance with the Unified Soil Classification System.			Note: This column contains laboratory data.
	22					
	23					
	24					

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-41#1
 Date: 1/1/2001
 By: ID



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

Elevation:	-39.3	Feet	Easting:	529017.25	State Plane	1983
Reference:	NGVD 29		Northing:	739858.88	FLA West	Feet

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

Dry Wt.	65.69	Percent Silt:	0.38
Wash Wt.	65.44		

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	0.090	0.137	0.090	0.137
10	-1.000	2.000	0.390	0.594	0.480	0.731
14	-0.500	1.414	0.990	1.507	1.470	2.238
18	0.000	1.000	1.240	1.888	2.710	4.125
25	0.500	0.707	2.700	4.110	5.410	8.236
35	1.000	0.500	7.390	11.250	12.800	19.485
45	1.500	0.354	19.480	29.654	32.280	49.140
60	2.000	0.250	23.940	36.444	56.220	85.584
80	2.500	0.177	8.550	13.016	64.770	98.599
120	3.000	0.125	0.640	0.974	65.410	99.574
170	3.500	0.088	0.020	0.030	65.430	99.604
200	3.750	0.074	0.010	0.015	65.440	99.619
230	4.000	0.063	0.000	0.000	65.440	99.619
Pan	Pan	0.053	0.250	0.381	65.690	100.000

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
0.11	0.85	1.09	1.51	1.85	1.98	2.36

Median phi:	1.51	Median mm:	0.35
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.36	0.39	0.63	-0.39	1.21
Moment	1.39	0.38	0.77	-0.41	1.84

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-41#2
 Date: 1/1/2001
 By: ID



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

Elevation:	-42.8	Feet	Easting:	529017.25	State Plane	1983
Reference:	NGVD 29		Northing:	739858.88	FLA West	Feet

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

Dry Wt.	54.03	Percent Silt:	0.81
Wash Wt.	53.59		

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	0.100	0.185	0.100	0.185
14	-0.500	1.414	0.130	0.241	0.230	0.426
18	0.000	1.000	0.240	0.444	0.470	0.870
25	0.500	0.707	0.410	0.759	0.880	1.629
35	1.000	0.500	1.320	2.443	2.200	4.072
45	1.500	0.354	6.240	11.549	8.440	15.621
60	2.000	0.250	20.800	38.497	29.240	54.118
80	2.500	0.177	21.820	40.385	51.060	94.503
120	3.000	0.125	2.380	4.405	53.440	98.908
170	3.500	0.088	0.130	0.241	53.570	99.149
200	3.750	0.074	0.020	0.037	53.590	99.186
230	4.000	0.063	0.000	0.000	53.590	99.186
Pan	Pan	0.053	0.440	0.814	54.030	100.000

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
1.04	1.50	1.62	1.95	2.26	2.37	2.56

Median phi:	1.95	Median mm:	0.26
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.88	0.27	0.45	-0.20	0.98
Moment	1.90	0.27	0.54	-0.30	1.61

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-41#3
 Date: 1/1/2001
 By: ID



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

Elevation:	-46.3	Feet	Easting:	529017.25	State Plane	1983
Reference:	NGVD 29		Northing:	739858.88	FLA West	Feet

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

Dry Wt.	52.08	Percent Silt:	1.59
Wash Wt.	51.25		

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	0.020	0.038	0.020	0.038
10	-1.000	2.000	0.090	0.173	0.110	0.211
14	-0.500	1.414	0.140	0.269	0.250	0.480
18	0.000	1.000	0.180	0.346	0.430	0.826
25	0.500	0.707	0.260	0.499	0.690	1.325
35	1.000	0.500	0.700	1.344	1.390	2.669
45	1.500	0.354	3.120	5.991	4.510	8.660
60	2.000	0.250	17.050	32.738	21.560	41.398
80	2.500	0.177	24.790	47.600	46.350	88.998
120	3.000	0.125	4.590	8.813	50.940	97.811
170	3.500	0.088	0.250	0.480	51.190	98.291
200	3.750	0.074	0.050	0.096	51.240	98.387
230	4.000	0.063	0.010	0.019	51.250	98.406
Pan	Pan	0.053	0.830	1.594	52.080	100.000

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
1.19	1.61	1.75	2.09	2.35	2.45	2.84

Median phi:	2.09	Median mm:	0.23
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	2.04	0.24	0.46	-0.17	1.12
Moment	2.04	0.24	0.56	-0.10	1.68

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-41#4
 Date: 1/1/2001
 By: ID



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

Elevation:	-50.3	Feet	Easting:	529017.25	State Plane	1983
Reference:	NGVD 29		Northing:	739858.88	FLA West	Feet

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

Dry Wt.	54.38	Percent Silt:	2.04
Wash Wt.	53.27		

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	0.020	0.037	0.020	0.037
10	-1.000	2.000	0.070	0.129	0.090	0.166
14	-0.500	1.414	0.190	0.349	0.280	0.515
18	0.000	1.000	0.190	0.349	0.470	0.864
25	0.500	0.707	0.370	0.680	0.840	1.545
35	1.000	0.500	0.830	1.526	1.670	3.071
45	1.500	0.354	3.380	6.216	5.050	9.287
60	2.000	0.250	16.080	29.570	21.130	38.856
80	2.500	0.177	26.560	48.841	47.690	87.698
120	3.000	0.125	5.110	9.397	52.800	97.095
170	3.500	0.088	0.370	0.680	53.170	97.775
200	3.750	0.074	0.080	0.147	53.250	97.922
230	4.000	0.063	0.010	0.018	53.260	97.940
Pan	Pan	0.053	1.110	2.041	54.370	99.982

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
1.16	1.61	1.77	2.11	2.37	2.46	2.89

Median phi:	2.11	Median mm:	0.23
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	2.05	0.24	0.47	-0.22	1.18
Moment	2.05	0.24	0.58	-0.12	1.74

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-41#5
 Date: 1/1/2001
 By: ID



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

Elevation:	-55.3	Feet	Easting:	529017.25	State Plane	1983
Reference:	NGVD 29		Northing:	739858.88	FLA West	Feet

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

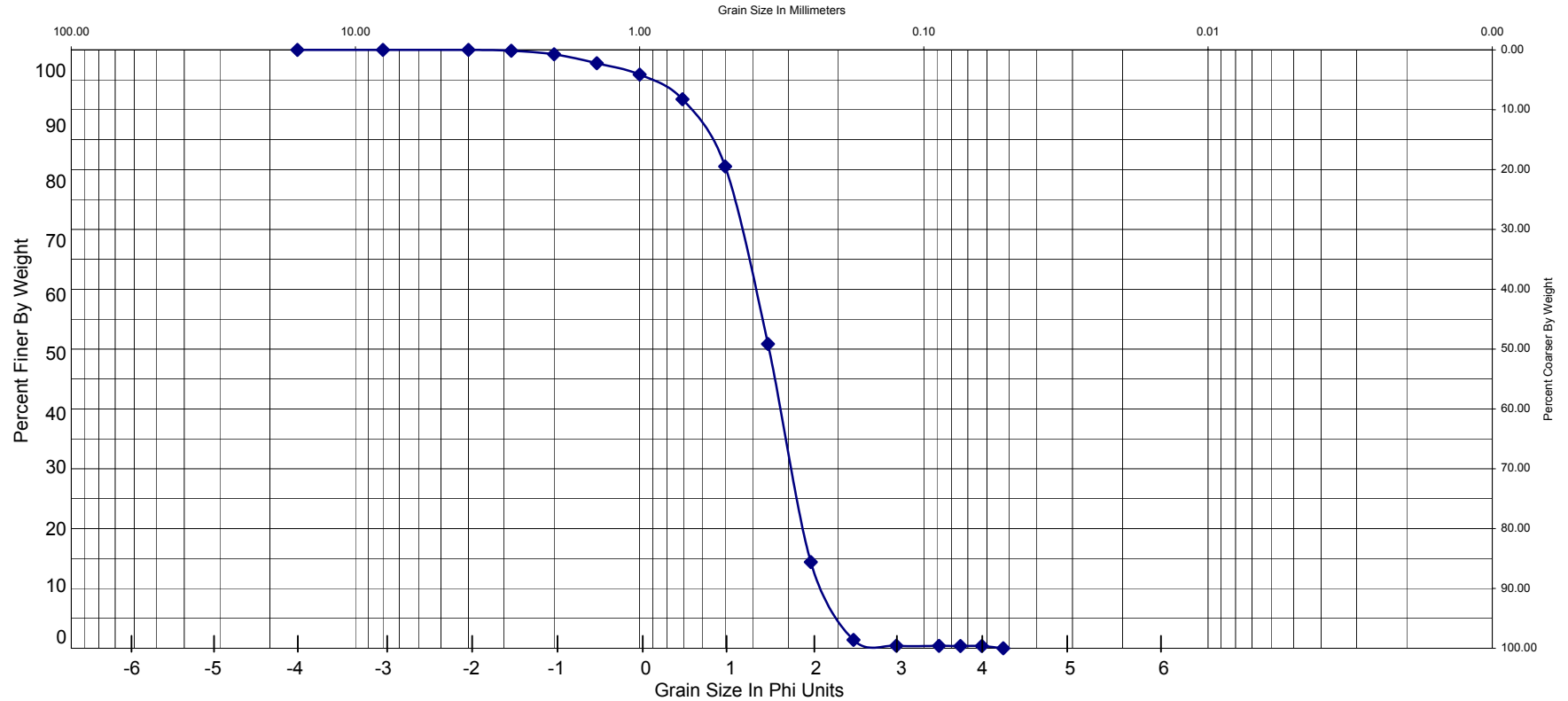
Dry Wt.	55.21	Percent Silt:	2.50
Wash Wt.	53.83		

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	0.320	0.580	0.320	0.580
7	-1.500	2.828	0.210	0.380	0.530	0.960
10	-1.000	2.000	0.400	0.725	0.930	1.684
14	-0.500	1.414	0.330	0.598	1.260	2.282
18	0.000	1.000	0.370	0.670	1.630	2.952
25	0.500	0.707	0.460	0.833	2.090	3.786
35	1.000	0.500	0.840	1.521	2.930	5.307
45	1.500	0.354	2.330	4.220	5.260	9.527
60	2.000	0.250	11.590	20.993	16.850	30.520
80	2.500	0.177	28.340	51.331	45.190	81.851
120	3.000	0.125	7.930	14.363	53.120	96.214
170	3.500	0.088	0.560	1.014	53.680	97.229
200	3.750	0.074	0.140	0.254	53.820	97.482
230	4.000	0.063	0.010	0.018	53.830	97.500
Pan	Pan	0.053	1.380	2.500	55.210	100.000

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
0.90	1.65	1.87	2.19	2.43	2.57	2.96

Median phi:	2.19	Median mm:	0.22
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	2.06	0.24	0.54	-0.46	1.49
Moment	2.08	0.24	0.68	-0.48	2.07

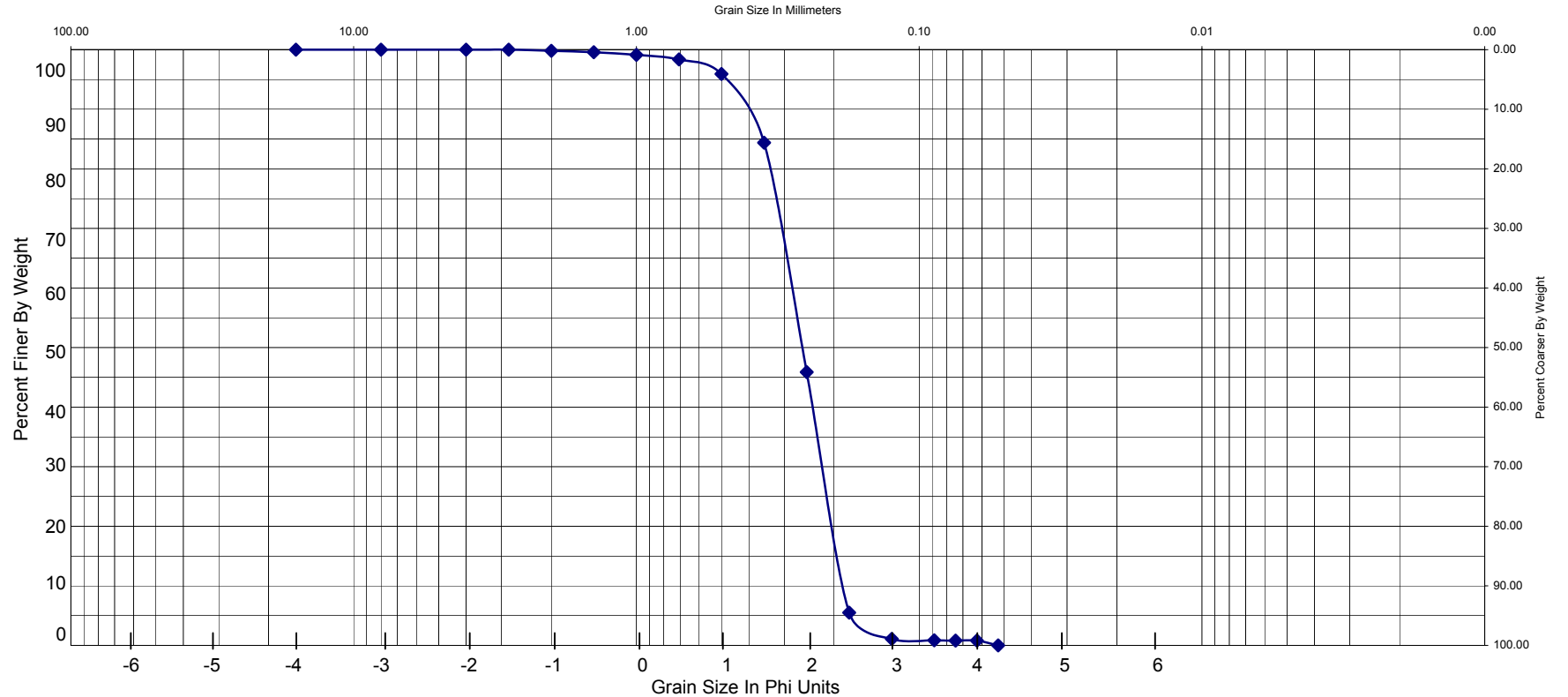


Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-41#1	1.0		SP	0.38	0.35	0.38	-0.41	1.84	0.77	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID
													Easting (X): 529017.25 Feet
													Northing (Y): 739858.88 Feet
													Sample Elevation: -39.3 NGVD 29
													Coord. System: State Plane 1983 FLA West




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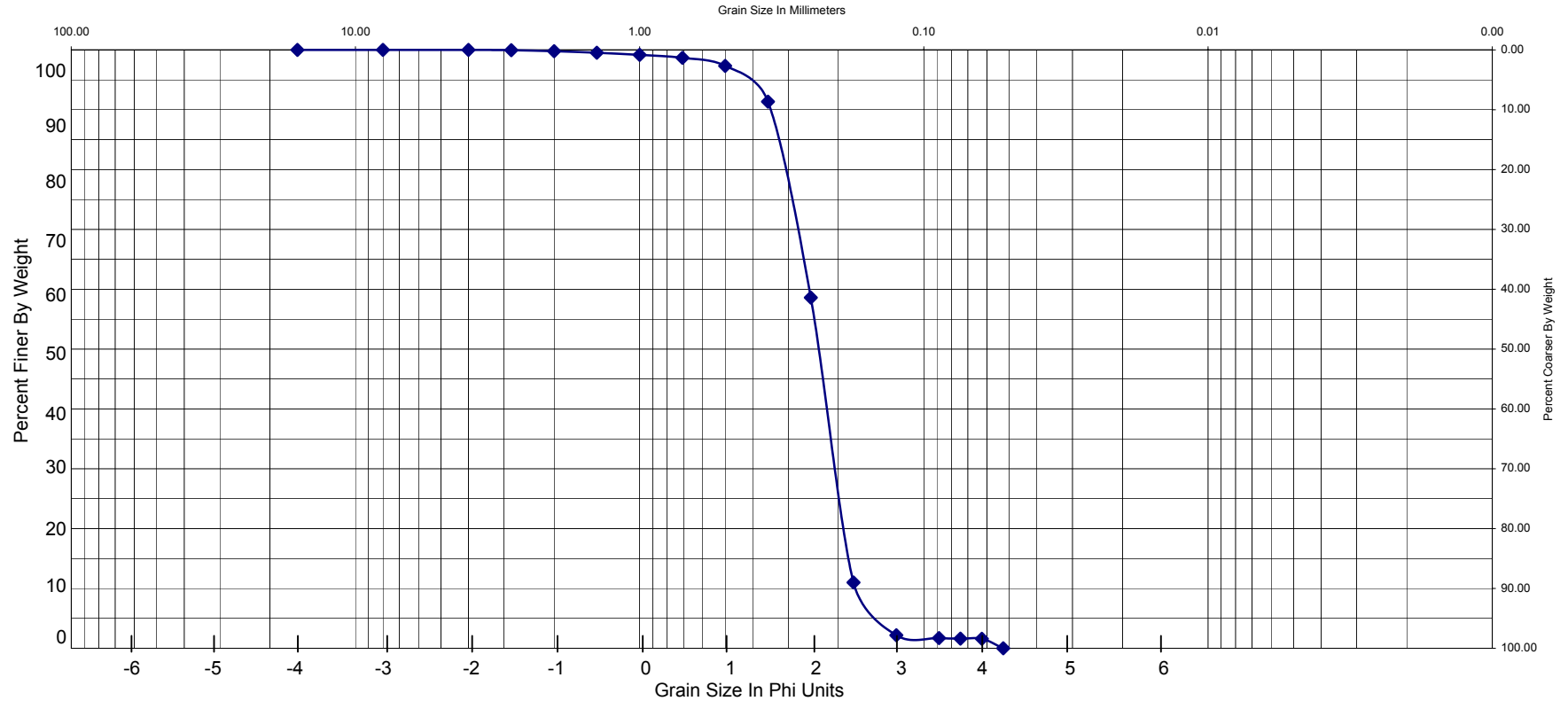
Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-41#2	4.5		SP	0.81	0.26	0.27	-0.3	1.61	0.54	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID



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Easting (X):	529017.25 Feet
Northing (Y):	739858.88 Feet
Sample Elevation:	-42.8 NGVD 29
Coord. System:	State Plane 1983 FLA West

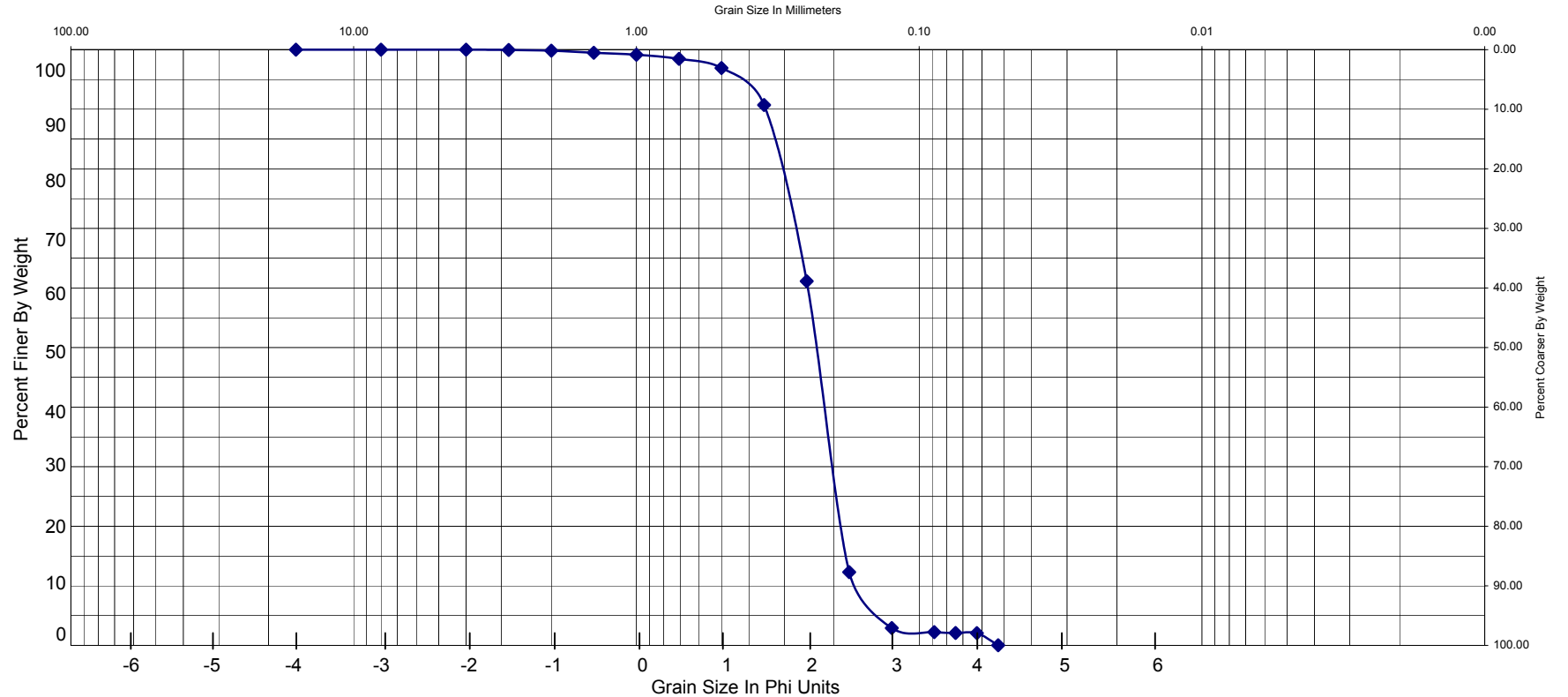


Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-41#3	8.0		SP	1.59	0.23	0.24	-0.1	1.68	0.56	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID
													Easting (X): 529017.25 Feet
													Northing (Y): 739858.88 Feet
													Sample Elevation: -46.3 NGVD 29
													Coord. System: State Plane 1983 FLA West




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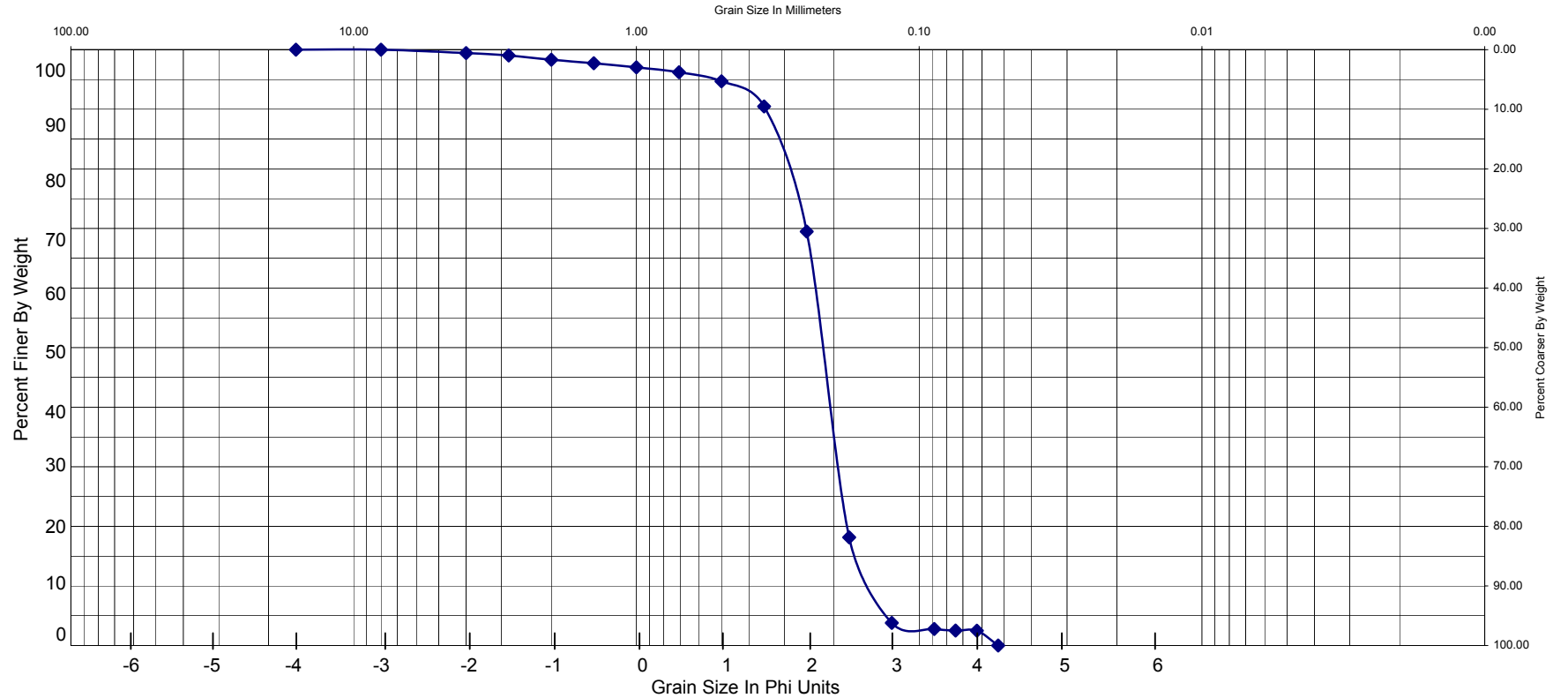
Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-41#4	12.0		SP	2.04	0.23	0.24	-0.12	1.74	0.58	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID



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Easting (X):	529017.25 Feet
Northing (Y):	739858.88 Feet
Sample Elevation:	-50.3 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-00-41#5	17.0		SP	2.50	0.22	0.24	-0.48	2.07	0.68	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID
													Easting (X): 529017.25 Feet
													Northing (Y): 739858.88 Feet
													Sample Elevation: -55.3 NGVD 29
													Coord. System: State Plane 1983 FLA West



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