

DRILLING LOG		DIVISION: South Atlantic		INSTALLATION: Jacksonville District		SHEET 1 of 1	
1. PROJECT		CENTRAL BOCA SAND STUDY		10. SIZE AND TYPE OF BIT 3 5/8"			
(Coordinates or Station)				11. DATUM FOR ELEVATION SHOWN (TBM or MSL)			
2. LOCATION		X=963038.40 Y=728277.60		MLW			
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-00-25		13. TOT NO. OF OVERBURDEN SAMPLES TAKEN		Disturbed: 0 Undisturbed: 0	
5. NAME OF DRILLER		JAMES COLE		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. DEPTH DRILLED INTO ROCK N/A				3/23/01		14:28	
9. TOTAL DEPTH OF HOLE 19.8 FT				17. ELEVATION TOP OF HOLE -60.8 ft			
				18. TOTAL CORE RECOVERY FOR BORING 91%			
				19. SIGNATURE OF GEOLOGIST		MW/ID	

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS
-60.8	0					
	1					
	2		SAND, fine to medium grained, trace shell hash, gray (5Y-5/1), (SP). 0.5" shell @ 2.7'.		1	Sample #1, Depth = 2.0' Mean (mm): 0.23, Phi Sorting: 1.10 Silt: 2.89% (SW)
-64.7	3					
	4		medium to fine grained, little shell hash, gray (5Y-5/1), (SP) from 3.9' to 5.2'. 1.5" coral @ 4.8'.		2	Sample #2, Depth = 4.5' Mean (mm): 0.29, Phi Sorting: 1.26 Silt: 3.05% (SW)
-66	5					
	6		fine to medium grained, trace shell hash, gray (5Y-5/1), (SP) from 5.2' to 6.5'.		1	
-67.3	7					
	8		medium to fine grained, little shell hash, gray (5Y-5/1), (SP) from 6.5' to 7.4'. Pocket of fine to medium gravel sized carbonate clasts from 6.6' to 6.7'. 1" coral @ 6.7', 0.5" shell @ 6.8'.		2	
-68.2	9					
	10					
	11		SHELLY SAND with some coral ranging in size from coarse sand size to 3.5", little shell fragments, gray (5Y-5/1), (GP).			
	12					
	13					
-74.6	14					
	15					
	16		SILTY SAND, some shell hash, whole shell and coral, gray (5Y-6/1), (SM).			
	17					
-78.8	18					
	19		No Recovery			
-80.6	20					
	21		End of Boring			
	22		Note: 1) Soils are field visually classified in accordance with the Unified Soil Classification System.			Note: 1) This column contains laboratory data. 2) Samples are taken from a 3" section of the core, centered on the sample depth.
	23					
	24					

PROJECT: Central Boca Sand Study	HOLE NUMBER:
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# Gradation Analysis Report

Proj Name: Central Boca  
 Sample: CBVC-01-25#1  
 Date: 4/11/01  
 By: ID

COASTAL PLANNING & ENGINEERING, INC.

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

Elevation: -62.80 Feet Easting: 963038.40 State Plane 1983  
 Reference: NGVD Northing: 728277.60 FLA East Feet

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

Dry Wt. 53.68 Percent Silt: 2.89  
 Wash Wt. 52.18

Sieve Size	PHI Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
3/4	-4.250	19.027	0.000	0.000	0.000	0.000
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.250	9.514	0.000	0.000	0.000	0.000
4	-3.000	8.000	0.100	0.186	0.100	0.186
5	-2.000	4.000	0.130	0.242	0.230	0.428
7	-1.500	2.828	0.150	0.279	0.380	0.708
10	-1.000	2.000	0.410	0.764	0.790	1.472
14	-0.500	1.414	0.450	0.838	1.240	2.310
18	0.000	1.000	0.830	1.546	2.070	3.856
25	0.500	0.707	1.750	3.260	3.820	7.116
35	1.000	0.500	2.730	5.086	6.550	12.202
45	1.500	0.354	3.160	5.887	9.710	18.089
60	2.000	0.250	6.050	11.270	15.760	29.359
80	2.500	0.177	13.210	24.609	28.970	53.968
120	3.000	0.125	19.000	35.395	47.970	89.363
170	3.500	0.088	3.990	7.433	51.960	96.796
200	3.750	0.074	0.150	0.279	52.110	97.075
230	4.000	0.063	0.040	0.075	52.150	97.150
Pan	Pan	0.053	1.510	2.813	53.660	99.963

PHI 5 PHI 16 PHI 25 PHI 50 PHI 75 PHI 84 PHI 95  
 0.18 1.32 1.81 2.42 2.80 2.92 3.33

Median phi: 2.42 Median mm: 0.19

	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	2.04	0.24	0.89	-0.72	1.32
Moment	2.12	0.23	1.10	-0.62	2.01

# Gradation Analysis Report

Proj Name: Central Boca  
 Sample: CBVC-01-25#2  
 Date: 4/11/01  
 By: ID

COASTAL PLANNING & ENGINEERING, INC.

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

Elevation: -65.30 Feet Easting: 963038.40 State Plane 1983  
 Reference: NGVD Northing: 728277.60 FLA East Feet

USCS: SW Munsel Dry: 5Y 6/1 Munsel Wet: 5Y 4/1  
 Comments: 0

Dry Wt. 53.74 Percent Silt: 3.05  
 Wash Wt. 52.14

Sieve Size	PHI Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
3/4	-4.250	19.027	0.000	0.000	0.000	0.000
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.250	9.514	0.000	0.000	0.000	0.000
4	-3.000	8.000	0.000	0.000	0.000	0.000
5	-2.000	4.000	0.030	0.056	0.030	0.056
7	-1.500	2.828	0.400	0.744	0.430	0.800
10	-1.000	2.000	0.550	1.023	0.980	1.824
14	-0.500	1.414	0.990	1.842	1.970	3.666
18	0.000	1.000	1.660	3.089	3.630	6.755
25	0.500	0.707	2.570	4.782	6.200	11.537
35	1.000	0.500	3.850	7.164	10.050	18.701
45	1.500	0.354	5.280	9.825	15.330	28.526
60	2.000	0.250	8.140	15.147	23.470	43.673
80	2.500	0.177	14.450	26.889	37.920	70.562
120	3.000	0.125	11.870	22.088	49.790	92.650
170	3.500	0.088	2.200	4.094	51.990	96.744
200	3.750	0.074	0.100	0.186	52.090	96.930
230	4.000	0.063	0.040	0.074	52.130	97.004
Pan	Pan	0.053	1.600	2.977	53.730	99.981

PHI 5 PHI 16 PHI 25 PHI 50 PHI 75 PHI 84 PHI 95  
 -0.28 0.81 1.32 2.12 2.60 2.80 3.28

Median phi: 2.12 Median mm: 0.23

	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.75	0.30	1.04	-0.55	1.14
Moment	1.81	0.29	1.26	-0.46	1.75



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

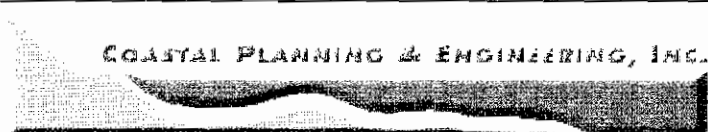
Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information	
CBVC-01-25#1	2.0		SW	2.89	0.19	0.23	-0.62	2.01	1.1	NA	NA	NA	Project Name:	Central Boca
													Sample Type:	VibraCores
													Collection Date:	4/11/01
													Analysis By:	ID
													Easting (X):	963038.40 Feet
													Northing (Y):	728277.60 Feet
													Sample Elevation:	-62.8 NGVD
													Coord. System:	State Plane 1983 FLA East

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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
CBVC-01-25#2	4.5		SW	3.05	0.23	0.29	-0.46	1.75	1.26	NA	NA	NA	Project Name: Central Boca
													Sample Type: VibraCores
													Collection Date: 4/11/01
													Analysis By: ID
<div>  <div> <b>COASTAL PLANNING &amp; ENGINEERING, INC.</b>  <b>2481 N. W. BOCA RATON BLVD.</b>  <b>BOCA RATON, FLORIDA 33431</b> </div> </div>													Easting (X): 963038.40 Feet
													Northing (Y): 728277.60 Feet
													Sample Elevation: -65.3 NGVD
													Coord. System: State Plane 1983 FLA East