





<b>Granularmetric Report</b> Depths and elevations based on measured values				 <b>COASTAL TECH</b> Coastal Geology & Sediments Laboratory  1333 Gateway Dr., Suite 1004 Melbourne, FL 32901 Phone (321) 751-1135 Fax (321) 751-2343			
Project Name: Bonita Beach							
Sample Name: B-3A #1							
Analysis Date: 03-15-12							
Analyzed By: MB							
Easting (ft): <div style="text-align: center;">688,502.2</div>		Northing (ft): <div style="text-align: center;">750,126</div>		Coordinate System: <div style="text-align: center;">Florida State Plane West</div>		Elevation (ft): <div style="text-align: center;">-9.9 NAVD 88</div>	
USCS: <div style="text-align: center;">SW</div>		Munsell: Wet - 5Y-7/2 Dry - 5Y-8/1		Comments:			
Dry Weight (g): <div style="text-align: center;">163.95</div>	Wash Weight (g): <div style="text-align: center;">163.95</div>	Pan Retained (g): <div style="text-align: center;">0.38</div>	Sieve Loss (%): <div style="text-align: center;">0.01</div>	Fines (%): #200 - 0.40 #230 - 0.25	Organics (%): <div style="text-align: center;">0.60</div>	Carbonates (%): <div style="text-align: center;">18.00</div>	Shells (%):
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained	
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00	
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00	
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00	
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00	
3.5	-2.50	5.66	0.86	0.52	0.86	0.52	
4	-2.25	4.76	0.46	0.28	1.32	0.80	
5	-2.00	4.00	0.03	0.02	1.35	0.82	
7	-1.50	2.83	0.77	0.47	2.12	1.29	
10	-1.00	2.00	1.57	0.96	3.69	2.25	
14	-0.50	1.41	2.97	1.81	6.66	4.06	
18	0.00	1.00	4.02	2.45	10.68	6.51	
25	0.50	0.71	4.65	2.84	15.33	9.35	
35	1.00	0.50	5.72	3.49	21.05	12.84	
45	1.50	0.35	6.99	4.26	28.04	17.10	
60	2.00	0.25	15.27	9.31	43.31	26.41	
80	2.50	0.18	33.26	20.29	76.57	46.70	
120	3.00	0.13	67.15	40.96	143.72	87.66	
170	3.50	0.09	18.48	11.27	162.20	98.93	
200	3.75	0.07	1.10	0.67	163.30	99.60	
230	4.00	0.06	0.25	0.15	163.55	99.75	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
3.33	2.96	2.85	2.54	1.92	1.37	-0.31	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.17	0.22	1.09	-1.91	6.9		

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Project Name: Bonita Beach							
Sample Name: B-3A #2							
Analysis Date: 03-15-12							
Analyzed By: MB							
Easting (ft): <div style="text-align: center;">688,502.2</div>		Northing (ft): <div style="text-align: center;">750,126</div>		Coordinate System: <div style="text-align: center;">Florida State Plane West</div>		Elevation (ft): <div style="text-align: center;">-11.6 NAVD 88</div>	
USCS: <div style="text-align: center;">SW</div>		Munsell: Wet - 5Y-6/2 Dry - 5Y-7/1		Comments:			
Dry Weight (g): <div style="text-align: center;">136.59</div>	Wash Weight (g): <div style="text-align: center;">136.59</div>	Pan Retained (g): <div style="text-align: center;">0.51</div>	Sieve Loss (%): <div style="text-align: center;">0.09</div>	Fines (%): #200 - 0.56 #230 - 0.46	Organics (%): <div style="text-align: center;">1.40</div>	Carbonates (%): <div style="text-align: center;">60.20</div>	Shells (%):
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained	
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00	
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00	
7/16"	-3.50	11.31	1.20	0.88	1.20	0.88	
5/16"	-3.00	8.00	1.65	1.21	2.85	2.09	
3.5	-2.50	5.66	2.36	1.73	5.21	3.82	
4	-2.25	4.76	2.40	1.76	7.61	5.58	
5	-2.00	4.00	2.68	1.96	10.29	7.54	
7	-1.50	2.83	6.87	5.03	17.16	12.57	
10	-1.00	2.00	10.08	7.38	27.24	19.95	
14	-0.50	1.41	15.89	11.63	43.13	31.58	
18	0.00	1.00	13.61	9.96	56.74	41.54	
25	0.50	0.71	11.50	8.42	68.24	49.96	
35	1.00	0.50	9.36	6.85	77.60	56.81	
45	1.50	0.35	7.53	5.51	85.13	62.32	
60	2.00	0.25	9.08	6.65	94.21	68.97	
80	2.50	0.18	11.19	8.19	105.40	77.16	
120	3.00	0.13	22.32	16.34	127.72	93.50	
170	3.50	0.09	7.69	5.63	135.41	99.13	
200	3.75	0.07	0.42	0.31	135.83	99.44	
230	4.00	0.06	0.13	0.10	135.96	99.54	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
3.13	2.71	2.37	0.50	-0.78	-1.27	-2.33	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	0.6	0.66	1.79	-0.19	2.02		

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Project Name: Bonita Beach							
Sample Name: B-3A #3							
Analysis Date: 03-15-12							
Analyzed By: MB							
Easting (ft): <div style="text-align: center;">688,502.2</div>		Northing (ft): <div style="text-align: center;">750,126</div>		Coordinate System: <div style="text-align: center;">Florida State Plane West</div>		Elevation (ft): <div style="text-align: center;">-12.9 NAVD 88</div>	
USCS: <div style="text-align: center;">SW</div>		Munsell: Wet - 5Y-7/1 Dry - 5Y-8/1		Comments:			
Dry Weight (g): <div style="text-align: center;">155.75</div>	Wash Weight (g): <div style="text-align: center;">155.75</div>	Pan Retained (g): <div style="text-align: center;">0.36</div>	Sieve Loss (%): <div style="text-align: center;">0.13</div>	Fines (%): #200 - 0.46 #230 - 0.34	Organics (%): <div style="text-align: center;">0.90</div>	Carbonates (%): <div style="text-align: center;">40.30</div>	Shells (%):
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained	
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00	
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00	
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00	
5/16"	-3.00	8.00	2.13	1.37	2.13	1.37	
3.5	-2.50	5.66	2.19	1.41	4.32	2.78	
4	-2.25	4.76	1.51	0.97	5.83	3.75	
5	-2.00	4.00	2.02	1.30	7.85	5.05	
7	-1.50	2.83	6.19	3.97	14.04	9.02	
10	-1.00	2.00	6.78	4.35	20.82	13.37	
14	-0.50	1.41	8.67	5.57	29.49	18.94	
18	0.00	1.00	7.70	4.94	37.19	23.88	
25	0.50	0.71	7.22	4.64	44.41	28.52	
35	1.00	0.50	7.96	5.11	52.37	33.63	
45	1.50	0.35	10.74	6.90	63.11	40.53	
60	2.00	0.25	28.90	18.56	92.01	59.09	
80	2.50	0.18	32.27	20.72	124.28	79.81	
120	3.00	0.13	26.30	16.89	150.58	96.70	
170	3.50	0.09	4.24	2.72	154.82	99.42	
200	3.75	0.07	0.19	0.12	155.01	99.54	
230	4.00	0.06	0.18	0.12	155.19	99.66	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
2.95	2.62	2.38	1.76	0.12	-0.76	-2.01	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	1.18	0.44	1.6	-0.97	2.92		

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Project Name: Bonita Beach				1333 Gateway Dr., Suite 1004 Melbourne, FL 32901 Phone (321) 751-1135 Fax (321) 751-2343			
Sample Name: B-3A #4							
Analysis Date: 03-15-12							
Analyzed By: MB							
Easting (ft): <div style="text-align: center;">688,502.2</div>		Northing (ft): <div style="text-align: center;">750,126</div>		Coordinate System: <div style="text-align: center;">Florida State Plane West</div>		Elevation (ft): <div style="text-align: center;">-14.4 NAVD 88</div>	
USCS: <div style="text-align: center;">SW-SM</div>		Munsell: <div style="text-align: center;">Wet - 5Y-5/1 Dry - 5Y-6/1</div>		Comments:			
Dry Weight (g): <div style="text-align: center;">171.83</div>	Wash Weight (g): <div style="text-align: center;">159.94</div>	Pan Retained (g): <div style="text-align: center;">0.63</div>	Sieve Loss (%): <div style="text-align: center;">0.06</div>	Fines (%): #200 - 9.65 #230 - 7.35	Organics (%): <div style="text-align: center;">1.50</div>	Carbonates (%): <div style="text-align: center;">14.70</div>	Shells (%):
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained	
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00	
5/8"	-4.00	16.00	3.29	1.91	3.29	1.91	
7/16"	-3.50	11.31	5.02	2.92	8.31	4.83	
5/16"	-3.00	8.00	0.00	0.00	8.31	4.83	
3.5	-2.50	5.66	0.73	0.42	9.04	5.25	
4	-2.25	4.76	0.72	0.42	9.76	5.67	
5	-2.00	4.00	0.44	0.26	10.20	5.93	
7	-1.50	2.83	1.89	1.10	12.09	7.03	
10	-1.00	2.00	2.01	1.17	14.10	8.20	
14	-0.50	1.41	2.23	1.30	16.33	9.50	
18	0.00	1.00	1.82	1.06	18.15	10.56	
25	0.50	0.71	1.31	0.76	19.46	11.32	
35	1.00	0.50	1.06	0.62	20.52	11.94	
45	1.50	0.35	1.04	0.61	21.56	12.55	
60	2.00	0.25	1.59	0.93	23.15	13.48	
80	2.50	0.18	3.64	2.12	26.79	15.60	
120	3.00	0.13	55.55	32.33	82.34	47.93	
170	3.50	0.09	62.50	36.37	144.84	84.30	
200	3.75	0.07	10.40	6.05	155.24	90.35	
230	4.00	0.06	3.96	2.30	159.20	92.65	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	3.50	3.37	3.03	2.65	2.51	-3.10	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.37	0.19	1.87	-2.44	7.85		