






Granularmetric Report Depths and elevations based on measured values				 COASTAL TECH 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-2 #1							
Analysis Date: 03-01-12							
Analyzed By: LA							
Easting (ft): <div style="text-align: center;">688,097.9</div>		Northing (ft): <div style="text-align: center;">750,798.1</div>		Coordinate System: <div style="text-align: center;">Florida State Plane West</div>		Elevation (ft): <div style="text-align: center;">-10.2 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;">158.39</div>	Wash Weight (g): <div style="text-align: center;">158.39</div>	Pan Retained (g): <div style="text-align: center;">0.23</div>	Sieve Loss (%): <div style="text-align: center;">0.03</div>	Fines (%): #200 - 0.25 #230 - 0.17	Organics (%): <div style="text-align: center;">0.60</div>	Carbonates (%): <div style="text-align: center;">20.10</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	0.76	0.48	0.76	0.48	
3.5	-2.50	5.66	0.63	0.40	1.39	0.88	
4	-2.25	4.76	0.57	0.36	1.96	1.24	
5	-2.00	4.00	0.27	0.17	2.23	1.41	
7	-1.50	2.83	1.05	0.66	3.28	2.07	
10	-1.00	2.00	1.79	1.13	5.07	3.20	
14	-0.50	1.41	2.87	1.81	7.94	5.01	
18	0.00	1.00	3.19	2.01	11.13	7.02	
25	0.50	0.71	3.46	2.18	14.59	9.20	
35	1.00	0.50	4.43	2.80	19.02	12.00	
45	1.50	0.35	5.41	3.42	24.43	15.42	
60	2.00	0.25	10.97	6.93	35.40	22.35	
80	2.50	0.18	33.96	21.44	69.36	43.79	
120	3.00	0.13	72.29	45.64	141.65	89.43	
170	3.50	0.09	15.50	9.79	157.15	99.22	
200	3.75	0.07	0.84	0.53	157.99	99.75	
230	4.00	0.06	0.12	0.08	158.11	99.83	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
3.28	2.94	2.84	2.57	2.06	1.54	-0.50	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.19	0.22	1.15	-2.27	8.5		

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Project Name: Bonita Beach							
Sample Name: B-2 #2							
Analysis Date: 03-01-12							
Analyzed By: LA							
Easting (ft): <div style="text-align: center;">688,097.9</div>		Northing (ft): <div style="text-align: center;">750,798.1</div>		Coordinate System: <div style="text-align: center;">Florida State Plane West</div>		Elevation (ft): <div style="text-align: center;">-11.2 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;">139.38</div>	Wash Weight (g): <div style="text-align: center;">136.34</div>	Pan Retained (g): <div style="text-align: center;">0.11</div>	Sieve Loss (%): <div style="text-align: center;">0.03</div>	Fines (%): #200 - 2.40 #230 - 2.29	Organics (%): <div style="text-align: center;">1.10</div>	Carbonates (%): <div style="text-align: center;">35.10</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	7.15	5.13	7.15	5.13	
7/16"	-3.50	11.31	0.51	0.37	7.66	5.50	
5/16"	-3.00	8.00	1.21	0.87	8.87	6.37	
3.5	-2.50	5.66	4.38	3.14	13.25	9.51	
4	-2.25	4.76	1.65	1.18	14.90	10.69	
5	-2.00	4.00	2.21	1.59	17.11	12.28	
7	-1.50	2.83	5.16	3.70	22.27	15.98	
10	-1.00	2.00	5.30	3.80	27.57	19.78	
14	-0.50	1.41	5.97	4.28	33.54	24.06	
18	0.00	1.00	5.23	3.75	38.77	27.81	
25	0.50	0.71	4.37	3.14	43.14	30.95	
35	1.00	0.50	3.81	2.73	46.95	33.68	
45	1.50	0.35	4.07	2.92	51.02	36.60	
60	2.00	0.25	9.04	6.49	60.06	43.09	
80	2.50	0.18	29.45	21.13	89.51	64.22	
120	3.00	0.13	39.00	27.98	128.51	92.20	
170	3.50	0.09	6.98	5.01	135.49	97.21	
200	3.75	0.07	0.55	0.39	136.04	97.60	
230	4.00	0.06	0.15	0.11	136.19	97.71	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
3.28	2.85	2.69	2.16	-0.37	-1.50	-4.01	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	1.07	0.48	2.15	-1.08	2.91		

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Project Name: Bonita Beach							
Sample Name: B-2 #3							
Analysis Date: 03-01-12							
Analyzed By: LA							
Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):	
688,097.9		750,798.1		Florida State Plane West		-12.2 NAVD 88	
USCS:		Munsell:		Comments:			
SW		Wet - 5Y-6/2 Dry - 5Y-7/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
156.24	152.05	0.30	0.04	#200 - 3.09 #230 - 2.92	1.30	56.90	
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	1.40	0.90	1.40	0.90	
5/16"	-3.00	8.00	0.35	0.22	1.75	1.12	
3.5	-2.50	5.66	5.12	3.28	6.87	4.40	
4	-2.25	4.76	2.12	1.36	8.99	5.76	
5	-2.00	4.00	2.77	1.77	11.76	7.53	
7	-1.50	2.83	7.16	4.58	18.92	12.11	
10	-1.00	2.00	8.79	5.63	27.71	17.74	
14	-0.50	1.41	13.25	8.48	40.96	26.22	
18	0.00	1.00	10.85	6.94	51.81	33.16	
25	0.50	0.71	9.13	5.84	60.94	39.00	
35	1.00	0.50	7.59	4.86	68.53	43.86	
45	1.50	0.35	6.60	4.22	75.13	48.08	
60	2.00	0.25	8.11	5.19	83.24	53.27	
80	2.50	0.18	17.82	11.41	101.06	64.68	
120	3.00	0.13	40.48	25.91	141.54	90.59	
170	3.50	0.09	9.08	5.81	150.62	96.40	
200	3.75	0.07	0.80	0.51	151.42	96.91	
230	4.00	0.06	0.26	0.17	151.68	97.08	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
3.38	2.87	2.70	1.68	-0.57	-1.15	-2.39	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	0.97	0.51	1.87	-0.54	2.04		

Granularmetric Report Depths and elevations based on measured values				 COASTAL TECH Coastal Geology & Sediments Laboratory			
Project Name: Bonita Beach				1333 Gateway Dr., Suite 1004 Melbourne, FL 32901 Phone (321) 751-1135 Fax (321) 751-2343			
Sample Name: B-2 #4							
Analysis Date: 03-01-12							
Analyzed By: LA							
Easting (ft): 688,097.9		Northing (ft): 750,798.1		Coordinate System: Florida State Plane West		Elevation (ft): -14.7 NAVD 88	
USCS: SW-SM		Munsell: Wet - 5Y-5/2 Dry - 5Y-6/1		Comments:			
Dry Weight (g): 137.36	Wash Weight (g): 129.10	Pan Retained (g): 0.82	Sieve Loss (%): 0.00	Fines (%): #200 - 8.94 #230 - 6.61	Organics (%): 1.40	Carbonates (%): 7.60	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	0.98	0.71	0.98	0.71	
5/16"	-3.00	8.00	1.28	0.93	2.26	1.64	
3.5	-2.50	5.66	0.00	0.00	2.26	1.64	
4	-2.25	4.76	0.37	0.27	2.63	1.91	
5	-2.00	4.00	0.12	0.09	2.75	2.00	
7	-1.50	2.83	0.41	0.30	3.16	2.30	
10	-1.00	2.00	0.65	0.47	3.81	2.77	
14	-0.50	1.41	0.78	0.57	4.59	3.34	
18	0.00	1.00	0.68	0.50	5.27	3.84	
25	0.50	0.71	0.59	0.43	5.86	4.27	
35	1.00	0.50	0.50	0.36	6.36	4.63	
45	1.50	0.35	0.70	0.51	7.06	5.14	
60	2.00	0.25	1.24	0.90	8.30	6.04	
80	2.50	0.18	2.71	1.97	11.01	8.01	
120	3.00	0.13	46.19	33.63	57.20	41.64	
170	3.50	0.09	58.68	42.72	115.88	84.36	
200	3.75	0.07	9.20	6.70	125.08	91.06	
230	4.00	0.06	3.20	2.33	128.28	93.39	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	3.50	3.39	3.10	2.75	2.62	1.36	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.82	0.14	1.15	-4.01	20.29		

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Project Name: Bonita Beach							
Sample Name: B-2 #5							
Analysis Date: 03-01-12							
Analyzed By: LA							
Easting (ft): <div style="text-align: center;">688,097.9</div>		Northing (ft): <div style="text-align: center;">750,798.1</div>		Coordinate System: <div style="text-align: center;">Florida State Plane West</div>		Elevation (ft): <div style="text-align: center;">-16.7 NAVD 88</div>	
USCS: <div style="text-align: center;">SM</div>		Munsell: Wet - 5Y-5/2 Dry - 5Y-6/1		Comments:			
Dry Weight (g): <div style="text-align: center;">131.50</div>	Wash Weight (g): <div style="text-align: center;">117.48</div>	Pan Retained (g): <div style="text-align: center;">1.61</div>	Sieve Loss (%): <div style="text-align: center;">0.05</div>	Fines (%): #200 - 14.57 #230 - 11.93	Organics (%): <div style="text-align: center;">2.20</div>	Carbonates (%): <div style="text-align: center;">14.90</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	0.82	0.62	0.82	0.62	
4	-2.25	4.76	0.37	0.28	1.19	0.90	
5	-2.00	4.00	0.35	0.27	1.54	1.17	
7	-1.50	2.83	0.95	0.72	2.49	1.89	
10	-1.00	2.00	1.13	0.86	3.62	2.75	
14	-0.50	1.41	2.24	1.70	5.86	4.45	
18	0.00	1.00	1.55	1.18	7.41	5.63	
25	0.50	0.71	1.02	0.78	8.43	6.41	
35	1.00	0.50	0.98	0.75	9.41	7.16	
45	1.50	0.35	1.17	0.89	10.58	8.05	
60	2.00	0.25	1.89	1.44	12.47	9.49	
80	2.50	0.18	4.05	3.08	16.52	12.57	
120	3.00	0.13	35.04	26.65	51.56	39.22	
170	3.50	0.09	49.20	37.41	100.76	76.63	
200	3.75	0.07	11.57	8.80	112.33	85.43	
230	4.00	0.06	3.47	2.64	115.80	88.07	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	3.71	3.48	3.14	2.73	2.56	-0.27	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.74	0.15	1.19	-2.75	10.49		