




Granularmetric Report Depths and elevations based on measured values				 Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116			
Project Name: Manatee Co. Pipeline Sand Search							
Sample Name: AMVC-10-17 #1							
Analysis Date: 04-13-10							
Analyzed By: TD							
Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):	
400,233		1,168,979		Florida State Plane West		-26.3 NAVD 88	
USCS:		Munsell:		Comments:			
SP		Wet - 5Y-7/1 Dry - 5Y-7/1 Washed - 5Y-7/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
92.69	91.64	0.04	0.03	#200 - 1.26 #230 - 1.20		10	0
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	0.00	0.00	0.00	0.00	
4	-2.25	4.76	0.00	0.00	0.00	0.00	
5	-2.00	4.00	0.00	0.00	0.00	0.00	
7	-1.50	2.83	0.11	0.12	0.11	0.12	
10	-1.00	2.00	0.25	0.27	0.36	0.39	
14	-0.50	1.41	0.77	0.83	1.13	1.22	
18	0.00	1.00	1.17	1.26	2.30	2.48	
25	0.50	0.71	1.47	1.59	3.77	4.07	
35	1.00	0.50	2.07	2.23	5.84	6.30	
45	1.50	0.35	2.64	2.85	8.48	9.15	
60	2.00	0.25	8.31	8.97	16.79	18.12	
80	2.50	0.18	22.10	23.84	38.89	41.96	
120	3.00	0.13	41.20	44.45	80.09	86.41	
170	3.50	0.09	10.97	11.84	91.06	98.25	
200	3.75	0.07	0.45	0.49	91.51	98.74	
230	4.00	0.06	0.06	0.06	91.57	98.80	
Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.							
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
3.36	2.97	2.87	2.59	2.14	1.88	0.71	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.39	0.19	0.77	-2.01	8.17		

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Project Name: Manatee Co. Pipeline Sand Search							
Sample Name: AMVC-10-17 #2							
Analysis Date: 04-13-10							
Analyzed By: TD							
Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):	
400,233		1,168,979		Florida State Plane West		-27.0 NAVD 88	
USCS:		Munsell:		Comments:			
SW		Wet - 5Y-6/1 Dry - 5Y-7/1 Washed - 5Y-7/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
99.49	98.15	0.02	0.01	#200 - 1.42 #230 - 1.36		21	1
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	0.00	0.00	0.00	0.00	
4	-2.25	4.76	0.00	0.00	0.00	0.00	
5	-2.00	4.00	0.14	0.14	0.14	0.14	
7	-1.50	2.83	0.80	0.80	0.94	0.94	
10	-1.00	2.00	1.96	1.97	2.90	2.91	
14	-0.50	1.41	3.22	3.24	6.12	6.15	
18	0.00	1.00	3.27	3.29	9.39	9.44	
25	0.50	0.71	3.14	3.16	12.53	12.60	
35	1.00	0.50	3.07	3.09	15.60	15.69	
45	1.50	0.35	2.94	2.96	18.54	18.65	
60	2.00	0.25	6.00	6.03	24.54	24.68	
80	2.50	0.18	20.85	20.96	45.39	45.64	
120	3.00	0.13	45.09	45.32	90.48	90.96	
170	3.50	0.09	7.28	7.32	97.76	98.28	
200	3.75	0.07	0.30	0.30	98.06	98.58	
230	4.00	0.06	0.06	0.06	98.12	98.64	
Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.							
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
3.28	2.92	2.82	2.55	2.01	1.05	-0.68	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.1	0.23	1.15	-1.68	4.94		

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Project Name: Manatee Co. Pipeline Sand Search							
Sample Name: AMVC-10-17 #3							
Analysis Date: 04-14-10							
Analyzed By: KG							
Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):	
400,233		1,168,979		Florida State Plane West		-30.5 NAVD 88	
USCS:		Munsell:		Comments:			
SW-SM		Wet - 5Y-6/1 Dry - 5Y-6/1 Washed - 5Y-7/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
98.53	94.61	0.54	0.00	#200 - 5.32 #230 - 4.54		12	1
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	0.95	0.96	0.95	0.96	
3.5	-2.50	5.66	0.00	0.00	0.95	0.96	
4	-2.25	4.76	0.08	0.08	1.03	1.04	
5	-2.00	4.00	0.04	0.04	1.07	1.08	
7	-1.50	2.83	0.45	0.46	1.52	1.54	
10	-1.00	2.00	0.57	0.58	2.09	2.12	
14	-0.50	1.41	0.71	0.72	2.80	2.84	
18	0.00	1.00	0.81	0.82	3.61	3.66	
25	0.50	0.71	0.97	0.98	4.58	4.64	
35	1.00	0.50	1.30	1.32	5.88	5.96	
45	1.50	0.35	1.29	1.31	7.17	7.27	
60	2.00	0.25	3.42	3.47	10.59	10.74	
80	2.50	0.18	14.33	14.54	24.92	25.28	
120	3.00	0.13	36.73	37.28	61.65	62.56	
170	3.50	0.09	28.29	28.71	89.94	91.27	
200	3.75	0.07	3.36	3.41	93.30	94.68	
230	4.00	0.06	0.77	0.78	94.07	95.46	
Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.							
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
3.85	3.37	3.22	2.83	2.49	2.18	0.64	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.59	0.17	1.04	-3.16	15.35		

Granularmetric Report

Depths and elevations based on measured values



Coastal Planning & Engineering
2481 NW Boca Raton Blvd, Boca Raton
FL 33431
ph (561) 391-8102
fax (561) 391-9116

Project Name: Manatee Co. Pipeline Sand Search

Sample Name: AMVC-10-17 #4

Analysis Date: 04-13-10

Analyzed By: KG

Eastng (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
400,233	1,168,979	Florida State Plane West	-34.2 NAVD 88

USCS:	Munsell:	Wet - 5Y-6/1 Dry - 5Y-7/1 Washed - 5Y-7/1	Comments:
SW			

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
95.81	93.92	0.13	0.02	#200 - 2.28 #230 - 2.12			1

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	0.42	0.44	0.42	0.44
3.5	-2.50	5.66	1.06	1.11	1.48	1.55
4	-2.25	4.76	0.03	0.03	1.51	1.58
5	-2.00	4.00	0.25	0.26	1.76	1.84
7	-1.50	2.83	0.34	0.35	2.10	2.19
10	-1.00	2.00	0.41	0.43	2.51	2.62
14	-0.50	1.41	0.48	0.50	2.99	3.12
18	0.00	1.00	0.38	0.40	3.37	3.52
25	0.50	0.71	0.61	0.64	3.98	4.16
35	1.00	0.50	0.59	0.62	4.57	4.78
45	1.50	0.35	0.80	0.83	5.37	5.61
60	2.00	0.25	1.56	1.63	6.93	7.24
80	2.50	0.18	13.02	13.59	19.95	20.83
120	3.00	0.13	58.57	61.13	78.52	81.96
170	3.50	0.09	14.26	14.88	92.78	96.84
200	3.75	0.07	0.84	0.88	93.62	97.72
230	4.00	0.06	0.15	0.16	93.77	97.88

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.44	3.07	2.94	2.74	2.53	2.32	1.13
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis	
Statistics	2.54	0.17	0.98	-3.97	20.37	

GRANULARMETRIC REPORT 2010_AMVC_PIPELINE_ROUTE.GPJ_JPBRAZIL.GDT 5/26/10

Granularmetric Report

Depths and elevations based on measured values



Coastal Planning & Engineering
2481 NW Boca Raton Blvd, Boca Raton
FL 33431
ph (561) 391-8102
fax (561) 391-9116

Project Name: Manatee Co. Pipeline Sand Search

Sample Name: AMVC-10-17 #5

Analysis Date: 04-29-10

Analyzed By: TD

Eastng (ft): 400,233	Northing (ft): 1,168,979	Coordinate System: Florida State Plane West	Elevation (ft): -36.8 NAVD 88
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USCS: SW	Munsell: Wet - 5Y-5/1 Dry - 2.5Y-7/2 Washed - 2.5Y-7/1	Comments:
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Dry Weight (g): 97.10	Wash Weight (g): 93.74	Pan Retained (g): 0.12	Sieve Loss (%): 0.00	Fines (%): #200 - 3.83 #230 - 3.58	Organics (%):	Carbonates (%):	Shell Hash (%): 1
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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	0.44	0.45	0.44	0.45
3.5	-2.50	5.66	0.00	0.00	0.44	0.45
4	-2.25	4.76	0.18	0.19	0.62	0.64
5	-2.00	4.00	0.49	0.50	1.11	1.14
7	-1.50	2.83	0.99	1.02	2.10	2.16
10	-1.00	2.00	0.97	1.00	3.07	3.16
14	-0.50	1.41	1.18	1.22	4.25	4.38
18	0.00	1.00	1.27	1.31	5.52	5.69
25	0.50	0.71	1.50	1.54	7.02	7.23
35	1.00	0.50	1.42	1.46	8.44	8.69
45	1.50	0.35	1.79	1.84	10.23	10.53
60	2.00	0.25	3.43	3.53	13.66	14.06
80	2.50	0.18	14.24	14.67	27.90	28.73
120	3.00	0.13	50.50	52.01	78.40	80.74
170	3.50	0.09	14.06	14.48	92.46	95.22
200	3.75	0.07	0.92	0.95	93.38	96.17
230	4.00	0.06	0.24	0.25	93.62	96.42

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.49	3.11	2.94	2.70	2.37	2.07	-0.26
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis	
Statistics	2.39	0.19	1.09	-2.7	10.7	

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