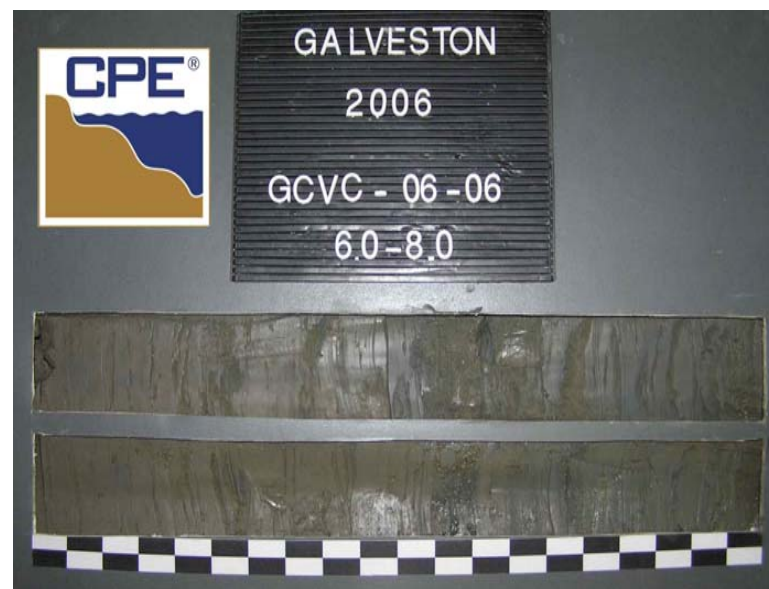
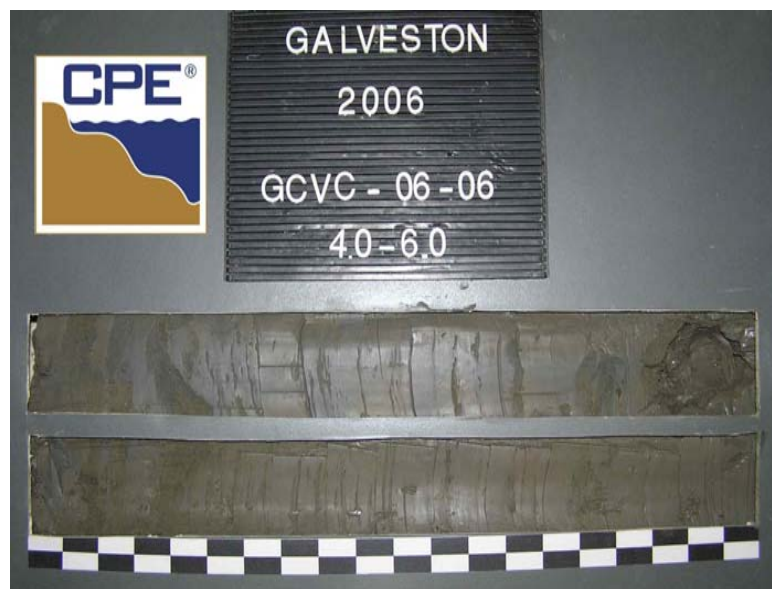
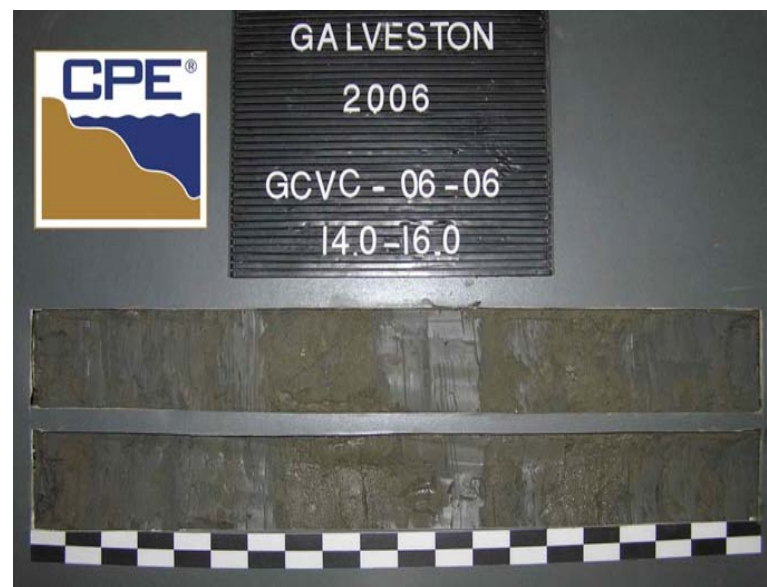
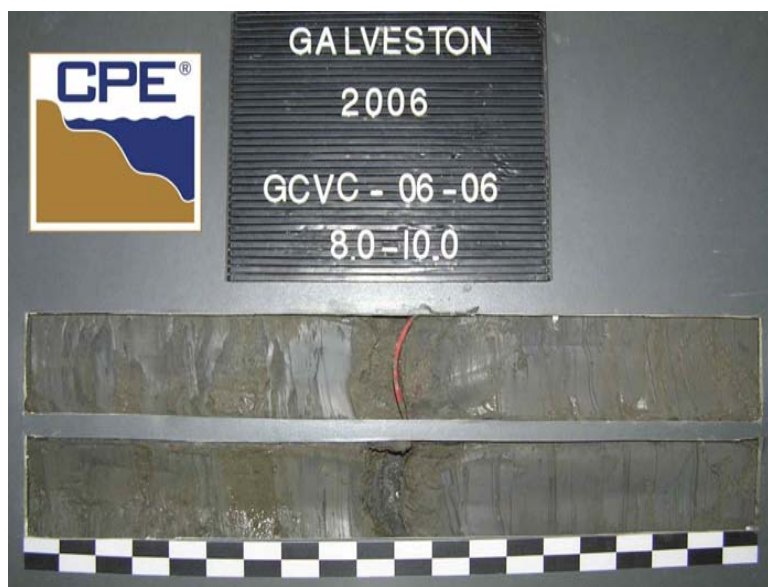








GALVESTON

2006

GCVC - 06 - 06

16.0-16.7



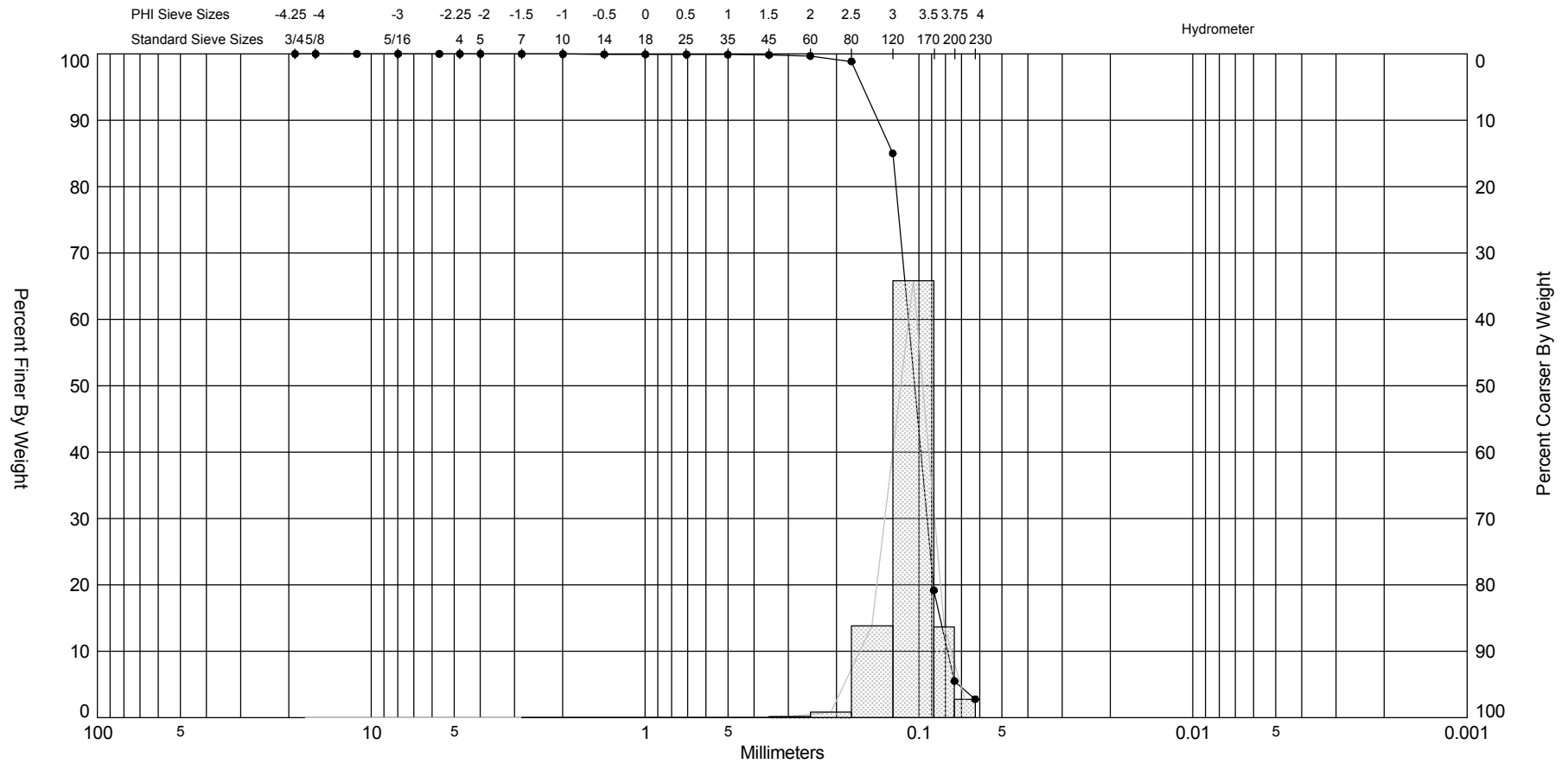
DRILLING LOG		DIVISION	INSTALLATION	SHEET 1
1. PROJECT		9. SIZE AND TYPE OF BIT 3.0 In.		
Texas Geotechnical Sand Search Galveston County Texas		10. COORDINATE SYSTEM/DATUM HORIZONTAL VERTICAL Texas South Central NAD 1983 MLLW		
2. BORING DESIGNATION	LOCATION COORDINATES	11. MANUFACTURER'S DESIGNATION OF DRILL ☐ AUTO HAMMER ☐ MANUAL HAMMER		
GCVC-06-06	X = 3,333,579 Y = 13,687,324			
3. DRILLING AGENCY	CONTRACTOR FILE NO.	12. TOTAL SAMPLES DISTURBED UNDISTURBED (UD)		
Alpine Ocean Seismic Survey, Inc.				
4. NAME OF DRILLER		13. TOTAL NUMBER CORE BOXES		
Charles Dill				
5. DIRECTION OF BORING		14. ELEVATION GROUND WATER		
☒ VERTICAL DEG. FROM VERTICAL BEARING ☐ INCLINED				
6. THICKNESS OF OVERBURDEN 0.0 Ft.		15. DATE BORING STARTED COMPLETED		
7. DEPTH DRILLED INTO ROCK 0.0 Ft.		10-07-06 14:43 10-07-06 14:44		
8. TOTAL DEPTH OF BORING 19.7 Ft.		16. ELEVATION TOP OF BORING -19.8 Ft.		
		17. TOTAL RECOVERY FOR BORING 16.7 Ft.		
		18. SIGNATURE AND TITLE OF INSPECTOR		
		ML		

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-19.8	0.0					
-22.3	2.5		SAND, fine grained, quartz, trace shell hash, trace silt, gray (5Y-5/1), (SP-SM).		1	Sample #1, Depth = 1.5' Mean (mm): 0.11, Phi Sorting: 0.31 Shell Hash: 0%, Fines (230): 2.79% (SP-SM)
-30.7	10.9		CLAY, trace sand, stiff to soft; 1.0" sand layer @ 8.6', dark gray (5Y-4/1), (CL).			
-32.4	12.6		SAND, fine grained, little silt, gray (5Y-5/1), (SM).		2	Sample #2, Depth = 11.5' Mean (mm): 0.14, Phi Sorting: 0.42 Shell Hash: 0%, Fines (230): 15.71% (SM)
-36.5	16.7		CLAY, stiff to soft, olive (5Y-5/3), (CL).			
-39.5	19.7		No Recovery.			
			End of Boring			

FLORIDA DEP ROSS GALVESTON VIBRACORES 2006.GPJ FL DEP ROSS.GDT 12/14/06

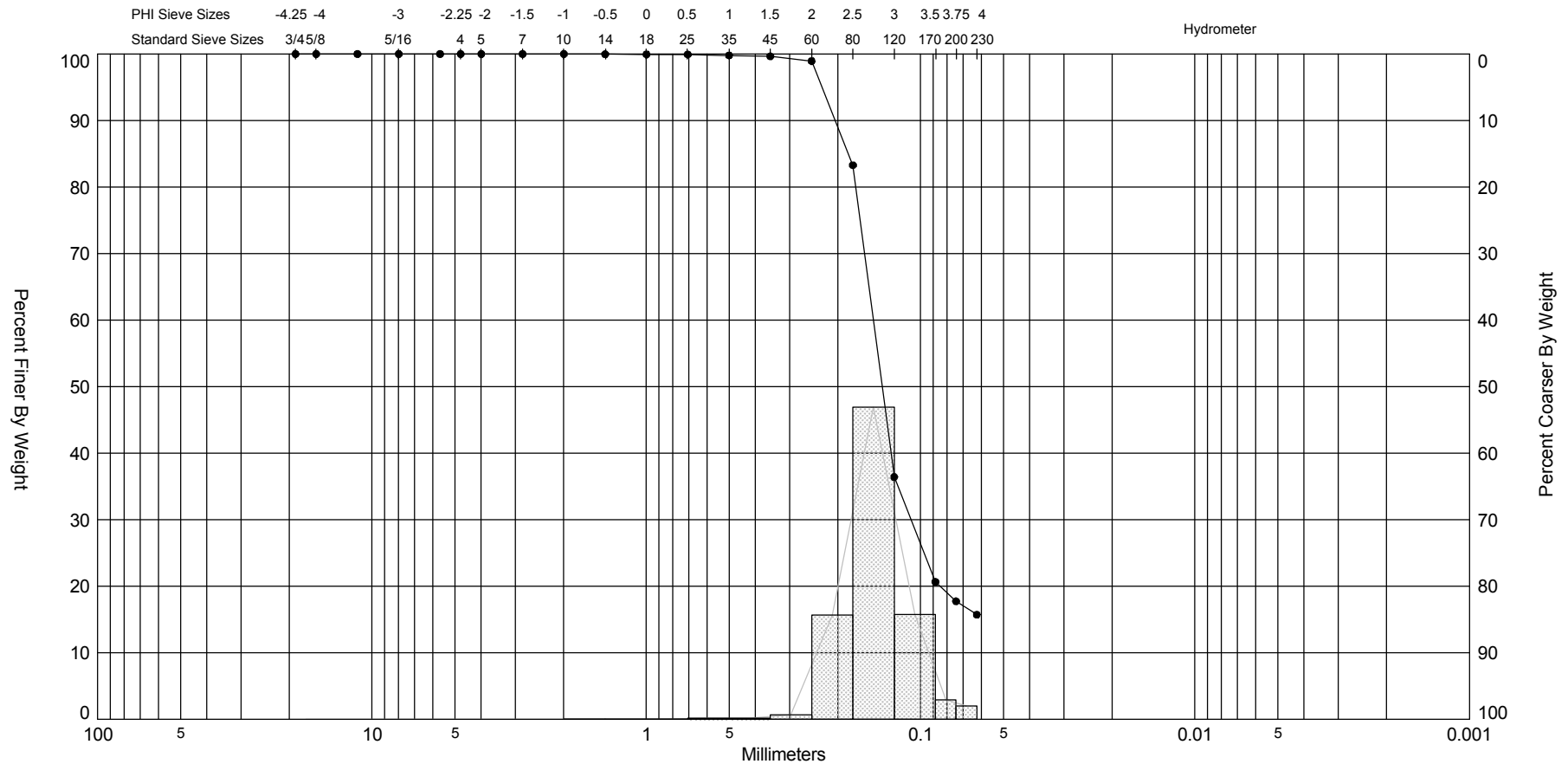
Granularmetric Report Depths and elevations based on measured values				 Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116			
Project Name: Texas Geotechnical Sand Search							
Sample Name: GCVC-06-06 #1							
Analysis Date: 10-16-06							
Analyzed By: ST							
Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):	
3,333,579		13,687,324		Texas South Central		-21.3 MLLW	
USCS:		Munsell:		Comments:			
SP-SM		Wet - 5Y-5/1 Dry - 5Y-5/1 Washed - 5Y-6/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
93.79	91.99	0.75	0.06	#200 - 5.52 #230 - 2.79			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	0.00	0.00	0.00	0.00	
10	-1.00	2.00	0.03	0.03	0.03	0.03	
14	-0.50	1.41	0.03	0.03	0.06	0.06	
18	0.00	1.00	0.01	0.01	0.07	0.07	
25	0.50	0.71	0.02	0.02	0.09	0.09	
35	1.00	0.50	0.02	0.02	0.11	0.11	
45	1.50	0.35	0.04	0.04	0.15	0.15	
60	2.00	0.25	0.14	0.15	0.29	0.30	
80	2.50	0.18	0.78	0.83	1.07	1.13	
120	3.00	0.13	12.99	13.85	14.06	14.98	
170	3.50	0.09	61.74	65.83	75.80	80.81	
200	3.75	0.07	12.82	13.67	88.62	94.48	
230	4.00	0.06	2.56	2.73	91.18	97.21	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
3.80	3.56	3.46	3.27	3.08	3.01	2.64	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	3.23	0.11	0.31	-2.7	31.78		

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: Texas Geotechnical Sand Search							
Sample Name: GCVC-06-06 #2							
Analysis Date: 10-16-06							
Analyzed By: ST							
Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):	
3,333,579		13,687,324		Texas South Central		-31.3 MLLW	
USCS:		Munsell:		Comments:			
SM		Wet - 5Y-5/1 Dry - 5Y-6/1 Washed - 5Y-6/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
91.01	81.18	4.38	0.08	#200 - 17.73 #230 - 15.71			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	0.00	0.00	0.00	0.00	
10	-1.00	2.00	0.00	0.00	0.00	0.00	
14	-0.50	1.41	0.03	0.03	0.03	0.03	
18	0.00	1.00	0.02	0.02	0.05	0.05	
25	0.50	0.71	0.01	0.01	0.06	0.06	
35	1.00	0.50	0.14	0.15	0.20	0.21	
45	1.50	0.35	0.13	0.14	0.33	0.35	
60	2.00	0.25	0.64	0.70	0.97	1.05	
80	2.50	0.18	14.25	15.66	15.22	16.71	
120	3.00	0.13	42.67	46.88	57.89	63.59	
170	3.50	0.09	14.35	15.77	72.24	79.36	
200	3.75	0.07	2.65	2.91	74.89	82.27	
230	4.00	0.06	1.84	2.02	76.73	84.29	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	3.96	3.36	2.86	2.59	2.48	2.13	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.79	0.14	0.42	-0.25	6.94		



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
GCVC-06-06 #1	—●—	-21.3	SP-SM	#200 - 5.52 #230 - 2.79			3.27	3.23	-2.7	31.78	0.31	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-16-06
Depths and elevations based on measured values												Analyzed By:	ST
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	3,333,579
												Northing (Y, ft):	13,687,324
												Horizontal System:	NAD 1983
												Vertical System:	MLLW



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
GCVC-06-06 #2	—●—	-31.3	SM	#200 - 17.73 #230 - 15.71			2.86	2.79	-0.25	6.94	0.42	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-16-06
Depths and elevations based on measured values												Analyzed By:	ST
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	3,333,579
												Northing (Y, ft):	13,687,324
												Horizontal System:	NAD 1983
												Vertical System:	MLLW