







JEFFERSON CO.

2006

JCVC - 06 - 08

16.0 - 16.7



DRILLING LOG		DIVISION	INSTALLATION	SHEET 1
1. PROJECT Texas Geotechnical Sand Search Jefferson County Texas			9. SIZE AND TYPE OF BIT 3.0 In.	
2. BORING DESIGNATION JCVC-06-08			10. COORDINATE SYSTEM/DATUM Texas South Central	
3. DRILLING AGENCY Alpine Ocean Seismic Survey, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL ☐ AUTO HAMMER ☐ MANUAL HAMMER	
4. NAME OF DRILLER Charles Dill			12. TOTAL SAMPLES DISTURBED UNDISTURBED (UD)	
5. DIRECTION OF BORING ☒ VERTICAL ☐ INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING STARTED COMPLETED 10-09-06 17:02 10-09-06 17:06	
8. TOTAL DEPTH OF BORING 19.5 Ft.			16. ELEVATION TOP OF BORING -27.1 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
-27.1	0.0					
-28.6	1.5		SAND, fine grained, quartz, little silt, trace shell hash, light olive brown (2.5Y-5/4), (SM).		1	Sample #1, Depth = 0.8' Mean (mm): 0.19, Phi Sorting: 0.62 Shell Hash: 0%, Fines (230): 17.21% (SM)
-34.8	7.7		SAND, fine grained, quartz, little silt, 1.0" clay layers @ 8.6', 9.2' and 9.5', light olive brown (2.5Y-5/4), (SM).		2	Sample #2, Depth = 3.0' Mean (mm): 0.19, Phi Sorting: 0.59 Shell Hash: 0%, Fines (230): 12.53% (SM)
-37.5	10.4		SAND, fine grained, quartz, some clay, some silt, 2.0" clay layers @ 8.2' and 10.2', olive brown (2.5Y-4/3), (SM).		3	Sample #3, Depth = 8.4' Mean (mm): 0.14, Phi Sorting: 0.57 Shell Hash: 0%, Fines (230): 32.42% (SM)
-39.3	12.2		SAND, fine grained, quartz, trace silt, gray (5Y-5/1), (SP-SM).		4	Sample #4, Depth = 11.5' Mean (mm): 0.21, Phi Sorting: 0.41 Shell Hash: 0%, Fines (230): 5.04% (SP-SM)
-43.8	16.7		SAND, fine grained, quartz, trace clay, trace shell hash, trace silt, 1.0" clay layer @ 12.2'; sand with lenses of clay from 12.4' to 12.7', gray (5Y-5/1), (SP-SM).		5	Sample #5, Depth = 14.0' Mean (mm): 0.16, Phi Sorting: 0.50 Shell Hash: 0%, Fines (230): 7.70% (SP-SM)
-46.6	19.5		No Recovery.			
			End of Boring			

FLORIDA DEP ROSS - JEFFERSON VIBRACORES 2006 1-8.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: JCVC-06-08 #1

Analysis Date: 10-17-06

Analyzed By: TF

Easting (ft): 3,478,160	Northing (ft): 13,787,586	Coordinate System: Texas South Central	Elevation (ft): -27.9 MLLW
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USCS: SM	Munsell: Wet - 2.5Y-5/3 Dry - 2.5Y-7/4 Washed - 2.5Y-7/4	Comments:
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Dry Weight (g): 88.50	Wash Weight (g): 74.87	Pan Retained (g): 1.27	Sieve Loss (%): 0.36	Fines (%): #200 - 19.30 #230 - 17.21	Organics (%):	Carbonates (%):	Shell Hash (%): 0
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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	0.00	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	0.01	0.01	0.04	0.04
18	0.00	1.00	0.01	0.01	0.05	0.05
25	0.50	0.71	0.01	0.01	0.06	0.06
35	1.00	0.50	0.05	0.06	0.11	0.12
45	1.50	0.35	0.17	0.19	0.28	0.31
60	2.00	0.25	21.57	24.37	21.85	24.68
80	2.50	0.18	22.60	25.54	44.45	50.22
120	3.00	0.13	13.27	14.99	57.72	65.21
170	3.50	0.09	10.56	11.93	68.28	77.14
200	3.75	0.07	3.15	3.56	71.43	80.70
230	4.00	0.06	1.85	2.09	73.28	82.79

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
		3.41	2.50	2.01	1.82	1.60
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis	
Statistics	2.43	0.19	0.62	0.42	2.88	

GRANULARMETRIC REPORT JEFFERSON_VIBRACORES_2006_1-8.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: JCVC-06-08 #2

Analysis Date: 10-17-06

Analyzed By: TF

Easting (ft): 3,478,160	Northing (ft): 13,787,586	Coordinate System: Texas South Central	Elevation (ft): -30.1 MLLW
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USCS: SM	Munsell: Wet - 2.5Y-5/4 Dry - 2.5Y-6/4 Washed - 2.5Y-7/3	Comments:
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Dry Weight (g): 92.84	Wash Weight (g): 82.68	Pan Retained (g): 1.25	Sieve Loss (%): 0.25	Fines (%): #200 - 13.96 #230 - 12.53	Organics (%):	Carbonates (%):	Shell Hash (%): 0
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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	0.00	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	0.00	0.00	0.00	0.00
18	0.00	1.00	0.00	0.00	0.00	0.00
25	0.50	0.71	0.00	0.00	0.00	0.00
35	1.00	0.50	0.00	0.00	0.00	0.00
45	1.50	0.35	0.23	0.25	0.23	0.25
60	2.00	0.25	25.48	27.45	25.71	27.70
80	2.50	0.18	27.33	29.44	53.04	57.14
120	3.00	0.13	13.56	14.61	66.60	71.75
170	3.50	0.09	10.25	11.04	76.85	82.79
200	3.75	0.07	3.02	3.25	79.87	86.04
230	4.00	0.06	1.33	1.43	81.20	87.47

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.59	3.15	2.38	1.95	1.79	1.59
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis	
Statistics	2.38	0.19	0.59	0.67	2.52	

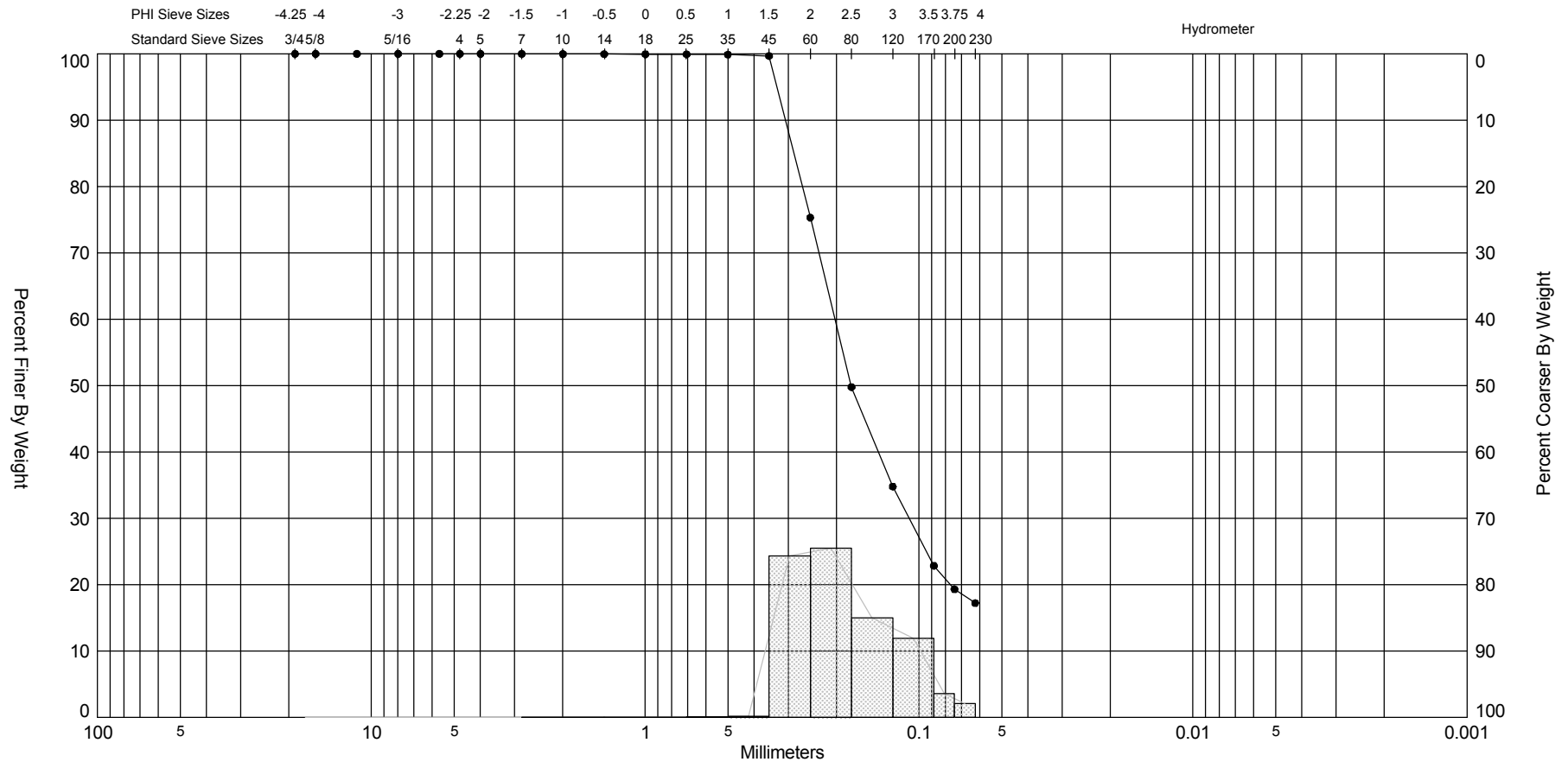
GRANULARMETRIC REPORT JEFFERSON_VIBRACORES_2006_1-8.GPJ FL DEP ROSS GDT 12/14/06

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: JCVC-06-08 #3							
Analysis Date: 10-17-06							
Analyzed By: TF							
Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):	
3,478,160		13,787,586		Texas South Central		-35.5 MLLW	
USCS:		Munsell:		Comments:			
SM		Wet - 5Y-4/1 Dry - 5Y-5/1 Washed - 2.5Y-6/2					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
89.59	61.36	0.49	0.36	#200 - 35.43 #230 - 32.42			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	0.00	0.00	0.00	0.00	
18	0.00	1.00	0.00	0.00	0.00	0.00	
25	0.50	0.71	0.00	0.00	0.00	0.00	
35	1.00	0.50	0.00	0.00	0.00	0.00	
45	1.50	0.35	0.03	0.03	0.03	0.03	
60	2.00	0.25	3.35	3.74	3.38	3.77	
80	2.50	0.18	17.47	19.50	20.85	23.27	
120	3.00	0.13	16.10	17.97	36.95	41.24	
170	3.50	0.09	13.58	15.16	50.53	56.40	
200	3.75	0.07	7.32	8.17	57.85	64.57	
230	4.00	0.06	2.70	3.01	60.55	67.58	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
			3.29	2.55	2.31	2.03	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.82	0.14	0.57	0.06	2.03		

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: JCVC-06-08 #4						
Analysis Date: 10-17-06						
Analyzed By: TF						
Easting (ft): 3,478,160		Northing (ft): 13,787,586		Coordinate System: Texas South Central		Elevation (ft): -38.6 MLLW
USCS: SP-SM		Munsell: Wet - 5Y-5/1 Dry - 5Y-5/1 Washed - 5Y-7/2		Comments:		
Dry Weight (g): 93.74	Wash Weight (g): 89.33	Pan Retained (g): 0.24	Sieve Loss (%): 0.09	Fines (%): #200 - 5.81 #230 - 5.04	Organics (%):	Carbonates (%): 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	0.00	0.00	0.00	0.00
18	0.00	1.00	0.00	0.00	0.00	0.00
25	0.50	0.71	0.00	0.00	0.00	0.00
35	1.00	0.50	0.04	0.04	0.04	0.04
45	1.50	0.35	0.18	0.19	0.22	0.23
60	2.00	0.25	19.58	20.89	19.80	21.12
80	2.50	0.18	55.82	59.55	75.62	80.67
120	3.00	0.13	8.16	8.70	83.78	89.37
170	3.50	0.09	3.22	3.44	87.00	92.81
200	3.75	0.07	1.29	1.38	88.29	94.19
230	4.00	0.06	0.72	0.77	89.01	94.96
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	2.69	2.45	2.24	2.03	1.88	1.61
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis	
Statistics	2.25	0.21	0.41	1.3	6.08	

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: JCVC-06-08 #5							
Analysis Date: 10-17-06							
Analyzed By: TF							
Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):	
3,478,160		13,787,586		Texas South Central		-41.1 MLLW	
USCS:		Munsell:		Comments:			
SP-SM		Wet - 5Y-5/1 Dry - 2.5Y-5/1 Washed - 2.5Y-7/2					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
88.41	82.79	1.14	0.07	#200 - 9.41 #230 - 7.70			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	0.00	0.00	0.00	0.00	
18	0.00	1.00	0.00	0.00	0.00	0.00	
25	0.50	0.71	0.00	0.00	0.00	0.00	
35	1.00	0.50	0.00	0.00	0.00	0.00	
45	1.50	0.35	0.04	0.05	0.04	0.05	
60	2.00	0.25	6.30	7.13	6.34	7.18	
80	2.50	0.18	25.40	28.73	31.74	35.91	
120	3.00	0.13	30.49	34.49	62.23	70.40	
170	3.50	0.09	14.25	16.12	76.48	86.52	
200	3.75	0.07	3.60	4.07	80.08	90.59	
230	4.00	0.06	1.51	1.71	81.59	92.30	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	3.42	3.14	2.70	2.31	2.15	1.85	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.66	0.16	0.5	0.21	2.62		

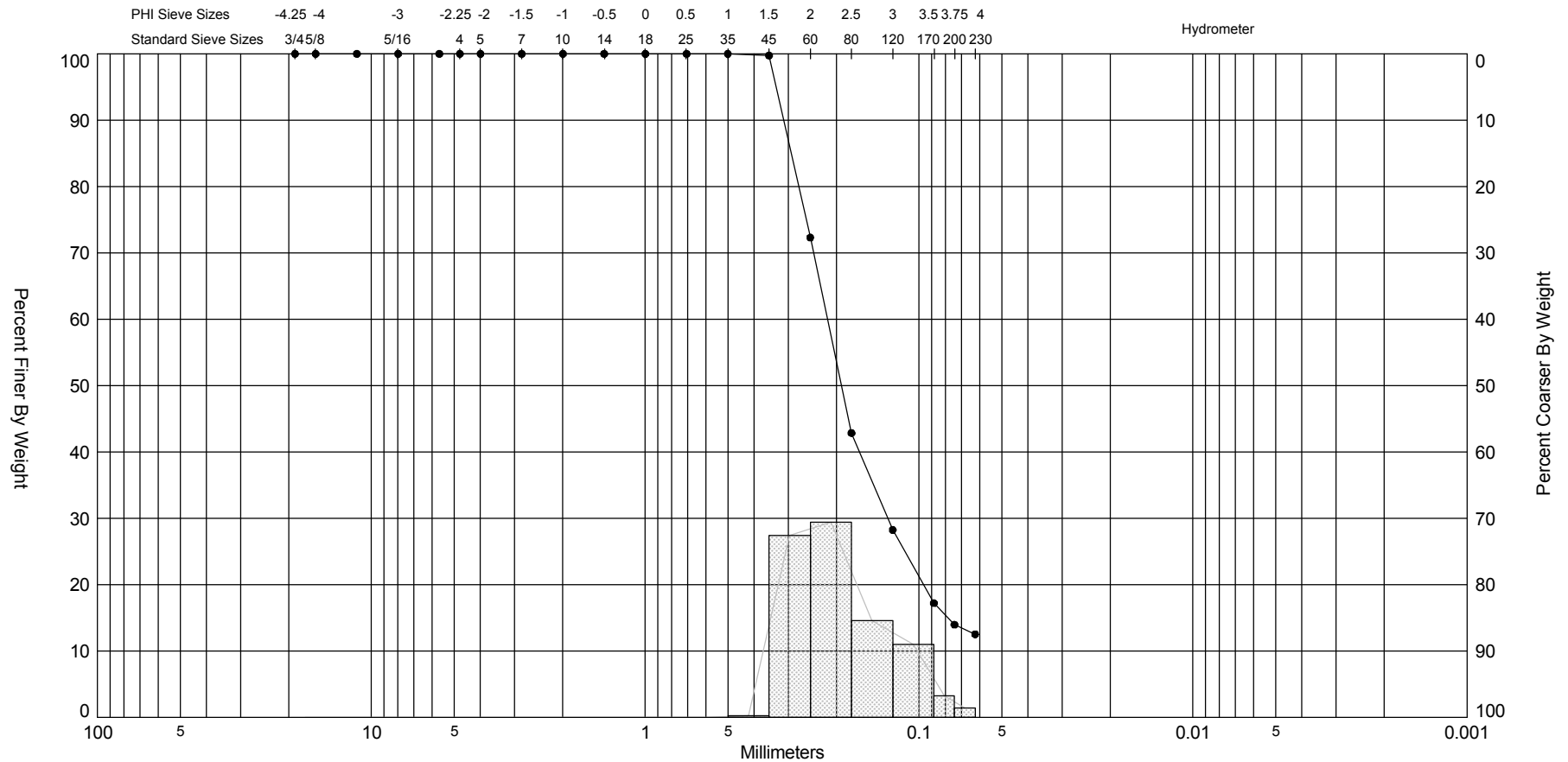
SIEVE ANALYSIS - JEFFERSON_VIBRACORES_2006_1-8.GPJ FL DEP ROSS.GDT 12/14/06



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

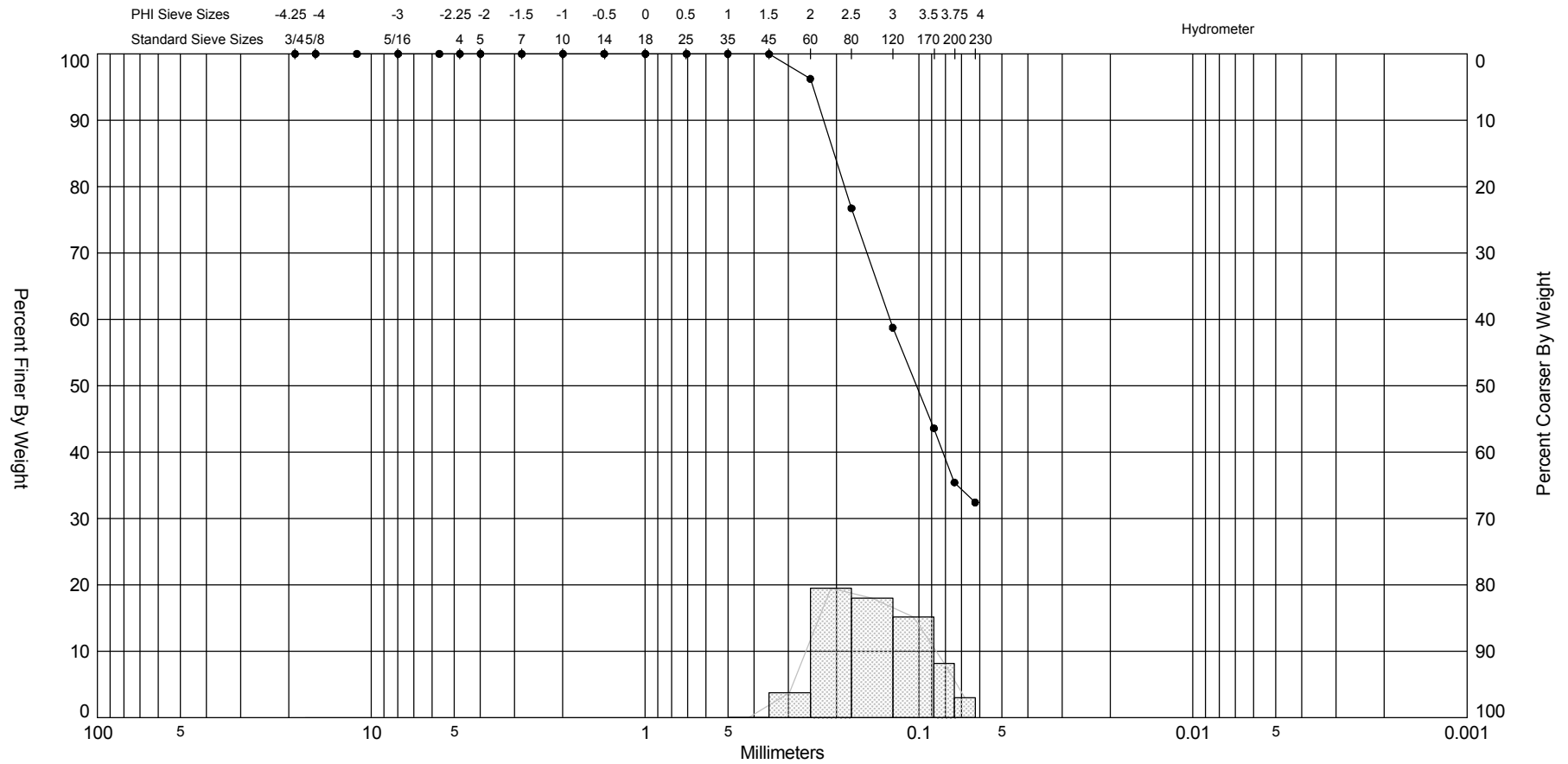
Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
JCVC-06-08 #1	—●—	-27.9	SM	#200 - 19.30 #230 - 17.21			2.5	2.43	0.42	2.88	0.62	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-17-06
Depths and elevations based on measured values												Analyzed By:	TF
							Coastal Planning & Engineering						
							2481 NW Boca Raton Blvd, Boca Raton						
							FL 33431						
							ph (561) 391-8102						
							fax (561) 391-9116						
												Easting (X, ft):	3,478,160
												Northing (Y, ft):	13,787,586
												Horizontal System:	NAD 1983
												Vertical System:	MLLW

SIEVE ANALYSIS - JEFFERSON_VIBRACORES_2006_1-8.GPJ FL DEP ROSS.GDT 12/14/06



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

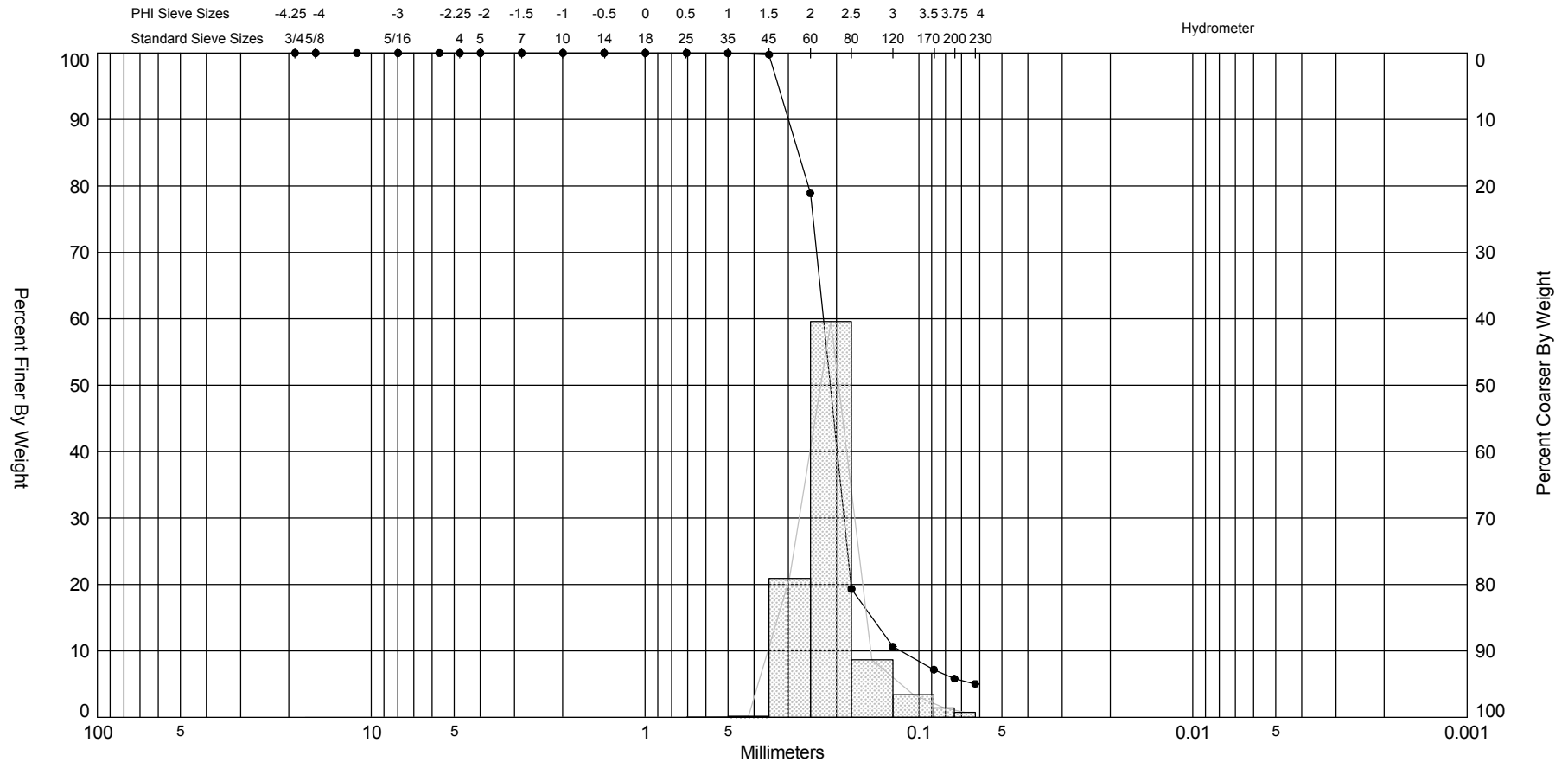
Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
JCVC-06-08 #2	—●—	-30.1	SM	#200 - 13.96 #230 - 12.53			2.38	2.38	0.67	2.52	0.59	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-17-06
Depths and elevations based on measured values												Analyzed By:	TF
							Coastal Planning & Engineering						
							2481 NW Boca Raton Blvd, Boca Raton						
							FL 33431						
							ph (561) 391-8102						
							fax (561) 391-9116						
												Easting (X, ft):	3,478,160
												Northing (Y, ft):	13,787,586
												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	
JCVC-06-08 #3	—●—	-35.5	SM	#200 - 35.43 #230 - 32.42			3.29	2.82	0.06	2.03	0.57	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-17-06
Depths and elevations based on measured values												Analyzed By:	TF
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	3,478,160
												Northing (Y, ft):	13,787,586
												Horizontal System:	NAD 1983
												Vertical System:	MLLW

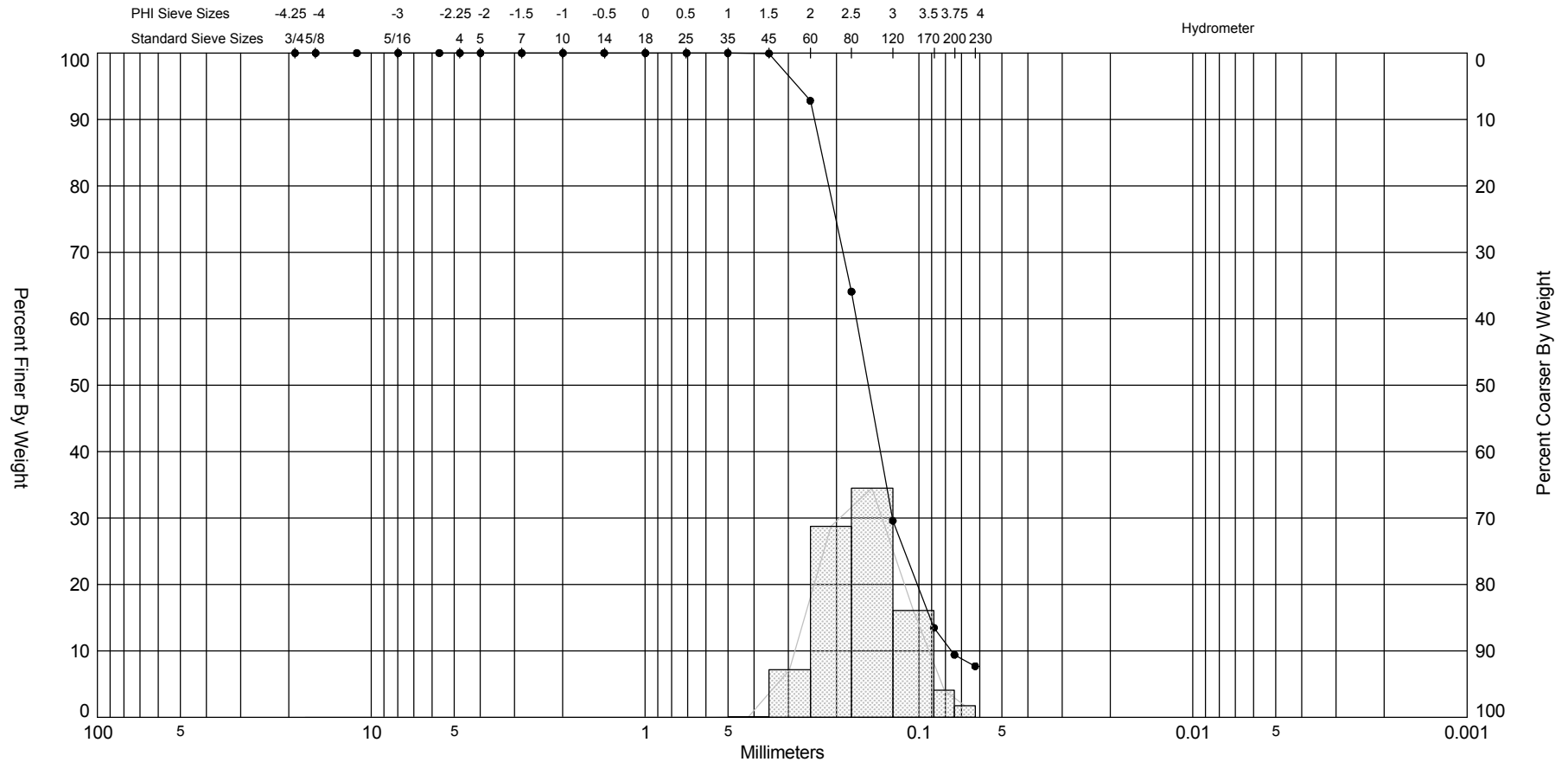
SIEVE ANALYSIS - JEFFERSON_VIBRACORES_2006_1-8.GPJ FL DEP ROSS.GDT 12/14/06



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	
JCVC-06-08 #4		-38.6	SP-SM	#200 - 5.81 #230 - 5.04			2.24	2.25	1.3	6.08	0.41	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-17-06
Depths and elevations based on measured values												Analyzed By:	TF
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	3,478,160
												Northing (Y, ft):	13,787,586
												Horizontal System:	NAD 1983
												Vertical System:	MLLW

SIEVE ANALYSIS - JEFFERSON_VIBRACORES_2006_1-8.GPJ FL DEP ROSS.GDT 12/14/06



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	
JCVC-06-08 #5		-41.1	SP-SM	#200 - 9.41 #230 - 7.70			2.7	2.66	0.21	2.62	0.5	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-17-06
Depths and elevations based on measured values												Analyzed By:	TF
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	3,478,160
												Northing (Y, ft):	13,787,586
												Horizontal System:	NAD 1983
												Vertical System:	MLLW