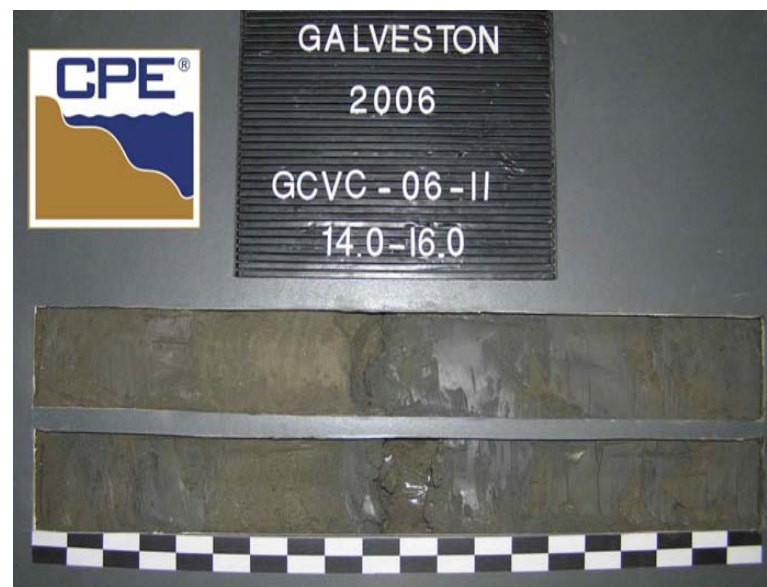
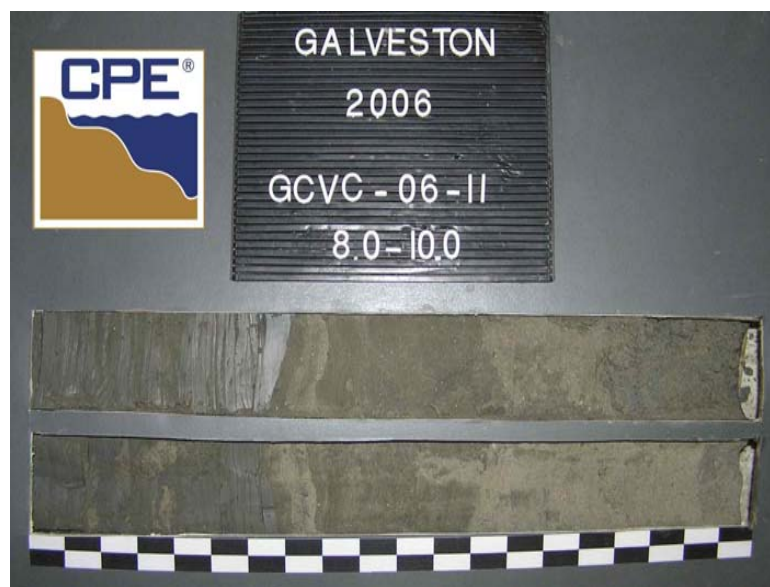
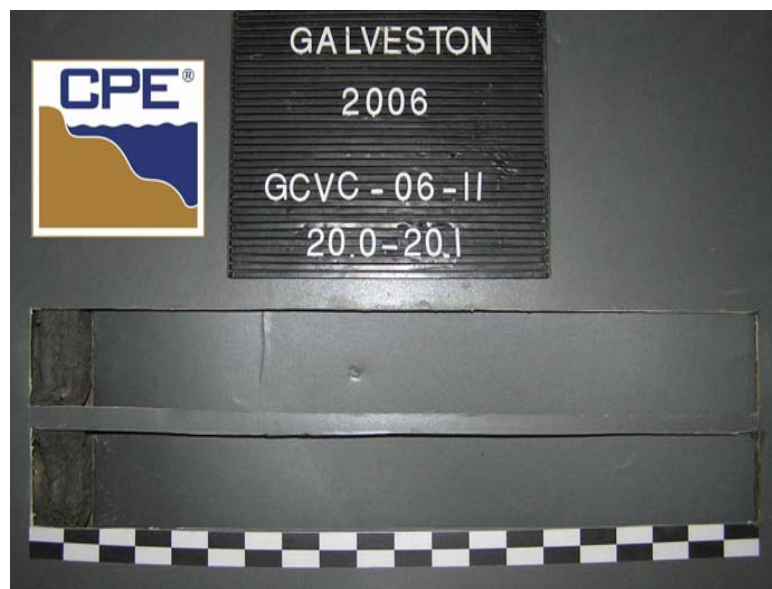








DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Texas Geotechnical Sand Search Galveston County Texas			9. SIZE AND TYPE OF BIT 3.0 In.	
2. BORING DESIGNATION GCVC-06-11			10. COORDINATE SYSTEM/DATUM Texas South Central	
3. DRILLING AGENCY Alpine Ocean Seismic Survey, Inc.			11. MANUFACTURER'S 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 10-07-06 18:57	
8. TOTAL DEPTH OF BORING 19.2 Ft.			16. ELEVATION TOP OF BORING -21.5 Ft.	
			17. TOTAL RECOVERY FOR BORING 20.2 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
-21.5	0.0					
-23.4	1.9		SAND, fine grained, trace silt, gray (5Y-5/1), (SP-SM).		1	Sample #1, Depth = 1.0' Mean (mm): 0.10, Phi Sorting: 0.27 Shell Hash: 0%, Fines (230): 5.05% (SP-SM)
-30.2	8.7		CLAY, stiff to soft, dark gray (5Y-4/1), (CL).			
-32.8	11.3		SAND, fine grained, quartz, trace clay, trace shell hash, trace silt, shell hash increasing to little between 10.2-10.5'; 5.0" clay layer @ 10.5', gray (5Y-5/1), (SW-SM).		2	Sample #2, Depth = 9.8' Mean (mm): 0.19, Phi Sorting: 1.00 Shell Hash: 3%, Fines (230): 5.39% (SW-SM)
-34.2	12.7		CLAY, stiff to soft, dark gray (5Y-4/1), (CL).			
-35.6	14.1		SAND, fine grained, quartz, trace shell hash, trace silt, 1.0" clay pocket @ 13.5', gray (5Y-5/1), (SP-SM).		3	Sample #3, Depth = 13.5' Mean (mm): 0.10, Phi Sorting: 0.26 Shell Hash: 0%, Fines (230): 5.64% (SP-SM)
-40.7	19.2		CLAY, 5.0" sand layer, fine, quartz @ 14.5', dark gray (5Y-4/1), (CL).			
-41.7	20.2		Expansion Material, (CL).			
			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-06-11 #1

Analysis Date: 10-18-06

Analyzed By: MC

Easting (ft):

3,333,062

Northing (ft):

13,685,554

Coordinate System:

Texas South Central

Elevation (ft):

-22.5 MLLW

USCS:

SP-SM

Munsell:

Wet - 5Y-5/1
Dry - 5Y-6/1
Washed - 5Y-6/1

Comments:

Dry Weight (g):

91.21

Wash Weight (g):

88.04

Pan Retained (g):

1.40

Sieve Loss (%):

0.03

Fines (%):

#200 - 8.69
#230 - 5.05

Organics (%):

Carbonates (%):

Shell Hash (%):

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

0.01

0.01

0.01

0.01

7

-1.50

2.83

0.00

0.00

0.01

0.01

10

-1.00

2.00

0.00

0.00

0.01

0.01

14

-0.50

1.41

0.00

0.00

0.01

0.01

18

0.00

1.00

0.01

0.01

0.02

0.02

25

0.50

0.71

0.00

0.00

0.02

0.02

35

1.00

0.50

0.01

0.01

0.03

0.03

45

1.50

0.35

0.01

0.01

0.04

0.04

60

2.00

0.25

0.01

0.01

0.05

0.05

80

2.50

0.18

0.28

0.31

0.33

0.36

120

3.00

0.13

8.21

9.00

8.54

9.36

170

3.50

0.09

59.57

65.31

68.11

74.67

200

3.75

0.07

15.18

16.64

83.29

91.31

230

4.00

0.06

3.32

3.64

86.61

94.95

Phi 5

Phi 16

Phi 25

Phi 50

Phi 75

Phi 84

Phi 95

3.64

3.50

3.31

3.12

3.05

2.76

Moment

Mean Phi

Mean mm

Sorting

Skewness

Kurtosis

Statistics

3.29

0.10

0.27

-1.6

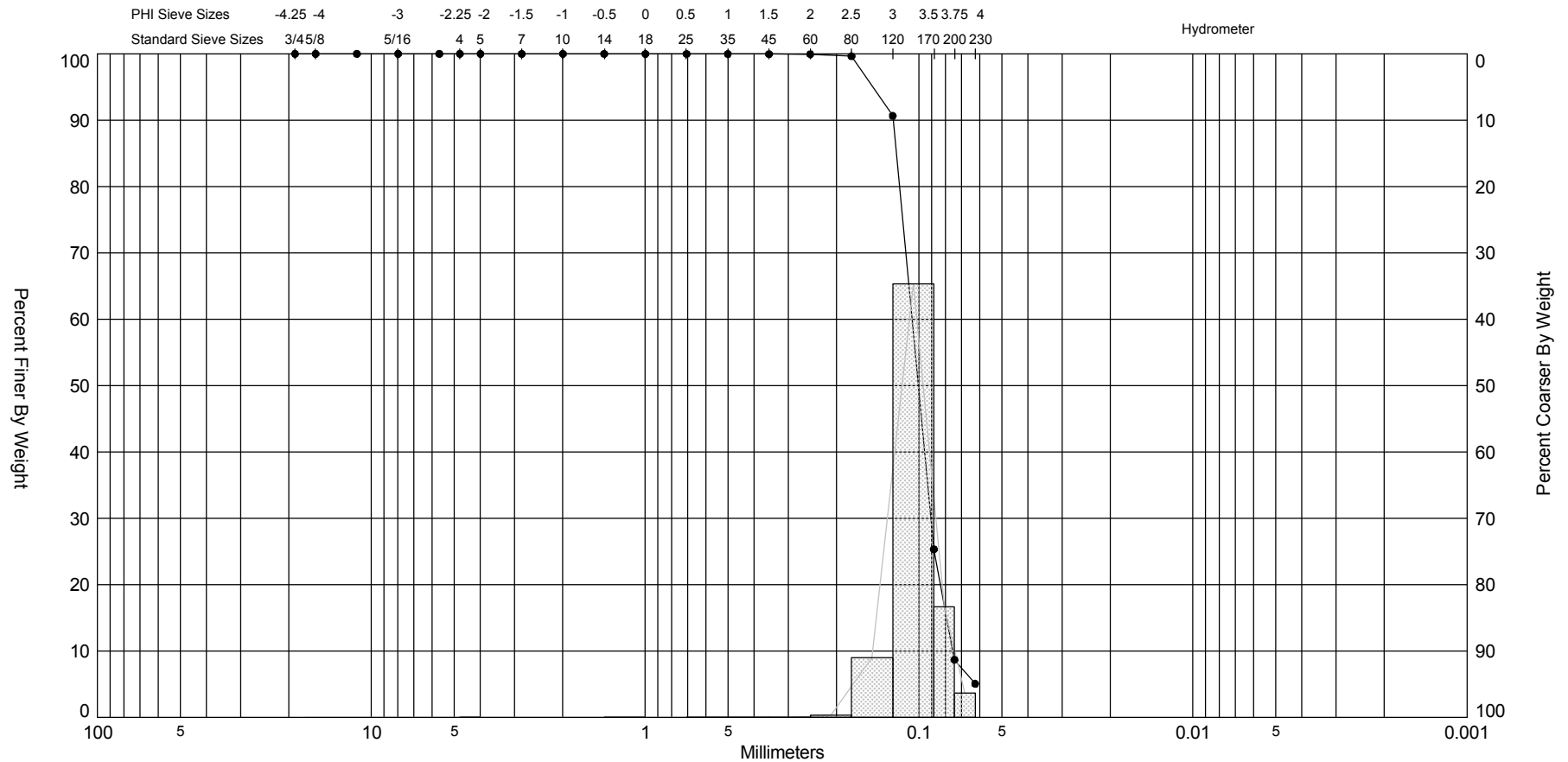
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GRANULARMETRIC REPORT GALVESTON_VIBRACORES_2006.GPJ FL DEP ROSS.GDT 12/14/06

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-06-11 #2							
Analysis Date: 10-18-06							
Analyzed By: MC							
Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):	
3,333,062		13,685,554		Texas South Central		-31.3 MLLW	
USCS:		Munsell:		Comments:			
SW-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 (%):
94.86	90.44	0.41	0.31	#200 - 6.00 #230 - 5.39			3
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	0.18	0.19	0.18	0.19	
3.5	-2.50	5.66	1.48	1.56	1.66	1.75	
4	-2.25	4.76	0.55	0.58	2.21	2.33	
5	-2.00	4.00	0.16	0.17	2.37	2.50	
7	-1.50	2.83	0.25	0.26	2.62	2.76	
10	-1.00	2.00	0.26	0.27	2.88	3.03	
14	-0.50	1.41	0.14	0.15	3.02	3.18	
18	0.00	1.00	0.21	0.22	3.23	3.40	
25	0.50	0.71	0.23	0.24	3.46	3.64	
35	1.00	0.50	0.28	0.30	3.74	3.94	
45	1.50	0.35	0.47	0.50	4.21	4.44	
60	2.00	0.25	2.67	2.81	6.88	7.25	
80	2.50	0.18	25.27	26.64	32.15	33.89	
120	3.00	0.13	50.48	53.22	82.63	87.11	
170	3.50	0.09	4.95	5.22	87.58	92.33	
200	3.75	0.07	1.58	1.67	89.16	94.00	
230	4.00	0.06	0.58	0.61	89.74	94.61	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	2.97	2.89	2.65	2.33	2.16	1.60	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.43	0.19	1	-3.97	20.22		

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-06-11 #3							
Analysis Date: 10-18-06							
Analyzed By: MC							
Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):	
3,333,062		13,685,554		Texas South Central		-35.0 MLLW	
USCS:		Munsell:		Comments:			
SP-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 (%):
95.16	91.47	1.40	0.29	#200 - 9.93 #230 - 5.64			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	0.03	0.03	0.03	0.03	
10	-1.00	2.00	0.00	0.00	0.03	0.03	
14	-0.50	1.41	0.00	0.00	0.03	0.03	
18	0.00	1.00	0.01	0.01	0.04	0.04	
25	0.50	0.71	0.00	0.00	0.04	0.04	
35	1.00	0.50	0.02	0.02	0.06	0.06	
45	1.50	0.35	0.02	0.02	0.08	0.08	
60	2.00	0.25	0.05	0.05	0.13	0.13	
80	2.50	0.18	0.25	0.26	0.38	0.39	
120	3.00	0.13	4.43	4.66	4.81	5.05	
170	3.50	0.09	65.80	69.15	70.61	74.20	
200	3.75	0.07	15.10	15.87	85.71	90.07	
230	4.00	0.06	4.08	4.29	89.79	94.36	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	3.65	3.51	3.33	3.14	3.08	2.99	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	3.31	0.10	0.26	-3.22	61.34		

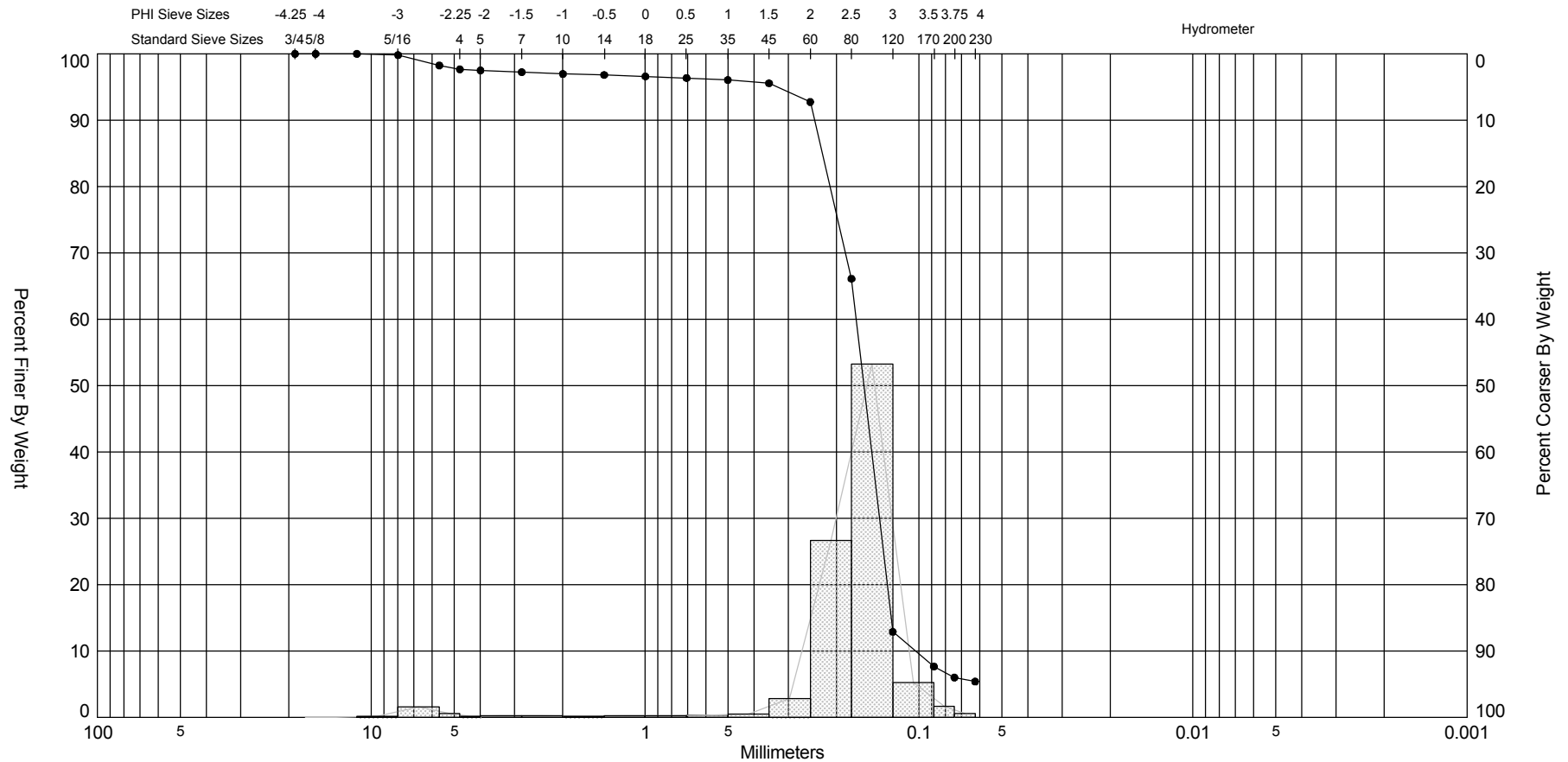
SIEVE ANALYSIS GALVESTON_VIBRACORES_2006.GPJ FL DEP ROSS.GDT 12/14/06



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

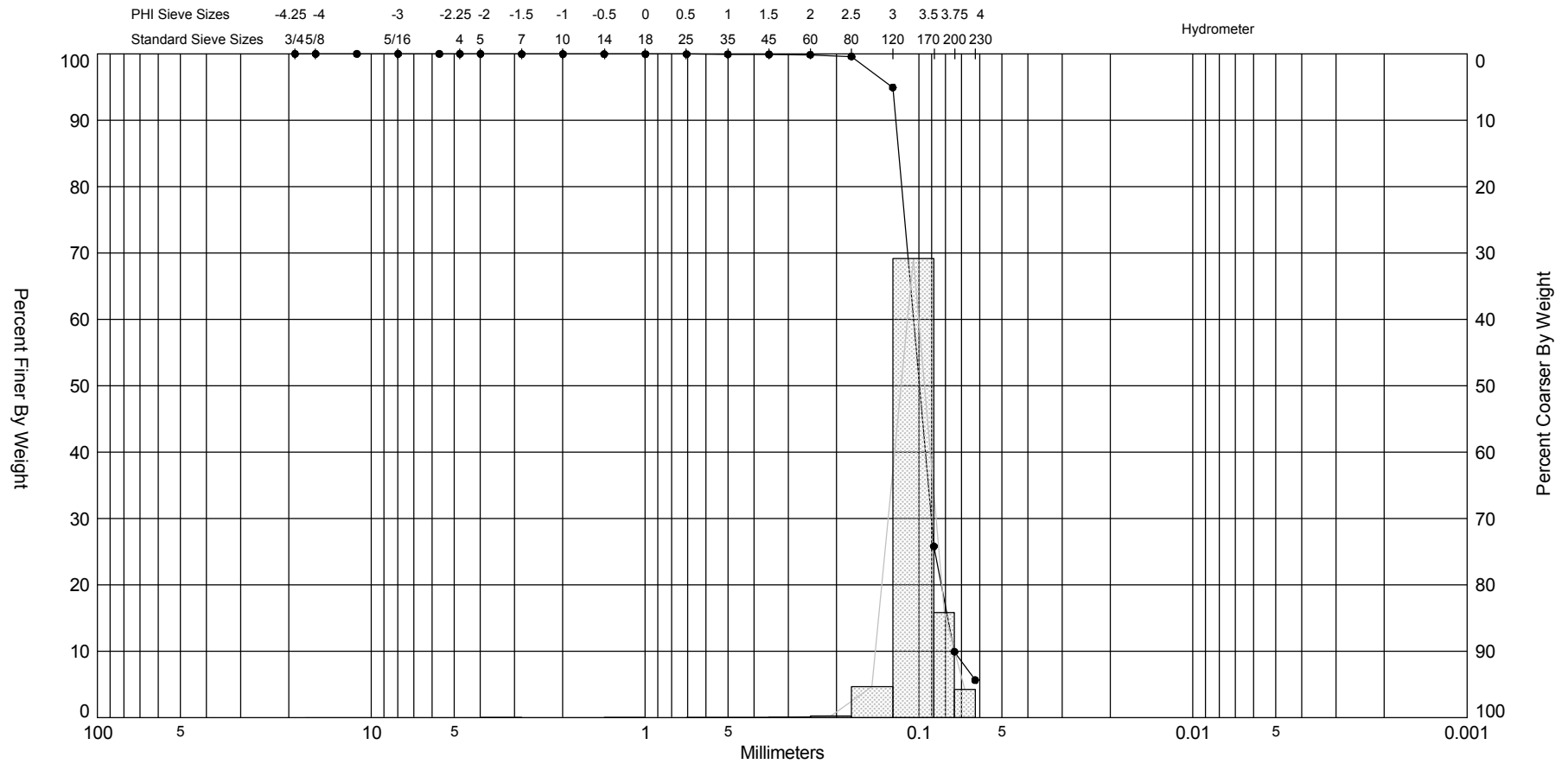
Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
GCV-06-11 #1		-22.5	SP-SM	#200 - 8.69 #230 - 5.05			3.31	3.29	-1.6	28.1	0.27	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-18-06
Depths and elevations based on measured values												Analyzed By:	MC
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	3,333,062
												Northing (Y, ft):	13,685,554
												Horizontal System:	NAD 1983
												Vertical System:	MLLW

SIEVE ANALYSIS GALVESTON_VIBRACORES_2006.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	
GCVC-06-11 #2	—●—	-31.3	SW-SM	#200 - 6.00 #230 - 5.39			2.65	2.43	-3.97	20.22	1	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-18-06
Depths and elevations based on measured values												Analyzed By:	MC
							Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116					Easting (X, ft):	3,333,062
												Northing (Y, ft):	13,685,554
												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-06-11 #3	—●—	-35.0	SP-SM	#200 - 9.93 #230 - 5.64			3.33	3.31	-3.22	61.34	0.26	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-18-06
Depths and elevations based on measured values												Analyzed By:	MC
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	3,333,062
												Northing (Y, ft):	13,685,554
												Horizontal System:	NAD 1983
												Vertical System:	MLLW