

LOG OF BORING AA-43

SHEET 1 of 1



Rock Engineering & Testing Lab., Inc.
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CLIENT: HDR Engineering, Inc.
PROJECT: Galveston Anchorage Area C Sand Source Inv.
LOCATION: Anchorage Area C, Galveston, Texas
NUMBER: G109233

DATE(S) DRILLED: 10/16/09 - 10/16/09

DRILLING METHOD(S):

Hollow Stem Auger

GROUNDWATER INFORMATION:

SURFACE ELEVATION: -32.12' NAVD

DESCRIPTION OF STRATUM

SOIL SYMBOL	FIELD DATA				LABORATORY DATA						
	Elevation, Ft. [NAVD]	SAMPLE NUMBER	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: TONS/SQ FT PERCENT RECOVERY/ ROCK QUALITY DESIGNATION	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU.FT	COMPRESSIVE STRENGTH (TONS/SQ.FT)	MINUS NO. 200 SIEVE (%)
						LL	PL	PI			
	5										
	10										
	15										
	20										
	25										
	30										
	35	SS S-1	N=5								8
		SS S-2	N=5								10
		SS S-3	N=5								10

POORLY GRADED SAND, with clay and shell fragments, dark gray, loose.

Same as above.

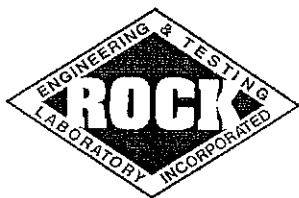
Same as above.

Boring was extended to an elevation of -38.1-feet NAVD during the drilling operations.

N - STANDARD PENETRATION TEST RESISTANCE
P - POCKET PENETROMETER RESISTANCE
T - POCKET TORVANE SHEAR STRENGTH

REMARKS:

Boring depth and location was determined by HDR Engineering, Inc. Boring operations were performed by RETL at GPS Coord. N. 29.35295 W. 94.77497.



- Geotechnical Engineering
- Construction Materials Testing

PROJECT NAME: Galveston Anchorage Area C Sand Source Investigation

CLIENT: HDR Engineering, Inc.

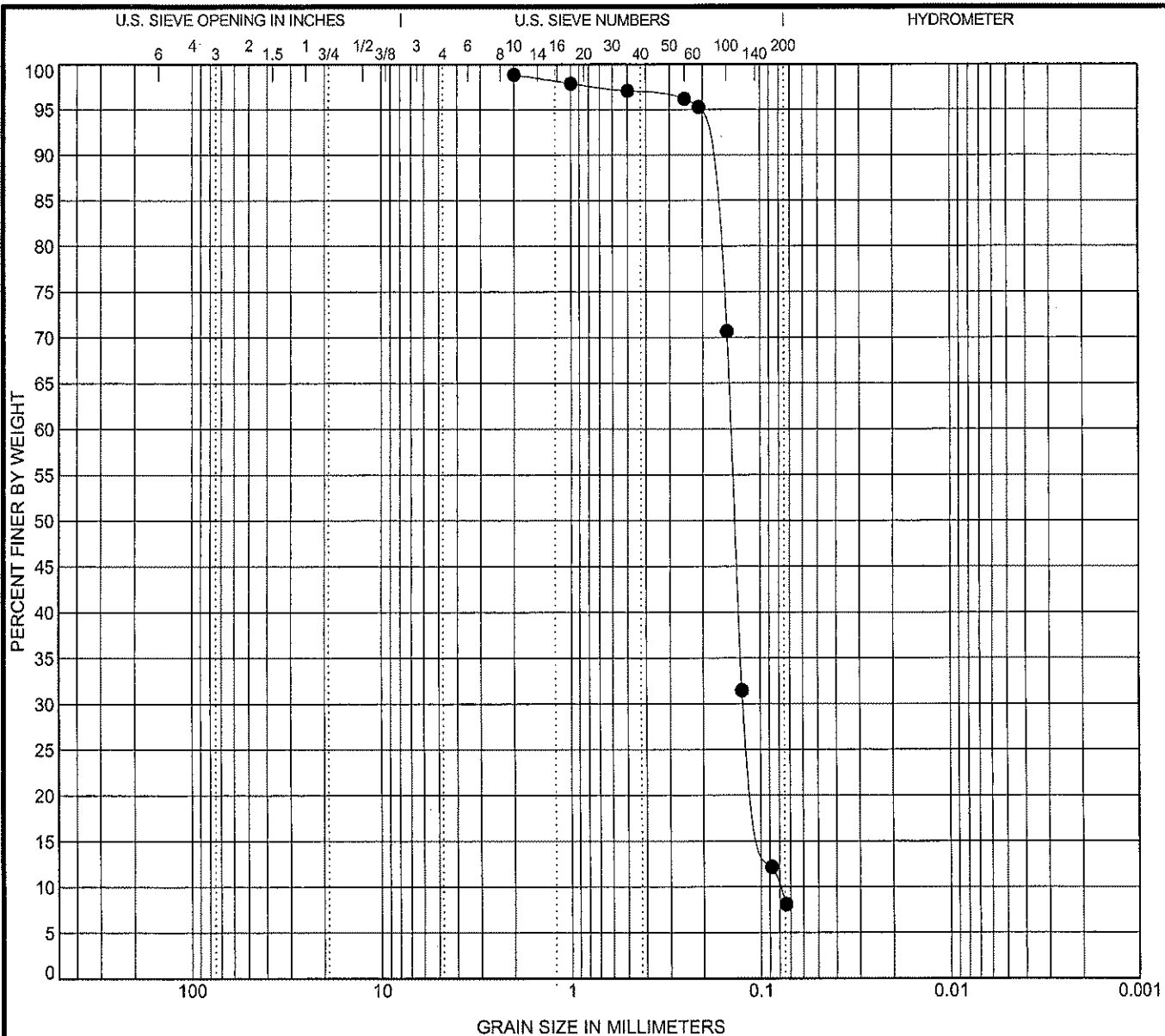
BORING ID.: AA-43

DESCRIPTION: Anchorage Area C Borrow Source Area

PERCENT SHELL BY WEIGHT (BASED ON #10 SIEVE)		
-32.12' to -34.12' NAVD	-34.12' to -36.12' NAVD	-36.12' to -38.12' NAVD
1.12	1.09	0.47

ASTM MESH	% FINER BY WEIGHT AFTER REMOVING SHELL		
	-32.12' to -34.12' NAVD	-34.12' to -36.12' NAVD	-36.12' to -38.12' NAVD
#10	100.00	100.00	100.00
#18	97.90	98.30	99.30
#35	97.10	97.80	99.10
#60	96.20	96.10	97.20
#70	95.30	92.70	86.50
#100	70.70	38.20	33.60
#120	31.50	19.90	19.40
#170	12.20	11.20	11.50
#200	8.10	10.00	9.60
STATISTICS (EXCLUDING SHELL)			
MEDIAN GRAIN SIZE (mm)	0.14	0.18	0.18
MEAN GRAIN SIZE (mm)	0.17	0.17	0.17
SORTING (σ)	N/A	N/A	N/A

*The #10 material was utilized as the total sample for Grain Size Distribution Curve calculations.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen ID	Depth	Classification	LL	PL	PI	Cc	Cu
● AA-43	(-32.12' to -34.12' NAVD)	AA-43 (-32.12' to -34.12' NAVD)				1.30	1.77

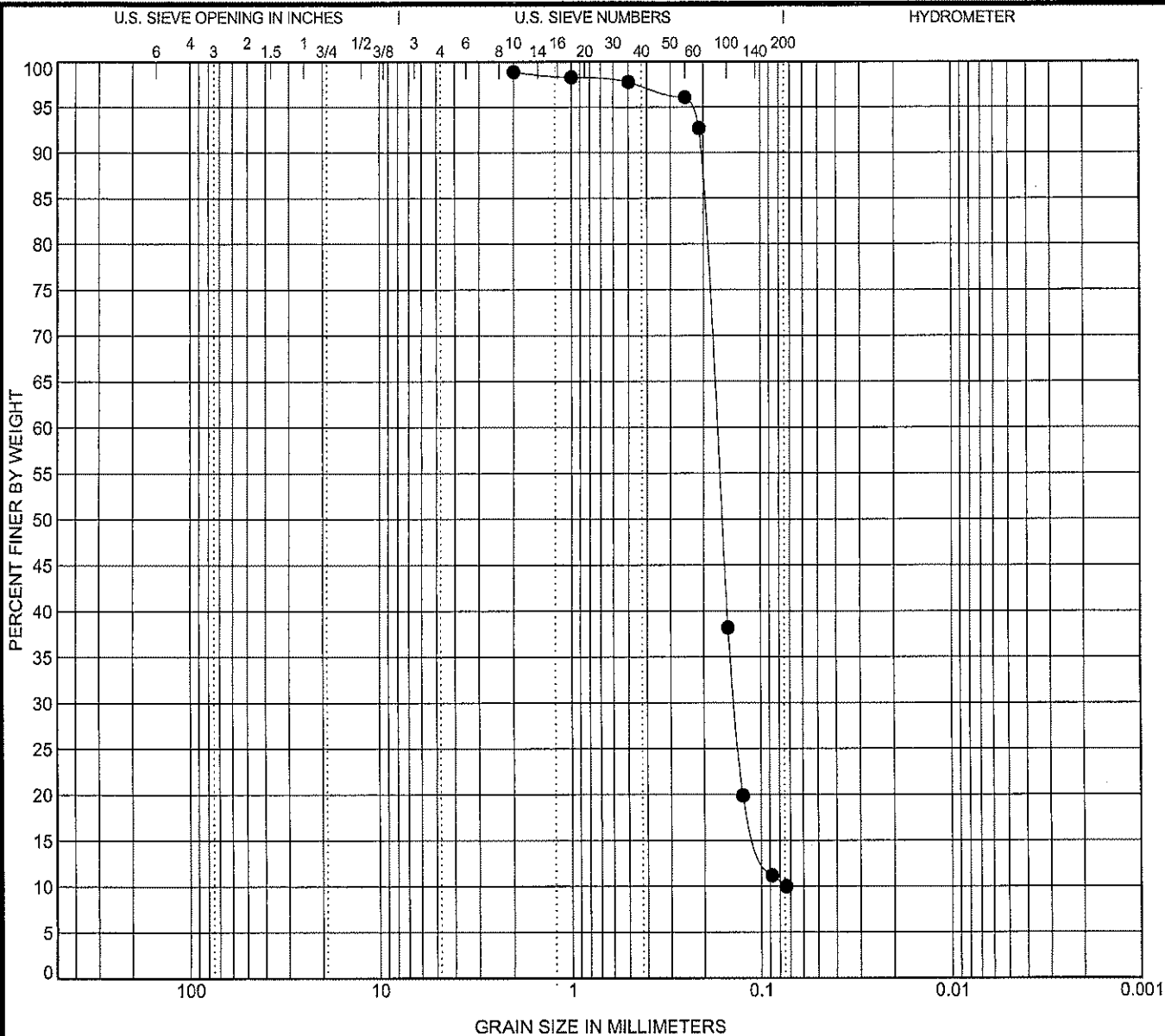
Specimen ID	Depth	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● AA-43	(-32.12' to -34.12' NAVD)	2	0.142	0.122	0.08	0.0			



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GRAIN SIZE DISTRIBUTION

Project: Galveston Anchorage Area C Sand Source Inv.
Location: Anchorage Area C, Galveston, Texas
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COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen ID	Depth	Classification	LL	PL	PI	Cc	Cu
● AA-43 (-34.12' to -36.12' NAVD)		AA-43 (-34.12' to -36.12' NAVD)				1.50	2.31

Specimen ID	Depth	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● AA-43 (-34.12' to -36.12' NAVD)		2	0.171	0.138	0.074	0.0			



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GRAIN SIZE DISTRIBUTION

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Figure 77: AA-42; Sample 1



Figure 78: AA-43; Sample 1

December 8, 2009
Attn.: Ms. Lauren Augustin
RETL Job No.: G109233

PROP. GALVESTON ANCHORAGE AREA C SAND SOURCE INVESTIGATION
Anchorage Area C, Galveston, Texas

ROCK ENGINEERING AND TESTING LABORATORY, INC.
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Figure 79: AA-43; Sample 2



Figure 80: AA-44; Sample 1

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