



- Geotechnical Engineering
- Construction Materials Testing

PROJECT NAME: Anchorage Basin Sand Source Investigation

CLIENT: HDR Engineering, Inc.

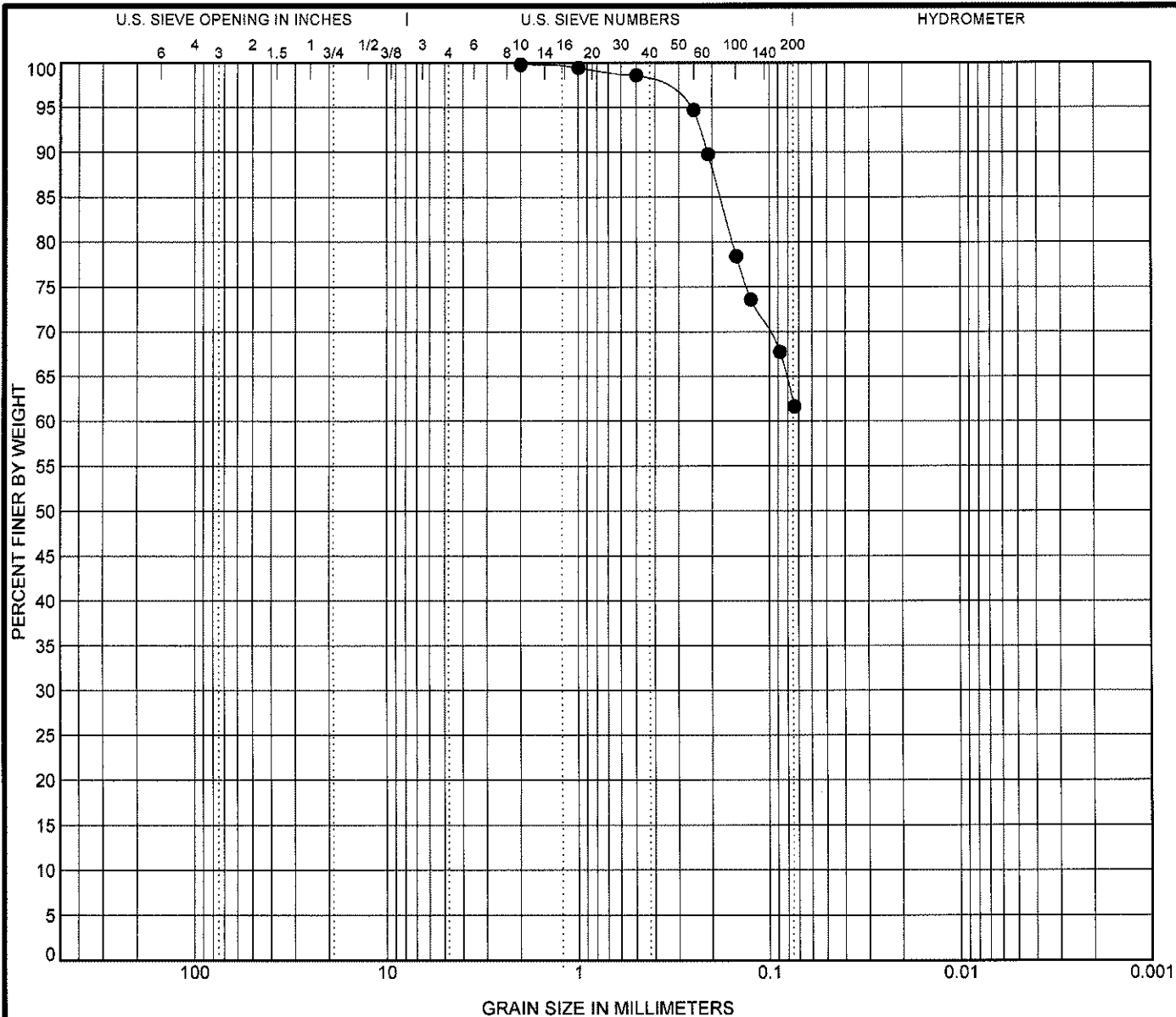
BORING ID.: AA-11

DESCRIPTION: Anchorage Basin Borrow Source Area

PERCENT SHELL BY WEIGHT (BASED ON #10 SIEVE)				
-28' to -29' NAVD	-30' to -31' NAVD	-31' to -32' NAVD	-33' to -34' NAVD	-36' to -37' NAVD
0.19	0.12	0.08	0.00	0.00

ASTM MESH	% FINER BY WEIGHT AFTER REMOVING SHELL				
	-28' to -29' NAVD	-30' to -31' NAVD	-31' to -32' NAVD	-33' to -34' NAVD	-36' to -37' NAVD
#10	100.00	100.00	100.00	100.00	100.00
#18	99.45	99.82	99.82	99.97	100.00
#35	98.62	99.78	99.60	99.86	99.90
#60	94.72	99.43	98.89	99.43	98.82
#70	89.78	98.87	97.33	96.58	94.13
#100	78.43	86.52	47.34	34.35	23.06
#120	73.60	68.61	29.50	21.36	8.74
#170	67.75	52.79	22.09	16.41	2.34
#200	61.64	47.19	20.49	14.77	1.65
STATISTICS (EXCLUDING SHELL)					
MEDIAN GRAIN SIZE (mm)	N/A	0.08	0.17	0.17	0.18
MEAN GRAIN SIZE (mm)	N/A	N/A	N/A	0.14	0.18
SORTING (σ)	N/A	N/A	N/A	N/A	0.25

*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-11 (-28' to -29' NAVD)		Borrow Area (-28' to -29' NAVD)					

[illegible]

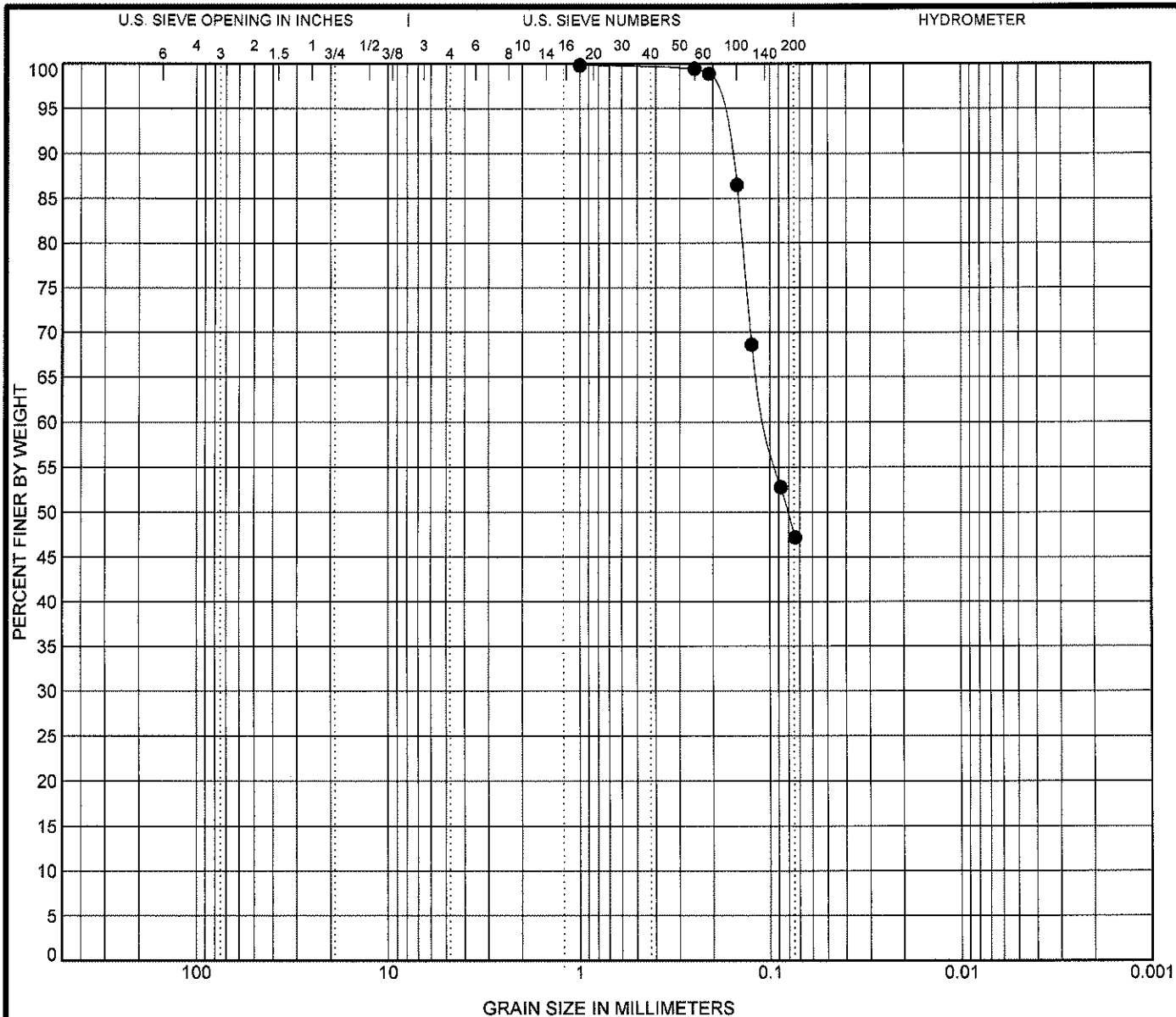
Rock Engineering & Testing Lab., Inc.
6817 Leopard St.
Corpus Christi, TX 78409
Telephone: (361) 883-4555
Fax: (361) 883-4711

GRAIN SIZE DISTRIBUTION

Project: Anchorage Basin Sand Source Investigation

Location: Anchorage Basin; Galveston, Texas

Number: G109112



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[illegible]

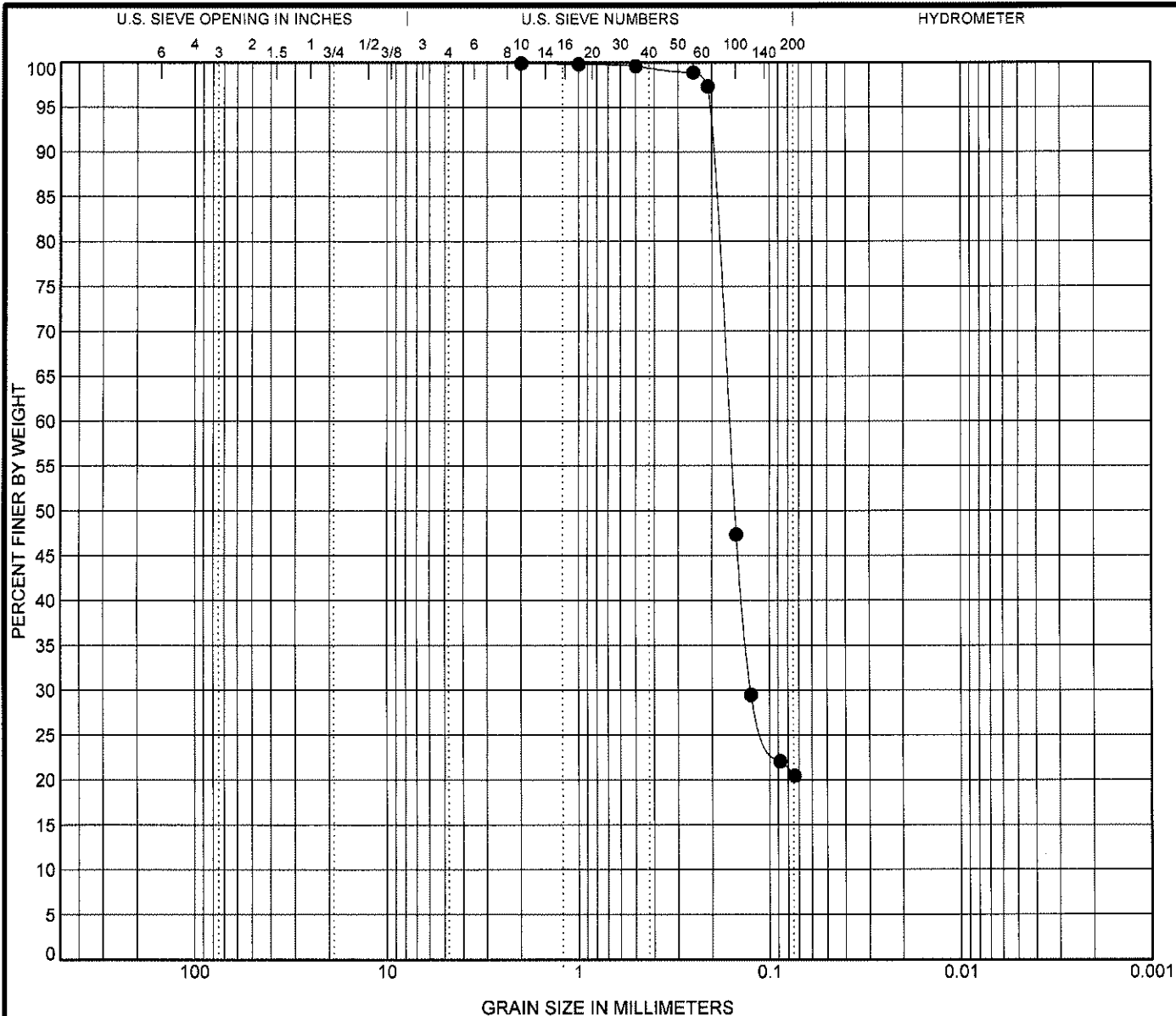
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COBBLES

GRAVEL

SAND

SILT OR CLAY

Specimen ID	Depth
-------------	-------

Depth

Classification

LLPLPICcCu

● **AA-11** (-33' to -34' NAVD)

Borrow Area (-33' to -34' NAVD)

Specimen ID	Depth
-------------	-------

D100D60D30010Graveland

	%C
1	100
2	100
3	100
4	100
5	100
6	100
7	100
8	100
9	100
10	100
11	100
12	100
13	100
14	100
15	100
16	100
17	100
18	100
19	100
20	100
21	100
22	100
23	100
24	100
25	100
26	100
27	100
28	100
29	100
30	100
31	100
32	100
33	100
34	100
35	100
36	100
37	100
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39	100
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43	100
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79	100
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81	100
82	100
83	100
84	100
85	100
86	100
87	100
88	100
89	100
90	100
91	100
92	100
93	100
94	100
95	100
96	100
97	100
98	100
99	100
100	100

Clay



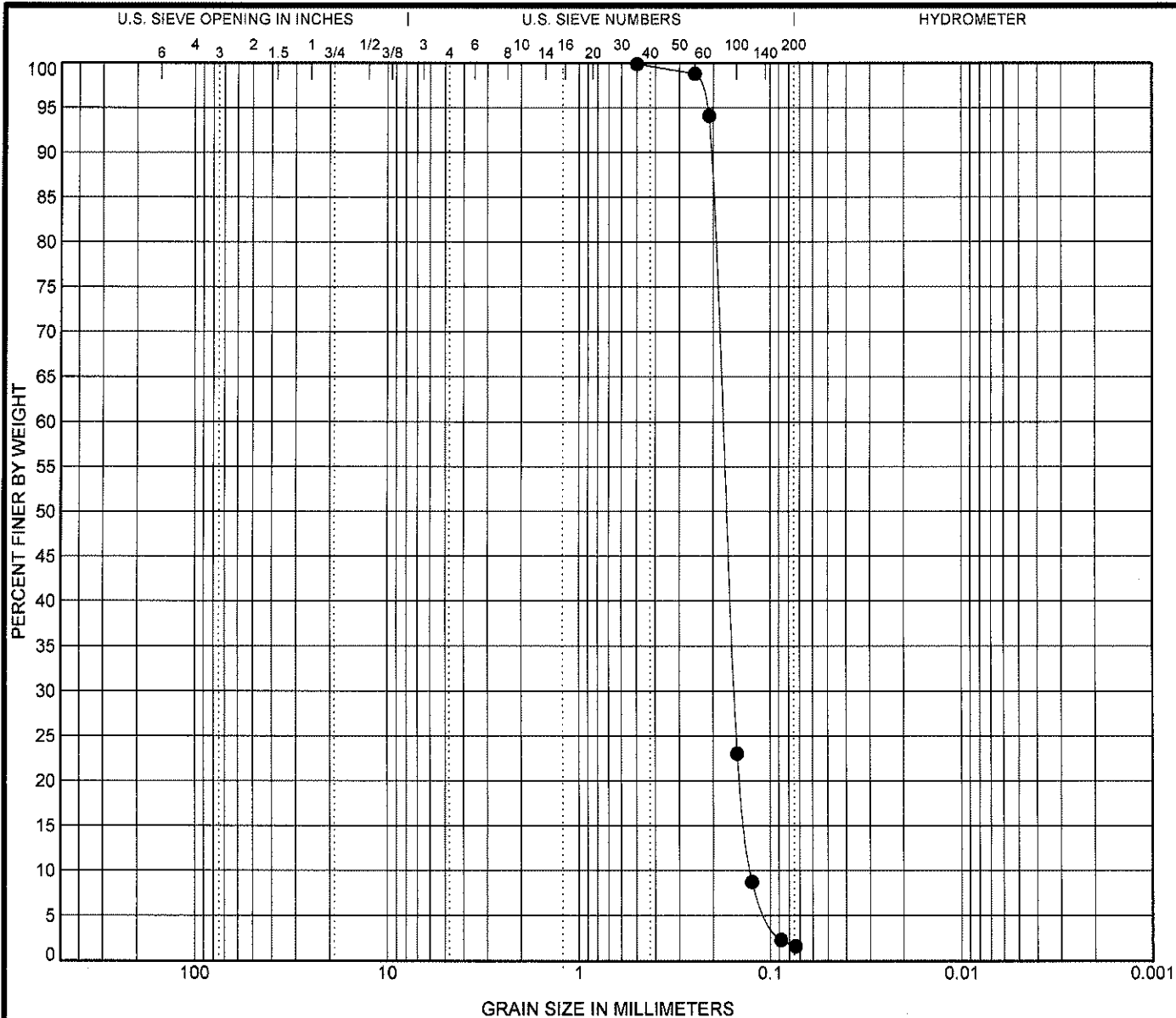
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● AA-11	(-36' to -37' NAVD)	Borrow Area (-36' to -37' NAVD)				1.05	1.40

[illegible]

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SHEET 1 OF 1



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CLIENT: HDR Engineering, Inc.
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DATE(S) DRILLED: 03/12/09 - 03/12/09

DRILLING METHOD(S):

Vibracore

GROUNDWATER INFORMATION:

SURFACE ELEVATION: -28' NAVD

DESCRIPTION OF STRATUM

[illegible]

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 Ocean Surveys, Inc.
GPS Coord. N. 13.699,483' E. 3.318,163'

OG OF BORING G109112 PROP. ANCHORAGE BASIN SAND SOURCE.GPJ ROCK_ETL.GDT 4/28/09