

DRILLING LOG		HUMISTON & MOORE ENGINEERS		INSTALLATION		SHEET 4 OF 12 SHEETS	
1. PROJECT KNIGHT ISLAND BEACH NOURISHMENT				10. SIZE AND TYPE OF BIT 2.5 INCHES			
2. LOCATION CHARLOTTE COUNTY, FLORIDA				11. DATUM FOR ELEVATION SHOWN NGVD			
3. DRILLING AGENCY EXMAR				12. MANUFACTURERS DESIGNATION OF DRILL VIBRACORE			
4. HOLE NO. 3B				13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		DISTURBED NA	
						UNDISTURBED NA	
5. NAME OF DRILLER MIKE CLARK				14. TOTAL NUMBER OF CORE BOXES (SECTIONS) 2 ?			
6. DIRECTION OF HOLE <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCINED _____ DEG. FROM VERT.				15. ELEVATION OF GROUND WATER TIDAL			
7. THICKNESS OF OVERBURDEN NA				16. DATE HOLE		STARTED 9/19/93	
8. DEPTH DRILLED INTO ROCK NONE						FINISHED 9/19/93	
9. TOTAL DEPTH OF HOLE 12.8 FEET				17. ELEVATION TOP OF HOLE -14.0 FEET NGVD			
				18. TOTAL CORE RECOVERY FOR BORING 9 FEET			
				19. SIGNATURE OF INSPECTOR			

ELEVATION (Feet) a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV- ERY e	BOX OR SAMPLE NO. f	REMARKS g
-17.0	3					JETTED TO 3 FEET
-18.0	4		MEDIUM TO FINE QUARTZ SAND, (SM), TRACES OF SHELL		3B-1	EL. = -17.5
-26.8	12		FINE QUARTZ SAND, (SP), GRAY, SOME SHELL AND VEINS WITH TRACES OF SILT.		3B-2	EL. = -23.0
					3B-3	EL. = -26.0

LAW ENGINEERING
3627 PROGRESS AVENUE
NAPLES, FLORIDA 33942
(813) 643-4747

REPORT OF GRAINSIZE ANALYSIS WITH WASH 200 AND WATER CONTENT

CLIENT: Humiston, Moore Engineers

DATE: October 20, 1993

PROJECT: Knight Island Beach Restoration Project

TECHNICIAN: SC

OB NUMBER: 76-611005-01

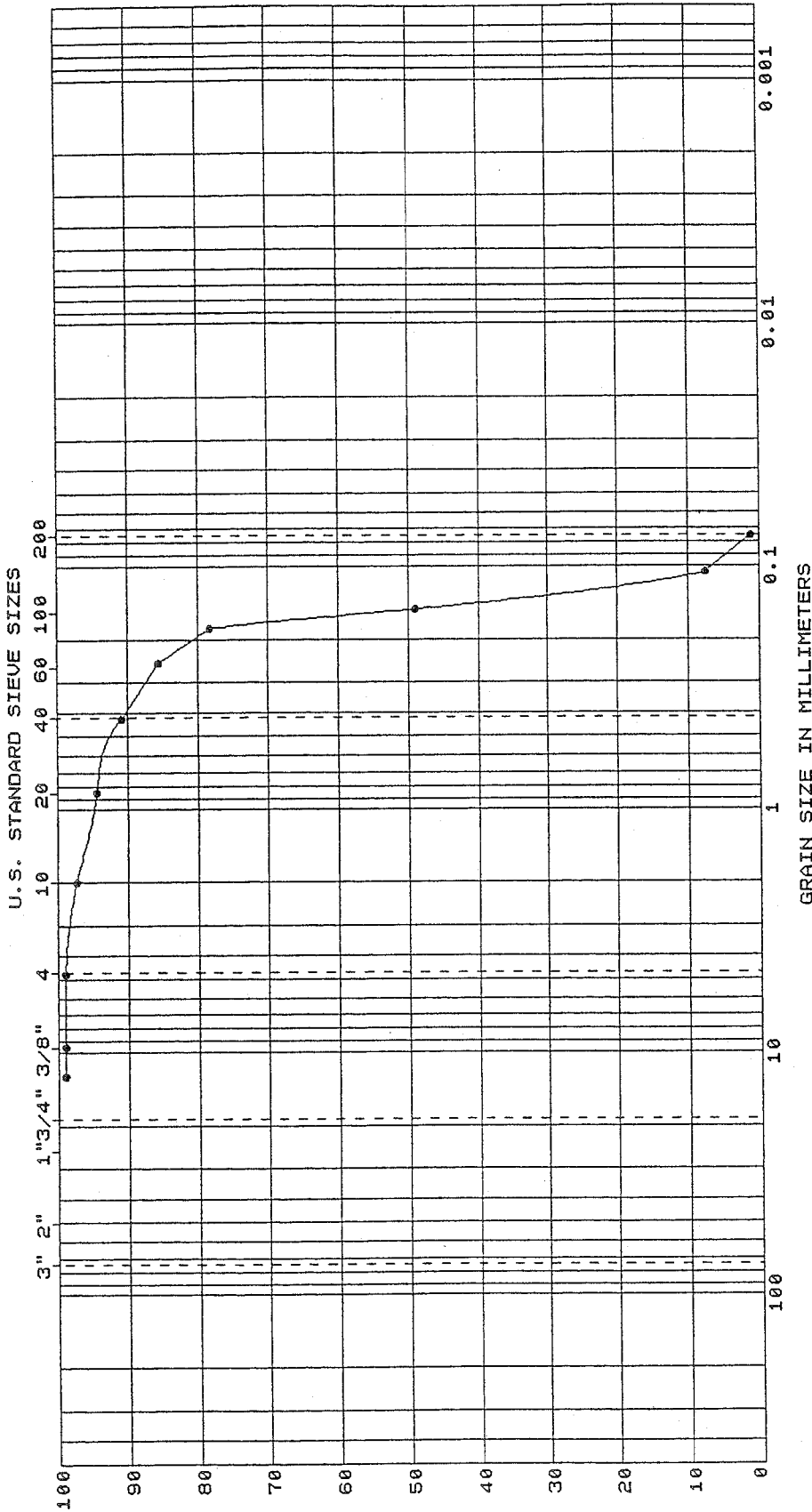
BORING NUMBER: 3B

SAMPLE NUMBER: 1

Sample Description: Gray-tan fine SAND

<i>SIEVE NO.</i>	<i>WEIGHT RETAINED</i>	<i>% RETAINED</i>	<i>% PASSING</i>
1 in.	0.0	0.0	100.0
3/4 in.	0.0	0.0	100.0
1/2 in.	1.9	1.0	99.0
3/8 in.	2.1	1.1	98.9
4	2.2	1.1	98.9
10	5.2	2.7	97.3
20	10.9	5.6	94.4
40	18.0	9.2	90.8
60	28.0	14.4	85.6
80	42.2	21.7	78.3
100	99.4	51.0	49.0
140	180.2	92.5	7.5
200	192.5	98.8	1.2

Boulders	COBBLES		GRAVEL		SAND			FINES	
	Coarse	Fine	Coarse	Fine	Coarse	Medium	Fine	Silt Sizes	Clay Sizes



PERCENT FINER BY WEIGHT

DEPTH		NAT WC		LL	PL	PI	DESCRIPTION
0.0							Gray-Tan fine SAND

GRAIN SIZE DISTRIBUTION	
BORING NUMBER	3B
PROJECT NUMBER	76-611005-01
PROJECT	KNIGHT ISLAND BEACH RESTORATION
SAMPLE 1	
LAW ENGINEERING	

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REPORT OF GRAINSIZE ANALYSIS WITH WASH 200 AND WATER CONTENT

CLIENT: Humiston, Moore Engineers

DATE: October 23, 1993

PROJECT: Knight Island Beach Restoration Project

TECHNICIAN: SC

JOB NUMBER: 76-611005-01

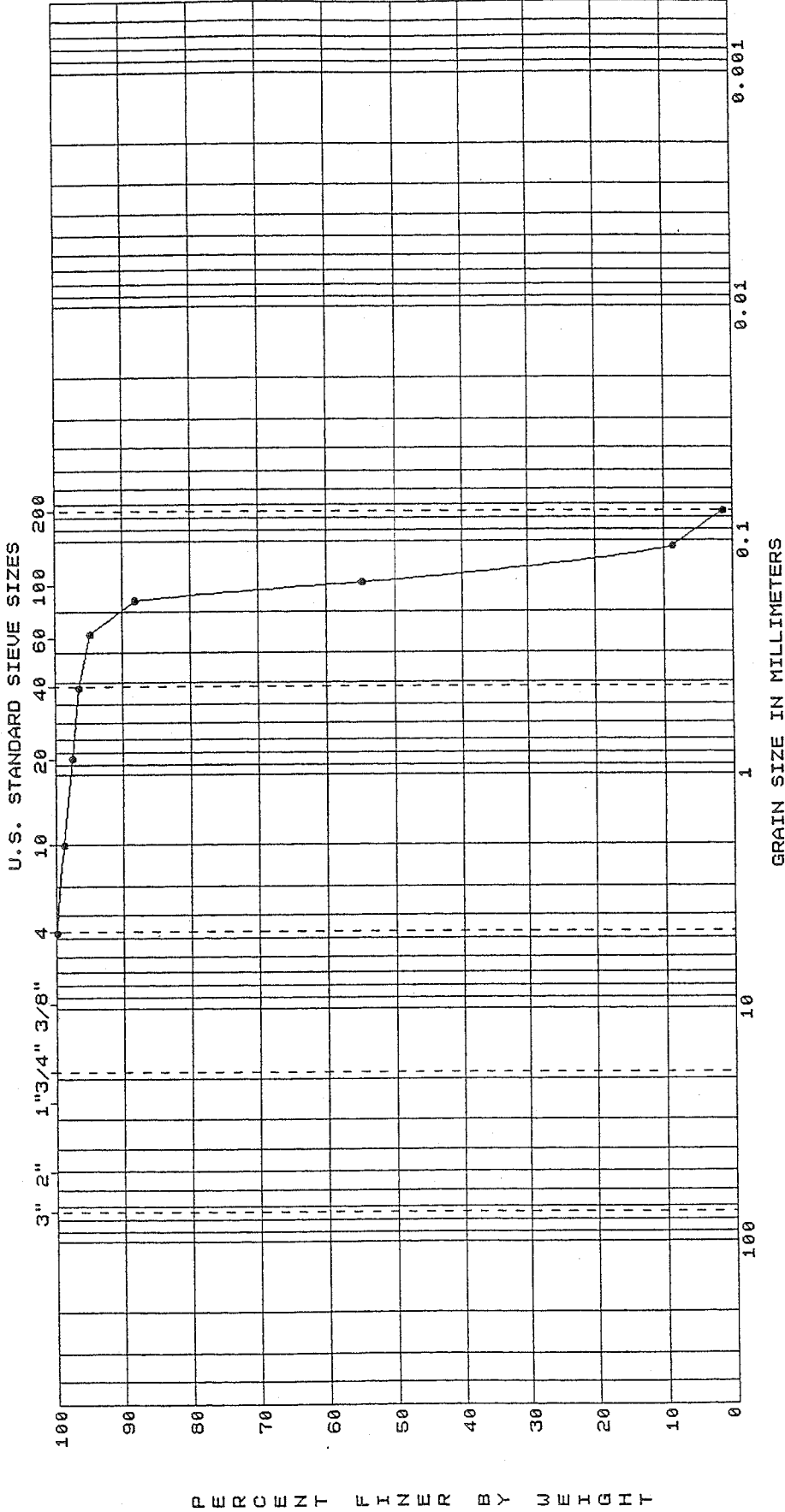
BORING NUMBER: 3B

SAMPLE NUMBER: 2

Sample Description: Gray fine SAND

<i>SIEVE NO.</i>	<i>WEIGHT RETAINED</i>	<i>% RETAINED</i>	<i>% PASSING</i>
<i>1 in.</i>	<i>0.0</i>	<i>0.0</i>	<i>100.0</i>
<i>3/4 in.</i>	<i>0.0</i>	<i>0.0</i>	<i>100.0</i>
<i>1/2 in.</i>	<i>0.0</i>	<i>0.0</i>	<i>100.0</i>
<i>3/8 in.</i>	<i>0.0</i>	<i>0.0</i>	<i>100.0</i>
<i>4</i>	<i>0.6</i>	<i>0.2</i>	<i>99.8</i>
<i>10</i>	<i>3.1</i>	<i>1.3</i>	<i>98.7</i>
<i>20</i>	<i>6.2</i>	<i>2.6</i>	<i>97.4</i>
<i>40</i>	<i>8.7</i>	<i>3.6</i>	<i>96.4</i>
<i>60</i>	<i>12.8</i>	<i>5.3</i>	<i>94.7</i>
<i>80</i>	<i>29.1</i>	<i>12.0</i>	<i>88.0</i>
<i>100</i>	<i>110.0</i>	<i>45.2</i>	<i>54.8</i>
<i>140</i>	<i>221.83</i>	<i>91.2</i>	<i>8.8</i>
<i>200</i>	<i>240.0</i>	<i>98.7</i>	<i>1.3</i>

Boulders	GRAVEL		SAND			FINES	
	Coarse	Fine	Coarse	Medium	Fine	Silt Sizes	Clay Sizes



DESCRIPTION				
DEPTH	NAT WC	LL	PL	PI
0.0				
Gray fine SAND				

GRAIN SIZE DISTRIBUTION	
SAMPLE 2	
BORING NUMBER	3B
PROJECT NUMBER	76-611005-01
PROJECT	KNIGHT ISLAND BEACH RESTORATION
LAW ENGINEERING	

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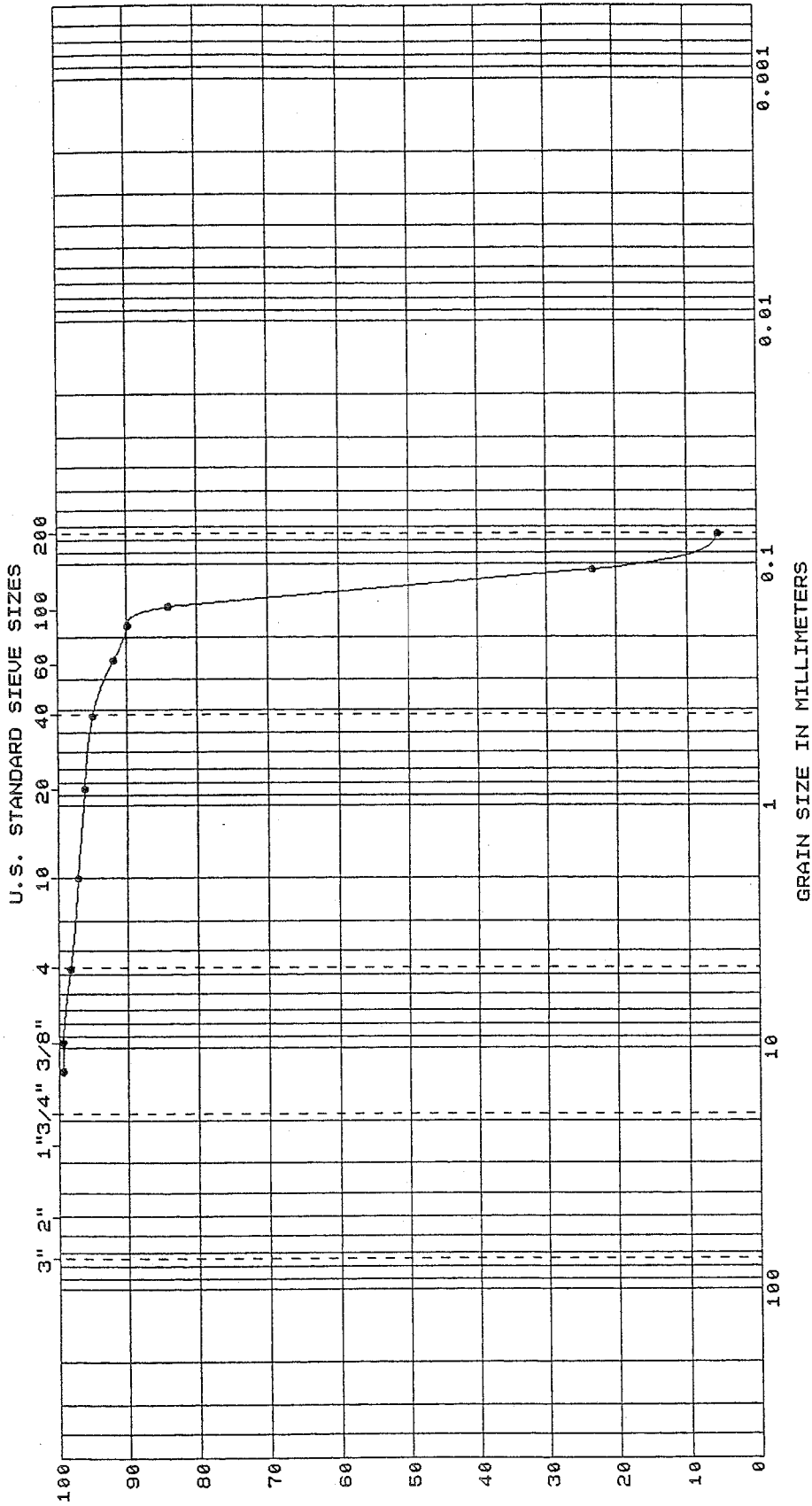
REPORT OF GRAINSIZE ANALYSIS WITH WASH 200 AND WATER CONTENT

CLIENT: Humiston, Moore Engineers DATE: October 23, 1993
PROJECT: Knight Island Beach Restoration Project TECHNICIAN: SC
JOB NUMBER: 76-611005-01 BORING NUMBER: 3B SAMPLE NUMBER: 3

Sample Description: Gray slightly silty fine SAND

SIEVE NO.	WEIGHT RETAINED	% RETAINED	% PASSING
1 in.	0.0	0.0	100.0
3/4 in.	0.0	0.0	100.0
1/2 in.	1.3	0.7	99.3
3/8 in.	1.3	0.7	99.3
4	3.5	1.8	98.2
10	5.6	2.9	97.1
20	7.6	3.9	96.1
40	9.9	5.1	94.9
60	15.9	8.1	91.9
80	19.9	10.2	89.8
100	31.3	16.0	84.0
140	150.2	76.6	23.4
200	185.2	94.5	5.5

Boulders	GRAVEL		SAND			FINES	
	Coarse	Fine	Coarse	Medium	Fine	Silt Sizes	Clay Sizes



PERCENT FINER BY WEIGHT

DEPTH		NAT	WC	LL	PL	PI	DESCRIPTION
0.0							Gray slightly silty fine sand

GRAIN SIZE DISTRIBUTION	
BORING NUMBER	3B
PROJECT NUMBER	76-611005-01
PROJECT	KNIGHT ISLAND BEACH RESTORATION
SAMPLE	3
LAW ENGINEERING	