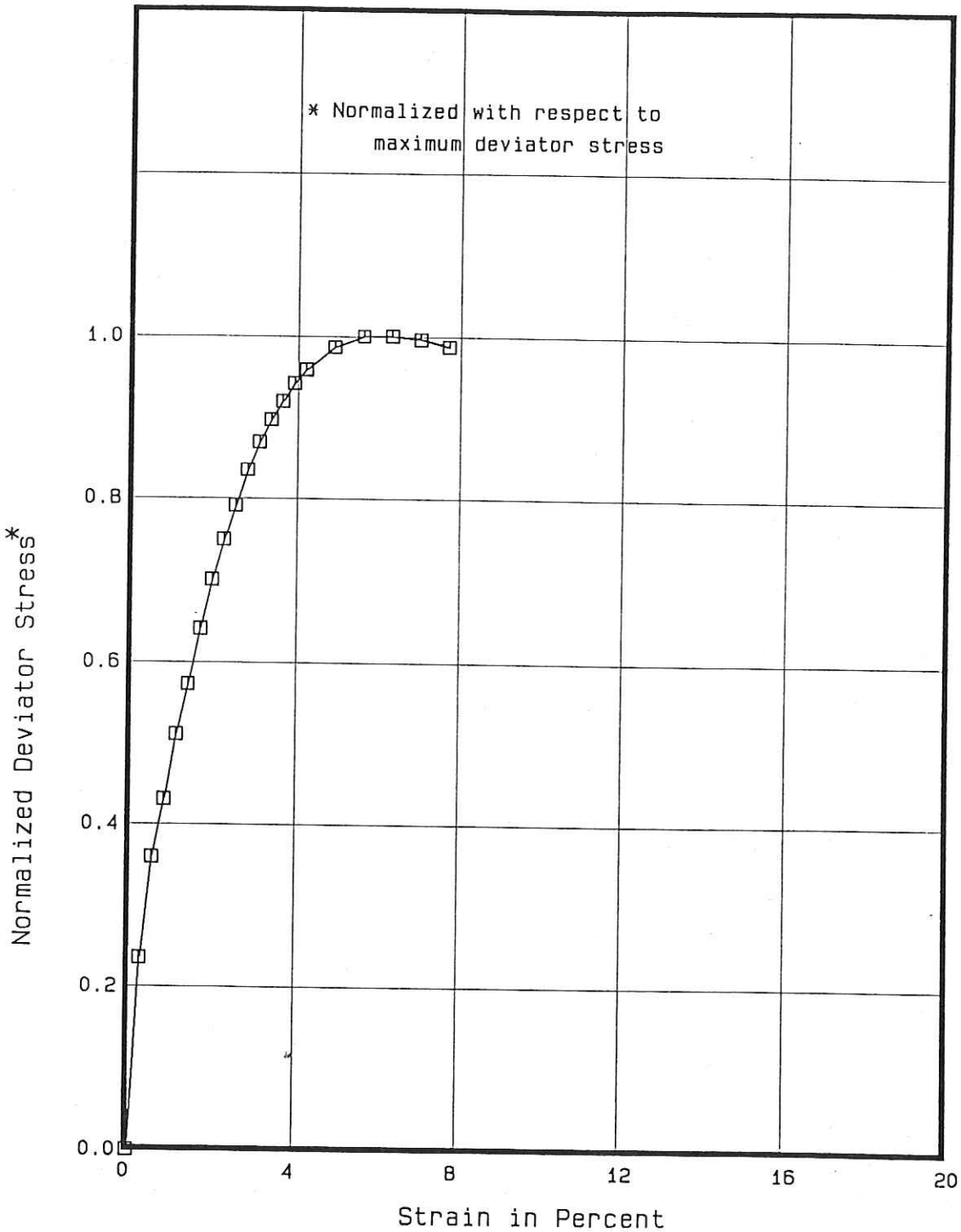
Note: All Top of Boring Elevations are in Ft. MLT.

Top of Boring El. -23.1 MLT

Summary of Test Results
GALVESTON DISTRICT, CORPS OF ENGINEERS
BROWNSVILLE ENTRANCE CHANNEL
BROWNSVILLE, TEXAS

Boring Number	Sample Number	Sample Depth (Feet)	Visual Classification	MC (%)	UDW (PCF)	LL	PL	PI	Gradation, Percent Passing Sieve No. 4 10 40 100 200	UNC SU (KSF)	TV SU (KSF)	USCS
89-24	1	0.0- 2.0	FIRM GRAY CLAYEY SILT with trace of clay pockets	30								ML
89-24	2	2.0- 3.5	GRAY SANDY SILT Dense 65	25					100 100 100 99 52			ML
89-24	3	7.0- 9.0	VERY STIFF GRAY CLAY with silt seams	38								CH
89-24	4	9.0-11.0	STIFF GRAY CLAY with sandy silt seams	38								CH
89-24	5	11.0-13.0	STIFF GRAY CLAY with silt pockets and partings	41								CH
89-24	6	13.0-15.0	STIFF GRAY CLAY with occasional silt pockets	44								CH
89-24	7	15.0-17.0	STIFF GRAY CLAY with silt partings and pockets and shell fragments	46								CH
89-24	8	17.0-19.0	FIRM GRAY CLAY with silt pockets and partings and trace of shell fragments	44	77	63	26	37	100 100 100 99 99	0.84		CH
89-24	9	19.0-21.0	FIRM GRAY CLAY with occasional silt partings and pockets	44								CH
89-24	10	21.0-23.0	STIFF GRAY CLAY with numerous silt pockets and partings,trace of shell fragments	35								CH
89-24	11	23.0-25.0	FIRM GRAY CLAY with silt pockets and trace of shell fragments	38								CH
89-24	12	25.0-27.0	STIFF GRAY CLAY with numerous sandy silt pockets, occasional organic matter	37								CH
89-24	13	27.0-29.0	STIFF GRAY CLAY with numerous silty sand pockets	26								CH
89-24	14	29.0-31.0	FIRM LIGHT GRAY CLAY with numerous silt pockets, occasional calcareous nodules	26	98	40	16	24				CL
89-24	15	31.0-33.0	LIGHT GRAY SANDY SILT with occasional calcareous nodules	24								ML
89-24	16	33.0-35.0	LIGHT GRAY SILTY FINE SAND with trace of calcareous deposits	28	95	32	16	16				SM
89-24	17	35.0-37.0	LIGHT GRAY CLAYEY SAND with occasional calcareous deposits	26								SC
89-24	18	37.0-39.0	LIGHT GRAY SILTY FINE SAND	22					100 100 100 82 19			SM
89-24	19	39.0-40.5	GRAY FINE SAND with trace shell fragments and occasional clay pockets Medium D 55	24								SP

SE-666-89



STRESS-STRAIN CURVES

CURVE	BORING NO	TEST TYPE	DEPTH FT	CONFINING PRESSURE, KSF	MAXIMUM DEVIATOR STRESS, KSF
	89-24	U	19.0	0.00	1.67

JOB TITLE Drilling, Sampling
JOB NO. SE-666-89

LOG OF BORING NO. 89-24
CLIENT Galveston District, Corps Of Engineers

LOCATION Brownsville Entrance Channel, TX COORDINATES X=2,439,148 Y=146,911, 6' @ 88 HEADING 253

DRILLING METHOD Rotary Wash

SAMPLER TYPE (S) 3" Thin-wall tube, split spoon"

Mudline Elev. -23.11
Time Started 0700
Date Started 11-12-89
Time Completed 1640
Date Completed 11-12-89

Split barrel
Thin-wall tube
Liner
No recovery

Weather Conditions: PRTLY CLDY & WINDY
Drill rig: Failing 1500
Driller: FRED KETCHUM
Roughneck: KELLY Smith, DAVID TURNEY
Technician: MIKE HOOVER, DENNIS BOUCHER

Water Depth Date Time
22.0' 11-12-89 0650

Tide Elev.: -.84 MLT @ 0545 hrs.
-1.11 0700

Sample Number	Depth	Type J/Q	Pen. / Fv	Core From:	Core To:	Blow Counts Each 6" or Refusal	Depth Scale	Description:	Remarks:
1	2.0		Q	0	2			G Si f Sa ? - w/few CL Sms AMA 6.5'	DRILLER notes: SAND to 6.5'
2	3.5		J	2	3.5	3-4-4			
							5		
3	9.0	2.7	Q	7	9			So G CL - Interbeded w/si fsa to 11	
4	11.0	1.4		9	11		10	Stiff 11-29	
5	13.0	1.1		11	13				
6	15.0	1.5		13	15		15		
7	17.0	.8		15	17			- w/sh frags 15'-25'	
8	19.0	.8		17	19	UC		- w/si Pkts 17'-29 UC	
9	21.0	.8		19	21		20		
10	23.0	1.0		21	23				
11	25.0	.8		23	25		25		
12	27.0	1.3		25	27				
13	29.0	1.7		27	29				
14	31.0	1.3		29	31		30	CT Lt. G. V.Si CL w/CALC nods & Deps. - CL Si 31-33' LL-PL	
15	33.0	1.5		31	33				
16	35.0	.6		33	35		35	Lt. G. Si - w/cl Pkts LL-PL	
17	37.0	–	Q	35	37				
18	39.0	–	J	37	39			G Si f Sa AMA	
							40		

From Telcon W/ Bob Decker 11/22/89

? ?

JOB TITLE Drilling, Sampling
JOB NO. 9E-666-89

LOG OF BORING NO. 89.24

CLIENT Galveston District, Corps Of Engineers

LOCATION Brownsville Entrance Channel, TX COORDINATES X = 2,439,148 , Y = 146,911 6@88 HEADING 253

DRILLING METHOD Rotary Wash

SAMPLER TYPE (S) 3" Thin-wall tube, split spoon

Mudline Elev. -23.11
Time Started 0700
Date Started 11-12-89
Time Completed 1040
Date Completed 11-12-89

Split barrel
Thin-wall tube
Liner
No recovery

Weather Conditions: Prtly cldy & windy
Drill rig: Failing 1500
Driller: FRED Ketchum
Roughneck: David Turner, Kelly Smith
Technician: Mike Hoover, Dennis Boucher

Water Depth 22.0' Date Time 11-12-89 0650

Tide Elev.: -.84 -1.11 MLT @ 0545 0700 hrs.

Sample Number	Depth	Type J/Q	Pen. / Tv.	Core From:	Core To:	Blow Counts Each 6" or Refusal	Depth Scale	Description:	Remarks:
19	40.5		J	39	40.5	9.6-6		Cont... G Si f Sa	
								B.T. = 40.5'	
							45	= -63.1' MLT	
								-63.61	