

U.S. ARMY CORPS OF ENGINEERS

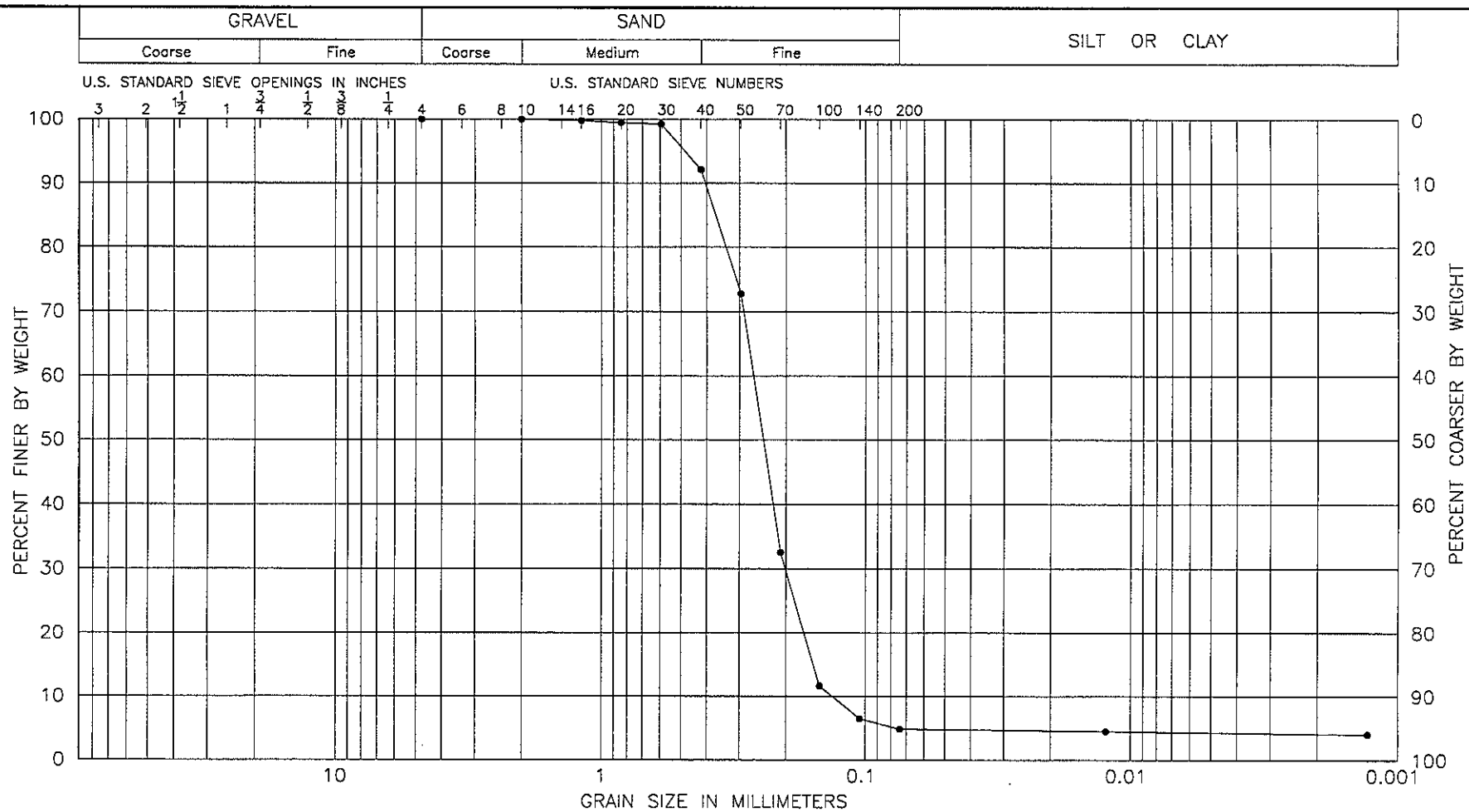
DEPTH, FEET	SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	BORING NO. <u>99-19</u> DATE: BEGIN <u>4-21-99</u> PAGE <u>1/1</u>				
			JOB NO. <u>1140114808</u> COMPLETE <u>4-21-99</u> Thin Walled Tube				
			PROJECT <u>Neches River Saltwater Barrier</u> ☒ 3" ☐ 6"				
			LOCATION <u>N=875502.02, E=3543197.84</u>				
			ELEVATION OF HOLE <u>0.9'</u>				
			MANUFACTURER'S DESIGNATION OF DRILL RIG <u>DNR 75 with Bore</u>				
			GROUNDWATER: DEPTH <u>*</u> ft., ELEV. <u>*</u> ft., at end of Drilling				
			WEATHER <u>Sunny</u>				
			DRILLER <u>Dempsey Geom</u> LOGGER <u>Tray Mostamand</u>				
			COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
Mud line - 0	X 1	2 3 4	Brown	Sand	loose	Silt	* 3' of standing water
5	X 2	3 4 5	Brown	Sand	loose	Silt	Set 12' of casing after taking sample 2, Total casing Below mud line 6' (3' water + 2' Deck + 1' of stick up)
10	X 3	7 14 24	Brown	Sand	Dense		
15	X 4	9 13 26	Brown	Sand	Dense		w/ gravel
20	5	4 25	Brown & Gray	Clay	Hard	Silt	
25							
30							
35							

(22)

SUMMARY OF LABORATORY TEST RESULTS

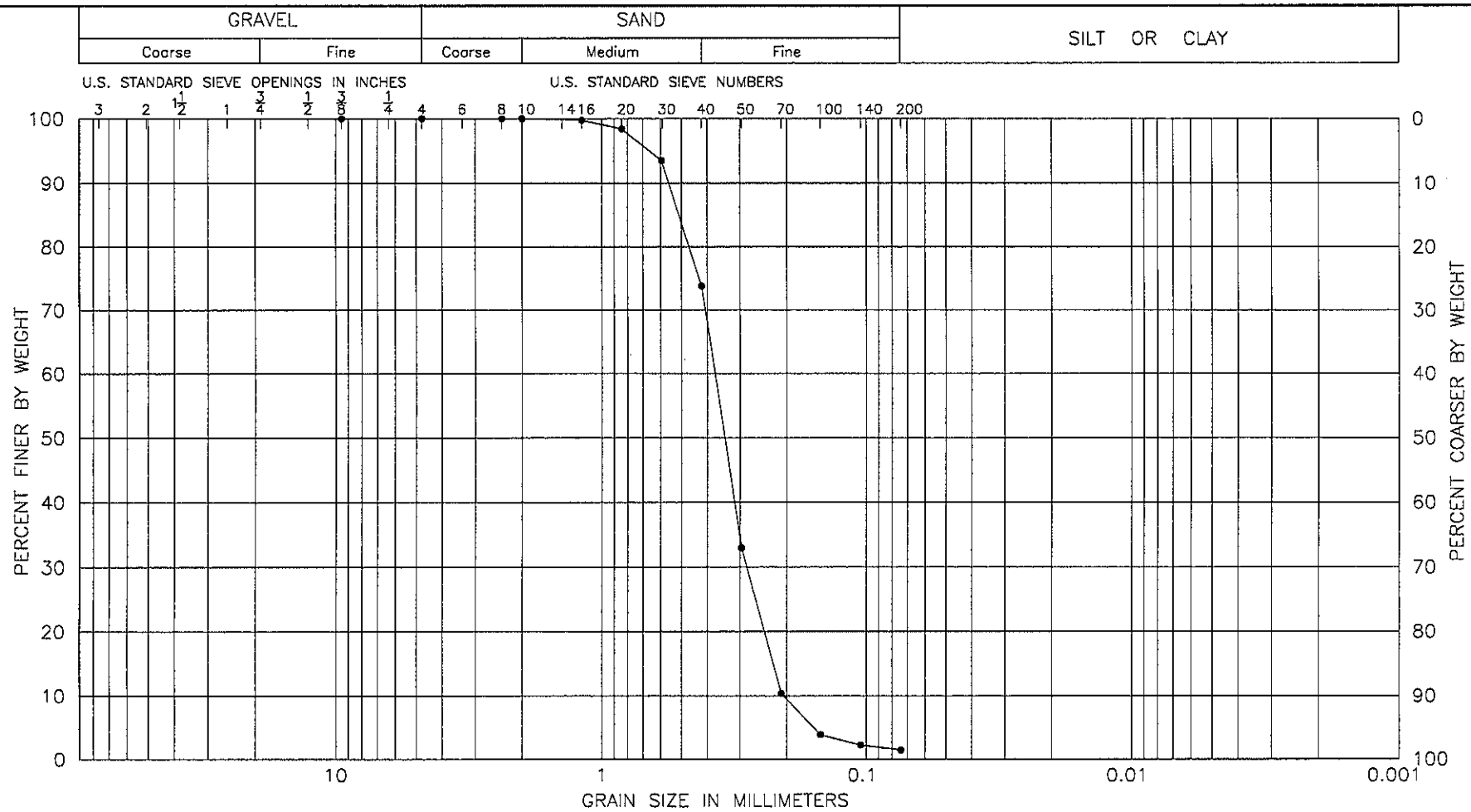
Boring No. 99-19

S #: Sample Number, P P : Pocket Penetrometer Reading, U S C : Unified Soil Classification, M c : Moisture Content
q u : Unconfined Compressive Strength, W O H : Weight of hammer, W O P : Weight of Pipe



LEGEND	BORING NO.	SAMPLE NO.	DEPTH FT.	SAMPLE DESCRIPTION
•••••	99-19	1	0-1.5	Sand, w/silt, loose, brown

GRAIN SIZE DISTRIBUTION CURVES



LEGEND	BORING NO.	SAMPLE NO.	DEPTH FT.	SAMPLE DESCRIPTION
•••••	99-19	3	8.5-10	Sand, dense, brown

GRAIN SIZE DISTRIBUTION CURVES

SUMMARY OF LABORATORY TEST RESULTS

Project: Neches river Saltwater barrier
Contract No. DACW64-98-D-0002

Boring No.	S#	Visual Classification	U S C	Mechanical Analysis																	
				% Passing																	
				#2	#1 1/2	#1	#1/2	#3/4	#3/8	#4	#8	#10	#16	#20	#30	#40	#50	#70	#100	#140	#200
99-11	7	Sand,medium dense,brown	SP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.8	99.5	99.0	96.6	83.2	28.2	5.7	2.7	2.2	2.0
99-13	6	Sand,w/silt,loose,gray	SP-SM	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.3	96.2	85.0	58.7	30.1	12.4	10.0	7.9	6.4
99-13	8	Silty Sand,w/clayey silt pockets,medium dense, gray	SM	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6	97.5	90.2	71.6	45.6	24.7	15.1	13.4	12.3
99-13	13	Silty Sand,medium sand,yellowish brown & gray	SM	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	93.5	70.6	45.0
99-14	6	Sand,w/wood,medium dense,brown	SP	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.8	99.7	99.4	98.5	94.6	76.0	42.0	16.2	5.9	3.0	2.8
99-14	7	Sand,w/gravel,medium dense,brown	SP-SM	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.3	98.0	92.9	70.4	47.0	29.1	19.3	14.2	10.6
99-14	18	Silty Sand,w/silty clay seams,dense,brown	SM	100.0	100.0	100.0	100.0	100.0	100.0	99.8	98.3	97.5	89.2	74.0	53.0	31.0	21.7	17.8	15.6	14.5	13.0
99-16	6	Sand,w/silt,loose,gray	SP-SM	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	95.1	72.8	34.9	20.1	12.7	8.1
99-16	8	Sand,dense,gray	SP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.9	99.8	99.2	97.1	86.5	65.0	38.0	11.8	3.8	1.6
99-17	9	Clayey Sand,w/roots & wood,medium dense, gray	SC	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.2	96.9	90.7	79.3	63.5	50.0	42.4	36.1
99-17	10	Sand,w/pea gravel,medium dense,brown	SP	100.0	100.0	100.0	100.0	100.0	100.0	98.3	95.6	94.1	86.7	76.2	59.6	38.7	20.9	9.7	4.2	2.9	2.5
99-19	1	Sand,w/silt,loose,brown	SP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.4	98.2	92.1	72.8	32.5	11.6	6.5	4.7
99-19	3	Sand,dense,brown	SP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	98.4	93.5	73.8	33.0	10.4	3.8	2.2	1.4
99-20	2	Sand,medium dense,brown	SP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.7	99.6	99.5	98.3	89.0	68.7	38.6	11.2	5.4	4.0
99-20	4	Sand,dense,brown	SP	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.9	99.8	99.5	98.5	94.1	76.2	48.0	18.7	4.7	2.3	1.5
99-21	8	Sand,medium dense,gray	SP	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.2	98.9	98.4	96.6	91.1	76.6	46.6	17.7	8.1	4.3	3.2
99-22	5	Sand,medium dense,gray	SP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.4	94.7	86.3	71.6	41.5	17.1	7.4	5.3	4.7

S#: Sample Number, U S C: Unified Soil Classification