PROJECT NO. 278-91 (3 91-199)

AVLES ENGINEERING CORP. GEOTECHNICAL ENGINEERS

PROJECT Water Control Structure at Salt Bayou

BORING 91-199

DATE 7/29/91 TYPE D & R 100 3"Core LOCATION See Plan

DEPTH IN FEET	SYMBOL	CORES	DESCRIPTION	BLOWS/FOOT	M.C., %	U.D.W. PCF	COMPRESSIVE STRENGTH-TSF (○ POCKET PENETROMETER, △ TORVANE, ● UNCONFINED COMPRESSION; 0.5 1.0 1.5 2.0 2.5)	LIQUID LIMIT	PLASTIC LIMIT
0	▽		Very soft gray silty clay (CH)		51	67		137	33
					93				
5					102				
					98				
10					129	40		95	36
					100				
					97				
15					107				
			Bottom @ 16						
20									
25									
30			Time: 5:00 p.m. Temperature: 96°F Weather: Sunny & hot Logger: Chaiyong Sriprasitdh Driller: Dempsey Gearen Machine: D & R 100						
35									
40			NOTE: Unconfined compression and pocket penetrometer plotted as ½ of the laboratory value.						
45									
50									

BORING DRILLED TO 16 FEET WITHOUT DRILLING FLUID
WATER ENCOUNTERED AT 2 FEET WHILE DRILLING
WATER LEVEL AT 1.5 FEET AFTER ½ HOURS

PLATE

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SUMMARY OF LABORATORY TEST DATA

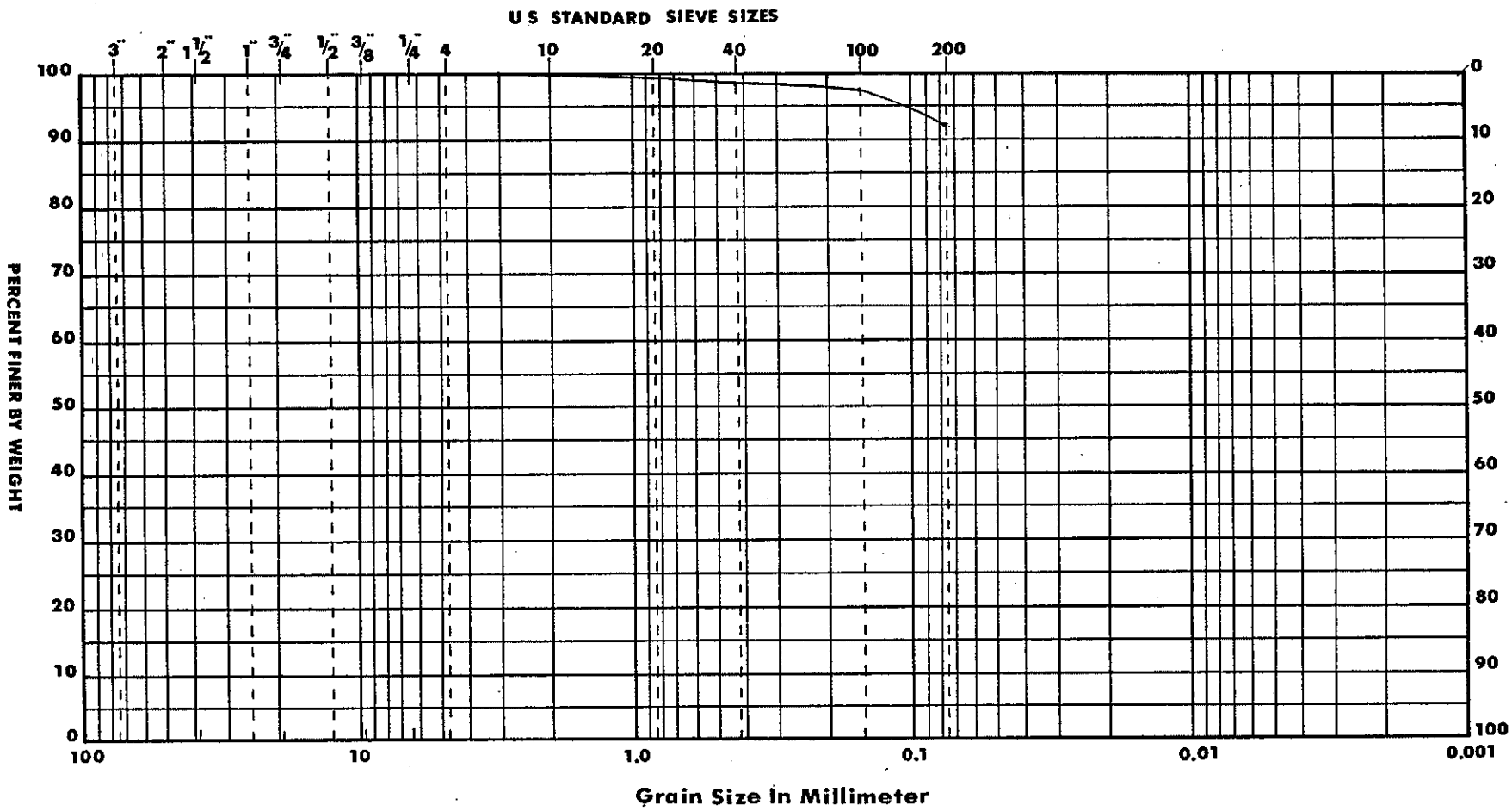
PROJECT: SALT BAYOU WATER CONTROL STRUCTURE

BORING NUMBER	DEPTH IN FEET	MOISTURE, %	DRY DENSITY, PCF	COMPRESSION, TSF	STRAIN, %	TYPE FAILURE	LAT. PRESSURE	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	SIEVE (NO. 200)	CONSOLIDATION	TORVANE, TSF
91-199													
1	0-2	51	67					137	33	104			0.0
2	2-4	93											
3	4-6	102											0.0
4	6-8	98											
5	8-10	129	40					95	36	59			0.0
6	10-12	100											
7	12-14	97											0.0
8	14-16	107											

PROJECT NO. 278-91

91-199 0'-2'

GRAIN SIZE CURVES



	GRAVEL		SAND			SILT	CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE		

Curve No.	Boring No.	Depth, Ft.	Material
	91-199	0'-2'	Very soft gray silty clay (OH)

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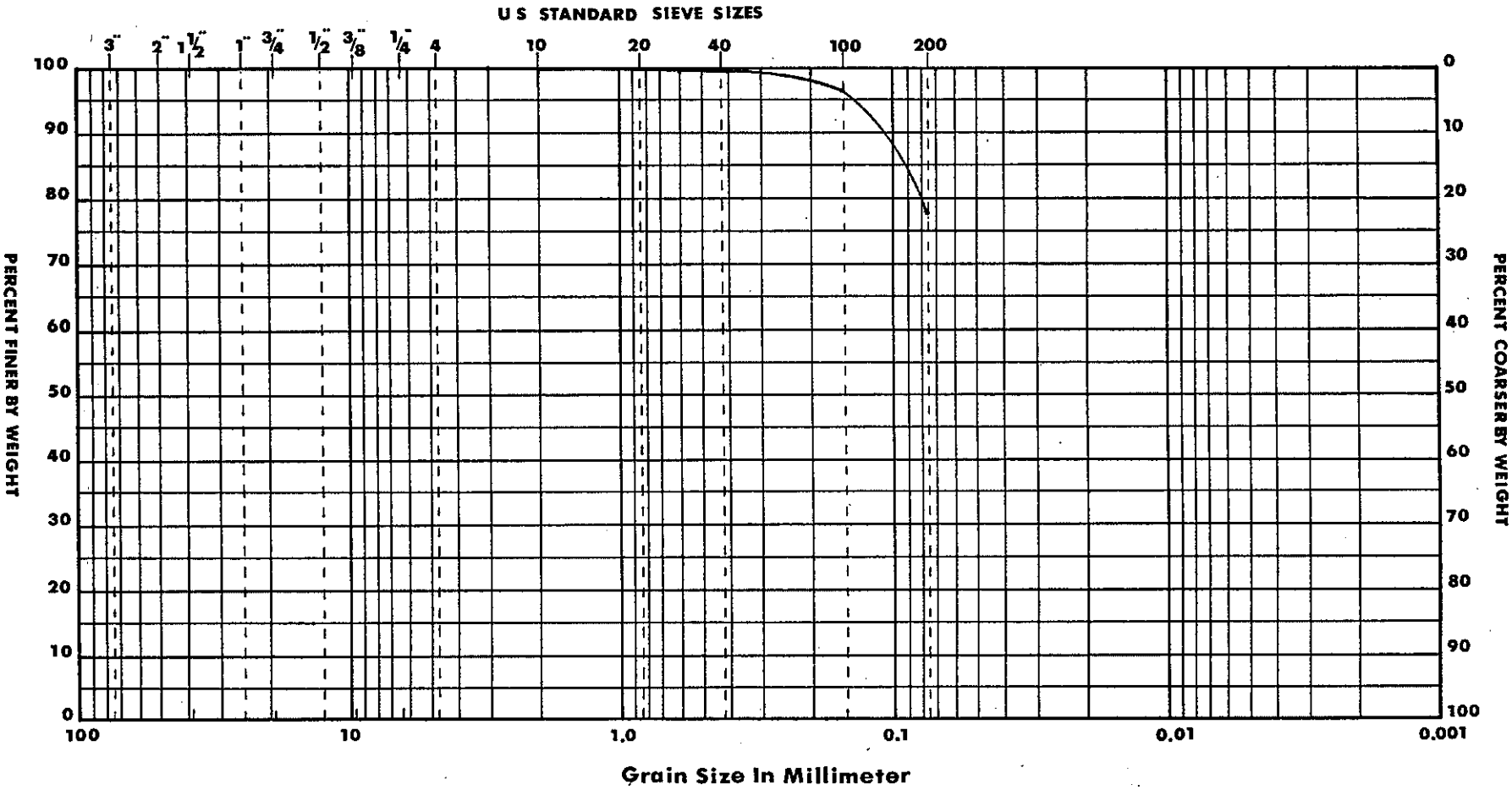
PROJECT NO. 278-91

91-199 8'-10'

GRAIN SIZE CURVES



	GRAVEL		SAND			SILT	CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE		

Curve No.	Boring No.	Depth, Ft.	Material
	91-199	8'-10'	Very soft gray silty clay (OH)

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CESWG-EO-FS
Copy furnished
David Campbell
10 Sept 91

Review of Aviles Report

on Salt Bayou Water Control Structure

1. The plates showing description of materials, moisture content, unit dry weight, shear strength and atterberg limits are somewhat misleading. The presentation of unconfined compressive stress as a shear strength does ~~ont~~ not appear appropriate. Shear strength is usually taken as one half the unconfined compressive stress.

2. A comparison of the plots of pocket penetrometer readings with those shown on the driller's log appears to indicate that most if not all of the field readings were used on the plots. The contracts states: "The consistency of undisturbed cohesive materials shall be determined in the laboratory by taking pocket penetrometer readings in accordance with procedures outlined in Paragraph 8.6." Were pocket penetrometer readings taken in the laboratory?

3. A number of the torvane readings shown on the plots indicate no shear strength. What in fact were the torvane readings? A tabulation of the torvane readings should have been presented on the Summary of Laboratory Test Data.

4. The moisture - density relationship does not appear reasonable for some samples. Sample 6 from Boring No. 91-202 and

Sample 2 from Borings No. 91-206 appears to have this unreasonable relationship.