Project: Sabine Lake North Disposal Area No. 11
Near Port Arthur , Texas
Contract No. DACW64-93-D-0005 Delivery Order No. 0014

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 94-49

S #	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	U S C	Mc (%)	Dry Unit Wt (pcf)	Wet Unit Wt (pcf)	L L (%)	PL (%)	Mechanical Analysis % Passing #4	#10	#40	#100	#200	Torvane Shear Strength (tsf)	q u (tsf)
1	0 - 2	2.50		Yellowish gray,Clay,Very stiff,w/sand seams and roots	CH	25.5											
2	2 - 4	1.75		Yellowish gray,Clay,Stiff,w/ferrous stains and sand seams	CH	33.4	86.9	116.0	81	28	100.0	99.9	99.0	97.2	93.1		
3	4 - 6	2.25		Gray&brown,Clay,Very stiff,w/ferrous stains and sand seams	CH	35.0											
4	6 - 8	0.25		Yellowish gray,Clay,Soft,Sandy	CL	32.1	91.5	120.9	35	18	100.0	99.6	95.1	76.0	73.2		0.32
5	8 - 10	0.25		Gray,Clay,Soft,Silty,w/sand seams	CL	36.9											
6	10 - 12	0.25		Gray,Clay,Soft,Silty,w/sand seams	CL	32.9											
7	12 - 14	0.25		Gray,Clay,Soft,w/ferrous stains and sand pockets	CH	32.8	88.7	117.8	66	25	100.0	100.0	99.6	98.7	97.6		0.49
8	14 - 16	0.75		Gray&yellowish gray,Clay,Medium stiff,w/ ferrous nodules	CH	25.8											
9	16 - 18	0.75		Gray&yellowish gray,Clay,Medium stiff,w/ ferrous nodules	CH	28.9											
10	18 - 20	1.25		Gray&yellowish gray,Clay,Stiff,w/ferrous nodules and sand seams	C H	24.1	101.8	126.4	53	23	100.0	100.0	99.4	99.0	98.5		
11	20 - 22	2.25		Yellowish gray&gray,Clay,Very stiff,w/ ferrous nodules and sand seams	C H	22.1											
12	22 - 24	3.25		Gray&yellowish brown,Clay,Very stiff,Sandy, w/ferrous nodules and sand serams	C L	22.1											
13	24 - 26	1.75		Gray&yellowish gray,Clay,Stiff,Sandy,w/ ferrous nodules and sand pockets	C L	24.1	102.8	127.6	44	19	100.0	99.5	93.8	79.4	71.9		
14	26 - 28	1.50		Gray&yellowish brown,Clay,Stiff,Silty,w/ ferrous stains	C L	32.6											
15	28 - 30	2.25		Yellowish brown,Clay,Very stiff,w/silt parting	C H	33.4											

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

JOB NO. 14G727-14 DATE 5/4/94

PROJECT Sabine Lake North Disposal Area
No. 11

AREA Near Port Arthur, Texas

BORING NO. 94-49 SAMPLE NO. 4 DEPTH 6-8 ft

SPECIMEN NO. 1

CLASSIFICATION
Yellowish gray,Clay,Soft,Sandy

Tare No.	P202	Height	5.595 in.
Tare plus Wet Specimen	371.37 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	291.41 gm	Initial Area	6.290 sq in.
Water Weight	79.96 gm	Volume	35.194 cu in.
Tare Weight	42.50 gm	Volume of Solids	cu in.
Wet Specimen	1116.74 gm	Void Ratio	
Dry Specimen	845.22 gm	Saturation	%
Water Content	32.12 %	Dry Density	91.5 lb/cu ft

Specific Gravity of Solids
LL = 35 PL = 18 PI = 17

Proving Ring No. 10170
Proving Ring Constant, K = .766 lbs/div.

Elapsed Time min.	Dial Reading 0.001"	Cumulative Change in.	Proving Ring Dial Reading	Axial Load lb	Axial Strain	Area Corr. sq in.	Compr. Stress tsf
.0	0.	.000	.0	.0	.000	6.29	.000
.2	10.	.010	5.0	3.8	.002	6.30	.044
.3	20.	.020	12.0	9.2	.004	6.31	.105
.5	30.	.030	20.0	15.3	.005	6.32	.174
.7	40.	.040	25.0	19.1	.007	6.34	.218
.9	50.	.050	28.0	21.4	.009	6.35	.243
1.1	60.	.060	30.0	23.0	.011	6.36	.260
1.4	80.	.080	33.0	25.3	.014	6.38	.285
1.7	100.	.100	35.0	26.8	.018	6.40	.301
2.0	120.	.120	36.5	28.0	.021	6.43	.313
2.3	140.	.140	37.5	28.7	.025	6.45	.321
2.7	160.	.160	37.0	28.3	.029	6.48	.315

JOB NO. 14G727-14 DATE 5/4/94

PROJECT Sabine Lake North Disposal Area
No. 11

AREA Near Port Arthur, Texas

BORING NO. 94-49 SAMPLE NO. 7 DEPTH 12-14 ft

SPECIMEN NO. 1

CLASSIFICATION
Gray,Clay,Soft,w/ferrous stains and sand pockets

Tare No.	IM-1	Height	5.595 in.
Tare plus Wet Specimen	578.04 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	445.78 gm	Initial Area	6.290 sq in.
Water Weight	132.26 gm	Volume	35.194 cu in.
Tare Weight	42.48 gm	Volume of Solids	cu in.
Wet Specimen	1087.92 gm	Void Ratio	
Dry Specimen	819.25 gm	Saturation	%
Water Content	32.79 %	Dry Density	88.7 lb/cu ft
Specific Gravity of Solids			

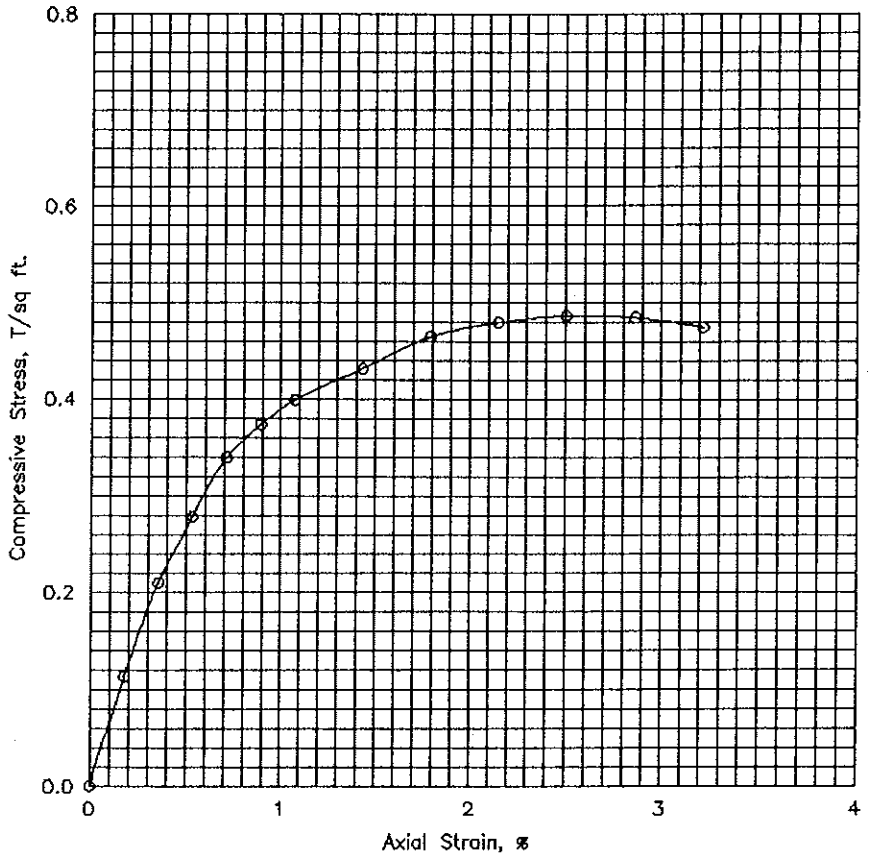
LL = 66 PL = 25 PI = 41

Proving Ring No. 10170
Proving Ring Constant, K = .766 lbs/div.

Elapsed Time min.	Dial Reading 0.001"	Cumulative Change in.	Proving Ring Dial Reading	Axial Load lb	Axial Strain	Area Corr. sq in.	Compr. Stress tsf
.0	0.	.000	.0	.0	.000	6.29	.000
.2	10.	.010	13.0	10.0	.002	6.30	.114
.3	20.	.020	24.0	18.4	.004	6.31	.210
.5	30.	.030	32.0	24.5	.005	6.32	.279
.7	40.	.040	39.0	29.9	.007	6.34	.340
.9	50.	.050	43.0	32.9	.009	6.35	.374
1.0	60.	.060	46.0	35.2	.011	6.36	.399
1.4	80.	.080	50.0	38.3	.014	6.38	.432
1.7	100.	.100	54.0	41.4	.018	6.40	.465
2.0	120.	.120	56.0	42.9	.021	6.43	.480
2.3	140.	.140	57.0	43.7	.025	6.45	.487
2.7	160.	.160	57.0	43.7	.029	6.48	.485
3.0	180.	.180	56.0	42.9	.032	6.50	.475

Job No. 14G727-14

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_0	32.8 %	%	%	%
	Void ratio	e_0				
	Saturation	S_0	%	%	%	%
	Dry density, lb/cu ft	γ_d	88.7			
Time to failure, min		t_f	2.33			
Unconfined compressive strength, T/sq ft		q_u	.49			
Undrained shear strength, T/sq ft		S_u	.24			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_0	2.830			
Initial specimen height, in.		H_0	5.595			

Classification Gray,Clay,Soft,w/ferrous stains and sand pockets

LL	66	PL	25	PI	41	G_s	

Remarks

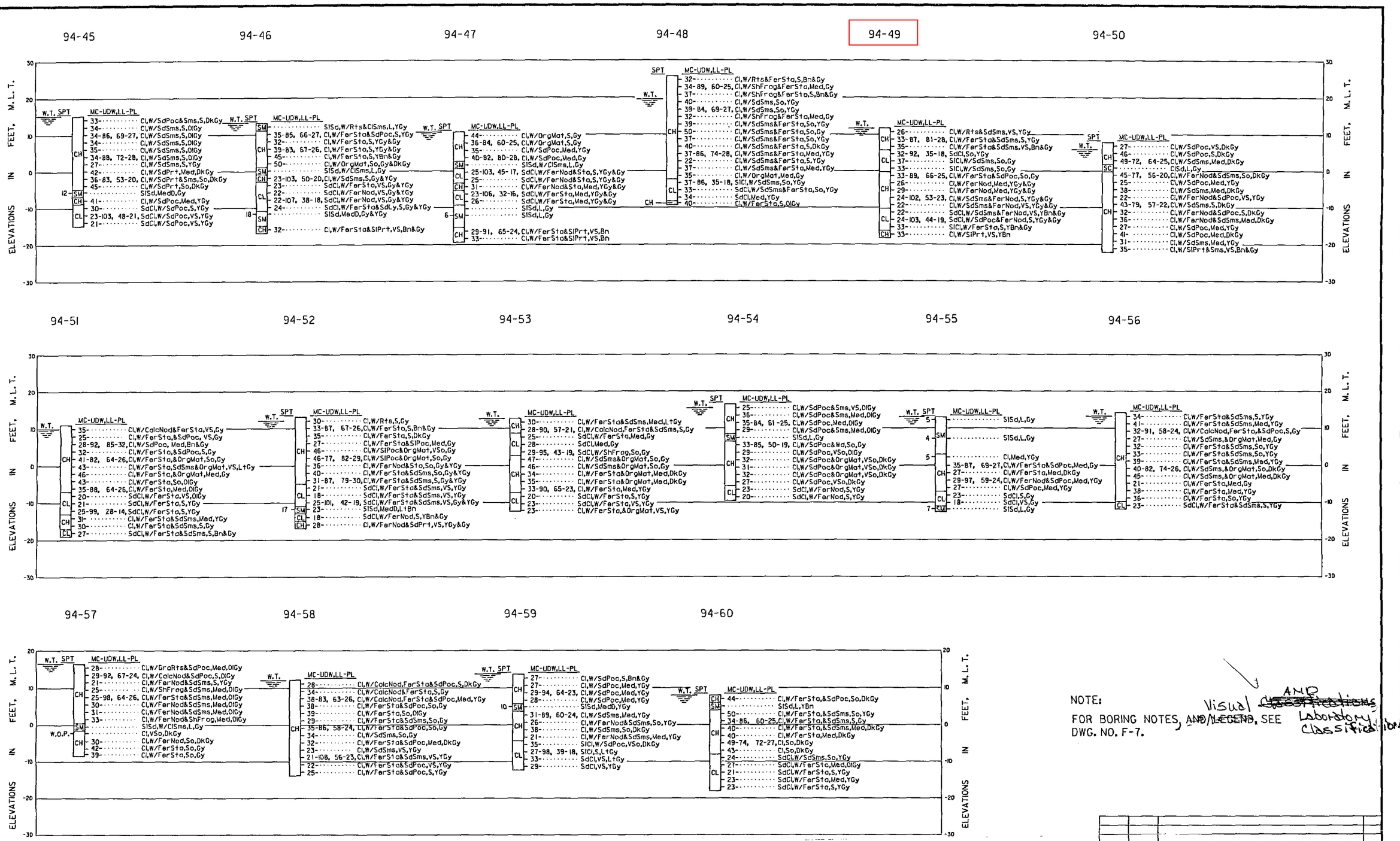
Project Sabine Lake North Disposal Area	
No. 11	
Area Near Port Arthur, Texas	
Boring No. 94-49	Sample No. 7
Depth El 12-14 ft	Date 5/4/94
UNCONFINED COMPRESSION TEST REPORT	

ENG FORM 1 JUN 65 3659

PLATE XI-2

Geotest Engineering, Inc.

PLATE



NOTE:

FOR BORING NOTES, ~~AND LEGEND~~, SEE DWG. NO. F-7.

Visual AND ~~CLASSIFICATIONS~~ Laboratory Classifications

REVISION	DATE	DESCRIPTION	BY

OFFICE OF THE DISTRICT ENGINEER
U.S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
GALVESTON, TEXAS

DRAWN BY: P.N.
DESIGNED BY: G.M.
CHECKED BY: G.M./L.A.A.
SUBMITTED BY:
CHIEF, GEOTECH & SURVEYS SECTION
APPROVED:
CHIEF, DESIGN BRANCH
APPROVED:
CHIEF, ENGINEERING DIVISION
DATE: JULY 1995
1 = AS REQUIRED BY ENGINEER CIRCULAR NO. 80-1-952 1
SCALE: AS SHOWN
SPEC. DATED

SABINE - NECHES WATERWAY, TEXAS
SABINE - NECHES CANAL
REHABILITATION OF PLACEMENT AREA NO. 11

BORING LOGS

BORROW AREA NO. 1

Prepared under the direction of
Robert B. Gatlin, Col., C.E.,
District Engineer

DRAWING NUMBER F-4
SHEET 26 OF 32 FILE NO. SN 103-336