Project: Greens Bayou

SUMMARY OF LABORATORY TEST RESULTS

Contract No. DACW64-95-D-0007 Delivery Order No. 0047

Boring No. 97-89

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	1.00		Sandy Clay,w/grass roots,Stiff,Dark gray	C L	18.6											
2	2 - 4	1.00		Sandy Clay,Stiff,Dark gray	C L	16.6											
3	4 - 6	1.50		Sandy Clay,w/fer stains & sand seams,Stiff, Yellowish gray	C L	16.1	104.0	120.7	40.0	18.0	100.0	100.0	99.8	95.4	78.9		1.53
4	6 - 8	2.00		Sandy Clay,w/fer stains & sand seams,Very stiff,Yellowish gray	C L	16.8											
5	8 - 10	2.00		Sandy Clay,w/fer stains & sand seams,Very stiff,Yellowish gray	C L	16.8											
6	10 - 12	2.00		Sandy Clay,w/fer stains & sand seams,Very stiff,Yellowish gray	C L	16.6											
7	12 - 14	3.75		Clay,w/fer stains & sand seams,Very stiff, Reddish brown & Gray	C H	21.0	102.7	124.3	55.0	21.0	100.0	99.9	98.8	95.5	88.9		2.16
8	14 - 16	3.50		Clay,w/fer stains & sand seams,Very stiff, Reddish brown & Gray	C H	23.5											
9	16 - 18	3.50		Clay,w/fer stains & sand seams,Very stiff, Reddish brown & Gray	C H	26.7											

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. 114008614 DATE 2/25/98

OJECT Greens Bayou

AREA Houston, Texas

BORING NO. 97-89 SAMPLE NO. 3 DEPTH 4-6 ft

SPECIMEN NO. 1

CLASSIFICATION
Sandy Clay,w/fer stains & sand seams,Stiff,Yellowish gray

Tare No.	SK12	Height	5.595 in.
Tare plus Wet Specimen	332.16 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	292.09 gm	Initial Area	6.290 sq in.
Water Weight	40.07 gm	Volume	35.194 cu in.
Tare Weight	43.83 gm	Volume of Solids	cu in.
Wet Specimen	1115.51 gm	Void Ratio	
Dry Specimen	960.48 gm	Saturation	%
Water Content	16.14 %	Dry Density	104.0 lb/cu ft

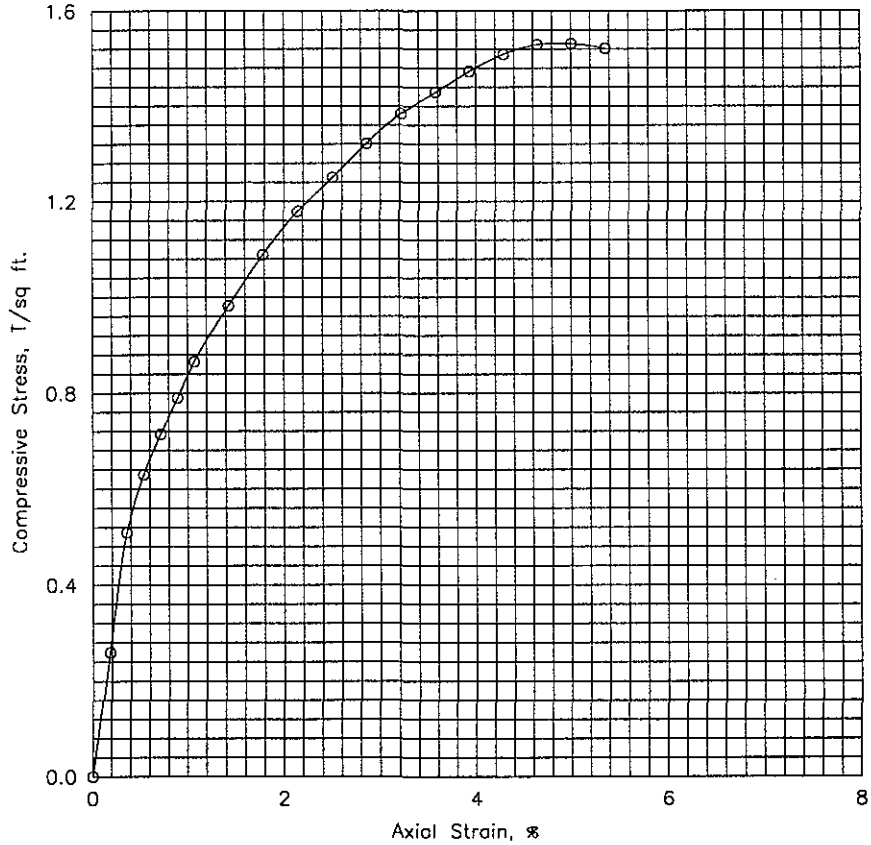
Specific Gravity of Solids
LL = 40 PL = 18 PI = 22

Proving Ring No. 10170
Proving Ring Constant, K = .757 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	30.0	22.7	.002	6.30	.259
.3	20.	.020	59.0	44.7	.004	6.31	.509
.5	30.	.030	73.0	55.3	.005	6.32	.629
.7	40.	.040	83.0	62.8	.007	6.34	.714
.9	50.	.050	92.0	69.6	.009	6.35	.790
1.0	60.	.060	101.0	76.5	.011	6.36	.866
1.4	80.	.080	115.0	87.1	.014	6.38	.982
1.7	100.	.100	128.0	96.9	.018	6.40	1.089
2.0	120.	.120	139.0	105.2	.021	6.43	1.179
2.3	140.	.140	148.0	112.0	.025	6.45	1.250
2.7	160.	.160	157.0	118.8	.029	6.48	1.321
3.0	180.	.180	165.0	124.9	.032	6.50	1.384
3.3	200.	.200	171.0	129.4	.036	6.52	1.429
3.6	220.	.220	177.0	134.0	.039	6.55	1.473
4.0	240.	.240	182.0	137.8	.043	6.57	1.509
4.3	260.	.260	185.0	140.0	.046	6.60	1.529
4.6	280.	.280	186.0	140.8	.050	6.62	1.531
4.9	300.	.300	185.5	140.4	.054	6.65	1.521

Job No. 114008614

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_0	16.1 %	%	%	%
	Void ratio	e_0				
	Saturation	S_0	%	%	%	%
	Dry density, lb/cu ft	γ_d	104.0			
Time to failure, min		t_f	4.62			
Unconfined compressive strength, T/sq ft		q_u	1.53			
Undrained shear strength, T/sq ft		S_u	.77			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_0	2.830			
Initial specimen height, in.		H_0	5.595			

Classification Sandy Clay,w/fer stains & sand seams,Stiff,Yellowish gray

LL	40	PL	18	PI	22	G_s

Remarks

Project Greens Bayou

Area Houston, Texas

Boring No. 97-89 | Sample No. 3

Depth El 4-6 ft | Date 2/25/98

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 1 JUN 65 3659

PLATE XI-2

Geotest Engineering, Inc.

JOB NO. 114008614 DATE 2/25/98

OJECT Greens Bayou

AREA Houston, Texas

BORING NO. 97-89 SAMPLE NO. 7 DEPTH 12-14 ft

SPECIMEN NO. 1

CLASSIFICATION
Clay,w/fer stains & sand seams,Very stiff,Reddish brown & gray

Tare No.	HP34D	Height	5.595 in.
Tare plus Wet Specimen	463.61 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	390.64 gm	Initial Area	6.290 sq in.
Water Weight	72.97 gm	Volume	35.194 cu in.
Tare Weight	43.22 gm	Volume of Solids	cu in.
Wet Specimen	1148.01 gm	Void Ratio	
Dry Specimen	948.74 gm	Saturation	%
Water Content	21.00 %	Dry Density	102.7 lb/cu ft

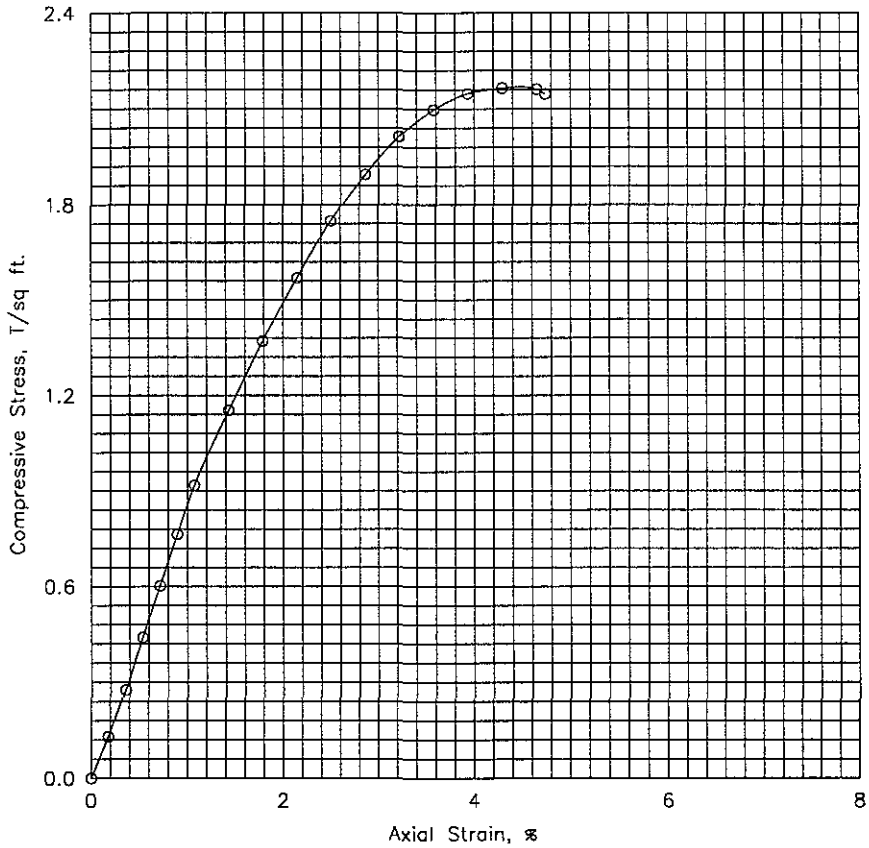
Specific Gravity of Solids
LL = 55 PL = 21 PI = 34

Proving Ring No. 10170
Proving Ring Constant, K = .757 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	15.0	11.4	.002	6.30	.130
.3	20.	.020	32.0	24.2	.004	6.31	.276
.5	30.	.030	51.0	38.6	.005	6.32	.440
.7	40.	.040	70.0	53.0	.007	6.34	.602
.9	50.	.050	89.0	67.4	.009	6.35	.764
1.0	60.	.060	107.0	81.0	.011	6.36	.917
1.3	80.	.080	135.0	102.2	.014	6.38	1.153
1.6	100.	.100	161.0	121.9	.018	6.40	1.370
2.0	120.	.120	185.0	140.0	.021	6.43	1.569
2.3	140.	.140	207.0	156.7	.025	6.45	1.749
2.6	160.	.160	225.0	170.3	.029	6.48	1.894
3.0	180.	.180	240.0	181.7	.032	6.50	2.013
3.3	200.	.200	251.0	190.0	.036	6.52	2.097
3.7	220.	.220	258.0	195.3	.039	6.55	2.148
4.0	240.	.240	261.0	197.6	.043	6.57	2.165
4.3	260.	.260	261.5	198.0	.046	6.60	2.161
4.4	265.	.265	260.0	196.8	.047	6.60	2.146

Job No. 114008614

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_0	21.0 %	%	%	%
	Void ratio	e_0				
	Saturation	S_0	%	%	%	%
	Dry density, lb/cu ft	γ_d	102.7			
Time to failure, min		t_f	3.97			
Unconfined compressive strength, T/sq ft		q_u	2.16			
Undrained shear strength, T/sq ft		S_u	1.08			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_0	2.830			
Initial specimen height, in.		H_0	5.595			

Classification Clay,w/fer stains & sand seams,Very stiff,Reddish brown & gray

LL	55	PL	21	PI	34	G_s	

Remarks

Project Greens Bayou

Area Houston, Texas

Boring No. 97-89 | Sample No. 7

Depth El 12-14 ft | Date 2/25/98

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 1 JUN 65 3659

PLATE XI-2

Geotest Engineering, Inc.

PLATE