Project: Greens Bayou

SUMMARY OF LABORATORY TEST RESULTS

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

Boring No. 97-75

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		Sandy Clay,w/roots,Very stiff,Gray	C L	15.6												
2	2 - 4	3.00		Sandy Clay,w/fer nod,Very stiff,Gray	C L	16.1												
3	4 - 6	4.5+		Sandy Clay,w/fer nod & fer stains,Hard, Yellowish gray	C L	9.9												
4	6 - 8	4.5+		Sandy Clay,w/fer nod & fer stains,Hard, Yellowish gray	C L	11.3												
5	8 - 10	4.5+		Sandy Clay,w/fer nod & fer stains,Hard, Yellowish gray	C L	11.8	112.1	125.3	34.0	16.0	97.7	96.9	96.6	88.9	66.5		4.21	14
6	10 - 12	3.50		Sandy Clay,w/fer nod & fer stains,Very stiff, Yellowish gray	C L	14.4												
7	12 - 14	4.00		Clay,w/calc&fer nod,slks,Very stiff,Yellowish gray	C H	17.1												
8	14 - 16	4.5+		Clay,w/calc & fer nod,slks,Hard,Red & Gray	C H	19.1	105.2	125.2	60.0	23.0	99.9	99.6	98.2	96.1	95.1			
9	16 - 18	4.5+		Clay,w/calc & fer nod,slks,Hard,Red & Gray	C H	22.6											•	
10	18 - 20	4.5+		Clay,w/calc & fer nod,slks,Hard,Red & Gray	C H	23.1												
11	20 - 22	3.75		Clay,w/calc & fer nod,slks,Very stiff, Red & Gray	C H	24.9	98.6	123.1	61.0	24.0	100.0	100.0	99.8	99.3	99.0		2.04	15
12	22 - 24	4.25		Clay,w/calc & fer nod,slks,Hard,Red & Gray	C H	25.1												
13	24 - 26	4.25		Clay,w/calc & fer nod,slks,Hard,Red & Gray	C H	23.4												
14	26 - 28	4.25		Clay,w/calc & fer nod,slks,Hard,Red & Gray	C H	26.4												
15	28 - 30	4.5+		Clay,w/calc & fer nod,slks,Hard,Red & Gray	C H	23.2	100.2	123.5										

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 3/5/98

PROJECT Greens Bayou

AREA Houston, Texas

BORING NO. 97-75 SAMPLE NO. 5 DEPTH 8-10 ft

SPECIMEN NO. 1

CLASSIFICATION
Sandy Clay,w/fer nod & fer stains,Hard,Yellowish gray

Tare No.	IB20	Height	5.595 in.
Tare plus Wet Specimen	301.89 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	274.53 gm	Initial Area	6.290 sq in.
Water Weight	27.36 gm	Volume	35.194 cu in.
Tare Weight	43.32 gm	Volume of Solids	cu in.
Wet Specimen	1157.67 gm	Void Ratio	
Dry Specimen	1035.17 gm	Saturation	%
Water Content	11.83 %	Dry Density	112.1 lb/cu ft
Specific Gravity of Solids			

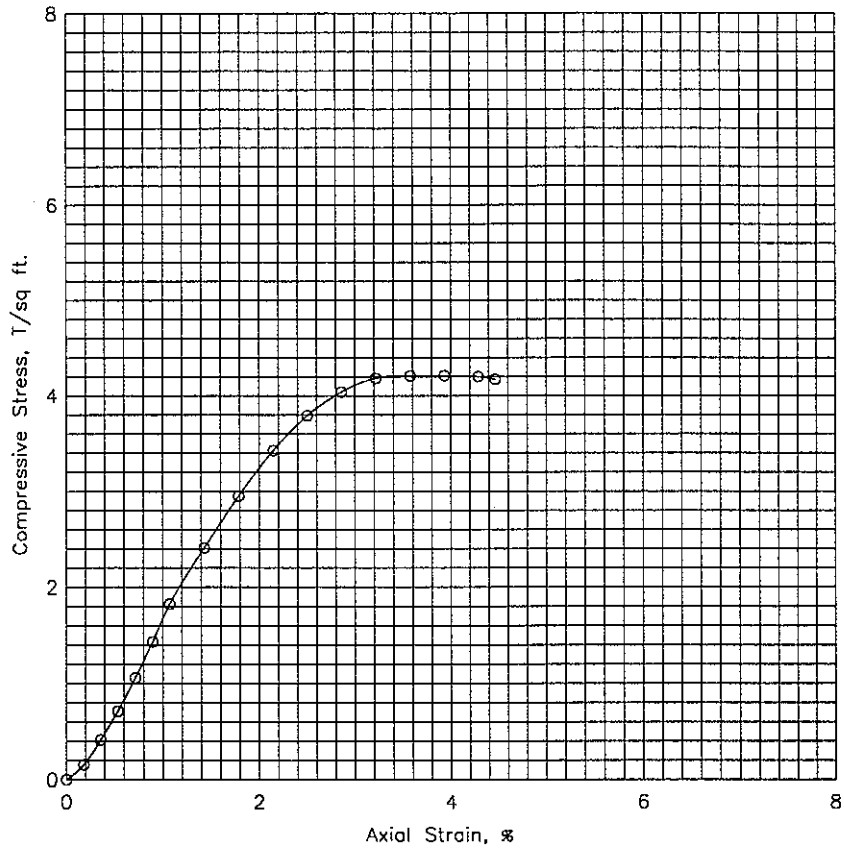
LL = 34 PL = 16 PI = 18

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	18.0	13.6	.002	6.30	.156
.3	20.	.020	48.0	36.3	.004	6.31	.414
.5	30.	.030	83.0	62.8	.005	6.32	.715
.7	40.	.040	123.0	93.1	.007	6.34	1.058
.9	50.	.050	167.0	126.4	.009	6.35	1.434
1.0	60.	.060	213.0	161.2	.011	6.36	1.826
1.4	80.	.080	282.0	213.5	.014	6.38	2.409
1.7	100.	.100	347.0	262.7	.018	6.40	2.953
2.0	120.	.120	404.0	305.8	.021	6.43	3.426
2.3	140.	.140	449.0	339.9	.025	6.45	3.793
2.7	160.	.160	480.0	363.4	.029	6.48	4.040
3.0	180.	.180	499.0	377.7	.032	6.50	4.185
3.3	200.	.200	504.0	381.5	.036	6.52	4.211
3.6	220.	.220	506.0	383.0	.039	6.55	4.212
4.0	240.	.240	506.5	383.4	.043	6.57	4.201
4.2	250.	.250	504.0	381.5	.045	6.58	4.172

Job No. 114008614

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial: Water content	w_0	11.8 %	%	%	%
Initial: Void ratio	e_0				
Initial: Saturation	S_0	%	%	%	%
Initial: Dry density, lb/cu ft	γ_d	112.1			
Time to failure, min	t_f	3.62			
Unconfined compressive strength, T/sq ft	q_u	4.21			
Undrained shear strength, T/sq ft	S_u	2.11			
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 nod & fer stains,Hard,Yellowish gray

LL	34	PL	16	PI	18	G_s	

Remarks

Project Greens Bayou

Area Houston, Texas

Boring No. 97-75 | Sample No. 5

Depth El 8-10 ft | Date 3/5/98

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 1 JUN 65 3659

PLATE XI-2

Geotest Engineering, Inc.

PLATE

JOB NO. 114008614 DATE 3/5/98

PROJECT Greens Bayou

AREA Houston, Texas

BORING NO. 97-75 SAMPLE NO. 11 DEPTH 20-22 ft

SPECIMEN NO. 1

CLASSIFICATION
Clay,w/calc & fer nod,slks,Very stiff,Red & Gray

Tare No.	AZ1	Height	5.595 in.
Tare plus Wet Specimen	327.34 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	270.70 gm	Initial Area	6.290 sq in.
Water Weight	56.64 gm	Volume	35.194 cu in.
Tare Weight	42.82 gm	Volume of Solids	cu in.
Wet Specimen	1136.75 gm	Void Ratio	
Dry Specimen	910.45 gm	Saturation	%
Water Content	24.86 %	Dry Density	98.6 lb/cu ft
Specific Gravity of Solids			

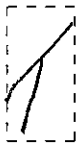
LL = 61 PL = 24 PI = 37

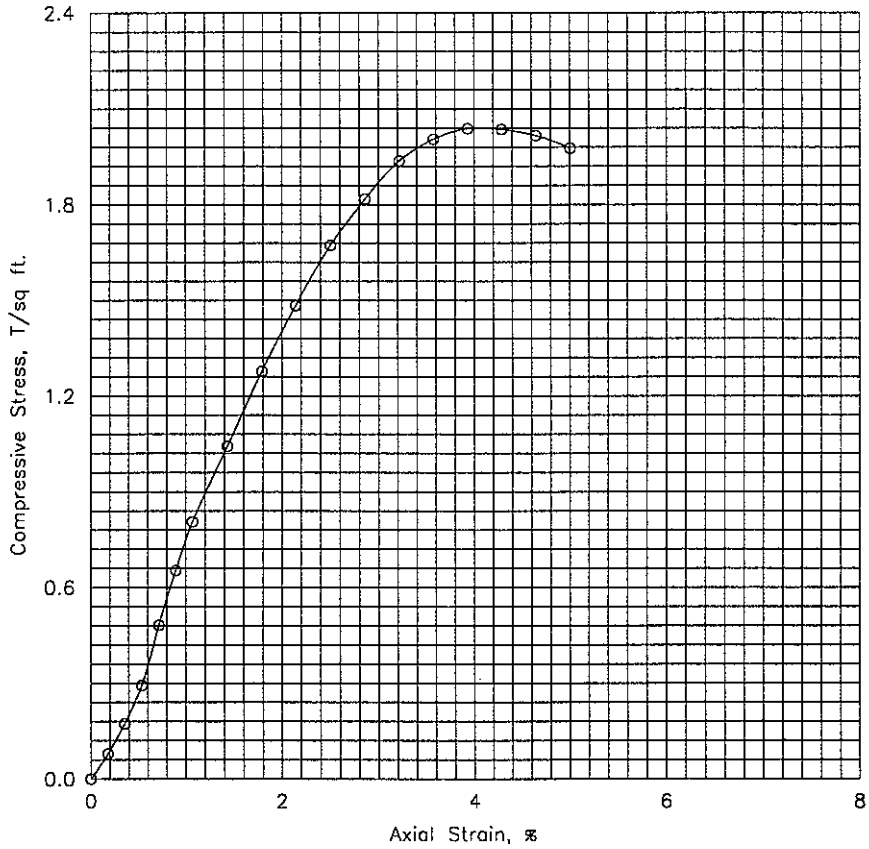
Proving Ring No. 10170
Proving Ring Constant, K = .757 lbs/div.

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	9.0	6.8	.002	6.30	.078
.4	20.	.020	20.0	15.1	.004	6.31	.173
.5	30.	.030	34.0	25.7	.005	6.32	.293
.7	40.	.040	56.0	42.4	.007	6.34	.482
.9	50.	.050	76.0	57.5	.009	6.35	.653
1.1	60.	.060	94.0	71.2	.011	6.36	.806
1.4	80.	.080	122.0	92.4	.014	6.38	1.042
1.7	100.	.100	150.0	113.6	.018	6.40	1.277
2.1	120.	.120	175.0	132.5	.021	6.43	1.484
2.4	140.	.140	198.0	149.9	.025	6.45	1.673
2.7	160.	.160	216.0	163.5	.029	6.48	1.818
3.0	180.	.180	231.0	174.9	.032	6.50	1.937
3.3	200.	.200	240.0	181.7	.036	6.52	2.005
3.7	220.	.220	245.0	185.5	.039	6.55	2.039
4.0	240.	.240	245.5	185.8	.043	6.57	2.036
4.3	260.	.260	244.0	184.7	.046	6.60	2.016
4.7	280.	.280	240.0	181.7	.050	6.62	1.976

Job No. 114008614

Failure Sketches





☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_0	24.9 %	%	%	%
	Void ratio	e_0				
	Saturation	S_0	%	%	%	%
	Dry density, lb/cu ft	γ_d	98.6			
Time to failure, min		t_f	3.65			
Unconfined compressive strength, T/sq ft		q_u	2.04			
Undrained shear strength, T/sq ft		S_u	1.02			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_0	2.830			
Initial specimen height, in.		H_0	5.595			

Classification Clay,w/calc & fer nod,slks,Very stiff,Red & Gray

LL	61	PL	24	PI	37	G_s

Remarks

Project Greens Bayou

Area Houston, Texas

Boring No. 97-75 | Sample No. 11

Depth El 20-22 ft | Date 3/5/98

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 1 JUN 65 3659

PLATE XI-2

Geotest Engineering, Inc.

PLATE