

## U.S. ARMY CORPS OF ENGINEERS

| DEPTH, FEET | SAMPLE NO. | PEN./TORVANE<br>SPT.-BLOW COUNT | BORING NO. <u>97-25</u> DATE: BEGIN <u>6-27-97</u> PAGE <u>1/1</u>                                             |               |             |                        |                                  |
|-------------|------------|---------------------------------|----------------------------------------------------------------------------------------------------------------|---------------|-------------|------------------------|----------------------------------|
|             |            |                                 | JOB NO. <u>1140086134</u> COMPLETE <u>6-27-97</u> Thin Walled Tube                                             |               |             |                        |                                  |
|             |            |                                 | PROJECT <u>UPPER Basin Detention Area C</u> <input checked="" type="checkbox"/> 3" <input type="checkbox"/> 6" |               |             |                        |                                  |
|             |            |                                 | LOCATION <u>along Brays Bayou</u>                                                                              |               |             |                        |                                  |
|             |            |                                 | ELEVATION OF HOLE _____                                                                                        |               |             |                        |                                  |
|             |            |                                 | MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Marsh Buggy K4K4, F.36</u>                                          |               |             |                        |                                  |
|             |            |                                 | GROUNDWATER: DEPTH <u>0</u> ft., ELEV. _____ ft., at end of Drilling                                           |               |             |                        |                                  |
|             |            |                                 | WEATHER <u>PARTLY CLOUDY SUNNY HOT</u>                                                                         |               |             |                        |                                  |
|             |            |                                 | DRILLER <u>Dempsey Gannon</u> LOGGER <u>John Gentry</u>                                                        |               |             |                        |                                  |
|             |            |                                 | COLOR                                                                                                          | MATERIAL TYPE | CONSISTENCY | SECONDARY CONSTITUENTS | STRUCTURAL FEATURES AND COMMENTS |
| 0           | 1          | 1.0                             | GRAY                                                                                                           | CLAY          | STIFF       |                        | -w/ROOTS 0-3                     |
|             | 2          | 1.25                            | GRAY                                                                                                           | CLAY          | STIFF       |                        |                                  |
| 5           | 3          | 1.25                            | GRAY                                                                                                           | CLAY          | STIFF       |                        |                                  |
|             | 4          | 2.0                             | GRAY                                                                                                           | CLAY          | VERY STIFF  |                        | + YELLOW 6'-10'                  |
|             | 5          | 2.5                             | GRAY                                                                                                           | CLAY          | VERY STIFF  |                        | -w/Calc Nods 6'-16'              |
| 10          | 6          | 2.5                             | REDDISH BROWN                                                                                                  | CLAY          | VERY STIFF  |                        | -w/Fer Nods 6'-12'               |
|             | 7          | 2.75                            | REDDISH BROWN                                                                                                  | CLAY          | VERY STIFF  |                        | + BROWN 8'-10'                   |
|             | 8          | 3.75                            | REDDISH BROWN                                                                                                  | CLAY          | VERY STIFF  |                        | -w/Si SM(S) 8'-                  |
| 15          | 9          |                                 | REDDISH BROWN                                                                                                  | SAND          |             | SILTY                  | + GRAY 10'                       |
|             | 10         | 3.0                             | BROWN                                                                                                          | CLAY          | VERY STIFF  |                        | -w/Si SM(S) 14.5-16'             |
| 20          | 11         | 3.25                            | BROWN                                                                                                          | CLAY          | VERY STIFF  |                        | -w/Si SM(S) 14'-16'              |
|             | 12         | 4.25                            | LT GRAY                                                                                                        | CLAY          | HARD        |                        | + GRAY 18-22                     |
|             | 13         | 1.5                             | LT GRAY                                                                                                        | CLAY          | STIFF       | SANDY                  | -w/Si CLAY 18-18.5               |
| 25          | 14         | 6.9                             | LT GRAY                                                                                                        | CLAY          | VERY STIFF  | SANDY                  | -w/Ferrous STAIN 20-22           |
|             | 15         | 4.0                             | LT GRAY                                                                                                        | CLAY          | VERY STIFF  | SANDY                  | + BROWN 22'-24'                  |
| 30          | 16         | 2.75                            | REDDISH BROWN                                                                                                  | CLAY          | VERY STIFF  |                        | -w/SAND POCKETS 22-24            |
|             | 17         | 4.25                            | REDDISH BROWN                                                                                                  | CLAY          | HARD        |                        | + YELLOW 24'-30'                 |
| 35          | 18         | 4.5                             | REDDISH BROWN                                                                                                  | CLAY          | HARD        |                        |                                  |

JAR SAMPLE →

# U.S. ARMY CORPS OF ENGINEERS

| DEPTH, FEET |    | SAMPLE | SAMPLE NO.    | PEN./TORVANE | SPT.-BLOW COUNT        | BORING NO. <u>97-25</u> DATE: <u>6-27-97</u> PAGE <u>1/1</u><br>JOB NO. <u>1140086134</u> COMPLETE <u>6-27-97</u> Thin Walled Tube<br>PROJECT <u>Upper Basin Detention Area</u> <input checked="" type="checkbox"/> 3" <input type="checkbox"/> 6"<br>LOCATION <u>along Brays Bayou</u><br>ELEVATION OF HOLE _____<br>MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Marsh Buggy K4x4, F-36</u><br>GROUNDWATER: DEPTH <u>0</u> ft., ELEV. _____ ft., at end of Drilling<br>WEATHER <u>PARTLY CLOUDY SUNNY &amp; HOT</u><br>DRILLER <u>Dempsey Geann</u> LOGGER <u>John Gentry</u> |  |  |  |  |
|-------------|----|--------|---------------|--------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|             |    | COLOR  | MATERIAL TYPE | CONSISTENCY  | SECONDARY CONSTITUENTS | STRUCTURAL FEATURES AND COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |
| 0           |    |        |               |              |                        | -w/ROOTS 0-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  |  |
|             | 1  | 1.0    | GRAY          | CLAY         | STIFF                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |  |
|             | 2  | 1.25   | GRAY          | CLAY         | STIFF                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |  |
|             | 3  | 1.25   | GRAY          | CLAY         | STIFF                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |  |
|             | 4  | 2.0    | GRAY          | CLAY         | VERY STIFF             | + YELLOW 6'-10'<br>-w/Calc Nods 6'-16'<br>-w/Fer Nods 6'-12'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  |  |
|             | 5  | 2.5    | GRAY          | CLAY         | VERY STIFF             | + BROWN 8'-10'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |
| -10         | 6  | 2.5    | REDDISH BROWN | CLAY         | VERY STIFF             | -w/Si SM(S) 8'-10'<br>+ GRAY 10'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |
|             | 7  | 2.75   | REDDISH BROWN | CLAY         | VERY STIFF             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |  |
| -15         | 8  | 3.75   | REDDISH BROWN | CLAY         | VERY STIFF             | -w/Si SM(S) 14.5-16'<br>-w/Si SM(S) 14'-16'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |
|             | 9  |        | REDDISH BROWN | SAND         | SILTY                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |  |
|             | 10 | 3.0    | BROWN         | CLAY         | VERY STIFF             | + GRAY 18-22'<br>-w/Si LAYER 18-18.5'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |
| -20         | 11 | 3.25   | BROWN         | CLAY         | VERY STIFF             | -w/Ferrous STAINS 20-22'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |  |
|             | 12 | 4.25   | LT GRAY       | CLAY         | HARD                   | + BROWN 22'-24'<br>-w/SAND POCKETS 22-24'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |
| -25         | 13 | 1.5    | LT GRAY       | CLAY         | STIFF                  | + YELLOW 24'-30'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |
|             | 14 | 1.75   | LT GRAY       | CLAY         | VERY STIFF             | SANDY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |
|             | 15 | 4.0    | LT GRAY       | CLAY         | VERY STIFF             | SANDY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |
| -30         | 16 | 2.75   | REDDISH BROWN | CLAY         | VERY STIFF             | -w/SAND SEAMS 30-32'<br>-w/Calc Nods 31'-10"-32.5'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |
|             | 17 | 4.25   | REDDISH BROWN | CLAY         | HARD                   | -w/SILTY SAND 32-35'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |  |
| -35         | 18 | 4.5    | REDDISH BROWN | CLAY         | HARD                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |  |

TAR SAMPLE →

Project: Brays Bayou PDM

## SUMMARY OF LABORATORY TEST RESULTS

Contract No. DACW64-95-D-0007 Delivery Order No. 0035

Boring No. 97-25

| 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 |      |      |      |      | Torvane Shear Strength (tsf) | q u (tsf) |
|-----|------------|-----------|--------------------|---------------------------------------------------------------------|-------|--------|-------------------|-------------------|---------|--------|-------------------------------|------|------|------|------|------------------------------|-----------|
|     |            |           |                    |                                                                     |       |        |                   |                   |         |        | #4                            | #10  | #40  | #100 | #200 |                              |           |
| 1   | 0 - 2      | 1.00      |                    | Clay,w/grass roots,Stiff,Gray                                       | C H   | 25.4   |                   |                   |         |        |                               |      |      |      |      |                              |           |
| 2   | 2 - 4      | 1.25      |                    | Clay,w/grass roots,Stiff,Gray                                       | C H   | 27.0   |                   |                   |         |        |                               |      |      |      |      |                              |           |
| 3   | 4 - 6      | 1.25      |                    | Clay,Stiff,Gray                                                     | C H   | 25.3   | 93.3              | 116.9             | 57.0    | 22.0   |                               |      |      |      |      |                              |           |
| 4   | 6 - 8      | 2.00      |                    | Clay,w/calc & fer nod,Very stiff,Yellowish gray                     | C H   | 27.9   |                   |                   |         |        |                               |      |      |      |      |                              |           |
| 5   | 8 - 10     | 2.50      |                    | Clay,w/calc & fer nod,slickensided,Very stiff, Gray                 | C H   | 22.7   |                   |                   |         |        |                               |      |      |      |      |                              |           |
| 6   | 10 - 12    | 2.50      |                    | Clay,w/calc & fer nod,slickensided,Very stiff, Reddish brown        | C H   | 21.6   |                   |                   |         |        |                               |      |      |      |      |                              |           |
| 7   | 12 - 14    | 2.75      |                    | Clay,w/calc & fer nod,slickensided,Very stiff, Reddish brown        | C H   | 24.4   | 97.7              | 121.5             | 65.0    | 24.0   | 100.0                         | 99.6 | 99.0 | 98.5 | 98.0 |                              | 2.34      |
| 8   | 14 - 16    | 3.75      |                    | Clay,w/calc & fer nod,slickensided,Very stiff, Reddish brown        | C H   | 26.4   |                   |                   |         |        |                               |      |      |      |      |                              |           |
| 9   | 16 - 18    |           |                    | Silty Sand,Medium dense,Reddish brown                               | S M   |        |                   |                   |         |        |                               |      |      |      |      |                              |           |
| 10  | 18 - 20    | 3.00      |                    | Clay,w/silt seams,Very stiff,slickensided, Reddish brown            | C H   | 23.0   |                   |                   |         |        |                               |      |      |      |      |                              |           |
| 11  | 20 - 22    | 3.25      |                    | Clay,w/ferrous stains,slickensided,Reddish Brown                    | C H   | 21.6   |                   |                   |         |        |                               |      |      |      |      |                              |           |
| 12  | 22 - 24    | 4.25      |                    | Clay,w/sand seams & sand pockets,Hard,Gray                          | C H   | 17.9   |                   |                   |         |        |                               |      |      |      |      |                              |           |
| 13  | 24 - 26    | 1.50      |                    | Sandy Clay,w/sand seams,Stiff,Yellowish gray                        | C L   | 17.4   | 109.7             | 128.7             | 30.0    | 15.0   | 100.0                         | 99.9 | 99.0 | 80.0 | 55.4 |                              | 1.27      |
| 14  | 26-27.5    |           | 26                 | Sandy Clay,w/sand seams,Very stiff,Yellowish gray                   | C L   | 15.8   |                   |                   |         |        |                               |      |      |      |      |                              |           |
| 15  | 28 - 30    | 4.00      |                    | Sandy Clay,w/sand seams,Very stiff,Yellowish gray                   | C L   | 30.4   |                   |                   |         |        |                               |      |      |      |      |                              |           |
| 16  | 30 - 32    | 2.75      |                    | Clay,w/calc nod & sand seams,slickensided, Very stiff,Reddish brown | C H   | 19.6   |                   |                   |         |        |                               |      |      |      |      |                              |           |
| 17  | 32 - 34    | 4.25      |                    | Clay,w/calc nod & sand seams,slickensided, Hard,Reddish brown       | C H   | 22.4   | 103.1             | 126.2             | 53.0    | 21.0   |                               |      |      |      |      |                              |           |
| 18  | 34 - 36    | 4.50 +    |                    | Clay,w/calc nod & sand seams,slickensided, Hard,Reddish brown       | C H   | 19.5   |                   |                   |         |        |                               |      |      |      |      |                              |           |
|     |            |           |                    |                                                                     |       |        |                   |                   |         |        |                               |      |      |      |      |                              |           |
|     |            |           |                    |                                                                     |       |        |                   |                   |         |        |                               |      |      |      |      |                              |           |

S # : Sample Number, P P : Pocket Penetrometer Reading, U S C : Unified Soil Classification, M c : Moisture Content

q u : Uncogined Compressive Strength, W O H : Weight of hammer, W O P : Weight of Pipe

JOB NO. 114008613

DATE 7/7/97

PROJECT Brays Bayou PDM

AREA Houston, Texas

BORING NO. 97-25

SAMPLE NO. 7

DEPTH 12-14 ft

SPECIMEN NO. 1

# CLASSIFICATION

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

|                            |            |                  |               |
|----------------------------|------------|------------------|---------------|
| Tare No.                   | IM110      | Height           | 5.595 in.     |
| Tare plus Wet Specimen     | 448.04 gm  | Average Diameter | 2.830 in.     |
| Tare plus Dry Specimen     | 368.70 gm  | Initial Area     | 6.290 sq in.  |
| Water Weight               | 79.34 gm   | Volume           | 35.194 cu in. |
| Tare Weight                | 43.64 gm   | Volume of Solids | cu in.        |
| Wet Specimen               | 1122.75 gm | Void Ratio       |               |
| Dry Specimen               | 902.48 gm  | Saturation       | %             |
| Water Content              | 24.41 %    | Dry Density      | 97.7 lb/cu ft |
| Specific Gravity of Solids |            |                  |               |
| LL = 65                    | PL = 24    | PI = 41          |               |

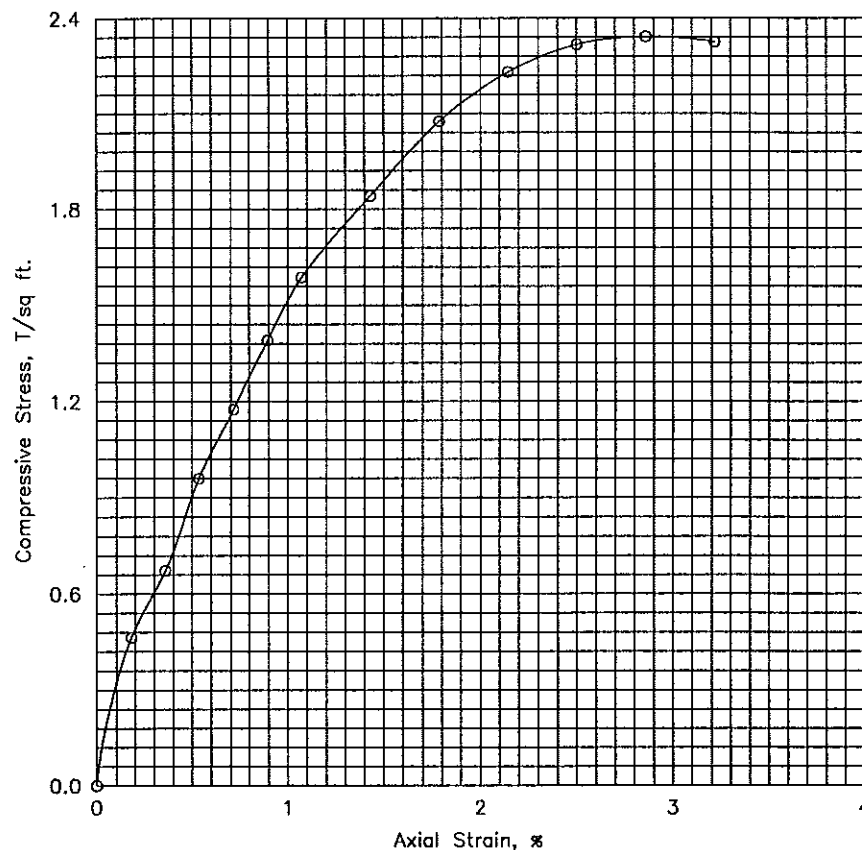
Proving Ring No. 10170

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                  | 53.0                      | 40.6          | .002         | 6.30              | .464              |
| .4                | 20.                 | .020                  | 77.0                      | 59.0          | .004         | 6.31              | .673              |
| .6                | 30.                 | .030                  | 110.0                     | 84.3          | .005         | 6.32              | .959              |
| .8                | 40.                 | .040                  | 135.0                     | 103.4         | .007         | 6.34              | 1.175             |
| .9                | 50.                 | .050                  | 160.0                     | 122.6         | .009         | 6.35              | 1.390             |
| 1.1               | 60.                 | .060                  | 183.0                     | 140.2         | .011         | 6.36              | 1.587             |
| 1.4               | 80.                 | .080                  | 213.0                     | 163.2         | .014         | 6.38              | 1.841             |
| 1.7               | 100.                | .100                  | 241.0                     | 184.6         | .018         | 6.40              | 2.075             |
| 2.1               | 120.                | .120                  | 260.0                     | 199.2         | .021         | 6.43              | 2.231             |
| 2.4               | 140.                | .140                  | 271.0                     | 207.6         | .025         | 6.45              | 2.317             |
| 2.7               | 160.                | .160                  | 275.0                     | 210.6         | .029         | 6.48              | 2.342             |
| 3.0               | 180.                | .180                  | 274.0                     | 209.9         | .032         | 6.50              | 2.325             |

Job No. 114008613

Failure Sketches



☐ Controlled stress  
☒ Controlled strain

|                                                                             |                       |                                    |        |              |    |
|-----------------------------------------------------------------------------|-----------------------|------------------------------------|--------|--------------|----|
| Test No.                                                                    |                       | 1                                  |        |              |    |
| Type of Specimen                                                            |                       | Undisturbed                        |        |              |    |
| Initial                                                                     | Water content         | $w_0$                              | 24.4 % | %            | %  |
|                                                                             | Void ratio            | $e_0$                              |        |              |    |
|                                                                             | Saturation            | $S_0$                              | %      | %            | %  |
|                                                                             | Dry density, lb/cu ft | $\gamma_d$                         | 97.7   |              |    |
| Time to failure, min                                                        |                       | $t_f$                              | 2.70   |              |    |
| Unconfined compressive strength, T/sq ft                                    |                       | $q_u$                              | 2.34   |              |    |
| Undrained shear strength, T/sq ft                                           |                       | $S_u$                              | 1.17   |              |    |
| 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, slickensided, Very stiff, Red & Gray |                       |                                    |        |              |    |
| LL                                                                          | 65                    | PL                                 | 24     | PI           | 41 |
| Remarks                                                                     |                       | Project Brays Bayou PDM            |        |              |    |
|                                                                             |                       | Area Houston, Texas                |        |              |    |
|                                                                             |                       | Boring No. 97-25                   |        | Sample No. 7 |    |
|                                                                             |                       | Depth 12-14 ft                     |        | Date 7/7/97  |    |
|                                                                             |                       | UNCONFINED COMPRESSION TEST REPORT |        |              |    |

JOB NO. 114008613

DATE 7/7/97

PROJECT Brays Bayou PDM

AREA Houston, Texas

BORING NO. 97-25

SAMPLE NO. 13

DEPTH 24-26 ft

SPECIMEN NO. 1

CLASSIFICATION

Silty Clay, w/sand seams, Stiff, Yellowish gray

|                            |            |                  |                |
|----------------------------|------------|------------------|----------------|
| Tare No.                   | SK-1A      | Height           | 5.595 in.      |
| Tare plus Wet Specimen     | 660.86 gm  | Average Diameter | 2.830 in.      |
| Tare plus Dry Specimen     | 569.27 gm  | Initial Area     | 6.290 sq in.   |
| Water Weight               | 91.59 gm   | Volume           | 35.194 cu in.  |
| Tare Weight                | 42.52 gm   | Volume of Solids | cu in.         |
| Wet Specimen               | 1189.38 gm | Void Ratio       |                |
| Dry Specimen               | 1013.21 gm | Saturation       | %              |
| Water Content              | 17.39 %    | Dry Density      | 109.7 lb/cu ft |
| Specific Gravity of Solids |            |                  |                |
| LL = 30                    | PL = 15    | PI = 15          |                |

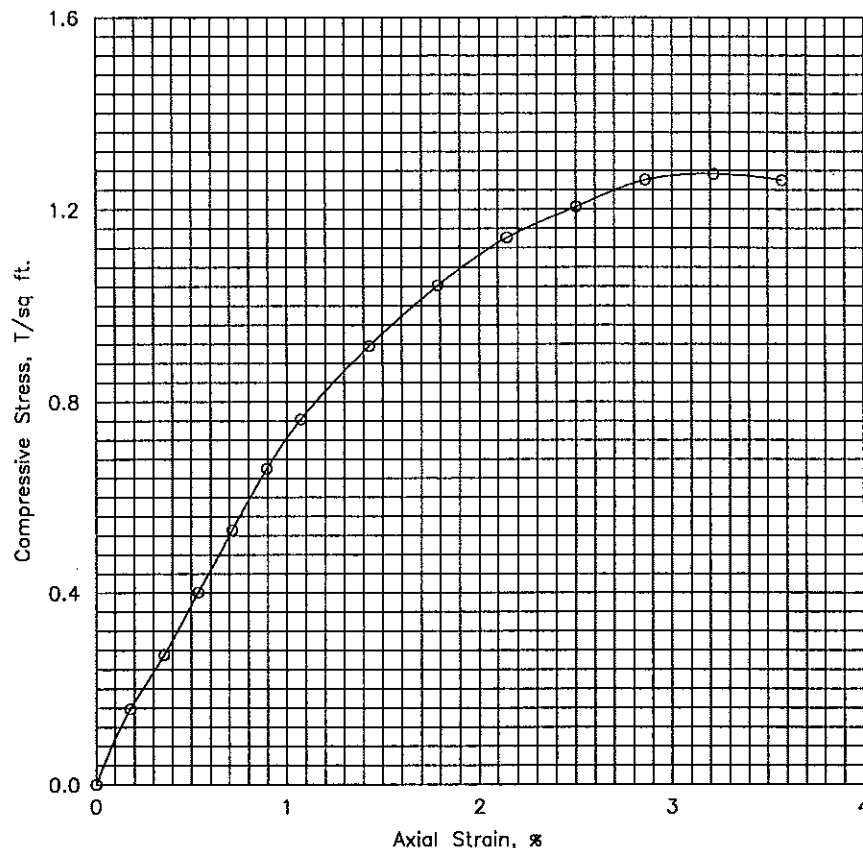
Proving Ring No. 10170

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                  | 18.0                      | 13.8          | .002         | 6.30              | .158              |
| .4                | 20.                 | .020                  | 31.0                      | 23.7          | .004         | 6.31              | .271              |
| .6                | 30.                 | .030                  | 46.0                      | 35.2          | .005         | 6.32              | .401              |
| .8                | 40.                 | .040                  | 61.0                      | 46.7          | .007         | 6.34              | .531              |
| .9                | 50.                 | .050                  | 76.0                      | 58.2          | .009         | 6.35              | .660              |
| 1.1               | 60.                 | .060                  | 88.0                      | 67.4          | .011         | 6.36              | .763              |
| 1.4               | 80.                 | .080                  | 106.0                     | 81.2          | .014         | 6.38              | .916              |
| 1.7               | 100.                | .100                  | 121.0                     | 92.7          | .018         | 6.40              | 1.042             |
| 2.0               | 120.                | .120                  | 133.0                     | 101.9         | .021         | 6.43              | 1.141             |
| 2.3               | 140.                | .140                  | 141.0                     | 108.0         | .025         | 6.45              | 1.205             |
| 2.7               | 160.                | .160                  | 148.0                     | 113.4         | .029         | 6.48              | 1.261             |
| 3.0               | 180.                | .180                  | 150.0                     | 114.9         | .032         | 6.50              | 1.273             |
| 3.3               | 200.                | .200                  | 149.0                     | 114.1         | .036         | 6.52              | 1.260             |

Job No. 114008613

Failure Sketches



☐ Controlled stress  
☒ Controlled strain

|                                                                |                       |                                    |        |               |    |
|----------------------------------------------------------------|-----------------------|------------------------------------|--------|---------------|----|
| Test No.                                                       |                       | 1                                  |        |               |    |
| Type of Specimen                                               |                       | Undisturbed                        |        |               |    |
| Initial                                                        | Water content         | $w_0$                              | 17.4 % | %             | %  |
|                                                                | Void ratio            | $e_0$                              |        |               |    |
|                                                                | Saturation            | $S_0$                              | %      | %             | %  |
|                                                                | Dry density, lb/cu ft | $\gamma_d$                         | 109.7  |               |    |
| Time to failure, min                                           |                       | $t_f$                              | 2.97   |               |    |
| Unconfined compressive strength, T/sq ft                       |                       | $q_u$                              | 1.27   |               |    |
| Undrained shear strength, T/sq ft                              |                       | $S_u$                              | .64    |               |    |
| Sensitivity ratio                                              |                       | $S_t$                              |        |               |    |
| Initial specimen diameter, in.                                 |                       | $D_0$                              | 2.830  |               |    |
| Initial specimen height, in.                                   |                       | $H_0$                              | 5.595  |               |    |
| Classification Silty Clay, w/sand seams, Stiff, Yellowish gray |                       |                                    |        |               |    |
| LL                                                             | 30                    | PL                                 | 15     | PI            | 15 |
| Remarks                                                        |                       | Project Brays Bayou PDM            |        |               |    |
|                                                                |                       | Area Houston, Texas                |        |               |    |
|                                                                |                       | Boring No. 97-25                   |        | Sample No. 13 |    |
|                                                                |                       | Depth 24-26 ft                     |        | Date 7/7/97   |    |
|                                                                |                       | UNCONFINED COMPRESSION TEST REPORT |        |               |    |