

# U.S. ARMY CORPS OF ENGINEERS

| DEPTH, FEET |  | SAMPLE NO. | PEN./TORVANE<br>SPT.-BLOW COUNT | BORING NO. <u>91-273</u> DATE: BEGIN <u>12/31/91</u> PAGE <u>1/1</u> |               |             | JOB NO. <u>146531</u> COMPLETE <u>12/31/91</u> Thin Walled Tube |                                  |
|-------------|--|------------|---------------------------------|----------------------------------------------------------------------|---------------|-------------|-----------------------------------------------------------------|----------------------------------|
|             |  |            |                                 | PROJECT <u>Succot</u> <u>Gravel</u> <u>3"</u> <u>6"</u>              |               |             | LOCATION <u>Succot</u> <u>Gravel</u> <u>Sta 56+00</u>           |                                  |
|             |  |            |                                 | ELEVATION OF HOLE _____                                              |               |             | MANUFACTURER'S DESIGNATION OF DRILL RIG _____                   |                                  |
|             |  |            |                                 | GROUNDWATER: DEPTH <u>2</u> ft., ELEV. _____ ft., at end of Drilling |               |             | WEATHER <u>cool</u> <u>clear</u>                                |                                  |
|             |  |            |                                 | DRILLER <u>_____</u> LOGGER <u>_____</u>                             |               |             |                                                                 |                                  |
|             |  |            |                                 | COLOR                                                                | MATERIAL TYPE | CONSISTENCY | SECONDARY CONSTITUENTS                                          | STRUCTURAL FEATURES AND COMMENTS |
| 0           |  |            |                                 |                                                                      |               |             |                                                                 |                                  |
|             |  |            |                                 | Gray                                                                 | Clay          | stiff       | silt                                                            | w/Roots                          |
|             |  |            |                                 | Gray                                                                 | Clay          | stiff       | silt                                                            | w/Roots                          |
| 5           |  |            |                                 | Tan                                                                  | Clay          | stiff       | silt                                                            | w/Roots                          |
|             |  |            |                                 | Tan                                                                  | Clay          | stiff       | silt                                                            | Gray                             |
|             |  |            |                                 | Tan                                                                  | clay          | stiff       | silt                                                            | Gray                             |
| 10          |  |            |                                 | Tan                                                                  | clay          | stiff       | silt                                                            | Gray                             |
|             |  |            |                                 | Tan                                                                  | clay          | stiff       | silt                                                            | Gray                             |
|             |  |            |                                 | Tan                                                                  | clay          | stiff       | silt                                                            | Gray                             |
| 15          |  |            |                                 | Tan                                                                  | clay          | stiff       | silt                                                            | Gray                             |
|             |  |            |                                 | Tan                                                                  | clay          | stiff       | silt                                                            | Gray                             |
|             |  |            |                                 | Tan                                                                  | clay          | stiff       | silt                                                            | Gray                             |
| 20          |  |            |                                 | Tan                                                                  | clay          | stiff       | silt                                                            | Gray                             |
|             |  |            |                                 | Tan                                                                  | clay          | stiff       | silt                                                            | Gray                             |
|             |  |            |                                 | Tan                                                                  | clay          | stiff       | silt                                                            | Gray                             |
| 25          |  |            |                                 | 2/3/4 Tan                                                            | Sand          | loose       | silt                                                            |                                  |
|             |  |            |                                 | 5/5/6 Tan                                                            | Sand          | loose       | silt                                                            |                                  |
|             |  |            |                                 | 0.50 Tan                                                             | Silt          | loose       | sand                                                            |                                  |
| 30          |  |            |                                 | Bottom of 91-273 @ 30'                                               |               |             |                                                                 |                                  |
|             |  |            |                                 |                                                                      |               |             |                                                                 |                                  |
| 35          |  |            |                                 |                                                                      |               |             |                                                                 |                                  |

Project : Gulf Intracoastal Waterway, near Sargent Beach, Texas  
Contract No. DACW64-92-D-0001 Delivery No. 0005

# SUMMARY OF LABORATORY TEST RESULTS

Boring No. 91-273

| S # | Depth (ft) | P P (tsf) | SPT Blows per Foot | Visual Classification                        | U S C | M c (%) | Dry Unit Wt (pcf) | Wet Unit Wt (pcf) | LL (%) | P L (%) | Mechanical Analysis % Passing |       |       |       |      | Torvane Shear Strength (tsf) | q u (tsf) |
|-----|------------|-----------|--------------------|----------------------------------------------|-------|---------|-------------------|-------------------|--------|---------|-------------------------------|-------|-------|-------|------|------------------------------|-----------|
|     |            |           |                    |                                              |       |         |                   |                   |        |         | #4                            | #10   | #40   | #100  | #200 |                              |           |
| 1   | 0-2        | 1.25      |                    | Dark gray,Clay,Stiff                         | CH    | 27.6    |                   |                   |        |         |                               |       |       |       |      |                              |           |
| 2   | 2-4        | 0.75      |                    | Gray,Clay,Medium stiff,w/roots               | CH    | 26.2    |                   |                   | 65     | 25      |                               |       |       |       |      |                              |           |
| 3   | 4-6        | 1.00      |                    | Brown,Clay,Stiff                             | CH    | 31.7    |                   |                   |        |         |                               |       |       |       |      |                              |           |
| 4   | 6-8        | 1.00      |                    | Brown,Clay,Stiff,w/ferrous stains            | CH    | 38.7    |                   |                   |        |         |                               |       |       |       |      |                              |           |
| 5   | 8-10       | 0.75      |                    | Brown,Clay,Medium stiff,w/calcareous nodules | CH    | 44.9    |                   |                   |        |         |                               |       |       |       |      |                              |           |
| 6   | 10-12      | 0.75      |                    | Brown,Clay,Medium stiff                      | CH    | 42.1    |                   |                   |        |         |                               |       |       |       |      |                              |           |
| 7   | 12-14      | 1.75      |                    | Brown,Clay,stiff                             | CH    | 38.5    |                   |                   | 83     | 31      |                               |       |       |       |      |                              |           |
| 8   | 14-16      | 1.00      |                    | Brown,Clay,Stiff                             | CH    | 44.1    |                   |                   |        |         |                               |       |       |       |      |                              |           |
| 9   | 16-18      | 0.75      |                    | Brown,Clay,Medium stiff                      | CH    | 42.8    |                   |                   |        |         |                               |       |       |       |      |                              |           |
| 10  | 18-20      | 0.75      |                    | Brown,Clay,Medium stiff,w/sand pockets       | CH    | 33.9    |                   |                   |        |         |                               |       |       |       |      |                              |           |
| 11  | 20-22      | 0.50      |                    | Brown,Clay,Medium stiff,w/sand pockets       | CH    | 39.3    |                   |                   |        |         |                               |       |       |       |      |                              |           |
| 12  | 22-24      | 1.25      |                    | Brown,Clay,Stiff                             | CH    | 29.2    |                   |                   |        |         |                               |       |       |       |      |                              |           |
| 13  | 24.5-26    |           | 7                  | Brown,Silt,Loose,w/sand                      | M L   |         |                   |                   |        |         | 100.0                         | 100.0 | 100.0 | 100.0 | 98.8 |                              |           |
| 14  | 26.5-28    |           | 11                 | Gray,Silt,Medium dense,Sandy                 | M L   |         |                   |                   |        |         |                               |       |       |       |      |                              |           |
| 15  | 28-30      | 0.25      |                    | Brown,Clay,Soft                              | CH    | 48.5    |                   |                   |        |         | 100.0                         | 100.0 | 100.0 | 100.0 | 99.4 |                              |           |
|     |            |           |                    |                                              |       |         |                   |                   |        |         |                               |       |       |       |      |                              |           |
|     |            |           |                    |                                              |       |         |                   |                   |        |         |                               |       |       |       |      |                              |           |

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

q u : Unconfined Compressive Strength, W O H : Weight of hammer, W O P : Weight of pipe