

# U.S. ARMY CORPS OF ENGINEERS

| DEPTH, FEET |    | SAMPLE NO. | PEN./TORVANE | SPT.-BLOW COUNT | BORING NO. <u>91-296</u> DATE: BEGIN <u>1/6/92</u> PAGE <u>1/1</u> |               |              | JOB NO. <u>14C-531</u> COMPLETE <u>1/6/92</u> Thin Walled Tube |                                  | PROJECT <u>G.I.W.W.</u> <input checked="" type="checkbox"/> 3" <input type="checkbox"/> 6" |  | LOCATION <u>Sargent Beach Sta 281+00</u> |  | ELEVATION OF HOLE |  | MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Palmer C-102</u> |  | GROUNDWATER: DEPTH <u>0</u> ft., ELEV. <u>26</u> ft., at end of Drilling |  | WEATHER <u>part cloudy</u> |  | DRILLER <u>D. C. Cavan</u> LOGGER <u>D. C. Cavan</u> |  |
|-------------|----|------------|--------------|-----------------|--------------------------------------------------------------------|---------------|--------------|----------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------|--|------------------------------------------|--|-------------------|--|-------------------------------------------------------------|--|--------------------------------------------------------------------------|--|----------------------------|--|------------------------------------------------------|--|
|             |    |            |              |                 | COLOR                                                              | MATERIAL TYPE | CONSISTENCY  | SECONDARY CONSTITUENTS                                         | STRUCTURAL FEATURES AND COMMENTS |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
| 0           |    |            |              |                 |                                                                    |               |              |                                                                |                                  |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
|             | 1  | X          | W.O.P.       |                 | Tan                                                                | Clay          | v. soft      | silt                                                           | w/sand seams                     |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
|             | 2  | X          | W.O.P.       |                 | Gray                                                               | Clay          | v. soft      | silt                                                           | w/sand seams                     |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
|             | 3  |            | 0.25         |                 | Gray                                                               | Clay          | soft         | silt                                                           | w/sand seams                     |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
|             | 4  |            | 0.25         |                 | Gray                                                               | Clay          | Medium stiff | silt                                                           | w/sand seams                     |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
|             | 5  |            | 0.50         |                 | Gray                                                               | Clay          | M. stiff     | silt                                                           | w/sand seams                     |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
| 10          | 6  |            | 0.25         |                 | Gray                                                               | Clay          | soft         | silt                                                           | into Tan                         |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
|             | 7  |            | 0.50         |                 | Gray                                                               | Clay          | M. stiff     | silt                                                           |                                  |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
| 15          | 8  |            | 0.25         |                 | Gray                                                               | Clay          | soft         | silt                                                           | Tan                              |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
|             | 9  |            | 0.50         |                 | Tan                                                                | Clay          | M. stiff     | silt                                                           | Gray                             |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
|             | 10 |            | 1.0          |                 | Tan                                                                | Clay          | stiff        | silt                                                           | Gray seams                       |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
| 20          | 11 |            | 1.0          |                 | Gray                                                               | Clay          | stiff        | silt                                                           |                                  |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
|             | 12 |            | 2.0          |                 | Gray                                                               | Clay          | v. stiff     | silt                                                           | Dark Gray                        |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
| 25          | 13 |            | 2.5          |                 | Gray                                                               | Clay          | v. soft      | silt                                                           | w/calc nod                       |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
|             |    |            |              |                 |                                                                    |               |              |                                                                | Bottom of 91-296 @ 26'           |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
|             |    |            |              |                 |                                                                    |               |              |                                                                | W.O.P.: weight of Pipe           |                                                                                            |  |                                          |  |                   |  |                                                             |  |                                                                          |  |                            |  |                                                      |  |
| 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. 91-296

| S # | Depth<br>(ft) | P P<br>(tsf) | SPT<br>Blows<br>per<br>Foot | Visual<br>Classification                                | U S C | M c<br>(%) | Dry<br>Unit<br>Wt<br>(pcf) | Wet<br>Unit<br>Wt<br>(pcf) | LL<br>(%) | PL<br>(%) | Mechanical Analysis<br>% Passing |       |      |      |      | Torvane<br>Shear<br>Strength<br>(tsf) | q u<br>(tsf) |
|-----|---------------|--------------|-----------------------------|---------------------------------------------------------|-------|------------|----------------------------|----------------------------|-----------|-----------|----------------------------------|-------|------|------|------|---------------------------------------|--------------|
|     |               |              |                             |                                                         |       |            |                            |                            |           |           | #4                               | #10   | #40  | #100 | #200 |                                       |              |
| 1   | 0.5-2         |              | W.O.P                       | Gray,Sand,Very loose,Silty,w/roots                      | S M   | 34.0       |                            |                            |           |           |                                  |       |      |      |      |                                       |              |
| 2   | 2.5-4         |              | W.O.P                       | Gray,Sand,Very loose,Silty,w/roots                      | S M   | 40.0       |                            |                            |           |           |                                  |       |      |      |      |                                       |              |
| 3   | 4-6           | 0.25         |                             | Gray,Clay,Soft,Silty,w/sand seams <i>med</i> <i>POC</i> | CL    | 26         | 94                         |                            | 29        | 19        |                                  |       |      |      |      |                                       |              |
| 4   | 6-8           | 0.50         |                             | Gray,Clay,Medium stiff,w/sand and silt pockets          | CH    | 33.2       |                            |                            |           |           |                                  |       |      |      |      |                                       |              |
| 5   | 8-10          | 0.50         |                             | Gray,Clay,Medium stiff                                  | CH    | 40.5       |                            |                            |           |           |                                  |       |      |      |      |                                       |              |
| 6   | 10-12         | 0.50         |                             | Gray,Clay,Medium stiff                                  | CH    | 40.2       |                            |                            | 83        |           | 100.0                            | 100.0 | 99.9 | 99.8 | 99.7 |                                       |              |
| 7   | 12-14         | 1.00         |                             | Brown & gray,Clay,Stiff,w/blocky structure              | CH    | 41.9       |                            |                            |           |           |                                  |       |      |      |      |                                       |              |
| 8   | 14-16         | 0.25         |                             | Gray & tan,Clay,Soft,Silty <i>calc</i> <i>POC</i>       | CL    | 41         | 83                         |                            | 64        | 22        |                                  |       |      |      |      |                                       |              |
| 9   | 16-18         | 0.75         |                             | Brown,Clay,Medium stiff                                 | CH    | 50.5       |                            |                            |           |           |                                  |       |      |      |      |                                       |              |
| 10  | 18-20         | 1.00         |                             | Brown,Clay,Stiff                                        | CH    | 33.8       |                            |                            | 63        |           |                                  |       |      |      |      |                                       |              |
| 11  | 20-22         | 1.50         |                             | Gray,Clay,Stiff,Sandy                                   | CL    | 23.7       |                            |                            |           |           |                                  |       |      |      |      |                                       |              |
| 12  | 22-24         | 1.50         |                             | Gray,Clay,Stiff,Sandy                                   | CL    | 21.2       |                            |                            |           |           |                                  |       |      |      |      |                                       |              |
| 13  | 24-26         | 3.00         |                             | Gray & yellowish brown,Clay,Very stiff,Sandy            | CL    | 19.4       |                            |                            | 40        |           |                                  |       |      |      |      |                                       |              |
|     |               |              |                             |                                                         |       |            |                            |                            |           |           |                                  |       |      |      |      |                                       |              |
|     |               |              |                             |                                                         |       |            |                            |                            |           |           |                                  |       |      |      |      |                                       |              |
|     |               |              |                             |                                                         |       |            |                            |                            |           |           |                                  |       |      |      |      |                                       |              |
|     |               |              |                             |                                                         |       |            |                            |                            |           |           |                                  |       |      |      |      |                                       |              |

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