

PRELIMINARY INVESTIGATIONS OF SUBMERGED AREAS

Delivery Order Number 023
Project ANW Refuge

Date 10/22/04

Location ID Number J-4

Coordinates: X 2635397

Y 13232250

Water Depth 3.0

Pipe Length 15 1316s

Tide Staff Readings:

	Time	Reading
Morning	<u>6:43</u>	<u>2:0</u>
Mid-Day	<u>10:55</u>	<u>2:25</u>
Evening		

Push No. 1 Time 7:41

Weight of Pipe Penetration (WOP) 3.5

One-Hand Push (40-lb) Depth 4.0

Comment

Comments SA w/ small CL layer

One-Hand Push (70-lb) Depth 4.1

Comments soft CL

Two-Hand Push to Refusal - Depth 7.5

Jig 7.7 shell

Comments soft CL

Push No. 2 Time 7:49

Weight of Pipe Penetration (WOP) 3.9

One-Hand Push (40-lb) Depth 3.9

Comment

Comments

1" SA Layer

One-Hand Push (70-lb) Depth 4.8

Comments SA CL

Two-Hand Push to Refusal - Depth 5.0

Jig 8.5 soft CL shell @ Bottom

Comments

Hand Proving Ring Penetrometer Test? yes

Hand Vane Shear Test?

① Top of vane 1' Below mud line
shear @ 11 LBS

② Top of vane 2' Below mud line
soft CL

Technician (Probe Handler) Mike A.

Recorder Gary L. Shear @ 29 LB:

SA CL

AL4

HAND CONE PENETRATION TEST (CPT)

Delivery Order Number 023
Project ANW Refuge

Date 10/22/04

Location ID Number J-4
Time 8:02

Weight of Proving Ring _____
Weight of Rod Section 13.65

Weight of Rod Penetration 4.3
Comments _____

Number of Rods 3

End Depth	Dial	No. Rods	Comment
4.6	9		soft CL
4.9	WOR		
5.0	56		
5.6	3		
6.0	18		
6.3	88		SA CL
6.6	78		
6.9	34		
7.0	60		
7.3	66		
7.6	40		
7.9	110		CL w/shell frag.
8.0	80		
8.3	100		
8.6	70		
8.9	91		
9.0	86		
9.3	80		
9.6	172		shell
9.9	238		shell

End Depth	Dial	No. Rods	Comment

Comments _____

Hand Cone Penetrometer Test and Analysis:

RTB 11/8/4

Project: Aransas National Wildlife Ref. - BUS Site "J"
Location: Dunham Bay located outside of Rockport, TX
Delivery Order #: 0023
Date of Testing: 10/20/04 to 10/22/04

Probing Results

Resistance	Depth1'	Depth2'	MLT1'	MLT2'	Average
Weight of Pipe	3.5	3.9	-1.5	-1.9	-1.7
1 HP (40lbs)	4	3.9	-2.0	-1.9	-2.0
1 HP (70lbs)	4.1	4.8	-2.1	-2.8	-2.5
2 Hand Refusal	7.5	5.0	-5.5	-3.0	-4.3

[illegible]

Depth Vs. Shear Strength

♦ J4

