

U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET		SAMPLE NO.		PEN./TORVANE		SPT.-BLOW COUNT		BORING NO. <u>9/309</u> DATE: BEGIN <u>12-07-91</u> PAGE <u>1</u> JOB NO. <u>146531</u> COMPLETE <u>12-08-91</u> Thin Walled Tube PROJECT <u>GIWW</u> ☒ 2" ☐ 6" LOCATION <u>SARGENT REACH STA. 3637.50</u> ELEVATION OF HOLE _____ MANUFACTURER'S DESIGNATION OF DRILL RIG <u>ARDCO</u> GROUNDWATER: DEPTH <u>5</u> ft., ELEV. <u>60</u> ft., at end of Drilling WEATHER <u>MOSTLY CLOUDY + RAIN</u> DRILLER <u>Douglas Mitchell</u> LOGGER <u>John W. Harty</u>					
		COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS							
0	1	0.25	BROWN	CLAY	SOFT	SILTY	- w/ ROOTS 0'-2						
	2	0.25	GRAY	CLAY	SOFT		- w/ ROOT 2'-4' + SHELL FRAGMENTS						
	3	0.25	GRAY	CLAY	SOFT								
	4	0.25	GRAY	CLAY	SOFT								
	5	0	GRAY	CLAY	VERY SOFT								
10	6	0	GRAY	CLAY	VERY SOFT								
	7	0.5	GRAY	CLAY	MEDIUM STIFF		- w/ SHELL FRAGMENTS 12'-18'						
	8	1.0	BROWN	CLAY	STIFF		* + GRAY 14-20.						
	9	1.0	BROWN	CLAY	STIFF		* + BROWN						
	10	3.5	GRAY	CLAY	STIFF		- w/ CALCAREOUS + FERROUS						
20	11	3.5	BLUE GRAY	GLAY	VERY STIFF		18' = 26						
	12	3.5	BLUE GRAY	GLAY	VERY STIFF								
	13	2.5	BROWN	CLAY	STIFF		+ LIGHT GRAY 24-						
25	14	2.0	BROWN	CLAY	VERY STIFF		- SILTY CLAY @ 27						
	15	1.0	BROWN	CLAY	STIFF	SILTY							
30	16	2.5	BROWN	CLAY	VERY STIFF		* + GRAY 30'						
	17	3.5	BROWN	CLAY	VERY STIFF		- w/ CALCAREOUS + FERROUS 30-						
	18	1.0	BROWN	CLAY	STIFF	SILTY							

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					91309	12-07-91	2	146531	1208-91	☒ 3" ☐ 6"	GIWW	SARGENT BEACH STA. 363+50		ARDCO	5			MOSTLY CLOUDY	Douglas Mitchell	John A. Bentley
		COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS														
35	19	BROWN	CLAY	STIFF	SILTY	-w/ SILT & CLAY LAYERS 36"														
40	20	BROWN	CLAY	VERY STIFF		* LIGHT GRAY BELOW 38"														
	21	BROWN	CLAY	HARD		-w/ CALCAREOUS FERROUS Below 42'														
	22	BROWN	CLAY	HARD																
45	23	BROWN	CLAY	VERY STIFF																
	24	BROWN	CLAY	VERY STIFF		-w/ SILT LAYER 4 7/8" BELOW														
	25	BROWN	CLAY	VERY STIFF																
50																				
55																				
60																				
65																				
70																				

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

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 91-309

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 (%)	PL (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0-2	0.00		Gray, Clay, Very soft, w/roots & sand pockets	CH	36.6										0.10	
2	2-4	0.25		Gray, Clay, Soft, w/roots & shell fragments & sand pockets	CH	30.5	90.8	118.5	88	33	88.9*	87.3*	85.6	84.2	78.3	0.15	
3	4-6	0.25		gray, Clay, Soft <i>SWD</i>	CH <i>CL</i>	<i>36.2</i>	<i>84</i>	<i>114.4</i>	<i>47</i>	<i>17</i>					<i>84</i>		<i>C = 190</i>
4	6-8	<i>0.25</i> <i>.5</i>		Gray, Clay, Soft <i>SWD</i>	CH	<i>35.4</i>	<i>84</i>	<i>113.7</i>	<i>52</i>	<i>18</i>					<i>94</i>		
5	8-10	0.25		Gray, Clay, Soft, w/shell fragments & sand pockets	CH	54.3	67.9	104.7	62	25	100.0	99.8	99.2	94.0	90.2	0.12	
6	10-12	0.00 <i><.25</i>		Gray, Clay, Very soft <i>SWD</i>	CH	<i>45.1</i>	<i>77</i>	<i>111.7</i>	<i>66</i>	<i>20</i>					<i>91</i>		<i>C = 230</i>
7	12-14	<i>0.50</i> <i><.25</i>		Gray, Clay, Medium stiff, w/shell fragments <i>SWD</i>	CH	<i>44.8</i>	<i>76</i>	<i>110</i>	<i>56</i>	<i>18</i>					<i>86</i>		<i>C = 230</i>
8	14-16	0.25		Gray, Clay, Soft, w/shell fragment & sand pockets	CH	43.8	76.6	110.1	66	26	99.1*	98.7*	98.2*	97.5	89.7		
9	16-18	<i>1.00</i> <i>.5-.75</i>		Brown, Clay, Stiff <i>SWD</i>	CH	<i>41.2</i>	<i>78</i>	<i>110</i>	<i>70</i>	<i>22</i>					<i>92</i>		
10	18-20	<i>3.50</i> <i>1-2.5</i>		Gray, Clay, Very stiff, w/calcareous & ferrous nodules <i>SWD</i>	CH	<i>20</i>	<i>100</i>	<i>120</i>	<i>50</i>	<i>14</i>					<i>77</i>		<i>C = 800</i>
11	20-22	3.50		Gray, Clay, Very stiff, w/calcareous & ferrous nodules	CH	19.7											
12	22-24	2.50		Olive gray, Clay, Very stiff, w/calcareous nodules & sand pockets	CH	21.4	105.8	128.5	88		98.0	92.8	91.6	88.5	84.2		
13	24-26	2.00		Brown & gray, Clay, Very stiff, w/calcareous nodules, slickensided	CH	34.9											
14	26-28	2.25		Brown & gray, Clay, Very stiff, w/calcareous nodules, slickensided	CH	21.4											
15	28-30	2.50		Brown & gray, Clay, Very stiff, w/calcareous nodules	CH	19.1											
16	30-32	2.50		Brown & gray, Clay, Very stiff, w/ferrous stains	CH	24.0											
17	32-34	4.5+		Brown & gray, Clay, Hard, w/calcareous nodules & ferrous stains	CH	20.2	111.6	134.1	54		99.9	98.4	96.4	95.3	92.9		

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

* : Material Retained are Shell Fragments, **: Material Retained are calcareous Nodules

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											#4	#10	#40	#100	#200		
18	34-36	1.00		Brown & gray, Clay, Stiff, Silty, w/calcareous nodules	CL	22.0											
19	36-38	0.50		Brown , Clay, Medium stiff, Silty, w/sand layer	CL	24.5											
20	38-40	3.50		Brown & gray, Clay, Very stiff, w/ferrous stains & Silt parting	CH	27.7											
21	40-42	4.00		Brown & gray, Clay, Very stiff, w/ferrous stains & Silt parting	CH	29.3											
22	42-44	4.25		Brown & gray, Clay, Hard, w/sand seams and calcareous nodules	CH	21.0	108.0	130.7	51		100.0	99.4	98.5	97.5	92.9		
23	44-46	3.75		Brown & gray, Clay, Very stiff, w/calcareous nodules	CH	21.0											
24	46-48	2.75		Brown & gray, Clay, Very stiff, w/calcareous nodules	CH	20.1											
25	48-50	2.00		Brown & gray, Clay, Very stiff, w/sand layer	CH	23.3											

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