

U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE SPT. - BLOW COUNT	COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
BORING NO. <u>91216</u> DATE: BEGIN <u>08-02-91</u> PAGE <u>1/1/2</u> JOB NO. <u>146 490</u> COMPLETE <u>08-02-91</u> Thin Walled Tube PROJECT <u>GIWW</u> ☒ 3" ☐ 6" LOCATION <u>SARGENT BEACH</u> Surface ground to top of + to push 6" ELEVATION OF HOLE _____ MANUFACTURER'S DESIGNATION OF DRILL RIG <u>F-36</u> GROUNDWATER: DEPTH _____ ft., ELEV. _____ ft., at end of Drilling WEATHER <u>PARTLY CLOUDY HOT</u> DRILLER <u>Robert T. Kennedy</u> LOGGER <u>John A. Heston</u>								
JAR	0	1	N/A	TAN	SAND	LOOSE		-w/ROOT + SHELL 0-4'
JAR		2	N/A	TAN	SAND	LOOSE		
	5	3	0.25	GRAY	CLAY	SOFT		-w/SAND LAYERS 4'
		4	0.25	GRAY	CLAY	SOFT		
		5	0.25	GRAY	CLAY	SOFT		
	10	6	0.25	GRAY	CLAY	SOFT		
		7	0.25	GRAY	CLAY	SOFT		-w/SHELL FRAGMENTS 12'-22'
		8	0.25	GRAY	CLAY	SOFT		
	15	9	0.25	GRAY	CLAY	SOFT		
		10	0.5	GRAY	CLAY	Med/Stiff		
	20	11	0.5	GRAY	CLAY	"		
		12	2.5	LIGHT GRAY	CLAY	VERY STIFF		-w/CALCAREOUS & FERROUS 22'-26'
		13	3.25	LIGHT GRAY	CLAY	VERY STIFF		*+BROWN
	25	14	3.25	LIGHT GRAY	CLAY	VERY STIFF		
		15	3.0	LIGHT GRAY	CLAY	VERY STIFF		
	30	16	4.5+	BROWN	CLAY	HARD		*+LIGHT GRAY 30'-36'
		17	4.5+	BROWN	CLAY	HARD		
	35	18	4.5+	BROWN	CLAY	HARD		

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DEPTH, FEET		SAMPLE	SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	BORING NO. <u>91216</u>	DATE: BEGIN <u>080291</u>	PAGE <u>2 11</u>
						JOB NO. <u>146 490</u>	COMPLETE <u>08-02-91</u> Thin Walled Tube	
						PROJECT <u>GJWW</u>	☒ 5" ☐ 6"	
						LOCATION <u>SARGEANT BEACH</u>	Surface ground too soft to push 6"	
						ELEVATION OF HOLE _____		
						MANUFACTURER'S DESIGNATION OF DRILL RIG <u>F-36</u>		
						GROUNDWATER: DEPTH <u>1</u> ft., ELEV. _____ ft., at end of Drilling		
						WEATHER <u>HOT</u>		
						DRILLER <u>Robert Tankersley</u>	LOGGER <u>John D. Hentley</u>	
		COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS		
35		BROWN	CLAY	HARD		* LIGHT GRAY 30-36'		
40	16 4.5+	BROWN	CLAY	HARD		- w/ SAND LAYERS 36'-40'		
	20 4.0	BROWN	CLAY	VERY STIFF		* LIGHT GRAY 36'-50'		
45	21 4.5+	BROWN	CLAY	HARD				
	22 4.5+	BROWN	CLAY	HARD				
50	23 4.5+	BROWN	CLAY	HARD		- w/ CALCAREOUS 44'-46'		
	24 4.0	BROWN	CLAY	VERY STIFF		- w/ SAND POCKETS 46'-48'		
	25 4.5	BROWN	CLAY	HARD				
55	26 1.75	GRAY	CLAY	STIFF		- w/ SAND LAYER 50'-54'		
	27 3.75	BROWN	CLAY	VERY STIFF		* LIGHT GRAY BELOW 52'		
	28 2.75	BROWN	CLAY	VERY STIFF				
	29 2.75	BROWN	CLAY	"				
60	30 2.5	BROWN	CLAY	"				
						BOTTOM OF 91216		
						Surface ground too soft to support drilling Buggy and water buggy, 6" samples could not be obtained.		

SHORT SAMPLE

Project Gulf Intracoastal Waterway near Sargeant Beach, Texas
Contract No. DACW64-91-D-001, Delivery Order No. 0022

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 91-216

S #	Depth (ft)	PP (tsf)	SPT Blows per Foot	Visual Classification	USC	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			Tan,Sand,Loose,Silty,w/Roots & shell fragments	SM												
2	2-4			Tan,Sand,Loose,w/Silt,Roots & shell fragments	SP-SM						87.2	82.5	76.0		9.3		
3	4-6	0.25		Gray,Clay,Soft,Sandy,w/Sand pockets & shell fragments	CL	34.5										0.10	
4	6-8	0.25		Gray,Clay,Soft,Sandy,w/Shell fragments	CL	32.5	86.9	115.1	49	21	100.0	100.0	99.8		72.2	0.10	0.14
5	8-10	0.25		Gray,Clay,Soft,w/Shell fragments	CH	56.0										0.10	
6	10-12	0.25		Gary,Clay,Soft,w/Shell fragments	CH	53.4	68.0	104.3	60	26	100.0	99.7	98.9		89.8	0.10	0.12
7	12-14	0.25		Gary,Clay,Soft,w/Shell fragments	CH	54.5										0.10	
8	14-16	0.25		Gary,Clay,Soft,w/Shell fragments	CH	50.9										0.10	
9	16-18	0.25		Gray,Clay,Soft,w/Shell & shell fragments	CH	42.9	76.2	108.5	53	25	90.3*	88.8*	87.5		79.2	0.10	0.12
10	18-20	0.50		Brown & gray,Clay,Medium-stiff <i>Soft</i>	CH	54.5										0.20	
11	20-22	0.25		Gray,Clay,Soft	CH	44.8	75.4	109.2	53	22	100.0	99.9	99.9		88.1	0.10	0.06
12	22-24	1.50		Olive gray,Clay,Stiff,w/Calcareous nodules	CH	39.8											
13	24-26	1.75		Olive gray,Clay,Stiff,w/Calcareous nodules	CH	34.9											
14	26-28	3.00		Gray & brown,Clay,Very stiff,w/Calcareous nodules	CH	24.5	101.6	126.4	54	20	99.3	98.9	98.3		90.3		1.35
15	28-30	2.75		Yellowish brown,Clay,Very stiff,w/Calcareous & ferrous nodules	CH	22.8											
16	30-32	3.50		Red & gray,Very stiff,w/Calcareous nodules & ferrous stains,Slickensided	CH	25.3											
17	32-34	4.00		Red & gray,Clay,Very stiff,w/Calcareous nodules & ferrous stains	CH	22.9											

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 and shell fragments

Project Gulf Intracoastal Waterway near Sargeant Beach, Texas
Contract No. DACW64-91-D-001, Delivery Order No. 0022

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Boring No. 91-216

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											#4	#10	#40	#100	#200		
18	34-36	4.5+		Red & gray, Clay, Hard, w/Calcareous nodules	CH	22.9	104.7	128.7	55	23	100.0	99.3	98.7		98.3		3.62
19	36-38	3.75		Red & gray, Clay, Very stiff, w/Calcareous nodules & ferrous stains	CH	24.4											
20	38-40	3.50		Brown & gray, Clay, Very stiff	CH	21.8											
21	40-42	3.75		Red & gray, Clay, Very stiff, w/Ferrous stains	CH	29.1											
22	42-44	4.5+		Red & gray, Clay, Hard, w/Silt parting & calcareous nodules & mica	CH	28.2	96.9	124.2	61	23	100.0	100.0	99.1		99.1		2.74
23	44-46	3.75		Red & gray, Clay, Very stiff, w/Ferrous stains, Slickensided	CH	27.0											
24	46-48	2.75		Brown & gray, Clay, Very stiff, w/Calcareous nodules	CH	23.4											
25	48-50	3.75		Brown & gray, Clay, Very stiff, w/Calcareous nodules	CH	23.0											
26	50-52	3.75		Yellowish brown, Clay, Very stiff, w/Silt layers	CH	25.0											
27	52-54	3.25		Brown & gray, Clay, Very stiff	CH	29.9											
28	54-56	2.50		Brown & gray, Clay, Very stiff	CH	32.2											
29	56-58	2.50		Brown & gray, Clay, Very stiff, w/Blocky structure	CH	32.9	89.6	119.1	67	26	100.0	100.0	100.0		100.0		1.46
30	58-60	2.50		Brown & gray, Clay, Very stiff	CH	33.2											

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