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U.S. ARMY CORPS OF ENGINEERS

BORING NO. 92-188 DATE: BEGIN 11-3-92 PAGE 1 / 2
JOB NO. 92-188 COMPLETE 11/3/92 Thin Walled Tube
PROJECT GIWW, near Sargent Beach, TX ☒ 3" ☐ 6"
LOCATION Sta: 89+00
ELEVATION OF HOLE
MANUFACTURER'S DESIGNATION OF DRILL RIG Marsh Buggy Mahue -200
GROUNDWATER: DEPTH 2.00 ft., ELEV. 6.2 ft., at end of Drilling
WEATHER Sunny & Hot
DRILLER Tim Turner LOGGER Iraj Mostamand

DEPTH, FEET	SAMPLE	SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
0		1	1.25	Brown	clay	stiff		-w/roots
		2	0.75	Brown	clay	M.stiff		
5		3	0.75	"	"	" "		
		4	1.00	Brown	clay	stiff		
		5	0.25	Gray	clay	soft		
10		6	0.25	"	"	"		
D		7	0.00	Gray	clay	V.soft	Sand	
15		8	0.00	Gray	Clay	V.soft	Sand	sample Buldge on extrusion 14'-16'
		9	0.00	Gray	clay	V.soft	Sand	sample Buldge on extrusion 16-18 - Sand @ 18'
20		10	2/2/3	Gray	Sand	loose		
25		11	4/6/8	Gray	Sand	M. Dense		[illegible] @ 25'
		12	0.00	Gray	clay	V. soft	Sandy	sample Buldge on extrusion 25'-29'
		13	0.00	Gray	clay	V. soft	Sandy	-w/large sand pkts
30		14	0.50	olive gray	clay	M.stiff		-w/Shell Fragments
Q		15	0.50	olive gray	clay	M.stiff		-w/Shell Fragments
		16	0.50	olive gray	clay	M. stiff		-w/Shell Fragments
35								

GEOTEST ENGINEERING, INC.

U.S. ARMY CORPS OF ENGINEERS

BORING NO. 92-188 DATE: BEGIN 11/3/92 PAGE 2 /2
JOB NO. 146614 COMPLETE 11/3/92 Thin Walled Tube
PROJECT GIWW, near Sargent Beach, TX ☒ 3" ☐ 6"
LOCATION Sta 89+00
ELEVATION OF HOLE
MANUFACTURER'S DESIGNATION OF DRILL RIG Marsh Buggy Mayhue 200
GROUNDWATER: DEPTH 2.00 ft., ELEV. ____ ft., at end of Drilling
WEATHER Sunny & Hot
DRILLER Jim Turner LOGGER Iraj Mostamand

DEPTH, FEET	SAMPLE	SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
35		17	0.50	olive gray	clay	M.stiff		-w/shell Fragments
		18	0.75	Brown	clay	M.stiff		-w/shell Fragments
40		19	0.50	Brown	clay	M.stiff		
		20	0.75	Brown	clay	M.stiff		
		21	0.50	Brown	clay	M.stiff		-w/sand Parting
45		22	0.50	Brown	clay	M.stiff		
		23	0.75	Brown	clay	M.stiff		
50		24	0.50	Brown	clay	M.stiff		
								Bottom 92-188 @ 51'
55								
60								
65								
70								

GEOTEST ENGINEERING, INC.

Project : Gulf Intracoastal Waterway (GIWW) near Sargent Beach, Texas

SUMMARY OF LABORATORY TEST RESULTS

Contract No. DACW64-92-D-0005 Delivery order No. 0002

Boring No. 92-188

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)	L L (%)	P L (%)	Mechanical Analysis % Passing #4	#10	#40	#100	#200	Torvane Shear Strength (tsf)	q u (tsf)	
1	0-2	1.25		Gray,Clay,Stiff,w/roots	CH	30.9												
2	2-4	0.75		Gray,Clay,Medium stiff,w/roots and sand pockets	CH	35.7	85.7	116.3	61		100.0	100.0	99.8	97.9	96.5			
3	4-6	1.50		Brown,Clay,Stiff,w/ferrous nodules	CH	30.3												
4	6-8	1.50		Brown,Clay,Stiff,w/ferrous nodules	CH	31.4												
5	8-10	0.25		Brown & Gray,Clay,Soft,Sandy	CL	36.3			48									
6	10-12	0.25		Brown & Gray,Clay,Soft,Sandy	CL	32.8												
7	12-14	0.00		~~Gray,Clay,Very soft,Sandy~~ <.25 SWD	CL	38.2	83		34	18								C=200
8	14-16	0.00		Gray,Clay,Very soft,w/sand pockets Sample holder	CH	47.5												
9	16-18	0.00		Gray,Clay,Very soft,w/sand seams and sand pockets Sample holder	CH	37.9												
10	18.5-20		5	Gray,Sand,Loose,Silty	S M						100.0	100.0	99.1	34.6	21.6			
11	23.5-25		14	Gray,Sand,Medium dense,Silty	S M													
12	25-27	0.00		Gray,Clay,Very soft,w/sand pockets Sample holder	CH	63.2												
13	27-29	0.00		Gray,Clay,Very soft,w/sand pockets and shell fragments Sample holder	CH	56.9	66.2	103.8	73		100.0	100.0	99.2	98.1	94.0			
14	29-31	0.25		Olive gray,Clay,Soft,w/shell fragments and organic materials	CH	65.5												
15	31-33	0.50		Olive ~~gray,Clay,Medium~~ stiff,w/shell fragments .5-.75 SWD	CH	93.2	47		124	42								C=560
16	33-35	0.50		Olive gray,Clay,Medium stiff,w/shell fragments and organic materials	CH	67.0												
17	35-37	0.75		Olive gray,Clay,Medium stiff,w/organic materials	CH	47.6												

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

Geotest Engineering, Inc.

Project : Gulf Intracoastal Waterway (GIWW) near Sargent Beach, Texas

SUMMARY OF LABORATORY TEST RESULTS

Contract No. DACW64-92-D-0005 Delivery order No. 0002

Boring No. 92-188

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)	L L (%)	P L (%)	Mechanical Analysis % Passing #4	#10	#40	#100	#200	Torvane Shear Strength (tsf)	q u (tsf)
18	37-39	0.75		Brown,Clay,Medium stiff,w/shell fragments	CH	35.4											
19	39-41	0.75		Brown,Clay,Medium stiff,w/organic materials	CH	50.6											
20	41-43	0.50		Brown,Clay,Medium stiff,w/organic materials	CH	56.6	67.2	105.2	71		100.0	100.0	100.0	100.0	100.0		
21	43-45	0.50		Brown,Clay,Medium stiff	CH	41.2											
22	45-47	0.50		Brown,Clay,Medium stiff,w/shell fragments and organic materials	CH	56.7											
23	47-49	0.50		Brown,Clay,Medium stiff,w/shell fragments and organic materials	CH	59.9											
24	49-51	0.50		Brown,Clay,Medium stiff,w/organic materials	CH	58.7											

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

Geotest Engineering, Inc.

TABLE 1

RESULTS OF TESTS OF DISTURBED AND UNDISTURBED SOIL SAMPLES

NOTE: * ALL SOIL SAMPLES THAT DO NOT HAVE COMPLETE LABORATORY TEST DATA WERE VISUALLY CLASSIFIED ONLY.

SWDED-GL REPORT NO. 15712 SARGENT BEACH - EROSION CONTROL PROJECT

(PSF)	BORING NO.	SWD NO.	FLD NO.	DEPTH, FT	GR	SA	FI	LL	PL	PI	LS	WC, %	PCF	MAJOR TESTS	DESCRIPTION OF MATERIAL
170	92 187	92/	5666 CTN-10	18.0 - 20.0	0	4	96	49	18	31		41.1	81	T-Q(1PT)	CL - LEAN CLAY, DARK BROWN, VERY MOIST, VERY SOFT (<0.25), CALCAREOUS, SOME VERY FINE SAND.
630	92 187	92/	5667 CTN-15	30.0 - 32.0	0	1	99	66	25	41		49.8	72	T-Q(1PT)	CH - FAT CLAY, LIGHT GRAY TO GRAY, VERY MOIST, VERY SOFT TO SOFT (<0.25-0.5), CALCAREOUS, BROWN COLOR AND GRASS IN TOP 0.4'.
200	92 188	92/	5668 CTN-7	12.0 - 14.0	0	5	95	34	18	16		38.2	83	T-Q(1PT)	CL - LEAN CLAY, GRAYISH BROWN, VERY MOIST, VERY SOFT (<0.25), CALCAREOUS, SOME VERY FINE SILTY SAND POCKETS THROUGHOUT.
560	92 188	92/	5669 CTN-15	31.0 - 33.0	0	6	94	124	42	82		93.2	47	T-Q(1PT)	CH - FAT CLAY, GRAY, VERY MOIST, SOFT TO MEDIUM CONSISTENCY (0.5-0.75), NON-CALCAREOUS, NUMEROUS BLACK ORGANICS SEAMS.
230	92 189	92/	5670 CTN-10	20.0 - 22.0	0	10	90	67	24	43		53.5	70	T-Q(1PT)	CH - FAT CLAY, BROWNISH GRAY, VERY MOIST, VERY SOFT (<0.25), CALCAREOUS, VERY FINE SILTY SAND POCKETS AND SEAMS THROUGHOUT.
390	92 189	92/	5671 CTN-16	34.0 - 36.0	0	4	96	60	21	39		51.6	70	T-Q(1PT)	CH - FAT CLAY, BROWN TO REDDISH BROWN, MOIST, VERY SOFT TO SOFT (<0.25-0.5), CALCAREOUS, A FEW SCATTERED SAND POCKETS.
410	92 190	92/	5672 CTN-16	34.0 - 36.0	0	12	88	53	20	33		41.3	79	T-Q(1PT)	CH - FAT CLAY, BROWN, MOIST, SOFT (0.25), CALCAREOUS, A FEW SCATTERED SHELLS, A FEW POCKETS OF FINE SAND.
370	92 191	92/	5673 CTN-11	32.0 - 34.0	0	4	96	65	24	41		52.0	71	T-Q(1PT)	CH - FAT CLAY, BROWN TO DARK BROWN, MOIST, SOFT (0.25-0.5), CALCAREOUS.
290	92 192	92/	5674 CTN-3	4.0 - 6.0	0	1	99	92	29	63		54.6	69	T-Q(1PT)	CH - FAT CLAY, BROWN WITH GRAY, MOIST, SOFT (0.25-0.5), CALCAREOUS, ROOT AND SHELLS THROUGHOUT, IRON-OXIDE STAINED.
350	92 192	92/	5675 CTN-8	14.0 - 16.0	0	6	94	36	16	20		32.9	90	T-Q(1PT)	CL - LEAN CLAY, GRAYISH BROWN AND BROWN, MOIST, SOFT (0.25-0.5), CALCAREOUS, SHELLS, POCKETS OF FINE SAND, IRON-OXIDE STAINED.
490	92 193	92/	5676 CTN-6	10.0 - 12.0	0	2	98	70	24	46		44.0	78	T-Q(1PT)	CH - FAT CLAY, GRAY AND YELLOW, MOIST, MEDIUM CONSISTENCY (0.5-0.75), NON-CALCAREOUS, FEW SHELLS, SAND POCKETS, IRON-OXIDE STAINED.
220	92 194	92/	5677 CTN-7	12.0 - 14.0	0	2	98	49	18	31		33.5	88	T-Q(1PT)	CL - LEAN CLAY, GRAYISH BROWN, MOIST, SOFT (0.25), CALCAREOUS, SHELLS, SAND POCKETS, IRON-OXIDE STAINED.
1340	92 194	92/	5678 CTN-13	24.0 - 26.0	1	1	98	111	32	79		41.0	80	T-Q(1PT)	CH - FAT CLAY, OLIVE AND LIGHT GRAY, MOIST, STIFF (1.75), NON-CALCAREOUS WITH CALCAREOUS NODULES, IRON-OXIDE STAINED.
180	92 195	92/	5679 CTN-9	16.0 - 18.0	0	5	95	48	18	30		35.8	85	T-Q(1PT)	CL - LEAN CLAY, GRAYISH BROWN WITH REDDISH BROWN, MOIST, SOFT (0.25), CALCAREOUS, IRON-OXIDE STAINED.