Coordinates N13350514.7 E 2821835.3

FIELD BORING LOG

PROJECT NO: 03-859-019

PROJECT NAME: C.O.E. Matagorda Island

CLIENT: C.O.E.

DRILL CONTRACTOR: Triangle

BORING NO: 04-200

DATE: 9-23-04

TECHNICIAN: C.M

DRILL EQUIPMENT: Barge

WATER LEVEL DATA:

TIME (MIN)	T.O.W. (FT)	T.O.	TIME
5			
10	Water depth	13.3'	@ 12:01
15			
E.O.D.			
24 HOURS			

FREE WATER DEPTH:

METHOD OF ADVANCE:

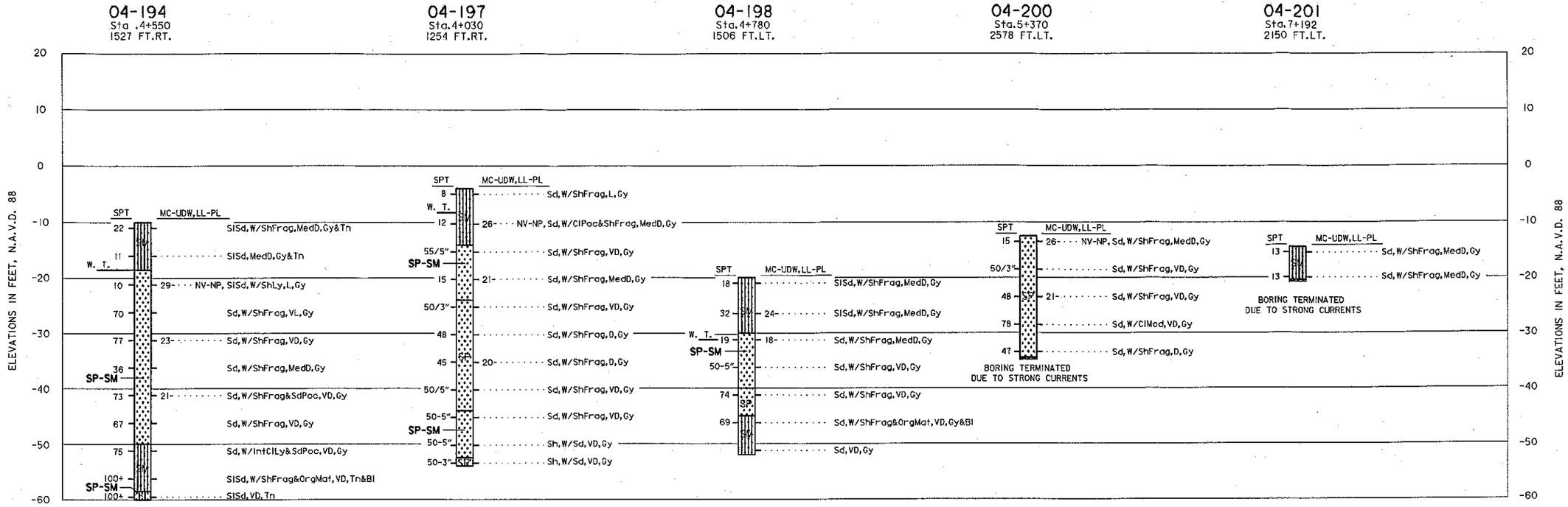
AUGER ——— TO ———

WASH ——— TO 12:01

TIME BORING BEGAN: 12:01

TIME BORING END: 2:30

	DEPTH(FT)	SAMPLE SYMBOL	CORE(C) JAR(J) BAG (B)	HAND PENETROMETER READING/ BLOW COUNT	RECOVERY IN INCHES	CONSISTENCY	COLOR	MINOR MATERIAL	MAJOR MATERIAL	CHARACTERISTICS OR MODIFICATIONS
1		X	J	7,7,8	14	Medde	G SP		Sa	shell fragments
2	5	X	J	29,50,3"	9	VDE	G SP		Sa	shell fragments
3	10	X	J	14,14,31	18	DE	G SP		Sa	" "
4	15	X	J	10,34,40	18	VDE	G SP		Sa	CL balls trace gravel
5	20	X	J	14,18,29	18	DE	G SP		Sa	shell fragments trace gravel
	25									
	30									
	35									



NOTES:

1. SOILS HAVE BEEN CLASSIFIED IN ACCORDANCE WITH ASTM 2487-93 "CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES (UNIFIED SOILS CLASSIFICATION SYSTEM)". CONSISTENCY OF SOILS SUCH AS SOFT, MEDIUM, HARD, LOOSE, DENSE, ETC., ARE RELATIVE TERMS BASED ON ESTIMATED UNDISTURBED SHEAR STRENGTH OF THE MATERIAL AS DETERMINED BY VISUAL CLASSIFICATION POCKET PENETROMETER TESTS AND PENETRATION RESISTANCE DURING SAMPLING.

2. FIGURES TO THE RIGHT OF BORING LOGS ARE WATER CONTENTS IN PERCENT OF THE DRY WEIGHT, DRY DENSITY, LIQUID LIMIT, PLASTIC LIMIT, AND BAR LINEAR SHRINKAGE. (MC-UDW),(LL-PL),(B.L.S.)* FIGURES TO THE LEFT OF BORING LOGS ARE BLOWS PER FOOT OF PENETRATION FROM STANDARD PENETRATION TESTING.

3. BORINGS WERE DRILLED USING WET ROTARY DRILLING TECHNIQUES AND UNDISTURBED SAMPLES WERE RECOVERED WITH A 3-INCH DIAMETER THIN WALL SAMPLER WHERE COHESIVE MATERIALS WERE ENCOUNTERED.WHERE COHESIONLESS MATERIALS WERE ENCOUNTERED, DISTURBED SAMPLES WERE TAKEN WITH A SPLIT SPOON SAMPLER DURING PERFORMANCE OF STANDARD PENETRATION TESTING.

4. WATER TABLE LEVELS SHOWN ON BORING LOGS WERE DETERMINED AFTER DRILLING BORINGS BY MEASURING THE TOP OF FLUID LEVELS IN THE BORINGS. INASMUCH AS WET ROTARY DRILLING TECHNIQUES AND DRILLING MUD WERE USED TO DRILL THE HOLES, THE LEVEL OF DRILLING FLUIDS IN THE BORE HOLES MAY NOT HAVE STABLILIZED TO THE LEVEL OF THE ACTUAL WATER TABLE. ADDITIONALLY, WATER TABLES IN THE FIELD ARE LIKELY TO FLUCTUATE DEPENDING ON WEATHER CONDITIONS. THEREFORE, SOME VARIATION SHOULD BE ANTICIPATED BETWEEN WATER TABLES INDICATED AND WATER TABLES ENCOUNTERED IN THE FIELD.

VISUAL CLASSIFICATIONS:

Bl Black	PP Pocket Penetrometer
Bn Brown(ish)	test (TSF)
Cl Clay(ey)	Poc Pocket(s)
D Dense	Rk Rock(s)
Frag Fragment(s)	Sd Sand(y)
Gv Gravel(ly)	Sh Shell(y)
Gy Gray(ish)	Sl Silty
Int Interbedded	Sm Small
L Loose	Tn Tan(nish)
Ly Layer(s)	V Very
Mat Material	W With
Med Medium	W.T. Water Table
Org Organic	

LABORATORY CLASSIFICATIONS:

CH INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS.

CL INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, LEAN CLAYS.

SM SILTY SANDS, SAND-SILT MIXTURES.

SP POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES.

SW WELL GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES.

INVITATION NO. W912HY-04-B-00

US Army Corps of Engineers
Galveston District

Drawn by: P.N.	Date: FEBRUARY, 2005	Rev. —
Designed by: J.D.	Scale: AS SHOWN	
Checked by: J.D.		
Submitted by: MOHAMED M. MOUSSA, P.E. Dam/Levee/Structure Section	Approved/Recommended: DAVID B. CAMPBELL, P.E. Chief, Engineering Division	
Approved by: TERRY F. BAUTISTA, P.E.		

U.S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
GALVESTON, TEXAS

PREPARED UNDER THE DIRECTION OF
STEVEN P. HAUSTEIN, Col., C.E.
DISTRICT ENGINEER

GULF INTRACOASTAL WATERWAY, TEXAS
MATAGORDA ISLAND

LOGS OF BORINGS

Drawing No.:
F-2
Sheet X of X
File No.

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Project No. 03-859-026 Client: United States Army Corps of Engineers

Project: Matagorda Ship Channel; Contract No. DACW64-03-D-0008; Delivery Order No. 0026

Boring No.	Sample Number	Sample Depth (ft)	Soil Description	USCS	Water Content (%)	Liquid Limit	Plastic Limit	Plast. Index	Finer than #200 Sieve (%)
04-200									
	1	0-1.5	Gray POORLY GRADED SAND	SP	25.5	NV	NP	NP	3.3
	3	10-11.5	Gray POORLY GRADED SAND with traces of shells	SP	21.2				

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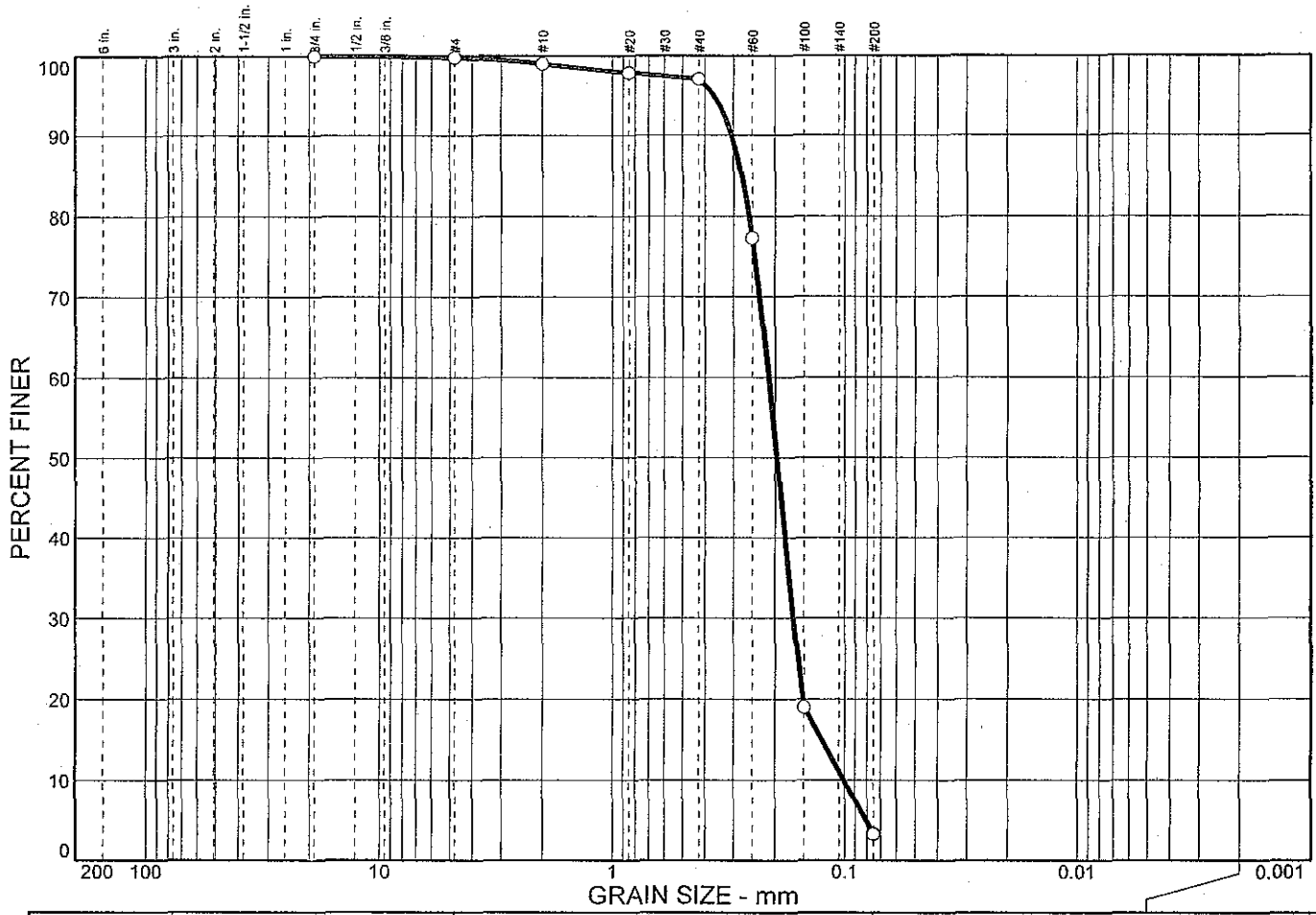
Particle Size Analysis (ASTM D 422)



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.2	0.8	1.9	93.8	3.3	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	DESCRIPTION	USCS
○	04-200	1	0-1.5	Gray POORLY GRADED SAND	SP

Particle Size Analysis (ASTM D 422)

Tolunay-Wong Engineers, Inc.

Client: United States Army Corps of Engineers

Project: Matagorda Ship Channel; Contract No. DACW64-03-D-0008; Delivery Order No. 0026

Project No.: 03-859-026