

# FIELD BORING LOG

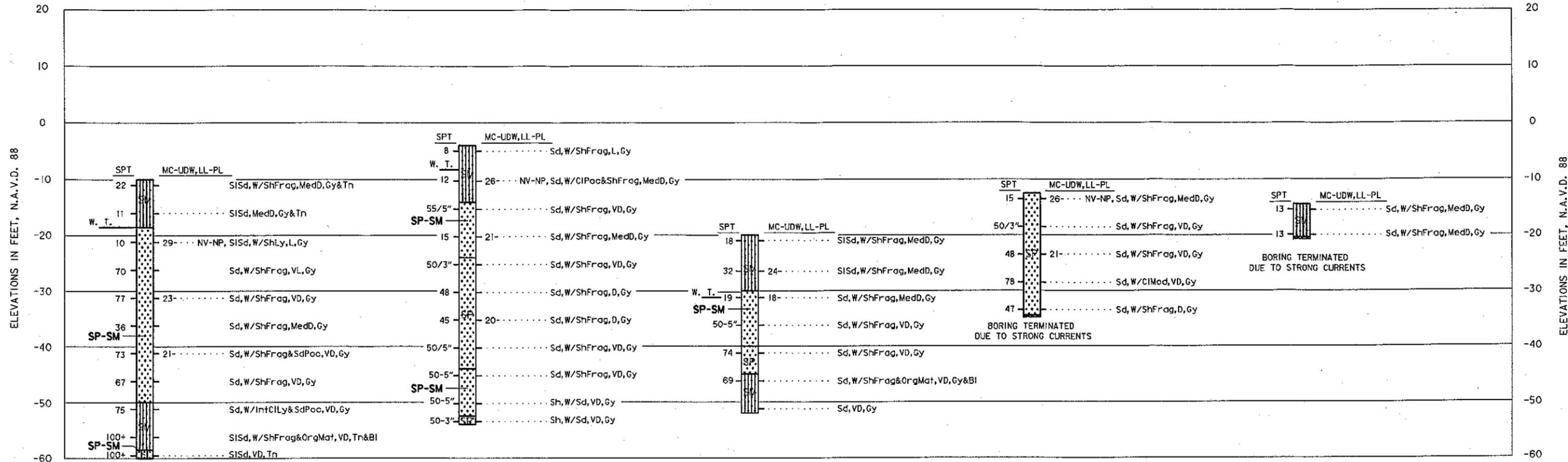
PROJECT NO: 03-859-019  
 PROJECT NAME: C.O.E. Matagorda Island  
 CLIENT: C.O.E  
 DRILL CONTRACTOR: Triangle

BORING NO: 04-198  
 DATE: 9-21-64  
 TECHNICIAN: C.M  
 DRILL EQUIPMENT: Barge

DEPTH (FT)	SAMPLE SYMBOL	CORE (C) JAR (J) BAG (B)	HAND PENETROMETER READING / BLOW COUNT	RECOVERY IN INCHES	WATER LEVEL DATA:				FREE WATER DEPTH: _____
					TIME (MIN)	T.O.W. (FT)	T.O.	TIME	METHOD OF ADVANCE:
					5	water depth	11.2'		
					10				
					15				
					E.O.D.				
					24 HOURS				

AUGER \_\_\_\_\_ TO \_\_\_\_\_  
 WASH \_\_\_\_\_ TO \_\_\_\_\_  
 TIME BORING BEGAN: 9:50 / 9:10  
 TIME BORING END: 12:50 / 11:10  
9-21 / 9-22

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	5	589	18	Med Br	CSM	Si	Sa	shell fragments
2	X	5	10725	18	Med Br	CSM	Si	Sa	" "
3	X	5	3910	18	Med Br	CSM	Si	Sa	" "
4	X	5	50.5"		VOE	CSM	Si	Sa	heavy concentration of shell fragments
5	X	5	25, 32, 42		VOE	CSM	Si	Sa	shell fragments
6	X	5	28, 23, 37		VOE	CSM BK	Si	Sa	" " <del>black</del> mild organic odor
7	X	5							



**NOTES:**

- 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.
- 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.
- 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.
- 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 STABILIZED 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:**

BI Black	PP Pocket Penetrometer
Bn Brown(ish)	test (TSF)
Cl Clay(ey)	Poc Pocket(s)
D Dense	Rk Rock(s)
Frag Fragment(s)	Sd Sandy
Gv Gravel(ly)	Sh Shell(ly)
Gy Gray(ish)	SI 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.

**NOTES:**

- 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.
- 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.
- 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.
- 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 STABILIZED 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:**

BI Black	PP Pocket Penetrometer
Bn Brown(ish)	test (TSF)
Cl Clay(ey)	Poc Pocket(s)
D Dense	Rk Rock(s)
Frag Fragment(s)	Sd Sandy
Gv Gravel(ly)	Sh Shell(ly)
Gy Gray(ish)	SI 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.

Drawn by	P. N.	Rev.	
Designed by	J. B.	Checked by	FEBRUARY, 2005
Checked by	J. B.	Scale	AS SHOWN
Submitted by	M. MOUSSA, P.E.	Approved/Recommended by	DAVID B. CAMPBELL, P.E.
Chief/Supervisor	TERRY F. BAUTISTA, P.E.	Chief/Engineer	
Approved by			

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.

INVITATION NO.  
W912-HY-  
04-B-00