

Job No. 0401-2906 Completion Date 5/9/90 Time _____ Field Log of Boring 90-73

Elevation _____ Location Disposal Area No. 2 Driller D. Findley

Lab. Tests	Soil Sample			Depth (ft)	Sample	Blows	Penet.	Logger <u>K. Bowen</u> <u>1 of 2</u>	
	No.	Depth	Type					Comments	Description of Material
									SAND, loose, light brown, fine
	1	3.5	J	5	X	3-4-4			- with clay seams below 7' (8')
	2	8-10	Q	10			1.25		SANDY CLAY, stiff (10')
	3	13.5	T	15	X	2-2-5			SAND, loose to medium dense, fine, with clay seams
	4	18.5-20	J	20	X	1-6-6			- very loose below 23' (25')
	5	23.5-25	J	25	X	1-1-1			SANDY CLAY, stiff
	6	25-27	Q				1.25		
	7	27-29	Q				1.0		- with sand seams at 29.0'
				30				No recovery	
	8	31-33	Q				1.0		
	9	33-35	Q	35			1.25		
	10	38-40	Q	40			1.25		

Remarks:

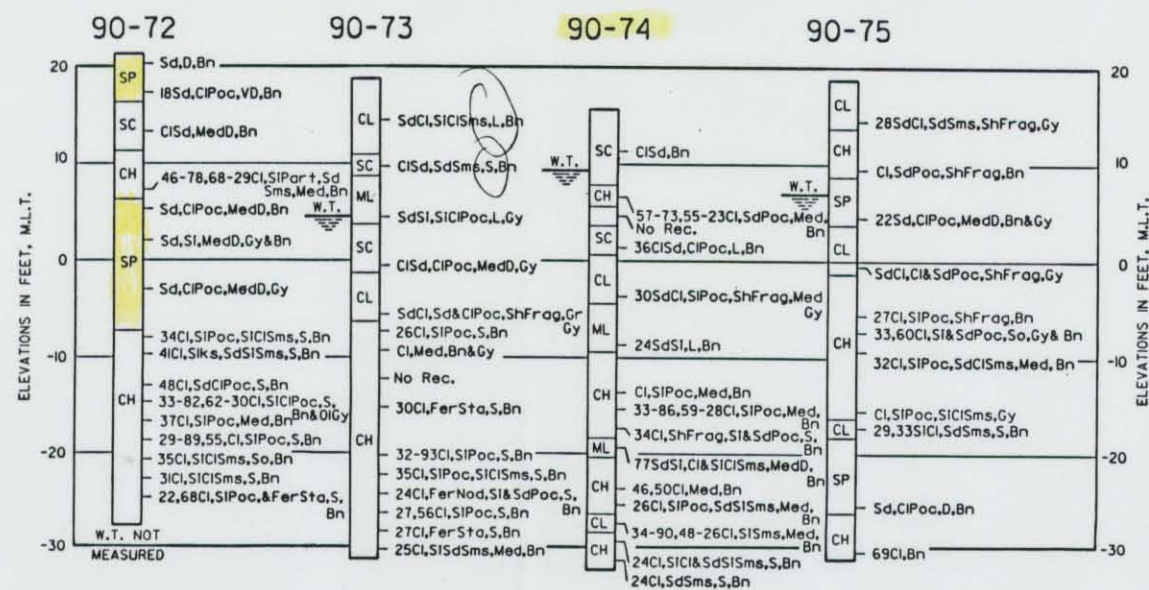
Boring Sealed? w/cuttings
 Dry Auger _____ to _____ ft
 Wet Rotary 0 to 50 ft
 Water First Noticed _____ ft

Depth to Water 14.2' Caved at _____ Date 5/14/90 Time _____

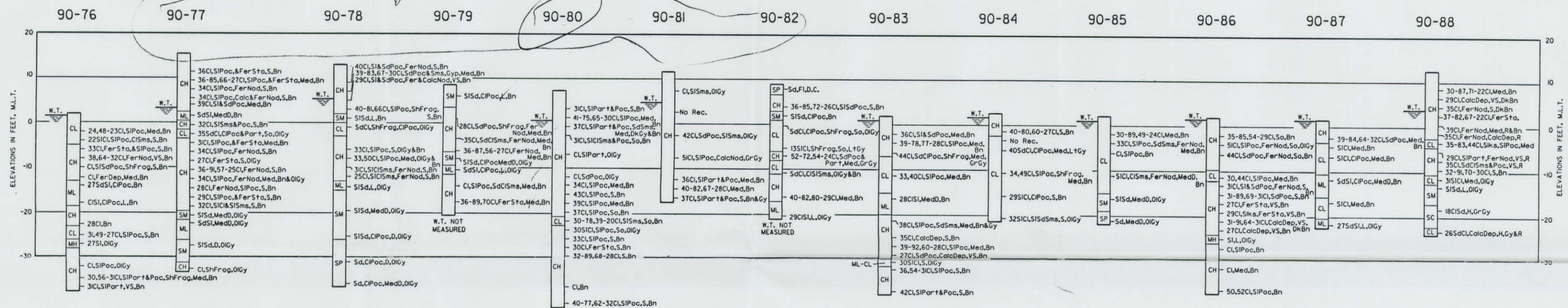
Form ONS-02.07/6/87

SUMMARY OF TEST RESULTS
Galveston District, Corps of Engineers
Delivery Order No. 0016
Brazos Island Harbor
Brownsville Ship Channel

Boring Number	Sample Number	Sample Depth (ft)	Visual Classification	USCS	MC (%)	UDW (pcf)	LL	PL	PI	Gradation, % Passing Sieve No. 4 10 40 200	UNC Su (ksf)	TV Su (ksf)
90-73	1J	3.5-5	Brown SANDY CLAY w/ silty clay seams	CL						100 97 67		
90-73	2Q	8-10	Brown CLAYEY SAND w/ numerous sand seams	SC ✓								
90-73	3J	13.5-15	Gray fine SANDY SILT w/ brown silty clay pckts	ML						100 96 67		
90-73	4J	18.5-20	Gray CLAYEY SAND w/ clay pockets	SC								
90-73	5J	23.5-25	Greenish gray SANDY CLAY w/sa & cl pckts and sh frags	CL						98 97 77 61		
90-73	6Q	25-27	Stiff brown CLAY w/ silt pockets	CH	26							
90-73	7Q	27-29	Firm brown and gray CLAY	CH								
90-73	8Q	31-33	Sample Not Received in Lab									
90-73	9Q	33-35	Stiff brown CLAY w/ ferrous stains	CH	30							
90-73	10Q	38-40	Stiff brown CLAY w/ silt pockets	CH	32	93						
90-73	11Q	40-42	Stiff brown CLAY w/ si pckts & silt sms	CH	35							
90-73	12Q	42-44	Stiff brown CLAY w/ fe nods, si & sa pckts	CH	24							
90-73	13Q	44-46	Stiff brown CLAY w/ si pckts & fe stns	CH	27		56					
90-73	14Q	46-48	Stiff brown CLAY w/ ferrous stain	CH	27							
90-73	15Q	48-50	Firm brown CLAY w/ fine silt seams	CH	25							



DISPOSAL AREA No. 2



DISPOSAL AREA No. 4

NOTES:

1. SOILS HAVE BEEN CLASSIFIED IN ACCORDANCE WITH MILITARY STANDARD 698B "UNIFIED SOIL CLASSIFICATION SYSTEM FOR ROADS, AIRFIELDS, EMBANKMENTS AND FOUNDATIONS." 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-UOW), (LL-PL), (B.L.S.)
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 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

Bn Brownish	Gr Green(ish)	R Reddish	Sta Stains)
Cdc Colorous	Gy Gray(ish)	Rec Recovery	Y Very
Cl Clay(ey)	Gyp Gypsum	S Stiff	W.T. Water Table
D Dense	H Hard	Sd Sandy)	
D.C. Driller's	L Loose	Sh Shale	
Classification	Lt Light	Sh Shelly)	
Dep Deposit(s)	Med Medium	Sl Silty	
Dk Dark	Nod Nodules	Sls Silty	
Fer Ferrous	Ol Olive	Sks Sickenalides	
Fl Fine(s)	Port Partic(s)	Sms Seams	
Frag Fragment(s)	Poc Pocket(s)	So Soft	

LABORATORY CLASSIFICATION

SP POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES.
 SM SILTY SANDS, SAND-SILT MIXTURES.
 SC CLAYEY SANDS, SAND-CLAY MIXTURES.
 ML INORGANIC SILTS AND VERY FINE SANDS, WITH SLIGHT PLASTICITY.
 CL INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, LEAN CLAYS.
 MH INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS.
 CH INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS.

REVISION	DATE	DESCRIPTION	BY
OFFICE OF THE DISTRICT ENGINEER U.S. ARMY ENGINEER DISTRICT, GALVESTON CORPS OF ENGINEERS GALVESTON, TEXAS			
DRAWN BY P.B.S.		BRAZOS ISLAND HARBOR, TEXAS BROWNSVILLE CHANNEL DREDGING INSHORE REACH NO. 1 DISPOSAL AREAS Nos. 2 & 4 BORING LOGS	
CHECKED BY J.T.F.		SUBMITTED BY David Campbell DIST. ENGINEER	
APPROVED BY David Campbell DIST. ENGINEER		DATE MAY 1992	
Prepared under the direction of Brink P. Miller, Col., C.E. District Engineer			
SCALE AS SHOWN		SPEC. DATE	
DRAWING NUMBER F-6		SHEET 13 OF 17 FILE NO. RIO 901-204	