

LOG OF BORING B-4

SHEET 1 of 1



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CLIENT: HDR/Shiner Moseley and Associates, Inc.
PROJECT: New East Jetty: Mouth of Colorado River
LOCATION: Matagorda County, TX
NUMBER: G207487

DATE(S) DRILLED: 07/24/07 - 07/24/07

FIELD DATA										LABORATORY DATA										DRILLING METHOD(S): Hollow Stem Auger
SOIL SYMBOL	DEPTH (FT)	SAMPLE NUMBER	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: TONS/SQ FT PERCENT RECOVERY/ ROCK QUALITY DESIGNATION	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU.FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	MINUS NO. 200 SIEVE (%)	GROUNDWATER INFORMATION:								
						LIQUID LIMIT LL	PLASTIC LIMIT PL	PLASTICITY INDEX PI				SURFACE ELEVATION: EL - 0.5 NAVD' 88								
												DESCRIPTION OF STRATUM								
	5											<u>WATER DEPTH= 6'</u>								
		SS S-1	X	N= 12		NP	NP	NP			4	<u>POORLY GRADED SAND</u> , brown, wet, medium dense. (SP)								
		SS S-2	X	N= 20								Same as above.								
	10																			
		SS S-3	X	N= 6		NP	NP	NP			21	<u>SILTY SAND</u> , gray, wet, loose. (SM)								
		SS S-4	X	N= 7								Same as above.								
	15																			
		SS S-5	X	N= 10		NP	NP	NP			40	Same as above, medium dense. (SM)								
		SS S-6	X	N= 3		NP	NP	NP				<u>SILTY SAND</u> , gray, wet, very loose.								
	20																			
		SS S-7	X	N= 22		NP	NP	NP			10	<u>POORLY GRADED SAND</u> , with silt, gray, wet, medium dense. (SP-SM)								
	25																			
		SS S-8	X	N= 2		26	13	13			32	<u>CLAYEY SAND</u> , with shell fragments, gray, very moist, very soft. (SC)								
	30																			
		SH S-9		P= 4.0		40	14	26	112	1.5	42	<u>CLAYEY SAND</u> , bluish gray, moist, very stiff. (SC)								
	35																			
		SS S-10	X	N= 10							31	Same as above, gray and brown, stiff.								
	40											Total Depth of Boring= 40' Below Water Level								
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - POCKET TORVANE SHEAR STRENGTH												REMARKS: Boring location was determined by RETL. Boring operations were performed by a drilling sub-contractor to RETL. Coordinates: N 28 35 30.5, W 95 58 56.3								

LOG OF BORING G207487 NEW JETTY GP-1 ROCK ETL GDT 8/28/07

TABLE 5: SOIL PROFILE FOR BORINGS B-4 AND B-5

EL	Description	LL	PI	C	ϕ	γ_e	-#200	N or P
-8 to -27	Silty SAND/ Poorly Graded SAND	NP	NP	0	29	55	3-40	N=3-22
-27 to -32	Silty SAND/ Clayey SAND	19-26	3-13	200	0	55	32-34	N=2
-32 to -40	Clayey SAND	36-40	22-26	2000	0	60	31-46	P=4.0-4.25

TABLE 6: SOIL PROFILE FOR BORING B-6

EL	Description	LL	PI	C	ϕ	γ_e	-#200	N or P
-6 to -15	Silty SAND/ Poorly Graded SAND	NP	NP	0	28	55	1-33	N=4-22
-15 to -27	Silty SAND/ Silty CLAY	18-19	3-5	200	0	55	42-64	N=WH-1
-27 to -32	Sandy Lean CLAY	38	24	300	0	55	59	N=3
-32 to -42	Fat CLAY	57	36	2000	0	60	73-78	P=1.75-4.25
-42 to -47	Clayey SAND	---	---	0	32	60	39	N=13
-47 to -67	Poorly Graded SAND	NP	NP	0	35	60	5-6	N=6-29
-67 to -75	Fat CLAY	70	42	1000	0	60	95-96	N=5-8

TABLE 7: SOIL PROFILE FOR BORING B-7

EL	Description	LL	PI	C	ϕ	γ_e	-#200	N or P
0 to -32	Silty SAND/ Poorly Graded SAND	NP	NP	0	30	55	1-18	N=4-42
-32 to -40	Clayey SAND	42	27	2500	0	60	35	P=4.25-4.5

**TABLE 8: GENERALIZED SOIL STRATIGRAPHY FOR
WATERSIDE ZONE A (BORINGS B-1, B-3, B-4, AND B-5)**

Approximate Elevation, ft (NAVD'88)	Description	C	ϕ	C'	ϕ'	γ_e
-8 to -32	Sand	0	29	0	30	55
-32 to -47	Clay	1500	0	520	25	60
-47 to -67	Sand	0	35	0	35	60
-67 to -75	Clay	1000	0	400	20	55

**TABLE 9: GENERALIZED SOIL STRATIGRAPHY FOR
LANDSIDE ZONE B (BORING B-6)**

Approximate Elevation, ft (NAVD'88)	Description	C	ϕ	C'	ϕ'	γ_e
-6 to -15	Sand	0	28	0	30	55
-15 to -32	Clay	250	0	200	17.5	50
-32 to -47	Clay	2000	0	520	25	60
-47 to -67	Sand	0	35	0	35	60
-67 to -75	Clay	1000	0	400	20	55

**TABLE 10: GENERALIZED SOIL STRATIGRAPHY FOR
LANDSIDE ZONE C (BORING B-7)**

Approximate Elevation, ft (NAVD'88)	Description	C	ϕ	C'	ϕ'	γ_e
0 to -32	Sand	0	30	0	30	55
-32 to -40	Clay	2500	0	520	25	60