

MATAGORDA BAY SOIL SAMPLING – GIWW REROUTE

Brazos to Port O'Conner (Samples taken 28 April 00)

(All Water Levels measured below datum of Mean-Lower-Low-Water, MLLW)

Sample No. 00-23 Location: West end of GIWW Plan 1 Reroute

Time: 0944

Visual Description: Silty Sand with some clay

Water Depth : 10.2 ft

Weight of Rod: 0.3 ft

Pipe Drop: 0.8 ft

Pipe Push: 1.6 ft

Refusal Depth: 3.1 ft

PVC Push Tube Sample Depth: 0.4 -1.0 ft

Sample No. 00-22 Location: approx. 600 ft southwest of Matagorda Ship Channel

Time: 1024

Visual Description: Clayey, Silty Sand

Water Depth: 10.8 ft

Weight of Rod: 0.2 ft

Pipe Drop: 0.9 ft

Pipe Push: 1.1 ft

Refusal Depth: 2.3 ft

PVC Push Tube Sample: None

 **Sample No. 00-21** Location: approx. 2,000 ft northeast of Matagorda Ship Channel

Time: 1044

Visual Description: Silty Sand, low plasticity

Water Depth: 11.7 ft

Weight of Rod: 0 ft

Pipe Drop: 0.9 ft

Pipe Push: 1.3 ft

Refusal Depth: 2.0 ft

PVC Push Tube Sample Depth: 0.6-0.9 ft, denser but similar to grab sample

Sample No. 00-19 Location: approx. 8,000 ft northeast of Matagorda Ship Channel

Time: 1115

Visual Description: Silty Clay, no grittiness. Possibly CL

Water Depth: 11.3 ft

Weight of Rod: 0.1 ft

Pipe Drop: 1.2 ft

Pipe Push: 2.5 ft

Refusal Depth: greater than 4 ft

PVC Push Tube Sample Depth: None

Sample/ Boring No	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	U S C	Mc (%)	Dry Unit Wt (pcf)	Wet Unit Wt (pcf)	L L (%)	P L (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
00-01	0-0.5			Clay, Gray	C H	139.8			66.0	26.0							
00-03	0-0.5			Clay, w/shell fragments, Gray	C H	126.6			69.0	25.0							
00-05	0-0.5			Clay, w/shell fragments, Gray	C H	144.7			65.0	26.0							
00-07	0-0.5			Clay, w/shell fragments, Gray	C H	155.1			66.0	26.0							
00-09	0-0.5			Clay, w/shell fragments, Gray	C H	136.7			68.0	25.0							
00-11	0-0.5			Clay, w/shell fragments, Gray	C H	144.1			61.0	25.0							
00-12A	0-0.5			Clay, w/shell fragments, Gray	C H	162.7			65.0	25.0							
00-12B	0-0.5			Clay, w/shell fragments, Gray	C H	108.0			72.0	26.0							
00-13	0-0.5			Clay, w/shell fragments, Gray	C H	161.7			73.0	27.0							
00-15	0-0.5			Clay, w/shell fragments, Gray	C H	125.3			58.0	24.0							
00-17A	0-0.5			Clay, w/shell fragments, Gray	C H	101.2			58.0	23.0							
00-17B	0-0.5			Clay, w/shell fragments, Gray	C H	65.3			51.0	20.0							
00-19	0-0.5			Sandy Clay, w/shell fragments, Gray	C L	60.0			39.0	18.0							
00-21A	0-0.5			Clayey Sand, w/shell fragments, Gray	ML-CL	42.1			25.0	18.0							
00-21B	0-0.5			Clayey Sand, w/shell fragments, Gray	ML-CL	34.8			25.0	18.0							
00-22	0-0.5			Silty Sand, Gray	S M	29.5			N P	N P							
00-23A	0-0.5			Silty Sand, Gray	S M	33.7			N P	N P							
00-23B	0.4-1.0			Silty Sand, Gray	S M				N P	N P							
00-23C	0.4-1.0			Silty Sand, Gray	S M	33.8											
00-24	0-0.5			Clay, Gray	C H	124.6			62.0	25.0							

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, N P : None Plastic

SUMMARY OF LABORATORY TEST RESULTS

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Project: Matagorda Bay, Brazos River to Port O'Conner
Contract No. DACW64-98-D-0002 Delivery Order No. 0041

Sample/ Boring No.	S#	Visual Classification	U S C	Mechanical Analysis																		
				% Passing																		
				#2	#1 1/2	#1	#1/2	#3/4	#3/8	#4	#8	#10	#16	#20	#30	#40	#50	#70	#100	#140	#200	
00-01	1	Clay,Gray	C H	100	100	100	100	100	100	100	99.5	100	100	100	100	100	100	99.9	99.8	97.8	94.4	
00-03	1	Clay,w/shell fragments,Gray	C H	100	100	100	100	100	100	100	100	99.5	99.3	99.2	99.1	99.0	98.9	98.7	98.3	95.3	91.1	
00-05	1	Clay,w/shell fragments,Gray	C H	100	100	100	100	100	100	100	100	99.5	99.3	99.2	99.1	98.9	98.6	98.3	97.4	95.0	93.9	
00-07	1	Clay,w/shell fragments,Gray	C H	100	100	100	100	100	100	100	100	99.9	99.9	99.8	99.8	99.8	99.7	99.6	99.5	98.0	96.0	
00-09	1	Clay,w/shell fragments,Gray	C H	100	100	100	100	100	100	100	99.8	99.7	99.6	99.4	99.3	99.2	99.1	98.9	98.3	94.4	90.2	
00-11	1	Clay,w/shell fragments,Gray	C H	100	100	100	100	100	100	100	100	100	100	100	100	100	99.9	99.8	99.7	98.6	93.6	
00-12A	1	Clay,w/shell fragments,Gray	C H	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99.9	99.9	99.7	99.0	
00-12B	1	Clay,w/shell fragments,Gray	C H	100	100	100	100	100	100	100	100	99.9	99.8	99.7	99.6	99.6	99.5	99.5	99.3	98.7	96.6	
00-13	1	Clay,w/shell fragments,Gray	C H	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99.5	98.1	97.6	95.8	
00-15	1	Clay,w/shell fragments,Gray	C H	100	100	100	100	100	100	100	100	100	99.9	99.9	99.8	99.7	99.6	99.5	99.5	98.4	95.2	
00-17A	1	Clay,w/shell fragments,Gray	C H	100	100	100	100	100	100	100	99.8	99.7	99.4	99.2	99.1	99.0	98.9	98.6	97.3	97.1	95.7	
00-17B	1	Clay,w/shell fragments & sand,Gray	C H	100	100	100	100	100	100	100	99.8	99.7	99.4	99.3	99.2	99.0	98.9	98.5	95.9	87.5	77.9	
00-19	1	Sandy Clay,w/shell fragments,Gray	C L	100	100	100	100	100	100	100	100	100	99.9	99.9	99.9	99.8	99.8	99.7	98.0	82.4	66.7	
00-21A	1	Clayey Sand,w/shell fragments,Gray	ML-C	100	100	100	100	100	100	98.7	98.1	97.6	97.4	97.2	97.0	96.8	96.0	95.4	75.1	48.0	34.3	
00-21B	1	Clayey Sand,w/shell fragments,Gray	ML-C	100	100	100	100	100	100	100	98.8	98.7	98.2	97.9	97.8	97.6	97.4	96.4	80.7	52.8	37.6	

S#: Sample Number, U S C: Unified Soil Classification, Sp.g: Specific Gravity