



Quaternary Resource Investigations, LLC
 13588 Florida Blvd
 Baton Rouge, LA 70819
 Telephone: 225-292-1400
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BORING NUMBER 13-B122

CLIENT _____ PROJECT NAME Peggy Lake Placement Area
 PROJECT NUMBER W912HY-13-D-0001; Task Order 0002 PROJECT LOCATION La Porte, Texas
 DATE STARTED 4/15/2013 10:45:00 AM COMPLETED 4/16/2013 4:15:00 PM GROUND ELEVATION 18.5829 ft HOLE SIZE 8.25 inches
 DRILLING CONTRACTOR Quaternary Resource Investigations, LLC NORTHING 13836048.26 ft EASTING 3218666.059 ft
 DRILLING METHOD Hollow Stem Auger DRILLING RIG MAKE/MODEL Mobile B57 on Gemco Articulated Platform
 LOGGED BY Lamar Melder TOTAL DEPTH 60 ft GROUND WATER LEVEL _____
 WEATHER partly cloudy, 60s - 70s, windy ∇ AT TIME OF DRILLING 20.00 ft / Elev -1.42 ft 4/15/2013 11:45:00 AM

COPY OF PEGG E GEOTECH BH - PEGGY LAKE TEMPLATE.GDT - 10/2/13 10:39 - C:\DOCUMENTS AND SETTINGS\RL... \KTO\PEGGY LAKE PLACEMENT AREA 3. 9-27-13.GPJ

GRAPHIC LOG	USCS SYMBOL	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE	RECOVERY (in)	SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	FIELD TORVANE (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS				MINUS #200 SIEVE CONTENT (%)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)
											LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX					
	CL	Silty CLAY, brown, soft, moist, medium plasticity	0	ST	10		2.0											
	CH	CLAY, light brown to yellow orange, dry, stiff, low plasticity, with caliche		ST	15		3.5			21								
		medium stiffness	5	ST	8		2.0		15									
		soft		ST	9		1.5		27									
	CL	Silty CLAY, yellow orange and light gray, wet, soft, layers of light gray silt, broken	10	ST	17		1.5		89	31	66	20	46	92	0.76	3.2	0	
		very soft		ST	14		1.0		99	24								
		mottled light brown, gray and yellow orange, plastic		ST	13		2.0		120	13	27	11	16	38				
	SM	SAND, light brown to light gray, moist to wet, loose, fine grained	15	ST	8					5								
		∇ black stained, with some light gray silt pockets	20	SS	18	9-16-15 (31)				13								
		with shells	25	SS	12	2-3-4 (7)				20				7				
		with hydrocarbon staining and odor	30	SS	22	5-4-6 (10)				21								
		CLAY, black, wet, very soft, plastic, hydrocarbon odor		SS	20	1-1-2 (3)		0.75		68								
	ML		35															

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											LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX					
	ML	SILT, light to dark gray, saturated, very soft, varying clay content (low to high, increasing with depth) (continued)	35	ST	13			1.5	101	26	34	18	16	23	0.35	7.2	0	
				ST	14			2.0	102	26								
			40	ST	11			1.5		23								
	CL-ML	Silty CLAY/Clayey SILT, dark gray, wet, very soft, plastic, with a few light gray SILT pockets		ST	13			2.0			24	16	8	74				
				SS	22	0-0-0-0 (0)	1.5											
	CH	CLAY, dark gray, very soft, wet, plastic, with a few bivalves no bivalves, with a few light gray SILT laminations with a few SILT/fine SAND pockets	45	ST	12			1.25		39								
				ST	17		0.75		76	48				0.34	6.8	13.2		
				ST	10		1.0											
			50	ST	18			3.0		38								
				ST	15			2.75		32								
	CL	Sandy CLAY, dark gray, fine, wet, very soft, with large bivalves very fine, very soft, plastic	55	ST	16			1.5										
				ST	12			1.5		22								
			60	ST	9			1.25										

Bottom of borehole at 60.0 feet.

COPY OF PEGGY