



Quaternary Resource Investigations, LLC
 13588 Florida Blvd
 Baton Rouge, LA 70819
 Telephone: 225-292-1400
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BORING NUMBER 13-B133

CLIENT _____ PROJECT NAME Peggy Lake Placement Area
 PROJECT NUMBER W912HY-13-D-0001; Task Order 0002 PROJECT LOCATION La Porte, Texas
 DATE STARTED 5/2/2013 12:25:00 PM COMPLETED 5/3/2013 11:00:00 AM GROUND ELEVATION 26.3873 ft HOLE SIZE 8.25 inches
 DRILLING CONTRACTOR Quaternary Resource Investigations, LLC NORTHING 13833539.73 ft EASTING 3217441.233 ft
 DRILLING METHOD Hollow Stem Auger DRILLING RIG MAKE/MODEL Mobile B57 on Gemco Articulated Platform
 LOGGED BY Terri Russin TOTAL DEPTH 56 ft GROUND WATER LEVEL _____
 WEATHER cloudy, warm, 70s, humid, windy AT TIME OF DRILLING 44.00 ft / Elev -17.61 ft 5/2/2013 4:58:00 PM

COPY OF PEGG E GEOTECH BH - PEGGY LAKE TEMPLATE.GDT - 10/2/13 10:40 - C:\DOCUMENTS AND SETTINGS\TRU... \KTOPIEGGY 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							
	CH	CLAY, dark brown to yellow orange, moist, high plasticity, with large caliche nodules and roots and plant fragments	0	ST	8		1.6			27										
				ST	16		>4.5		103	23	65	19	46							
	CL	Silty CLAY, yellow orange to olive gray, moist to slightly moist, high plasticity, with caliche (larger nodules at the top), with grainy iron/manganese oxide nodules olive gray, medium to high plasticity moist with 0.5 to 1.0 cm caliche nodules	5	ST	10		4.35			17										
				ST	8		2.5			21										
			10	ST	13		2.35		103	23	63	19	44	91	2.31	5.1	3.9			
				ST	15		1.4				22									
	CH	bright orange color increasing CLAY, orange/light gray, high plasticity, blocky texture, with caliche and iron and manganese oxide staining yellow orange color, with small caliche nodules and small iron/manganese oxide nodules	15	ST	18		2.35													
				ST	20		2.25		89	34	84	27	57	2.15	4.3	0				
			20	ST	17		2.5				31									
				ST	20		3.25			98	28									
				ST	20		2.2				29									
			25	ST	18		2.25				27									
	CH	less caliche and iron/manganese nodules (more like staining)		ST	21		3.4		104	22	60	21	39	99						
			30	ST	14		2.3				29									
				ST	20		3.2				30									
	CL	CLAY, orange/light gray marbled, slightly moist, high plasticity, with a little SILT content, with small caliche nodules, with very small iron/manganese oxide nodules plane with slickensides		ST	15		2.8		100	26				94						
			35																	

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 PROJECT NUMBER W912HY-13-D-0001; Task Order 0002 PROJECT LOCATION La Porte, Texas

KTOPEGGY LAKE PLACEMENT AREA 3. 9-27-13.GPJ

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COPY OF PEGG...

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)	ATTERBERG LIMITS					MINUS #200 SIEVE CONTENT (%)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)	
										MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX						
	CL	Silty CLAY, yellow orange, slightly moist, medium to high plasticity, with iron/manganese oxide staining (continued) with small iron/manganese oxide nodules, and caliche caliche nodules increasing in size (up to 1 cm)	35	ST	19		2.65		89	33	81	28	53		1.1	0.7	13.8		
				ST	20		3.0			32									
				ST	17		2.3			32									
			40	ST	21		3.2			91	31	74	27	47	92	1.83	1.6	0	
	ML	SILT, yellow orange, low plasticity, slightly moist		ST	15		4.25			24									
		Silty CLAY, orange, slightly dry, medium to high plasticity, blocky texture, with caliche and iron/manganese oxide staining	45	ST	20		3.25			18									
			ST	21		2.5			18										
			ST	20		3.25			98	28			97						
	CL	Silty CLAY, yellow orange, moist, medium to high plasticity, with soft small iron/manganese oxide nodules and small caliche nodules	50	ST	9		0.6												
				ST	18		3.25												
			55																

Refusal at 56.0 feet.
 Bottom of borehole at 56.0 feet.