



PROJECT NUMBER:

338884.FL

BORING NUMBER:

MW10D

SHEET 1 OF 7

SOIL BORING LOG

PROJECT : Progress Energy Florida - COLA Investigation, Levy County Site LOCATION : (1722591.1 N, 458428.6 E)

ELEVATION : 43.5 ft MSL (NGVD83)

DRILLING CONTRACTOR : Prosonic, Ocala, FL, Driller: F. Kraus

DRILLING EQUIPMENT AND METHOD : Rotosonic S/N SR109, sonic, 4" x 6"

ORIENTATION : Vertical

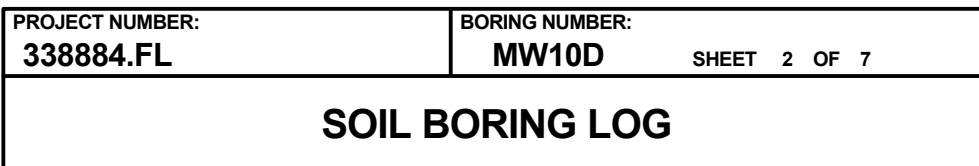
WATER LEVELS : ---

START : 1/31/07 12:25

END : 2/1/2007

LOGGER : A. Teal

DEPTH BELOW EXISTING GRADE (ft)		INTERVAL (ft)		STANDARD PENETRATION TEST RESULTS		SOIL DESCRIPTION		SYMBOLIC LOG	COMMENTS	
		RECOVERY (in)		6"-6"-6" (N)		SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY			DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION	
		#TYPE								
43.5	0.0	60.0	R1-SN				Poorly Graded Sand With Organics (SP) 0.0-1.0' - black, (N1), moist, very fine to fine grained, silica sand, est. 40-50% fine organics Poorly Graded Sand (SP) 1.0-2.0' - dusky brown, (5YR 2/2), moist, very fine to fine silica sand, dusky brown to dark yellowish orange staining over 15-25% of surface, 2.5" x 2" hematite nodule at 3.5' Poorly Graded Sand (SP) 2.0-4.0' - Same as 1.0-2.0' except dark yellowish brown, (10YR 4/2) Poorly Graded Sand (SP) 4.0-5.0' - Same as 1.0-2.0' except pale yellowish brown, (10YR 6/2), 10 to 15% organics, dark yellowish orange staining, hematite nodules and limonite staining, dusky yellowish brown (10YR 2/2) with dark yellowish orange (10YR 6/6) staining along fractures Poorly Graded Sand (SP) 5.0-15.0' - pale yellowish brown, (10YR 6/2), moist, very fine to fine grained, trace organics, est. 5-10% hematite nodules between 5' and 7', trace yellowish brown staining throughout silica sand, at 7' very pale orange			
5	5.0									
38.5		120.0	R2-SN							
10										
33.5										
15	15.0									
28.5							Poorly Graded Sand With Silt (SP) 15.0-25.0' - Same as 1.0-2.0' except very pale orange, (10YR 8/2), moist, very fine to fine grained, mild HCl reaction, est. 10-15% nonplastic fines			
20										





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SHEET 3 OF 7

SOIL BORING LOG

PROJECT : Progress Energy Florida - COLA Investigation, Levy County Site LOCATION : (1722591.1 N, 458428.6 E)

ELEVATION : 43.5 ft MSL (NGVD83)

DRILLING CONTRACTOR : Prosonic, Ocala, FL, Driller: F. Kraus

DRILLING EQUIPMENT AND METHOD : Rotasonic S/N SR109, sonic, 4" x 6"

ORIENTATION : Vertical

WATER LEVELS : ---

START : 1/31/07 12:25

END : 2/1/2007

LOGGER : A. Teal

WATER LEVELS:		START: 10/07/2020		END: 12/2020		EPOCH: 17.10m		
DEPTH BELOW EXISTING GRADE (ft)	INTERVAL (ft)		STANDARD PENETRATION TEST RESULTS	SOIL DESCRIPTION		SYMBOLIC LOG	COMMENTS	
	RECOVERY (in)	#TYPE		6"-6"-6" (N)	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY		DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION	
3.5		120.0	R5-SN					
45 -1.5	45.0							
50 -6.5		120.0	R6-SN		Sandy Silt And Limestone (ML) 45.0-55.0' - light olive gray, (5Y 5/2), moist, very stiff, mild HCl reaction, 3" limestone fragments, trace organics, strong HCl reaction, all carbonate materials			
55 -11.5	55.0				Sandy Silt And Limestone (ML) 55.0-65.0' - Same as 45.0-55.0' except limestone fragments from 1/8" to 2"			
60								



PROJECT NUMBER: 338884.FL	BORING NUMBER: MW10D
SHEET 4 OF 7	
SOIL BORING LOG	

PROJECT : Progress Energy Florida - COLA Investigation, Levy County Site LOCATION : (1722591.1 N, 458428.6 E)
 ELEVATION : 43.5 ft MSL (NGVD83) DRILLING CONTRACTOR : Prosonic, Ocala, FL, Driller: F. Kraus
 DRILLING EQUIPMENT AND METHOD : Rotosonic S/N SR109, sonic, 4" x 6" ORIENTATION : Vertical

WATER LEVELS : ---				START : 1/31/07 12:25		END : 2/1/2007		LOGGER : A. Teal	
DEPTH BELOW EXISTING GRADE (ft)		INTERVAL (ft)		STANDARD PENETRATION TEST RESULTS	SOIL DESCRIPTION		SYMBOLIC LOG	COMMENTS	
		RECOVERY (in)	#TYPE		SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY			DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION	
-16.5		120.0	R7-SN						
65									
-21.5					Begin Rock Coring at 65.0 ft bgs See the next sheet for the rock core log				
70									
-26.5									
75									
-31.5									
80									



PROJECT NUMBER: 338884.FL	BORING NUMBER: MW10D
SHEET 5 OF 7	
ROCK CORE LOG	

PROJECT : Progress Energy Florida - COLA Investigation, Levy County Site LOCATION : (1722591.1 N, 458428.6 E)

ELEVATION : 43.5 ft MSL (NGVD83) DRILLING CONTRACTOR : Prosonic, Ocala, FL, Driller: F. Kraus

CORING EQUIPMENT AND METHOD : Rotosonic S/N SR109, sonic, 4" x 6" ORIENTATION : Vertical

WATER LEVELS : --- START : 1/31/07 12:25 END : 2/1/2007 LOGGER : A. Teal

DEPTH AND ELEVATION BELOW SURFACE (ft)	CORE RUN LENGTH AND RECOVERY (%)	DISCONTINUITIES			SYMBOLIC LOG	LITHOLOGY	COMMENTS
		R Q D (%)	FRACTURES PER FOOT	DESCRIPTION		ROCK TYPE, COLOR, MINERALOGY, TEXTURE, WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS	SIZE AND DEPTH OF CASING, FLUID LOSS, CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC.
				DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS			
-21.5	65.0		NA	65.0-75.0' - NA		Limestone Fragments 65.0-75.0' - light olive gray, (5Y 5/2), strong HCl reaction, fractured limestone fragments up to 4" in thickness, est. voids <1/16" over 50% of surface, fossil molds	
70			NA				
-26.5	R8-SN 10 ft 100%		NA				
			NA				
			NA				
			NA				
			NA				
			NA				
			NA				
			NA				
75			NA				
-31.5	75.0		NA	75.0-85.0' - NA		Limestone 75.0-78.4' - dusky yellow, (5Y 6/4), mild HCl reaction, 40-50% of surface covered in voids <1/16", sand-sized carbonate materials between limestone fragments, up to 0.3' thick	
			NA				
			NA				
			NA				
			NA				
80			NA			Disaggregated Limestone 78.4-85.0' - light olive grey, (5Y 5/2), mild HCl reaction, carbonate silt and sand-sized materials, 78.4-78.5' alternating light and dark horizontal layers, 83.0-85.0' poorly indurated	
-36.5	R9-SN 10 ft 100%		NA				
			NA				
			NA				
			NA				
			NA				
85			NA				
	85.0						



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SHEET 6 OF 7

ROCK CORE LOG

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ELEVATION : 43.5 ft MSL (NGVD83)

DRILLING CONTRACTOR : Prosonic, Ocala, FL, Driller: F. Kraus

CORING EQUIPMENT AND METHOD : Rotosonic S/N SR109, sonic, 4" x 6"

ORIENTATION : Vertical

WATER LEVELS : ---

START : 1/31/07 12:25

END : 2/1/2007

LOGGER : A. Teal

DEPTH AND ELEVATION BELOW SURFACE (ft)	CORE RUN LENGTH AND RECOVERY (%)	DISCONTINUITIES			SYMBOLIC LOG	LITHOLOGY	COMMENTS
		R Q D (%)	FRACTURES PER FOOT	DESCRIPTION		ROCK TYPE, COLOR, MINERALOGY, TEXTURE, WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS	SIZE AND DEPTH OF CASING, FLUID LOSS, CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC.
				DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS			
-41.5			NA	85.0-95.0' - NA		Sandy Silt (ML) 85.0-90.0' - Same as 55.0-65.0' except wet, mild HCl reaction	
90	R10-SN 10 ft 100%	NA	NA				
-46.5			NA			Limestone 90.0-95.0' - dusky yellow, (5Y 6/4), moderate HCl reaction, up to 70 to 80% voids over surface	
95	95.0		NA	95.0-105.0' - NA		Limestone 95.0-100.7' - dusky yellow, (5Y 6/4), moderate HCl reaction, fossiliferous, up to 5 % voids to 1/8", medium grained	
-51.5			NA			Limestone 100.7-105.0' - dusky yellow to light olive gray, (5Y 6/4; 5Y 5/2), fine to medium grained, mild HCl reaction, weak (R2), weakly cemented 101.4-102.8' - harder rock	
100	R11-SN 10 ft 100%	NA	NA				
-56.5			NA				
105	105.0		NA			103.8-105.0' - fragments from 1" to 3"	



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SHEET 7 OF 7

ROCK CORE LOG

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CORING EQUIPMENT AND METHOD : Rotosonic S/N SR109, sonic, 4" x 6"

ORIENTATION : Vertical

WATER LEVELS : ---

START : 1/31/07 12:25

END : 2/1/2007

LOGGER : A. Teal

DEPTH AND ELEVATION BELOW SURFACE (ft)	CORE RUN LENGTH AND RECOVERY (%)	DISCONTINUITIES			SYMBOLIC LOG	LITHOLOGY	COMMENTS
		R Q D (%)	FRACTURES PER FOOT	DESCRIPTION			
				DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS		ROCK TYPE, COLOR, MINERALOGY, TEXTURE, WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS	SIZE AND DEPTH OF CASING, FLUID LOSS, CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC.
-61.5			NA	105.0-115.0' - NA		Limestone 105.0-106.3' - dusky yellow, (5Y 6/4), very fine to fine grained, mild to moderate HCl reaction, est. 40-50% voids to 1/8" over surface, trace medium sand-sized black particles, strong rock	
110	R12-SN 10 ft 100%	NA	NA			Disaggregated Limestone 106.3-115.0' - dusky yellow to light olive gray, (5Y 6/4; 5Y 5/2), mild HCl reaction, very fine to fine grained limestone fragments from silt to gravel sized	
-66.5			NA				
			NA				
			NA				
			NA				
			NA				
			NA				
			NA				
115	115.0		NA	115.0-120.0' - NA			
-71.5			NA				
	R13-SN 5 ft 100%	NA	NA				
			NA				
			NA				
120	120.0		NA				
-76.5						Bottom of Boring at 120.0 ft bgs on 2/1/2007	
125							