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| <b>PROJECT NUMBER:</b><br><b>338884.FL</b> | <b>BORING NUMBER:</b><br><b>CT-01</b> |
| SHEET 1 OF 7                               |                                       |
| <b>SOIL BORING LOG</b>                     |                                       |

PROJECT : Progress Energy Florida - COLA Investigation, Levy County Site    LOCATION : 1724860.4 N, 455975.6 E (NAD83)  
 ELEVATION : 43.4 ft (NAVD88)    DRILLING CONTRACTOR : Universal Engineering Sciences, Gainesville, FL; Driller: R. Woodard  
 DRILLING METHOD AND EQUIPMENT : CME 45B S/N 351574, mud rotary, auto hammer, AWJ rods, 3-7/8" tri-cone bit    ORIENTATION : Vertical  
 WATER LEVELS : 9.5 ft bgs on 12/3/07    START : 12/2/2007    END : 12/3/2007    LOGGER : T. Borton, J. Schaeffer

| WATER LEVELS : 9.510050112/3/07        |                      | START : 12/2/2007 |                                   | END : 12/3/2007 |                                                                                                                                                                                                                                                                                                                                                                                                          | LOGGERS : 1. Dutton, J. Schaefer                                                      |                                                                                 |
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| DEPTH BELOW SURFACE AND ELEVATION (ft) | SAMPLE INTERVAL (ft) |                   | STANDARD PENETRATION TEST RESULTS |                 | SOIL DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                         | SYMBOLIC LOG                                                                          | COMMENTS                                                                        |
|                                        |                      |                   | RECOVERY (ft)                     |                 | 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                | 6"-6"-6" (N)      |                                   |                 |                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       |                                                                                 |
| 43.4                                   | 0.0                  | 1.1               | SS-1                              | 1-1-2 (3)       | <b>Topsoil</b><br>0.0-0.25' - 80-90% organics<br><b>Poorly Graded Sand (SP)</b><br>0.25-1.1' - very light gray, white and light brownish gray, (N8, N9 and 5YR 6/1), dry to moist, very loose, very fine to fine grained, silica sand, 15% organics, trace nonplastic fines                                                                                                                              |    |                                                                                 |
|                                        | 1.5                  |                   |                                   |                 |                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       |                                                                                 |
| 5                                      | 5.0                  |                   |                                   |                 |                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       |                                                                                 |
| 38.4                                   |                      | 1.0               | SS-2                              | 2-3-4 (7)       | <b>Sandy Lean Clay (CL)</b><br>5.0-5.3' - mottled very light gray, grayish yellow, and dark yellowish orange, (N8, 5Y 8/4, and 10YR 6/6), moist, medium stiff, medium plasticity, slow dilatancy, 25-30% very fine silica sand<br><b>Silty Sand (SM)</b><br>5.3-6.0' - pale yellowish brown to dark yellowish brown, (10YR 6/2 to 10YR 9/2), wet, loose, very fine to fine grained, 20% nonplastic fines |   |                                                                                 |
|                                        | 6.5                  |                   |                                   |                 |                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       |                                                                                 |
| 10                                     | 10.0                 |                   |                                   |                 |                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       |                                                                                 |
| 33.4                                   |                      | 0.9               | SS-3                              | 3-5-6 (11)      | <b>Interbedded Poorly Graded Sand And Silt (SP-SM)</b><br>10.0-10.85' - very pale orange, pale yellowish brown, dark yellowish brown, (10YR 8/2, 10YR 6/2, 10YR 4/2), wet, medium dense, very fine to fine grained, 5-15% nonplastic fines, varies in beds                                                                                                                                               |  |                                                                                 |
|                                        | 11.5                 |                   |                                   |                 |                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       |                                                                                 |
| 15                                     | 15.0                 |                   |                                   |                 |                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       |                                                                                 |
| 28.4                                   |                      | 1.0               | SS-4                              | 3-4-5 (9)       | <b>Poorly Graded Sand With Silt (SP-SM)</b><br>15.0-16.0' - pale yellowish brown, (10YR 6/2), wet, loose, very fine to fine grained, silica sand, 10% nonplastic fines                                                                                                                                                                                                                                   |  |                                                                                 |
|                                        | 16.5                 |                   |                                   |                 |                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       |                                                                                 |
| 20                                     |                      |                   |                                   |                 |                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       |                                                                                 |



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| <b>PROJECT NUMBER:</b><br><b>338884.FL</b> | <b>BORING NUMBER:</b><br><b>CT-01</b> |
| SHEET 2 OF 7                               |                                       |
| <b>SOIL BORING LOG</b>                     |                                       |

PROJECT : Progress Energy Florida - COLA Investigation, Levy County Site    LOCATION : 1724860.4 N, 455975.6 E (NAD83)  
 ELEVATION : 43.4 ft (NAVD88)    DRILLING CONTRACTOR : Universal Engineering Sciences, Gainesville, FL; Driller: R. Woodard  
 DRILLING METHOD AND EQUIPMENT : CME 45B S/N 351574, mud rotary, auto hammer, AWJ rods, 3-7/8" tri-cone bit    ORIENTATION : Vertical  
 WATER LEVELS : 9.5 ft bgs on 12/3/07    START : 12/2/2007    END : 12/3/2007    LOGGER : T. Borton, J. Schaeffer

| WATER LEVELS : 9.5105501123367         |                      | START : 12/2/2007 |                                   | END : 12/3/2007  |                                                                                                                                                                                                   | LOGGERS : T. Dutton, J. Schaefer |                                                                                 |
|----------------------------------------|----------------------|-------------------|-----------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------|
| DEPTH BELOW SURFACE AND ELEVATION (ft) | SAMPLE INTERVAL (ft) |                   | STANDARD PENETRATION TEST RESULTS | SOIL DESCRIPTION |                                                                                                                                                                                                   | SYMBOLIC LOG                     | COMMENTS                                                                        |
|                                        | RECOVERY (ft)        | #TYPE             |                                   | 6"-6"-6" (N)     | SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY                                                                                |                                  |                                                                                 |
|                                        |                      |                   |                                   |                  |                                                                                                                                                                                                   |                                  |                                                                                 |
| 23.4                                   | 20.0                 | 1.1               | SS-5                              | 6-5-5 (10)       | <b>Silty Sand (SM)</b><br>20.0-21.05' - Same as 15.0-16.0' except 15-20% nonplastic fines                                                                                                         |                                  | DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION |
|                                        | 21.5                 |                   |                                   |                  |                                                                                                                                                                                                   |                                  |                                                                                 |
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| 25                                     | 25.0                 |                   |                                   |                  |                                                                                                                                                                                                   |                                  |                                                                                 |
| 18.4                                   |                      | 0.9               | SS-6                              | 3-4-6 (10)       | <b>Poorly Graded Sand With Silt (SP-SM)</b><br>25.0-25.9' - very pale orange, pale yellowish brown, (10YR 8/2, 10YR 6/2), wet, loose, very fine to fine grained, silica sand, 7% nonplastic fines |                                  |                                                                                 |
|                                        | 26.5                 |                   |                                   |                  |                                                                                                                                                                                                   |                                  |                                                                                 |
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| 30                                     | 30.0                 |                   |                                   |                  |                                                                                                                                                                                                   |                                  |                                                                                 |
| 13.4                                   |                      | 1.1               | SS-7                              | 4-4-6 (10)       | <b>Silty Sand (SM)</b><br>30.0-31.05' - very light gray, (N8), moist to wet, loose, very fine to fine grained, silica sand, 15-20% nonplastic fines, trace organics                               |                                  |                                                                                 |
|                                        | 31.5                 |                   |                                   |                  |                                                                                                                                                                                                   |                                  |                                                                                 |
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| <b>PROJECT NUMBER:</b><br><b>338884.FL</b> | <b>BORING NUMBER:</b><br><b>CT-01</b> |
| SHEET 3 OF 7                               |                                       |
| <b>SOIL BORING LOG</b>                     |                                       |

PROJECT : Progress Energy Florida - COLA Investigation, Levy County Site    LOCATION : 1724860.4 N, 455975.6 E (NAD83)  
 ELEVATION : 43.4 ft (NAVD88)    DRILLING CONTRACTOR : Universal Engineering Sciences, Gainesville, FL; Driller: R. Woodard  
 DRILLING METHOD AND EQUIPMENT : CME 45B S/N 351574, mud rotary, auto hammer, AWJ rods, 3-7/8" tri-cone bit    ORIENTATION : Vertical  
 WATER LEVELS : 9.5 ft bgs on 12/3/07    START : 12/2/2007    END : 12/3/2007    LOGGER : T. Borton, J. Schaeffer

| WATER LEVELS : 9.5 ft bgs on 12/3/07   |                      |     | START : 12/2/2007                 |              |                                                                                                                                                                                                                                                                                                                                                             | END : 12/3/2007                                                                       |                                                         |  | LOGGERS : T. Burton, J. Schaefer |  |  |
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| DEPTH BELOW SURFACE AND ELEVATION (ft) | SAMPLE INTERVAL (ft) |     | STANDARD PENETRATION TEST RESULTS |              | SOIL DESCRIPTION                                                                                                                                                                                                                                                                                                                                            | SYMBOLIC LOG                                                                          | COMMENTS                                                |  |                                  |  |  |
|                                        |                      |     | RECOVERY (ft)                     |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
|                                        |                      |     | #TYPE                             | 6"-6"-6" (N) | SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY                                                                                                                                                                                                                                          |                                                                                       |                                                         |  |                                  |  |  |
| 3.4                                    | 40.0                 | 1.5 | SS-9                              | 3-5-5 (10)   | <b>Sandy Fat Clay (CH)</b><br>40.0-41.5' - very light gray to medium light gray, (N8 to N6), wet, medium stiff, medium to high plasticity, slow dilatancy, 40-45% very fine to fine silica sand                                                                                                                                                             |    | Driller's Remark: Change in drilling at 44.5' (stiffer) |  |                                  |  |  |
|                                        | 41.5                 |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
|                                        |                      |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
|                                        |                      |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
| 45                                     | 45.0                 |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
| -1.6                                   |                      | 1.5 | SS-10                             | 5-8-9 (17)   | <b>Fat Clay (CH)</b><br>45.0-45.3' - yellowish gray, (5Y 8/1), moist, medium stiff, high plasticity, no to slow dilatancy, no HCl reaction                                                                                                                                                                                                                  |   |                                                         |  |                                  |  |  |
|                                        | 46.5                 |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
|                                        |                      |     |                                   |              | <b>Fat Clay With Sand (CH)</b><br>45.3-46.3' - mottled very light gray and light bluish gray, (N8 and 5B 7/1), moist, medium stiff, high plasticity, no to slow dilatancy, mild HCl reaction, fine to coarse grained particles are both angular carbonate grains and rounded black and brown grains                                                         |                                                                                       |                                                         |  |                                  |  |  |
|                                        |                      |     |                                   |              | <b>Fat Clay With Poorly Graded Sand (CH)</b><br>46.3-46.4' - light greenish gray, (5 G 8/1), moist, medium stiff, high plasticity, no dilatancy, no HCl reaction, 1/2" lens of very fine fine silica sand at 46.5'                                                                                                                                          |                                                                                       |                                                         |  |                                  |  |  |
| 50                                     | 50.0                 |     |                                   |              | <b>Fat Clay (CH)</b><br>46.4-46.5' - brownish gray, (5Y 8/1), moist to wet, medium stiff, high plasticity, no dilatancy, no HCl reaction                                                                                                                                                                                                                    |  |                                                         |  |                                  |  |  |
| -6.6                                   |                      | 1.5 | SS-11                             | 4-4-3 (7)    | <b>Silty Sand With Fat Clay (SM)</b><br>50.0-51.5' - yellowish gray, (5Y 7/2), wet, loose, very fine to fine grained, no HCl reaction, silica sand, 20-25% nonplastic to low plastic fines (amount and plasticity vary with depth), fat clay (CH) lenses occur up to 1/4" thick from 50.0-51.3' light bluish gray (5B 7/1), highly plastic, no HCl reaction |  |                                                         |  |                                  |  |  |
|                                        | 51.5                 |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
|                                        |                      |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
|                                        |                      |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
|                                        |                      |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
| 55                                     | 55.0                 |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |  |                                                         |  |                                  |  |  |
| -11.6                                  |                      | 1.5 | SS-12                             | 1-2-4 (6)    | <b>Silty Sand With Clay (SM)</b><br>55.0-56.5' - yellowish gray, (10YR), wet, loose, very fine to fine grained, 20-30% nonplastic to low plastic fines, 15% of sample consists of 1/2" to 1", sandy fat clay (CH) lenses, same as 50.0-51.5', no HCl reaction in clay materials                                                                             |  |                                                         |  |                                  |  |  |
|                                        | 56.5                 |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
|                                        |                      |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
|                                        |                      |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
|                                        |                      |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |
| 60                                     |                      |     |                                   |              |                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                         |  |                                  |  |  |



|                                            |                                       |
|--------------------------------------------|---------------------------------------|
| <b>PROJECT NUMBER:</b><br><b>338884.FL</b> | <b>BORING NUMBER:</b><br><b>CT-01</b> |
| SHEET 4 OF 7                               |                                       |
| <b>SOIL BORING LOG</b>                     |                                       |

PROJECT : Progress Energy Florida - COLA Investigation, Levy County Site    LOCATION : 1724860.4 N, 455975.6 E (NAD83)  
 ELEVATION : 43.4 ft (NAVD88)    DRILLING CONTRACTOR : Universal Engineering Sciences, Gainesville, FL; Driller: R. Woodard  
 DRILLING METHOD AND EQUIPMENT : CME 45B S/N 351574, mud rotary, auto hammer, AWJ rods, 3-7/8" tri-cone bit    ORIENTATION : Vertical  
 WATER LEVELS : 9.5 ft bgs on 12/3/07    START : 12/2/2007    END : 12/3/2007    LOGGER : T. Borton, J. Schaeffer

| WATER LEVELS : 9.5 ft bgs on 12/3/07   |                      |       | START : 12/3/2007                 |                                                                                                                    | END : 12/3/2007                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       | LOGGERS : J. Doherty, J. Schaefer     |  |
|----------------------------------------|----------------------|-------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------|--|
| DEPTH BELOW SURFACE AND ELEVATION (ft) | SAMPLE INTERVAL (ft) |       | STANDARD PENETRATION TEST RESULTS |                                                                                                                    | SOIL DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SYMBOLIC LOG                                                                          | COMMENTS                              |  |
|                                        | RECOVERY (ft)        | #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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                       |  |
|                                        |                      |       |                                   |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                       |  |
| -16.6                                  | 60.0                 | 1.4   | SS-13                             | 3-4-6 (10)                                                                                                         | <b>Interbedded Clayey Sand And Fat Clay (SC-CH)</b><br>60.0-60.6' - Same as 50.0-51.5 and 55.0-56.5' except 60% clayey sand (SC), mottled yellowish gray and light olive gray (5YR 7/2 and 5Y 5/2), moist, loose, very fine to fine grained, 35% medium plastic fines, 40% fat clay (CH), pale green (10G 6/2), moist, medium stiff, highly plastic, no dilatancy, no HCl reaction<br><b>Organic Soil (OL)</b><br>60.6-61.0' - dusky brown, (5YR 2/2), moist, medium stiff, medium plasticity, slow dilatancy, shiny, flaky appearance, 1/4" sand lens at 60.9'<br><b>Silty Sand With Organics (SM)</b><br>61.0-61.4' - light olive gray, (5Y 5/2), wet, loose, fine grained, 20% nonplastic fine organics, 1/2" lens of sandy organic soil (OL) at 61.3-61.4' 25% fine silica sand, no HCl reaction<br><b>No Recovery At 65.0'</b> |    | Driller's Remark: Hard at 64.0'       |  |
|                                        | 61.5                 |       |                                   |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                       |  |
| 65                                     | 65.0                 | 0.0   | SS-14                             | 50/0 (50/0")                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       | Switch to 2-7/8" tricone bit at 65.0' |  |
| -21.6                                  | 65.0                 |       |                                   |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                       |  |
|                                        |                      |       |                                   |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                       |  |
|                                        |                      |       |                                   |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                       |  |
| 70                                     | 70.0                 | 1.5   | SS-15                             | 22-16-19 (35)                                                                                                      | <b>Silty Sand And Limestone Fragments (SM)</b><br>70.0-71.5' - yellowish gray, (5Y 7/2), wet, dense, fine to coarse grained, 25% low plastic fines, 40-45% fine gravel-sized limestone fragments, strong HCl reaction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                       |  |
| -26.6                                  | 71.5                 |       |                                   |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                       |  |
|                                        |                      |       |                                   |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                       |  |
|                                        |                      |       |                                   |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                       |  |
| 75                                     | 75.0                 | 0.0   | SS-16                             | 50/0 (50/0")                                                                                                       | <b>No Recovery At 75.0'</b><br>few limestone fragments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                       |  |
| -31.6                                  | 75.0                 |       |                                   |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                       |  |
|                                        |                      |       |                                   |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                       |  |
|                                        |                      |       |                                   |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                       |  |
| 80                                     |                      |       |                                   |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |                                       |  |



|                                            |                                       |
|--------------------------------------------|---------------------------------------|
| <b>PROJECT NUMBER:</b><br><b>338884.FL</b> | <b>BORING NUMBER:</b><br><b>CT-01</b> |
| SHEET 5 OF 7                               |                                       |
| <b>SOIL BORING LOG</b>                     |                                       |

PROJECT : Progress Energy Florida - COLA Investigation, Levy County Site    LOCATION : 1724860.4 N, 455975.6 E (NAD83)  
 ELEVATION : 43.4 ft (NAVD88)    DRILLING CONTRACTOR : Universal Engineering Sciences, Gainesville, FL; Driller: R. Woodard  
 DRILLING METHOD AND EQUIPMENT : CME 45B S/N 351574, mud rotary, auto hammer, AWJ rods, 3-7/8" tri-cone bit    ORIENTATION : Vertical  
 WATER LEVELS : 9.5 ft bgs on 12/3/07    START : 12/2/2007    END : 12/3/2007    LOGGER : T. Borton, J. Schaeffer

| WATER LEVELS : 9.51 RDS ON 12/3/07     |                      |     | START : 12/2/2007                 |                   |                                                                                                                                                                                                                                                                                                                                                                                  | END : 12/3/2007 |              |                                                                                 | LOGGER : T. Burton, J. Schaefer |  |  |
|----------------------------------------|----------------------|-----|-----------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------|---------------------------------------------------------------------------------|---------------------------------|--|--|
| DEPTH BELOW SURFACE AND ELEVATION (ft) | SAMPLE INTERVAL (ft) |     | STANDARD PENETRATION TEST RESULTS |                   | SOIL DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                 |                 | SYMBOLIC LOG | COMMENTS                                                                        |                                 |  |  |
|                                        |                      |     |                                   |                   | 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 |                                 |  |  |
|                                        | RECOVERY (ft)        |     | 6"-6"-6" (N)                      |                   |                                                                                                                                                                                                                                                                                                                                                                                  |                 |              |                                                                                 |                                 |  |  |
|                                        | #TYPE                |     |                                   |                   |                                                                                                                                                                                                                                                                                                                                                                                  |                 |              |                                                                                 |                                 |  |  |
| -36.6                                  | 80.0                 | 1.1 | SS-17                             | 4-46-50/1 (96/7") | <b>Sandy Silt And Limestone Fragments (ML)</b><br>80.0-81.1' - grayish yellow, (5Y 8/4), wet, fine to coarse grained, rapid dilatancy, strong to very strong HCl reaction, 20-25% fine to coarse carbonate sand, 45-55% limestone fragments to 1" subangular, strong to very strong HCl reaction<br>Begin Rock Coring at 81.0 ft bgs<br>See the next sheet for the rock core log |                 |              | Switch to rock coring at 81.0'                                                  |                                 |  |  |
| 81.1                                   |                      |     |                                   |                   |                                                                                                                                                                                                                                                                                                                                                                                  |                 |              |                                                                                 |                                 |  |  |
| 85                                     |                      |     |                                   |                   |                                                                                                                                                                                                                                                                                                                                                                                  |                 |              |                                                                                 |                                 |  |  |
| -41.6                                  |                      |     |                                   |                   |                                                                                                                                                                                                                                                                                                                                                                                  |                 |              |                                                                                 |                                 |  |  |
| 90                                     |                      |     |                                   |                   |                                                                                                                                                                                                                                                                                                                                                                                  |                 |              |                                                                                 |                                 |  |  |
| -46.6                                  |                      |     |                                   |                   |                                                                                                                                                                                                                                                                                                                                                                                  |                 |              |                                                                                 |                                 |  |  |
| 95                                     |                      |     |                                   |                   |                                                                                                                                                                                                                                                                                                                                                                                  |                 |              |                                                                                 |                                 |  |  |
| -51.6                                  |                      |     |                                   |                   |                                                                                                                                                                                                                                                                                                                                                                                  |                 |              |                                                                                 |                                 |  |  |
| 100                                    |                      |     |                                   |                   |                                                                                                                                                                                                                                                                                                                                                                                  |                 |              |                                                                                 |                                 |  |  |



PROJECT NUMBER:

338884.FL

BORING NUMBER:

CT-01

SHEET 6 OF 7

# ROCK CORE LOG

PROJECT : Progress Energy Florida - COLA Investigation, Levy County Site LOCATION : 1724860.4 N, 455975.6 E (NAD83)

ELEVATION : 43.4 ft (NAVD88)

DRILLING CONTRACTOR : Universal Engineering Sciences, Gainesville, FL; Driller: R. Woodard

CORING METHOD AND EQUIPMENT : CME 45B S/N 351574, mud rotary, NQ tools, NW casing

ORIENTATION : Vertical

WATER LEVELS : 9.5 ft bgs on 12/3/07

START : 12/2/2007

END : 12/3/2007

LOGGER : T. Borton, J. Schaeffer

| WATER LEVELS : 9.31 (bgs on 12/31/07)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                    | START : 12/21/2007 |                    | END : 12/31/2007                                                                                                  |              | LOGGERS : T. Boron, J. Schaeffer                                                           |                                                                                                        |
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| DEPTH BELOW SURFACE AND ELEVATION (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 |              |                                                                                            |                                                                                                        |
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**338884.FL**

**BORING NUMBER:**

**CT-01**

**SHEET 7 OF 7**

# ROCK CORE LOG

PROJECT : Progress Energy Florida - COLA Investigation, Levy County Site      LOCATION : 1724860.4 N, 455975.6 E (NAD83)

ELEVATION : 43.4 ft (NAVD88)

DRILLING CONTRACTOR : Universal Engineering Sciences, Gainesville, FL; Driller: R. Woodard

CORING METHOD AND EQUIPMENT : CME 45B S/N 351574, mud rotary, NQ tools, NW casing

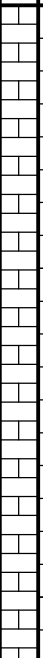
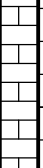
ORIENTATION : Vertical

WATER LEVELS : 9.5 ft bqs on 12/3/07

START : 12/2/2007

END : 12/3/2007

LOGGER : T. Borton, J. Schaeffer

| WATER LEVEL : SURFACE OF TEST                |                                          | START : 12/2007 |                       | END : 12/2007                                                                                                                  |                                                                                     | LOGGER : T. Bolton, S. Schindler                                                                                                                                                                                                     |                                                                                                                 |
|----------------------------------------------|------------------------------------------|-----------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| DEPTH BELOW<br>SURFACE AND<br>ELEVATION (ft) | CORE RUN,<br>LENGTH, AND<br>RECOVERY (%) | DISCONTINUITIES |                       |                                                                                                                                | SYMBOLIC LOG                                                                        | LITHOLOGY                                                                                                                                                                                                                            | COMMENTS                                                                                                        |
|                                              |                                          | R Q D (%)       | FRACTURES<br>PER FOOT | DESCRIPTION                                                                                                                    |                                                                                     | ROCK TYPE, COLOR,<br>MINERALOGY, TEXTURE,<br>WEATHERING, HARDNESS,<br>AND ROCK MASS<br>CHARACTERISTICS                                                                                                                               | SIZE AND DEPTH OF CASING,<br>FLUID LOSS, CORING RATE AND<br>SMOOTHNESS, CAVING ROD<br>DROPS, TEST RESULTS, ETC. |
|                                              |                                          |                 |                       | DEPTH, TYPE, ORIENTATION, ROUGHNESS,<br>PLANARITY, INFILLING MATERIAL AND<br>THICKNESS, SURFACE STAINING, AND TIGHTNESS        |                                                                                     |                                                                                                                                                                                                                                      |                                                                                                                 |
| 105<br>-61.6                                 | R5-NQ<br>5 ft<br>100%                    | 100             | 0                     | 102.0' - Mechanical break, <5 deg, rough,<br>undulating, tight                                                                 |   | <b>Limestone</b><br>101.0-106.0' - yellowish gray, (5Y 7/2), very fine to medium grained, strong HCl reaction, weak to medium strong (R2 to R3), voids to 1/8" (predominately <1/16") over approximately 15% of core, trace organics |                                                                                                                 |
|                                              |                                          |                 | 1                     |                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                      |                                                                                                                 |
|                                              |                                          |                 | 0                     |                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                      |                                                                                                                 |
|                                              |                                          |                 | 0                     |                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                      |                                                                                                                 |
|                                              |                                          |                 | 0                     |                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                      |                                                                                                                 |
| 110<br>-66.6                                 | R6-NQ<br>5 ft<br>100%                    | 57              | 1                     | 106.3, 107.35, 107.6' - Mechanical break (3), <5 deg, rough, undulating, open 1/8"                                             |   | 106.0-111.0' - Same as 101.0-106.0' except weak (R2), irregular wavy bedding from 106.5-107.45', fossiliferous zone from 107.7-108.7' with voids to 1/8" over 10-12% of the core                                                     | Water level = 9.5' below ground surface                                                                         |
|                                              |                                          |                 | 2                     |                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                      |                                                                                                                 |
|                                              |                                          |                 | 1                     | 108.45' - Fracture, 5-10 deg, rough, undulating, tight<br>109.15, 110.35' - Fractures (2), 20-30 deg, rough, undulating, tight |  |                                                                                                                                                                                                                                      |                                                                                                                 |
|                                              |                                          |                 | 1                     |                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                      |                                                                                                                 |
|                                              |                                          |                 | 1                     |                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                      |                                                                                                                 |
|                                              |                                          |                 | 111.0                 |                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                      |                                                                                                                 |
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