

**PLANT McDONOUGH-ATKINSON
CCR SURFACE IMPOUNDMENT
(CCR UNIT AP-2 AND AP-3/4)
COBB COUNTY, GEORGIA
PART A SECTION 6
GROUNDWATER MONITORING PLAN**

FOR



**Georgia
Power**

February 2025



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Certification

This *Groundwater Monitoring Plan* for Georgia Power Company's (Georgia Power) Ash Pond 2 (AP-2), and Combined Unit AP-3/4 (previously Ash Pond 3 [AP-3] and Ash Pond 4 [AP-4]) located at Plant McDonough-Atkinson (Plant McDonough) has been prepared by a qualified groundwater scientist with WSP USA Inc. (WSP) to meet the requirements contained in Chapter 391-3-4-.10 of Georgia Environmental Protection Division Rules of Georgia, Solid Waste Management, Coal Combustion Residuals (i.e., State Rule). References to the appropriate 391-3-4 Rules are incorporated throughout this document.

I certify that I am a qualified groundwater scientist as defined in 391-3-4-.01 who is a professional engineer or geologist registered to practice in Georgia who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields that enable me to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action. I further certify that this Groundwater Monitoring Plan was prepared by myself or by a subordinate working under my direction. The design of the groundwater monitoring system was developed in compliance with Georgia Environmental Protection Division (EPD) Rules of Solid Waste Management, Chapter 391-3-4-.10(6)

WSP USA Inc.



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1.0 INTRODUCTION

Groundwater monitoring is required by the Georgia Environmental Protection Division (EPD) to detect and quantify potential changes in groundwater chemistry. This *Groundwater Monitoring Plan* (plan) describes the groundwater monitoring program for CCR impoundments at Plant McDonough-Atkinson (Plant McDonough, the Site). This plan meets the requirements of EPD rules and uses EPD's Manual for Groundwater Monitoring dated September 1991 as a guide. Monitoring well and piezometer locations are presented on Figure 1 for Ash Pond Unit 2 (AP-2) and combined Ash Pond Units 3 and 4 (AP-3/4) at Plant McDonough. Ash Pond 1 (AP-1) is located west of AP-2 and AP-3/4 and is referenced herein as it relates to site conditions. Information included specific to AP-1 should not be considered for permitting.

Monitoring will occur in accordance with 391-3-4-.10 of the Georgia Solid Waste Management Rules. If the monitoring requirements specified in this plan conflict with EPD rules (391-3-4), the EPD rules will take precedence. Plant McDonough AP-2 and AP-3/4 entered into assessment monitoring on November 15, 2019. An assessment of corrective measures (ACM) was initiated on July 9, 2020, within 90 days of identifying statistically significant levels above groundwater protection standards (SSLs). A 60-day extension until December 4, 2020 for completion of the ACM was documented on October 7, 2020. Based on the results of the ACM, a final long-term corrective action plan will be developed and implemented pursuant to 40 CFR 257.97-98 and 391-3-4-.10(6).

In accordance with the United States Environmental Protection Agency (US EPA) Coal Combustion Rule (§ 257.90), a detection monitoring well network for AP-2 and AP-3/4 has been installed and certified by a qualified professional engineer. This certification has been placed in the facility's operating record. The existing monitoring wells were installed following the guidelines presented herein. Additionally, this plan documents the methods for future monitoring well installation and/or replacement, and procedures for well abandonment. As required by 391-3-4-.10(6)(g), a minor modification will be submitted to the EPD prior to the unscheduled installation or abandonment of monitoring wells. Well installation and/or abandonment must be directed by a qualified groundwater scientist.

Current Site Conditions and Pond Closure

The following sections describe the current site conditions as well as geologic and hydrogeologic information for Ash Pond 2 and 3/4 at Plant McDonough. AP-3 and AP-4 were historically operated together and are being closed as a Combined Unit AP-3/4, as required by 391-3-4-.10(7)(a).

At AP-2, closure by removal of ash was completed in September 2016. Closure procedures included excavating all visible ash, over excavating into the subgrade soils, and placement of topsoil and seeding for vegetative cover. In 2019, additional ash removal was undertaken, and a closure certification report was submitted to GA EPD on March 30, 2020, and receipt acknowledged on October 14, 2020. AP-3 and adjacent AP-4 have been consolidated and are being closed in place as combined unit AP-3/4 in accordance with § 257.102(d). CCR in the eastern portion of AP-4 has been relocated to the western portion of AP-4 as well as dry stacked on AP-3. CCR has been graded within the footprint of the impoundment to create a subgrade for the final cover system, and final cover completion is underway. During closure, AP-3 and AP-4 are being dewatered as required to facilitate consolidation and closure in place. This process is expected to result in groundwater flow returning to its original, pre-construction flow direction to the south.

The *Closure Plan* (WSP 2023) was prepared in accordance with § 257, Subpart D and meets the requirements of § 257.102(b). Following closure, maintenance will be provided on the final cover system for the required post-

closure care period so that the integrity and effectiveness of the final cover system are maintained. Relevant performance criteria, including dewatering, are part of the scope evaluated in the Closure Design and advanced engineering methods (AEM) and addressed in the Closure Plan and Post-Closure Care Plan (WSP 2023 and 2024a).

The *Hydrogeological Assessment Report* (HAR; WSP 2024b) details the three-dimensional post-closure numerical groundwater modeling for the Site. The steady state groundwater modelling predicts that the closure plans, with implementation of the designed enhanced under-slope collection system AEM, will result in water levels declining to elevations below the bottom of the unit. In addition, the proposed AEMs for CCR Unit AP-3/4 include the continued use of the temporary AEM wells for enhanced water removal for a temporary period after closure to accelerate the rates at which the post-closure groundwater table elevation is reached.

The selected AEM for AP-1 includes a subsurface vertical barrier wall that surrounds AP-1 in its entirety. Groundwater flow in the vicinity of AP-2 and AP-3/4 is not expected to be significantly influenced by the presence of the barrier wall following construction. Groundwater flow is predicted to flow south towards the Chattahoochee River throughout the closure and post-closure period.

2.0 GEOLOGIC AND HYDROGEOLOGIC CONDITIONS

Geologic conditions for this site are described in detail in the *Hydrogeological Assessment Report* (HAR) prepared by WSP USA Inc. (WSP 2024b). Key elements of the HAR are summarized below. Monitoring wells and piezometers installed at the Site are summarized on Table 1.

2.1 Site Geology

The Piedmont/Blue Ridge geologic province contains some of the oldest rock formations in the southeastern United States. These late Precambrian to late Paleozoic rocks have undergone repeated cycles of igneous intrusions and extrusions, metamorphism, folding, faulting, shearing, and silicification. The latest regional metamorphism and associated deformation has been attributed to the collision of the North America plate with the Eurasian plate approximately 200 to 230 Ma. More recent deformation and emplacement of mafic dikes is associated with the rifting of the North American craton during the Mesozoic and Cenozoic Eras. The Site lies in a regional zone of deformation, referred to as the Brevard Zone, which extends from Alabama to Virginia. The Brevard Fault Zone is inactive with no displacement since the Holocene. Several regionally extensive faults have been mapped near and within the Site associated with the inactive Brevard Fault Zone. Rock outcrops near the Site consist of biotite gneiss, porphyritic gneiss, mica schist, and quartzite.

Based on review of site data, residual soils, primarily clayey/sandy silt, sandy silt with clay, and silty sand, occur as a variably thick blanket overlying bedrock across most of the Site. Saprolitic or residual soils and/or saprolitic rock range in thickness across the Site but are generally encountered at or near ground surface. Saprolitic rock is also considered to be transitionally weathered rock (TWR) or partially weathered rock (PWR). PWR is defined by Standard Penetration Test (SPT) blow counts that exceed 50 blows per six inches. Material overlying the top of bedrock surface, including residual soils, saprolite, and TWR or PWR, is collectively referred to as overburden.

Bedrock beneath the overburden north of the faulted intrusive contact is primarily characterized by Ordovician-age felsic sphene-epidote-biotite-quartz-feldspar gneiss (Long Island Creek Gneiss - Oli) with well-developed foliation and an augen texture reflecting historical movement/deformation near fault and shear zones of the inactive Brevard fault zone. Bedrock beneath the overburden south of the faulted intrusive contact is primarily

characterized by interlayered Ordovician age phyllonite, button schist with well-developed shear foliation, fine-grained mylonite with poorly developed foliation, and very fine-grained mylonitic biotite gneiss with well-developed shear foliation (Phyllonite, Button Schist, Mylonite, and Mylonitic Biotite Gneiss - OZbs). The contact has had substantial movement as indicated by porphyroclastic-feldspars with sigmoidal-tails. An updated geologic map of the Site area was published in the HAR (WSP 2024b). The update shows the Site is located outside of the area of most intense shearing that is associated with the Brevard Zone. The zone with the greatest number of fractures is to the south of the Site and beyond the Chattahoochee River, which is considered to be a hydraulic divide in the vicinity of the Site as evidenced during drilling of deeper bedrock monitoring wells.

2.2 Site Hydrogeology

A regional, unconfined aquifer system is present at the Site, consisting of residual soils, saprolite, TWR/PWR (i.e., overburden), and upper bedrock. Based on drilling at the Site, borings completed deeper in the bedrock aquifer (i.e., greater than 30 feet into the bedrock unit) exhibit minimal and likely isolated fractures, and minimal connectivity between the overburden and deeper bedrock hydrogeologic unit. The overburden is variably comprised of porous and permeable alluvial, residual, and colluvial soils and saprolite, grading downward into a variably weathered, less permeable zone that overlies a less weathered and more permeable transitional weathering zone (Heath 1984). This unconfined, surficial aquifer system (referred to as uppermost aquifer) is recharged primarily through precipitation and subsequent infiltration, and flow is generally controlled by topography and surface water drainage and occurs mainly through intergranular pore spaces. Porosity generally ranges from about 20 to 30%. Hydraulic conductivity in the Site uppermost aquifer comprised of the overburden and upper bedrock has an estimated average of 0.69 feet/day (2.4×10^{-4} centimeters per second). Groundwater is stored in pore spaces in the overburden and then percolates downward to the weathered zone between soil and bedrock and into interconnected bedrock discontinuities. The saturated soils in the overburden function as the principal storage reservoir for groundwater in the bedrock.

Groundwater in the bedrock occurs in a fracture network that is largely dependent on rock type, degree of differential weathering, topography, and area of catchment. Groundwater flow in the underlying bedrock occurs primarily along discontinuities such as compositional layering, zones with variable mineralogy that are more susceptible to weathering, foliation, joints, and fractures. Fracture porosity is minimum compared to the overburden, and thus, groundwater flow is determined by how well the fractures are interconnected. Further, fractures within the deeper bedrock at the Site are not well connected and the predominant groundwater flow at the Site occurs in the overburden and upper bedrock. Based on site-specific examples and supporting data, as presented in the HAR (WSP 2024b), fractures within the bedrock are limited and decrease in number and groundwater production with depth. Borings B-103D, B-122D and B-123D were installed to vertically delineate constituents in areas where bedrock was approximately 70 feet below ground surface (bgs) and therefore, were installed to capture groundwater flow from bedrock fractures. Groundwater monitoring wells were screened across available fractures and did not produce sufficient water for proper development or sampling. Site geophysical logs and groundwater monitoring data at B-123D confirm that the deeper fractures produce less than 0.025 milliliters per minute using a heat pulse flow meter. This flow rate does not constitute “groundwater in an aquifer” but rather “limited” groundwater movement within the deeper bedrock unit.

Several references to published work within the HAR were reviewed and confirm that these observations made at the Site are consistent with Piedmont geology.

At the Site, the overburden upper bedrock aquifer constitutes an unconfined system. Available groundwater level data indicate a high of 837 feet referenced to North American Vertical Datum (NAVD) near the northern area and about 742 feet NAVD near the Chattahoochee River. Groundwater flows toward the on-site streams and the Chattahoochee River. Figure 2A presents the potentiometric surface contours depicting groundwater flow across the Site based on water levels from January 29, 2024.

2.3 Uppermost Groundwater Aquifer

The uppermost aquifer occurs within the overburden and upper bedrock, the upper 30 feet of fractured bedrock, at the Site. Although the degree of connection between the overburden and upper bedrock and underlying deeper bedrock (i.e., greater than 30 feet) aquifer systems is not well known, the deeper bedrock is generally massive with few joints available to receive groundwater from the overlying overburden and upper bedrock. Consequently, groundwater flow within the uppermost aquifer occurs within the residual soil, saprolite, and TWR/PWR (overburden) and upper bedrock.

Groundwater in the uppermost aquifer appears to be supporting base flow of creeks on site (many groundwater contours cross topographic contours of similar elevation at headwaters of creek). Generally, across the Site vertical gradients are assumed to be downward in topographically higher areas and upwards near topographic lows. Recharge to the uppermost aquifer is primarily through precipitation. Groundwater discharge appears to occur within tributary creeks on site, the ponds, and ultimately into the Chattahoochee River. The potentiometric surface for the uppermost aquifer indicates groundwater flow across AP-2 and AP-3/4 is generally southeast to south.

2.4 Groundwater Gradient and Flow Velocity

Hydraulic gradient is calculated as the difference in groundwater elevation (in feet) divided by the distance between two piezometers or wells (in feet). Groundwater elevation data recorded in January 2024 from two piezometer and/or well pairings; DGWA-53/DGWC-13, and B-26/DGWC-48, located along the groundwater flow path and perpendicular to the potentiometric contours were used to calculate hydraulic gradients for AP-2 and AP-3/4.

Average groundwater flow velocities at the Site were calculated using hydraulic gradient data, hydraulic conductivity data generated from slug testing results, and an estimated effective porosity of the screened portion of the uppermost aquifer. The Site hydraulic conductivity was re-evaluated in October 2024 in the monitoring network wells to incorporate additional hydraulic conductivity data recorded from additional monitoring wells. The field hydraulic conductivity data was re-analyzed as part of the update of the groundwater flow model. As a result of the additional data made available for the Site, the updated hydraulic conductivity values are somewhat lower than previously used to calculate site groundwater flow velocities. Based on slug test data, the geometric mean of the hydraulic conductivity for the overburden is 3.3×10^{-4} centimeters/second (cm/sec) (0.94 feet/day) and 1.5×10^{-4} cm/sec (0.44 feet/day) in the upper bedrock. Using the overburden and upper bedrock hydraulic conductivity values, an estimated average hydraulic conductivity for the Site uppermost aquifer (overburden and upper bedrock) was calculated as 2.4×10^{-4} (cm/sec) (0.69 feet/day). This value is within the range of values expected for silty sand and weathered/fractured metamorphic rocks (Freeze and Cherry, 1979). An effective porosity of 0.20 was used based on the default values for effective porosity recommended by US EPA for a silty sand-type soil (US EPA 1996). The hydraulic gradient calculated between well pairs DGWA-53/DGWC-13 and B-26/DGWC-48 for January 2024 were 0.028 and 0.026 feet per feet, respectively (see Table 2).

The horizontal flow velocities were calculated using the commonly used derivative of Darcy's Law:

$$V = \frac{K * i}{n_e} \quad \text{Where:}$$

V = Groundwater flow velocity $\left(\frac{\text{feet}}{\text{day}} \right)$
 K = Average hydraulic conductivity of the aquifer $\left(\frac{\text{feet}}{\text{day}} \right)$
 i = Horizontal hydraulic gradient $\left(\frac{\text{feet}}{\text{feet}} \right)$
 n_e = Effective porosity

Using this equation, groundwater flow velocities were calculated for AP-2 and AP-3/4 using January 2024 groundwater elevation data as shown on Table 2.

Calculated (horizontal) flow velocities range from approximately 33 feet per year (ft/yr) to 35 ft/yr during the January 2024 event. These estimated flow velocities, though lower than past results, are generally consistent with other published velocities for regolith-upper bedrock aquifers of the Piedmont (Heath 1984). In the vicinity of each of the dewatering wells, small, localized flow changes are observed.

3.0 SELECTION OF WELL LOCATIONS

Groundwater monitoring wells are installed to monitor the uppermost aquifer beneath the Site. Georgia Power follows the recommendations as stated in Chapter 2 of the Manual for Groundwater Monitoring (GA EPD 1991) to establish well spacings based on site-specific conditions. Locations are selected based on final ash pond closure footprint and site geologic and hydrogeologic considerations. Locations are chosen to serve as upgradient, lateral, or downgradient based on groundwater flow direction determined by potentiometric evaluation. As flow conditions change after pumping ceases, well designations will continue to be evaluated during each semi-annual event.

Monitoring wells will generally be located outside of areas with frequent auto traffic; however, wells may be installed in heavily trafficked areas when necessary to meet the groundwater monitoring objectives of the EPD rules.

The Site has a comprehensive well network, including detection and assessment monitoring wells located around AP-2 and AP-3/4 targeted to monitor groundwater flowing in the uppermost aquifer across AP-2 and AP-3/4. Groundwater flow in the underlying bedrock occurs primarily along discontinuities. Subsurface discontinuities can sometimes be expressed on the land surface as linear topographic features referred to as lineaments. Several detection and assessment wells were located as either straddling or adjacent to these lineament features to capture the potential flow from the overburden toward the potential bedrock discontinuities and monitor for impacts from AP-2 and AP-3/4. Table 1 presents a tabulated list of individual monitoring wells, assessment wells and piezometers; with well construction details such as location coordinates, top-of-casing elevation, well depths and screened intervals. A map depicting monitoring well locations for monitoring is included as Figure 1. Any modification that involves the addition of or a change to the detection monitoring network will be made by a minor modification to the permit pursuant to 391-3-4-.02(3)(b)(6).

Additional detection monitoring wells (DGWC-126, DGWC-127, DGWC-128) are planned for installation at three locations around AP-2, AP-3/4 to provide additional coverage in areas at the downgradient edge of the CCR unit (Figure 1). Existing piezometers B-16 and B-18 will be converted to detection monitoring wells (DGWC-16 and DGWC-18) along the southern side of AP-3/4 (Figure 1). The current groundwater elevations at the B-16 and

B-18 locations are at the top to slightly below the top of the wells screens and are anticipated to decrease with ongoing dewatering activities, such that these converted wells may not produce sufficient water for analysis. Existing monitoring well DGWC-9 has been dry for two consecutive sampling events and is planned for replacement with a deeper well at a nearby location.

4.0 MONITORING WELL DRILLING, CONSTRUCTION, ABANDONMENT & REPORTING

The existing AP-2 and AP-3/4 monitoring wells were installed following the Region 4 U.S. Environmental Protection Agency (US EPA) Science and Ecosystem Support Division (SESD) *Operating Procedure for Design and Installation of Monitoring Wells* (SESDGUID-101-R2 and updates) as a general guide for best practices. Well boring and construction logs for the existing monitoring well network are included in Appendix A. The following sections describe the applicable methods for well drilling, construction, abandonment, and reporting for modifications to the well network at the Site. Any additional well installation at the Site will be directed by a qualified groundwater scientist.

4.1 Drilling

A variety of well drilling methods are available for installing groundwater wells. Drilling methodology may include, but not be limited to hollow stem augers, direct push, air rotary, mud rotary, or rotosonic techniques. The drilling method shall minimize the disturbance of subsurface materials and shall not cause impact to the groundwater. Borings will be advanced using an appropriate drilling technology capable of drilling and installing a well in site-specific geology. Monitoring wells will be installed using the most current version of the Region 4 U.S. Environmental Protection Agency (US EPA) Science and Ecosystem Support Division (SESD) Operating Procedure SESDGUID-101-R2 and updates as a general guide for best practices. Drilling equipment shall be decontaminated before use and between borehole locations using the procedures described in the latest version of the Region 4 U.S. EPA Laboratory Services and Applied Science Division (LSASD) *Operating Procedure for Field Equipment Cleaning and Decontamination* as a guide.

Sampling and/or coring may be used to help determine the stratigraphy and geology. Samples will be logged under the oversight of a qualified groundwater scientist. Screen depths will be chosen based on the depth of the uppermost aquifer.

Drilling and well installation activities will be completed under the direction of a qualified groundwater scientist. All drilling for any subsurface hydrologic investigation, installation or abandonment of groundwater monitoring wells will be performed by a driller that has at the time of installation, a performance bond on file with the Water Well Standards Advisory Council. Copies of the bonds for the existing wells are included in Appendix A.

4.2 Design and Construction

Well construction materials will be sufficiently durable to resist chemical and physical degradation and will not interfere with the quality of groundwater samples.

4.2.1 Well Casings and Screens

American Society for Testing and Materials (ASTM), National Sanitation Foundation (NSF) rated, Schedule 40, 2-inch polyvinyl chloride (PVC) pipe with flush threaded connections will be used for the well riser and screens. Compounds that can cause PVC to deteriorate (e.g., organic compounds) are not expected at this facility. If

conditions warrant, other appropriate materials may be used for construction with prior written approval from the EPD.

4.2.2 Well Intake Design

The design and construction of the intake of the groundwater wells shall: (1) allow sufficient groundwater flow to the well for sampling; (2) minimize the passage of formation materials (turbidity) into the well; and (3) ensure sufficient structural integrity to prevent the collapse of the intake structure.

Each groundwater monitoring well will include a well screen designed to limit the amount of formation material passing into the well when it is purged and sampled. Screens with 0.010-inch slots have proven effective for the earth materials at the Site and will be used unless geologic conditions discovered at the time of installation dictate a different size. Screen length shall not exceed 10 feet without justification as to why a longer screen is necessary (e.g., significant variation in groundwater level). If the above techniques prove ineffective for developing a well with sufficient yield or acceptable turbidity, further steps will be taken to assure that the well screen is appropriately sized for the formation material. This may include performing sieve analysis of the formation material and determining well screen slot size based on the grain size distribution, if warranted.

Pre-packed dual-wall well screens may be used for well construction. Pre-packed well screens combine a centralized inner well screen, a developed filter sand pack, and an outer conductor screen in one integrated unit composed of inert materials. Pre-packed well screens will be installed following general industry standards and using the latest version of the Region 4 U.S. EPA SEDS *Operating Procedure for Design and Installation of Monitoring Wells* (SESDGUID-101-R2 and updates) as a general guide.

4.2.3 Filter Pack and Annular Seal

The materials used to construct the filter pack will be clean quartz sand of a size that is appropriate for the screened formation. Fabric filters will not be used as filter pack material. Sufficient filter material will be placed in the borehole and measurements taken to ensure that no bridging occurs. Upon placement of the filter pack, the well may be pumped to assure settlement of the pack. If pumping is performed, the top of filter pack depth will be measured, and additional sand added if necessary. The filter pack will extend at least two feet above the top of the well screen.

The materials used to seal the annular space in the boring above the well pack must prevent hydraulic communication between strata and prevent migration from overlying areas into the well screen interval. A minimum of two feet of bentonite (chips, pellets, or slurry) will be placed immediately above the filter pack. The bentonite seal will extend up to the base of any overlying confining zone or the top of the water-bearing zone to prevent cementitious grout from entering the water-bearing or screened zone. If dry bentonite is used, the bentonite must be hydrated with potable water prior to grouting the remaining annulus.

The annulus above the bentonite seal will be grouted with a cement and bentonite mixture (approximately 94 pounds cement / 3 to 5 pounds bentonite / 6.5 gallons of potable water) placed via tremie pipe from the top of the bentonite seal. During grouting, care will be taken to assure that the bentonite seal is not disturbed by locating the base of the tremie pipe approximately two feet above the bentonite seal and injecting grout at low pressure/velocity.

4.2.4 Protective Casing and Well Completion

After allowing the grout to settle, the well will be finished by installing a flush-mount or above ground protective casing, as appropriate; and building a surface completion. The use of flush-mount wells will generally be limited to paved surfaces unless site operations warrant otherwise. The surface completion will extend from the top of the cement grout to ground surface, where it will become a concrete apron extending outward with a radius of at least 3 feet from the edge of the well casing and sloped to drain water away from the well. The apron for a flush-mount well will be tied into the surrounding pavement.

Each well will be fitted with a cap that contains a hole or opening to allow the well headspace to equalize with atmospheric pressure. For wells with above ground protection, the space between the well riser and the protective casing may be filled with coarse sand or pea-gravel to within approximately 6 inches of the top of the well riser. A small weep hole will be drilled at the base of the metal protective casing for the drainage of moisture from the casing. Above ground protective covers will be locked.

Protective bollards may be installed around each above-grade groundwater monitoring well. Well construction in high traffic areas will generally be limited unless site conditions warrant otherwise.

The groundwater monitoring well detail attached in Appendix B, Groundwater Monitoring Well Detail, illustrates the general design and construction details for a monitoring well.

4.2.5 Well Development

Well development will be conducted under direction of a qualified groundwater scientist. After well construction is completed, wells will be developed by alternately purging and surging until relatively clear discharge water with little turbidity is observed. The goal will be to achieve a turbidity of less than 5 nephelometric turbidity units (NTUs); however, formation-specific conditions may not allow this target to be accomplished, and development may be discontinued at a measured turbidity of less than 10 NTUs. Additionally, the stabilization criteria contained in Appendix C, Groundwater Sampling Procedures, should be met. A variety of techniques may be used to develop site groundwater monitoring wells. The method used must create reversals or surges in flow to eliminate bridging of particles around the well screen. These reversals or surges can be created by using surge blocks, bailers, or pumps. The wells will be developed using a pump capable of inducing the stress necessary to achieve the development goals. Development equipment will be decontaminated prior to first use and between wells.

In low yielding wells, potable water may be added to the well to facilitate surging of the well screen interval and removal of fine-grained sediment. If water is added, the volume will be documented and at minimum, an equal volume purged from the well.

Many geologic formations contain clay and silt particles that are small enough to work their way through well filter packs over time. Therefore, the turbidity of the groundwater from the monitoring wells may gradually increase over time after initial well development. As a result, the monitoring wells may have to be redeveloped periodically to remove the silt and clay that has worked its way into the filter pack. Each monitoring well should be redeveloped when sample turbidity values have significantly increased since initial development or since prior redevelopment. The redevelopment should be performed as described above. Well development data will be included in the well installation report.

4.2.6 Surveying

The monitoring wells and piezometers were surveyed by Metro Engineering & Surveying Co., Inc., with a horizontal accuracy of 0.5 foot and a vertical accuracy of 0.01 foot referenced to Georgia State Plane Coordinate System (Georgia State Plane, West Zone, NAD83) and vertical datum to the North American Vertical Datum 1988 (NAVD88). The certified surveyor's report is included in Appendix A.

4.3 Well Abandonment

Monitoring wells will be abandoned using industry-accepted practices and using the Manual for Groundwater Monitoring (1991) and Georgia Water Well Standards Act of 1985 [Official Code of Georgia Annotated (O.C.G.A.) 12-5-120, 1985] as guides. Neat Portland cement or bentonite will be used as appropriate to complete abandonment and seal the well borehole.

Per Georgia Rule 391-3-4-.10(6)(g), monitoring wells require abandonment and replacement after two consecutive dry sampling events, unless an alternate schedule is approved by EPD. Well abandonment will be directed by a qualified groundwater scientist. A minor modification shall be submitted in accordance with Rule 391-3-4-.02(3)(b)6 prior to the installation or decommissioning of monitoring wells.

4.4 Documentation

The following information documenting the construction and development of each well is provided on the boring logs for the existing monitoring system (Appendix A). Within 60 days of the construction and development or abandonment of each groundwater monitoring well, a well installation/abandonment report will be submitted to the EPD by a qualified groundwater scientist. For installed wells, the following information will be provided:

- Well Identification
- Name of drilling contractor and type of drill rig
- Documentation that the driller, at the time the monitoring wells were installed, had a bond on file with the Water Well Standards Advisory Council
- Narrative of drilling technique applied, well construction details, and well development procedures, including dates, drilling fluids used (if applicable), well casing and screen materials, screen slot size, and joint type
- Filter pack material/size and volume (placement narrative)
- Seal emplacement method and type/volume of sealant
- Borehole diameter and well casing diameter
- Type of protective well cap and sump dimensions for each well
- Surface seal and volumes/mix of annular seal material
- Screen length and slot size
- Screen materials and design (i.e., interval in feet below ground surface and elevation)
- Well location data given to within an accuracy of 0.5 feet based on survey data recorded from a known datum

- Well elevation data at concrete pad nail given to within an accuracy of 0.01 feet based on survey data recorded from a known datum
- Documentation of ground surface elevation at well location (± 0.01 ft.). Based on survey data recorded from a known datum
- Documentation of top of casing elevation (± 0.01 ft.). Based on survey data recorded from a known datum
- Well depth (± 0.1 ft.)
- Dates of drilling and initial well emplacement
- Drilling method and drilling fluid, if used
- Schematic of well with dimensions
- Lithologic logs
- Well casing materials
- Well development date
- Well turbidity following development
- Documentation that water quality field parameters meet well development criteria
- Narrative of well development method - specific well development procedure
- Documentation stating that a Georgia-registered professional surveyor has certified that the horizontal accuracy for the installed monitoring wells is 0.5 foot, and vertical accuracy for elevations to 0.01 foot using a known datum.

In accordance with the Georgia Water Well Standards Act (O.C.G.A. § 12-5-120), at least once every five years, the owner of the property on which a monitoring well is constructed shall have the monitoring well(s) inspected by a professional engineer or professional geologist, who shall direct appropriate remedial corrective work to be performed if the well does not conform to standards. Well inspection records and records of remedial corrective work are subject to review by EPD. Additionally, as part of the post closure care plan, the cost estimate based upon current year cost for the well inspections will be provided for as part of the cost calculations for the groundwater monitoring period. Additionally, as part of the closure and post-closure plan, the cost estimate based upon current year cost for the well inspections must be provided for as part of the cost calculations for the groundwater monitoring period.

5.0 GROUNDWATER MONITORING PARAMETERS AND FREQUENCY

The following describes groundwater sampling requirements with respect to parameters for analysis, sampling frequency, sample preservation and shipment, and analytical methods. Groundwater samples used to provide compliance monitoring data will not be filtered prior to collection.

Table 3 presents the groundwater monitoring parameters and sampling frequency. A minimum of eight independent samples from each groundwater well will be collected and analyzed for 40 CFR 257, Subpart D, Appendix III and Appendix IV test parameters to establish a background statistical dataset. Subsequently, in

accordance with 391-3-4-.10(6), the monitoring frequency for the Appendix III parameters will be at least semi-annual during the active life of the facility and the post-closure care period. If required, Georgia Power will conduct assessment monitoring in accordance with the Georgia Rules for Solid Waste Management Chapter 391-3-4-.10(6) to also include 40 CFR 257, Subpart D, Appendix IV test parameters. Assessment monitoring was initiated on November 15, 2019, per GA Chapter 391-3-4-.10(6) Rules for Solid Waste Management.

When referenced throughout this plan, Appendix III and Appendix IV parameters refer to the parameters contained in Appendix III and Appendix IV of 40 CFR 257, Subpart D, 80 Fed. Reg. 21468 (April 17, 2015).

As shown in Table 4, the groundwater samples will be analyzed using methods specified in US EPA Manual SW-846, EPA 600/4-79-020, Standard Methods for the Examination of Water and Wastewater (SM18-20), US EPA Methods for the Chemical Analysis of Water and Wastes (MCAWW), ASTM, or other suitable analytical methods approved by EPD. The method used will be able to reach a suitable practical quantification limit to detect natural background conditions at the facility. The groundwater samples will be analyzed by licensed and accredited laboratories through the National Environmental Laboratory Program (NELAP). Field instruments used to measure pH must be accurate and reproducible to within 0.1 Standard Units (S.U.).

6.0 SAMPLE COLLECTION

During each sampling event, samples will be collected and handled in accordance with the procedures specified in Appendix C, Groundwater Sampling Procedures and Appendix D, Surface Water Sampling Procedures. Sampling procedures were developed using standard industry practice and US EPA Region 4 Field Branches Quality System and Technical Procedures as a guide. Low-flow sampling methodology will be utilized for groundwater sample collection. Alternative industry accepted sampling techniques may be used when appropriate with prior EPD approval. The applied groundwater purging, and sampling methodologies will be discussed in the semi-annual monitoring reports submitted to EPD.

For groundwater sampling, positive gas displacement Teflon or stainless-steel bladder pumps will be used for purging. If dedicated bladder pumps are not used, portable bladder pumps or peristaltic pumps (with dedicated or disposable tubing) may be used. When non-dedicated equipment is used, it will be decontaminated prior to use and between wells. Non-dedicated equipment will be decontaminated in accordance with the US EPA LSASDPROC-205-R4 (US EPA 2020).

Per Georgia Rule 391-3-4-.10(6)(g), monitoring wells require replacement after two consecutive dry sampling events. Well installation must be directed by a qualified groundwater scientist. A minor modification shall be submitted in accordance with Rule 391-3-4-.02(3)(b) prior to the installation or decommissioning of monitoring wells.

7.0 SURFACE WATER MONITORING PLAN

Following final closure certification of AP-2 and AP-3/4, surface water is directed through a series of settling ponds located northwest (Pond 1), east (Pond 2) and south (Pond 3) of AP-3/4. Sample locations SWC-1, SWC-2 and SWC-3 will be added to the monitoring program following final construction certification. During each semi-annual sampling event, if flowing water is present, surface water samples will be collected from each location (see Figure 3). This surface water monitoring is for the Solid Waste Management Program and is not associated with any existing industrial stormwater, and/or construction stormwater discharge permitting regulated by the National Pollutant Discharge Elimination System (NPDES) requirements of Section 402 of the Clean Water Act. In the

event that no flowing water is present at the sampling locations at the time of sampling, it will be noted in the field sampling documents associated with that event and no sample will be collected for that event.

During each sampling event, samples will be collected and handled in accordance with the procedures specified in Appendix D. Surface water samples will be collected and handled in accordance with standard industry practice and US EPA Region 4 LSASD *Surface Water Sampling Procedures* LSASDPROC-201-R6 as a guide (US EPA 2023a). When possible, the sample should be collected directly into the appropriate sample container provided by the analytical laboratory. If the sample location cannot be physically reached, an intermediate collection device may be used (e.g., a “swing sampler” with a 12-foot handle and a single use container) as presented in the current US EPA field guidance document. When non-dedicated equipment is used, it will be decontaminated prior to first use and between surface water sampling locations.

Surface water samples will be analyzed for field parameters, pH, temperature, specific conductance, dissolved oxygen, oxidation reduction potential (ORP), and turbidity and Appendix IV constituents as listed in Table 5 and using the methods listed in Table 4.

Monitoring results from surface water sampling will be incorporated into semi-annual groundwater monitoring reports. Constituent concentrations from the current monitoring event, as well as each of the historical monitoring events will be provided on a data summary table to assess potential impacts of the facility to adjacent surface waters.

8.0 CHAIN-OF-CUSTODY

Samples will be handled under chain-of-custody (COC) procedures beginning in the field. The COC record will contain the following information:

- Sample identification numbers
- Signature of collector
- Date and time of collection
- Sample type
- Sample point identification
- Number of sample containers
- Signature of person(s) involved in the chain of possession
- Dates and times of possession by each individual
- Notated date(s) and time(s) of sample transfer between individuals

The samples will remain in the custody of assigned personnel, an assigned agent, or the laboratory. If the samples are transferred to other employees for delivery or transport, the sampler or possessor must relinquish possession, and the samples must be received by the new owner.

If the samples are being shipped, a hard copy COC will be signed and enclosed within the shipping container.

Samplers must use COC forms provided by the analytical laboratory or use a COC form similarly formatted and containing the information listed above.

9.0 FIELD AND LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

Field quality control samples will be prepared the same as compliance samples with regard to sample volume, containers, and preservation. The following quality control samples will be collected during each sampling event:

Field Equipment Rinsate Blanks - Where sampling equipment is not new (pre-cleaned) or dedicated, an equipment rinsate blank will be collected at a rate of one blank per 20 samples collected using such non-dedicated equipment. Rinsate blanks will be collected following decontamination of, and prior to collection of a field sample with the non-dedicated equipment.

Field Duplicates - Field duplicates are collected by filling additional containers at the same location, and the field duplicate is assigned a unique sample identification number. One blind field duplicate will be collected for every 20 samples.

Field Blanks - Field blanks are collected in the field using the same water source that is used for decontamination. The water is poured directly into the supplied sample containers in the field and submitted to the laboratory for analysis of target constituents. One field blank will be collected for every 20 samples.

Calibration of field instruments will occur daily and follow the recommended (specific) instrument calibration procedures provided by the manufacturer and/or equipment manual specific to each instrument. Daily calibration will be documented on field forms and these field forms will be included in groundwater monitoring reports. Instruments will be recalibrated as necessary (e.g., when calibration checks indicate significant variability), and any recalibration steps will be documented on field calibration forms. Calibration of the instruments will also be checked if any readings during sampling activities are suspect. Replacement probes and meters will be obtained as a corrective action in the event that recalibration does not improve instrument function. Calibration field forms will be provided as part of each groundwater report's quality control documentation.

The groundwater samples will be analyzed by licensed and accredited laboratories through NELAP.

10.0 REPORTING RESULTS

A semi-annual groundwater report that documents the results of sampling and analysis will be submitted to EPD within 90 days of receipt and analysis of the groundwater analytical data from the laboratory. At a minimum, semi-annual reports will include:

- 1) A narrative describing sampling activities and findings including a summary of the number of samples collected, the dates the samples were collected and whether the samples were required by the detection or assessment monitoring programs.
- 2) A record of field sampling conditions including, well signage, well access, sampling and purging equipment condition, and site conditions that may affect sampling will be recorded on a Well Inspection Form. These forms will be included as an appendix to the semi-annual groundwater monitoring reports.
- 3) A brief overview of purging/sampling methodologies
- 4) Discussion of results
- 5) Recommendations for the future monitoring consistent with the Rules

- 6) Potentiometric surface contour map for the aquifer(s) being monitored, signed, and sealed by a Georgia-registered PG or PE
- 7) Table of as-built information for groundwater monitoring wells including top of casing elevations, ground elevations, screened elevations, current groundwater elevations and depth to water measurements
- 8) Groundwater flow rate and direction calculations
- 9) Identification of any groundwater wells that were installed or decommissioned during the preceding year, along with a narrative description of why these actions were taken
- 10) A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels)
- 11) Table of current analytical results for each well, highlighting statistically significant increases and concentrations above maximum contaminant level (MCL)
- 12) Tabular summary of surface water monitoring results including the current monitoring event as well as each of the historical monitoring events. This will be added after the final closure certification is submitted.
- 13) If applicable, semi-annual assessment monitoring results
- 14) Any alternate source demonstration completed during the previous monitoring period, if applicable
- 15) Laboratory reports
- 16) COC documentation
- 17) Field sampling logs including field instrument calibration, indicator parameters and parameter stabilization data
- 18) Documentation of non-functioning wells or dry surface water sampling locations
- 19) Statistical analyses, including trend analyses (if applicable)
- 20) Plume delineation (if applicable)
- 21) Updated potable water well survey (annually, if applicable)
- 22) Certification by a qualified groundwater scientist.

11.0 STATISTICAL ANALYSES

Groundwater quality data from each sampling event will be statistically evaluated to determine if there has been a statistically significant change in groundwater chemistry. Historical background data will be used to determine statistical limits. These statistical analyses methods are consistent with the *Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance* (Unified Guidance) (US EPA 2009).

According to EPD rules (391-3-4-.10(6)(a), which incorporate the statistical analysis requirements of 40 CFR 257.93 by reference), the Site must specify in the operating record the statistical methods to be used in evaluating

groundwater monitoring data for each constituent. The statistical test chosen shall be conducted separately for each constituent in each well. As authorized by the rule, statistical tests that may be used include:

- 1) A prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper prediction limit (§257.93(f)(3)).
- 2) A control chart approach that gives control limits for each constituent (§257.93(f)(4)).
- 3) Another statistical test method (such as prediction limits or control charts) that meets the performance standards of §257.93(g). A justification for an alternative method will be placed in the operating record and the Director notified of the use of an alternative test. The justification will demonstrate that the alternative method meets the performance standards of §257.93(g) (§257.93(f)(5)).

Interwell statistical methods will be used to compare Appendix III groundwater monitoring data to background conditions. Confidence intervals will be constructed for each downgradient well and used to compare Appendix IV groundwater monitoring data to groundwater protection standards.

A site-specific statistical analysis plan that provides details regarding the statistical methods to be used has been placed in the Site's operating record pursuant to 391-3-4-.10(6) (EPD 2014). Figure 4 includes a flowchart that depicts the process that will be followed to develop the site-specific plan. Figure 5 presents the logic that will be used to calculate site-specific statistical limits and test compliance results against those limits.

12.0 REFERENCES

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Tables

TABLE 1
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
Georgia Power Company - Plant McDonough-Atkinson
CCR Unit AP-2 and AP-3/4
Cobb County, Georgia

| Well-ID | Hydraulic Location | Screened Lithology | NAD 83 Northing ^[1] | NAD 83 Easting ^[1] | Top of Casing Elevation (feet NAVD 88) | Ground Surface Elevation (feet NAVD 88) | Total Well Depth (feet bgs) | Top of Screen Elevation (feet NAVD 88) | Bottom of Screen Elevation (feet NAVD 88) | Screen Length (feet) | Date of Installation | Hydraulic Conductivity Geometric Mean (cm/sec) ^[13] |
|--|--------------------|--------------------------|--------------------------------|-------------------------------|--|---|-----------------------------|--|---|----------------------|----------------------|--|
| ASH POND 1 (AP-1) DETECTION MONITORING WELL NETWORK | | | | | | | | | | | | |
| DGWA-53 | Upgradient | Upper Bedrock | 1393472.8 | 2201668.8 | 844.26 | 841.37 | 28.9 | 823.8 | 813.8 | 10 | 9/24/2016 | -- |
| DGWA-70A | Upgradient | Saprolite/PWR | 1390481.4 | 2200591.6 | 808.52 | 805.67 | 59.3 | 756.8 | 746.8 | 10 | 5/10/2017 | 2.0E-04 |
| DGWA-71 | Upgradient | Saprolite/PWR | 1393963.3 | 2201714.8 | 863.84 | 861.22 | 43.8 | 827.8 | 817.8 | 10 | 2/28/2017 | 3.9E-04 |
| DGWC-37 | Downgradient | Saprolite/PWR | 1390482.2 | 2200919.8 | 766.21 | 763.64 | 39.7 | 734.3 | 724.3 | 10 | 11/28/2012 | -- |
| DGWC-38 | Downgradient | Residual Soils | 1390362.7 | 2201148.6 | 757.43 | 754.67 | 25.0 | 740.0 | 730.0 | 10 | 11/29/2012 | -- |
| DGWC-39 | Downgradient | Residual Soils/Saprolite | 1390303.6 | 2201540.1 | 759.89 | 756.93 | 21.2 | 746.1 | 736.1 | 10 | 11/6/2012 | -- |
| DGWC-40 | Downgradient | Saprolite | 1390625.7 | 2201825.9 | 779.06 | 776.12 | 34.9 | 751.6 | 741.6 | 10 | 11/5/2012 | 3.1E-03 |
| DGWC-67 | Downgradient | Saprolite/PWR | 1390953.8 | 2200830.7 | 766.70 | 766.80 | 56.3 | 720.5 | 710.5 | 10 | 3/14/2017 | 2.5E-04 |
| DGWC-68A | Downgradient | Saprolite | 1391301.2 | 2200734.9 | 765.33 | 765.06 | 29.8 | 745.7 | 735.7 | 10 | 4/20/2017 | -- |
| DGWC-69 | Downgradient | Saprolite/PWR | 1391585.0 | 2200657.1 | 763.75 | 763.99 | 24.3 | 749.7 | 739.7 | 10 | 3/16/2017 | 1.4E-04 |
| DGWC-121 | Downgradient | PWR/Upper Bedrock | 1390739.7 | 2200849.4 | 764.16 | 764.52 | 50.0 | 724.8 | 714.8 | 10 | 3/22/2022 | 4.7E-05 |
| ASH POND 1 (AP-1) ASSESSMENT MONITORING WELL NETWORK | | | | | | | | | | | | |
| B-62 | Downgradient | Upper Bedrock | 1389828.1 | 2201811.2 | 760.08 | 760.40 | 39.9 | 730.7 | 720.7 | 10 | 10/4/2016 | -- |
| B-100 | Downgradient | Saprolite | 1390254.8 | 2202242.1 | 777.95 | 775.32 | 44.8 | 740.5 | 730.5 | 10 | 7/8/2020 | -- |
| B-105D | Downgradient | Upper Bedrock | 1390634.5 | 2201831.9 | 779.01 | 776.03 | 70.0 | 716.0 | 706.0 | 10 | 10/19/2020 | 1.2E-04 |
| B-112D | Downgradient | Upper Bedrock | 1391564.2 | 2200664.1 | 765.58 | 765.98 | 55.0 | 721.3 | 711.3 | 10 | 3/22/2021 | 1.2E-03 |

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CCR Unit AP-2 and AP-3/4
Cobb County, Georgia

| Well-ID | Hydraulic Location | Screened Lithology | NAD 83 Northing ^[1] | NAD 83 Easting ^[1] | Top of Casing Elevation (feet NAVD 88) | Ground Surface Elevation (feet NAVD 88) | Total Well Depth (feet bgs) | Top of Screen Elevation (feet NAVD 88) | Bottom of Screen Elevation (feet NAVD 88) | Screen Length (feet) | Date of Installation | Hydraulic Conductivity Geometric Mean (cm/sec) ^[13] |
|---|--------------------|-----------------------------|--------------------------------|-------------------------------|--|---|-----------------------------|--|---|----------------------|----------------------|--|
| ASH POND 2 and ASH PONDS 3/4 (AP-2 and AP-3/4) DETECTION MONITORING WELL NETWORK | | | | | | | | | | | | |
| DGWA-53 | Upgradient | Upper Bedrock | 1393472.8 | 2201668.8 | 844.26 | 841.37 | 28.9 | 823.8 | 813.8 | 10 | 9/24/2016 | 6.1E-06 |
| DGWA-70A | Upgradient | Saprolite/PWR | 1390481.4 | 2200591.6 | 808.52 | 805.67 | 59.3 | 756.8 | 746.8 | 10 | 5/10/2017 | 2.0E-04 |
| DGWA-71 | Upgradient | Saprolite/PWR | 1393963.3 | 2201714.8 | 863.84 | 861.22 | 43.8 | 827.8 | 817.8 | 10 | 2/28/2017 | -- |
| DGWC-2 | Downgradient | PWR/Upper Bedrock | 1393958.0 | 2202119.5 | 850.88 | 848.17 | 49.0 | 809.5 | 799.5 | 10 | 10/2/2012 | -- |
| DGWC-4 | Downgradient | Saprolite | 1394171.5 | 2202662.4 | 814.85 | 812.06 | 45.0 | 777.4 | 767.4 | 10 | 10/3/2012 | -- |
| DGWC-5 | Downgradient | Saprolite/PWR/Upper Bedrock | 1394306.3 | 2202965.1 | 791.75 | 788.64 | 30.0 | 768.9 | 758.9 | 10 | 10/4/2012 | 1.1E-03 |
| DGWC-8 | Downgradient | Saprolite/PWR | 1394322.2 | 2203882.1 | 826.38 | 824.02 | 49.1 | 785.3 | 775.3 | 10 | 10/10/2012 | -- |
| DGWC-9 ^[9] | Downgradient | Saprolite/PWR | 1394055.9 | 2204170.0 | 824.35 | 821.86 | 30.0 | 802.3 | 792.3 | 10 | 10/10/2012 | 5.0E-04 |
| DGWC-9A ^[9] | Downgradient | PWR/Upper Bedrock | TBD | TBD | TBD | TBD | 45.0 | 787.0 | 767.0 | 10.0 | TBD | -- |
| DGWC-10 | Downgradient | Saprolite | 1393818.3 | 2204201.1 | 823.55 | 820.82 | 45.4 | 785.8 | 775.8 | 10 | 10/11/2012 | 7.2E-04 |
| DGWC-11 | Downgradient | Saprolite/PWR | 1393547.1 | 2204166.2 | 800.57 | 797.99 | 49.1 | 759.2 | 749.2 | 10 | 10/15/2012 | -- |
| DGWC-12 | Downgradient | Residual Soils/Saprolite | 1393149.4 | 2204128.3 | 773.86 | 771.10 | 25.1 | 756.4 | 746.4 | 10 | 10/15/2012 | -- |
| DGWC-13 | Downgradient | Saprolite/PWR | 1392881.1 | 2204084.6 | 794.10 | 791.20 | 43.8 | 757.8 | 747.8 | 10 | 11/29/2012 | 7.3E-04 |
| DGWC-14 | Downgradient | PWR/Upper Bedrock | 1392574.2 | 2204013.3 | 792.40 | 789.69 | 34.3 | 765.8 | 755.8 | 10 | 12/18/2012 | 1.3E-03 |
| DGWC-15 | Downgradient | PWR | 1392544.1 | 2203679.0 | 824.50 | 821.43 | 67.1 | 764.7 | 754.7 | 10 | 11/29/2012 | -- |
| DGWC-16 ^[10] | Downgradient | Saprolite | 1392595.1 | 2203315.4 | 826.47 | 823.54 | 43.7 | 790.1 | 780.1 | 10 | 12/19/2012 | -- |
| DGWC-17 | Downgradient | Saprolite | 1392645.6 | 2203051.0 | 837.05 | 834.14 | 44.5 | 799.9 | 789.9 | 10 | 1/9/2013 | -- |
| DGWC-18 ^[10] | Downgradient | Residual Soils/Saprolite | 1392521.0 | 2202875.5 | 826.56 | 823.89 | 32.6 | 801.5 | 791.5 | 10 | 1/10/2013 | -- |
| DGWC-19 | Downgradient | Saprolite | 1392342.6 | 2202601.0 | 825.46 | 822.87 | 39.8 | 793.5 | 783.5 | 10 | 3/12/2013 | 7.9E-04 |
| DGWC-20 | Downgradient | Saprolite | 1392164.5 | 2202315.6 | 822.14 | 819.66 | 39.7 | 790.6 | 780.6 | 10 | 3/5/2013 | -- |
| DGWC-21 | Downgradient | PWR/Upper Bedrock | 1392067.5 | 2202063.5 | 816.28 | 813.47 | 69.0 | 754.9 | 744.9 | 10 | 10/31/2012 | 6.3E-04 |
| DGWC-22 | Downgradient | Upper Bedrock | 1392126.3 | 2201791.9 | 816.59 | 813.69 | 60.0 | 764.0 | 754.0 | 10 | 10/25/2012 | 1.2E-03 |
| DGWC-23 | Downgradient | Upper Bedrock | 1392239.7 | 2201582.0 | 818.37 | 815.63 | 60.1 | 765.8 | 755.8 | 10 | 10/25/2012 | 5.4E-05 |

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CCR Unit AP-2 and AP-3/4
Cobb County, Georgia

| Well-ID | Hydraulic Location | Screened Lithology | NAD 83 Northing ^[1] | NAD 83 Easting ^[1] | Top of Casing Elevation (feet NAVD 88) | Ground Surface Elevation (feet NAVD 88) | Total Well Depth (feet bgs) | Top of Screen Elevation (feet NAVD 88) | Bottom of Screen Elevation (feet NAVD 88) | Screen Length (feet) | Date of Installation | Hydraulic Conductivity Geometric Mean (cm/sec) ^[13] |
|--|--------------------|-----------------------------|--------------------------------|-------------------------------|--|---|-----------------------------|--|---|----------------------|----------------------|--|
| ASH POND 2 and ASH PONDS 3/4 (AP-2 and AP-3/4) DETECTION MONITORING WELL NETWORK | | | | | | | | | | | | |
| DGWC-42 | Downgradient | Saprolite | 1391327.8 | 2201870.2 | 804.68 | 801.98 | 50.4 | 762.1 | 752.1 | 10 | 11/12/2012 | -- |
| DGWC-47 | Downgradient | PWR/Upper Bedrock | 1391553.8 | 2202610.5 | 797.45 | 794.35 | 28.8 | 776.0 | 766.0 | 10 | 6/23/2016 | 6.4E-05 |
| DGWC-48 | Downgradient | Saprolite/PWR/Upper Bedrock | 1391314.6 | 2202290.2 | 788.33 | 785.21 | 30.0 | 765.6 | 755.6 | 10 | 6/22/2016 | 8.6E-05 |
| DGWC-126 ^[11] | Downgradient | Saprolite | TBD | TBD | TBD | TBD | 44.5 | 783.0 | 773.0 | 10 | TBD | -- |
| DGWC-127 ^[11] | Downgradient | Saprolite | TBD | TBD | TBD | TBD | 52.0 | 773.0 | 763.0 | 10 | TBD | -- |
| DGWC-128 ^[11] | Downgradient | Saprolite | TBD | TBD | TBD | TBD | 35.0 | 776.0 | 766.0 | 10 | TBD | -- |
| ASH POND 2 and ASH PONDS 3/4 (AP-2 and AP-3/4) ASSESSMENT MONITORING WELL NETWORK | | | | | | | | | | | | |
| B-56 | Downgradient | Saprolite | 1393957.9 | 2204187.8 | 823.59 | 820.95 | 45.0 | 786.4 | 776.4 | 10 | 10/3/2016 | 2.2E-04 |
| B-62 | Downgradient | Upper Bedrock | 1389828.1 | 2201811.2 | 760.08 | 760.40 | 39.9 | 730.7 | 720.7 | 10 | 10/4/2016 | 5.5E-04 |
| B-63 | Downgradient | Saprolite/PWR | 1390999.1 | 2202978.1 | 777.10 | 777.37 | 46.0 | 741.9 | 731.9 | 10 | 10/6/2016 | 2.0E-04 |
| B-66 | Downgradient | Saprolite | 1393858.2 | 2204277.5 | 815.90 | 813.33 | 55.3 | 768.3 | 758.3 | 10 | 11/16/2016 | 3.2E-05 |
| B-77 | Downgradient | Residual Soils | 1390948.7 | 2202942.0 | 776.86 | 777.12 | 42.0 | 745.1 | 735.1 | 10 | 9/17/2019 | -- |
| B-82 | Downgradient | Saprolite | 1393750.0 | 2204258.1 | 810.07 | 807.55 | 45.0 | 773.1 | 763.1 | 10 | 9/21/2019 | 8.0E-05 |
| B-83 | Downgradient | Residual Soils/Saprolite | 1390735.5 | 2202695.6 | 776.98 | 777.17 | 48.6 | 738.6 | 728.6 | 10 | 9/30/2019 | -- |
| B-88 | Downgradient | Saprolite/PWR | 1394401.1 | 2203738.3 | 820.07 | 816.80 | 72.0 | 754.8 | 744.8 | 10 | 11/15/2019 | 1.1E-03 |
| B-92 | Downgradient | Residual Soils/Saprolite | 1394392.7 | 2203026.7 | 785.08 | 785.30 | 25.0 | 770.7 | 760.7 | 10 | 12/11/2019 | 9.2E-04 |
| B-93 | Downgradient | Residual Soils/Saprolite | 1394348.7 | 2202946.7 | 789.07 | 789.19 | 29.2 | 770.3 | 760.3 | 10 | 12/12/2019 | 1.8E-04 |
| B-97 | Downgradient | Upper Bedrock | 1394430.0 | 2203008.3 | 786.29 | 786.50 | 31.7 | 765.2 | 755.2 | 10 | 2/11/2020 | -- |
| B-98 ^[12] | Downgradient | Saprolite/Upper Bedrock | 1394392.5 | 2202934.0 | 789.67 | 789.81 | 19.4 | 780.8 | 770.8 | 10 | 2/10/2020 | -- |
| B-100 | Downgradient | Saprolite | 1390254.8 | 2202242.1 | 777.95 | 775.32 | 44.8 | 740.5 | 730.5 | 10 | 7/8/2020 | 1.5E-03 |
| B-101D | Downgradient | PWR/Upper Bedrock | 1394063.6 | 2204168.2 | 824.29 | 821.24 | 75.0 | 756.3 | 746.3 | 10 | 11/12/2020 | 2.1E-05 |
| B-102D | Downgradient | Upper Bedrock | 1393828.4 | 2204200.4 | 823.42 | 820.64 | 85.0 | 746.2 | 736.2 | 10 | 11/10/2020 | 1.0E-04 |
| B-104D | Downgradient | Upper Bedrock | 1391318.3 | 2202298.5 | 787.90 | 785.31 | 60.0 | 735.3 | 725.3 | 10 | 10/20/2020 | 2.8E-05 |

TABLE 1
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
Georgia Power Company - Plant McDonough-Atkinson
CCR Unit AP-2 and AP-3/4
Cobb County, Georgia

| Well-ID | Hydraulic Location | Screened Lithology | NAD 83 Northing ^[1] | NAD 83 Easting ^[1] | Top of Casing Elevation (feet NAVD 88) | Ground Surface Elevation (feet NAVD 88) | Total Well Depth (feet bgs) | Top of Screen Elevation (feet NAVD 88) | Bottom of Screen Elevation (feet NAVD 88) | Screen Length (feet) | Date of Installation | Hydraulic Conductivity Geometric Mean (cm/sec) ^[13] |
|--|--------------------|-----------------------------|--------------------------------|-------------------------------|--|---|-----------------------------|--|---|----------------------|----------------------|--|
| ASH POND 2 and ASH PONDS 3/4 (AP-2 and AP-3/4) ASSESSMENT MONITORING WELL NETWORK | | | | | | | | | | | | |
| B-106D | Downgradient | Upper Bedrock | 1394327.1 | 2203869.2 | 826.21 | 823.39 | 80.0 | 754.0 | 744.0 | 10 | 11/13/2020 | 1.4E-04 |
| B-107D | Downgradient | Upper Bedrock | 1392334.5 | 2202596.4 | 823.38 | 820.44 | 85.8 | 745.3 | 735.3 | 10 | 10/28/2020 | 3.2E-04 |
| B-108D | Downgradient | Upper Bedrock | 1392156.1 | 2202312.5 | 821.13 | 818.33 | 80.0 | 749.3 | 739.3 | 10 | 10/27/2020 | 1.2E-04 |
| B-111D | Downgradient | Upper Bedrock | 1394303.6 | 2202956.4 | 791.84 | 788.99 | 85.0 | 714.8 | 704.8 | 10 | 11/3/2020 | 1.5E-04 |
| B-120D | Downgradient | Upper Bedrock | 1394047.2 | 2202436.4 | 836.42 | 834.03 | 69.3 | 775.0 | 765.0 | 10 | 3/6/2021 | 8.2E-03 |
| B-122D | Downgradient | Lower Bedrock | 1390992.8 | 2202975.4 | 777.03 | 777.32 | 79.8 | 707.5 | 697.5 | 10 | 3/24/2022 | 4.3E-05 |
| B-125D | Downgradient | Lower Bedrock | 1394111.6 | 2202580.7 | 821.70 | 819.15 | 145.4 | 684.1 | 674.1 | 10 | 3/31/2023 | 6.6E-07 |
| PIEZOMETERS | | | | | | | | | | | | |
| B-3 | Downgradient | Saprolite/Upper Bedrock | 1394045.1 | 2202411.5 | 837.78 | 834.86 | 37.0 | 808.2 | 798.2 | 10 | 10/3/2012 | -- |
| B-6 | Downgradient | Saprolite/PWR | 1394419.5 | 2203266.5 | 789.47 | 786.45 | 35.4 | 761.5 | 751.5 | 10 | 10/9/2012 | -- |
| B-7 | Downgradient | Residual Soils | 1394374.6 | 2203596.1 | 809.16 | 806.04 | 25.2 | 791.2 | 781.2 | 10 | 10/9/2012 | -- |
| B-24 | Downgradient | Upper Bedrock | 1392479.9 | 2201450.0 | 822.11 | 819.19 | 79.1 | 750.9 | 740.9 | 10 | 10/24/2012 | -- |
| B-25 | Downgradient | Upper Bedrock | 1392813.3 | 2201502.7 | 836.54 | 833.41 | 54.8 | 789.0 | 779.0 | 10 | 10/24/2012 | 3.7E-04 |
| B-26 | Downgradient | Upper Bedrock | 1393105.6 | 2201550.4 | 853.60 | 850.61 | 49.3 | 811.7 | 801.7 | 10 | 10/23/2012 | 7.1E-06 |
| B-28 | Downgradient | PWR/Upper Bedrock | 1391967.4 | 2201679.2 | 816.08 | 813.28 | 69.4 | 754.3 | 744.3 | 10 | 10/31/2012 | -- |
| B-29 | Downgradient | Saprolite/PWR | 1391890.0 | 2201422.0 | 816.43 | 813.47 | 54.4 | 769.4 | 759.4 | 10 | 1/11/2013 | -- |
| B-31 | Downgradient | Upper Bedrock | 1392034.3 | 2200928.5 | 797.47 | 794.84 | 45.1 | 760.1 | 750.1 | 10 | 1/22/2013 | Abandoned |
| B-41 | Downgradient | Saprolite | 1390920.8 | 2201751.9 | 795.20 | 792.40 | 60.0 | 743.0 | 733.0 | 10 | 11/14/2012 | 6.2E-04 |
| B-50 | Downgradient | Saprolite | 1391657.1 | 2201841.0 | 809.67 | 809.20 | 35.2 | 784.4 | 774.4 | 10 | 6/24/2016 | 8.5E-04 |
| B-51 | Downgradient | Saprolite/PWR | 1390501.2 | 2200906.5 | 765.92 | 763.29 | 65.0 | 708.3 | 698.3 | 10 | 6/27/2016 | 6.7E-04 |
| B-52 | Downgradient | PWR | 1392308.3 | 2201314.8 | 822.89 | 820.18 | 50.0 | 781.3 | 771.3 | 10 | 9/28/2016 | 1.2E-04 |
| B-54 | Downgradient | Saprolite/PWR/Upper Bedrock | 1394423.5 | 2203140.7 | 785.46 | 782.54 | 34.2 | 758.7 | 748.7 | 10 | 9/26/2016 | -- |
| B-55 | Downgradient | Saprolite | 1394142.6 | 2204147.9 | 825.12 | 822.86 | 52.0 | 781.9 | 771.9 | 10 | 9/22/2016 | -- |

TABLE 1
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
Georgia Power Company - Plant McDonough-Atkinson
CCR Unit AP-2 and AP-3/4
Cobb County, Georgia

| Well-ID | Hydraulic Location | Screened Lithology | NAD 83 Northing ^[1] | NAD 83 Easting ^[1] | Top of Casing Elevation (feet NAVD 88) | Ground Surface Elevation (feet NAVD 88) | Total Well Depth (feet bgs) | Top of Screen Elevation (feet NAVD 88) | Bottom of Screen Elevation (feet NAVD 88) | Screen Length (feet) | Date of Installation | Hydraulic Conductivity Geometric Mean (cm/sec) ^[13] |
|---------------------|--------------------|-----------------------------|--------------------------------|-------------------------------|--|---|-----------------------------|--|---|----------------------|----------------------|--|
| PIEZOMETERS | | | | | | | | | | | | |
| B-57 | Downgradient | Upper Bedrock | 1391396.3 | 2202736.9 | 789.04 | 786.03 | 50.5 | 746.0 | 736.0 | 10 | 9/24/2016 | 1.1E-04 |
| B-58 | Downgradient | Saprolite | 1391125.7 | 2202426.5 | 788.17 | 785.20 | 45.0 | 750.7 | 740.7 | 10 | 9/23/2016 | -- |
| B-59 | Downgradient | Saprolite/PWR/Upper Bedrock | 1394349.1 | 2203001.1 | 788.00 | 785.41 | 30.3 | 765.2 | 755.2 | 10 | 9/23/2016 | -- |
| B-60 | Downgradient | Saprolite/PWR | 1391100.7 | 2202881.6 | 782.13 | 779.25 | 49.8 | 740.0 | 730.0 | 10 | 9/29/2016 | 1.2E-03 |
| B-61 | Downgradient | Saprolite/PWR | 1390957.8 | 2202505.8 | 782.09 | 778.95 | 51.9 | 737.5 | 727.5 | 10 | 9/29/2016 | -- |
| B-64 | Downgradient | Saprolite | 1394381.9 | 2203031.3 | 785.83 | 785.98 | 30.4 | 766.0 | 756.0 | 10 | 11/2/2016 | -- |
| B-65 | Downgradient | Saprolite/PWR/Upper Bedrock | 1394381.2 | 2204050.8 | 821.95 | 822.30 | 45.4 | 787.9 | 777.9 | 10 | 11/15/2016 | -- |
| B-68 | Downgradient | Saprolite/PWR | 1391298.2 | 2200714.2 | 758.68 | 759.05 | 18.0 | 751.1 | 741.1 | 10 | 3/16/2017 | -- |
| B-72 | Downgradient | Saprolite | 1391241.4 | 2200725.9 | 758.46 | 758.45 | 21.9 | 747.0 | 737.0 | 10 | 4/19/2017 | -- |
| B-73 | Downgradient | Saprolite | 1391351.8 | 2200699.4 | 759.21 | 759.16 | 15.8 | 753.8 | 743.8 | 10 | 4/19/2017 | -- |
| B-74 | Downgradient | Saprolite | 1391279.9 | 2200666.1 | 759.06 | 759.18 | 16.2 | 748.4 | 743.4 | 5 | 4/25/2017 | -- |
| B-76 | Downgradient | Saprolite | 1390717.4 | 2202756.9 | 760.53 | 760.87 | 38.5 | 732.4 | 722.4 | 10 | 9/18/2019 | -- |
| B-78 | Downgradient | Saprolite/Upper Bedrock | 1394328.2 | 2202958.2 | 790.75 | 787.79 | 30.0 | 767.8 | 758.3 | 10 | 9/22/2019 | 8.3E-04 |
| B-79 | Downgradient | Saprolite/PWR | 1394458.6 | 2203223.0 | 788.66 | 785.84 | 34.9 | 760.9 | 751.4 | 10 | 9/21/2019 | 2.8E-04 |
| B-80 | Downgradient | Saprolite/PWR | 1394372.6 | 2203533.9 | 804.47 | 801.73 | 30.0 | 781.9 | 772.4 | 10 | 9/20/2019 | 1.8E-04 |
| B-81 | Downgradient | Saprolite/PWR | 1394364.9 | 2203741.1 | 820.56 | 817.64 | 50.0 | 778.5 | 768.5 | 10 | 9/22/2019 | 5.1E-05 |
| B-84 ^[6] | Downgradient | Saprolite | 1390411.9 | 2202241.9 | 776.34 | 776.52 | 49.1 | 737.4 | 727.4 | 10 | 10/1/2019 | 6.7E-05 |
| B-85 | Downgradient | Saprolite/PWR/Upper Bedrock | 1394433.4 | 2203134.5 | 782.54 | 782.71 | 34.5 | 758.5 | 748.5 | 10 | 11/18/2019 | 2.5E-04 |
| B-86 | Downgradient | Saprolite/Upper Bedrock | 1394480.0 | 2203206.6 | 784.29 | 784.52 | 34.1 | 760.4 | 750.4 | 10 | 11/18/2019 | 4.4E-04 |
| B-87 | Downgradient | Saprolite/PWR | 1394401.9 | 2203531.3 | 803.37 | 800.32 | 42.0 | 768.6 | 758.6 | 10 | 11/17/2019 | -- |
| B-89 | Downgradient | Upper Bedrock | 1394398.4 | 2204049.4 | 822.36 | 822.53 | 49.5 | 783.0 | 773.0 | 10 | 11/19/2019 | 7.1E-04 |
| B-90 | Downgradient | Residual Soils/Saprolite | 1394501.0 | 2203212.6 | 784.00 | 784.16 | 33.4 | 760.8 | 750.8 | 10 | 12/10/2019 | -- |
| B-91 | Downgradient | Residual Soils/Saprolite | 1394447.1 | 2203123.9 | 782.98 | 783.10 | 35.0 | 758.5 | 748.5 | 10 | 12/11/2019 | 4.9E-04 |

TABLE 1
SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION DATA
Georgia Power Company - Plant McDonough-Atkinson
CCR Unit AP-2 and AP-3/4
Cobb County, Georgia

| Well-ID | Hydraulic Location | Screened Lithology | NAD 83 Northing ^[1] | NAD 83 Easting ^[1] | Top of Casing Elevation (feet NAVD 88) | Ground Surface Elevation (feet NAVD 88) | Total Well Depth (feet bgs) | Top of Screen Elevation (feet NAVD 88) | Bottom of Screen Elevation (feet NAVD 88) | Screen Length (feet) | Date of Installation | Hydraulic Conductivity Geometric Mean (cm/sec) ^[13] |
|-------------|--------------------|--------------------|--------------------------------|-------------------------------|--|---|-----------------------------|--|---|----------------------|----------------------|--|
| PIEZOMETERS | | | | | | | | | | | | |
| B-94 | Downgradient | Saprolite/PWR | 1394402.0 | 2203513.7 | 801.74 | 799.12 | 45.2 | 764.5 | 754.5 | 10 | 1/23/2020 | -- |
| B-95 | Downgradient | Saprolite | 1394518.6 | 2203167.7 | 784.00 | 784.18 | 33.3 | 761.2 | 751.2 | 10 | 2/11/2020 | -- |
| B-96 | Downgradient | Saprolite/PWR | 1394478.7 | 2203099.3 | 784.92 | 785.19 | 33.1 | 762.1 | 752.1 | 10 | 2/10/2020 | -- |
| B-99 | Downgradient | Fill | 1394524.2 | 2203084.5 | 782.39 | 782.57 | 12.3 | 775.3 | 770.3 | 5 | 7/7/2020 | -- |
| B-103D | Downgradient | Lower Bedrock | 1391543.5 | 2202614.4 | 795.96 | 793.77 | 70.0 | 733.8 | 723.8 | 10 | 10/15/2020 | 1.9E-06 |
| B-109D | Downgradient | Upper Bedrock | 1393957.5 | 2202127.0 | 850.73 | 847.78 | 100.0 | 758.4 | 748.4 | 10 | 10/31/2020 | 2.1E-05 |
| B-110D | Downgradient | Upper Bedrock | 1391294.4 | 2200736.0 | 764.61 | 764.55 | 65.0 | 711.6 | 701.6 | 10 | 11/17/2020 | 7.8E-06 |
| B-113D | Downgradient | Lower Bedrock | 1391264.6 | 2200719.2 | 758.22 | 758.87 | 84.7 | 684.5 | 674.5 | 10 | 3/30/2021 | -- |
| B-115D | Downgradient | Lower Bedrock | 1391265.3 | 2202580.7 | 789.17 | 786.43 | 79.5 | 717.2 | 707.2 | 10 | 3/20/2021 | 5.4E-05 |
| B-116D | Upgradient | Upper Bedrock | 1390483.7 | 2200611.0 | 807.82 | 805.31 | 89.5 | 726.1 | 716.1 | 10 | 3/8/2021 | 2.9E-04 |
| B-117D | Upgradient | Upper Bedrock | 1393963.8 | 2201727.3 | 863.82 | 861.23 | 75.0 | 796.5 | 786.5 | 10 | 3/17/2021 | 6.4E-05 |
| B-118 | Upgradient | Upper Bedrock | 1391219.3 | 2200449.7 | 807.70 | 804.99 | 75.2 | 740.1 | 730.1 | 10 | 3/9/2021 | 8.0E-04 |
| B-119D | Upgradient | Lower Bedrock | 1391236.4 | 2200446.6 | 807.15 | 804.53 | 105.0 | 709.8 | 699.8 | 10 | 3/16/2021 | 2.7E-05 |
| B-123D | Downgradient | Lower Bedrock | 1391234.4 | 2202608.4 | 781.80 | 778.85 | 160.0 | 668.9 | 618.9 | 50 | 4/4/2022 | 4.3E-06 |

- Notes:**
- 1. Coordinate System: NAD 1983 State Plane Georgia West (U.S. feet)
 - 2. bgs - Below Ground Surface; NAD 83 - North American Datum of 1983; NAVD 88 - North American Vertical Datum of 1988; PWR - Partially Weathered Rock
 - 3. The 2020 Certified Well Survey has been incorporated into this construction summary. A copy of the Certified Well Survey Report is included in the GWMP.
 - 4. Ground surface elevations shown are the elevation of the survey nail.
 - 5. Data presented for CCR Unit AP-1 are included for reference only. This data should not be considered for permitting of CCR Units AP-2 and AP-3/4.
 - 6. Piezometer B-84 abandoned on 4/28/2022
 - 7. Piezometers B-31 and B-74 were decommissioned and abandoned on 10/14/2023.
 - 8. TBD - To be determined upon actual installation
 - 9. Proposed well DGWC-9A is a replacement well for DGWC-9. The screen elevation shown is estimated. Well DGWC-9 will be decommissioned and abandon upon completion of DGWC-9A.
 - 10. Piezometers B-16 and B-18 were converted to detection monitoring wells (DGWC-16 and DGWC-18) for AP-2, AP-3/4 in December 2024.
 - 11. DGWC-126, DGWC-127, DGWC-128 are proposed detection monitoring wells and will be installed in January 2025. The screen elevations shown are estimated.
 - 12. No soil data were collected in well B-98. Screened Lithology based on adjacent boring B-97.
 - 13. The geometric mean of hydraulic conductivity data available for each well is presented in cm/sec. For individual test data refer to Table GW-3 of the Hydrogeologic Assessment Report (WSP, 2025). "--" Test data not available.



TABLE 2
GROUNDWATER VELOCITY CALCULATIONS - JANUARY 2024
Georgia Power Company - Plant McDonough-Atkinson
CCR Unit AP-2 and AP-3/4
Cobb County, Georgia

| Flow Paths | Groundwater Elevation (feet) | Δh (feet) ¹ | Δl (feet) ² | Hydraulic Gradient ($\Delta h/\Delta l$) ³ | Estimated Hydraulic Conductivity for Uppermost Aquifer (feet per day) ⁵ | Assumed Effective Porosity (n_e) ⁶ | Average Linear Groundwater Velocity | |
|---|------------------------------|--------------------------------|--------------------------------|---|--|---|-------------------------------------|------------------------------|
| | | | | | | | (feet per day) ⁴ | (feet per year) ⁴ |
| ASH POND 1 (AP-1) | | | | | | | | |
| B-29/DGWC-68A | 787.07 | 31.63 | 900 | 0.035 | 0.69 | 0.2 | 0.12 | 44 |
| | 755.44 | | | | | | | |
| B-28/DGWC-37 | 784.98 | 32.19 | 1700 | 0.019 | 0.69 | 0.2 | 0.07 | 24 |
| | 752.79 | | | | | | | |
| B-50/DGWC-39 | 786.08 | 33.31 | 1400 | 0.024 | 0.69 | 0.2 | 0.08 | 30 |
| | 752.77 | | | | | | | |
| ASH POND 2 AND ASH PONDS 3/4 (AP-2 and AP- 3/4) | | | | | | | | |
| DGWA-53/DGWC-13 | 829.91 | 70.35 | 2550 | 0.028 | 0.69 | 0.2 | 0.10 | 35 |
| | 759.56 | | | | | | | |
| B-26/DGWC-48 | 825.75 | 52.92 | 2000 | 0.026 | 0.69 | 0.2 | 0.09 | 33 |
| | 772.83 | | | | | | | |

Notes:

1. Δh = Change in groundwater elevation
2. Δl = Distance along flow path
3. $I = \Delta h / \Delta l$
4. Velocity = $(I * K)/n_e$
5. Hydraulic conductivity based on historic aquifer performance tests (updated October 2024)
6. Assumed effective porosities for overburden was based on the default values recommended by USEPA for a silty sand-type soil (1996).
Assumed effective porosity for bedrock was derived from Daniel and Dahlen (2002) and Dowd and Marshall (1995).

TABLE 3
GROUNDWATER MONITORING PARAMETERS AND FREQUENCY
Georgia Power Company - Plant McDonough-Atkinson
CCR Unit AP-2 and AP-3/4
Cobb County, Georgia

| MONITORING PARAMETERS | | GROUNDWATER MONITORING | |
|--|-------------------------------|------------------------|--------------------|
| | | BACKGROUND | SEMI-ANNUAL EVENTS |
| Field Parameters | Temperature | X | X |
| | pH | X | X |
| | Turbidity | X | X |
| | Specific Conductance | X | X |
| | Oxidation Reduction Potential | X | X |
| | Dissolved Oxygen | X | X |
| Appendix III (Detection Monitoring) | Boron | X | X |
| | Calcium | X | X |
| | Chloride | X | X |
| | Fluoride | X | X |
| | pH (field) | X | X |
| | Sulfate | X | X |
| | Total Dissolved Solids | X | X |
| Appendix IV (Assesment Monitoring) | Antimony | X | X |
| | Arsenic | X | X |
| | Barium | X | X |
| | Beryllium | X | X |
| | Cadmium | X | X |
| | Chromium | X | X |
| | Cobalt | X | X |
| | Fluoride | X | X |
| | Lead | X | X |
| | Lithium | X | X |
| | Mercury | X | X |
| | Molybdenum | X | X |
| | Selenium | X | X |
| | Thallium | X | X |
| | Radium 226+228 | X | X |

Notes:

1. The water samples will be tested for total metals following the SW-846 EPA Methods or the most current approved EPA Methods.
2. Assessment sampling frequency and parameter list determined in accordance with Georgia Chapter 391-3-4-.10(6)

TABLE 4
ANALYTICAL METHODS
Georgia Power Company - Plant McDonough-Atkinson
CCR Unit AP-2 and AP-3/4
Cobb County, Georgia

| PARAMETERS | EPA METHOD NUMBER |
|------------------------------|--------------------------------------|
| APPENDIX III | |
| Boron | EPA 6010D/6020B |
| Calcium | EPA 6010D/6020B |
| Chloride | EPA 300.0/300.1/9250/9251/9253/9056A |
| Fluoride | EPA 300.0/300.1/9214/9056A |
| pH | 150.1 field |
| Sulfate | EPA 9035/9036/9038/300.0/300.1/9056A |
| Total Dissolved Solids (TDS) | EPA 160.1/Standard Method 2540C |
| APPENDIX IV | |
| Antimony | EPA 7040/7041/6010D/6020B |
| Arsenic | EPA 7060A/7061A/6010D/6020B |
| Barium | EPA 7080A/7081/6010D/6020B |
| Beryllium | EPA 7090/7091/6010D/6020B |
| Cadmium | EPA 7130/7131A/6020B |
| Chromium | EPA 7190/7191/6010D/6020B |
| Cobalt | EPA 7200/7201/6010D/6020B |
| Fluoride | EPA 300.0/300.1/9214/9056A |
| Lead | EPA 7420/7421/6010D/6020B |
| Lithium | EPA 6010D/6020B |
| Mercury | EPA 7470A |
| Molybdenum | EPA 6010D/6020B |
| Selenium | EPA 7740/7741A/6010D/6020B |
| Thallium | EPA 7840/7841/6010D/6020B |
| Radium 226 and 228 combined | EPA 903.0/9320/9315 |

Notes:

The water Samples will be tested for total metals by following the SW-846, EPA Methods or the most current approved EPA methods.

TABLE 5
SURFACE WATER MONITORING PARAMETERS AND FREQUENCY
Georgia Power Company - Plant McDonough-Atkinson
CCR Unit AP-2 and AP-3/4
Cobb County, Georgia

| ANALYTE | SURFACE WATER SAMPLING LOCATIONS | | |
|------------------------------------|----------------------------------|-------|-------|
| | SWC-1 | SWC-2 | SWC-3 |
| FIELD MONITORING PARAMETERS | | | |
| pH | X | X | X |
| Oxidation Reduction Potential | X | X | X |
| Specific Conductance | X | X | X |
| Dissolved Oxygen | X | X | X |
| Temperature | X | X | X |
| Turbidity | X | X | X |
| APPENDIX IV | | | |
| Antimony, Total | X | X | X |
| Arsenic, Total | X | X | X |
| Barium, Total | X | X | X |
| Beryllium, Total | X | X | X |
| Cadmium, Total | X | X | X |
| Chromium, Total | X | X | X |
| Cobalt, Total | X | X | X |
| Fluoride, Total | X | X | X |
| Lead, Total | X | X | X |
| Lithium, Total | X | X | X |
| Mercury, Total | X | X | X |
| Molybdenum, Total | X | X | X |
| Radium (226 + 228) | X | X | X |
| Selenium, Total | X | X | X |
| Thallium, Total | X | X | X |

Notes:

1. Surface water sampling will commence following certification of closure construction.
2. Surface water is collected Semi-Annually concurrent with the groundwater sampling event.
3. Any location that is dry at the time of the sampling event will be identified as such.

Figures

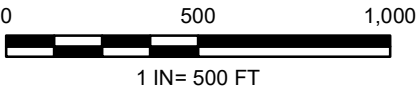


- LEGEND**
- AP-2, 3/4 MONITORING WELL
 - UPGRADIENT WELL
 - ASSESSMENT MONITORING WELL
 - PROPOSED DETECTION MONITORING WELL
 - PROPOSED DETECTION MONITORING WELL REPLACEMENT
 - PERMIT BOUNDARY
 - PROPERTY BOUNDARY

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

- REFERENCE**
1. AERIAL IMAGERY DATE FOR AP-1, AP-2, AND AP-3/4 PROVIDED BY GEORGIA POWER, JANUARY 25, 2024; AND SURROUNDING AREAS SOURCED BY PLEXEARTH, DATED SEPTEMBER 28, 2023.
2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021, APRIL 2021, MAY 2022, AND MAY 2023.



| | | |
|---|------------|--|
| CLIENT | | |
| GEORGIA POWER COMPANY | | |
| PLANT MCDONOUGH - ATKINSON | | |
| PROJECT | | |
| GROUNDWATER MONITORING PLAN | | |
| PLANT MCDONOUGH - ATKINSON CCR UNIT AP- 2 AND AP-3/4 | | |
| TITLE | | |
| ASH POND 2 (AP-2) & ASH PONDS 3/4 (AP-3/4) SITE PLAN & DETECTION MONITORING WELL LOCATION MAP | | |
| CONSULTANT | | |
| YYYY-MM-DD | 2024-11-05 | |
| PREPARED | YCS | |
| DESIGN | SEB | |
| REVIEW | BAS | |
| APPROVED | RNQ | |



LEGEND

- PROPOSED DETECTION MONITORING WELL
- PROPOSED DETECTION MONITORING WELL REPLACEMENT
- AP-1 MONITORING WELL
- AP-2,3/4 MONITORING WELL
- UPGRADIENT WELL
- ASSESSMENT MONITORING WELL
- PIEZOMETER
- DEWATERING WELL
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- GROUNDWATER SURFACE CONTOUR (FT-NAVD88)
- SURFACE WATER STREAM
- PERMIT BOUNDARY
- PROPERTY BOUNDARY
- EXISTING TOPOGRAPHY 10-FOOT CONTOUR
- EXISTING TOPOGRAPHY 2-FOOT CONTOUR

NOTES

- ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
- GROUNDWATER ELEVATION MEASUREMENTS OBTAINED JANUARY 29, 2024 BY WSP.
- GROUNDWATER ELEVATIONS DISPLAYED IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM (FT NAVD88).

REFERENCE

- AERIAL IMAGERY DATE FOR AP-1, AP-2, AND AP-3/4 PROVIDED BY GEORGIA POWER, JANUARY 25, 2024; AND SURROUNDING AREAS SOURCED BY PLEXEARTH, DATED SEPTEMBER 28, 2023.
- COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
- MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021, APRIL 2021, MAY 2022, AND MAY 2023.

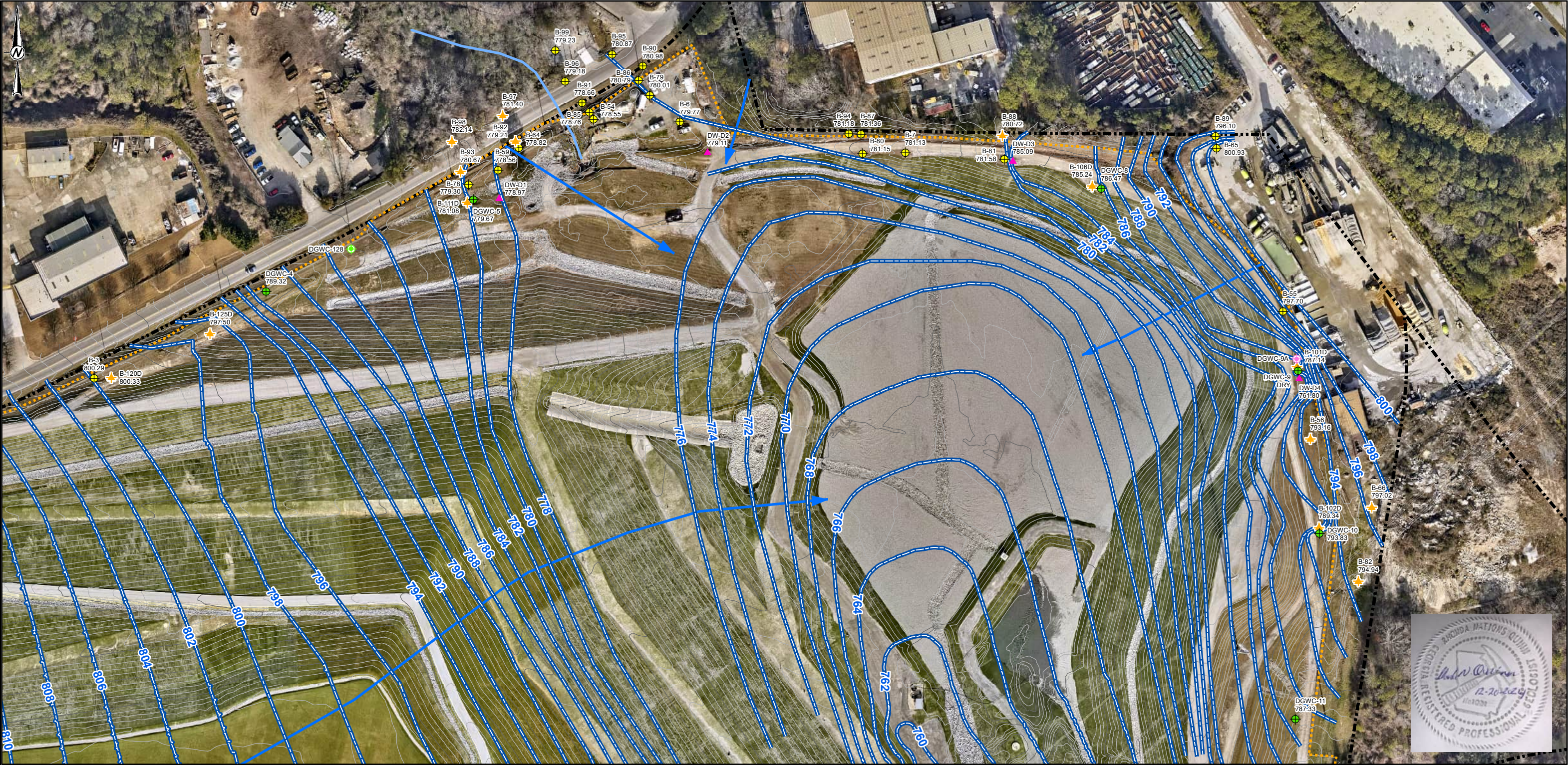


CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

PROJECT
GROUNDWATER MONITORING PLAN
PLANT MCDONOUGH-ATKINSON CCR UNIT AP-2 AND AP-3/4

TITLE
SITE POTENTIOMETRIC MAP – JANUARY 29, 2024

| | | |
|------------|-------------------|------------|
| CONSULTANT | YYYY-MM-DD | 2024-12-18 |
| | PREPARED | YCS |
| | DESIGN | SEB |
| | CHECKED | DLP |
| | REVIEWED/APPROVED | RNQ |



LEGEND

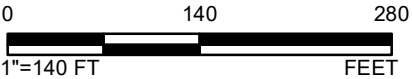
- AP-1 MONITORING WELL
- AP-2,3/4 MONITORING WELL
- UPGRADIENT WELL
- ASSESSMENT MONITORING WELL
- PIEZOMETER
- DEWATERING WELL
- PROPOSED DETECTION MONITORING WELL
- PROPOSED DETECTION MONITORING WELL REPLACEMENT
- GROUNDWATER SURFACE CONTOUR (FT-NAVD88)
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- SURFACE WATER STREAM
- PERMIT BOUNDARY
- PROPERTY BOUNDARY
- EXISTING TOPOGRAPHY 10-FOOT CONTOUR
- EXISTING TOPOGRAPHY 2-FOOT CONTOUR

NOTES

- ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
- GROUNDWATER ELEVATION MEASUREMENTS OBTAINED JANUARY 29, 2024 BY WSP.
- GROUNDWATER ELEVATIONS DISPLAYED IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM (FT NAVD88).

REFERENCE

- AERIAL IMAGERY DATE FOR AP-1, AP-2, AND AP-3/4 PROVIDED BY GEORGIA POWER, JANUARY 25, 2024; AND SURROUNDING AREAS SOURCED BY PLEXEARTH, DATED SEPTEMBER 28, 2023.
- COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
- MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021, MAY 2021, AND MAY 2022 AND 2023.



CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON
PROJECT
GROUNDWATER MONITORING PLAN
PLANT MCDONOUGH-ATKINSON CCR UNIT AP-2 AND AP-3/4
TITLE
**(INSET) SITE POTENTIOMETRIC MAP
JANUARY 29, 2024**
CONSULTANT

wsp

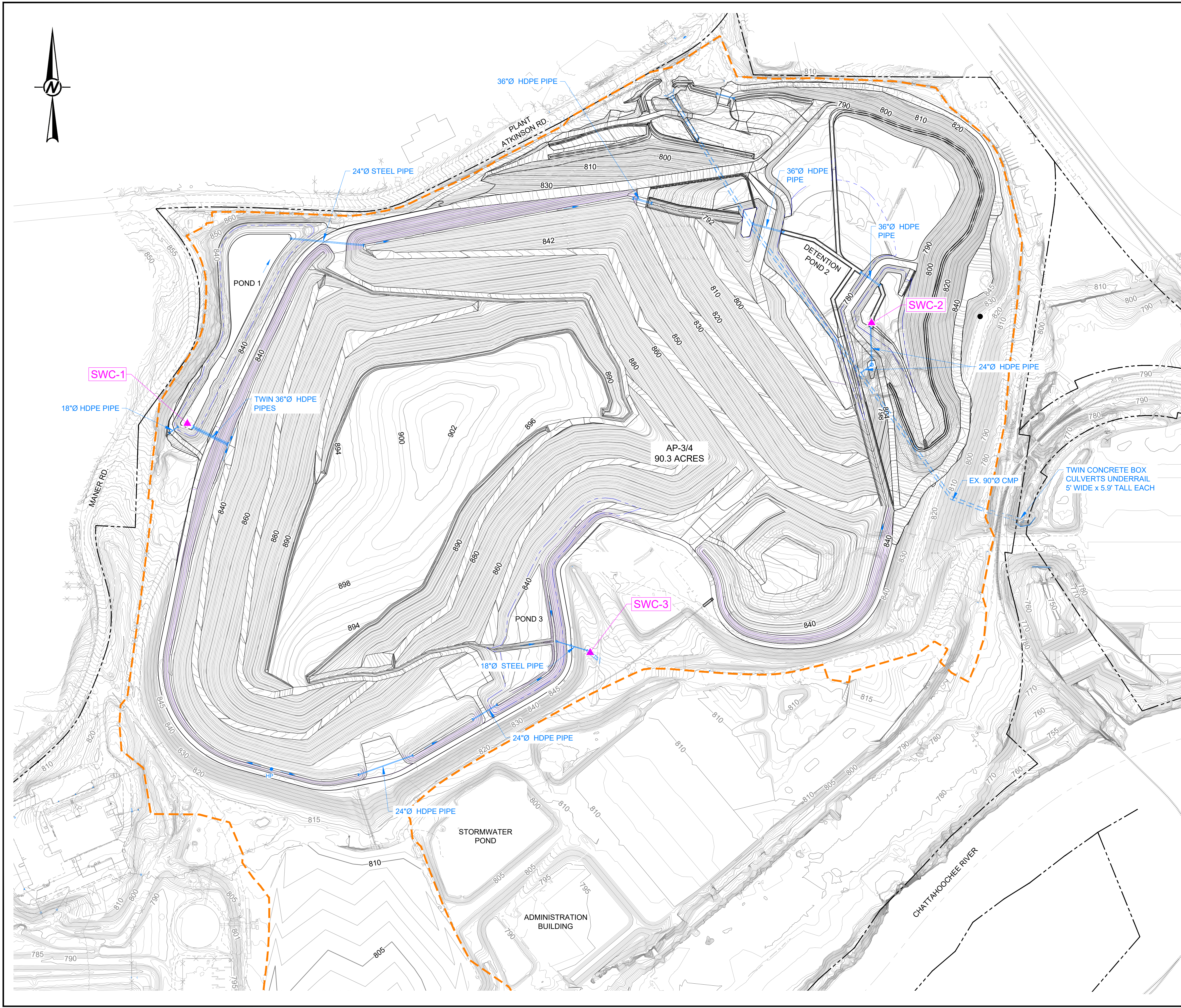
PROJECT NO. CONTROL
US0037149.3190 (GL1777449)

Georgia Power

| | |
|-----------------|------------|
| YYYY-MM-DD | 2024-12-18 |
| PREPARED | YCS |
| DESIGN | SEB |
| CHECKED | DLP |
| REVIEW/APPROVED | RNQ |

REV. 0

FIGURE **2B**



LEGEND

780

810

780

810

EXISTING CONTOURS
(SEE REFERENCE 2)

PROPERTY BOUNDARY LIMITS

FINAL CONTOURS

PROPOSED PERMIT BOUNDARY AP-2, AP-3/4

SURFACE WATER SAMPLE LOCATION

REFERENCES

1. APPROXIMATE PROPERTY BOUNDARY PROVIDED BY SOUTHERN COMPANY SERVICES (2017).

2. THE EXISTING TOPOGRAPHY AND CONTOUR ELEVATIONS FOR THE ASH PONDS 1 THROUGH 4 AREAS WERE PROVIDED BY GEORGIA POWER. THE DATE OF THE SURVEY PROVIDED AND SHOWN ON THIS PLAN, ON AP- 1 THROUGH 4, IS AUGUST 31, 2022.

THE EXISTING TOPOGRAPHY AND CONTOUR ELEVATIONS FOR THE SURROUNDING AREAS OF ASH PONDS 1 THROUGH 4 WERE PROVIDED BY GEORGIA LAND DEPARTMENT AND METRO ENGINEERING AND SURVEYING CO, INC. THE DATE OF THE SURVEY PROVIDED AND SHOWN ON THIS PLAN, AT THE SURROUNDING AREAS, IS 03-18-2018. REFER TO THE SURVEY DRAWING TITLED "TOPOGRAPHIC MAP PREPARED FOR GEORGIA POWER COMPANY PLANT MCDONOUGH - GEORGIA STATE PLANE WEST SURVEY FEET FOR SURROUNDING AREAS OF ASH PONDS 1 THROUGH 4.

NOTES

1. EXISTING TOPOGRAPHIC CONTOUR INTERVAL = 1 FOOT.

ISSUED FOR PERMIT
NOT FOR CONSTRUCTION

CLIENT

GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

PROJECT

GROUNDWATER MONITORING PLAN
PLANT MCDONOUGH-ATKINSON CCR UNIT AP-2 AND AP-3/4

TITLE

SURFACE WATER SAMPLING LOCATION MAP

CONSULTANT

YYYY-MMM

2024-02-05

DESIGNED

DLP

PREPARED

CRP

CHECKED

DLP

REVIEWED / APPROVED

RPK

PROJECT NO

REF:

REV.

FIGURE

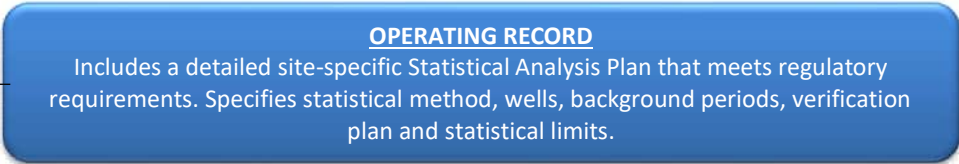
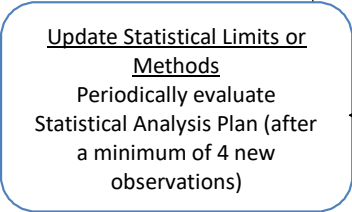
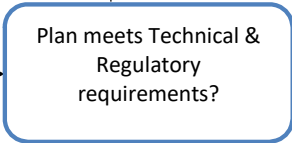
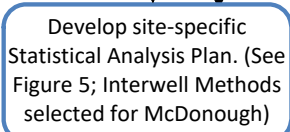
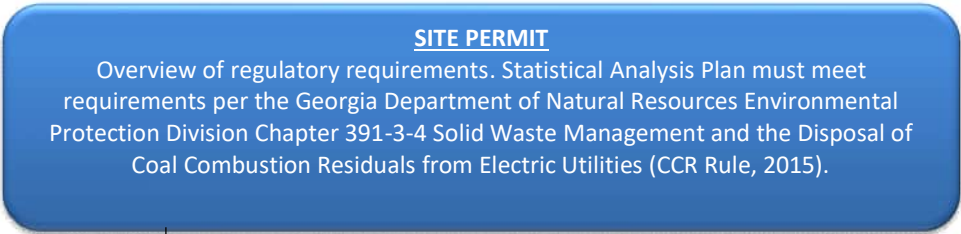
US0037149.3190

1777449

0

3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM "ANSI D 11" x 17" TO "ANSI D 11" x 17" x 0.125"



CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

CONSULTANT

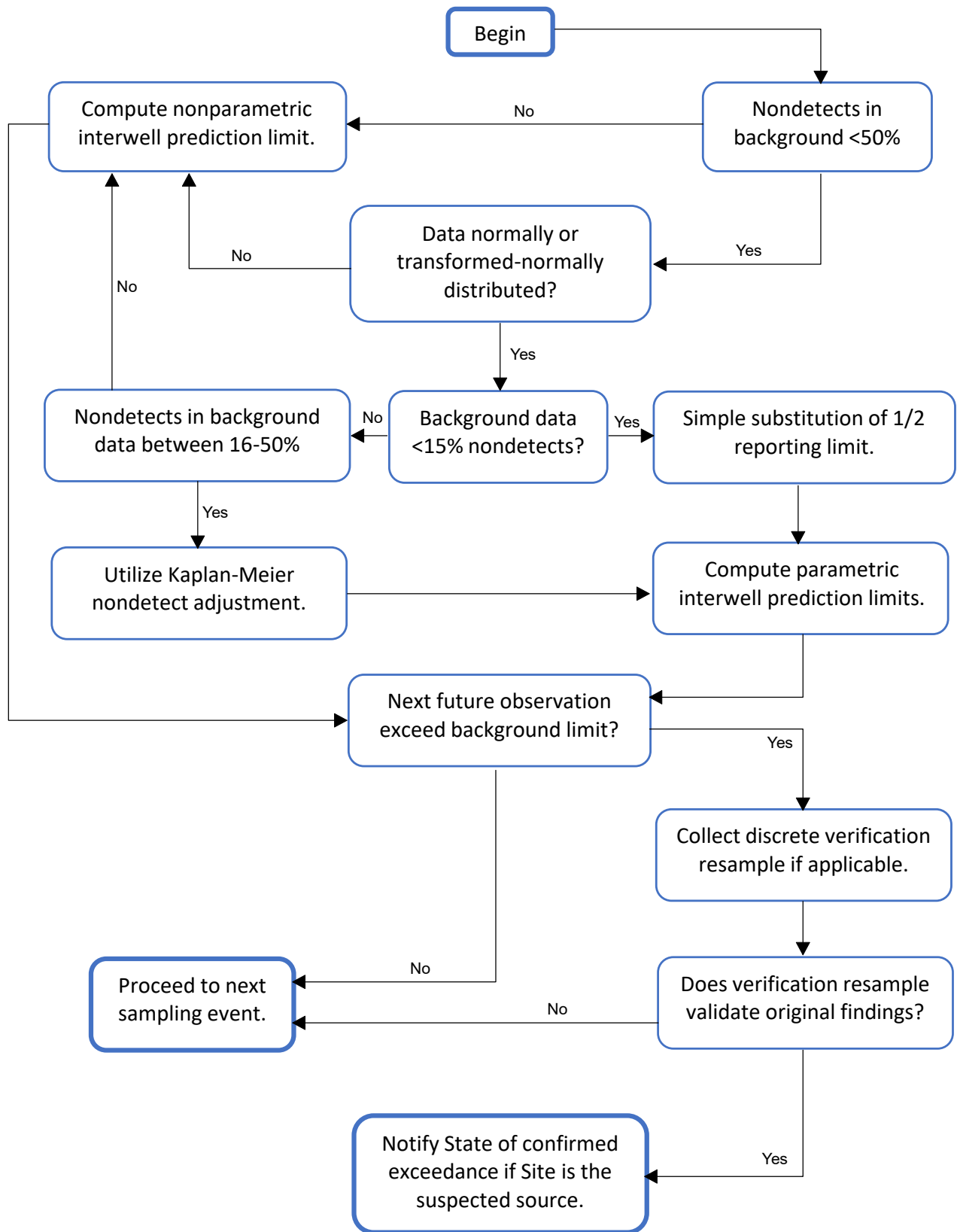


| | |
|------------|------------|
| YYYY-MM-DD | 2024-11-18 |
| DESIGNED | DLP |
| PREPARED | DJC |
| REVIEWED | DLP |
| APPROVED | RNQ |

PROJECT
GROUNDWATER MONITORING PLAN
PLANT MCDONOUGH-ATKINSON CCR UNIT AP-2
AND AP-3/4

TITLE
STATISTICAL ANALYSIS PLAN OVERVIEW

| | | | |
|----------------------------|---------------------|------|--------|
| PROJECT NO. | CONTROL | REV. | FIGURE |
| US0037149.3190 (GL1777449) | GL166449622B001.mxd | 0 | 4 |



CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

CONSULTANT



YYYY-MM-DD 2024-11-18

DESIGNED DLP

PREPARED DJC

REVIEWED DLP

APPROVED RNQ

PROJECT
GROUNDWATER MONITORING PLAN
PLANT MCDONOUGH-ATKINSON CCR UNIT AP-2
AND AP-3/4

TITLE

**DECISION LOGIC FOR COMPUTING INTERWELL
PREDICTION LIMITS**

PROJECT NO.

US0037149.3190 (GL1777449)

CONTROL

GL166849622B002.mxd

REV. FIGURE

0 5

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI A

APPENDIX A

MONITORING SYSTEM DETAILS

MONITORING WELL AND PIEZOMETER CONSTRUCTION LOGS

RECORD OF BOREHOLE DGWA-53/B-53

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 28.90 ft
LOCATION: in the middle of the pond of the construction area of AP3

DRILL RIG: CME 55
DATE STARTED: 9/24/16
DATE COMPLETED: 9/24/16

NORTHING: 1,393,472.80
EASTING: 2,201,668.80
GS ELEVATION: 841.37
TOC ELEVATION: 844.26 ft

DEPTH W.L.: 10.08
ELEVATION W.L.: 831.22
DATE W.L.: 10/6/2016
TIME W.L.: 1233

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|------|--|---------|------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | 840 | 0.00 - 3.50 SM, silt SAND, fine to medium grained, non-plastic, tan, non-cohesive, dry to moist, compact | SM | | | 1 | DO | 2-4-6 | 10 | 1.50 | CETCO puregold grout (70:30) — / aluminum casing | WELL CASING Interval: 0'-17.6' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 17.6'-27.6' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 12'-28.9' Type: FilterSil FILTER PACK SEAL Interval: 8'-12' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-8' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: Protective Casing: 4"x4"x5' aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: HQ Core Barrell |
| 5 | 835 | 3.50 - 12.20 SM, silt SAND, fine to medium grained, non-plastic, tan, non-cohesive, dry to moist, compact to dense (saprolite). Auger Refusal at 12.2 | SM | | 837.9 3.50 | 2 | DO | 4-6-6 | 12 | 1.50 | CETCO puregold grout (70:30) | |
| 10 | 830 | | | | | 3 | DO | 5-13-35 | 48 | 1.50 | PEL-PLUG 3/8" Bentonite pellets | |
| 15 | 825 | 12.20 - 29.50 Bedrock; GNEISS; competent, thinly foliated. | BR | | 829.2 12.20 | | | | | | FilterSil — | |
| 20 | 820 | | | | | | | | | | 0.010" slotted — screen | |
| 25 | 815 | | | | | | | | | | | |
| 30 | 810 | Boring completed at 28.90 ft | | | 812.5 28.9 | | | | | | | |
| 35 | 805 | | | | | | | | | | | |
| 40 | 800 | | | | | | | | | | | |
| 45 | | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Nortey Yeboah
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE DGWA-70A/B-70A







SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 60.00 ft
LOCATION: ~400' west of the SW corner of AP-1

DRILL RIG: CME 550
DATE STARTED: 5/10/17
DATE COMPLETED: 5/10/17

NORTHING: 1,390,481.40
EASTING: 2,200,591.60
GS ELEVATION: 805.67
TOC ELEVATION: 808.52 ft

DEPTH W.L.: 42.9
ELEVATION W.L.: 762.9
DATE W.L.: 5/10/2017
TIME W.L.: 10:45

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|-------|---|------------------------|------------|------|--|---------|--------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | 805 | 0.00 - 5.00 CL-CH, low to high plasticity CLAY with trace fine sand; red orange; cohesive, moist | CL-CH |  | | | | | | |  | WELL CASING Interval: 0' - 59.3' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 48.9' - 58.9' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 58.9' - 59.3' FILTER PACK Interval: 46.9' - 59.3' Type: FilterSil Gravel Pack FILTER PACK SEAL Interval: 43.4' - 46.9' Type: Pel-Plug 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0' - 43.4' Type: Pure Gold Grout Mixture WELL COMPLETION Pad: 4' x 4' concrete Protective Casing: 4" x 4" x 5' Aluminum DRILLING METHODS Soil Drill: 8.25 Hollow-Stem Auger Rock Drill: N/A |
| 5 | 800 | 5.00 - 13.50 ML, SILT, trace fine sand, low plasticity; yellowish brown, contains mica; cohesive, moist, w<PL, soft. | ML |  | 800.7 5.00 | | | | | | | |
| 10 | 795 | | | | | | | | | | | |
| 15 | 790 | 13.50 - 28.50 ML, SILT, trace fine to coarse sand, non to low plasticity; yellowish brown to orange brown, iron staining weathered, relict structure (gneissic); cohesive, moist, w<PL, soft. | ML |  | 792.2 13.50 | S1 | DO | 6-7-7 | 14 | 0.83 1.50 | | |
| 20 | 785 | | ML | | | S2 | DO | 5-9-13 | 22 | 1.50 1.50 | | |
| 25 | 780 | | | | | S3 | DO | 5-9-10 | 19 | 1.50 1.50 | | |
| 30 | 775 | 28.50 - 38.50 ML, SILT, trace sand, low plasticity; medium to dark gray, highly micaceous; cohesive, moist to wet (increase with depth), w<PL, soft. | ML |  | 777.2 28.50 | S4 | DO | 5-8-11 | 19 | 1.50 1.50 | | |
| 35 | 770 | | | | | S5 | DO | 5-11-15 | 26 | 1.50 1.50 | | |
| 40 | 765 | 38.50 - 53.50 ML, SILT, trace sand, low plasticity; medium to dark gray, saprolite, highly micaceous; cohesive, moist to wet (increase with depth), w<PL, soft. | ML |  | 767.2 38.50 | S6 | DO | 4-8-10 | 18 | 1.50 1.50 | | |
| 45 | | Log continued on next page | | | | S7 | DO | 20-50/4 | 50/4 | 0.75 1.50 | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 1/16/18



RECORD OF BOREHOLE DGWA-70A/B-70A

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 60.00 ft
LOCATION: ~400' west of the SW corner of AP-1

DRILL RIG: CME 550
DATE STARTED: 5/10/17
DATE COMPLETED: 5/10/17

NORTHING: 1,390,481.40
EASTING: 2,200,591.60
GS ELEVATION: 805.67
TOC ELEVATION: 808.52 ft

DEPTH W.L.: 42.9
ELEVATION W.L.: 762.9
DATE W.L.: 5/10/2017
TIME W.L.: 10:45

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|------|--|---------|--------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 45 | 760 | 38.50 - 53.50 ML, SILT, trace sand, low plasticity; medium to dark gray, saprolite, highly micaceous; cohesive, moist to wet (increase with depth), w<PL, soft. (Continued) | ML | | 752.2 | | | | | | FilterSil Gravel Pack | WELL CASING Interval: 0' - 59.3' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 48.9' - 58.9' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 58.9' - 59.3' FILTER PACK Interval: 46.9' - 59.3' Type: FilterSil Gravel Pack FILTER PACK SEAL Interval: 43.4' - 46.9' Type: Pel-Plug 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0' - 43.4' Type: Pure Gold Grout Mixture WELL COMPLETION Pad: 4' x 4' concrete Protective Casing: 4" x 4" x 5' Aluminum DRILLING METHODS Soil Drill: 8.25 Hollow-Stem Auger Rock Drill: N/A |
| 50 | 755 | | | | | S8 | DO | 50/4 | 50/4 | 0.00 1.50 | | |
| 55 | 750 | 53.50 - 60.00 SM, Silty SAND, fine grained, low plasticity; dark gray, contains mica; non-cohesive, moist, w<PL, dense. | | | | S9 | DO | 50/3 | 50/3 | 0.25 1.50 | | |
| 60 | 745 | Boring completed at 60.00 ft | PWR | | 745.7 | S10 | DO | 50/2 | 50/2 | 0.17 1.50 | 0.010" Slotted Schedule 40 PVC | |
| 65 | 740 | | | | | | | | | | | |
| 70 | 735 | | | | | | | | | | | |
| 75 | 730 | | | | | | | | | | | |
| 80 | 725 | | | | | | | | | | | |
| 85 | 720 | | | | | | | | | | | |
| 90 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 1/16/18



RECORD OF BOREHOLE DGWA-71/B-71

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 43.80 ft
LOCATION: NW corner of site, inside cell tower gate.

DRILL RIG: CME 550
DATE STARTED: 2/28/17
DATE COMPLETED: 2/28/17

NORTHING: 1,393,963.30
EASTING: 2,201,714.80
GS ELEVATION: 861.22
TOC ELEVATION: 863.84 ft

DEPTH W.L.: 27.1
ELEVATION W.L.: 834.1
DATE W.L.: 2/28/17
TIME W.L.: 1245

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|-------|----------------|------------------------|------------|------|--|---------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | |
| 0 | 860 | 0.00 - 10.50 Hydrovac | | | | | | | | | WELL CASING Interval: 0'-33.4' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screen WELL SCREEN Interval: 33.4'-43.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 32.6'-43.8' Type: FilterSil FILTER PACK SEAL Interval: 30.6'-32.6' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 1'-30.6' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 4'x4' Concrete Protective Casing: 4" x 4" x 5' Aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: N/A |
| 5 | 855 | | | | | | | | | | |
| 10 | 850 | 10.50 - 20.00 Sand with some silt, sands fine, white/black/grey weathered granite/granite gneiss, non plastic, moist, compact. | | | 850.7 10.50 | | | | | | |
| 15 | 845 | | SP-SM | | | S1 | SPT | 4-8-10 | 18 | 1.50 1.50 | |
| 20 | 840 | 20.00 - 30.00 Silty Sand, sands fine, white/black/grey weathered granite/granite gneiss, non plastic, moist, dense. | | | 841.2 20.00 | S2 | SPT | 2-5-7 | 12 | 1.50 1.50 | CETCO puregold - grout (70:30) |
| 25 | 835 | | SM | | | S3 | SPT | 4-7-11 | 18 | 1.50 1.50 | |
| 30 | 830 | 30.00 - 35.00 Sand with trace to some silt, sands fine to medium, white/black/grey, non plastic, moist, very dense. | | | 831.2 30.00 | S4 | SPT | 8-21-50/4 | 71/10 | 1.33 1.33 | |
| 35 | 825 | 35.00 - 43.80 Sand with trace silt and gravel (rock fragments), sands fine to medium, white/black/grey, non plastic, wet, very dense, and some iron staining in samples. | | | 826.2 35.00 | S5 | SPT | 43-50/2 | 50/2 | 0.67 0.67 | |
| 40 | 820 | | PWR | | | S6 | SPT | 50/3 | 50/3 | 0.25 0.25 | PEL-PLUG 3/8" Bentonite pellets 0.010" Slotted Schedule 40 PVC FilterSil - |
| 45 | | Boring completed at 43.80 ft | | | 817.4 | S7 | SPT | 50/3 | 50/3 | 0.25 0.25 | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 1/16/18





BORING LOG

BORING B-37

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 11/28/2012 COMPLETED 11/28/2012 GROUND ELEVATION 763.7 ft COORDINATES N 1390482.2 E 2200919.8

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY G. Dyer CHECKED BY BORING DEPTH 41 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------------|
| 0 | | - Vacuum excavation fro 0 ft to 9.0 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | Silt (ML) - tan to mottled tan, brown and red, damp, soft, SILT with clay (about 5% clay); micaceous; trace schistose texture (highly weathered) | 754.7 | SS -1 | 9.5 | 1-1-3 (4) | | residual soil. |
| 15 | | - yellow tan, medium stiff, SAA | | SS -2 | 14.5 | 2-2-3 (5) | | residual soil. |
| 20 | | - tan, yellow and green banding, soft, SAA; softer; less clay | | SS -3 | 19.5 | 1-1-2 (3) | | residual soil. |
| 25 | | | | SS | 24.5 | 2-2-4 | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \VALTRCFP01\APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

(Continued Next Page)



BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

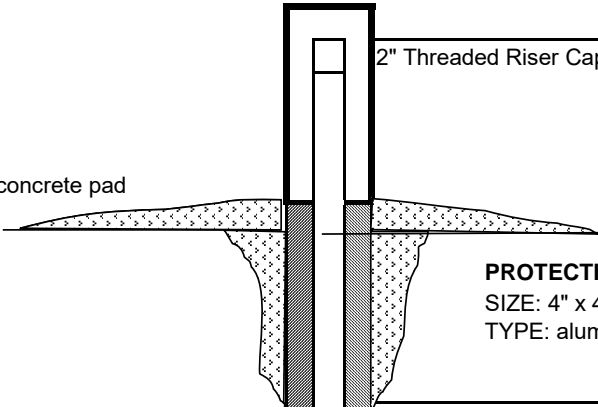
LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------|
| | | Silt (ML)(con't) - green-gray, moist, medium stiff, SILT; micaceous; lacks structure | | -4 | | (6) | | |
| 30 | | - mottled tan, green, and white-gray, very damp, stiff, sandy SILT | | SS -5 | 29.5 | 4-5-7 (12) | | upper saprolite. |
| 35 | | - brown, very hard, SILT with gravel; saprolite; highly weathered schist fragments | | SS -6 | 34.5 | 50 (0) | | lower saprolite. |
| 40 | | - brown, very moist, very hard, sandy SILT, weathered schist fragments | | SS -7 | 39.5 | 22-32-23 (55) | | lower saprolite. |
| | | | 722.7 | | | | | |
| | | Bottom of borehole at 41.0 feet. | | | | | | |
| 45 | | | | | | | | |
| 50 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\LA\PARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | | |
|---|--|----------------------------------|--|-----------------------|----------------------|--------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-37/B-37 | | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | | | |
| DATE CONSTRUCTED: 11/28/2012 | | N: 1390482.2 E:2200919.8 | | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL | |
|  | | | | TOP OF RISER | -2.5 | 766.21 |
| | | | | 2" Threaded Riser Cap | | |
| 4 ft x 4 ft concrete pad | | | | | | |
| GROUND SURFACE | | | | 0.0 | 763.64 | |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | | |
| BOTTOM OF GROUT | | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 20 bags cement 10 lbs bentonite | | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | | |
| TOP OF SEAL | | | | 24.6 | 739.0 | |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 1.5 buckets PLACEMENT: Poured | | | | | | |
| TOP OF FILTER PACK | | | | 27.0 | 736.6 | |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 6.75 Bags PLACEMENT: Poured w/water | | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 29.3 | 734.3 | |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | | |
| BOTTOM OF SCREEN | | | | 39.3 | 724.3 | |
| Flush-threaded end cap | | | | | | |
| BOTTOM OF CASING | | | | 39.7 | 723.9 | |
| HOLE DIA: 7 inch | | | | | | |



BORING LOG

BORING B-38

Page 1 of 1

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 11/28/2012 COMPLETED 11/28/2012 GROUND ELEVATION 754.7 ft COORDINATES N 1390362.7 E 2201148.6

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY G. Dyer CHECKED BY BORING DEPTH 24.7 ft.

GROUND WATER DEPTH: DURING 13 ft. COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------------|
| 0 | | - Vacuum excavation from 0 ft to 9.0 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | Silt (ML) - olive-gray to tan, moist, medium stiff, SILT; micaceous; trace schist gravel; <5% clay | 745.7 | SS -1 | 9.5 | 2-3-4 (7) | | residual soil. |
| 15 | | - more tan, wet, very soft, SAA | | SS -2 | 14.5 | WH-WH-1 (1) | | |
| 20 | | - tan-brown-gray, very moist, stiff, SILT; micaceous; more prevalent schistose gravel | | SS -3 | 19.5 | 2-4-5 (9) | | residual soil. |
| 25 | | - SAA with very fine-grained sand | 730.0 | | | | | |

Bottom of borehole at 24.7 feet.

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \VALTRCFP01\APARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | |
|------------------------------|----------------------------------|--------------|
| PROJECT: Plant McDonough | DRILLING CO.: SCS Field Services | WELL NAME |
| Hydrogeologic Investigation | DRILLER: S. Denty | |
| LOCATION: Ash Pond | RIG TYPE: CME550 | DGWC-38/B-38 |
| LOGGER: Greg Dyer | DRILLING METHODS: HS Auger | |
| DATE CONSTRUCTED: 11/29/2012 | N: 1390362.7 E:2201148.6 | |

| | DEPTH FEET | ELEVATION FT, MSL |
|---|---------------|----------------------|
| TOP OF RISER | -2.7 | 757.43 |
| 2" Threaded Riser Cap | | |
| 4 ft x 4 ft concrete pad | | |
| GROUND SURFACE | 0.0 | 754.67 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | |
| BOTTOM OF GROUT | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 4 bags cement 6 lbs bentonite | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | |
| TOP OF SEAL | 10.4 | 744.3 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 1.25 bucket PLACEMENT: Poured | | |
| TOP OF FILTER PACK | 13.4 | 741.3 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 5.25 Bags PLACEMENT: Poured w/water | | |
| BOTTOM OF RISER / TOP OF SCREEN | 14.7 | 740.0 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | |
| BOTTOM OF SCREEN | 24.7 | 730.0 |
| Flush-threaded end cap | | |
| BOTTOM OF CASING | 25.0 | 729.7 |
| HOLE DIA: 7 inch | | |



BORING LOG

BORING B-39

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/6/2012 **COMPLETED** 10/6/2012 **GROUND ELEVATION** 757 ft **COORDINATES** N 1390303.6 E 2201540.1

CONTRACTOR SCS Field Services **METHOD** 4.25" Hollow Stem Auger w/pilot bit **EQUIPMENT** CME 550

DRILLED BY S. Denty **LOGGED BY** G. Dyer **CHECKED BY** **BORING DEPTH** 26 ft.

GROUND WATER DEPTH: DURING 20 ft. **COMP.** **DELAYED**

NOTES Well installed. Refer to well data sheet.

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \VALTRCFP01\APARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|--|
| 0 | | - Vacuum excavation from 0 ft to 9.5 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | Elastic Silt (MH) - tan, wet, medium stiff, medium plasticity, clayey SILT with fine sand | 747.5 | UD -1 | 9.5 | | | water table in hydrovac hole at about 2 ft bgs. |
| 15 | | Silt (ML) - tan-brown, wet, medium stiff, sandy SILT; contains schist gravel at base | 741.8 | SS -1 | 14.5 | 1-2-6 (8) | | residual soil. |
| 20 | | Silt (ML) - mottled tan, orange and brown, wet, medium stiff, clayey SILT; micaceous | | SS -2 | 19.5 | 2-2-5 (7) | | residual soil/upper saprolite transition. |
| 25 | | Lean Clay (CL) | 732.5 | SS | 24.5 | 3-2-4 | | |

(Continued Next Page)



BORING LOG

BORING B-39
Page 2 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

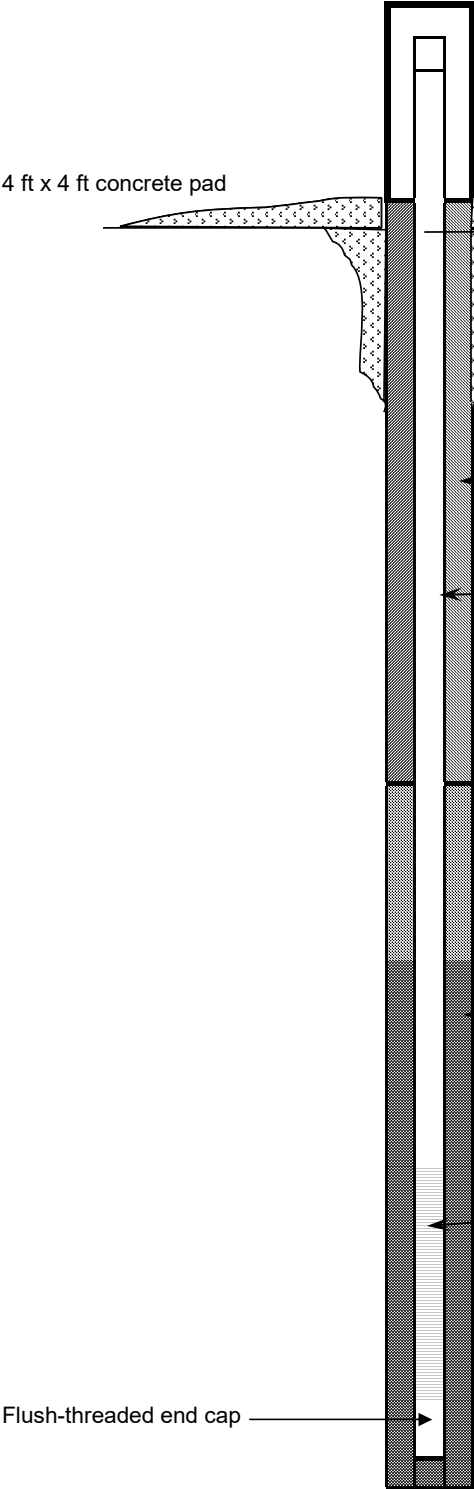
PROJECT Plant McDonough Hydrogeological Investigation
LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------|
| | | - mottled tan, brown and black, damp, medium stiff, low plasticity, silty CLAY; relict structures observed; highly weathered Lean Clay (CL) (con't) | 731.0 | -3 | | (6) | | upper saprolite. |
| | | Bottom of borehole at 26.0 feet. | | | | | | |
| 30 | | | | | | | | |
| 35 | | | | | | | | |
| 40 | | | | | | | | |
| 45 | | | | | | | | |
| 50 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | | | |
|--|--|----------------------------------|-------|---|----------------------|--------|--------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | | | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-39/B-39 | | | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | | | | |
| DATE CONSTRUCTED: 11/6/2012 | | N: 1390303.6 E:2201540.1 | | | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL | | |
|  | | | | TOP OF RISER | -2.9 | 759.89 | |
| | | | | 2" Threaded Riser Cap | | | |
| | | | | GROUND SURFACE | | 0.0 | 756.93 |
| | | | | PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | |
| | | | | BOTTOM OF GROUT | | | |
| | | | | BACKFILL MATERIAL TYPE: Bentonite Plug grout AMOUNT: 4 buckets 200 lbs bentonite | | | |
| | | | | RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | |
| | | | | TOP OF SEAL | | 4.9 | 752.0 |
| | | | | ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 3.5 buckets PLACEMENT: Poured | | | |
| | | | | TOP OF FILTER PACK | | 8.0 | 748.9 |
| | | | | FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 11 Bags PLACEMENT: Poured w/water | | | |
| | | | | BOTTOM OF RISER / TOP OF SCREEN | | 10.8 | 746.1 |
| | | | | SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | |
| | | | | BOTTOM OF SCREEN | | 20.8 | 736.1 |
| Flush-threaded end cap | | | | | | | |
| BOTTOM OF CASING | | 21.2 | 735.7 | | | | |
| HOLE DIA: 7 inch | | | | | | | |



BORING LOG

BORING B-40

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 11/5/2012 COMPLETED 11/5/2012 GROUND ELEVATION 776.2 ft COORDINATES N 1390625.7 E 2201825.9

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY G. Dyer CHECKED BY BORING DEPTH 36 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|--|
| 0 | | - Vacuum excavation from 0 ft to 9.5 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | Silt (ML) - brown-tan, stiff, clayey, sandy SILT; damp to moist; contains micaceous fragments; manganese staining and nodules | 766.7 | SS -1 | 9.5 | 2-4-5 (9) | | residual soil. |
| 15 | | - tan to tan-brown, damp, stiff, sandy SILT; contains highly weathered schist; manganese staining | | SS -2 | 14.5 | 4-5-6 (11) | | upper saprolite. |
| 20 | | - mottled tan, brown, and black, very moist, clayey SILT with sand; highly weathered schist fragments; 10% micaceous sand | | SS -3 | 19.5 | 4-3-4 (7) | | upper saprolite; increased water content. |
| 25 | | | | SS | 24.5 | 7-11-12 | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

(Continued Next Page)



BORING LOG

BORING B-40

Page 2 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation


LOCATION Cobb County, GA

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|---|
| | | Silt (ML)(con't) - white-gray, very moist, very stiff, SILT with clay; trace quartz sand; micaceous in parts; leached zone | | -4 | | (23) | | weathered quartz vein or feldspar rich zone. |
| 30 | | - brown, very moist, very stiff, SILT with clay and trace gravel; trace quartz/feldspar gravel | | SS -5 | 29.5 | 6-9-10 (19) | | upper saprolite. |
| 35 | | - white-gray brown, very moist, medium stiff, SILT with clay and trace gravel; clay is more plastic | | SS -6 | 34.5 | 1-1-4 (5) | | |
| | | | 740.2 | | | | | |
| | | Bottom of borehole at 36.0 feet. | | | | | | |
| 40 | | | | | | | | |
| 45 | | | | | | | | |
| 50 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS - SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | | | |
|--|--|----------------------------------|--|---|----------------------|--------|--------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | | | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-40/B-40 | | | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | | | | |
| DATE CONSTRUCTED: 11/5/2012 | | N: 1390625.7 E:2201825.9 | | | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL | | |
|  | | | | TOP OF RISER | -2.9 | 779.06 | |
| | | | | 2" Threaded Riser Cap | | | |
| | | | | GROUND SURFACE | | 0.0 | 776.12 |
| | | | | PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | |
| | | | | BOTTOM OF GROUT | | | |
| | | | | BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 6 bags cement 6 lbs bentonite | | | |
| | | | | RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | |
| | | | | TOP OF SEAL | | 19.0 | 757.1 |
| | | | | ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Poured | | | |
| | | | | TOP OF FILTER PACK | | 21.4 | 754.7 |
| | | | | FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 0.5 Bag filter pac 6.5 bag hole PLACEMENT: Poured w/water | | | |
| | | | | BOTTOM OF RISER / TOP OF SCREEN | | 24.5 | 751.6 |
| | | | | SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | |
| | | | | BOTTOM OF SCREEN | | 34.5 | 741.6 |
| | | | | Flush-threaded end cap | | | |
| | | | | BOTTOM OF CASING | | 34.9 | 741.2 |
| HOLE DIA: 7 inch | | | | | | | |

RECORD OF BOREHOLE DGWC-67/B-67

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 56.00 ft
LOCATION: West Toe of AP-1

DRILL RIG: Geoprobe
DATE STARTED: 3/8/17
DATE COMPLETED: 3/14/17

NORTHING: 1,390,953.80
EASTING: 2,200,830.70
GS ELEVATION: 766.80
TOC ELEVATION: 766.70 ft

DEPTH W.L.: 9.1
ELEVATION W.L.: 757.9
DATE W.L.: 3/14/17
TIME W.L.: 0850

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | |
|---------------|-------------------|--|------|----------------|---------------|---------|--|----------|------|---|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | | |
| | | | | | DEPTH (ft) | | | | | | | |
| 0 | | 0.00 - 10.00 Silt and Clay with some sand and pebbles, brown, highly weathered mica schist, low plastic, cohesive, dry. | ML | | | | | | | Flush Mounted Casing | WELL CASING Interval: 0'-46.3' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 46.3'-56.3' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 44.0'-56.7' Type: FilterSil FILTER PACK SEAL Interval: 44.0'-41.8' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-41.8' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 4'x4' Concrete Protective Casing: 8" Round Flush Mount DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: N/A | |
| 765 | | | | | S1 | GRAB | | | 0.50 | | | |
| 5 | | | | | | | | | | | | |
| 760 | | | | | | | | | | | | |
| 10 | | 10.00 - 15.00 Sandy Silt, sands fine, brown, highly weathered, micaceous, low plastic, cohesive, dry. | ML | | 756.8 | S2 | GRAB | | 0.50 | CETCO puregold – grout (70:30) | | |
| 755 | | | | | | | | | | | | |
| 15 | | 15.00 - 20.00 Sandy Silt, sands fine, brown, highly weathered, micaceous, low plastic, cohesive, moist. | ML | | 751.8 | S3 | SPT | 6-7-12 | 19 | 1.50 1.50 | | |
| 750 | | | | | | | | | | | | |
| 20 | | 20.00 - 25.00 Sandy silt, sand f-m, brown to tan, highly weathered, micaceous, low-medium plasticity, cohesive, moist, sample spoon wet. | ML | | 746.8 | S4 | SPT | 9-25-25 | 50 | 1.50 1.50 | | |
| 745 | | | | | | | | | | | | |
| 25 | | 25.00 - 30.00 Saprolite, Sandy silt, sands fine to coarse, brown to tan, highly weathered, micaceous, low plastic, cohesive, moist, sample spoon wet. | ML | | 741.8 | S5 | SPT | 6-10-14 | 24 | 1.16 1.50 | | |
| 740 | | | | | | | | | | | | |
| 30 | | 30.00 - 35.00 Saprolite, Sandy silt, sands fine to coarse, trace pebbles, reddish brown to tan, highly weathered, micaceous, low plastic, cohesive, moist, sample spoon wet. | ML | | 736.8 | S6 | SPT | 13-20-22 | 42 | 1.16 1.50 | | |
| 735 | | | | | | | | | | | | |
| 35 | | 35.00 - 40.00 Saprolite, Sandy silt, sands fine to coarse, trace pebbles, reddish brown to tan, highly weathered, micaceous, low plastic, cohesive, moist, sample spoon wet. | ML | | 731.8 | S7 | SPT | 7-10-13 | 23 | 1.00 1.50 | | |
| 730 | | | | | | | | | | | | |
| 40 | | 40.00 - 45.00 Saprolite, Sandy silt, sands fine to medium, reddish brown to tan, highly weathered, micaceous, low plastic, cohesive, moist, sample spoon wet. | ML | | 726.8 | S8 | SPT | 7-16-23 | 39 | 1.33 1.50 | | |
| 725 | | | | | | | | | | | | |
| 45 | | Log continued on next page | | | 721.8 | S9 | SPT | 12-15-18 | 33 | 1.16 1.50 | PEL-PLUG 3/8" – Bentonite pellets | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Ben Hodges
CHECKED BY: Timothy Richards, PG
DATE: 1/16/18



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

DEPTH W.L.: 9.1
ELEVATION W.L.: 757.9
DATE W.L.: 3/14/17
TIME W.L.: 0850

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE DGWC-68A/B-68A

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 30.00 ft
LOCATION: ~15' East of B-68

DRILL RIG: Geoprobe 7822DT
DATE STARTED: 4/19/17
DATE COMPLETED: 4/20/17

NORTHING: 1,391,301.20
EASTING: 2,200,734.90
GS ELEVATION: 765.06
TOC ELEVATION: 765.33 ft

DEPTH W.L.: 18.8
ELEVATION W.L.: 746.6
DATE W.L.: 4/20/2017
TIME W.L.: 08:48

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|-------------------------|------------|------|--|---------|---------------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | 765 | 0.00 - 8.50 SM, Silty SAND, fine to coarse, moderate plasticity; red-orange to orange-brown, fill; non-cohesive, moist, w~PL, loose. | SM | | | | | | | | 8" Diameter Round Flush Mount | WELL CASING Interval: 0' - 29.8' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 19.4' - 29.4' Material: Schedule 40 PVC pre-pack Diameter: 2" Slot Size: 0.010" End Cap: 29.4' - 29.8' FILTER PACK Interval: 17.0' - 29.8' Type: FilterSil gravel pack FILTER PACK SEAL Interval: 15.0' - 17.0' Type: Pel-Plug 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0' - 15.0' Type: Pure Gold Grout Mixture WELL COMPLETION Pad: 4' x 4' concrete Protective Casing: 8" Diameter Round Flush Mount DRILLING METHODS Soil Drill: 4.25-inch ID HSA Rock Drill: N/A |
| 5 | 760 | | | | | | | | | | | |
| 10 | 755 | 8.50 - 13.50 CL, CLAY, with trace sand, moderate plasticity; red-orange brown, fill; cohesive, moist, w<PL, soft to firm. | CL | | 756.6 8.50 | S1 | DO | 13-18-9 | 27 | $\frac{1.50}{1.50}$ | Pure Gold Grout Mixture | |
| 15 | 750 | 13.50 - 28.50 ML, SILT, low plasticity; brown to silver, relict structure; cohesive, moist to wet, w<PL, very soft. | | | 751.6 13.50 | S2 | DO | WOH-WOH-3 | 3 | $\frac{1.50}{1.50}$ | Pel-Plug 3/8" Bentonite Pellets | |
| 20 | 745 | | ML | | | S3 | DO | 4-6-16 | 22 | $\frac{1.33}{1.50}$ | | |
| 25 | 740 | | | | | S4 | DO | WOH-16-24 | 40 | $\frac{1.50}{1.50}$ | Pre-pack 0.010" Slotted - Schedule 40 PVC | |
| 30 | 735 | 28.50 - 30.00 SM, Silty SAND, fine to coarse, non-plastic to low plasticity; gray to white to silver, weathered saprolite, gneiss; cohesive, wet, w<PL, firm. Boring completed at 30.00 ft | SM | | 736.6 28.50 735.1 | S5 | DO | 13-50/5 | 50/5 | $\frac{0.75}{0.92}$ | FilterSil gravel pack | |
| 35 | 730 | | | | | | | | | | | |
| 40 | 725 | | | | | | | | | | | |
| 45 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST BACKUP SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 1/16/18



RECORD OF BOREHOLE DGWC-69/B-69

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 44.30 ft
LOCATION: West Toe of AP-1

DRILL RIG: Geoprobe
DATE STARTED: 3/15/17
DATE COMPLETED: 3/16/17

NORTHING: 1,391,585.00
EASTING: 2,200,657.10
GS ELEVATION: 763.99
TOC ELEVATION: 763.75 ft

DEPTH W.L.: 6.0
ELEVATION W.L.: 758
DATE W.L.: 3/17/17
TIME W.L.: 0840

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|------|--|---------|--------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | | 0.00 - 10.00 Hydrovac | | | | | | | | | Flush Mount Casing | WELL CASING Interval: 0'-14.3' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screen WELL SCREEN Interval: 14.3'-24.3' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 12.0'-24.7' Type: FilterSil FILTER PACK SEAL Interval: 10.0'-12.0' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-10.0' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 4'x4' Concrete Protective Casing: 8" Round Flush DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: HQ Core Barrell |
| 760 | | | | | | | | | | | CETCO puregold grout (70:30) | |
| 755 | | | | | | | | | | | | |
| 10 | | 10.00 - 24.90 Silty Sand, fine to coarse, banded grey and brown, highly weathered, noncohesive, moist, very dense, sample spoon wet | | | 754 10.00 | | | | | | PEL-PLUG 3/8" Bentonite pellets | |
| 750 | | | | | | S1 | SPT | 26-36-48 | 84 | 1.58 1.50 | | |
| 15 | | | SM | | | | | | | | FilterSil | |
| 745 | | | | | | S2 | SPT | 3-23-17 | 40 | 1.00 1.50 | | |
| 20 | | | | | | | | | | | .010" Slotted Schedule 40 - PVC | |
| 740 | | | | | | S3 | SPT | 50/6 | 50/6 | 0.50 0.50 | | |
| 25 | | 24.90 - 44.30 Slightly weathered to fresh, moderate to strongly foliated, light to dark gray, fine to coarse grained, medium strong to strong, Sheared Gneiss (Long Island Creek). | | | 739.1 24.90 | | | | | | FilterSil | |
| 735 | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | |
| 730 | | | BR | | | | | | | | PEL-PLUG 3/8" Bentonite pellets | |
| 35 | | | | | | | | | | | | |
| 725 | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | |
| 720 | | | | | | | | | | | | |
| 45 | | Boring completed at 44.30 ft | | | 719.7 | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: Sean Denty

GA INSPECTOR: Ben Hodges
CHECKED BY: Timothy Richards, PG
DATE: 1/16/18



RECORD OF BOREHOLE DGWC-121















SHEET 1 of 2

PROJECT: SCS Plant McDonough
PROJECT NUMBER: GL166849621
DRILLED DEPTH: 50.00 ft
LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
Truck-Mounted Sonic
DATE STARTED: 3/22/22
DATE COMPLETED: 3/22/22

NORTHING: 1,390,739.7
EASTING: 2,200,849.4
GS ELEVATION: 764.52
TOC ELEVATION: 764.16 ft

DEPTH W.L.: 9.4'
ELEVATION W.L.: 755.12
DATE W.L.: 3/22/22
TIME W.L.: 19:25

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|-------|---|------------------------|------------|---|---------------|--------------------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 0 | | 0.00 - 8.00 Fill material | |  | | |  | | Aquaguard - Grout | WELL CASING Interval: 0'-39.7' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded WELL SCREEN Interval: 39.7'-49.7' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3" FILTER PACK Interval: 37.5'-49.7' Type: Filter Sil - Filtration sand and gravel, industrial quartz Quantity: 3.5 x 50 lb bag FILTER PACK SEAL Interval: 34'-37.5' Type: Pel Plug Bentonite Pellets Quantity: 1 x 50 lb bucket ANNULUS SEAL Interval: 0'-34' Type: Aquaguard bentonite grout Quantity: 2 bags Aquaguard + 40 gal water WELL COMPLETION Pad: 4' x 4' Protective Casing: Aluminum DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic |
| 5 | 760 | | | | 756.5 | 1 |  | 6.50 10.00 | | |
| | | 8.00 - 10.00 MH, CLAYEY SILT; very micaceous, little fine to coarse sand, brown/red brown, saprolitic, dry | MH |  | 8.00 754.5 | | | | | |
| 10 | 755 | | | | 10.00 | | | | | |
| | | 10.00 - 20.00 ML, fine sandy SILT; very micaceous, little clay, brown to dark brown, saprolitic, crenulated, dry | ML |  | | 2 |  | 9.75 10.00 | | |
| 15 | 750 | | | | | | | | | |
| | | 20.00 - 29.50 SW-ML, fine SAND and SILT; very micaceous, little clay, dark brown to brown, iron staining, saprolitic, moist | SW-ML |  | 744.5 20.00 | 3 |  | 9.75 10.00 | | |
| 20 | 745 | | | | | | | | | |
| | | 29.50 - 30.00 TWR, Transitionally Weathered Rock; muscovite schist | TWR |  | 30.00 | | | | | |
| 25 | 740 | | | | | | | | | |
| | | 30.00 - 40.00 TWR; fine to coarse gravel with fine sandy silt, little clay, friable, very micaceous, brown to dark brown, orange iron staining in soils, moist | TWR |  | | 4 |  | 9.75 10.00 | | |
| 30 | 735 | | | | | | | | | |
| | | 40.00 - 48.50 TWR; same as above | TWR |  | 724.5 40.00 | 5 |  | 7.50 10.00 | | |
| 35 | 730 | | | | | | | | | |
| | | 48.50 - 50.00 muscovite SCHIST, fine to coarse grained, medium strong, | |  | 48.50 714.5 | | | | | |
| 40 | 725 | | | | | | | | | |
| 45 | 720 | | | | | | | | | |
| 50 | 715 | | | | | | | | | |

Log continued on next page

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
CHECKED BY: Rachel Kirkman, PG
DATE: 5/10/22

wsp GOLDER

BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D.GPJ, PIEDMONT.GDT, 5/13/22

RECORD OF BOREHOLE DGWC-121

SHEET 2 of 2

PROJECT: SCS Plant McDonough
PROJECT NUMBER: GL166849621
DRILLED DEPTH: 50.00 ft
LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
Truck-Mounted Sonic
DATE STARTED: 3/22/22
DATE COMPLETED: 3/22/22

NORTHING: 1,390,739.7
EASTING: 2,200,849.4
GS ELEVATION: 764.52
TOC ELEVATION: 764.16 ft

DEPTH W.L.: 9.4'
ELEVATION
W.L.: 755.12
DATE W.L.: 3/22/22
TIME W.L.: 19:25

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|-------|-----|--------------------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 50 | | slightly to moderately weathered, slightly to moderately fractured, some iron staining Boring completed at 50.00 ft | | | | | | | | WELL CASING Interval: 0'-39.7' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded WELL SCREEN Interval: 39.7'-49.7' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3" FILTER PACK Interval: 37.5'-49.7' Type: Filter Sil - Filtration sand and gravel, industrial quartz Quantity: 3.5 x 50 lb bag FILTER PACK SEAL Interval: 34'-37.5' Type: Pel Plug Bentonite Pellets Quantity: 1 x 50 lb bucket ANNULUS SEAL Interval: 0'-34' Type: Aquaguard bentonite grout Quantity: 2 bags Aquaguard + 40 gal water WELL COMPLETION Pad: 4' x 4' Protective Casing: Aluminum DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic |
| 55 | 710 | | | | | | | | | |
| 60 | 705 | | | | | | | | | |
| 65 | 700 | | | | | | | | | |
| 70 | 695 | | | | | | | | | |
| 75 | 690 | | | | | | | | | |
| 80 | 685 | | | | | | | | | |
| 85 | 680 | | | | | | | | | |
| 90 | 675 | | | | | | | | | |
| 95 | 670 | | | | | | | | | |
| 100 | 665 | | | | | | | | | |

BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D.GPJ PIEDMONT.GDT 5/13/22

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
CHECKED BY: Rachel Kirkman, PG
DATE: 5/10/22



RECORD OF BOREHOLE B-62

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 39.90 ft
LOCATION: South of the Main road.

DRILL RIG: CME 55
DATE STARTED: 10/4/16
DATE COMPLETED: 10/4/16

NORTHING: 1,389,828.10
EASTING: 2,201,811.20
GS ELEVATION: 760.40
TOC ELEVATION: 760.08 ft

DEPTH W.L.: 21.57
ELEVATION W.L.: 738.83
DATE W.L.: 10/6/2016
TIME W.L.: 1000

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | |
|---------------|-------------------|---|------|----------------|----------------------------------|------------|-------|--|---------|---|--|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | | | REC |
| | | | | | DEPTH (ft) | | | | | | | |
| 0 | 760 | 0.00 - 13.50 Top 10' were Hydrovac for utilities. | | | | | | | | | CETCO puregold grout (70:30) — / aluminum casing | WELL CASING Interval: 0'-30' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw WELL SCREEN Interval: 29.7'-39.7' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 25.5'-40.1' Type: FilterSil FILTER PACK SEAL Interval: 19.6'-25.5' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-19.6' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 8" Round Ground Flush DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: HQ Core Barrell |
| 5 | 755 | | | | | | | | | | | |
| 10 | 750 | | | | | | | | | | | |
| 15 | 745 | 13.50 - 18.50 SM, silty SAND, fine, low to moderate plasticity; red-brown; cohesive, wet, w~PL, very soft to soft. | SM | | 746.9 13.50 | 1 | DO | 3-1-3 | 4 | 1.00 1.50 | CETCO puregold grout (70:30) | |
| | | | | | | | | | | | | |
| 20 | 740 | 18.50 - 23.50 CL, CLAY, trace silt and fine sand, moderate plasticity; red-brown; cohesive, moist to wet, w~PL, soft to firm. | CL | | 741.9 18.50 | 2 | DO | 1-1-1 | 2 | 1.50 1.50 | | |
| | | | | | | | | | | | | |
| 25 | 735 | 23.50 - 24.60 SP, poorly-graded SAND, fine to coarse, non plastic; gray to black; non-cohesive, wet, w<PL, very dense, PWR. Auger Refusal at 24.2 24.60 - 39.90 Bedrock; SCHIST fresh to slightly weathered, foliated, dark green to black, fine to medium grained. | SP | | 736.9 23.50 735.8 24.60 | 3 | DO | 50/4 | 50/4 | 0.16 0.33 | PEL-PLUG 3/8" — Bentonite pellets | |
| 30 | 730 | | BR | | | | | | | | FilterSil — | |
| 35 | 725 | | | | | | | | | | | |
| 40 | 720 | Boring completed at 39.90 ft | | | | | 720.5 | | | | | |
| 45 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



RECORD OF BOREHOLE B-100

SHEET 1 of 2








PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 44.80 ft
LOCATION: Smyrna, GA

DRILL RIG: CME 550X
DATE STARTED: 7/8/20
DATE COMPLETED: 7/8/20

NORTHING: 1,390,254.80
EASTING: 2,202,242.10
GS ELEVATION: 775.32
TOC ELEVATION: 777.95 ft

DEPTH W.L.: 34.78
ELEVATION W.L.: 743.17
DATE W.L.: 7/8/20
TIME W.L.: 15:50

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP SURVEY UPDATED (5).GPJ PIEDMONT.GDT 9/2/20

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|-------|---|----------------------------------|------------|-------|--|---------|---------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | 775 | 0.00 - 11.00 SILT-SILTY GRAVEL; mix of topsoil, residuum, fill, rip-rap boulders, soil; clayey silt, red-brown, micaceous, moist, moderately weathered, non-cohesive, moist, (backfilled cuttings) | ML-GM |  | | | | | | | Bentonite Grout | WELL CASING Interval: 0'-44'8" Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 34'8"-44'8" Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 32'2"-44'8" Type: Filtersil std61 FILTER PACK SEAL Interval: 30'-32'2" Type: 3/8" Coated Pel-Plug ANNULUS SEAL Interval: 2'-30" Type: Aquagard Bentonite Grout WELL COMPLETION Pad: 4'x4'x4" Protective Casing: Aluminum DRILLING METHODS Soil Drill: Auger Rock Drill: |
| 5 | 770 | | | | | R1 | AUGER | | | 0.00 11.00 | | |
| 10 | 765 | | | | 764.3 11.00 | | | | | | | |
| 15 | 760 | 13.50 - 15.00 SILT; with sand, gravel and trace clay, red-brown, highly weathered, non-cohesive, dry to moist, loose to compact | ML |  | 761.8 13.50 760.3 15.00 | R2 | S | 3-3-2 | | 1.45 1.50 | Bentonite Pellets Sand Filter Pack | |
| 20 | 755 | 18.50 - 20.00 SILTY SAND; heavy organic matter (wood), red-brown with black organic matter, moderately weathered, non-cohesive, dry, loose | SM |  | 756.8 18.50 755.3 20.00 | R3 | S | 3-3-2 | | 0.60 1.50 | | |
| 25 | 750 | 23.50 - 25.00 CLAYEY SAND; some organic matter, brown, slightly weathered, cohesive, w<PL, soft | SC |  | 751.8 23.50 750.3 25.00 | R4 | S | 2-1-2 | | 1.60 1.50 | | |
| 30 | 745 | 28.50 - 30.00 CLAYEY SAND WITH SILT; trace organic matter, brown with some red, micaceous, moderately weathered, cohesive, w>PL, firm to soft, moist to wet | SC-SM |  | 746.8 28.50 745.3 30.00 | R5 | S | 1-2-1 | | 1.50 1.50 | | |
| 35 | 740 | 33.50 - 35.00 CLAYEY SAND; some silt, red with some brown, highly weathered trace mica, cohesive, w>PL, wet, soft to very soft, trace gravel | SC |  | 741.8 33.50 740.3 35.00 | R6 | S | WH-WH-2 | | 1.40 1.50 | | |
| 40 | | 38.50 - 40.00 CLAYEY SAND; some gravel of gneiss (bottom 0.5'), black-brown with red, highly | SC |  | 736.8 38.50 735.3 | R7 | S | 2-6-22 | | 1.30 1.50 | | |
| | | Log continued on next page | | | | | | | | | 3" PVC 0.010 | |

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: SCS CFS
DRILLER: S. Deuty

GA INSPECTOR: Chris Tidwell
CHECKED BY: Brian Steele, PG
DATE: 8/24/2020



RECORD OF BOREHOLE B-100

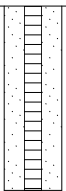

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 44.80 ft
LOCATION: Smyrna, GA

DRILL RIG: CME 550X
DATE STARTED: 7/8/20
DATE COMPLETED: 7/8/20

NORTHING: 1,390,254.80
EASTING: 2,202,242.10
GS ELEVATION: 775.32
TOC ELEVATION: 777.95 ft

DEPTH W.L.: 34.78
ELEVATION W.L.: 743.17
DATE W.L.: 7/8/20
TIME W.L.: 15:50

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|---|------------------------|------------|------|--|---------|--------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 40 | 735 | weathered, non-cohesive, wet, loose to compact | | | 40.00 | | | | | | Slot U-Pack Screen  | WELL CASING Interval: 0'-44'8" Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 34'8"-44'8" Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 32'2"-44'8" Type: Filtersil std61 FILTER PACK SEAL Interval: 30'-32'2" Type: 3/8" Coated Pel-Plug ANNULUS SEAL Interval: 2'-30' Type: Aquagard Bentonite Grout WELL COMPLETION Pad: 4'x4'x4" Protective Casing: Aluminum DRILLING METHODS Soil Drill: Auger Rock Drill: |
| | | 42.50 - 45.00 CLAYEY SAND; some gravel, red with black and brown, highly weathered, cohesive, w~PL, firm to soft, micaceous schist gravel | SC |  | 732.8 42.50 | R8 | SS | 4-5-12 | | 0.00 1.50 | | |
| 45 | 730 | Boring completed at 44.80 ft | | | 730.3 45.00 | | | | | | | |
| | | | | | | | | | | | | |
| 50 | 725 | | | | | | | | | | | |
| 55 | 720 | | | | | | | | | | | |
| 60 | 715 | | | | | | | | | | | |
| 65 | 710 | | | | | | | | | | | |
| 70 | 705 | | | | | | | | | | | |
| 75 | 700 | | | | | | | | | | | |
| 80 | | | | | | | | | | | | |
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BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 9/2/20

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: SCS CFS
DRILLER: S. Deuty

GA INSPECTOR: Chris Tidwell
CHECKED BY: Brian Steele, PG
DATE: 8/24/2020



RECORD OF BOREHOLE B-105D







SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 70.00 ft
LOCATION: East of DGWC-40

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 10/18/20
DATE COMPLETED: 10/19/20

NORTHING: 1390634.5
EASTING: 2201831.9
GS ELEVATION: 776.03 ft
TOC ELEVATION: 779.01 ft

DEPTH W.L.: 22.50
ELEVATION W.L.: 756.5
DATE W.L.: 10/19/2020
TIME W.L.: 0950

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM AND NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|-------|---|---------------|------------|------------|---------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | REC | | |
| | | | | | DEPTH (ft) | | | | | |
| 0 | | 0.00 - 10.00 Air knife; FILL | FILL |  | | | | | Stick-up – | B-105D Borehole Diameter: 4" WELL CASING Interval: 0'-70' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 60'-70' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 57.5'-60.0' Type: FilterSil Quantity: 4-50 lbs bags FILTER PACK SEAL Interval: 53.75'-57.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-53.75' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons NOTES |
| 5 | | | | | | | | | | |
| 10 | | 10.00 - 15.00 (ML), SILT; red to orange brown, some clay, low plasticity, dry to moist, w<PL, soft to firm, FILL | CL-ML |  | 10.00 | | | | | |
| 15 | | 15.00 - 27.00 (ML), SILT; olive brown to silvery brown, low plasticity, moist, firm, w<PL, contains muscovite | | | 15.00 | 1 | ROTO SONIC | 9.25 10.00 | | |
| 20 | | | ML | | | | | | | |
| 25 | | | | | | 2 | ROTO SONIC | 6.00 7.50 | | |
| 30 | | 27.00 - 27.50 (CL), CLAY; white, medium plasticity, firm, moist, w<PL, possible WT | CL |  | 27.50 | | | | | |
| 35 | | 27.50 - 32.50 (ML), SILT; gray/brown, fine grain, low to medium plasticity, moist, w~PL, soft to firm | ML | | | | | | | |
| 40 | | 32.50 - 33.80 (SM), SILTY SAND; non-plastic to low plasticity, dry to moist, fine to coarse, w<PL, loose, sand is mica (biotite/muscovite) | SM |  | 32.50 | 3 | ROTO SONIC | 8.50 10.00 | | |
| 45 | | 33.80 - 37.50 (ML), SILT; gray/brown, fine grain, low to moderate plasticity, moist, w~PL, soft to firm | ML | | 33.80 | | | | AquaGuard Bentonite – Grout | |
| 50 | | 37.50 - 40.00 (ML), SILT; whitish gray, trace fine sand, low plasticity, moist to dry, w~PL, firm/compact, high feldspar | ML | | 37.50 | 4 | ROTO SONIC | 2.50 2.50 | | |
| 55 | | 40.00 - 45.00 (SM), SILTY SAND; brown to black, non-plastic to low plasticity, moist, w<PL, fine to coarse, compact to loose. Sand particles size is mica, not quartz. | SM |  | 40.00 | 5 | ROTO SONIC | 5.00 5.00 | | |
| 60 | | 45.00 - 50.00 (SM), SILTY SAND; rock flour, trace gravels, tan brown, non-plastic, dry, fine to coarse, w<PL, loose, sand is micaceous, transitions to TWR from 48.8'-50.0' | SM |  | 45.00 | 6 | ROTO SONIC | 5.00 5.00 | | |
| 65 | | Log continued on next page | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-105D

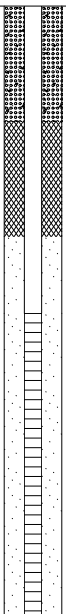
SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 70.00 ft
LOCATION: East of DGWC-40

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 10/18/20
DATE COMPLETED: 10/19/20

NORTHING: 1390634.5
EASTING: 2201831.9
GS ELEVATION: 776.03 ft
TOC ELEVATION: 779.01 ft

DEPTH W.L.: 22.50
ELEVATION W.L.: 756.5
DATE W.L.: 10/19/2020
TIME W.L.: 0950

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|------------|--------------|--|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 50 | | 50.00 - 55.00 (SM), SILTY SAND; brown to black, low to medium plasticity, moist to dry, w<PL, loose/soft, materials is from gneiss (relief structure), TWR | SM | | 50.00 | 7 | ROTO SONIC | 5.00 5.00 |  <p>3/8" Uncoated Pel-Plug</p> <p>Sand Filter Pack</p> <p>U-Pack Screen</p> | B-105D Borehole Diameter: 4" WELL CASING Interval: 0'-70' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 60'-70' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 57.5'-60.0' Type: FilterSil Quantity: 4-50 lbs bags FILTER PACK SEAL Interval: 53.75'-57.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-53.75' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons NOTES |
| 55 | | 55.00 - 70.00 (GNEISS), BEDROCK; light to dark gray, fine to medium grain, well foliated, poorly jointed, fresh to slightly weathered, strong to medium strong | BR | | 55.00 | 8 | ROTO SONIC | 2.75 3.50 | | |
| 60 | | | | | | 9 | ROTO SONIC | 4.80 6.50 | | |
| 65 | | | | | | 10 | ROTO SONIC | 4.25 5.00 | | |
| 70 | | Boring completed at 70.00 ft | | | | | | | | |
| 75 | | | | | | | | | | |
| 80 | | | | | | | | | | |
| 85 | | | | | | | | | | |
| 90 | | | | | | | | | | |
| 95 | | | | | | | | | | |
| 100 | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-112D




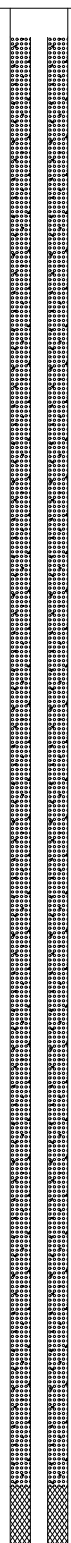


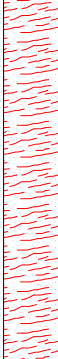
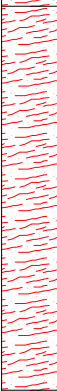
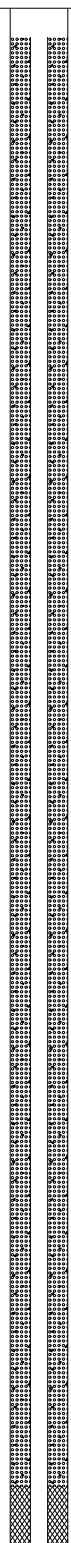


SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 55.00 ft
LOCATION: Offset of DGWC-69

DRILL RIG: TSi 150CC
DATE STARTED: 3/21/21
DATE COMPLETED: 3/22/21

NORTHING: 1,391,564.2
EASTING: 2,200,664.1
GS ELEVATION: 765.98
TOC ELEVATION: 765.58 ft

DEPTH W.L.: 6.87
ELEVATION W.L.: 758.71
DATE W.L.: 4/12/2021
TIME W.L.: 12:18

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|---|-------------------------|------------|--|-----|---------------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | PHOTO | REC | | |
| | | | | | DEPTH (ft) | | | | | |
| 0 | 765 | 0.00 - 7.00 CL, Silty CLAY, low plasticity; red brown; soft, dry to moist, W<PL | CL |  | | Hand Auger | | | 8" Flush Mount | <div>WELL CASING Interval: 0-44.7' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw</div> <div>WELL SCREEN Interval: 44.7-54.7' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 54.7-55'</div> <div>FILTER PACK Interval: 42.5-55' Type: #1 Filter Sand Quantity: 4-50 lbs bags</div> <div>FILTER PACK SEAL Interval: 38.5-42.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket</div> <div>ANNULUS SEAL Interval: 0-38.5' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons</div> <div>WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 8" Flush Mount</div> <div>DRILLING METHODS Soil Drill: Rotosonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotosonic Sample Type: Rotosonic</div> |
| 5 | 760 | 7.00 - 11.50 SP, SAND with trace silt and gravels, non-plasticity fine to coarse; blue-gray; soft to firm, moist, W<PL | | | SP | | | | | |
| 10 | 755 | 11.50 - 12.50 ML, Clayey SILT, low plasticity; brown to gray-brown; soft, moist, W<PL | ML |  | 754.5 11.50 753.5 | 1 |  | | AquaGuard Grout |  |
| | | 12.50 - 16.00 SM, SILTY SAND, non to low plasticity; tan to brown to beige; loose to compact, dry, W<PL | SM |  | 12.50 750.0 | | | | | |
| 15 | 750 | 16.00 - 20.00 TWR, Transitionally Weathered Rock; No recovery; Wash out; Driller noted the material was hard enough to drill with water(coring), but soft enough to wash away. | TWR |  | 750.0 16.00 | | | | | |
| 20 | 745 | 20.00 - 30.00 Slightly to moderately weathered, well foliated, well jointed, light gray to gray, fine-medium grained, medium strong, quartz-feldspar-biotite GNEISS; locally contains vein quartz and augened potassium feldspar (K-spar) | BR |  | 746.0 20.00 | 2 |  | | Bentonite Seal |  |
| 25 | 740 | | | | 736.0 30.00 | | | | | |
| 30 | 735 | 30.00 - 40.00 Fresh to slightly weathered, well foliated, poorly jointed, light gray to gray, fine-medium grained, weak to medium strong, quartz-feldspar-biotite GNEISS; locally contains epidote | BR |  | | 3 |  | | | |
| 35 | 730 | | | | | | | | | |
| 40 | | Log continued on next page | | | 726.0 | | | | | |

BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



RECORD OF BOREHOLE B-112D

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 55.00 ft
LOCATION: Offset of DGWC-69

DRILL RIG: TS1 150CC
DATE STARTED: 3/21/21
DATE COMPLETED: 3/22/21

NORTHING: 1,391,564.2
EASTING: 2,200,664.1
GS ELEVATION: 765.98
TOC ELEVATION: 765.58 ft

DEPTH W.L.: 6.87
ELEVATION W.L.: 758.71
DATE W.L.: 4/12/2021
TIME W.L.: 12:18

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|-------|---------------|---------------------------------|---------------------------------------|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 40 | 725 | 40.00 - 50.00 Fresh to moderately weathered, well foliated, poorly jointed, light gray to gray, fine-medium grained, weak to medium strong, quartz-feldspar-biotite GNEISS; locally contains vein quartz and water staining | BR | | 40.00 | 4 | | 5.00 10.00 | #1 Sand filter pack | |
| 45 | 720 | | | | | | | | | |
| 50 | 715 | 50.00 - 55.00 Slightly to moderately weathered, well foliated, poorly jointed, light gray to gray, fine-medium grained, medium strong to strong, potassium feldspar, plagioclase, quartz-biotite GNEISS; locally contains epidote, pegmatitic vein quartz, and augen k-spar | BR | | 716.0 50.00 | 5 | | 5.00 5.00 | 0.010" Slotted Schedule 40 PVC | |
| 55 | 710 | Boring completed at 55.00 ft | | | 711.0 | | | | | |
| 60 | 705 | | | | | | | | | |
| 65 | 700 | | | | | | | | | |
| 70 | 695 | | | | | | | | | |
| 75 | 690 | | | | | | | | | |
| 80 | | | | | | | | | | |

WELL CASING
Interval: 0-44.7'
Material: Schedule 40 PVC
Diameter: 2"
Joint Type: Flush/Screw

WELL SCREEN
Interval: 44.7-54.7'
Material: Schedule 40 PVC
Diameter: 2"
Slot Size: 0.010"
End Cap: 54.7-55'

FILTER PACK
Interval: 42.5-55'
Type: #1 Filter Sand
Quantity: 4-50 lbs bags

FILTER PACK SEAL
Interval: 38.5-42.5'
Type: 3/8" Uncoated Pel-Plug
Quantity: 1 - 5 gallon bucket

ANNULUS SEAL
Interval: 0-38.5'
Type: AquaGuard Bentonite Grout
Quantity: Approximately 80 gallons

WELL COMPLETION
Pad: 4'x4'x4" Concrete
Protective Casing: 8" Flush Mount

DRILLING METHODS
Soil Drill: Rotosonic (6 inch casing by 4 inch core barrel)
Rock Drill: Rotosonic
Sample Type: Rotosonic

BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21





BORING LOG

BORING B-02

Page 1 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/2/2012 COMPLETED 10/2/2012 GROUND ELEVATION 848.3 ft COORDINATES N 1393958 E 2202119.5

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit; HQ Rock Core EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY R. Tinsley CHECKED BY BORING DEPTH 54.4 ft.

GROUND WATER DEPTH: DURING 42 ft. COMP. DELAYED 27.8 ft. after 24 hrs.

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|--|
| 5 | | Silt (ML) - Gravel surface with some vegetation. - brown, medium stiff, SILT with mica and quartz fragments. - CL-ML: dark red, stiff, SILT/CLAY; micaceous | | SS -1 | 4.5 | 4-6-9 (15) | | 2.5YR. |
| 10 | | - reddish brown, dry, medium stiff, SILT with mica and relict bedding. | | SS -2 | 9.5 | 4-4-4 (8) | | saprolite (gneiss). |
| 15 | | - medium stiff, SAA with mica, quartz and feldspar; distinct banding | | SS -3 | 14.5 | 2-3-3 (6) | | saprolite. |
| 20 | | - light yellowish brown, medium stiff, fine to coarse grain, SILT with mica, quartz, and feldspar | | SS -4 | 19.5 | 1-3-2 (5) | | saprolite; distinct color change from red to tan with micas. |
| 25 | | | | SS | 24.5 | 2-3-5 | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:43 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

(Continued Next Page)



BORING LOG



BORING B-02

Page 2 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------------------------|
| | | Silt (ML)(con't) - damp, medium stiff, SAA | | -5 | | (8) | | upper saprolite. |
| 30 | |  - gray and white, dry, very hard, SILT; gneiss saprolite | | SS -6 | 29.5 | 6-15-25 (40) | | lower saprolite. |
| 35 | | - olive brown, very hard, SAA, more evidence of water (iron) staining; some black specks (manganese?) | | SS -7 | 34.5 | 9-27-40 (67) | | 2.5Y. |
| 40 | | - pale brown, dry, very hard, pulverized SILT with gneiss fragments | | SS -8 | 39.5 | 50 (0) | | 10YR. |
| 45 | |  Gneiss - dark gray, hard, slightly weathered, augen gneiss with iron staining along partings. - extremely weathered and broken gneiss | 804.2 | RC -1 | 44.1 | | | H2O on augers when pulled. |
| 50 | | - gray, hard, slightly weathered, staining along vertical fractures - dark gray, weathered augen gneiss and mica schist with chlorite. Quartz layers at 50 ft, 52.8 ft and 54.1 ft.; Deformed and folded about 3 inches. - Schist: hard, slightly weathered, with chlorite | | RC -2 | 49.4 | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:43 - \\VALTRCFP01\1\APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

(Continued Next Page)



BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation
LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|----------------------------------|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 55 | | Bottom of borehole at 54.4 feet. | 793.9 | | | | | |
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GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:43 - \\VALTRCFP01\IAPARKER\$\DESKTOP\GPCMW LOGS - SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | | | |
|-----------------------------|--|---|--|---------------------------------|----------------------|--------|--------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | | | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWA-2/B-2 DGWC-2 | | | |
| LOGGER: Rhonda Tinsley | | DRILLING METHODS: HS Auger/HQ Rock Core | | | | | |
| DATE CONSTRUCTED: 10/2/2012 | | N: 1393958 E:2202119.5 | | | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL | | |
| | | | | TOP OF RISER | -2.6 | 850.88 | |
| | | | | GROUND SURFACE | | 0.0 | 848.17 |
| | | | | BOTTOM OF GROUT | | | |
| | | | | TOP OF SEAL | | 31.0 | 817.2 |
| | | | | TOP OF FILTER PACK | | 35.1 | 813.1 |
| | | | | BOTTOM OF RISER / TOP OF SCREEN | | 38.7 | 809.5 |
| | | | | BOTTOM OF SCREEN | | 48.7 | 799.5 |
| | | | | BOTTOM OF CASING | | 49.0 | 799.2 |
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BORING LOG

BORING B-04

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA



DATE STARTED 10/3/2012 COMPLETED 10/3/2012 GROUND ELEVATION 812.1 ft COORDINATES N 1394171.5 E 2202662.4

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY R. Tinsley CHECKED BY BORING DEPTH 46 ft.

GROUND WATER DEPTH: DURING 23 ft. COMP. DELAYED 12.2 ft. after 24 hrs.

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------------|
| 5 | | Silt (ML) - Thin topsoil with vegetation. - brown, SILT | | SS -1 | 4.5 | 3-3-6 (9) | | 10YR; upper saprolite. |
| 10 | | - yellowish brown, stiff, SILT saprolite, relic bedding prominent. | | SS -2 | 9.5 | 2-3-3 (6) | | 5YR; lower saprolite. |
| 15 | |  - damp, medium stiff, SAA | | SS -3 | 14.5 | 2-2-4 (6) | | |
| 20 | | - wet, hard, SAA | | SS -4 | 19.5 | 6-12-23 (35) | | |
| 25 | |  WT @ 23'. | | SS | 24.5 | 6-11-12 | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:43 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

(Continued Next Page)



BORING LOG

BORING B-04

Page 2 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| | | Silt (ML)(con't) - very stiff, SAA | | -5 | | (23) | | |
| 30 | | - hard, SAA | | SS -6 | 29.5 | 10-18-23 (41) | | |
| 35 | | - very stiff, SAA | | SS -7 | 34.5 | 6-11-13 (24) | | |
| 40 | | - stiff, SAA | | SS -8 | 39.5 | 5-6-5 (11) | | |
| 45 | | - hard, SAA | 766.1 | SS -9 | 44.5 | 25-45 (45) | | |
| | | Bottom of borehole at 46.0 feet. | | | | | | |
| 50 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:43 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|--|--|----------------------------------|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-4/B-4 | |
| LOGGER: Rhonda Tinsley | | DRILLING METHODS: HS Auger | | | |
| DATE CONSTRUCTED: 10/3/2012 | | N: 1394171.5 E:2202662.4 | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL |
| <p>4 ft x 4 ft concrete pad</p> <p>2" Threaded Riser Cap</p> <p>GROUND SURFACE</p> <p>PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum</p> <p>BOTTOM OF GROUT</p> <p>BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 6 bags cement 9 lbs bentonite</p> <p>RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded</p> <p>TOP OF SEAL</p> <p>ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 2.25 buckets PLACEMENT: Poured</p> <p>TOP OF FILTER PACK</p> <p>FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 6.5 Bags PLACEMENT: Poured w/water</p> <p>BOTTOM OF RISER / TOP OF SCREEN</p> <p>SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch</p> <p>BOTTOM OF SCREEN</p> <p>Flush-threaded end cap</p> <p>BOTTOM OF CASING</p> <p>HOLE DIA: 7 inch</p> | | | | -2.8 | 814.85 |
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BORING LOG

BORING B-05

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/3/2012 **COMPLETED** 10/4/2012 **GROUND ELEVATION** 788.7 ft **COORDINATES** N 1394306.3 E 2202965.1

CONTRACTOR SCS Field Services **METHOD** 4.25" Hollow Stem Auger w/pilot bit; HQ Rock Core **EQUIPMENT** CME 550

DRILLED BY S. Denty **LOGGED BY** R. Tinsley **CHECKED BY** **BORING DEPTH** 30 ft.

GROUND WATER DEPTH: DURING 16 ft. **COMP.** **DELAYED** 0 ft. after 100 hrs.

NOTES Well installed. Refer to well data sheet.

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:43 - \VALTRCFP01\APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------|
| 5 | | Silt (ML) - reddish brown, SILT | 784.2 | SS -1 | 4.5 | WH-WH-WH (0) | | |
| 10 | | Silty Sand (SM) - olive gray, damp, very loose, silty SAND to sandy SILT | 779.2 | SS -2 | 9.5 | WH-WH-WH (0) | | upper saprolite. |
| 15 | | Silt (ML) - yellowish to light brown, damp, very soft, SILT with mica (gneiss) | | SS -3 | 14.5 | 2-2-4 (6) | | lower saprolite. |
| 20 | | Silty Sand (SM) - greenish gray, wet, medium stiff, sandy SILT saprolite with relic structure (gneiss). | | SS -4 | 19.5 | 1-2-3 (5) | | lower saprolite. |
| 25 | | Silt (ML) - medium stiff, SAA | | SS | 24.5 | 50 | | |
| | | - very hard, SAA; slightly less weathered. | | | | | | |

(Continued Next Page)



BORING LOG

BORING B-05
Page 2 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation
LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------|
| 30 | | Gneiss - black (biotite) and white, hard, slightly weathered, AUGEN GNEISS with water staining along foliations (approx. 45 degrees). | 763.3 | -5 RC -1 | 24.9 | (0) | | lower saprolite. |
| | | Bottom of borehole at 30.0 feet. | | | | | | |
| 35 | | | | | | | | |
| 40 | | | | | | | | |
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WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|--|--|---|--|--------------|-----------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-5/B-5 | |
| LOGGER: Rhonda Tinsley | | DRILLING METHODS: HS Auger/HQ Rock Core | | | |
| DATE CONSTRUCTED: 10/4/2012 | | N: 1394306.3 E:2202965.1 | | | |
| | | | | DEPTH | ELEVATION |
| | | | | FEET | FT, MSL |
| TOP OF RISER | | | | -3.0 | 791.75 |
| 2" Threaded Riser Cap | | | | | |
| 4 ft x 4 ft concrete pad | | | | | |
| GROUND SURFACE | | | | 0.0 | 788.64 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | |
| BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 5 bags cement 7 lbs bentonite | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | |
| TOP OF SEAL | | | | 12.0 | 776.6 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 2 buckets PLACEMENT: Tremie | | | | | |
| TOP OF FILTER PACK | | | | 16.0 | 772.6 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 1.5 Bags PLACEMENT: Tremie | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 19.7 | 768.9 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | |
| BOTTOM OF SCREEN | | | | 29.7 | 758.9 |
| Flush-threaded end cap | | | | | |
| BOTTOM OF CASING | | | | 30.0 | 758.6 |
| HOLE DIA: 7 inch (auger) 3.8 inch (HQ core) | | | | | |



BORING LOG

BORING B-08

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/10/2012 COMPLETED 10/10/2012 GROUND ELEVATION 824.1 ft COORDINATES N 1394322.2 E 2203882.1

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY G. Dyer CHECKED BY BORING DEPTH 49.1 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED 17.04 ft. after 18 hrs.

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|---|
| 5 | | Silt (ML) - tan-brown, dry, very soft, clayey SILT; micaceous; contains little quartz sand, no relic structures; 85% silt, 10% clay, 5% sand | | SS -1 | 4.5 | WH-WH-WH (0) | | residual soil. |
| 10 | | - tan to reddish brown, dry, medium stiff, clayey SILT; contains mica flakes and trace quartz sand; higher iron content and soil bonding; no relic structures | | SS -2 | 9.5 | 3-3-5 (8) | | residual soil. |
| 15 | | - red-brown, damp, soft, clayey SILT; micaceous; contains trace of schist-derived gravel; higher clay percent, more plastic | | SS -3 | 14.5 | WH-1-2 (3) | | residual soil. |
| 20 | | - olive brown with black streaks and white layer, damp, very stiff, sandy SILT with clay; very micaceous; highly weathered original structure; contains sand and gravel derived from gneiss and a white bleached quartz lense | | SS -4 | 19.5 | 20-16-10 (26) | | transition to upper saprolite and higher moisture content. |
| 25 | | | | SS | 24.5 | 5-7-6 | | |

(Continued Next Page)

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ



BORING LOG

BORING B-08

Page 2 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|--|
| | | Silt (ML)(con't) - stiff, SAA; more coarse-grained sediment; coarse material is angular; less competent than above; some highly weathered relict structure | | -5 | | (13) | | starting to get H2O return to surface. |
| 30 | | - very hard, SAA; more competent; rock fragments less weathered | | SS -6 | 29.5 | 9-10-50 (60) | | transition to lower saprolite. |
| 35 | | - brown-black, damp, hard, gravelly SILT; contains highly to partially weathered relict gneiss fragments; micaceous; contains manganese streaks | | SS -7 | 34.5 | 5-15-18 (33) | | less weathered rock; again becoming partially weathered. |
| 40 | | - brown black, damp, very hard, sandy SILT with gravel; contains black manganese, red iron and weathered quartz zones; less gneissic gravel than above; micaceous | | SS -8 | 39.5 | 11-12-50 (62) | | fewer rock fragments. |
| 45 | | Silty Gravel (GM) - brown, tan and black, damp, very dense, silty GRAVEL; predominately weathered to partially weathered gneiss fragments | 779.6 | SS -9 | 44.5 | 17-50 (50) | | transitioning to partially weathered rock. |
| 50 | | Bottom of borehole at 49.1 feet. | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\1\APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|--|--|----------------------------------|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-8/B-8 | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | | |
| DATE CONSTRUCTED: 10/10/2012 | | N: 1394322.2 E:2203882.1 | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL |
| TOP OF RISER | | | | -2.3 | 826.38 |
| 2" Threaded Riser Cap | | | | | |
| 4 ft x 4 ft concrete pad | | | | | |
| GROUND SURFACE | | | | 0.0 | 824.02 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 6.25 bags cement 9 lbs bentonite RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded TOP OF SEAL | | | | 34.8 | 789.2 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Tremie w/water TOP OF FILTER PACK | | | | 36.8 | 787.2 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 7 Bags PLACEMENT: Poured w/water BOTTOM OF RISER / TOP OF SCREEN | | | | 38.7 | 785.3 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch BOTTOM OF SCREEN | | | | 48.7 | 775.3 |
| Flush-threaded end cap | | | | | |
| BOTTOM OF CASING | | | | 49.1 | 774.9 |
| HOLE DIA: 7 inch | | | | | |



BORING LOG

BORING B-09

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/10/2012 COMPLETED 10/10/2012 GROUND ELEVATION 821.8 ft COORDINATES N 1394055.9 E 2204170

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY G. Dyer CHECKED BY BORING DEPTH 30.1 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED 7.2 ft. after 15 hrs.

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|---|
| | | Silt (ML) | | | | | | no residual soil; low area previously excavated.. |
| 5 | | - red-brown, dry, stiff, fine SILT; relic schistose structures; soil is bonded and moderately competent but rubs to fine silt or clay | | SS -1 | 4.5 | 4-6-9 (15) | | upper saprolite. |
| 10 | | - brown-tan, dry, very stiff, gravelly SILT; relic schistose or gneissic structure; rock fragments are more competent; rubs to fine silt with clay; contains manganese nodules and iron staining | | SS -2 | 9.5 | 4-9-9 (18) | | transition to lower saprolite. |
| 15 | | - very stiff, SAA | | SS -3 | 14.5 | 6-10-12 (22) | | lower saprolite. |
| 20 | | - very hard, SAA | | SS -4 | 19.5 | 16-34-32 (66) | | lower saprolite. |
| 25 | | Silty Gravel (GM) | 797.3 | SS | 24.5 | 51-15-25 | | |

(Continued Next Page)

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ



BORING LOG

BORING B-09

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

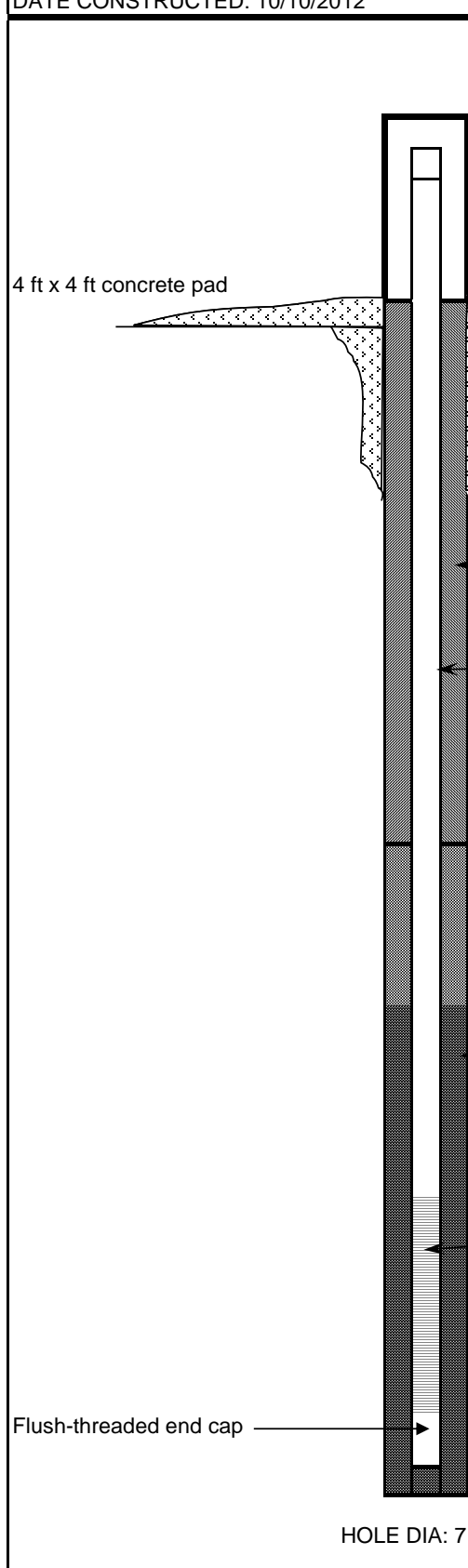
| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|---------------------------------|
| 30 | | Silty Gravel (GM) (con't) - brown-black, damp, hard, silty GRAVEL; contains few rock fragments; crumbles to gravelly silt to silty gravel; manganese staining | 791.7 | -5 | | (40) | | H2O return when pulling augers. |
| | | - very hard, partially weathered rock; schist fragments; crumbles to gravel with minor silt; micaceous | | SS -6 | 29.5 | 50 (0) | | |
| | | Bottom of borehole at 30.1 feet. | | | | | | |
| 35 | | | | | | | | |
| 40 | | | | | | | | |
| 45 | | | | | | | | |
| 50 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|---|--|----------------------------------|--|----------------|-----------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-9/ B-9 | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | | |
| DATE CONSTRUCTED: 10/10/2012 | | N: 1394055.9 E:2204170.0 | | | |
| | | | | DEPTH | ELEVATION |
| | | | | FEET | FT, MSL |
| TOP OF RISER | | | | -3.1 | 824.35 |
| 2" Threaded Riser Cap | | | | | |
| GROUND SURFACE | | | | 0.0 | 821.86 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | |
| BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 5 bags cement 7 lbs bentonite | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | |
| TOP OF SEAL | | | | 15.0 | 806.9 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Poured | | | | | |
| TOP OF FILTER PACK | | | | 17.5 | 804.4 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 7 Bags PLACEMENT: Poured w/water | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 19.6 | 802.3 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | |
| BOTTOM OF SCREEN | | | | 29.6 | 792.3 |
| BOTTOM OF CASING | | | | 30.0 | 791.9 |
| | | | | | |



4 ft x 4 ft concrete pad

2" Threaded Riser Cap

GROUND SURFACE

PROTECTIVE CASING
SIZE: 4" x 4"
TYPE: aluminum

BACKFILL MATERIAL
TYPE: Portland cement/bentonite grout
AMOUNT: 5 bags cement
7 lbs bentonite

RISER CASING
DIA: 2 inch
TYPE: Schedule 40 PVC
JOINT TYPE: Flush Threaded

ANNULAR SEAL
TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets
AMOUNT: 1 bucket
PLACEMENT: Poured

FILTER PACK
TYPE: Filtersil #61
Size 1A; 50 lbs/bag
AMOUNT: 7 Bags
PLACEMENT: Poured w/water

SCREEN
DIA: 2" prepack (3.45" OD)
TYPE: Schedule 40 PVC
OPENING WIDTH: 0.01 inch
OPENING TYPE: Slotted
SLOT SPACING: 0.1 inch

Flush-threaded end cap

HOLE DIA: 7 inch



BORING LOG

BORING B-10

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/11/2012 COMPLETED 10/11/2012 GROUND ELEVATION 820.9 ft COORDINATES N 1393818.3 E 2204201.1

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY G. Dyer CHECKED BY BORING DEPTH 46 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------------|
| 5 | | Silt (ML) - red to red-brown, soft, fine SILT with clay; sparse mica flakes; few angular to sub-angular quartz grains; soil is moderately well bonded | | SS -1 | 4.5 | 2-2-2 (4) | | residual soil. |
| 10 | | - tan-brown with black streaks, dry, medium stiff, fine SILT with fine to medium-grained sand and gravel; contains few quartz gravels and highly weathered mica; rubs to silt and fine to medium-grained sand; manganese staining | | SS -2 | 9.5 | 2-4-4 (8) | | residual soil. |
| 15 | | - stiff, SAA; less sand and gravel; better cemented/bonded | | SS -3 | 14.5 | 3-4-5 (9) | | |
| 20 | | - medium stiff, SAA; softer | | SS -4 | 19.5 | 1-2-4 (6) | | |
| 25 | | | | SS | 24.5 | 2-3-4 | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

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BORING LOG

BORING B-10

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------|
| | | Silt (ML)(con't) - very damp, medium stiff, SAA | | -5 | | (7) | | |
| 30 | | - stiff, SAA; contains highly weathered schist fragments | | SS -6 | 29.5 | 4-5-5 (10) | | upper saprolite. |
| 35 | | - brown, very damp, very stiff, gravelly SILT with clay; contains highly weathered schist fragments; samples crumble and rub to clayey silt. | | SS -7 | 34.5 | 7-8-9 (17) | | upper saprolite. |
| 40 | | - hard, SAA; more rock fragments; less weathered | | SS -8 | 39.5 | 6-12-16 (28) | | lower saprolite. |
| 45 | | - wet, hard, gravelly SILT; prevalent relict structures | | SS -9 | 44.5 | | | lower saprolite. |
| | | Bottom of borehole at 46.0 feet. | 774.9 | | | | | |
| 50 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRC\FP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
|---|--|----------------------------------|---------------|----------------------|--|
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | DGWC-10/B-10 | |
| DATE CONSTRUCTED: 10/11/2012 | | N: 1393818.3 E:2204201.1 | | | |
| | | | DEPTH FEET | ELEVATION FT, MSL | |
| <p>4 ft x 4 ft concrete pad</p> <p>2" Threaded Riser Cap</p> <p>GROUND SURFACE</p> <p>PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum</p> <p>BOTTOM OF GROUT</p> <p>BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 6 bags cement 9 lbs bentonite</p> <p>RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded</p> <p>TOP OF SEAL</p> <p>ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Poured</p> <p>TOP OF FILTER PACK</p> <p>FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 6.75 Bags PLACEMENT: Poured w/water</p> <p>BOTTOM OF RISER / TOP OF SCREEN</p> <p>SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch</p> <p>BOTTOM OF SCREEN</p> <p>Flush-threaded end cap</p> <p>BOTTOM OF CASING</p> <p>HOLE DIA: 7 inch</p> | | | -2.6 | 823.55 | |
| | | | 0.0 | 820.82 | |
| | | | 29.8 | 791.0 | |
| | | | 32.1 | 788.7 | |
| | | | 35.0 | 785.8 | |
| | | | 45.0 | 775.8 | |
| | | | 45.4 | 775.4 | |



BORING LOG

BORING B-11

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/15/2012 COMPLETED 10/15/2012 GROUND ELEVATION 798.1 ft COORDINATES N 1393547.1 E 2204166.2

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY C. Sellers CHECKED BY BORING DEPTH 51 ft.

GROUND WATER DEPTH: DURING 25 ft. COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 5 | | Silt (ML) - brownish red, medium stiff, fine SILT with clay; micaceous; slightly bonded | | SS -1 | 4.5 | 2-3-4 (7) | | |
| 10 | | - brownish red, very stiff, fine SILT with clay; very micaceous; 10% clay | | SS -2 | 9.5 | 12-12-15 (27) | | |
| 15 | | - damp, stiff, SAA; 20% clay; contains small schist gravel | | SS -3 | 14.5 | 5-6-6 (12) | | |
| 20 | | - tan, damp, stiff, SAA | | SS -4 | 19.5 | 4-5-7 (12) | | |
| 25 | | | | SS | 24.5 | 5-8-11 | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

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BORING LOG

BORING B-11
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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| | | Silt (ML)(con't) - light tan, wet, very stiff, SAA; contains fine sand and small schist fragments | | -5 | | (19) | | |
| 30 | | - stiff, SAA | | SS -6 | 29.5 | 5-6-8 (14) | | |
| 35 | | - very stiff, SAA | | SS -7 | 34.5 | 6-8-14 (22) | | |
| 40 | | - hard, SAA | | SS -8 | 39.5 | 12-20-25 (45) | | |
| 45 | | - gray, very hard, SAA; contains schist gravel throughout | | SS -9 | 44.5 | 26-50 (50) | | |
| 50 | | - dark gray, very hard, SAA | | SS -10 | 49.5 | 50 (0) | | |
| | | | 747.1 | | | | | |
| | | Bottom of borehole at 51.0 feet. | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\1\APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | |
|------------------------------|----------------------------------|--------------|
| PROJECT: Plant McDonough | DRILLING CO.: SCS Field Services | WELL NAME |
| Hydrogeologic Investigation | DRILLER: S. Denty | |
| LOCATION: Ash Pond | RIG TYPE: CME550 | DGWC-11/B-11 |
| LOGGER: C. Sellers/K. Byrd | DRILLING METHODS: HS Auger | |
| DATE CONSTRUCTED: 10/15/2012 | N: 1393547.1 E:2204166.2 | |

| | DEPTH FEET | ELEVATION FT, MSL |
|---|---------------|----------------------|
| TOP OF RISER | -2.5 | 800.57 |
| 2" Threaded Riser Cap | | |
| 4 ft x 4 ft concrete pad | | |
| GROUND SURFACE | 0.0 | 797.99 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | |
| BOTTOM OF GROUT | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 7 bags cement 10.5 lbs bentonite | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | |
| TOP OF SEAL | 33.9 | 764.1 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Tremie | | |
| TOP OF FILTER PACK | 36.2 | 761.8 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 7 Bags PLACEMENT: Tremie | | |
| BOTTOM OF RISER / TOP OF SCREEN | 38.8 | 759.2 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | |
| BOTTOM OF SCREEN | 48.8 | 749.2 |
| Flush-threaded end cap | | |
| BOTTOM OF CASING | 49.1 | 748.9 |
| HOLE DIA: 7 inch | | |



BORING LOG

BORING B-12

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/15/2012 COMPLETED 10/15/2012 GROUND ELEVATION 771.2 ft COORDINATES N 1393149.4 E 2204128.3

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY K. Byrd CHECKED BY BORING DEPTH 26 ft.

GROUND WATER DEPTH: DURING 9 ft. COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 5 | | Silt (ML) - brown/tan, damp, soft, SILT with some clay; micaceous | | SS -1 | 4.5 | 1-2-2 (4) | | |
| | | | | UD -1 | 7.0 | | | |
| 10 | | Lean Clay (CL) - red/orange/light brown, wet, very soft, CLAY; contains sparse mica and fine sand grains | 761.7 | SS -2 | 9.5 | WH-WH-WH (0) | | |
| 15 | | Silt (ML) - yellowish orange, wet, medium stiff, sandy SILT; very fine-grained | 756.7 | SS -3 | 14.5 | WH-WH-7 (7) | | |
| 20 | | - light to olive gray, wet, very stiff, SILT; micaceous; contains heavily weathered schist fragments | | SS -4 | 19.5 | 6-11-8 (19) | | |
| 25 | | | 746.2 | SS | 24.5 | 2-2-3 | | |

(Continued Next Page)



BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation
LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| | | - yellowish orange, damp, medium stiff, clayey SILT; micaceous | | -5 | | (5) | | |

Bottom of borehole at 26.0 feet.

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\$\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|---|--|----------------------------------|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-12/B-12 | |
| LOGGER: Kinsey Byrd | | DRILLING METHODS: HS Auger | | | |
| DATE CONSTRUCTED: 10/15/2012 | | N: 1393149.4 E:2204128.3 | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL |
| TOP OF RISER | | | | -2.7 | 773.86 |
| 2" Threaded Riser Cap | | | | | |
| GROUND SURFACE | | | | 0.0 | 771.10 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | |
| BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 4 bags cement 6 lbs bentonite | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | |
| TOP OF SEAL | | | | 10.2 | 760.9 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Tremie | | | | | |
| TOP OF FILTER PACK | | | | 12.6 | 758.5 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 2.5 Bags; 50 lbs/bag PLACEMENT: Tremie | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 14.7 | 756.4 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | |
| BOTTOM OF SCREEN | | | | 24.7 | 746.4 |
| BOTTOM OF CASING | | | | 25.1 | 746.0 |
| | | | | | |

4 ft x 4 ft concrete pad

TOP OF RISER

2" Threaded Riser Cap

GROUND SURFACE

PROTECTIVE CASING
SIZE: 4" x 4"
TYPE: aluminum

BOTTOM OF GROUT

BACKFILL MATERIAL
TYPE: Portland cement/bentonite grout
AMOUNT: 4 bags cement
6 lbs bentonite

RISER CASING
DIA: 2 inch
TYPE: Schedule 40 PVC
JOINT TYPE: Flush Threaded

TOP OF SEAL

ANNULAR SEAL
TYPE: PelPlug TR-30 3/8"
bentonite pellets; 5-gallon buckets
AMOUNT: 1 bucket
PLACEMENT: Tremie

TOP OF FILTER PACK

FILTER PACK
TYPE: Filtersil #61
Size 1A; 50 lbs/bag
AMOUNT: 2.5 Bags; 50 lbs/bag
PLACEMENT: Tremie

BOTTOM OF RISER / TOP OF SCREEN

SCREEN
DIA: 2" prepack (3.45" OD)
TYPE: Schedule 40 PVC
OPENING WIDTH: 0.01 inch
OPENING TYPE: Slotted
SLOT SPACING: 0.1 inch

BOTTOM OF SCREEN

BOTTOM OF CASING

Flush-threaded end cap

HOLE DIA: 7 inch



BORING LOG

BORING B-13

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 11/27/2012 COMPLETED 11/27/2012 GROUND ELEVATION 791.3 ft COORDINATES N 1392881.1 E 2204084.6

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY G. Dyer CHECKED BY BORING DEPTH 46 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED 26.73 ft. after 36 hrs.

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 0 | | - Vacuum excavation from 0 ft to 9.0 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | | 781.8 | SS -1 | 9.5 | 21-50 (50) | | |
| 15 | | - mottled tan, brown and red with black manganese staining, dry, very hard, clayey SILT; saprolite | | SS -2 | 14.5 | 18-30-50 (80) | | |
| 20 | | - damp, hard, SAA | | SS -3 | 19.5 | 6-14-26 (40) | | |
| 25 | | | | SS | 24.5 | 12-22-31 | | |

(Continued Next Page)

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\ALTRCFP01\LAPARKER\$\DESKTOP\GPCIMW LOGS SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|---|--|----------------------------------|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-13/B-13 | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | | |
| DATE CONSTRUCTED: 11/29/2012 | | N: 1392881.1 E:2204084.6 | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL |
| TOP OF RISER | | | | -2.8 | 794.10 |
| 2" Threaded Riser Cap | | | | | |
| 4 ft x 4 ft concrete pad | | | | | |
| GROUND SURFACE | | | | 0.0 | 791.20 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | |
| BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 14 bags cement 14 lbs bentonite | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | |
| TOP OF SEAL | | | | 29.0 | 762.2 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Poured | | | | | |
| TOP OF FILTER PACK | | | | 31.2 | 760.0 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 7 Bags PLACEMENT: Poured w/water | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 33.4 | 757.8 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | |
| BOTTOM OF SCREEN | | | | 43.4 | 747.8 |
| Flush-threaded end cap | | | | | |
| BOTTOM OF CASING | | | | 43.8 | 747.4 |
| HOLE DIA: 7 inch | | | | | |



BORING LOG

BORING B-14

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 12/18/2012 COMPLETED 12/18/2012 GROUND ELEVATION 789.8 ft COORDINATES N 1392574.2 E 2204013.3

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit; HQ Rock Core EQUIPMENT CME 550

DRILLED BY T. Milam LOGGED BY G. Dyer CHECKED BY BORING DEPTH 34.3 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|--|
| 0 | | - Vacuum excavation from 0 ft to 9.0 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | Silt (ML) - tan with green and red-orange mottling, damp, soft, SILT; trace of schistose bedding; trace schist fragments; slightly micaceous and quartzose | 780.8 | SS -1 | 9.5 | 1-2-2 (4) | | residual soil. upper saprolite. |
| 15 | | - brown and tan-red, dry, hard, SILT; consolidated and slightly hard; relict schistose bedding; trace schist fragments | | SS -2 | 14.5 | 9-15-21 (36) | | lower saprolite. |
| 20 | | Silty Gravel (GM) - brown, tan and silver, dry, very hard, SAPROCK; predominately schist fragments; moderately weathered | 770.3 | SS -3 | 19.5 | 16-50 (50) | | saprock/pwr. |
| 25 | | - SAA; softer zone from 23' to 24' | 765.5 | SS | 24.5 | 50 | | |
| | | Schist | | | | | | |

(Continued Next Page)



BORING LOG

BORING B-14

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

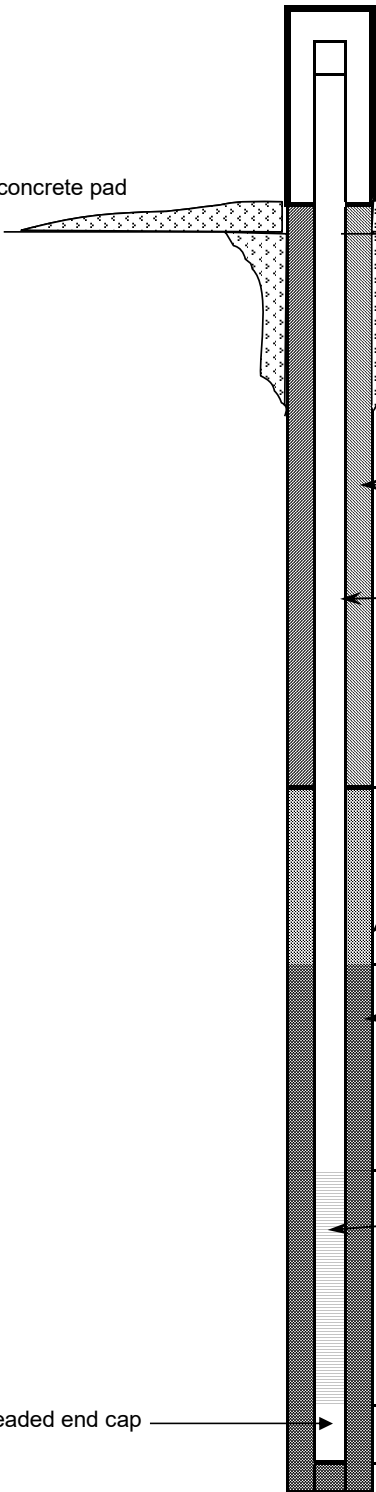
LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---|----------------|--|------------------------|-----------------------|-----------------------|-----------------------------|---------------------|--|
| 30 | | - green, silver, black and white, BUTTON MICA SCHIST; heavily fractured; iron-staining; quartz banding; sheared foliations Schist(con't) - gray, silver and black, SCHIST; fractured; iron staining; feldspar augens; shear foliation less common - green, silver, black and white, BUTTON MICA SCHIST; heavily fractured; prevalent iron-staining; feldspar augens; sheared - gray, MYLONITE; micaceous; slightly to moderately fractured; pyrite observed | 758.9 755.5 | 4 | | (0) | | prevalent iron-staining and manganese oxides. black dike or mylonite cross-cuts schist @ 45 degrees at 27.5'. |
| 35 40 45 50 | | Bottom of borehole at 34.3 feet. | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | | |
|---|--|---|--|---------------------------------|----------------------|--------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | | |
| Hydrogeologic Investigation | | DRILLER: T. Milam | | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-14/B-14 | | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger/HQ Rock Core | | | | |
| DATE CONSTRUCTED: 12/18/2012 | | N: 1392574.2 E:2204013.3 | | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL | |
|  | | | | TOP OF RISER | -2.6 | 792.40 |
| | | | | 2" Threaded Riser Cap | | |
| 4 ft x 4 ft concrete pad | | | | GROUND SURFACE | 0.0 | 789.69 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | BOTTOM OF GROUT | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 24 bags cement 30 lbs bentonite | | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | | |
| | | | | TOP OF SEAL | 12.5 | 777.2 |
| ANNULAR SEAL TYPE: PelPlug TR-30 1/4" bentonite pellets; 5-gallon buckets AMOUNT: 0.75 bucket PLACEMENT: Poured/tremie pipe | | | | TOP OF FILTER PACK | 15.5 | 774.2 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 2 Bags PLACEMENT: poured w/water | | | | | | |
| | | | | BOTTOM OF RISER / TOP OF SCREEN | 23.9 | 765.8 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | | |
| | | | | BOTTOM OF SCREEN | 33.9 | 755.8 |
| Flush-threaded end cap | | | | BOTTOM OF CASING | 34.3 | 755.4 |
| HOLE DIA: 7 inch (auger) 3.8 inch (HQ core) | | | | | | |



BORING LOG

BORING B-15

Page 1 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 11/29/2012 COMPLETED 11/29/2012 GROUND ELEVATION 821.5 ft COORDINATES N 1392544.1 E 2203679

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY G. Dyer CHECKED BY BORING DEPTH 67.2 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------------|
| 0 | | - Vacuum excavation from 0 ft to 9.0 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | Silt (ML) - tan-red, dry, soft, SILT; about 3% clay; few schistose rock fragments; slightly micaceous | 812.5 | SS -1 | 9.5 | 2-1-2 (3) | | residual soil. |
| 15 | | - light tan, dry, medium stiff, SILT; homogeneous silt (no clay or sand); slightly micaceous; trae gneiss fragments near base of sample | | SS -2 | 14.5 | 2-3-4 (7) | | residual soil. |
| 20 | | - gray to brown, dry, very hard, crumbles to sandy SILT; saprolite; fragmented soil largely consistent of moderately to highly weathered rock | | SS -3 | 19.5 | 19-35-38 (73) | | |
| 25 | | | | SS | 24.5 | 14-24-27 | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

(Continued Next Page)



BORING LOG

BORING B-15

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \VALTRCFP01\1APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|---------------------------------------|
| 29.5 | | Silt (ML)(con't) - green to dark tan, dry, very hard, crumbles to SILT with fine sand; relict schitose structure; lacks competent schist fragments; micaceous; trace quartz sand (about 5%) | | SS -4 | | (51) | | lower saprolite. |
| 30 | | - tan to gray with black manganese, dry, hard, crumbles to sandy SILT; relict schistosity; more prevalent quartz (about 10%); slightly micaceous | | SS -5 | 29.5 | 14-25-22 (47) | | lower saprolite. |
| 35 | | - olive green, tan and silver, dry, hard, crumbles to SILT with schist derived gravel; large mica flakes; trace fine quartz sand | | SS -6 | 34.5 | 12-20-16 (36) | | lower saprolite. |
| 40 | | - olive green, tan and silver, moist, very hard, crumbles to SILT with clay; very micaceous; relict schitose structure; moderately weathered schist fragments | | SS -7 | 39.5 | 14-36-50 (86) | | lower saprolite. |
| 45 | | Silty Gravel (GM) - olive green, tan and black, moist, very hard, crumbles to silty GRAVEL; less weathered schist fragments | 777.0 | SS -8 | 44.5 | 50 (0) | | transition from saprolite to saprock. |
| 50 | | Silt (ML) - olive to dark green and silver, damp, hard, crumbles to SILT with gravel and clay; relict schist structure and fragments | 772.0 | SS -9 | 49.5 | 14-21-26 (47) | | lower saprolite. |

(Continued Next Page)



BORING LOG

BORING B-15

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

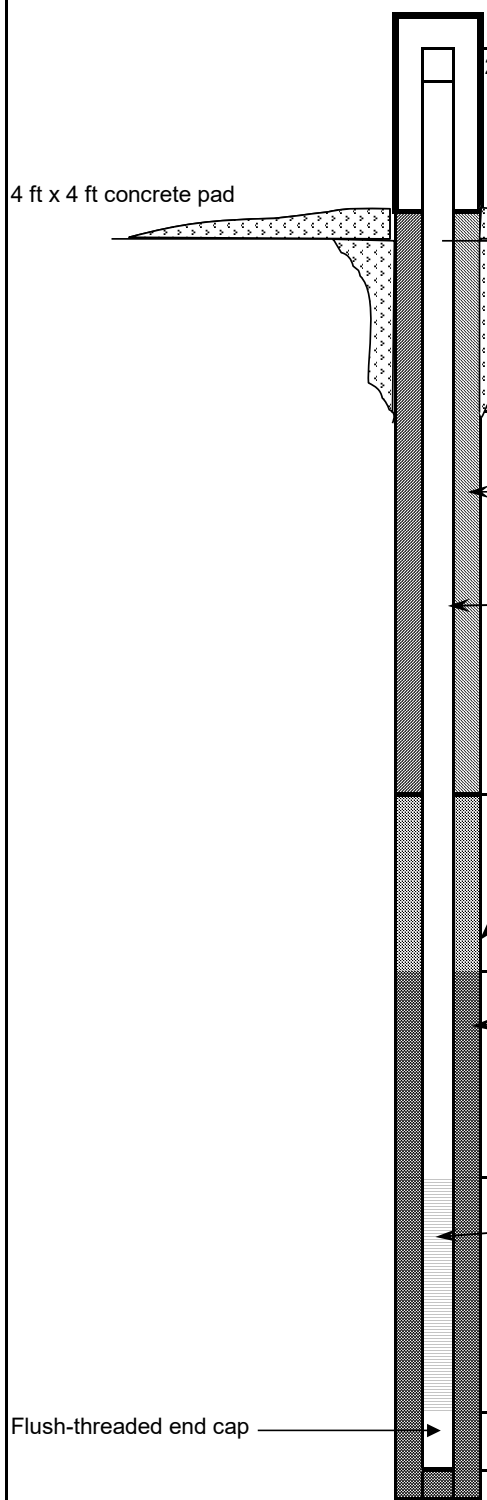
LOCATION Cobb County, GA

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|-------------------------|
| 55 | | Silty Gravel (GM) - dark green and black, damp, very hard, weathered schist GRAVEL | 767.0 | SS -10 | 54.5 | 50 (0) | | more competent saprock. |
| 60 | | - very hard, SAA; damp to dry | | SS -11 | 59.5 | 50 (0) | | |
| 65 | | - very hard, SAA | | SS -12 | 64.5 | 50 (0) | | |
| | | | 754.3 | | | | | |
| | | Bottom of borehole at 67.2 feet. | | | | | | |
| 70 | | | | | | | | |
| 75 | | | | | | | | |
| 80 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS - SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | | |
|---|--|----------------------------------|--|---------------------------------|----------------------|--------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-15/B-15 | | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | | | |
| DATE CONSTRUCTED: 11/29/2012 | | N: 1392544.1 E:2203679.0 | | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL | |
|  | | | | TOP OF RISER | -3.0 | 824.50 |
| | | | | 2" Threaded Riser Cap | | |
| 4 ft x 4 ft concrete pad | | | | GROUND SURFACE | 0.0 | 821.43 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | BOTTOM OF GROUT | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 13 bags cement 17.5 lbs bentonite | | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | TOP OF SEAL | 52.4 | 769.0 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Poured | | | | TOP OF FILTER PACK | 54.5 | 766.9 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 7 Bags PLACEMENT: Poured w/water | | | | BOTTOM OF RISER / TOP OF SCREEN | 56.7 | 764.7 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | BOTTOM OF SCREEN | 66.7 | 754.7 |
| Flush-threaded end cap | | | | BOTTOM OF CASING | 67.1 | 754.3 |
| HOLE DIA: 7 inch | | | | | | |



BORING LOG

BORING B-16

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 12/19/2012 COMPLETED 12/19/2012 GROUND ELEVATION 823.6 ft COORDINATES N 1392595.1 E 2203315.4

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY T. Milam LOGGED BY G. Dyer CHECKED BY BORING DEPTH 46 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------------|
| 0 | | - Vacuum excavation from 0 ft to 9 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | Silt (ML) - tan and brown, dry, stiff, SILT; slightly micaceous; trace manganese oxides | 814.6 | SS -1 | 9.5 | 3-4-5 (9) | | residual soil. |
| 15 | | - tan, brown and orange, dry, medium stiff, sandy SILT; sand is fine to very fine-grained; slightly micaceous; trace schistosity | | SS -2 | 14.5 | 3-3-5 (8) | | residual soil. |
| 20 | | - light tan to brown, dry, medium stiff, SILT with clay (about 10%); clay is slightly plastic; slightly micaceous; trace schistose gravel; trace manganese oxide | | SS -3 | 19.5 | 3-3-3 (6) | | residual soil. |
| 25 | | | | SS | 24.5 | 2-3-3 | | |

(Continued Next Page)



BORING LOG

BORING B-16

Page 2 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------|
| | | Silt (ML)(con't) - medium stiff, SAA; silt more elastic | | 4 | | (6) | | |
| 30 | | - mottled tan, brown and black, moist, stiff, SILT; saprolite like relict structures; micaceous; weathered schistose foliations; trace gravel; trace manganese oxides | | SS -5 | 29.5 | 7-5-6 (11) | | upper saprolite. |
| 35 | | - wet, stiff, SAA | | SS -6 | 34.5 | 6-5-5 (10) | | |
| 40 | | - wet, stiff, SAA; more schist gravel and slightly less weathered | | SS -7 | 39.5 | 5-6-5 (11) | | |
| 45 | | - wet, very stiff, SAA; slightly less weathered trend | | SS -8 | 44.5 | 5-9-8 (17) | | |
| | | Bottom of borehole at 46.0 feet. | 777.6 | | | | | |
| 50 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \VALTRCFP01\1APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | | |
|---|--|----------------------------------|--|---------------------------------|----------------------|--------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | | |
| Hydrogeologic Investigation | | DRILLER: T. Milam | | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-16/ B-16 | | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | | | |
| DATE CONSTRUCTED: 12/19/2012 | | N: 1392595.1 E:2203315.4 | | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL | |
| <p>4 ft x 4 ft concrete pad</p> <p>2" Threaded Riser Cap</p> <p>GROUND SURFACE</p> <p>PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum</p> <p>BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 5.5 bags cement 8 lbs bentonite</p> <p>RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded</p> <p>ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 0.75 bucket PLACEMENT: Poured</p> <p>FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 4.5 Bag PLACEMENT: Poured w/water</p> <p>SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch</p> <p>Flush-threaded end cap</p> <p>HOLE DIA: 7 inch</p> | | | | TOP OF RISER | -2.9 | 826.47 |
| | | | | GROUND SURFACE | 0.0 | 823.54 |
| | | | | BOTTOM OF GROUT | | |
| | | | | TOP OF SEAL | 26.5 | 797.0 |
| | | | | TOP OF FILTER PACK | 29.2 | 794.3 |
| | | | | BOTTOM OF RISER / TOP OF SCREEN | 33.4 | 790.1 |
| | | | | BOTTOM OF SCREEN | 43.4 | 780.1 |
| | | | | BOTTOM OF CASING | 43.7 | 779.8 |
| | | | | | | |
| | | | | | | |



BORING LOG

BORING B-17

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 1/9/2012 COMPLETED 1/9/2012 GROUND ELEVATION 834.2 ft COORDINATES N 1392645.6 E 2203051

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY G. Dyer CHECKED BY BORING DEPTH 46 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------|
| 5 | | - Vacuum excavation from 0 ft to 15.0 ft | | | | | | |
| 10 | | | | | | | | |
| 15 | | | 819.2 | SS -1 | 15.0 | 2-2-3 (5) | | residual soil. |
| 20 | | Silt (ML) - brown to brown tan, damp, medium stiff, SILT with fine sand and clay; micaceous; contains black manganese oxides; trace quartz sand | | SS -2 | 19.5 | 4-6-9 (15) | | upper saprolite. |
| 25 | | - brown, damp, stiff, SILT with clay; highly weathered relict structure; micaceous; trace manganese oxides | | SS | 24.5 | 3-5-6 | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

(Continued Next Page)



BORING LOG

BORING B-17

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation


LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------|
| | | Silt (ML)(con't) - tan and green, damp, stiff, highly weathered relic structure; micaceous | | -3 | | (11) | | upper saprolite. |
| 30 | | - green to mottled green, black, yellow and tan, wet, stiff, SILT with fine sand; trace unweathered quartz gravel within weathered relic structure; heavy manganese oxide staining; micaceous | | SS -4 | 29.5 | 2-3-6 (9) | | upper saprolite. |
| 35 | | - wet, stiff, SAA; more cemented; trace pyrite in/around weathered zones | | SS -5 | 34.5 | 4-6-9 (15) | | |
| 40 | | - dark green and tan, very moist, very hard, SILT with gravel; micaceous; quartz sand; relict structures intact; trace manganese oxides; highly to slightly weathered schist fragments | | SS -6 | 39.5 | 19-50 (50) | | lower saprolite. |
| 45 | | - green-gray, very moist, hard, SILT with clay; micaceous; trace quartz sand; relict structures but highly weathered; black manganese oxides | 788.2 | SS -7 | 44.5 | 16-19-20 (39) | | lower saprolite. |
| | | Bottom of borehole at 46.0 feet. | | | | | | |
| 50 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\ALTRCFP01\1\APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | | | |
|---|--|----------------------------------|--|---------------|----------------------|--------|--|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | | | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-17/B-17 | | | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | | | | |
| DATE CONSTRUCTED: 1/9/2013 | | N: 1392645.6 E:2203051.0 | | | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL | | |
|  <p>4 ft x 4 ft concrete pad</p> <p>2" Threaded Riser Cap</p> <p>GROUND SURFACE</p> <p>PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum</p> <p>BOTTOM OF GROUT</p> <p>BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 20 bags cement 30.5 lbs bentonite</p> <p>RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded</p> <p>TOP OF SEAL</p> <p>ANNULAR SEAL TYPE: PelPlug TR-30 1/4" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Poured</p> <p>TOP OF FILTER PACK</p> <p>FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 0.5 Bag filter pac 6.25 bag hole PLACEMENT: Poured w/water</p> <p>BOTTOM OF RISER / TOP OF SCREEN</p> <p>SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch</p> <p>BOTTOM OF SCREEN</p> <p>BOTTOM OF CASING</p> <p>Flush-threaded end cap</p> <p>HOLE DIA: 7 inch</p> | | | | TOP OF RISER | -2.8 | 837.05 | |
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BORING LOG

BORING B-18

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 1/9/2012 COMPLETED 1/9/2012 GROUND ELEVATION 823.9 ft COORDINATES N 1392521 E 2202875.5

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY G. Dyer CHECKED BY _____ BORING DEPTH 31 ft.

GROUND WATER DEPTH: DURING _____ COMP. _____ DELAYED 11 ft. after 24 hrs.

NOTES Well installed. Refer to well data sheet.

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|---|
| 0 | | - Vacuum excavation from 0 ft to 18.0 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | | | | | | | |
| 15 | | | | | | | | |
| 20 | | Silt (ML) - tan-orange, wet, medium stiff, SILT with clay; trace quartz gravel; mica flakes; trace relict structures but highly weathered | 805.9 | SS -1 | 19.5 | 2-3-5 (8) | | residual soil-upper saprolite transition. |
| 25 | | | | SS | 24.5 | 3-5-6 | | |

(Continued Next Page)



BORING LOG

BORING B-18
Page 2 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation
LOCATION Cobb County, GA

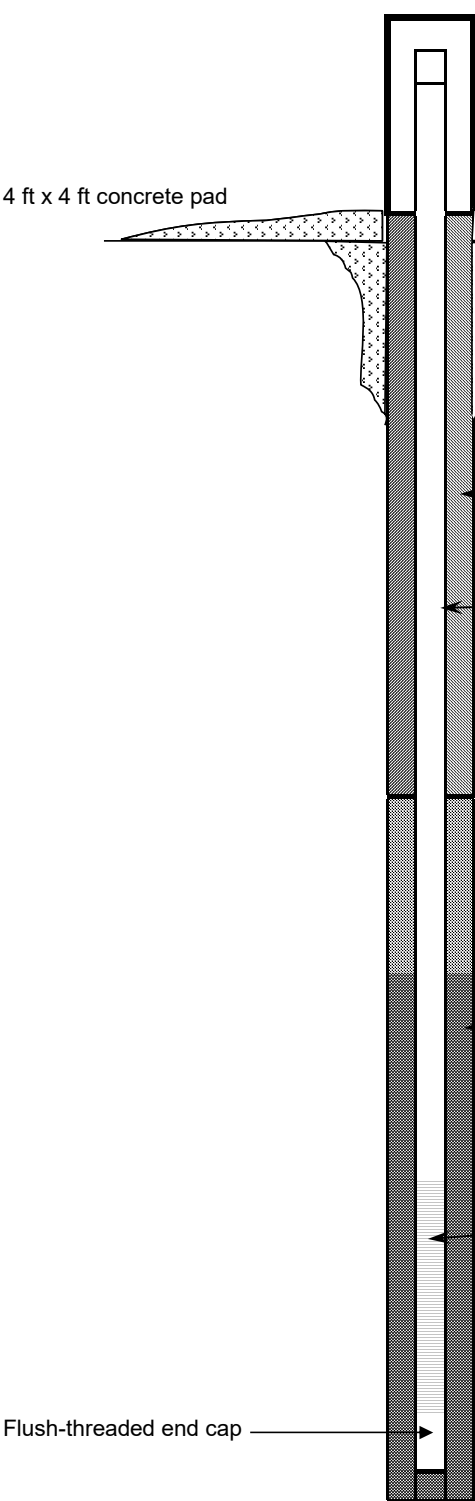
| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|---|
| | | Silt (ML)(con't) - mottled tan, green, gray and black, very moist, stiff, SILT; highly weathered relict structures; prevalent manganese oxides; trace gravel and clay | | -2 | | (11) | | residual soil-upper saprolite transition. |
| 30 | | - more tan-gray, soft, SAA | 792.9 | SS -3 | 29.5 | 1-2-2 (4) | | |
| | | Bottom of borehole at 31.0 feet. | | | | | | |
| 35 | | | | | | | | |
| 40 | | | | | | | | |
| 45 | | | | | | | | |
| 50 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|--|--|----------------------------------|--|----------------------|--------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-18/ B-18 | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | | |
| DATE CONSTRUCTED: 1/9-10/2013 | | N: 1392521 E:2202875.5 | | | |
| | | | | DEPTH FEET | |
| | | | | ELEVATION FT, MSL | |
| TOP OF RISER | | | | -2.7 | 826.56 |
| 2" Threaded Riser Cap | | | | | |
| GROUND SURFACE | | | | 0.0 | 823.89 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | |
| BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 28 bags cement 42 lbs bentonite | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | |
| TOP OF SEAL | | | | 18.0 | 805.9 |
| ANNULAR SEAL TYPE: PelPlug TR-30 1/4" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Poured | | | | | |
| TOP OF FILTER PACK | | | | 19.2 | 804.7 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 0.5 Bag filter pac 5.5 bags hole PLACEMENT: Poured w/water | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 22.4 | 801.5 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | |
| BOTTOM OF SCREEN | | | | 32.4 | 791.5 |
| BOTTOM OF CASING | | | | 32.6 | 791.3 |



4 ft x 4 ft concrete pad

2" Threaded Riser Cap

GROUND SURFACE

PROTECTIVE CASING
SIZE: 4" x 4"
TYPE: aluminum

BOTTOM OF GROUT

BACKFILL MATERIAL
TYPE: Portland cement/bentonite
grout
AMOUNT: 28 bags cement
42 lbs bentonite

RISER CASING
DIA: 2 inch
TYPE: Schedule 40 PVC
JOINT TYPE: Flush Threaded

TOP OF SEAL

ANNULAR SEAL
TYPE: PelPlug TR-30 1/4"
bentonite pellets; 5-gallon buckets
AMOUNT: 1 bucket
PLACEMENT: Poured

TOP OF FILTER PACK

FILTER PACK
TYPE: Filtersil #61
Size 1A; 50 lbs/bag
AMOUNT: 0.5 Bag filter pac
5.5 bags hole
PLACEMENT: Poured w/water

BOTTOM OF RISER / TOP OF SCREEN

SCREEN
DIA: 2" prepack (3.45" OD)
TYPE: Schedule 40 PVC
OPENING WIDTH: 0.01 inch
OPENING TYPE: Slotted
SLOT SPACING: 0.1 inch

Flush-threaded end cap

HOLE DIA: 7 inch



BORING LOG

BORING B-19

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 3/12/2013 COMPLETED 3/12/2013 GROUND ELEVATION 822.9 ft COORDINATES N 1392342.6 E 2202601

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY B. Gallagher CHECKED BY BORING DEPTH 41 ft.

GROUND WATER DEPTH: DURING COMP. 28 ft. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|--|
| 5 | | Fill (ML) - SILT | | | | | | |
| 10 | | Silt (ML) - olive, tan, moist, medium stiff, SILT with fine sand and clay; micaceous; with iron oxide staining | 816.9 | SS -1 | 10.0 | 5-4-4 (8) | | Vaccum excavation from 0 ft to 10 ft. Soil identified based on observation during vacuum excavation. |
| 15 | | - wet, medium stiff | | SS -2 | 14.5 | 2-3-3 (6) | | residual soil. |
| 20 | | - moist, very stiff, more iron oxide staining below 19 ft | | SS -3 | 19.5 | 2-4-6 (10) | | |
| 25 | | | | SS | 24.5 | 3-3-4 | | |

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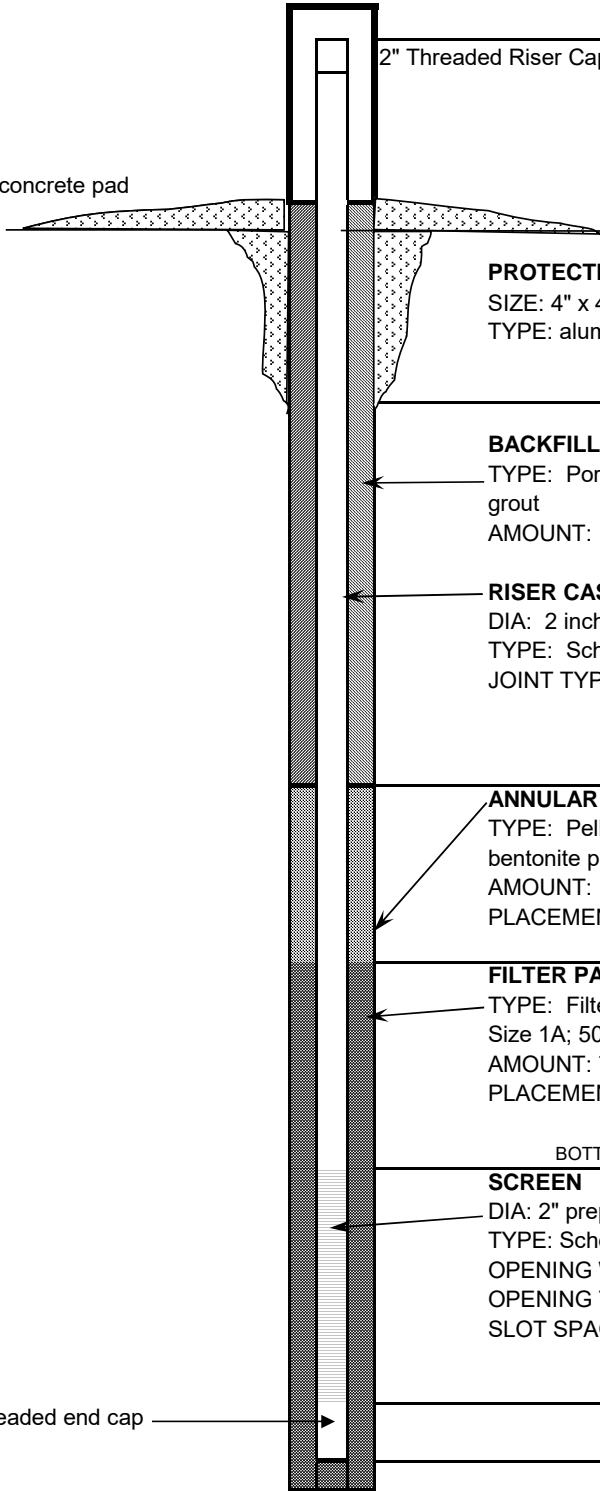
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

LOCATION Cobb County, GA

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\ALTRCFP01\LAPARKER\$\DESKTOP\GPCIMW LOGS SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

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|--|--|----------------------------------|--|---|----------------------|--------|--------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | | | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | | | |
| LOCATION: Ash Pond 3 | | RIG TYPE: CME550 | | DGWC-19/B-19 | | | |
| LOGGER: B. Gallagher | | DRILLING METHODS: HS Auger | | | | | |
| DATE CONSTRUCTED: 3/12/2013 | | N: 1392342.6 E:2202601.0 | | | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL | | |
|  | | | | TOP OF RISER | -2.6 | 825.46 | |
| | | | | 2" Threaded Riser Cap | | | |
| | | | | GROUND SURFACE | | 0.0 | 822.87 |
| | | | | PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | |
| | | | | BOTTOM OF GROUT | | | |
| | | | | BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 16 bags cement 23 lbs bentonite | | | |
| | | | | RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | |
| | | | | TOP OF SEAL | | 24.7 | 798.2 |
| | | | | ANNULAR SEAL TYPE: PelPlug TR-30 1/4" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Poured | | | |
| | | | | TOP OF FILTER PACK | | 27.2 | 795.7 |
| | | | | FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 7 Bags PLACEMENT: Tremie | | | |
| | | | | BOTTOM OF RISER / TOP OF SCREEN | | 29.4 | 793.5 |
| | | | | SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | |
| | | | | BOTTOM OF SCREEN | | 39.4 | 783.5 |
| | | | | Flush-threaded end cap | | | |
| | | | | BOTTOM OF CASING | | 39.8 | 783.1 |
| HOLE DIA: 7 inch | | | | | | | |



BORING LOG

BORING B-20

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 3/4/2012 COMPLETED 3/4/2012 GROUND ELEVATION 819.8 ft COORDINATES N 1392164.5 E 2202315.6

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY R. Tinsley CHECKED BY _____ BORING DEPTH 41 ft.

GROUND WATER DEPTH: DURING 2 ft. COMP. _____ DELAYED _____

NOTES Well installed. Refer to well data sheet.

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 0 | | - Vacuum excavation from 0 ft to 10 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | | 809.8 | SS -1 | 10.0 | 2-2-5 (7) | | |
| 15 | | Silt (ML) - yellowish red, medium stiff, micaceous SILT | | SS -2 | 14.5 | 4-4-5 (9) | | |
| 20 | | - light olive brown, stiff, micaceous SILT (saprolite) with relict bedding | | SS -3 | 19.5 | 4-7-9 (16) | | |
| 25 | | - mottled light olive brown and reddish brown, very stiff, micaceous SILT; interbedded schist and gneiss; saprolite | | SS | 24.5 | 4-6-8 | | |

(Continued Next Page)



BORING LOG

BORING B-20

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| | | Silt (ML)(con't) - olive green, stiff, SAA | | -4 | | (14) | | |
| 30 | | - stiff, SAA | | SS -5 | 29.5 | 6-9-10 (19) | | |
| 35 | | - stiff, SAA with heavy staining | | SS -6 | 34.5 | 3-4-5 (9) | | |
| 40 | | - SAA | 778.8 | SS -7 | 39.5 | 5-7-7 (14) | | |
| | | Bottom of borehole at 41.0 feet. | | | | | | |
| 45 | | | | | | | | |
| 50 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\LPARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|---|--|----------------------------------|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-20/B-20 | |
| LOGGER: Rhonda Tinsley | | DRILLING METHODS: HS Auger | | | |
| DATE CONSTRUCTED: 3/5/2013 | | N: 1392164.5 E:2202315.6 | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL |
| TOP OF RISER | | | | -2.3 | 822.14 |
| 2" Threaded Riser Cap | | | | | |
| 4 ft x 4 ft concrete pad | | | | | |
| GROUND SURFACE | | | | 0.0 | 819.66 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | |
| BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 9 bags cement 12 lbs bentonite | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | |
| TOP OF SEAL | | | | 24.7 | 795.0 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Poured | | | | | |
| TOP OF FILTER PACK | | | | 26.7 | 793.0 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 6.5 Bags PLACEMENT: Tremie | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 29.1 | 790.6 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | |
| BOTTOM OF SCREEN | | | | 39.1 | 780.6 |
| Flush-threaded end cap | | | | | |
| BOTTOM OF CASING | | | | 39.7 | 780.0 |
| HOLE DIA: 7 inch | | | | | |



BORING LOG

BORING B-21

Page 1 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/31/2012 **COMPLETED** 10/31/2012 **GROUND ELEVATION** 813.5 ft **COORDINATES** N 1392067.5 E 2202063.5

CONTRACTOR SCS Field Services **METHOD** 4.25" Hollow Stem Auger w/pilot bit; HQ Rock Core **EQUIPMENT** CME 550

DRILLED BY S. Denty **LOGGED BY** D. Brooks **CHECKED BY** **BORING DEPTH** 69.1 ft.

GROUND WATER DEPTH: DURING **COMP.** **DELAYED**

NOTES Well installed. Refer to well data sheet.

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \\ALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------|
| 0 | | - Vacuum excavation form 0 ft to 9.5 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | Clayey Silty Sand (SC-SM) - orange and tan, moist, loose, silty, clayey SAND; micaceous; fine to very fine-grained | 804.0 | SS -1 | 9.5 | 3-3-4 (7) | | |
| 15 | | Silty Sand (SM) - tan, orange and black, damp, loose, silty SAND; micaceous; very fine-grained | 799.0 | SS -2 | 14.5 | 4-3-6 (9) | | |
| 20 | | - tan, orange and black, damp, medium dense, silty SAND; micaceous; fine-grained | | SS -3 | 19.5 | 6-10-20 (30) | | upper saprolite. |
| 25 | | | | SS | 24.5 | 10-16-18 | | |

(Continued Next Page)



BORING LOG

BORING B-21

Page 2 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------|
| | | Silty Sand (SM)(con't) - hard, SAA | | 4 | | (34) | | |
| 30 | | - tan and orange, damp, very stiff, silty SAND with gravel; relic structure present; fine to medium-grained | | SS -5 | 29.5 | 7-10-12 (22) | | saprolite. |
| 35 | | - olive, orange and black, hard, SAA | | SS -6 | 34.5 | 18-22-20 (42) | | lower saprolite. |
| 40 | | - olive and black, very hard, SAA | | SS -7 | 39.5 | 18-25-45 (70) | | |
| 45 | | - olive and tan, damp, hard, silty SAND; relict structure; fine-grained | | SS -8 | 44.5 | 9-16-21 (37) | | saprolite. |
| 50 | | - hard, SAA | | SS -9 | 49.5 | 16-21-19 (40) | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

(Continued Next Page)

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|---|--|---|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-21/B-21 | |
| LOGGER: Dustin Brooks | | DRILLING METHODS: HS Auger/HQ Rock Core | | | |
| DATE CONSTRUCTED: 10/31/2012 | | N: 1392067.5 E:2202063.5 | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL |
| TOP OF RISER | | | | -2.8 | 816.28 |
| 2" Threaded Riser Cap | | | | | |
| GROUND SURFACE | | | | 0.0 | 813.47 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | |
| BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 15 bags cement 20 lbs bentonite | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | |
| TOP OF SEAL | | | | 51.2 | 762.3 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 0.5 bucket PLACEMENT: Tremie | | | | | |
| TOP OF FILTER PACK | | | | 56.4 | 757.1 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 0.5 Bag filter pac 0.5 bag hole PLACEMENT: Poured w/water | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 58.6 | 754.9 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | |
| BOTTOM OF SCREEN | | | | 68.6 | 744.9 |
| BOTTOM OF CASING | | | | 69.0 | 744.5 |
| HOLE DIA: 7 inch (auger) 3.8 inch (HQ core) | | | | | |



BORING LOG

BORING B-22

Page 1 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/25/2012 COMPLETED 10/25/2012 GROUND ELEVATION 813.7 ft COORDINATES N 1392126.3 E 2201791.9


CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit; HQ Rock Core EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY C. Sellers CHECKED BY BORING DEPTH 59.5 ft.

GROUND WATER DEPTH: DURING 20 ft. COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \VALTRCFP01\APARKER\DESKTOP\GPCMW LOGS - SURVEY UPDATED.GPJ

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------|
| 0 | | - Vacuum excavation from 0 ft to 9.5 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | Silt (ML) - brown, very stiff, SILT; micaceous | 804.2 | SS -1 | 9.5 | 6-9-9 (18) | | upper saprolite. |
| 15 | | - tan, very moist, medium stiff, SILT; contains very fine sand and mica | | SS -2 | 14.5 | 3-3-5 (8) | | |
| 20 | |  - wet, very stiff, SAA | | SS -3 | 19.5 | 10-11-15 (26) | | |
| 25 | | | | SS | 24.5 | 3-4-4 | | |

(Continued Next Page)



BORING LOG

BORING B-22
Page 2 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------|
| | | Silt (ML)(con't) - brown, medium stiff, SILT; contains fine sand and mica | | 4 | | (8) | | |
| 30 | | - dark brown to dark gray, wet, hard, weathered schist | | SS -5 | 29.5 | 10-16-19 (35) | | lower sparolite. |
| 35 | | - very hard, SAA | | SS -6 | 34.5 | 50 (0) | | |
| 40 | | - brown to orange, wet, very hard | | SS -7 | 39.5 | 10-15-50 (65) | | |
| 45 | | - black, weathered schist | 769.2 | SS -8 | 44.5 | 50 (0) | | |
| | | Schist - very weathered SCHIST with mud in fractures | | RC -1 | 44.8 | | | |
| 50 | | - very fractured BIOTITE GNEISS with schist-like features; red staining | 764.2 | RC -2 | 49.5 | | | |
| | | Gneiss | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \VALTRCFP01\1APARKER\DESKTOP\GPCMW LOGS - SURVEY UPDATED.GPJ

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BORING LOG

BORING B-22

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------------------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 55 | | Gneiss (con't) - GNEISS (mylonite); fractures throughout; stained | 754.2 | RC-3 | 54.5 | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 60 | Bottom of borehole at 59.5 feet. | | | | | | | |
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| 65 | | | | | | | | |
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| 80 | | | | | | | | |
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GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\ALTRCFP01\IAPARKER\$\DESKTOP\GPCMW LOGS - SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|---|--|---|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-22/B-22 | |
| LOGGER: Cale Sellers | | DRILLING METHODS: HS Auger/HQ Rock Core | | | |
| DATE CONSTRUCTED: 10/25/2012 | | N: 1392126.3 E:2201791.9 | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL |
| TOP OF RISER | | | | -2.9 | 816.59 |
| 2" Threaded Riser Cap | | | | | |
| GROUND SURFACE | | | | 0.0 | 813.69 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | |
| BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 9 bags cement 12.5 lbs bentonite | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | |
| TOP OF SEAL | | | | 44.6 | 769.1 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 0.25 bucket PLACEMENT: Poured | | | | | |
| TOP OF FILTER PACK | | | | 47.7 | 766.0 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 1 Bag PLACEMENT: Poured w/water | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 49.7 | 764.0 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | |
| BOTTOM OF SCREEN | | | | 59.7 | 754.0 |
| Flush-threaded end cap | | | | | |
| BOTTOM OF CASING | | | | 60.0 | 753.7 |
| HOLE DIA: 7 inch (auger) 3.8 inch (HQ core) | | | | | |



BORING LOG

BORING B-23

Page 1 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/24/2012 COMPLETED 10/25/2012 GROUND ELEVATION 815.7 ft COORDINATES N 1392239.7 E 2201582

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit; HQ Rock Core EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY C. Sellers CHECKED BY BORING DEPTH 59.4 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 5 | | - Vacuum excavation from 0 ft to 9.5 ft | | | | | | |
| 10 | | Silt (ML) - dark brown, wet, medium stiff, clayey SILT with gravel (schist) | 806.2 | SS -1 | 9.5 | 3-3-3 (6) | | |
| 15 | | - dark gray, very soft, clayey SILT; contains wood | | SS -2 | 14.5 | WH-1-1 (2) | | |
| 20 | | - light purple-gray, stiff, SILT; very fine-grained | | SS -3 | 19.5 | 1-3-7 (10) | | |
| 25 | | Silty Sand (SM) | 791.2 | SS | 24.5 | 10-14-16 | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

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BORING LOG

BORING B-23

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| | | Silty Sand (SM) (con't) - light tan, damp, medium dense, silty SAND; fine to very fine-grained; micaceous | | -4 | | (30) | | |
| 30 | | - dark gray to brown, loose, angular gravel at top of sample; saprolite at bottom | | SS -5 | 29.5 | 7-5-2 (7) | | |
| 35 | | - dark gray to brown, very dense, saprolite | | SS -6 | 34.5 | 13-17-50 (67) | | |
| 40 | | - light tan to white, very dense, saprolite (silty); micaceous | | SS -7 | 39.5 | 50 (0) | | |
| 45 | | - no sample obtained | | SS -8 | 44.5 | | | |
| | | | 768.6 | RC -1 | 47.1 | | | |
| 50 | | Gneiss - weathered GNEISS; vertical fractures and red staining throughout | | RC -2 | 49.4 | | | |

(Continued Next Page)



BORING LOG

BORING B-23

Page 3 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 55 | | Gneiss (con't) - light gray, GNEISS; some fractures | 756.3 | RC-3 | 54.4 | | | |
| 60 | | Bottom of borehole at 59.4 feet. | | | | | | |
| 65 | | | | | | | | |
| 70 | | | | | | | | |
| 75 | | | | | | | | |
| 80 | | | | | | | | |

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | | |
|---|--|---|--|---------------------------------|----------------------|--------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-23/B-23 | | |
| LOGGER: Cale Sellers | | DRILLING METHODS: HS Auger/HQ Rock Core | | | | |
| DATE CONSTRUCTED: 10/25/2012 | | N: 1392239.7 E:2201582.0 | | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL | |
| <p>4 ft x 4 ft concrete pad</p> <p>2" Threaded Riser Cap</p> <p>GROUND SURFACE</p> <p>PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum</p> <p>BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 8 bags cement 11 lbs bentonite</p> <p>RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded</p> <p>ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 0.25 bucket PLACEMENT: Tremie</p> <p>FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 1 Bag PLACEMENT: Tremie</p> <p>SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch</p> <p>Flush-threaded end cap</p> <p>HOLE DIA: 7 inch (auger) 3.8 inch (HQ core)</p> | | | | TOP OF RISER | -2.7 | 818.37 |
| | | | | GROUND SURFACE | 0.0 | 815.63 |
| | | | | BOTTOM OF GROUT | | |
| | | | | TOP OF SEAL | 42.9 | 772.7 |
| | | | | TOP OF FILTER PACK | 46.8 | 768.8 |
| | | | | BOTTOM OF RISER / TOP OF SCREEN | 49.8 | 765.8 |
| | | | | BOTTOM OF SCREEN | 59.8 | 755.8 |
| | | | | BOTTOM OF CASING | 60.1 | 755.5 |
| | | | | | | |
| | | | | | | |



BORING LOG

BORING B-42

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 11/12/2012 **COMPLETED** 11/12/2012 **GROUND ELEVATION** 802 ft **COORDINATES** N 1391327.8 E 2201870.2

CONTRACTOR SCS Field Services **METHOD** 4.25" Hollow Stem Auger w/pilot bit **EQUIPMENT** CME 550

DRILLED BY S. Denty **LOGGED BY** C. Sellers **CHECKED BY** **BORING DEPTH** 51 ft.

GROUND WATER DEPTH: DURING 30 ft. **COMP.** **DELAYED**

NOTES Well installed. Refer to well data sheet.

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 0 | | - Vacuum excavation from 0 ft to 9.5 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | | 792.5 | SS -1 | 9.5 | 1-2-4 (6) | | |
| 15 | | Lean Clay (CL) - orange/tan, medium stiff, silty CLAY; micaceous; fine to very-fine grained | | | | | | |
| | | | 787.5 | SS -2 | 14.5 | 3-4-6 (10) | | |
| 20 | | Silt (ML) - tan/orange/some white, stiff, SILT with very fine sand; very micaceous; saprolite | | | | | | |
| | | | | SS -3 | 19.5 | 4-4-5 (9) | | |
| 25 | | - SAA | | SS | 24.5 | 1-3-4 | | |

(Continued Next Page)



BORING LOG

BORING B-42

Page 2 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| | | Silt (ML)(con't) - light tan, medium stiff, clayey SILT; very fine-grained; some mica (less than above) | | -4 | | (7) | | |
| 30 | ▽ | - tan with black banding, wet, soft, SILT with very fine-grained sand | | SS -5 | 29.5 | 1-2-2 (4) | | |
| 35 | | - wet, hard, SILT with fine sand and some gravel; angular; saprolite | | SS -6 | 34.5 | 7-22-26 (48) | | |
| 40 | | - tan, wet, very stiff, SILT with fine sand and angular gravel | | SS -7 | 39.5 | 8-9-12 (21) | | |
| 45 | | - wet, very stiff, SAA | | SS -8 | 44.5 | 5-9-14 (23) | | |
| 50 | | Silty Sand (SM) - tan, damp, silty SAND | 752.5 | SS -9 | 49.5 | | | |
| | | | 751.0 | | | | | |
| | | Bottom of borehole at 51.0 feet. | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \VALTRCFP01\1APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|--|--|----------------------------------|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | DGWC-42/B-42 | |
| LOGGER: Cale Sellers | | DRILLING METHODS: HS Auger | | | |
| DATE CONSTRUCTED: 11/12/2012 | | N: 1391327.8 E:2201870.2 | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL |
| TOP OF RISER | | | | -2.7 | 804.68 |
| 2" Threaded Riser Cap | | | | | |
| GROUND SURFACE | | | | 0.0 | 801.98 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 8 bags cement 11 lbs bentonite RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded TOP OF SEAL | | | | 35.2 | 766.8 |
| ANNULAR SEAL TYPE: PelPlug TR-30 1/4" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Poured TOP OF FILTER PACK | | | | 37.2 | 764.8 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 5 Bags PLACEMENT: Poured w/water BOTTOM OF RISER / TOP OF SCREEN | | | | 39.9 | 762.1 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch BOTTOM OF SCREEN | | | | 49.9 | 752.1 |
| Flush-threaded end cap | | | | 50.4 | 751.6 |
| BOTTOM OF CASING | | | | | |
| HOLE DIA: 7 inch | | | | | |

RECORD OF BOREHOLE DGWC-47/B-47

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 28.80 ft
LOCATION: Smyrna, GA

DRILL RIG: 100C Track Mounted Rig
DATE STARTED: 6/23/16
DATE COMPLETED: 6/23/16

NORTHING: 1,391,553.80
EASTING: 2,202,610.50
GS ELEVATION: 794.35
TOC ELEVATION: 797.45 ft

DEPTH W.L.: 15.98
ELEVATION W.L.: 778.32
DATE W.L.: 6/23/2016
TIME W.L.: 15:56

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|-------|----------------|------------------------|------------|------|-----|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 0 | | 0.00 - 4.00 SILT; red brown, trace subrounded to subangular fine gravel, gray to white, dry (fill) | ML | | | | | | Portland Type I/ _ Aluminum Casing | WELL CASING Interval: 0'-28.8' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush threaded with O-ring WELL SCREEN Interval: 18.4'-28.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 16.35'-28.8' Type: Filtersil std61 FILTER PACK SEAL Interval: 11.3'-16.4' Type: 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0'-11.3' Type: Portland Type I/Type II/Gel Mix WELL COMPLETION Pad: 4"x4"x4" Protective Casing: Aluminum DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic |
| 790 | | 4.00 - 9.00 SILT; orange brown, some medium sand with black laminations, micaceous, stiff, dry to moist (saprolite) | ML | | 790.4 4.00 | | | | Portland Type I/ Type II/ Bentonite Gel mix | |
| 785 | | 9.00 - 10.00 SILT; gray, some white and black laminations, dry, stiff | ML | | 785.4 784.4 | | | | | |
| 10 | | 10.00 - 13.00 SILT and GRAVEL; fine to coarse gravel and cobbles/moderately weathered rock (biotite schist), light brown silt and black with orange staining gravel, foliated, friable | GW-GM | | 10.00 781.4 | | | | | |
| 15 | | 13.00 - 20.00 GNEISS and weathered SCHIST; gray and white, foliated biotite gneiss, some orange staining, trace pyrite and garnets (saprock) | PWR | | 13.00 774.4 | | | | 3/8" Bentonite - Pellets | |
| 20 | | 20.00 - 28.80 Biotite GNEISS (competent rock); some orange staining at fractures; trace pyrite and garnets | BR | | 20.00 765.6 | | | | Filtersil std #61 0.010" slot screen | |
| 775 | | Boring completed at 28.80 ft | | | | | | | Sump - | |
| 770 | | | | | | | | | | |
| 765 | | | | | | | | | | |
| 760 | | | | | | | | | | |
| 755 | | | | | | | | | | |
| 750 | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Bill Lindsey

GA INSPECTOR: K. Jurinko, PG
CHECKED BY: Rachel P. Kirkman, PG
DATE: 12/22/17



RECORD OF BOREHOLE DGWC-48/B-48

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 30.00 ft
LOCATION: Smyrna, GA

DRILL RIG: 100C Track Mounted Rig
DATE STARTED: 6/21/16
DATE COMPLETED: 6/22/16

NORTHING: 1,391,314.60
EASTING: 2,202,290.20
GS ELEVATION: 785.21
TOC ELEVATION: 788.33 ft

DEPTH W.L.: 11.35
ELEVATION W.L.: 773.85
DATE W.L.: 6/23/2016
TIME W.L.: 9:55

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|------|-----|--|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 0 | 785 | 0.00 - 3.00 SILT; orange brown, micaceous, dry, very stiff (fill) | ML | | 782.2 3.00 | | | | Portland Type I/ _ Aluminum Casing | WELL CASING Interval: 0'-30' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush threaded with O-ring WELL SCREEN Interval: 19.6'-29.6' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 17.6'-30' Type: Filtersil std61 FILTER PACK SEAL Interval: 12.1'-17.6' Type: 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0'-12.1' Type: Portland Type I/Type II/Gel Mix WELL COMPLETION Pad: 4"x4"x4" Protective Casing: Aluminum DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic |
| 5 | 780 | 3.00 - 11.00 SILT; oragnish brown to tan, laminations, trace to some medium to coarse sand, trace fine to coarse gravel, gray, subangular, moist (saprolite) | ML | | | | | | Portland Type I/ Type _ II/ Bentonite Gel mix | |
| 10 | 775 | 11.00 - 24.00 SILT; gray to blackish brown, some fine to coarse sand, laminations, stiff to very stiff, dry | ML | | 774.2 11.00 | | | | | |
| 15 | 770 | | ML | | | | | | 3/8" Bentonite - Pellets | |
| 20 | 765 | | | | | | | | | |
| 25 | 760 | 24.00 - 30.00 biotite GNEISS; gray and white, orange staining, partially weathered bedrock, some clay, gray, micaceous | BR | | 761.2 24.00 | | | | Filtersil std #61 | 0.010" slot screen Sump - |
| 30 | 755 | Boring completed at 30.00 ft | | | 755.2 | | | | | |
| 35 | 750 | | | | | | | | | |
| 40 | 745 | | | | | | | | | |
| 45 | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Bill Lindsey

GA INSPECTOR: K. Jurinko, PG
CHECKED BY: Rachel P. Kirkman, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-56

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 45.00 ft
LOCATION: SW of the cement plant

DRILL RIG: CME 55
DATE STARTED: 10/3/16
DATE COMPLETED: 10/3/16

NORTHING: 1,393,957.90
EASTING: 2,204,187.80
GS ELEVATION: 820.95
TOC ELEVATION: 823.59 ft

DEPTH W.L.: 16.39
ELEVATION W.L.: 804.61
DATE W.L.: 10/6/2016
TIME W.L.: 900

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | | | |
|---------------|-------------------|--|------|----------------|---------------|------------|------|--|---------|---|--|-----|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | | | REC | | |
| | | | | | DEPTH (ft) | | | | | | | | | |
| 0 | 820 | 0.00 - 13.50 ML, SILT, trace fine sand, non to low plasticity; brownish red, micaceous, fill; cohesive, dry to moist, w<PL, firm. | ML | | | | | | | | CETCO puregold grout (70:30) – / aluminum casing | | WELL CASING Interval: 0'-34.6' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw WELL SCREEN Interval: 34.6'-44.6' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 31.8' - 45' Type: FilterSil FILTER PACK SEAL Interval: 26.7'-31.8' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-26.7' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5' aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: N/A | |
| | | | | | | 1 | DO | 2-5-5 | 10 | 1.08 1.50 | | | | |
| 5 | 815 | | | | | | | | | | | | | |
| | | | | | | 2 | DO | 2-4-4 | 8 | 0.75 1.50 | | | | |
| 10 | 810 | | | | | | | | | | | | | |
| | | | | | | | | | | CETCO puregold – grout (70:30) | | | | |
| | | 13.50 - 23.50 ML, SILT, trace fine to coarse sand, non to low plasticity; red to brown to black to silver, micaceous, schist/schistose gneiss saprolite; cohesive, mosit to wet, soft to stiff. | ML | | | 3 | DO | 3-5-11 | 16 | 1.50 1.50 | | | | |
| 15 | 805 | | | | | | | | | | | | | |
| | | | | | | 4 | DO | 3-5-9 | 16 | 1.50 1.50 | | | | |
| 20 | 800 | | | | | | | | | | | | | |
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BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



RECORD OF BOREHOLE B-63

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 46.00 ft
LOCATION: Due south of B-61. Flush mounted in the roadway.

DRILL RIG: CME 55
DATE STARTED: 10/6/16
DATE COMPLETED: 10/6/16

NORTHING: 1,390,999.10
EASTING: 2,202,978.10
GS ELEVATION: 777.37
TOC ELEVATION: 777.10 ft

DEPTH W.L.: 34.2
ELEVATION W.L.: 743.1
DATE W.L.: 10/6/2016
TIME W.L.: 1745

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | |
|---------------|-------------------|--|------|----------------|---------------|------------|------|--|---------|---|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | | | REC |
| | | | | | DEPTH (ft) | | | | | | | |
| 0 | | 0.00 - 13.50 Top 12' were Hydrovac for utilities. | | | | | | | | | CETCO puregold grout (70:30) – / aluminum casing | 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BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



RECORD OF BOREHOLE B-63


SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 46.00 ft
LOCATION: Due south of B-61. Flush mounted in the roadway.

DRILL RIG: CME 55
DATE STARTED: 10/6/16
DATE COMPLETED: 10/6/16

NORTHING: 1,390,999.10
EASTING: 2,202,978.10
GS ELEVATION: 777.37
TOC ELEVATION: 777.10 ft

DEPTH W.L.: 34.2
ELEVATION W.L.: 743.1
DATE W.L.: 10/6/2016
TIME W.L.: 1745

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|------------------------------|------|----------------|------------------------|------------|------|--|---------|-----|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 45 | | | SM | | 731.4 | | | | | | | <div>  <p>WELL CASING Interval: 0' - 35.5' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw</p> <p>WELL SCREEN Interval: 35.5'-45.5' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC</p> <p>FILTER PACK Interval: 33'- 45.9' Type: FilterSil</p> <p>FILTER PACK SEAL Interval: 27.6'-33' Type: PEL-PLUG 3/8" Bentonite pellets</p> <p>ANNULUS SEAL Interval: 0' - 27.6' Type: CETCO puregold grout (70:30)</p> <p>WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 8" Round Flush Mount</p> <p>DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: N/A</p> </div> |
| | | Boring completed at 46.00 ft | | | | | | | | | | |
| 730 | | | | | | | | | | | | |
| 50 | | | | | | | | | | | | |
| 725 | | | | | | | | | | | | |
| 55 | | | | | | | | | | | | |
| 720 | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | |
| 715 | | | | | | | | | | | | |
| 65 | | | | | | | | | | | | |
| 710 | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | |
| 705 | | | | | | | | | | | | |
| 75 | | | | | | | | | | | | |
| 700 | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | |
| 695 | | | | | | | | | | | | |
| 85 | | | | | | | | | | | | |
| 690 | | | | | | | | | | | | |
| 90 | | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20



DRILLING LOG **GEOLOGICAL SERVICES**

Hole No. **B-66**
Sheet 1 of 2

| | | | |
|---|------------------------------|---------------------------|---------------------------------------|
| SITE Plant McDonough | | HOLE DEPTH 55.5' | SURFELEV 813.30 |
| LOCATION North of AP-4, near property line concrete pile | COORDINATES 33.831427 | -84.470638 | |
| ANGLE _____ | BEARING _____ | CONTRACTOR SCS | DRILL NO. _____ |
| DRILLING METHOD HSA | NO. SAMPLES _____ | NO. U.D. SAMPLES 0 | |
| CASING SIZE 2" | LENGTH 10' | CORE SIZE _____ | TOTAL % REC. _____ |
| WATER TABLE DEPTH 14.8' BLS | ELEV. 798.50' NAVD88 | TIME AFTER COMP. _____ | DATE TAKEN _____ |
| TYPE GROUT _____ | QUANTITY _____ | MIX . | DRILLING START DATE 11/16/2016 |
| DRILLER Milam | RECORDER Abraham | APPROVED _____ | DRILLING COMP. DATE 11/16/2016 |

| Depth | Elev. | Material Description, Classification and Remarks | Sample No. | Standard Penetration Test | | | Comments | % Rec | RQD |
|-------|--------|--|------------|---------------------------|-------|----|----------|-------|-----|
| | | | | From To | Blows | N | | | |
| 0 | 813.30 | | | | | | | | |
| 1 | 812.30 | | | | | | | | |
| 2 | 811.30 | | | | | | | | |
| 3 | 810.30 | | | | | | | | |
| 4 | 809.30 | | | | | | | | |
| 5 | 808.30 | HYDRO-EXCAVATION Hydrovac from land surface to 10-feet below land. No samples | | | | | | | |
| 6 | 807.30 | | | | | | | | |
| 7 | 806.30 | | | | | | | | |
| 8 | 805.30 | | | | | | | | |
| 9 | 804.30 | | | | | | | | |
| 10 | 803.30 | | | | | | | | |
| 11 | 802.30 | | | | | | | | |
| 12 | 801.30 | | | | | | | | |
| 13 | 800.30 | | | | | | | | |
| 14 | 799.30 | CLAYEY SILT Light Brown to reddish brown clayey silt; 10R/5/6; damp; FeO along fracture traces & relict foliations; organics absent. | S-1 | 13.5-15 | 2-1-1 | 2 | | 85 | |
| 15 | 798.30 | | | | | | | | |
| 16 | 797.30 | | | | | | | | |
| 17 | 796.30 | | | | | | | | |
| 18 | 795.30 | | | | | | | | |
| 19 | 794.30 | CLAYEY SILT Light Brown to reddish brown clayey silt; 10R/5/6; damp; FeO along fracture traces & relict foliations; | S-2 | 18.5-20 | 2-1-5 | 6 | | 90 | |
| 20 | 793.30 | | | | | | | | |
| 21 | 792.30 | | | | | | | | |
| 22 | 791.30 | CLAYEY SILT Brownish gray with reddish streaks clayey silt grading to brownsh gray saprolite; 10YR/6/3; moist; FeO bands with minor MnO streaks along fracutre traces; distinct MnO layer at 25-ft parallel to foliation; fractures increase at 25-ft. | S-3 | 3-4-9 | 3-4-9 | 14 | | 90 | |
| 23 | 790.30 | | | | | | | | |
| 24 | 789.30 | | | | | | | | |

**DRILLING LOG
GEOLOGICAL SERVICES**

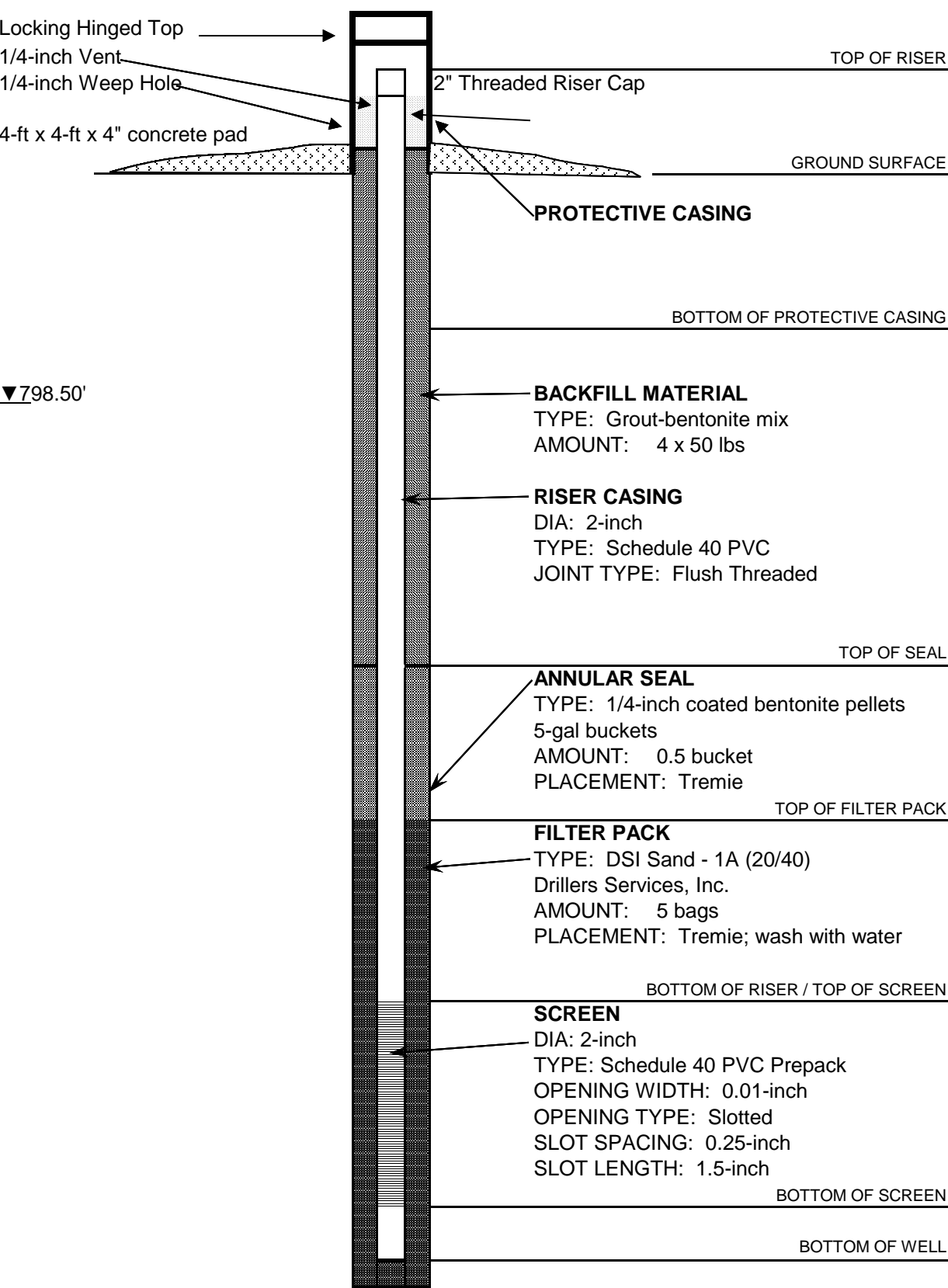
Hole No. **B-66**

Sheet 2 of 2

| SITE | | Plant McDonough | | TOTAL DEPTH | | 55.5' | | SURF.ELEV. | | 813.30 | |
|------------------------------|--------|---|------------|---------------------------|-------|-------|----------|------------|-----|--------|--|
| Depth | Elev. | Material Description, Classification and Remarks | Sample No. | Standard Penetration Test | | | Comments | % Rec | RQD | | |
| | | | | From To | Blows | N | | | | | |
| 25 | 788.30 | SILTY SAND Medium to dark gray silty sand with minor clay; 2.5Y/5/2; few brownish-black weathered minerals; micaceous texture; MnO bands along fracture & foliations; saprolite between 28 and 30 feet. | S-4 | 4-5-10 | 15 | 80 | | | | | |
| 26 | 787.30 | | | | | | | | | | |
| 27 | 786.30 | | | | | | | | | | |
| 28 | 785.30 | | | | | | | | | | |
| 29 | 784.30 | | | | | | | | | | |
| 30 | 783.30 | | | | | | | | | | |
| 31 | 782.30 | SILTY SAND SAPROLITE Light to dark gray SILTY SAND; 5Y/5/3; moist to wet saprolite; gravel-size rock frags; weathered feldspars & quartz; increasing biotite & MnO at 35-feet. | S-5 | 7-9-16 | 25 | 90 | | | | | |
| 32 | 781.30 | | | | | | | | | | |
| 33 | 780.30 | | | | | | | | | | |
| 34 | 779.30 | | | | | | | | | | |
| 35 | 778.30 | | | | | | | | | | |
| 36 | 777.30 | | | | | | | | | | |
| 37 | 776.30 | Grayish brown - brownish-black SILTY SAND with minor clay; 5Y/3/2; fewer rock fragments than above; moist to wet. | S-6 | 6-8-10 | 18 | 90 | | | | | |
| 38 | 775.30 | | | | | | | | | | |
| 39 | 774.30 | | | | | | | | | | |
| 40 | 773.30 | | | | | | | | | | |
| 41 | 772.30 | | | | | | | | | | |
| 42 | 771.30 | | | | | | | | | | |
| 43 | 770.30 | SILTY SAPROLITE Yellowish brown silt with minor clay saprolite; 2.5Y/6/3; lighter than above; abundant MnO streaks; wet but not saturated. | S-7 | 5-6-9 | 16 | 90 | | | | | |
| 44 | 769.30 | | | | | | | | | | |
| 45 | 768.30 | | | | | | | | | | |
| 46 | 767.30 | | | | | | | | | | |
| 47 | 766.30 | | | | | | | | | | |
| 48 | 765.30 | | | | | | | | | | |
| 49 | 764.30 | SILTY SAND SAPROLITE Yellowish to blackish brown SILTY SAND saprolite; 2.5Y/6/3; minor rock fragments; saturated | S-8 | 6-7-17 | 24 | 90 | | | | | |
| 50 | 763.30 | | | | | | | | | | |
| 51 | 762.30 | | | | | | | | | | |
| 52 | 761.30 | | | | | | | | | | |
| 53 | 760.30 | | | | | | | | | | |
| 54 | 759.30 | | | | | | | | | | |
| 55 | 758.30 | Yellowish brown silty sand saprolite; minor clay; 2.5Y/6/3; abundant MnO streaks parallel to relict foliations; saturated. | S-9 | 7-8-18 | 26 | 90 | | | | | |
| 56 | 757.30 | | | | | | | | | | |
| END OF BORING: REGOLITH WELL | | | | | | | | | | | |

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|--|------|---|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS, Inc. | | WELL NAME | |
| NE of AP-4 at Argos, nr concrete pile, ~250' NE of DGWC-10 | | DRILLER: Wideman | | | |
| LOCATION:33.831427 / -84.470638 | | RIG TYPE: CME 550 | | | |
| LOGGER: Abraham | | DRILLING METHODS: HSA | | B-66 | |
| DATE CONSTRUCTED: 3/7/2016 | | Survey Coordinates: N: 1393858.2 E: 2204277.5 | | | |
|  <p>Locking Hinged Top</p> <p>1/4-inch Vent</p> <p>1/4-inch Weep Hole</p> <p>4-ft x 4-ft x 4" concrete pad</p> <p>2" Threaded Riser Cap</p> <p>PROTECTIVE CASING</p> <p>BOTTOM OF PROTECTIVE CASING</p> <p>▼798.50'</p> <p>BACKFILL MATERIAL TYPE: Grout-bentonite mix AMOUNT: 4 x 50 lbs</p> <p>RISER CASING DIA: 2-inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded</p> <p>ANNULAR SEAL TYPE: 1/4-inch coated bentonite pellets 5-gal buckets AMOUNT: 0.5 bucket PLACEMENT: Tremie</p> <p>FILTER PACK TYPE: DSI Sand - 1A (20/40) Drillers Services, Inc. AMOUNT: 5 bags PLACEMENT: Tremie; wash with water</p> <p>SCREEN DIA: 2-inch TYPE: Schedule 40 PVC Prepack OPENING WIDTH: 0.01-inch OPENING TYPE: Slotted SLOT SPACING: 0.25-inch SLOT LENGTH: 1.5-inch</p> <p>HOLE DIA: 9"</p> | | | | DEPTH FEET | ELEVATION FT, MSL |
| | | | | TOP OF RISER | -1.89 |
| GROUND SURFACE | 0.00 | 813.33 | | | |
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RECORD OF BOREHOLE B-77

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 42.00 ft
LOCATION: South by river, SW of B-63

DRILL RIG: Rotosonic 1159
DATE STARTED: 9/17/19
DATE COMPLETED: 9/17/19

NORTHING: 1,390,948.70
EASTING: 2,202,942.00
GS ELEVATION: 777.12 ft
TOC ELEVATION: 776.86 ft

DEPTH W.L.: 28.50
ELEVATION W.L.: 748.6
DATE W.L.: 1/13/2020
TIME W.L.: 14:39

BOREHOLE RECORD MCDONOUGH MASTER LIST BACKUP SURVEY UPDATED (5).GPJ PIEDMONT.GDT 9/2/20

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|-------|----------------|------------------------|------------|------------|--------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 0 | 775 | 0.00 - 8.00 Hydrovac, no soil recovery due to Hydrovac | | | | | | | AquaGuard Bentonite — Grout | WELL CASING Interval: 0'-32' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 32'-42' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 30'-42' Type: Filter Media FILTER PACK SEAL Interval: 22'-30' Type: PEL-PLUG 3/8" ANNULUS SEAL Interval: 0'-22' Type: AquaGuard Bentonite Grout WELL COMPLETION Pad: 4'x4' Concrete Protective Casing: 4" Stainless Steel DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic |
| 5 | 770 | 8.00 - 10.00 Fill | | | 769.1 | S1 | ROTO SONIC | 0.17 0.17 | | |
| 10 | 765 | 10.00 - 20.00 Sandy SILT, trace clay, some gravel, reddish brown, low plasticity, w<PL, moist, firm, cohesive | MLS | | 767.1 | S2 | ROTO SONIC | 0.67 0.83 | | |
| 15 | 760 | | | | 757.1 | S3 | ROTO SONIC | 0.38 0.83 | | |
| 20 | 755 | 20.00 - 30.00 Sandy SILT, micaceous, trace clay, some gravel, reddish brown, low plasticity, w<PL, moist, firm, cohesive | MLS | | 747.1 | S4 | ROTO SONIC | 0.52 0.83 | | |
| 25 | 750 | | | | | | | | PEL-PLUG 3/8" Bentonite Pellets | |
| 30 | 745 | 30.00 - 40.00 Silty CLAY, some sand, transitioning from reddish-brown to brownish gray, w~PL, moderate plasticity, moist to wet, soft to firm, cohesive, | CL-ML | | 737.1 | S5 | ROTO SONIC | 0.17 0.17 | #2 FilterSil — | |
| 35 | 740 | | | | | | | | | |
| 40 | 735 | 40.00 - 42.00 Silty CLAY, some sand, transitioning from reddish-brown to brownish gray, w~PL, moderate plasticity, soft to firm, moist to wet, transition to PWR, cohesive Boring completed at 42.00 ft | CL-ML | | 735.1 | | | | 0.010" Slotted Schedule 40 PVC | |
| 45 | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Jose

GA INSPECTOR: D. Thomas
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



RECORD OF BOREHOLE B-82

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 45.00 ft
LOCATION: East of CCR Unit south of concrete plant

DRILL RIG: Rotosonic 1159
DATE STARTED: 9/21/19
DATE COMPLETED: 9/21/19

NORTHING: 1,393,750.00
EASTING: 2,204,258.10
GS ELEVATION: 807.55
TOC ELEVATION: 810.07 ft

DEPTH W.L.: 8.90
ELEVATION W.L.: 798.6
DATE W.L.: 1/13/2020
TIME W.L.: 15:59

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP SURVEY UPDATED (5).GPJ PIEDMONT.GDT 9/22/20

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | | | |
|---------------|-------------------|--|---------------|----------------|---------------|------------|------------|--------------|--|---------------------------------|---|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | REC | | | | | |
| | | | | | DEPTH (ft) | | | | | | | | |
| 0 | | 0.00 - 8.70 Hydrovac | NA | | | 0 | | 0.00 0.73 | Concrete Surface / Completion | | WELL CASING Interval: 0.0 - 34.5' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 34.5 - 44.5' Material: Schedule 40 PVC Schedule 40 PVC Diameter: 2" ID 4 " OD Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 32.5 - 45.0' Type: 20/40 FilterSil FILTER PACK SEAL Interval: 26.5 - 32.5' Type: Pel-Plug 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0.4 - 26.5' Type: High Solids Bentonite (AquaGuard) WELL COMPLETION Pad: 4' x 4' x 4" Protective Casing: 4" Stainless Steel DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic ~200 gallons of water used while drilling | | |
| 805 | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | |
| 800 | | | | | 798.9 | | ROTO SONIC | | High Solids Bentonite – (AquaGuard) | | | | |
| | | 8.70 - 10.70 (ML) sandy SILT, non-plastic fines, fine sand; dark yellowish brown (10YR 4/2); non-cohesive, dry, loose | ML | | 8.70 | 1 | | 0.94 0.94 | | | | | |
| 10 | | | | | 796.9 | | | | | | | | |
| | | 10.70 - 31.70 (SM) sandy SILT, fine to medium angular sand, non-plastic to low plasticity fines, some soft (crumble under finger pressure) fine angular gravel; dark yellowish brown (10YR 4/2) to pale yellowish brown (10YR 6/2), very micaceous, SAPROLITE; non-cohesive, dry, loose. Moist and compact starting at 20 feet bgs. | ML | | 10.70 | | | | Pel-Plug 3/8" Bentonite – Pellets | | | | |
| 795 | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | |
| 790 | | | | | | 2 | ROTO SONIC | 0.83 0.83 | | | | | |
| 20 | | | | | | | | | | | | | |
| 785 | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | |
| 780 | | | | | | | | | | | | | |
| 30 | | | | | | 3 | ROTO SONIC | 0.83 0.83 | | | | | |
| | | 31.70 - 35.50 (SP and ML) SAND and SILT, fine sub-angular sand, non-plastic to low plasticity fines; dark yellowish brown (10YR 4/2), highly micaceous, SAPROLITE; non-cohesive, wet, compact | SP & ML | | 775.9 | | | | 20/40 FilterSil – Sandpack | | | | |
| 775 | | | | | 31.70 | | | | | | | | |
| 35 | | | | | | | | | | | | | |
| | | 35.50 - 38.50 (CL) sandy SILTY CLAY, low to moderate plasticity fines, fine sand; moderate yellowish brown (10YR 4/2) to light brown (5YR 5/6), some relic foliations, highly micaceous, SAPROLITE; cohesive, w>PL, soft. | CL | | 772.1 | | | | 2"ID, 4"OD 0.010 Slot SCH 40 PVC – U-Pack Screen | | | | |
| 770 | | | | | 35.50 | | | | | | | | |
| | | | | | | | | | | | | | |
| | | 38.50 - 40.00 (SC) CLAYEY SAND, fine angular sand, low to moderate plasticity fines; light brown (5YR 5/6) to moderate yellowish brown (10YR 5/4), iron oxide staining, very micaceous, some relic foliations, SAPROLITE; non-cohesive, wet, compact | SC | | 769.1 | | | | PVC Cap – | | | | |
| 40 | | | | | 38.50 | | | | | | | | |
| | | | | | 767.6 | | | | | | | | |
| | | 40.00 - 45.00 (ML and SP) SILT and SAND, non-plastic to low plasticity fines, fine sand; dark yellowish brown (10YR 4/2) with frequent relic foliations, very micaceous, SAPROLITE; non-cohesive, wet to moist, compact | ML & SP | | 40.00 | 4 | ROTO SONIC | 0.42 0.42 | | | | | |
| 765 | | | | | | | | | | | | | |
| 45 | | | | | | | 762.6 | | | | | | |
| | | Boring completed at 45.00 ft | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Jose

GA INSPECTOR: Jeff Ingram
CHECKED BY: Timothy Richards, PG
DATE: 2/12/20



RECORD OF BOREHOLE B-83




SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 50.00 ft
LOCATION: South by river, NW of B-76

DRILL RIG: CME550X
DATE STARTED: 9/30/19
DATE COMPLETED: 9/30/09

NORTHING: 1,390,735.50
EASTING: 2,202,695.60
GS ELEVATION: 777.17
TOC ELEVATION: 776.98 ft

DEPTH W.L.: 28.75
ELEVATION W.L.: 748.35
DATE W.L.: 1/13/2020
TIME W.L.: 14:52

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|-------|---|------------------------|------------|------|--|---------|--------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 45 | 730 | 43.50 - 49.00 CL, silty CLAY, brown with orange, moist to wet, W<PL, very soft to firm (Continued) | CL-ML |  | 728.2 | | | | | | Schedule 40 PVC  | WELL CASING Interval: 0'-38.6' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 38.6'-48.6' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 36.6'-50' Type: Filter Media FILTER PACK SEAL Interval: 30.7'-36.6' Type: PEL-PLUG 3/8" ANNULUS SEAL Interval: 0'-30.7' Type: AquaGuard Bentonite Grout WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 8" Round Ground Flush DRILLING METHODS Soil Drill: 4.25-inch ID Hollow-Stem Auger Rock Drill: N/A |
| 50 | 725 | 49.00 - 50.00 SM, silty SAND, PWR, black-brown mica schist Boring completed at 50.00 ft | SM |  | 49.00 727.2 | S7 | SS | 8-15-18 | 33 | 1.50 1.50 | | |
| 55 | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | |
| 65 | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | |
| 75 | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | |
| 85 | | | | | | | | | | | | |
| 90 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: K. Minkara
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



RECORD OF BOREHOLE B-88










SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 72.40 ft
LOCATION: North end of site along fence

DRILL RIG: CME 550
DATE STARTED: 11/15/19
DATE COMPLETED: 11/15/19

NORTHING: 1,394,401.10
EASTING: 2,203,738.30
GS ELEVATION: 816.80
TOC ELEVATION: 820.07 ft

DEPTH W.L.: 31.47
ELEVATION W.L.: 785.53
DATE W.L.: 1/13/2020
TIME W.L.: 15:11

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | |
|---------------|-------------------|--|-------|---|----------------------------------|----------------|-------|--|--------------|---|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | | | REC |
| | | | | | DEPTH (ft) | | | | | | | |
| 0 | | 0.00 - 10.00 Hydrovac to 10.00' to for utilities | | | | | | | | | <div>AquaGuard Bentonite – Grout</div>  | <div>WELL CASING Interval: 0'-72' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screen</div> <div>WELL SCREEN Interval: 62'-72' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC</div> <div>FILTER PACK Interval: 60'-72' Type: Filter Media</div> <div>FILTER PACK SEAL Interval: 55'-60' Type: PEL-PLUG 3/8"</div> <div>ANNULUS SEAL Interval: 0'-55' Type: AquaGuard Bentonite Grout</div> <div>WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 8" Round Ground Flush</div> <div>DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Auger Rock Drill: N/A</div> |
| 815 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 810 | | | | | | | | | | | | |
| 10 | | 10.00 - 15.00 SM, silty SAND with trace gravel, white and orange, saprolite, non-cohesive, dry, loose | SM |  | 806.8 10.00 | | | | | | | |
| 805 | | | | | 1 | SS | 6-5-2 | 7 | 1.50 1.50 | | | |
| 15 | | 15.00 - 19.00 SM, silty SAND with trace gravel, white and orange, saprolite, non-cohesive, dry, loose | SM |  | 801.8 15.00 | | | | | | | |
| 800 | | | | | | | | | | | | |
| 20 | | 19.00 - 20.00 CL-ML, silt CLAY with some sand, brown, W<PL, firm | CL-ML |  | 797.8 19.00 796.8 20.00 | 2 | SS | 7-5-2 | 7 | 1.50 1.50 | | |
| 795 | | 20.00 - 25.00 SM, silty SAND with some clay, fine to medium sand, orange and tan, low to no plasticity, W<PL, firm, cohesive | | | SM | | | | | | | |
| 25 | | 25.00 - 30.00 SM, silty SAND with some clay, fine to medium sand, orange and tan with white, saprolite, low to no plasticity, W<PL, firm, cohesive | SM |  | | 791.8 25.00 | | SS | 2-5-3 | 8 | | |
| 790 | | | | | | | | | | | | |
| 30 | | 30.00 - 34.00 SM, silty SAND with some clay, fine to medium sand, orange to tan with brown, saprolite, low to no plasticity, W<PL, firm, cohesive | SM |  | 786.8 30.00 | | SS | 2-2-5 | 7 | 1.50 1.50 | | |
| 785 | | | | | | | | | | | | |
| 35 | | 34.00 - 35.00 SM, silty SAND with some clay, fine sand, white, gneissic saprolite, non-cohesive, dense, dry | SM |  | 782.8 34.00 781.8 35.00 | 5 | SS | 5-13-20 | 33 | 1.50 1.50 | | |
| 780 | | 35.00 - 40.00 SM, silty SAND, white and grey, fine to medium sand, saprolite, dry, dense | | | SM | | | | | | | |
| 40 | | 40.00 - 44.40 ML, clayey SILT with trace sand and gravel, grey and brown some orange, saprolite, W<PL, very dense | ML |  | | 776.8 40.00 | 6 | SS | 13-25-26 | 51 | | |
| 775 | | | | | | | | | | | | |
| 45 | | Log continued on next page | SP |  | 772.4 44.40 | 7 | SS | 13-50/4 | <50 | 0.90 0.90 | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: W.Ballow
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-88

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 72.40 ft
LOCATION: North end of site along fence

DRILL RIG: CME 550
DATE STARTED: 11/15/19
DATE COMPLETED: 11/15/19

NORTHING: 1,394,401.10
EASTING: 2,203,738.30
GS ELEVATION: 816.80
TOC ELEVATION: 820.07 ft

DEPTH W.L.: 31.47
ELEVATION W.L.: 785.53
DATE W.L.: 1/13/2020
TIME W.L.: 15:11

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|-------|----------------|------------------------|------------|------|--|---------|------|--|---------------------------------|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 45 | 770 | 44.40 - 48.80 SP, SAND with some gravel, fine to coarse sand, PWR, moist, very dense. PWR at 48.50 feet bgs. (Continued) | SP | | | | | | | | <p>WELL CASING Interval: 0'-72' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screen</p> <p>WELL SCREEN Interval: 62'-72' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC</p> <p>FILTER PACK Interval: 60'-72' Type: Filter Media</p> <p>FILTER PACK SEAL Interval: 52'-60' Type: PEL-PLUG 3/8"</p> <p>ANNULUS SEAL Interval: 0'-55' Type: AquaGuard Bentonite Grout</p> <p>WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 8" Round Ground Flush</p> <p>DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Auger Rock Drill: N/A</p> | |
| | | | | | 768.0 | 8 | S | 50/4 | <50 | 0.30 | | |
| | | 48.80 - 54.40 SP, SAND with some gravel, fine to coarse sand, PWR, moist, very dense | SP | | 48.80 | | | | | 0.30 | | |
| 50 | 765 | | | | | | | | | | | |
| | | | | | 762.4 | 9 | S | 33-50/3 | <50 | 0.90 | | |
| | | 54.40 - 59.40 SP, SAND with some silt and gravel, white and orange, fine to coarse sand, saprolite, PWR, moist to wet, very dense | SP-SM | | 54.40 | | | | | 0.90 | | |
| 55 | 760 | | | | | | | | | | | |
| | | | | | 757.4 | 10 | S | 23-50/4 | <50 | 0.90 | | |
| | | 59.40 - 63.80 SP, SAND with some silt and gravel, white and orange, fine to coarse sand, saprolite, PWR, moist to wet, very dense | SP-SM | | 59.40 | | | | | 0.90 | | |
| 60 | 755 | | | | | | | | | | | |
| | | | | | 753.0 | 11 | S | 50/3 | <50 | 0.30 | | |
| | | 63.80 - 69.00 SP, SAND with some silt and gravel, white and orange, fine to coarse sand, saprolite, PWR, wet, very dense | SP-SM | | 63.80 | | | | | 0.30 | | |
| 65 | 750 | | | | | | | | | | | |
| | | | | | 747.8 | 12 | S | 38-50/1 | <50 | 0.50 | | |
| | | | | | 69.00 | | | | | 0.50 | | |
| 70 | 745 | Boring completed at 72.40 ft | | | | | | | | | | |
| 75 | 740 | | | | | | | | | | | |
| 80 | 735 | | | | | | | | | | | |
| 85 | 730 | | | | | | | | | | | |
| 90 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: W.Ballow
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



RECORD OF BOREHOLE B-92

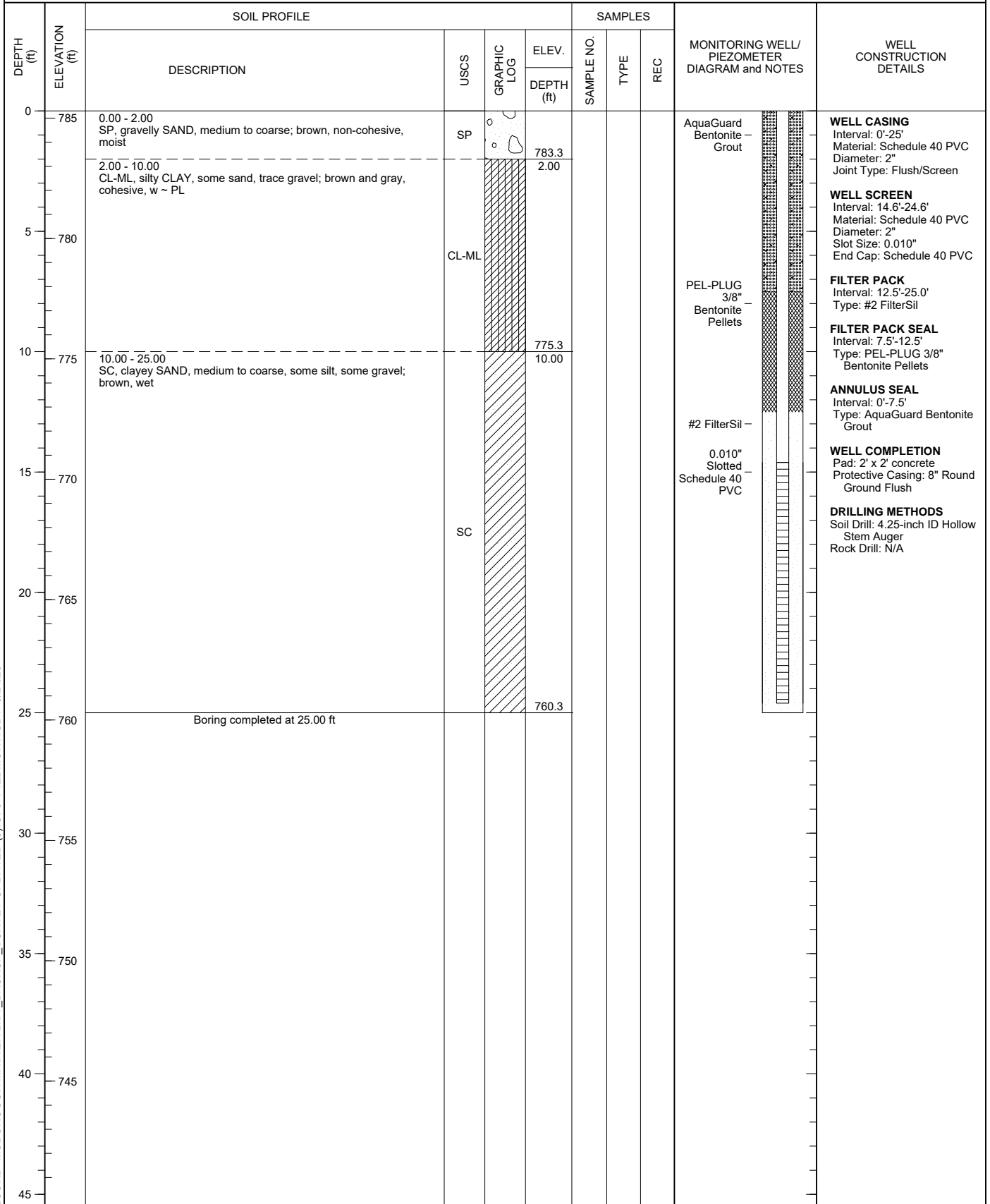
SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 25.00 ft
LOCATION: North of site along Plant Atkinson Road

DRILL RIG: CME 550
DATE STARTED: 12/11/19
DATE COMPLETED: 12/11/19

NORTHING: 1,394,392.70
EASTING: 2,203,026.70
GS ELEVATION: 785.30
TOC ELEVATION: 785.08 ft

DEPTH W.L.: 3.88
ELEVATION W.L.: 781.42
DATE W.L.: 1/14/2020
TIME W.L.: 12:36



LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: W.Ballow
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-93

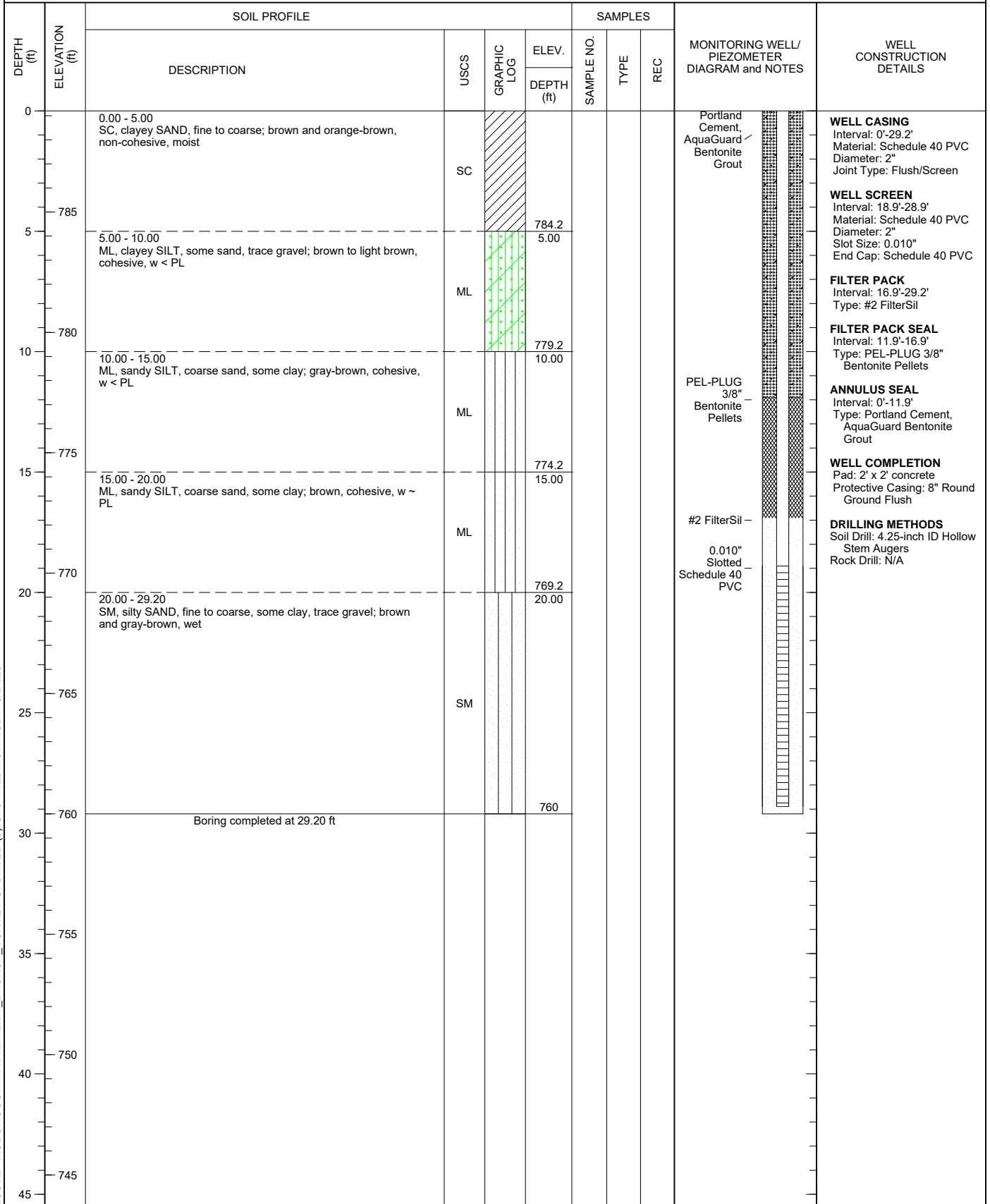
SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 29.20 ft
LOCATION: West of site on site along Plant Atkinson Road

DRILL RIG: CME 550
DATE STARTED: 12/12/19
DATE COMPLETED: 12/12/19

NORTHING: 1,394,348.70
EASTING: 2,202,946.70
GS ELEVATION: 789.19
TOC ELEVATION: 789.07 ft

DEPTH W.L.: 4.86
ELEVATION W.L.: 784.34
DATE W.L.: 1/14/2020
TIME W.L.: 12:38



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: W.Ballow
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



RECORD OF BOREHOLE B-97

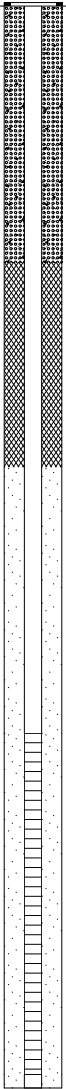
SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 31.00 ft
LOCATION: East of B-98

DRILL RIG: CME 550
DATE STARTED: 2/11/20
DATE COMPLETED: 2/11/20

NORTHING: 1,394,430.00
EASTING: 2,203,008.30
GS ELEVATION: 786.50
TOC ELEVATION: 786.29 ft

DEPTH W.L.: 3.24 ft bTOC
ELEVATION W.L.: 783.05
DATE W.L.: 2/27/2020
TIME W.L.: 10:54

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|------|--|---------|--------------|--|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | 785 | 0.00 - 10.00 Hydro Vac'd for utilities clearance | | | | | | | | |  | WELL CASING Interval: 0 ft-bgs - 31.7 ft-bgs Material: PVC Diameter: 2" Joint Type: Flush WELL SCREEN Interval: 21.3 ft-bgs - 31.3 ft-bgs Material: Schedule 40 PVC Diameter: 3" Slot Size: 0.010" End Cap: 4" FILTER PACK Interval: 13.5 ft-bgs - 21.3 ft-bgs Type: FilterSil Sand FILTER PACK SEAL Interval: 7.5 ft-bgs - 13.5 ft-bgs Type: PEL-PLUG 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0 ft-bgs - 7.5 ft-bgs Type: Portland Cement, AquaGuard Bentonite Grout WELL COMPLETION Pad: 2'x2' Concrete Pad Protective Casing: 8" Round Flush Mount DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Augers Rock Drill: HQ Core Barrel |
| 5 | 780 | | | | 776.5 | | | | | | | |
| 10 | 775 | | | | 10.00 | | | | | | | |
| 15 | 770 | 13.50 - 16.00 gravelly SILTY SAND, no plasticity, medium grained sand, coarse gravel; tan to dark brown; non-cohesive, moist, compact | SM | | 773.0 13.50 | S-01 | OD | 15-17-15 | 32 | 0.92 1.50 | | |
| 20 | 765 | 16.00 - 31.70 Fresh, foliated, dark grey and white, fine to coarse grained, strong, GNEISS | | | 770.5 16.00 | | | | | | | |
| 25 | 760 | | | | | | | | | | 3" PVC 0.010 Slot U-Pack - Screen | |
| 30 | 755 | 29.00: Slightly weathered, porous, medium strong | | | | | | | | | | |
| 35 | 750 | Boring completed at 31.70 ft | | | 754.8 31.70 | | | | | | | |
| 40 | 745 | | | | | | | | | | | |
| 45 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST BACKUP SURVEY UPDATED (5).GPJ PIEDMONT.GDT 9/2/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Heather Brissey
CHECKED BY: Timothy Richards, PG
DATE: 4/28/20



RECORD OF BOREHOLE B-98

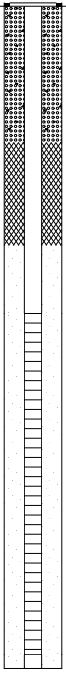
SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 19.40 ft
LOCATION: West of B-97

DRILL RIG: Geoprobe 7822DT
DATE STARTED: 2/10/20
DATE COMPLETED: 2/10/20

NORTHING: 1,394,392.50
EASTING: 2,202,934.00
GS ELEVATION: 789.81
TOC ELEVATION: 789.67 ft

DEPTH W.L.: 5.33 ft bTOC
ELEVATION W.L.: 784.34
DATE W.L.: 2/27/2020
TIME W.L.: 10:36

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|------|-----|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 0 | | 0.00 - 10.00 Hydro Vac'd for utilities clearance | | | | | | |  | WELL CASING Interval: 0 ft-bgs - 19.4 ft-bgs Material: PVC Diameter: 2" Joint Type: Flush WELL SCREEN Interval: 9 ft-bgs- 19 ft-bgs Material: Schedule 40 PVC Diameter: 3" Slot Size: 0.010" End Cap: 4" FILTER PACK Interval: 7 ft-bgs - 9 ft-bgs Type: FilterSil Sand FILTER PACK SEAL Interval: 4 ft-bgs - 7 ft-bgs Type: PEL-PLUG 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0 ft-bgs - 4 ft-bgs Type: Portland Cement, AquaGuard Bentonite Grout WELL COMPLETION Pad: 2'x2' Concrete Pad Protective Casing: 8" Round Flush Mount DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Augers Rock Drill: N/A |
| 5 | 785 | | | | | | | | | |
| 10 | 780 | 10.00 - 19.40 Augered through with Geoprobe. No Soil data collected | | | 779.8 10.00 | | | | | |
| 15 | 775 | | | | | | | | | |
| 20 | 770 | Boring completed at 19.40 ft | | | 770.4 | | | | | |
| 25 | 765 | | | | | | | | | |
| 30 | 760 | | | | | | | | | |
| 35 | 755 | | | | | | | | | |
| 40 | 750 | | | | | | | | | |
| 45 | 745 | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Cascade
DRILLER: Eladio Gonzalaz

GA INSPECTOR: Heather Brissey
CHECKED BY: Timothy Richards, PG
DATE: 4/28/20



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-101D

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 75.00 ft
LOCATION: Next to DGWC-9

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 11/11/20
DATE COMPLETED: 11/12/20

NORTHING: 1394063.6
EASTING: 2204168.2
GS ELEVATION: 821.24 ft
TOC ELEVATION: 824.29 ft

DEPTH W.L.: 34.0
ELEVATION W.L.: 790.3
DATE W.L.: 11/12/20
TIME W.L.: 0954

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|-------------|------------------------|------------|------------|---------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 0 | | 0.00 - 10.00 Air knife; FILL | FILL | | | | | | Stick-up -- | B-101D Borehole Diameter: 4" WELL CASING Interval: 0-75' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 64.9'-74.9' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 62.5'-75.0' Type: FilterSil Quantity: 4-50 lbs bags FILTER PACK SEAL Interval: 59.0'-62.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-59.0' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons NOTES |
| 10 | | 10.00 - 15.00 (SM), SILTY SAND; tannish brown to reddish brown, low plasticity, w<pl, dry, loose to soft | SM | | 10.00 | | | | | |
| 15 | | 15.00 - 16.00 (TWR), TRANSITIONALLY WEATHERED ROCK; dark gray, deeply weathered, fine to medium, poorly jointed | TWR | | 15.00 | 1 | ROTO SONIC | 8.00 10.00 | | |
| | | 16.00 - 20.00 (CL), CLAY; some sand, reddish brown, fine to coarse, low plasticity, w<PL, soft, moist to wet | CL | | 16.00 | | | | | |
| 20 | | 20.00 - 23.00 (ML), SILT; trace to some gravels, reddish brown, low plasticity, w<PL, very soft, wet | ML | | 20.00 | 2 | ROTO SONIC | 4.00 5.00 | | |
| | | 23.00 - 25.00 (SM), SILTY SAND; trace gravels, tannish brown to gray, non-plastic, w<PL, loose, dry, TWR | TWR | | 23.00 | | | | | |
| 25 | | 25.00 - 35.00 NO RECOVERY; material washed out of core barrel after switching to rock coring methods based on the TWR at the 23-25' interval. | NR | | 25.00 | 3 | ROTO SONIC | 0.00 10.00 | | |
| 30 | | | | | | | | | | |
| 35 | | 35.00 - 40.00 NO RECOVERY; The core barrel was able to be advanced to depth, but casing was not able to advance to depth. Material was lost while extracting core barrel. | NR | | 35.00 | 4 | ROTO SONIC | 0.00 5.00 | AquaGuard Bentonite Grout | |
| 40 | | 40.00 - 50.00 NO RECOVERY; The core barrel was able to be advanced to depth, but casing was not able to advance to depth. Material was lost while extracting core barrel. | NR | | 40.00 | 5 | ROTO SONIC | 0.00 10.00 | | |
| 45 | | | | | | | | | | |
| 50 | | Log continued on next page | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-101D

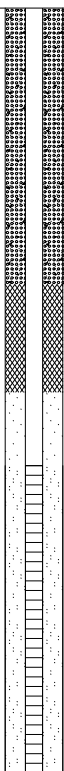



SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 75.00 ft
LOCATION: Next to DGWC-9

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 11/11/20
DATE COMPLETED: 11/12/20

NORTHING: 1394063.6
EASTING: 2204168.2
GS ELEVATION: 821.24 ft
TOC ELEVATION: 824.29 ft

DEPTH W.L.: 34.0
ELEVATION W.L.: 790.3
DATE W.L.: 11/12/20
TIME W.L.: 0954

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | | |
|---------------|-------------------|--|------|---|---------------|------------|------------|---------------|--|--|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | REC | | | | |
| | | | | | DEPTH (ft) | | | | | | | |
| 50 | | 50.00 - 51.00 (ML), SANDY SILT; grayish brown, low to medium plasticity, w~PL, soft to firm, moist | ML | | 50.00 | 6 | ROTO SONIC | 9.50 10.00 |  | B-101D Borehole Diameter: 4" WELL CASING Interval: 0-75' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 64.9'-74.9' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 62.5'-75.0' Type: FilterSil Quantity: 4-50 lbs bags FILTER PACK SEAL Interval: 59.0'-62.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-59.0' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons NOTES | | |
| | | 51.00 - 52.00 (ML), SILT; trace gravels, schist fragments, grayish tan, non-plastic, non-cohesive, w~PL, loose, dry | ML | | 51.00 | | | | | | | |
| | | 52.00 - 52.30 (TWR), TRANSITIONALLY WEATHERED ROCK; deeply weathered, R2, well foliated, fine to medium grain, iron staining. | TWR |  | 52.30 | | | | | | | |
| 55 | | 52.30 - 60.00 (ML), SANDY SILT; with gravel, grayish brown, low to medium plasticity, w~PL, soft to firm, moist | ML | | | | | | | | | |
| 60 | | 60.00 - 70.00 (SCHIST), BEDROCK; well foliated, highly crenulated, poorly jointed, iron staining | BR |  | 60.00 | 7 | ROTO SONIC | 2.50 10.00 | | | | |
| 65 | | | | | | | | | | | | |
| 70 | | 70.00 - 72.00 (ML), SANDY SILT; grayish brown, low to medium plasticity, w~PL, soft to firm, moist | ML | | 70.00 | 8 | ROTO SONIC | 3.55 5.00 | | | | |
| | | 72.00 - 75.00 (SCHIST), BEDROCK; well foliated, highly crenulated, poorly jointed, iron staining | BR |  | 72.00 | | | | | | | |
| 75 | | Boring completed at 75.00 ft | | | | | | | | | | |
| 80 | | | | | | | | | | | | |
| 85 | | | | | | | | | | | | |
| 90 | | | | | | | | | | | | |
| 95 | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-102D

SHEET 1 of 2


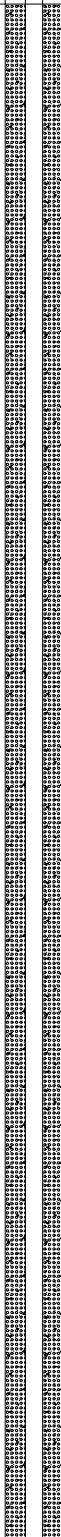



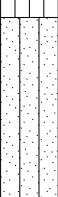
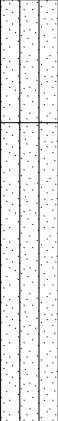
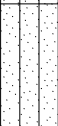

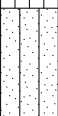
PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 85.00 ft
LOCATION: Next to DGWC-10

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 11/9/20
DATE COMPLETED: 11/10/20

NORTHING: 1393828.4
EASTING: 2204200.4
GS ELEVATION: 820.64 ft
TOC ELEVATION: 823.42 ft

DEPTH W.L.: 34.0
ELEVATION W.L.: 789.4
DATE W.L.: 11/10/2020
TIME W.L.: 1444

BOREHOLE RECORD MCDONOUGH MASTER LIST (2) (3) (1) (2) GPJ PIEDMONT.GDT 7/19/21

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | | | | |
|---------------|-------------------|--|------|---|---------------|------------|------------|---|---|--|----------------|--|--|---------------|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | REC | | | | | | |
| | | | | | DEPTH (ft) | | | | | | | | | |
| 0 | | 0.00 - 10.00 Air knife; FILL | FILL |  | | 1 | ROTO SONIC | | Stick-up –  | B-102D Borehole Diameter: 4" WELL CASING Interval: 0'-85' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 74.4'-84.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 72.0'-75.4' Type: FilterSil Quantity: 4-50 lbs bags FILTER PACK SEAL Interval: 67'-72' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-67' Type: AquaGuard Bentonite Grout Quantity: Approximately 120 gallons NOTES | | | | |
| 5 | | | | | | | | | | | | | | |
| 10 | | 10.00 - 15.50 (CL), CLAY; red brown, trace to some sand, fine grain, w~PL, low plasticity, soft, moist | | | CL | | |  | | | 10.00 | | | 6.50 10.00 |
| 15 | | 15.50 - 17.50 (ML), SILT; red brown, trace gravels, non-plastic to low plasticity, w<PL, soft, moist | | | ML | | |  | | | 15.50 | | | |
| | | 17.50 - 20.00 (ML), SILT; tanish-orange brown to silver, nonplastic to low plasticity, soft to loose | ML |  | 17.50 | | | | | | | | | |
| 20 | | 20.00 - 26.00 (SM), SILTY SAND; bronze, some coarse sand, nonplastic, dry to moist | SM |  | 20.00 | 2 | ROTO SONIC | | AquaGuard Bentonite – Grout | | | | | |
| 25 | | 26.00 - 30.00 (SM), SILTY SAND; gray, some coarse sand, nonplastic, non-cohesive, compact, dry to moist | | | 26.00 | | | | | | 10.00 10.00 | | | |
| 30 | | 30.00 - 40.00 (SM), SILTY SAND; gray and orange-brown, non-plastic to low plasticity, firm to compact, dry to moist, soft to firm, contains muscovite | SM |  | 30.00 | 3 | ROTO SONIC | | | | | | | |
| 35 | | | | | | | | | | | 9.00 10.00 | | | |
| 40 | | 40.00 - 44.00 (SM), SILTY SAND; gray and orange-brown, non-plastic to low plasticity, firm to compact, dry to moist, soft to firm | SM |  | 40.00 | 4 | ROTO SONIC | | | | | | | |
| 45 | | 44.00 - 46.00 (ML), SILT; gray, non-plastic to lows plasticity, soft, moist, | ML |  | 44.00 | | | | 7.00 10.00 | | | | | |
| | | 46.00 - 50.00 (SM), SILTY SAND; reddish brown, non-plastic to low plasticity, very soft, wet | SM |  | 46.00 | | | | | | | | | |
| 50 | | Log continued on next page | | | | | | | | | | | | |

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-102D

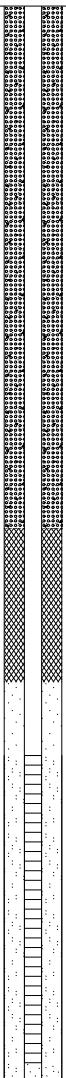
SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 85.00 ft
LOCATION: Next to DGWC-10

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 11/9/20
DATE COMPLETED: 11/10/20

NORTHING: 1393828.4
EASTING: 2204200.4
GS ELEVATION: 820.64 ft
TOC ELEVATION: 823.42 ft

DEPTH W.L.: 34.0
ELEVATION W.L.: 789.4
DATE W.L.: 11/10/2020
TIME W.L.: 1444

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|-------------|------------------------|------------|------------|---------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 50 | | 50.00 - 51.00 (SM), SILTY SAND; reddish brown, non-plastic to low plasticity, very soft, wet | SM | | 50.00 | 5 | ROTO SONIC | 5.00 5.00 |  <p>3/8" Uncoated Pel-Plug</p> <p>Sand Filter Pack</p> <p>U-Pack Screen</p> | B-102D Borehole Diameter: 4" WELL CASING Interval: 0'-85' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 74.4'-84.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 72.0'-75.4' Type: FilterSil Quantity: 4-50 lbs bags FILTER PACK SEAL Interval: 67'-72' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-67' Type: AquaGuard Bentonite Grout Quantity: Approximately 120 gallons NOTES |
| | | 51.00 - 55.00 (SM), SILTY SAND; gray, w<PL, fine to compact, dry to moist, contains muscovite | SM | | 51.00 | | | | | |
| 55 | | 55.00 - 60.00 (SM), SILTY SAND; gray to yellow orange, w<PL, fine to stiff, dry to moist, saprolitic | SM | | 55.00 | 6 | ROTO SONIC | 5.00 5.00 | | |
| 60 | | 60.00 - 65.00 (ML), SILT; gray to light brown, w<PL, dense, dry | ML | | 60.00 | 7 | ROTO SONIC | 4.00 5.00 | | |
| 65 | | 65.00 - 70.00 (TWR), TRANSITIONALLY WEATHERED ROCK; silty sand, gray, low plasticity, w<PL, stiff to hard, dry, saprolitic | TWR | | 65.00 | 8 | ROTO SONIC | 5.00 5.00 | | |
| 70 | | 70.00 - 75.00 (SCHIST), BEDROCK, dark gray to black, fine to medium grain, moderately foliated, poorly jointed, high crenulated, weak to strong rock, slightly to moderately weathered, feldspar, muscovite, schist | BR | | 70.00 | 9 | ROTO SONIC | 5.00 5.00 | | |
| 75 | | 75.00 - 85.00 (SCHIST), BEDROCK; dark gray to black, moderately foliated, poorly jointed, high crenulated, weak to strong rock, slightly to moderately weathered, feldspar, muscovite, schist | BR | | 75.00 | 10 | ROTO SONIC | 7.00 10.00 | | |
| 85 | | Boring completed at 85.00 ft | | | | | | | | |
| 90 | | | | | | | | | | |
| 95 | | | | | | | | | | |
| 100 | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2) (3) (1) (2) GPJ PIEDMONT.GDT 7/19/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-104D






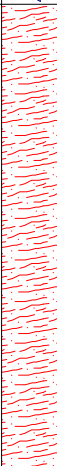
SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 60.00 ft
LOCATION: East of DGWC-48

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 10/20/20
DATE COMPLETED: 10/20/20

NORTHING: 1391318.3
EASTING: 2202298.5
GS ELEVATION: 785.31 ft
TOC ELEVATION: 787.90 ft

DEPTH W.L.: 12.0
ELEVATION W.L.: 775.9
DATE W.L.: 10/20/2020
TIME W.L.: 1818

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|---|------------------------|------------|------------|---------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 0 | | 0.00 - 10.00 Air knife; FILL | FILL |  | | | | | Stick-up -- | B-104D Borehole Diameter: 4" WELL CASING Interval: 0'-60' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 50'-60' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 47.15'-60.0' Type: FilterSil Quantity: 4-50 lbs bags FILTER PACK SEAL Interval: 44'-47.15' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-44' Type: AquaGuard Bentonite Grout Quantity: Approximately 40 gallons NOTES |
| 10 | | 10.00 - 12.00 (CL), CLAY; red brown; moist, soft, low plasticity, w<PL, FILL | CL |  | 10.00 | | | | | |
| 12 | | 12.00 - 22.00 (ML), SILT; dark brown to gray; non-plastic to low plasticity, dry to moist, w<PL, soft to firm | ML |  | 12.00 | 1 | ROTO SONIC | 8.00 8.00 | | |
| 20 | | | | | | 2 | ROTO SONIC | 4.00 4.00 | | |
| 22 | | 22.00 - 30.00 (ML), SILT; dark brown; w~PL, moist to wet, soft to firm, contains gravels of biotite gneiss (trace) | ML |  | 22.00 | 3 | ROTO SONIC | 8.00 8.00 | AquaGuard Bentonite -- Grout | |
| 30 | | 30.00 - 35.00 (TWR), TRANSITIONALLY WEATHERED ROCK; rust brown to gray; deeply weathered biotite gneiss, poorly foliated, poorly jointed, iron staining | TWR |  | 30.00 | 4 | ROTO SONIC | 6.55 10.00 | | |
| 35 | | 35.00 - 55.50 (GNEISS), BEDROCK; biotite, quartz, feldspar, light to dark gray, strong to medium strong, fresh to slightly weathered, locally contains iron staining and garnets | BR |  | 35.00 | 5 | ROTO SONIC | 2.10 5.00 | 3/8" Uncoated -- Pel-Plug | Sand Filter -- |
| 45 | | | | | | 6 | ROTO SONIC | 4.35 7.50 | | |
| 50 | | Log continued on next page | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-104D

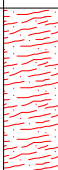
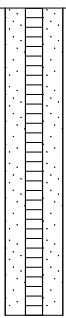

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 60.00 ft
LOCATION: East of DGWC-48

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 10/20/20
DATE COMPLETED: 10/20/20

NORTHING: 1391318.3
EASTING: 2202298.5
GS ELEVATION: 785.31 ft
TOC ELEVATION: 787.90 ft

DEPTH W.L.: 12.0
ELEVATION W.L.: 775.9
DATE W.L.: 10/20/2020
TIME W.L.: 1818

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|---|---------------|------------|------------|---------------------|--|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | REC | | |
| | | | | | DEPTH (ft) | | | | | |
| 50 | | 35.00 - 55.50 (GNEISS), BEDROCK; biotite, quartz, feldspar, light to dark gray, strong to medium strong, fresh to slightly weathered, locally contains iron staining and garnets <i>(Continued)</i> | BR |  | | 6 | | $\frac{4.35}{7.50}$ | <div>Pack</div> <div>U-Pack Screen</div>  | B-104D Borehole Diameter: 4" WELL CASING Interval: 0'-60' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 50'-60' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 47.15'-60.0' Type: FilterSil Quantity: 4-50 lbs bags FILTER PACK SEAL Interval: 44'-47.15' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-44' Type: AquaGuard Bentonite Grout Quantity: Approximately 40 gallons NOTES |
| 55 | | 55.50 - 60.00 (SCHIST), BEDROCK; quartz, muscovite, gray to silver, medium grain, medium strong, fresh to moderately weathered | BR |  | 55.50 | 7 | ROTO SONIC | $\frac{6.15}{7.50}$ | | |
| 60 | | Boring completed at 60.00 ft | | | | | | | | |
| 65 | | | | | | | | | | |
| 70 | | | | | | | | | | |
| 75 | | | | | | | | | | |
| 80 | | | | | | | | | | |
| 85 | | | | | | | | | | |
| 90 | | | | | | | | | | |
| 95 | | | | | | | | | | |
| 100 | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-106D

SHEET 1 of 2


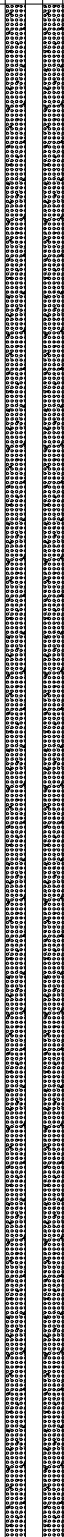








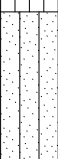

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 80.00 ft
LOCATION: North of DGWC-8

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 11/12/20
DATE COMPLETED: 11/13/20

NORTHING: 1394327.1
EASTING: 2203869.2
GS ELEVATION: 823.39 ft
TOC ELEVATION: 826.21 ft

DEPTH W.L.: 37.0
ELEVATION W.L.: 789.2
DATE W.L.: 11/13/2020
TIME W.L.: 1652

BOREHOLE RECORD MCDONOUGH MASTER LIST (2) GPJ PIEDMONT.GDT 2/3/21

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | | | |
|---------------|-------------------|---|------|---|---------------|---|------------|----------------|---|--|--|------------|---------------|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | REC | | | | | |
| | | | | | DEPTH (ft) | | | | | | | | |
| 0 | | 0.00 - 10.00 Air knife; FILL | FILL |  | | | | | Stick-up – |  | B-106D Borehole Diameter: 4" WELL CASING Interval: 0'-80' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 69.4'-79.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 66.61'-80' Type: FilterSil Quantity: 4-50 lbs bags FILTER PACK SEAL Interval: 62.85'-66.61' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-62.85' Type: AquaGuard Bentonite Grout Quantity: NOTES | | |
| 5 | | | | | | | | | | | | | |
| 10 | | 10.00 - 16.75 (ML), SILT; some fine to medium sand, some gravel, moist, firm, w<PL, low to medium plasticity | | | ML |  | 10.00 | 1 | | | | ROTO SONIC | 8.20 10.00 |
| 15 | | 16.75 - 18.10 (ML), SILT; some coarse sand, moist, stiff, w<PL | ML |  | 16.75 | | | | | | | | |
| 20 | | 18.10 - 20.00 (CL), CLAY; red to red-brown, some coarse sand, dry to moist, w<PL, soft, some muscovite, Fill | CL |  | 18.10 | | | | | | | | |
| 25 | | 20.00 - 28.00 (ML), SILT; brown, some fines, very fine to coarse sand, wet, soft to very soft, w<PL, medium plasticity, | ML |  | 20.00 | 2 | ROTO SONIC | 10.00 10.00 | | | | | |
| 30 | | 28.00 - 30.00 (SP), SAND; uniformly graded, some silt, non-cohesive, loose, moist, non-plastic | SP |  | 28.00 | | | | AquaGuard Bentonite – Grout | | | | |
| 35 | | 30.00 - 32.00 (SM), SILTY SAND; brown, trace gravel, dry to moist, cohesive, firm to stiff, w<PL, low plasticity, some crenulations, saprolitic | SM |  | 30.00 | 3 | ROTO SONIC | 5.00 5.00 | | | | | |
| 40 | | 32.00 - 35.00 (SM), SILTY SAND; dry to moist, cohesive, firm to stiff, w~PL, low to medium plasticity | SM |  | 32.00 | | | | | | | | |
| 45 | | 35.00 - 40.00 (ML), SANDY SILT; brown, fine to coarse sand, micas, firm to stiff, w>PL, dry to wet | ML |  | 35.00 | 4 | ROTO SONIC | 5.00 5.00 | | | | | |
| 50 | | 40.00 - 45.00 (SM), SILTY SAND; brown, fine to coarse sand, some gravel, schist, quartz vein fragments, micas, firm to stiff, w<PL, moist, medium plasticity | SM |  | 40.00 | 5 | ROTO SONIC | 5.00 5.00 | | | | | |
| | | 45.00 - 47.00 (SM), SILTY SAND; brown, fine to coarse sand, some gravel, schist, quartz vein fragments, micas, stiff to very stiff, w>PL, moist, medium plasticity, saprolitic | SM |  | 45.00 | 6 | ROTO SONIC | 2.00 | | | | | |
| | | 47.00 - 60.00 NO RECOVERY; material too loose and continues to fall out of core barrel | NR | | 47.00 | 7 | | 0.00 13.00 | | | | | |
| | | Log continued on next page | | | | | | | | | | | |

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-106D

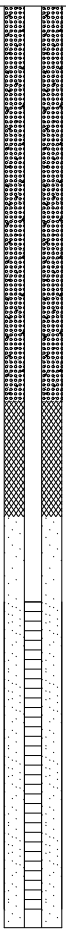



SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 80.00 ft
LOCATION: North of DGWC-8

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 11/12/20
DATE COMPLETED: 11/13/20

NORTHING: 1394327.1
EASTING: 2203869.2
GS ELEVATION: 823.39 ft
TOC ELEVATION: 826.21 ft

DEPTH W.L.: 37.0
ELEVATION W.L.: 789.2
DATE W.L.: 11/13/2020
TIME W.L.: 1652

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|---|------------------------|------------|------------|---------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 50 | | 47.00 - 60.00 NO RECOVERY; material too loose and continues to fall out of core barrel <i>(Continued)</i> | NR | | | 7 | ROTO SONIC | 0.00 13.00 |  | B-106D Borehole Diameter: 4" WELL CASING Interval: 0'-80' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 69.4'-79.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 66.61'-80' Type: FilterSil Quantity: 4-50 lbs bags FILTER PACK SEAL Interval: 62.85'-66.61' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-62.85' Type: AquaGuard Bentonite Grout Quantity: NOTES |
| 55 | | | | | | | | | | |
| 60 | | 60.00 - 65.00 (SCHIST), BEDROCK; silvery blue, well foliated, poorly jointed, moderate to deeply weathered, weak to medium strong rock, iron staining | BR |  | 60.00 | 8 | ROTO SONIC | 1.60 5.00 | | |
| 65 | | | | | | | | | | |
| 70 | | 65.00 - 75.00 (BIOTITE GNEISS), BEDROCK; light gray to dark gray, zones of muscovite schistosity, very fine grain, moderate to poor foliation, poorly jointed, fresh to moderately weathered, medium strong, iron staining, feldspar, quartz, muscovite | BR |  | 65.00 | 9 | ROTO SONIC | 5.20 10.00 | Sand Filter Pack | |
| 75 | | | | | | | | | | |
| 80 | | 75.00 - 80.00 (BIOTITE GNEISS), BEDROCK; light gray to dark gray, zones of muscovite schistosity, very fine grain, moderate to poor foliation, poorly jointed, fresh to moderately weathered, medium strong, iron staining, feldspar, quartz | BR |  | 75.00 | 10 | ROTO SONIC | 3.40 5.00 | U-Pack Screen | |
| 85 | | Boring completed at 80.00 ft | | | | | | | | |
| 90 | | | | | | | | | | |
| 95 | | | | | | | | | | |
| 100 | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-107D











SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 85.75 ft
LOCATION: Southwest of DGWC-19

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 10/28/20
DATE COMPLETED: 10/28/20

NORTHING: 1392334.5
EASTING: 2202596.4
GS ELEVATION: 820.44 ft
TOC ELEVATION: 823.38 ft

DEPTH W.L.: 21.8
ELEVATION W.L.: 801.6
DATE W.L.: 10/28/2020
TIME W.L.: 1440

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|----------------------------|-------------------|--|-------|---|---------------|------------|------------|----------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | REC | | |
| | | | | | DEPTH (ft) | | | | | |
| 0 | | 0.00 - 10.00 Air knife; FILL | FILL |  | | | | | Stick-up –  | B-107D Borehole Diameter: 4" WELL CASING Interval: 0'-85.1' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 75.1'-85.1' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 72.25'-85.5' Type: FilterSil Quantity: 4.5-50 lbs bags FILTER PACK SEAL Interval: 68.8'-72.25' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon ANNULUS SEAL Interval: 0'-68.8' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons NOTES |
| 5 | | | | | | | | | | |
| 10 | | 10.00 - 20.00 (CL-ML), SILT and CLAY; red brown to brown, trace sand, low to medium plasticity, soft to firm, moist, contains muscovite | CL-ML |  | 10.00 | 1 | ROTO SONIC | 7.00 10.00 |  | |
| 15 | | | | | | | | | | |
| 20 | | 20.00 - 38.00 (SM), SILTY SAND; brown to tannish brown, trace sand, w<PL, low plasticity, loose to compact, large grains of muscovite | SM |  | 20.00 | 2 | ROTO SONIC | 4.30 10.00 |  | |
| 25 | | | | | | | | | | |
| 30 | | | | | | 3 | ROTO SONIC | 10.00 10.00 |  | |
| 35 | | | | | | | | | | |
| 40 | | 38.00 - 40.00 (SM), SILTY SAND; black and silverish gray, fine to medium, non-plastic, w<PL, loose sand, moist, | SM |  | 38.00 | | | |  | |
| 45 | | 40.00 - 50.00 (SM-ML), SILTY SAND to SILT; brown to silverish brown, moist to wet, w<PL, soft to stiff | SM |  | 40.00 | 4 | ROTO SONIC | 9.00 10.00 | | |
| 50 | | | | | | | | | | |
| Log continued on next page | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2) GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-107D

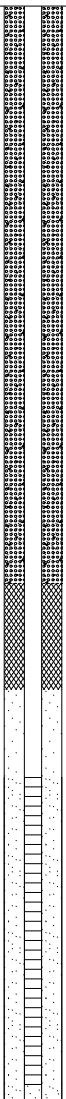
SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 85.75 ft
LOCATION: Southwest of DGWC-19

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 10/28/20
DATE COMPLETED: 10/28/20

NORTHING: 1392334.5
EASTING: 2202596.4
GS ELEVATION: 820.44 ft
TOC ELEVATION: 823.38 ft

DEPTH W.L.: 21.8
ELEVATION W.L.: 801.6
DATE W.L.: 10/28/2020
TIME W.L.: 1440

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|------------|---------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 50 | | 50.00 - 60.00 (SM-ML), SILTY SAND to SILT; brown to silverish brown, moist to wet, w<PL, soft to stiff | SM | | 50.00 | 5 | ROTO SONIC | 6.00 10.00 |  | B-107D Borehole Diameter: 4" WELL CASING Interval: 0'-85.1' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 75.1'-85.1' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 72.25'-85.5' Type: FilterSil Quantity: 4.5-50 lbs bags FILTER PACK SEAL Interval: 68.8'-72.25' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon ANNULUS SEAL Interval: 0'-68.8' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons NOTES |
| 55 | | | | | | | | | | |
| 60 | | 60.00 - 67.00 NO RECOVERY; material was washed away by coring methods. Material from 63' to 67' is inferred as TWR. | NR | | 60.00 | 6 | ROTO SONIC | 0.00 7.00 | | |
| 65 | | | | | | | | | | |
| 70 | | 67.00 - 75.00 (GNEISS), BEDROCK; dark gray to black, well foliated, poorly jointed, slightly to deeply weathered, weak to medium strong, feldspar, quartz, muscovite, | BR | | 67.00 | 7 | ROTO SONIC | 6.70 8.00 | | |
| 75 | | | | | | | | | | |
| 80 | | 75.00 - 85.75 (GNEISS), BEDROCK; dark gray to black, well foliated, poorly jointed, slightly to deeply weathered, weak to medium strong, feldspar, quartz, muscovite, | BR | | 75.00 | 8 | ROTO SONIC | 6.80 10.75 | | |
| 85 | | | | | | | | | | |
| | | Boring completed at 85.75 ft | | | 85.75 | | | | | |
| 90 | | | | | | | | | | |
| 95 | | | | | | | | | | |
| 100 | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-108D

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 80.00 ft
LOCATION: Next to DGWC-20

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 10/26/20
DATE COMPLETED: 10/27/20

NORTHING: 1392156.1
EASTING: 2202312.5
GS ELEVATION: 818.33 ft
TOC ELEVATION: 821.13 ft

DEPTH W.L.: 17.7
ELEVATION W.L.: 803.43
DATE W.L.: 10/27/2020
TIME W.L.: 0915

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM AND NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|------------|----------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 0 | | 0.00 - 10.00 Air knife; FILL | FILL | | | | | | Stick-up -- | B-108D Borehole Diameter: 4" WELL CASING Interval: 0'-80.0' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 69'-79' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 65.85'-79' Type: FilterSil Quantity: 4-50 lbs bags FILTER PACK SEAL Interval: 62.5'-65.85' Type: 3/8" Uncoated Pel-Plug Quantity: 1- 5 gallon bucket ANNULUS SEAL Interval: 0'-62.5' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons NOTES |
| 10 | | 10.00 - 12.00 (CL), CLAY;w<PL, low plasticity, moist to wet, Fill | CL | | 10.00 | | | | | |
| 15 | | 12.00 - 20.00 (ML), SILT; tannish brown with black spots, trace fine sand, w<PL, non-plastic to low plasticity, compact to firm, moist | ML | | 12.00 | 1 | ROTO SONIC | 10.00 10.00 | | |
| 25 | | 20.00 - 30.00 (ML), SILT; tannish brown with black/silver spots, trace to some fine sand, w<PL, low plasticity, dry to moist, firm, saprolite, deeply weather biotite gneiss | ML | | 20.00 | 2 | ROTO SONIC | 9.50 10.00 | | |
| 35 | | 30.00 - 40.00 (ML-SM), SILT and SILTY SAND; silverish brown, trace clay, w<PL, nonplastic to low plasticity, moist, firm to stiff, contains muscovite, saprolite | SM | | 30.00 | 3 | ROTO SONIC | 8.00 10.00 | AquaGuard Bentonite Grout | |
| 45 | | 40.00 - 50.00 (ML-SM), SILT and SILTY SAND; silverish brown, trace clay, w<PL, nonplastic to low plasticity, moist, soft to firm, contains muscovite, saprolite | SM | | 40.00 | 4 | ROTO SONIC | 6.75 10.00 | | |
| 50 | | Log continued on next page | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-108D

SHEET 2 of 2

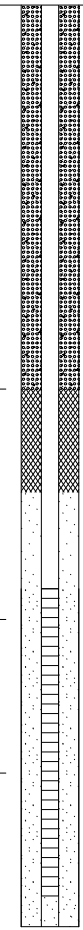
PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 80.00 ft
LOCATION: Next to DGWC-20

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 10/26/20
DATE COMPLETED: 10/27/20

NORTHING: 1392156.1
EASTING: 2202312.5
GS ELEVATION: 818.33 ft
TOC ELEVATION: 821.13 ft

DEPTH W.L.: 17.7
ELEVATION W.L.: 803.43
DATE W.L.: 10/27/2020
TIME W.L.: 0915

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|------------|---------------|---|---------------------------------|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 50 | | 50.00 - 51.00 (SP), SAND; black to dark gray, w<PL, non-plastic, firm, loose, wet | SP | | 50.00 | | | | | |
| | | 51.00 - 57.50 (ML), SILT; gray to brown, w<PL, low plasticity, firm to stiff, moist, saprolite | ML | | 51.00 | 5 | ROTO SONIC | 7.50 7.50 | | |
| 55 | | | | | | | | | | |
| 60 | | 57.50 - 65.00 (GNEISS), BEDROCK; dark brown to gray, well foliated, poorly jointed, deeply weathered, weak rock, iron staining | BR | | 57.50 | 6 | ROTO SONIC | 1.25 7.50 | | |
| 65 | | | | | | | | | | |
| 70 | | 65.00 - 75.00 (GNEISS), BEDROCK; dark brown to gray, well foliated, poorly jointed, fresh to slightly weathered, medium strong rock, iron staining | BR | | 65.00 | 7 | ROTO SONIC | 6.55 10.00 | | |
| 75 | | | | | | | | | | |
| | | 75.00 - 80.00 (GNEISS), BEDROCK; dark brown to gray, well foliated, poorly jointed, fresh to slightly weathered, medium strong rock, iron staining | BR | | 75.00 | 8 | ROTO SONIC | 4.80 5.00 | | |
| 80 | | Boring completed at 80.00 ft | | | | | | | | |
| 85 | | | | | | | | | | |
| 90 | | | | | | | | | | |
| 95 | | | | | | | | | | |
| 100 | | | | | | | | | | |



B-108D
Borehole Diameter: 4"
WELL CASING
Interval: 0'-80.0'
Material: Schedule 40 PVC
Diameter: 2"
Joint Type: Screw fit with rubber seam
WELL SCREEN
Interval: 69'-79'
Material: Schedule 40 PVC
Diameter: 2"
Slot Size: .010"
End Cap: Schedule 40 PVC
FILTER PACK
Interval: 65.85'-79'
Type: FilterSil
Quantity: 4-50 lbs bags
FILTER PACK SEAL
Interval: 62.5'-65.85'
Type: 3/8" Uncoated Pel-Plug
Quantity: 1- 5 gallon bucket
ANNULUS SEAL
Interval: 0'-62.5'
Type: AquaGuard Bentonite Grout
Quantity: Approximately 80 gallons

NOTES

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-111D

SHEET 1 of 2






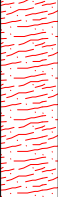


PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 85.00 ft
LOCATION: West of DGWC-5

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 11/1/20
DATE COMPLETED: 11/3/20

NORTHING: 1394303.6
EASTING: 2202956.4
GS ELEVATION: 788.99 ft
TOC ELEVATION: 791.84 ft

DEPTH W.L.: 8.9
ELEVATION W.L.: 755.30
DATE W.L.: 11/3/2020
TIME W.L.: 0815

BOREHOLE RECORD MCDONOUGH MASTER LIST (2) (3) (1) GPJ PIEDMONT GDT 2/10/21

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM AND NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|---|---------------|------------|------------|----------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | REC | | |
| | | | | | DEPTH (ft) | | | | | |
| 0 | | 0.00 - 10.00 Air Knife; Fill | FILL |  | | | | | Stick-up – | B-111D Borehole Diameter: 6" WELL CASING Interval: 0'-85' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 74.15'-84.15' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 72.1'-84.15' Type: FilterSil Quantity: 3-50 lbs bags FILTER PACK SEAL Interval: 68.7'-72.1' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-68.7' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons NOTES |
| 5 | | | | | | | | | | |
| 10 | | 10.00 - 15.00 (ML), SILT; tan to brown, trace fine to coarse sand, moist to wet, soft, low plasticity, w<Pl, saprolite | ML |  | 10.00 | 1 | ROTO SONIC | | | |
| 15 | | 15.00 - 20.00 (ML), SILT; gray and green to brown, low plasticity, w<PL, moist, soft to firm | ML |  | 15.00 | | | 10.00 10.00 | | |
| 20 | | 20.00 - 26.00 (ML), SILT; gray and green to brown, low plasticity, w<PL, moist, soft to firm, more saprolitic | ML |  | 20.00 | 2 | ROTO SONIC | | | |
| 25 | | | | | | | | 8.00 8.00 | | |
| 30 | | 26.00 - 27.00 (TWR), TRANSITIONALLY WEATHERED ROCK; silt, gray and green to brown, low plasticity, w<PL, moist, soft to firm, saprolitic, locally contains gravels of augen biotite gneiss 27.00 - 34.00 (GNEISS), BEDROCK; quartz, feldspar, biotite, white to dark gray, moderately weathered, medium strong, iron staining, locally contains augened feldspars | TWR |  | 26.00 | 3 | ROTO SONIC | 1.00 2.00 | AquaGuard Bentonite – Grout | |
| | | | BR |  | 27.00 | | | 2.20 4.00 | | |
| 35 | | 34.00 - 51.50 (GNEISS), BEDROCK; biotite, quartz, feldspar, white to light gray, well foliated, poorly jointed, fresh to slightly weathered, medium strong, iron staining, locally contains K-spar augens | BR |  | 34.00 | 5 | ROTO SONIC | 1.70 6.00 | | |
| 40 | | | | | | | | | | |
| 45 | | | BR |  | | 6 | ROTO SONIC | 10.00 10.00 | | |
| 50 | | | | | | | | | | |

Log continued on next page

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-111D

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 85.00 ft
LOCATION: West of DGWC-5

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 11/1/20
DATE COMPLETED: 11/3/20

NORTHING: 1394303.6
EASTING: 2202956.4
GS ELEVATION: 788.99 ft
TOC ELEVATION: 791.84 ft

DEPTH W.L.: 8.9
ELEVATION W.L.: 755.30
DATE W.L.: 11/3/2020
TIME W.L.: 0815

BOREHOLE RECORD MCDONOUGH MASTER LIST (2) (3) (1).GPJ PIEDMONT.GDT 2/10/21

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|------------|----------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 50 | | | BR | | | | | | | B-111D Borehole Diameter: 6" WELL CASING Interval: 0'-85' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 74.15'-84.15' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 72.1'-84.15' Type: FilterSil Quantity: 3-50 lbs bags FILTER PACK SEAL Interval: 68.7'-72.1' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-68.7' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons NOTES |
| 51.50 - 58.00 | | (GNEISS), BEDROCK; feldspar, quartz, biotite, white to light gray, well foliated, poorly jointed, fresh to slightly weathered, medium strong, locally contains epidote | BR | | 51.50 | 7 | ROTO SONIC | 7.00 10.00 | | |
| 55 | | | BR | | | | | | | |
| 58.00 - 85.00 | | (GNEISS), BEDROCK; biotite, feldspar, quartz, white to light gray, well foliated, poorly jointed, fresh to slightly weathered, medium to strong, | | | 58.00 | 8 | ROTO SONIC | 5.00 5.00 | | |
| 60 | | | | | | 9 | ROTO SONIC | 5.00 5.00 | | |
| 65 | | | | | | 10 | ROTO SONIC | 5.00 5.00 | | |
| 70 | | | BR | | | | | | 3/8" Uncoated Pel-Plug | |
| 75 | | | | | | | | | Sand Filter Pack | |
| 80 | | | | | | 11 | ROTO SONIC | 10.00 10.00 | U-Pack Screen | |
| 85 | | Boring completed at 85.00 ft | | | | | | | | |
| 90 | | | | | | | | | | |
| 95 | | | | | | | | | | |
| 100 | | | | | | | | | | |

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-120D

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 70.00 ft
LOCATION: Offset of B-3

DRILL RIG: TS1 150CC
DATE STARTED: 3/5/21
DATE COMPLETED: 3/6/21

NORTHING: 1,394,047.2
EASTING: 2,202,436.4
GS ELEVATION: 834.03
TOC ELEVATION: 836.42 ft

DEPTH W.L.: 33.76
ELEVATION W.L.: 802.66
DATE W.L.: 4/9/2021
TIME W.L.: 12:26

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM AND NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|--------------|-------|----------------|---------------------------------|---------------------------------------|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 0 | | 0.00 - 10.00 FILL- Backfilled with cuttings from air knife clearance | | | | | | | | |
| 830 | | | | | | | | | | |
| 5 | | | | | | Air Knife | | 0.00 10.00 | | |
| 825 | | | | | | | | | | |
| 10 | | 10.00 - 20.00 ML, Clayey SILT with trace medium to coarse sand, non to low plasticity; tan to brown; loose, dry to moist, W<PL | | | 824 10.00 | | | | | |
| 820 | | | ML | | | 1 | | 6.80 10.00 | | |
| 15 | | | | | | | | | | |
| 815 | | | | | | | | | | |
| 20 | | 20.00 - 27.00 SM, SILTY SAND with some gravels, non plasticity; light gray to gray; loose, dry to moist, W<PL | | | 814 20.00 | | | | | |
| 810 | | | SM | | | 2 | | 10.00 10.00 | | |
| 25 | | | | | | | | | | |
| 805 | | 27.00 - 30.00 ML, Clayey SILT with trace medium to coarse sand, non to low plasticity; tan to brown; loose, dry to moist, W<PL | | | 807 27.00 | | | | | |
| 30 | | 30.00 - 36.00 SM, SILTY SAND with trace fine to coarse gravels, non plasticity; tan to brown; compact to dense, dry to moist, W<PL | | | 804 30.00 | | | | | |
| 800 | | | SM | | | 3 | | 8.00 10.00 | | |
| 35 | | | | | | | | | AquaGuard Grout | |
| 795 | | 36.00 - 40.00 TWR, Transitional Weathered Rock; breaks down to a SM, SILTY SAND with trace fine to coarse gravels, non plasticity; olive to tan to brown; compact to dense, dry to moist, W<PL | TWR | | 798 36.00 | | | | | |
| 40 | | | | | 794 | | | | | |

Log continued on next page

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

RECORD OF BOREHOLE B-120D

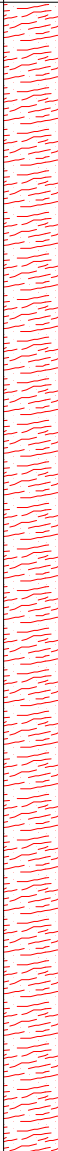

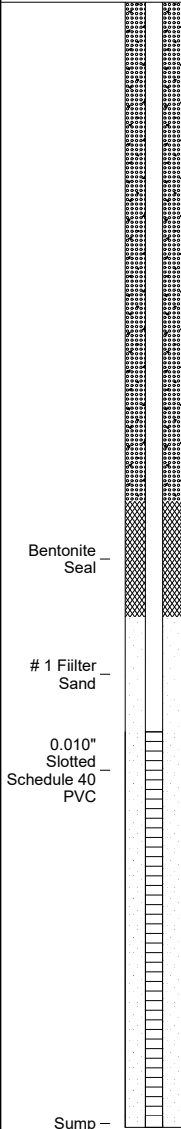
SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 70.00 ft
LOCATION: Offset of B-3

DRILL RIG: TSi 150CC
DATE STARTED: 3/5/21
DATE COMPLETED: 3/6/21

NORTHING: 1,394,047.2
EASTING: 2,202,436.4
GS ELEVATION: 834.03
TOC ELEVATION: 836.42 ft

DEPTH W.L.: 33.76
ELEVATION W.L.: 802.66
DATE W.L.: 4/9/2021
TIME W.L.: 12:26

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|--|---------------|------------|--|---------------|--|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | PHOTO | REC | | |
| | | | | | DEPTH (ft) | | | | | |
| 40 | | 40.00 - 70.00 Fresh to slightly weatherd, well foliated, poorly jointed, white to dark gray, fine to coarse grained, biotite-feldspar-quartz GNEISS; locally the felspars are augened | BR |  | 40.00 | 4 |  | 7.80 10.00 |  | <p>WELL CASING Interval: 0-59' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw</p> <p>WELL SCREEN Interval: 59-69' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 69.0-69.3'</p> <p>FILTER PACK Interval: 56.0-69.3' Type: #1 Filter Sand Quantity: 5.5 - 50 lbs bags</p> <p>FILTER PACK SEAL Interval: 53-56' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket</p> <p>ANNULUS SEAL Interval: 0-53' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons</p> <p>WELL COMPLETION Pad: 4"x4"x4" Concrete Protective Casing: 4"x4" Aluminium</p> <p>DRILLING METHODS Soil Drill: Rotasonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotasonic Sample Type: Rotasonic</p> |
| 45 | 790 | | | | | | | | | |
| 50 | 785 | | | | | | | | | |
| 55 | 780 | | | | | 5 | 6.20 10.00 | | | |
| 60 | 775 | | | | | | | | | |
| 65 | 770 | | | | | 6 | 8.50 10.00 | | | |
| 70 | | Boring completed at 70.00 ft | | | 764 | | | | | |
| 75 | 760 | | | | | | | | | |
| 80 | 755 | | | | | | | | | |

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

RECORD OF BOREHOLE B-122D










SHEET 1 of 2

PROJECT: SCS Plant McDonough
PROJECT NUMBER: GL166849621
DRILLED DEPTH: 85.00 ft
LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
Truck-Mounted Sonic
DATE STARTED: 3/24/22
DATE COMPLETED: 3/24/22

NORTHING: 1,390,992.8
EASTING: 2,202,975.4
GS ELEVATION: 777.32
TOC ELEVATION: 777.03 ft

DEPTH W.L.: 30.25
ELEVATION W.L.: 747.07
DATE W.L.: 3/25/22
TIME W.L.: 8:15

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|----------------------------|-------------------|---|-------|---|----------------|------------|--|---------------|--------------------------------------|---------------------------------|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | PHOTO | REC | | |
| | | | | | DEPTH (ft) | | | | | |
| 0 | | 0.00 - 10.00 FILL, CL, SILTY CLAY, moist, micaceous, trace of organics; air knifed for utility clearance | |  | | | | | | |
| 775 | | | | | | 1 | | NA 10.00 | | |
| 5 | | | | | | | | | | |
| 770 | | | | | | | | | | |
| 10 | | 10.00 - 20.00 CL, SILTY CLAY, moist, high plasticity, little fine to coarse gravel, orange to brown, schist fragments | |  | 767.3 10.00 | 2 |  | 8.50 10.00 | | |
| 765 | | | CH | | | | | | | |
| 15 | | | | | | | | | | |
| 760 | | | | | | | | | | |
| 20 | | 20.00 - 30.00 SP-SM, SAND and SILT, dark brown, iron staining, low plasticity, weathered boulder encountered, muscovite, biotite schist boulder | |  | 757.3 20.00 | 3 |  | 6.50 10.00 | | |
| 755 | | | SP-SM | | | | | | | |
| 25 | | | | | | | | | | |
| 750 | | | | | | | | | | |
| 30 | | 30.00 - 40.00 SP-SM, SAND, moist, dark gray, fine grained, trace of organics, rounded shape | |  | 747.3 30.00 | 4 |  | 9.75 10.00 | | |
| 745 | | | SP-SM | | | | | | | |
| 35 | | | | | | | | | | |
| 740 | | | | | | | | | | |
| 40 | | 40.00 - 41.00 SP-SM, SILTY SAND, dark brown, little iron staining, fine, rounded shape | |  | 737.3 41.00 | 5 |  | 9.75 10.00 | | |
| 735 | | 41.00 - 50.00 muscovite biotite SCHIST, strong, fresh to slightly weathered, slightly fractured, fine to coarse grains, little iron staining | SP-SM | | 736.3 41.00 | | | | | |
| 45 | | | | | | | | | | |
| 730 | | | | | | | | | | |
| 50 | | | | | 727.3 | | | | | |
| Log continued on next page | | | | | | | | | | |

Log continued on next page

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
CHECKED BY: Rachel Kirkman, PG
DATE: 5/10/22

wsp GOLDER

BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D.GPJ, PIEDMONT.GDT 5/13/22

RECORD OF BOREHOLE B-122D

SHEET 2 of 2

PROJECT: SCS Plant McDonough
PROJECT NUMBER: GL166849621
DRILLED DEPTH: 85.00 ft
LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
Truck-Mounted Sonic
DATE STARTED: 3/24/22
DATE COMPLETED: 3/24/22

NORTHING: 1,390,992.8
EASTING: 2,202,975.4
GS ELEVATION: 777.32
TOC ELEVATION: 777.03 ft

DEPTH W.L.: 30.25
ELEVATION W.L.: 747.07
DATE W.L.: 3/25/22
TIME W.L.: 8:15

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|----------------|------------|-------|---------------|--------------------------------------|---------------------------------|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | PHOTO | REC | | |
| | | | | | DEPTH (ft) | | | | | |
| 50 | | 50.00 - 60.00 Muscovite biotite SCHIST, strong, fresh, unfractured, fine to coarse grains | | | 50.00 | | | | | |
| 725 | | | | | | 6 | | 6.50 10.00 | | |
| 55 | | | | | | | | | | |
| 720 | | | | | | | | | | |
| 60 | | 60.00 - 65.00 Same as above | | | 717.3 60.00 | | | | | |
| 715 | | | | | | | | | | |
| 65 | | 65.00 - 70.00 muscovite biotite SCHIST, strong, fresh to slightly weathered, slightly fractured, fine to coarse grained, traces of iron staining | | | 712.3 65.00 | 7 | | 9.50 10.00 | | |
| 710 | | | | | | | | | | |
| 70 | | 70.00 - 73.00 Same as above, some iron staining, slightly to moderately fractured | | | 707.3 70.00 | | | | | |
| 705 | | | | | | | | | | |
| 75 | | 73.00 - 80.00 muscovite biotite SCHIST, strong fresh, unfractured, fine to coarse grained | | | 704.3 73.00 | 8 | | 9.20 10.00 | | |
| 700 | | | | | | | | | | |
| 80 | | 80.00 - 85.00 muscovite biotite SCHIST, strong fresh to slightly weathered, slightly fractured, fine to coarse grained, trace to little iron staining | | | 697.3 80.00 | 9 | | 5.00 5.00 | | |
| 695 | | | | | | | | | | |
| 85 | | Boring completed at 85.00 ft | | | 692.3 | | | | | |
| 690 | | | | | | | | | | |
| 90 | | | | | | | | | | |
| 685 | | | | | | | | | | |
| 95 | | | | | | | | | | |
| 680 | | | | | | | | | | |
| 100 | | | | | | | | | | |

BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D.GPJ PIEDMONT.GDT 5/13/22

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
CHECKED BY: Rachel Kirkman, PG
DATE: 5/10/22



RECORD OF BOREHOLE B-125D

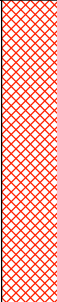
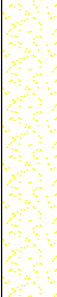




SHEET 1 of 5

PROJECT: SCS Plant McDonough
PROJECT NUMBER: GL166849622
DRILLED DEPTH: 220.00 ft
LOCATION: Smyrna, GA

DRILL RIG: Track Rig PS150
DATE STARTED: 3/14/23
DATE COMPLETED: 3/31/23

NORTHING: 1,394,111.60
EASTING: 2,202,580.70
GS ELEVATION: 819.15 ft
TOC ELEVATION: 821.70 ft

DEPTH W.L.: 15.7 ft
ELEVATION W.L.:
DATE W.L.: 3/31/23
TIME W.L.:

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|---|------------------------|------------|-------|---------------|--------------------------------------|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 0 | | 0.00 - 10.00 FILL, SC, CLAYEY SAND, some silt, red, trace mica, highly weathered, NC, moist, trending drier downhole, loose to compact; air knifed for utility clearance | SC |  | | | | | Aquaguard Grout | WELL CASING Interval: 0'-135.1' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded WELL SCREEN Interval: 135.1'-145.1' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3" FILTER PACK Interval: 132.6'-146.5' Type: No. 2 Filter Sand Quantity: 4x15-cu ft bag FILTER PACK SEAL Interval: 128'-132.6' Type: Pel Plug Bentonite Pellets 3/8" Quantity: 1 x 5 gal bucket ANNULUS SEAL Interval: 0'-128' Type: Aquaguard bentonite grout Quantity: 8 bags WELL COMPLETION Pad: 4'x4' Protective Casing: Aluminum DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic |
| 5 | 815 | | | | | 1 | | 4.00 10.00 | | |
| 10 | 810 | | | | 809.15 10.00 | | | | | |
| | | 10.00 - 20.00 RESIDUUM, SP, fine SAND with trace clay, tan, trace mica, moderately weathered, NC, moist, loose | SP |  | | | | | | |
| 15 | 805 | | | | | 2 | | 4.00 10.00 | | |
| | | | | | 799.15 20.00 | | | | | |
| 20 | | 20.00 - 22.50 SW, fine to coarse SAND with gravels of schist, saprolitic schist structure observed, tan, highly weathered, NC, dry, very loose | SW |  | | | | | | |
| | | | | | 796.65 22.50 | | | | | |
| | | 22.50 - 25.00 TWR, GP, angular GRAVEL with fine to coarse sand; schistic gravels, highly weathered, NC, dry, very loose | GP |  | | | | | | |
| 25 | 795 | | | | 794.15 25.00 | 3 | | 9.50 10.00 | | |
| | | 25.00 - 30.00 BEDROCK, highly weathered GNEISS, very rough surface, multiple fractures | |  | | | | | | |
| 30 | 790 | | | | 789.15 30.00 | | | | | |
| | | 30.00 - 34.00 No Recovery | | | | | | | | |
| 35 | 785 | | | | 785.15 34.00 | 4 | | 6.00 10.00 | | |
| | | 34.00 - 68.00 moderately weathered GNEISS, very rough surface, multiple fractures | |  | | | | | | |
| 40 | 780 | | | | | | | | | |
| | | | | | | | | | | |
| 45 | 775 | | | | | 5 | | 9.50 10.00 | | |
| | | | | | | | | | | |
| 50 | 770 | | | | | | | | | |

Log continued on next page

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Brendan Griffin

GA INSPECTOR: Chris Tidwell
CHECKED BY: Rhonda Quinn
DATE: 5/11/2023



RECORD OF BOREHOLE B-125D

SHEET 2 of 5

PROJECT: SCS Plant McDonough
PROJECT NUMBER: GL166849622
DRILLED DEPTH: 220.00 ft
LOCATION: Smyrna, GA

DRILL RIG: Track Rig PS150
DATE STARTED: 3/14/23
DATE COMPLETED: 3/31/23

NORTHING: 1,394,111.60
EASTING: 2,202,580.70
GS ELEVATION: 819.15 ft
TOC ELEVATION: 821.70 ft

DEPTH W.L.: 15.7 ft
ELEVATION W.L.:
DATE W.L.: 3/31/23
TIME W.L.:

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | |
|---------------|-------------------|---|------|----------------|-----------------|------------|-------|---------------|--------------------------------------|---------------------------------|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | PHOTO | REC | | | |
| | | | | | DEPTH (ft) | | | | | | |
| 50 | | 34.00 - 68.00 moderately weathered GNEISS, very rough surface, multiple fractures <i>(Continued)</i> | | | | | | | | | WELL CASING Interval: 0'-135.1' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded |
| | 765 | | | | | 6 | | 8.00 10.00 | | | WELL SCREEN Interval: 135.1'-145.1' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3" |
| | 760 | | | | | | | | | | FILTER PACK Interval: 132.6'-146.5' Type: No. 2 Filter Sand Quantity: 4x15-cu ft bag |
| | 755 | | | | | 7 | | 6.00 10.00 | | | FILTER PACK SEAL Interval: 128'-132.6' Type: Pel Plug Bentonite Pellets 3/8" Quantity: 1 x 5 gal bucket |
| | 750 | 68.00 - 70.00 highly weathered GNEISS, very rough surface, multiple fractures, iron staining | | | 751.15 68.00 | | | | | | ANNULUS SEAL Interval: 0'-128' Type: Aquaguard bentonite grout Quantity: 8 bags |
| | 70 | 70.00 - 150.00 moderately to slightly weathered GNEISS; rough irregular surface, multiple fractures, intermittent quartz lenses, iron staining at 77.5', 130'-140' | | | 749.15 70.00 | | | | | | WELL COMPLETION Pad: 4'x4' Protective Casing: Aluminum |
| | 745 | | | | | 8 | | 5.00 10.00 | | | DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic |
| | 740 | | | | | | | | | | |
| | 735 | | | | | 9 | | 7.00 10.00 | | | |
| | 730 | | | | | | | | | | |
| | 725 | | | | | 10 | | 5.00 10.00 | | | |
| | 720 | | | | | | | | | | |
| | 100 | Log continued on next page | | | | | | | | | |

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Brendan Griffin

GA INSPECTOR: Chris Tidwell
CHECKED BY: Rhonda Quinn
DATE: 5/11/2023



RECORD OF BOREHOLE B-125D

SHEET 3 of 5

PROJECT: SCS Plant McDonough
PROJECT NUMBER: GL166849622
DRILLED DEPTH: 220.00 ft
LOCATION: Smyrna, GA

DRILL RIG: Track Rig PS150
DATE STARTED: 3/14/23
DATE COMPLETED: 3/31/23

NORTHING: 1,394,111.60
EASTING: 2,202,580.70
GS ELEVATION: 819.15 ft
TOC ELEVATION: 821.70 ft

DEPTH W.L.: 15.7 ft
ELEVATION W.L.:
DATE W.L.: 3/31/23
TIME W.L.:

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|-------|---------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 100 | | 70.00 - 150.00 moderately to slightly weathered GNEISS; rough irregular surface, multiple fractures, intermittent quartz lenses, iron staining at 77.5', 130'-140' (Continued) | | | | | | | | WELL CASING Interval: 0'-135.1' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded WELL SCREEN Interval: 135.1'-145.1' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3" FILTER PACK Interval: 132.6'-146.5' Type: No. 2 Filter Sand Quantity: 4x15-cu ft bag FILTER PACK SEAL Interval: 128'-132.6' Type: Pel Plug Bentonite Pellets 3/8" Quantity: 1 x 5 gal bucket ANNULUS SEAL Interval: 0'-128' Type: Aquaguard bentonite grout Quantity: 8 bags WELL COMPLETION Pad: 4'x4' Protective Casing: Aluminum DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic |
| 715 | | | | | | 11 | | 8.00 10.00 | | |
| 710 | | | | | | | | | | |
| 705 | | | | | | 12 | | 8.00 10.00 | | |
| 700 | | | | | | | | | | |
| 120 | | | | | | | | | | |
| 695 | | | | | | 13 | | 8.00 10.00 | | |
| 125 | | | | | | | | | | |
| 690 | | | | | | | | | | |
| 130 | | | | | | | | | Pel Plug Pellets | |
| 685 | | | | | | 14 | | 5.00 10.00 | | |
| 135 | | | | | | | | | | |
| 680 | | | | | | | | | Filter Sil Filtration sand and gravel | |
| 140 | | | | | | | | | 0.010" Slotted Schedule 40 PVC U-pack Screen | |
| 675 | | | | | | 15 | | 5.00 10.00 | | |
| 145 | | | | | | | | | 3" bottom cap | |
| 670 | | | | | | | | | 19 x 50lb bags, Haliburton Bentonite Chips 3/8" | |
| 150 | | | | | 669.15 | | | | | |

Log continued on next page

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Brendan Griffin

GA INSPECTOR: Chris Tidwell
CHECKED BY: Rhonda Quinn
DATE: 5/11/2023



RECORD OF BOREHOLE B-125D

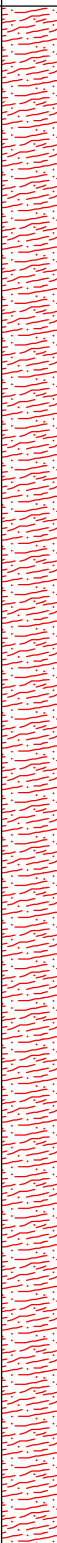

SHEET 4 of 5

PROJECT: SCS Plant McDonough
PROJECT NUMBER: GL166849622
DRILLED DEPTH: 220.00 ft
LOCATION: Smyrna. GA

DRILL RIG: Track Rig PS150
DATE STARTED: 3/14/23
DATE COMPLETED: 3/31/23

NORTHING: 1,394,111.60
EASTING: 2,202,580.70
GS ELEVATION: 819.15 ft
TOC ELEVATION: 821.70 ft

DEPTH W.L.: 15.7 ft
ELEVATION W.L.:
DATE W.L.: 3/31/23
TIME W.L.:

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|--|------------------------|------------|-------|----------------|--|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 150 | | 150.00 - 220.00 moderately to highly weathered GNEISS; rough irregular surface, multiple fractures, quartz and biotite mica, iron staining at 157'-160' | |  | 150.00 | | | |  | WELL CASING Interval: 0'-135.1' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded WELL SCREEN Interval: 135.1'-145.1' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3" FILTER PACK Interval: 132.6'-146.5' Type: No. 2 Filter Sand Quantity: 4x15-cu ft bag FILTER PACK SEAL Interval: 128'-132.6' Type: Pel Plug Bentonite Pellets 3/8" Quantity: 1 x 5 gal bucket ANNULUS SEAL Interval: 0'-128' Type: Aquaguard bentonite grout Quantity: 8 bags WELL COMPLETION Pad: 4'x4' Protective Casing: Aluminum DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic |
| 665 | | | | | | 16 | | 10.00 10.00 | | |
| 155 | | | | | | | | | | |
| 660 | | | | | | | | | | |
| 160 | | | | | | | | | | |
| 655 | | | | | | 17 | | 7.50 10.00 | | |
| 165 | | | | | | | | | | |
| 650 | | | | | | | | | | |
| 170 | | | | | | | | | | |
| 645 | | | | | | 18 | | 10.00 10.00 | | |
| 175 | | | | | | | | | | |
| 640 | | | | | | | | | | |
| 180 | | | | | | | | | | |
| 635 | | | | | | 19 | | 8.00 10.00 | | |
| 185 | | | | | | | | | | |
| 630 | | | | | | | | | | |
| 190 | | | | | | | | | | |
| 625 | | | | | | 20 | | 10.00 10.00 | | |
| 195 | | | | | | | | | | |
| 620 | | | | | | | | | | |
| 200 | | | | | | | | | | |

Log continued on next page

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Brendan Griffin

GA INSPECTOR: Chris Tidwell
CHECKED BY: Rhonda Quinn
DATE: 5/11/2023



RECORD OF BOREHOLE B-125D

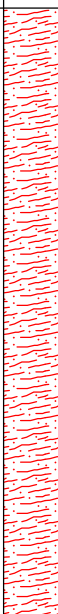

SHEET 5 of 5

PROJECT: SCS Plant McDonough
PROJECT NUMBER: GL166849622
DRILLED DEPTH: 220.00 ft
LOCATION: Smyrna, GA

DRILL RIG: Track Rig PS150
DATE STARTED: 3/14/23
DATE COMPLETED: 3/31/23

NORTHING: 1,394,111.60
EASTING: 2,202,580.70
GS ELEVATION: 819.15 ft
TOC ELEVATION: 821.70 ft

DEPTH W.L.: 15.7 ft
ELEVATION W.L.:
DATE W.L.: 3/31/23
TIME W.L.:

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | SAMPLES | | | MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | |
|---------------|-------------------|--|------|---|---------------|------------|-------|--------------------------------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | PHOTO | | | REC |
| | | | | | DEPTH (ft) | | | | | |
| 200 | | 150.00 - 220.00 moderately to highly weathered GNEISS; rough irregular surface, multiple fractures, quartz and biotite mica, iron staining at 157'-160' (Continued) | |  | | | | | | |
| | 615 | | | | | 21 | | 10.00 10.00 |  | WELL CASING Interval: 0'-135.1' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded |
| 205 | | | | | | | | | | WELL SCREEN Interval: 135.1'-145.1' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3" |
| | 610 | | | | | | | | | FILTER PACK Interval: 132.6'-146.5' Type: No. 2 Filter Sand Quantity: 4x15-cu ft bag |
| 210 | | | | | | | | | | FILTER PACK SEAL Interval: 128'-132.6' Type: Pel Plug Bentonite Pellets 3/8" Quantity: 1 x 5 gal bucket |
| | 605 | | | | | 22 | | 7.00 10.00 | | ANNULUS SEAL Interval: 0'-128' Type: Aquaguard bentonite grout Quantity: 8 bags |
| 215 | | | | | | | | | | WELL COMPLETION Pad: 4'x4' Protective Casing: Aluminum |
| 600 | | | | | | | | | | DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic |
| 220 | | Boring completed at 220.00 ft | | | 599.15 | | | | | |
| | 595 | | | | | | | | | |
| 225 | | | | | | | | | | |
| | 590 | | | | | | | | | |
| 230 | | | | | | | | | | |
| | 585 | | | | | | | | | |
| 235 | | | | | | | | | | |
| | 580 | | | | | | | | | |
| 240 | | | | | | | | | | |
| | 575 | | | | | | | | | |
| 245 | | | | | | | | | | |
| | 570 | | | | | | | | | |
| 250 | | | | | | | | | | |

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Brendan Griffin

GA INSPECTOR: Chris Tidwell
CHECKED BY: Rhonda Quinn
DATE: 5/11/2023





BORING LOG

BORING B-03

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/2/2012 COMPLETED 10/3/2012 GROUND ELEVATION 835 ft COORDINATES N 1394045.1 E 2202411.5

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit; HQ Rock Core EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY R. Tinsley CHECKED BY BORING DEPTH 42 ft.

GROUND WATER DEPTH: DURING 23 ft. COMP. DELAYED 22.5 ft. after 24 hrs.

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|---------------------------------|
| 5 | | Silt (ML) - Grass - brownish yellow, dry, SILT | | SS -1 | 4.5 | 3-2-3 (5) | | upper saprolite. |
| 10 | | - brownish yellow, dry, medium stiff, SILT saprolite with relic bedding. | | SS -2 | 9.5 | 2-3-3 (6) | | 10YR; powdery; Upper Saprolite. |
| 15 | | - SAA | | SS -3 | 14.5 | 2-3-4 (7) | | upper saprolite. |
| 20 | | - mottled deep red and gray, damp, stiff, SILT; with coarse grains of angular quartz; gneiss saprolite. | | SS -4 | 19.5 | 1-6-5 (11) | | upper saprolite. |
| 25 | | Silt (ML) | 810.5 | SS | 24.5 | 6-6-8 | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:43 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

(Continued Next Page)

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:43 - \\ALTRCFP01\LAPARKER\$\DESKTOP\GPCIMW LOGS SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|---|--|---|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | B-3 | |
| LOGGER: Rhonda Tinsley | | DRILLING METHODS: HS Auger/HQ Rock Core | | | |
| DATE CONSTRUCTED: 10/3/2012 | | N: 1394045.1 E:2202411.5 | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL |
| TOP OF RISER | | | | -2.78 | 837.78 |
| 2" Threaded Riser Cap | | | | | |
| GROUND SURFACE | | | | 0.0 | 834.86 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | |
| BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 6 bags cement 9 lbs bentonite | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | |
| TOP OF SEAL | | | | 20.0 | 814.9 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 2.25 buckets PLACEMENT: Poured | | | | | |
| TOP OF FILTER PACK | | | | 24.2 | 810.7 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 2.5 Bags PLACEMENT: Poured | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 26.7 | 808.2 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | |
| BOTTOM OF SCREEN | | | | 36.7 | 798.2 |
| BOTTOM OF CASING | | | | 37.0 | 797.9 |
| HOLE DIA: 7 inch (auger) 3.8 inch (HQ core) | | | | | |



BORING LOG

BORING B-06

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/9/2012 COMPLETED 10/9/2012 GROUND ELEVATION 786.5 ft COORDINATES N 1394419.5 E 2203266.5

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY G. Dyer CHECKED BY BORING DEPTH 35.8 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED 7 ft. after 3 hrs.

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------------------|
| | | Clayey Sand (SC) - red-brown, damp, very loose, silty, clayey SAND; approximately 50% fine-grained sand, 20% clay, 20% silt, 10% organics. Organic rich horizon. | 783.0 | | | | | |
| 5 | | Silt (ML) - red-tan, damp, clayey SILT with fine-grained sand - gray to brownish yellow, stiff, clayey SILT to silty CLAY; 60% silt, 30% clay; 10% sand/gravel; contains small (1 to 2 mm) quartz feldspar gravel | | SS -1 | 4.5 | 4-4-8 (12) | | A horizon of residual soil. |
| 10 | | - tan-brown w/orange and gray, very moist, very soft, clayey SILT, micaceous; 70% silt, 25% clay, 5% fine- grained sand | | SS -2 | 9.5 | 1-1-1 (2) | | B horizon of residual soil. |
| 15 | | - tan-brown, very moist, very soft, clayey SILT to silty CLAY; 55% clay, 40% silt, approximately 5% fine- grained sand | | SS -3 | 14.5 | 1-1-1 (2) | | B horizon of residual soil. |
| 20 | | - olive gray to tan--brown, dry, stiff, clayey SILT, weathered with some relic structure; 60% silt, 35% clay, 5% fine-grained sand | | SS -4 | 19.5 | 3-5-6 (11) | | Top of upper saprolite zone. |
| 25 | | | | SS | 24.5 | 12-32-46 | | |

(Continued Next Page)



BORING LOG

BORING B-06

Page 2 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------------------|
| | | Silt (ML)(con't) - tan-brown, very hard, clayey SILT with sand and gravel; contains highly weathered schist fragments; micaceous; 50% silt, 30% clay, 20% sand/gravel | | -5 | | (78) | | mid-lower saprolite. |
| 30 | | - tan-brown, damp, very hard, sandy, gravelly, clayey SILT; 50% clayey silt, 50% sandy gravel; gravels are 1 mm to 10 mm in size, angular and gneissic in origin; highly weathered; contains some white leached quartz | | SS -6 | 29.5 | 50 (0) | | lower saprolite. |
| 35 | | - brown, damp, very hard, clayey SILT; 40% clay, 60% silt; micaceous, contains relic structures | | SS -7 | 34.5 | 27-50 (50) | | lower saprolite. |
| | | | 750.7 | | | | | |
| | | Bottom of borehole at 35.8 feet. | | | | | | |
| 40 | | | | | | | | |
| 45 | | | | | | | | |
| 50 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|---|--|----------------------------------|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | B-6 | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | | |
| DATE CONSTRUCTED: 10/9/2012 | | N: 1394419.5 E: 2203266.5 | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL |
| TOP OF RISER | | | | -3.0 | 789.47 |
| 2" Threaded Riser Cap | | | | | |
| GROUND SURFACE | | | | 0.0 | 786.45 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | |
| BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 5 bags cement 7.5 lbs bentonite | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | |
| TOP OF SEAL | | | | 16.8 | 769.7 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 2 buckets PLACEMENT: Tremie | | | | | |
| TOP OF FILTER PACK | | | | 21.7 | 764.8 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 6 Bags PLACEMENT: Tremie | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 25.0 | 761.5 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | |
| BOTTOM OF SCREEN | | | | 35.0 | 751.5 |
| BOTTOM OF CASING | | | | 35.4 | 751.1 |
| HOLE DIA: 7 inch | | | | | |



BORING LOG

BORING B-07

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/9/2012 **COMPLETED** 10/9/2012 **GROUND ELEVATION** 806.1 ft **COORDINATES** N 1394374.6 E 2203596.1

CONTRACTOR SCS Field Services **METHOD** 4.25" Hollow Stem Auger w/pilot bit **EQUIPMENT** CME 550

DRILLED BY S. Denty **LOGGED BY** G. Dyer **CHECKED BY** **BORING DEPTH** 26 ft.

GROUND WATER DEPTH: DURING 18.5 ft. **COMP.** **DELAYED** 3.8 ft. after 18 hrs.

NOTES Well installed. Refer to well data sheet.

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|---|
| | | Silt (ML) - brown to red-brown, damp, very soft, clayey SILT with trace sand; organic rich - red to red-tan, damp, soft, clayey SILT | | | | | | O Horizon. |
| 5 | | | 801.6 | SS -1 | 4.5 | 3-3-3 (6) | | |
| | | Fat Clay (CH) - tan, brown and orange, damp, medium stiff, silty CLAY; micaceous; relic foliations; 60% clay, 40% silt | | | | | | A-B Horizon / residual soils. |
| 10 | | | 796.6 | SS -2 | 9.5 | 1-1-2 (3) | | becomes very moist at 8.5'. residual soil. |
| 15 | | Silt (ML) - red-tan, very moist, soft, clayey SILT with trace fine sand; slightly micaceous; contains manganese - brown-red, very moist, soft, clayey SILT to silty CLAY with trace gravel; micaceous; prevalent manganese staining | | SS -3 | 14.5 | 1-1-3 (4) | | residual soil. |
| 20 | | | | SS -4 | 19.5 | 1-1-5 (6) | | saturated from 18.5 to 19.5'. residual soil. |
| 25 | | - olive gray (greenish), wet, medium stiff, clayey SILT; micaceous; contains relic schist fragments - olive gray to tan-brown, wet, stiff, clayey, gravelly SILT; contains manganese and moderately | | SS | 24.5 | 7-7-8 | | |

(Continued Next Page)



BORING LOG

BORING B-07

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|------------------|
| | | weathered gneissic fragments; relic structures preserved insome instances Silt (ML)(con't) | 780.1 | -5 | | (15) | | upper saprolite. |
| | | Bottom of borehole at 26.0 feet. | | | | | | |
| 30 | | | | | | | | |
| 35 | | | | | | | | |
| 40 | | | | | | | | |
| 45 | | | | | | | | |
| 50 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\$\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|---|--|----------------------------------|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | B-7 | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | | |
| DATE CONSTRUCTED: 10/9/2012 | | N: 1394374.6 E:2203596.1 | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL |
| TOP OF RISER | | | | -3.1 | 809.16 |
| 2" Threaded Riser Cap | | | | | |
| 4 ft x 4 ft concrete pad | | | | | |
| GROUND SURFACE | | | | 0.0 | 806.04 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | |
| BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 3 bags cement 1.75 lbs bentonite | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | |
| TOP OF SEAL | | | | 7.6 | 798.4 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 1.75 buckets PLACEMENT: Poured | | | | | |
| TOP OF FILTER PACK | | | | 12.7 | 793.3 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 7 Bags PLACEMENT: Poured | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 14.8 | 791.2 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | |
| BOTTOM OF SCREEN | | | | 24.8 | 781.2 |
| Flush-threaded end cap | | | | | |
| BOTTOM OF CASING | | | | 25.2 | 780.8 |
| HOLE DIA: 7 inch | | | | | |



BORING LOG

BORING B-24

Page 1 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/24/2012 COMPLETED 10/24/2012 GROUND ELEVATION 819.3 ft COORDINATES N 1392479.9 E 2201450

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit; HQ Rock Core EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY C. Sellers CHECKED BY BORING DEPTH 79.1 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 5 | | - Vacuum excavation from 0 ft to 9.5 ft | | | | | | |
| 10 | | | 809.8 | SS -1 | 9.5 | WH-1-1 (2) | | |
| 15 | | - light gray, very soft, SILT with very fine to fine-grained sand | | SS -2 | 14.5 | 3-4-6 (10) | | |
| 20 | | - stiff, SAA; very micaceous | | SS -3 | 19.5 | 5-4-4 (8) | | |
| 25 | | - light tan to brown, medium stiff, SILT; very fine to fine-grained; micaceous; 2" quartz | | SS | 24.5 | 19-37-50 | | |

(Continued Next Page)



BORING LOG

BORING B-24

Page 2 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| | | Silt (ML)(con't) - wet, very hard, SILT; saprolite (weathered gneiss); banding | | -4 | | (87) | | |
| 30 | | | | SS -5 | 29.5 | 50 (0) | | |
| 35 | | - SAA | | SS -6 | 34.5 | 50 (0) | | |
| 40 | | | | SS -7 | 39.5 | 50 (0) | | |
| 45 | | | | SS -8 | 44.5 | 50 (0) | | |
| 50 | | - SAA; contains gneiss fragments | | SS -9 | 49.5 | 50 (0) | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \VALTRCFP01\1APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

(Continued Next Page)



BORING LOG

BORING B-24

Page 3 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 55 | | Silt (ML)(con't) - SAA | | SS -10 | 54.5 | 50 (0) | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | 760.2 | RC -1 | 59.1 | | | |
| 60 | | Gneiss - light gray to orange, highly weathered, GNEISS; highly fractured, vertical and horizontal | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | RC -2 | 64.1 | | | |
| 65 | | - light gray with red staining, SAA | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | RC -3 | 69.1 | | | |
| 70 | | - SAA | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | RC -4 | 74.1 | | | |
| 75 | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | 740.2 | | | | | |
| 80 | | Bottom of borehole at 79.1 feet. | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\ALTRCFP01\1\APARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

Southern Company Generation

| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME |
|--|---|---|----------------------|-----------|
| Hydrogeologic Investigation | | DRILLER: S. Denty | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | |
| LOGGER: Cale Sellers | | DRILLING METHODS: HS Auger/HQ Rock Core | | B-24 |
| DATE CONSTRUCTED: 10/24/2012 | | N: 1392479.9 E:2201450.0 | | |
| | | DEPTH FEET | ELEVATION FT, MSL | |
| | TOP OF RISER | -2.8 | 822.11 | |
| | 2" Threaded Riser Cap | | | |
| 4 ft x 4 ft concrete pad | GROUND SURFACE | 0.0 | 819.19 | |
| | PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | |
| | BOTTOM OF GROUT | | | |
| | BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 21 bags cement 30 lbs bentonite | | | |
| | RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | |
| | TOP OF SEAL | 60.8 | 758.4 | |
| | ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 0.25 bucket PLACEMENT: Poured | | | |
| | TOP OF FILTER PACK | 65.9 | 753.3 | |
| | FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 2.5 Bags PLACEMENT: Poured w/water | | | |
| | BOTTOM OF RISER / TOP OF SCREEN | 68.3 | 750.9 | |
| | SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | |
| | BOTTOM OF SCREEN | 78.3 | 740.9 | |
| Flush-threaded end cap | BOTTOM OF CASING | 79.1 | 740.1 | |
| HOLE DIA: 7 inch (auger) 3.8 inch (HQ core) | | | | |



BORING LOG

BORING B-25

Page 1 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/23/2012 COMPLETED 10/24/2012 GROUND ELEVATION 833.5 ft COORDINATES N 1392813.3 E 2201502.7

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit; HQ Rock Core EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY B. Gallagher CHECKED BY BORING DEPTH 54.8 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|--------------|
| 5 | | - Vacuum excavation from 0 ft to 9.5 ft | | | | | | |
| 10 | | Silt (ML) | 824.0 | SS -1 | 9.5 | 1-2-2 (4) | | no recovery. |
| 15 | | - tan, dry, very hard, saprolite; micaceous, sandy with 1 inch lense of white feldspar at 14.8 ft. | | SS -2 | 14.5 | 22-50 (50) | | |
| 20 | | - black and white, very hard, SAA; weathered gneiss saprolite | | SS -3 | 19.5 | 18-36-50 (86) | | |
| 25 | | | | SS | 24.5 | 25 | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS - SURVEY UPDATED.GPJ

(Continued Next Page)



BORING LOG

BORING B-25

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\1APARKER\5\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| | | Silt (ML)(con't) - black and white, dry, weathered gneiss | | -4 | | (0) | | |
| | | | 806.5 | RC -1 | 27.0 | | | |
| | | Gneiss - black and white, medium hard to hard, slightly weathered - two 1/2" augens and weathered joints at 28.5 ft | | RC -2 | 29.8 | | | |
| 30 | | - soft, weathered and broken from 29.1 to 30.2 ft - joint filled with secondary minerals from 30.2 to 30.7 ft - slightly weathered joints at 31.0, 31.3, and 31.6 ft | | | | | | |
| | | - 1/4" augen with four slightly weathered joints across foliation from 32.3 to 33.0 ft | | RC -3 | 34.8 | | | |
| 35 | | - 3 inch weathered soft zone @ 34.5 ft | | | | | | |
| | | | | RC -4 | 39.8 | | | |
| 40 | | - 2" quartzite at 42 ft; very little staining; vertical fractures from 40ft to 42ft | | | | | | |
| | | | | RC -5 | 44.8 | | | |
| 45 | | - SAA | | | | | | |
| | | | | RC -6 | 49.8 | | | |
| 50 | | - weathered; staining in and around fractures | | | | | | |

(Continued Next Page)



BORING LOG

BORING B-25
Page 3 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation
LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|----------------------------------|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 55 | / | | 778.7 | | | | | |
| | | Bottom of borehole at 54.8 feet. | | | | | | |
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GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\$\DESKTOP\GPCMW LOGS - SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|---|--|---|--|-----------|-----------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | | |
| LOGGER: B. Gallagher | | DRILLING METHODS: HS Auger/HQ Rock Core | | B-25 | |
| DATE CONSTRUCTED: 10/24/2012 | | N: 1392813.3 E:2201502.7 | | | |
| | | | | DEPTH | ELEVATION |
| | | | | FEET | FT, MSL |
| TOP OF RISER | | | | -3.0 | 836.54 |
| 2" Threaded Riser Cap | | | | | |
| 4 ft x 4 ft concrete pad | | | | | |
| GROUND SURFACE | | | | 0.0 | 833.41 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | |
| BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 10 bags cement 14 lbs bentonite | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | |
| TOP OF SEAL | | | | 40.1 | 793.3 |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 0.25 bucket PLACEMENT: Tremie | | | | | |
| TOP OF FILTER PACK | | | | 42.4 | 791.0 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 1 Bag; 50 lbs/bag PLACEMENT: Tremie | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 44.4 | 789.0 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | |
| BOTTOM OF SCREEN | | | | 54.4 | 779.0 |
| Flush-threaded end cap | | | | | |
| BOTTOM OF CASING | | | | 54.8 | 778.6 |
| | | | | | |
| HOLE DIA: 7 inch (auger) 3.8 inch (HQ core) | | | | | |



BORING LOG

BORING B-26

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/16/2012 **COMPLETED** 10/23/2012 **GROUND ELEVATION** 850.6 ft **COORDINATES** N 1393105.6 E 2201550.4

CONTRACTOR SCS Field Services **METHOD** 4.25" Hollow Stem Auger w/pilot bit; HQ Rock Core **EQUIPMENT** CME 550

DRILLED BY S. Denty **LOGGED BY** Sellers/Byrd/Gallager **CHECKED BY** **BORING DEPTH** 49.3 ft.

GROUND WATER DEPTH: DURING **COMP.** **DELAYED**

NOTES Well installed. Refer to well data sheet.

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 0 | | - Vacuum excavation from 0 ft to 9.5 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | | 841.1 | SS -1 | 9.5 | 4-4-6 (10) | | |
| 15 | | - Silt (ML) - tan with white, pink and dark brown layering, stiff, sandy SILT; heavily weathered; micaceous; fine-grained | | SS -2 | 14.5 | 3-5-9 (14) | | |
| 20 | | - stiff, SAA; heavily weathered gneiss | | SS -3 | 19.5 | 17-24-27 (51) | | |
| 25 | | - dry, very hard, SAA; more compact with better foliation than previous samples; less sand | | SS | 24.5 | 50 | | |

(Continued Next Page)



BORING LOG

BORING B-26

Page 2 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| | | Silt (ML)(con't) - dry, very hard, SAA; powdered rock | 824.6 | RC -4 | 26.0 | (0) | | |
| 30 | | Gneiss - black and white, fine grain, medium hard to hard, slightly to moderately weathered, banded, GNEISS - from 27.0' to 27.3' - soft, weathered, leached of biotite, stained below; 1.4" thick augen - 1/2" thick augen with remnant, healed fractures across foliation at 28'; slight staining on joint across foliation from 28.6' to 28.7' - stain on joints, one joint on foliation and one joint across foliation at 29.3' to 29.7' | | RC -2 | 28.9 | | | |
| 35 | | - 3 stained and leached, weathered joints from 31.4' to 32.2'; augen - 3 stained joints across foliation from 32.7' to 33.0', including a soil coated joint at 33' - slightly stained joints on foliation at 33.1', 33.6', and 34.1' to 34.7' | | RC -3 | 33.9 | | | |
| 40 | | - stained, leached, weathered zone with many 1/4" quartz phenocrysts from 35.8' to 36.6' | | RC -4 | 39.0 | | | |
| 45 | | - soft weathered zone with staining from 39.0' to 39.7' - heavily stained, soft joints across foliation at 41.3' - 1/2" augen at 42.0' - weathered broken zone from 43.6' to 44.1' - below 44.1' heavily stained with many quartz phenocrysts - stained joint across foliation at 45.5' | 801.3 | RC -5 | 44.1 | | | |
| 50 | | Bottom of borehole at 49.3 feet. | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\1\APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | | |
|--|--|---|--|----------------|----------------------|--------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | | | |
| LOGGER: Ben Gallagher | | DRILLING METHODS: HS Auger/HQ Rock Core | | | | |
| DATE CONSTRUCTED: 10/23/2012 | | N: 1393105.6 E:2201550.4 | | B-26 | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL | |
| | | | | TOP OF RISER | -3.0 | 853.60 |
| 2" Threaded Riser Cap | | | | | | |
| 4 ft x 4 ft concrete pad | | | | GROUND SURFACE | 0.0 | 850.61 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | | |
| BOTTOM OF GROUT | | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 7 bags cement 10 lbs bentonite | | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | | |
| TOP OF SEAL | | | | 30.5 | 820.1 | |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 0.25 bucket PLACEMENT: Tremie | | | | | | |
| TOP OF FILTER PACK | | | | 34.8 | 815.8 | |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 0.5 Bag filter pac 0.5 bag hole PLACEMENT: Tremie | | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 38.9 | 811.7 | |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | | |
| BOTTOM OF SCREEN | | | | 48.9 | 801.7 | |
| Flush-threaded end cap | | | | | | |
| BOTTOM OF CASING | | | | 49.3 | 801.3 | |
| HOLE DIA: 7 inch (auger) 3.8 inch (HQ core) | | | | | | |



BORING LOG

BORING B-28

Page 1 of 4

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 10/30/2012 **COMPLETED** 10/30/2012 **GROUND ELEVATION** 813.3 ft **COORDINATES** N 1391967.4 E 2201679.2

CONTRACTOR SCS Field Services **METHOD** 4.25" Hollow Stem Auger w/pilot bit; HQ Rock Core **EQUIPMENT** CME 550

DRILLED BY S. Denty **LOGGED BY** D. Brooks **CHECKED BY** **BORING DEPTH** 94.3 ft.

GROUND WATER DEPTH: DURING **COMP.** **DELAYED**

NOTES Well installed. Refer to well data sheet.

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \\ALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS - SURVEY UPDATED.GPJ

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 0 | | - Vacuum excavation from 0 ft to 9.5 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | Gneiss - no recovery; encountered boulder | 803.8 | SS -1 | 9.5 | | | |
| | | Silty Sand (SM) | 802.3 | | | | | |
| 15 | | - green and black, saprolite; relict structure present | | SS -2 | 14.5 | | | |
| 20 | | - brown and tan, damp, silty SAND; micaceous; fine-grained | | SS -3 | 19.5 | | | |
| 25 | | | | SS | 24.5 | 4-5-7 | | |

(Continued Next Page)



BORING LOG

BORING B-28

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\1\APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| | | Silty Sand (SM) (con't) - SC-SM: tan, orange, and black, damp, medium dense, silty, clayey SAND; fine to very fine-grained | | -4 | | (12) | | |
| 30 | | - medium dense, SAA; micaceous; clay content increases | | SS -5 | 29.5 | 7-7-7 (14) | | |
| 35 | | | 778.8 | SS -6 | 34.5 | 5-16-23 (39) | | |
| 40 | | Silt (ML) - green and black, damp, hard, sandy SILT; relict structure present | | SS -7 | 39.5 | 5-5-6 (11) | | |
| 45 | | - tan, orange, and black, stiff, sandy SILT; micaceous; some relict structure | | SS -8 | 44.5 | 7-16-20 (36) | | |
| | | - hard, SAA | | SS -9 | 49.5 | 20-20 (20) | | |
| 50 | | - very hard, SAA | | | | | | |

(Continued Next Page)



BORING LOG

BORING B-28

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 55 | | Silt (ML)(con't) - very hard, minimal recovery; partially weathered rock | | SS -10 | 54.5 | 50 (0) | | |
| 60 | | Gneiss - black and gray, mylonite GNEISS (schistic zone); weathering noted along small joints and along foliations (saprock), otherwise fresh; no staining seen | 754.1 | RC -1 | 59.2 | | | |
| 65 | | - black and gray, hard, mylonite GNEISS; fresh | | RC -2 | 64.3 | | | |
| 70 | | - SAA | | RC -3 | 69.3 | | | |
| 75 | | - SAA | | RC -4 | 74.3 | | | |
| 80 | | - SAA with small iron-stained joint at 83' | | RC -5 | 79.3 | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\1\APARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

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BORING LOG

BORING B-28

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---------------------------------------|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 85 | | Gneiss(<i>con't</i>) | | RC -6 | 84.3 | | | |
| 90 | | - black and gray, hard, GNEISS; fresh | | RC -7 | 89.3 | | | |
| | | | 719.0 | | | | | |
| 95 | | Bottom of borehole at 94.3 feet. | | | | | | |
| 100 | | | | | | | | |
| 105 | | | | | | | | |
| 110 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE: GDT - 8/26/20 20:44 - \\VALTRCFP01\APARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | |
|------------------------------|--|--|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | WELL NAME |
| Hydrogeologic Investigation | | DRILLER: S. Denty | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | B-28 |
| LOGGER: Dustin Brooks | | DRILLING METHODS: HS Auger/HQ Rock Core | |
| DATE CONSTRUCTED: 10/31/2012 | | N: 1391967.4 E: 2201679.2 | |
| | | DEPTH FEET | ELEVATION FT, MSL |
| | | TOP OF RISER | -2.8 816.08 |
| | | 2" Threaded Riser Cap | |
| | | GROUND SURFACE | 0.0 813.28 |
| | | PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | |
| | | BOTTOM OF GROUT | |
| | | BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 14 bags cement 19 lbs bentonite | |
| | | RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | |
| | | TOP OF SEAL | 53.0 760.3 |
| | | ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 0.5 bucket PLACEMENT: Tremie | |
| | | TOP OF FILTER PACK | 55.6 757.7 |
| | | FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 0.5 Bag filter pac 0.5 bag hole PLACEMENT: Tremie | |
| | | BOTTOM OF RISER / TOP OF SCREEN | 59.0 754.3 |
| | | SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | |
| | | BOTTOM OF SCREEN | 69.0 744.3 |
| | | Flush-threaded end cap | |
| | | BOTTOM OF CASING | 69.4 743.9 |
| | | HOLE DIA: 7 inch (auger) 3.8 inch (HQ core) | |



BORING LOG

BORING B-29

Page 1 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 1/10/2012 **COMPLETED** 1/11/2012 **GROUND ELEVATION** 813.5 ft **COORDINATES** N 1391890 E 2201422

CONTRACTOR SCS Field Services **METHOD** 4.25" Hollow Stem Auger w/pilot bit **EQUIPMENT** CME 550

DRILLED BY S. Denty **LOGGED BY** G. Dyer **CHECKED BY** **BORING DEPTH** 55.7 ft.

GROUND WATER DEPTH: DURING **COMP.** **DELAYED**

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------------------------------|
| 0 | | - Vacuum excavation from 0 ft to 10 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | | 803.5 | | | | | |
| | | Silt (ML) | | | | | | |
| | | - tan-red, damp, medium stiff, clayey SILT, no structures or staining | | SS -1 | 12.0 | 2-2-4 (6) | | residual soil. |
| 15 | | - tan, brown, and orange-red, damp, stiff, SILT with clay; vertical manganese oxide bands; highly weathered relict structure; slightly micaceous | | SS -2 | 14.5 | 2-5-6 (11) | | residual soil - upper saprolite. |
| 20 | | - red, green and gray, very hard, sandy SILT; highly weathered schist fragments; relict structure intact; moderately to well cemented; trace partially weathered rock fragments | | SS -3 | 19.5 | 9-28-29 (57) | | lower saprolite. |
| 25 | | | | SS | 24.5 | 2-11-14 | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

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BORING LOG

BORING B-29

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|--|
| | | Silt (ML)(con't) - green-gray and tan, dry, very stiff, sandy SILT; moderately to well cemented; structure intact; lacks rock fragments; micaceous; trace quartz sand | | 4 | | (25) | | lower saprolite. |
| 30 | | - green-gray, moist, very hard, GRAVEL and SILT; moderately weathered schist fragments | | SS -5 | 29.5 | 28-50 (50) | | lower saprolite/transitioning to saprock. |
| 35 | | - very damp, very hard, SAA | | SS -6 | 34.5 | 24-50 (50) | | spoon moist to wet. |
| 40 | | - dry, very hard, SAA | | SS -7 | 39.5 | 50 (0) | | saprock transition. |
| 45 | | | | | | | | |
| 50 | | - green-gray, wet, very hard, fine SILT with gravel; noticeably softer than previous runs; isolated schist fragments near base; little to no structure | | SS -8 | 49.5 | 11-29-50 (79) | | noticeable sound of water flowing. |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\1\APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

(Continued Next Page)



BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation
LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|--|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 55 | | - very hard, SAPROCK; schist fragments Silt (ML) (con't) | 757.8 | SS -9 | 54.5 | 50 (0) | | |
| | | Bottom of borehole at 55.7 feet. | | | | | | |
| | | | | | | | | |
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| 60 | | | | | | | | |
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| 65 | | | | | | | | |
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| 70 | | | | | | | | |
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| 75 | | | | | | | | |
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| 80 | | | | | | | | |
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GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\$\DESKTOP\GPCMW LOGS - SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | | |
|---|--|----------------------------------|--|----------------|----------------------|--------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | B-29 | | |
| LOGGER: Greg Dyer | | DRILLING METHODS: HS Auger | | | | |
| DATE CONSTRUCTED: 1/11/2013 | | N: 1391890.0 E: 2201422.0 | | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL | |
| | | | | TOP OF RISER | -2.9 | 816.43 |
| 2" Threaded Riser Cap | | | | | | |
| 4 ft x 4 ft concrete pad | | | | GROUND SURFACE | 0.0 | 813.47 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | | |
| BOTTOM OF GROUT | | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 10 bags cement 13.5 lbs bentonite | | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | | |
| TOP OF SEAL | | | | 40.0 | 773.5 | |
| ANNULAR SEAL TYPE: PelPlug TR-30 1/4" bentonite pellets; 5-gallon buckets AMOUNT: 1 bucket PLACEMENT: Poured | | | | | | |
| TOP OF FILTER PACK | | | | 42.0 | 771.5 | |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 5.5 Bags PLACEMENT: Poured w/water | | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 44.1 | 769.4 | |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | | |
| BOTTOM OF SCREEN | | | | 54.1 | 759.4 | |
| Flush-threaded end cap | | | | | | |
| BOTTOM OF CASING | | | | 54.4 | 759.1 | |
| HOLE DIA: 7 inch | | | | | | |



BORING LOG

BORING B-31

Page 1 of 2

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 1/22/2013 COMPLETED 1/22/2013 GROUND ELEVATION 794.9 ft COORDINATES N 1392034.3 E 2200928.5

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit; HQ Rock Core EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY B. Gallagher CHECKED BY BORING DEPTH 45.1 ft.

GROUND WATER DEPTH: DURING COMP. DELAYED

NOTES Drilled near North Abutment of Ash Pond 1 dike Well installed. Refer to well data sheet.

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|---------------------------------------|
| 5 | | Silt (ML) | | | | | | |
| 10 | | | | SS -1 | 10.0 | 8-7-6 (13) | | Vacuum excavation from 0 ft to 10 ft. |
| 15 | | - white and tan, moist, foliated; saprolite | | SS -2 | 14.5 | 7-8-17 (25) | | |
| 20 | | | | SS -3 | 19.5 | 7-17-12 (29) | | |
| 25 | | - tan, damp, stained below 20.5 ft | | SS | 24.5 | 3-6-12 | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\VALTRCFP01\IAPARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

(Continued Next Page)

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\ALTRCFP01\LPARKER\$\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|---|--|---|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | |
| LOCATION: Ash Pond 1 | | RIG TYPE: CME550 | | B-31 | |
| LOGGER: B. Gallagher | | DRILLING METHODS: HS Auger/HQ Rock Core | | | |
| DATE CONSTRUCTED: 1/22/2013 | | N: 1392034.3 E:2200928.5 | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL |
| TOP OF RISER | | | | -2.6 | 797.47 |
| 2" Threaded Riser Cap | | | | | |
| GROUND SURFACE | | | | 0.0 | 794.84 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum BOTTOM OF GROUT | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 5 bags cement 8 lbs bentonite RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded TOP OF SEAL | | | | 25.7 | 769.1 |
| ANNULAR SEAL TYPE: PelPlug TR-30 1/4" bentonite pellets; 5-gallon buckets AMOUNT: 1/4 bucket PLACEMENT: Poured TOP OF FILTER PACK | | | | 29.1 | 765.7 |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 1/2 Bags PLACEMENT: Tremie BOTTOM OF RISER / TOP OF SCREEN | | | | 34.7 | 760.1 |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch BOTTOM OF SCREEN | | | | 44.7 | 750.1 |
| Flush-threaded end cap BOTTOM OF CASING | | | | 45.1 | 749.7 |
| HOLE DIA: 7 inch (auger) 3.8 inch (HQ core) | | | | | |

ABANDONMENT NOTES:

Abandoned on 10/4/2023
Tremmie grouted 25lbs
Aquagrard/7 gallons water
Overdrilled to 10 feet bgs.; 10-
feet PVC removed.
Final Grout: 38 lbs
Quickrete/10 lbs
AquaGuard/6.5 gallons water.

ABANDONMENT NOTES:

Abandoned on 10/4/2023
 Tremmie grouted 25lbs
 Aquagard/7 gallons water
 Overdrilled to 10 feet bgs.; 10-
 feet PVC removed.
 Final Grout: 38 lbs
 Quickrete/10 lbs
 AquaGuard/6.5 gallons water.



BORING LOG

BORING B-41

Page 1 of 3

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

DATE STARTED 11/13/2012 COMPLETED 11/14/2012 GROUND ELEVATION 792.4 ft COORDINATES N 1390920.8 E 2201751.9

CONTRACTOR SCS Field Services METHOD 4.25" Hollow Stem Auger w/pilot bit EQUIPMENT CME 550

DRILLED BY S. Denty LOGGED BY C. Sellers CHECKED BY BORING DEPTH 61 ft.

GROUND WATER DEPTH: DURING 35 ft. COMP. DELAYED

NOTES Well installed. Refer to well data sheet.

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 0 | | - Vacuum excavation from 0 ft to 9.5 ft | | | | | | |
| 5 | | | | | | | | |
| 10 | | Lean Clay (CL) - light tan/orange, very soft, silty CLAY (fill for parking lot) | 782.9 | SS -1 | 9.5 | WH-WH-1 (1) | | |
| 15 | | Silt (ML) - no recovery - medium stiff | 777.9 | SS -2 | 14.5 | 3-2-4 (6) | | |
| 20 | | - brownish orange, dry, stiff, clayey SILT with mica | | SS -3 | 19.5 | 4-4-5 (9) | | |
| 25 | | | | SS | 24.5 | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \VALTRCFP01\APARKER\DESKTOP\GPCMW LOGS SURVEY UPDATED.GPJ

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BORING LOG

BORING B-41
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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft.) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|----------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| | | Silt (ML)(con't) - light tan, SILT; micaceous | | 4 | | | | |
| 30 | | - stiff, SAA; with very fine-grained sand | | SS -5 | 29.5 | 2-4-9 (13) | | |
| 35 | | ▽ - wet, medium stiff, SAA | | SS -6 | 34.5 | 2-2-3 (5) | | |
| 40 | | - brown, wet, stiff, SILT with fine to very fine sand | | SS -7 | 39.5 | 2-3-6 (9) | | |
| 45 | | - stiff, SAA | | SS -8 | 44.5 | 2-5-7 (12) | | |
| 50 | | - light tan, damp, hard, sandy SILT (saprolite); fine to very fine-grained sand | | SS -9 | 49.5 | 11-18-23 (41) | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \VALTRCFP01\APARKER\DESKTOP\GPCMW LOGS_SURVEY UPDATED.GPJ

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BORING LOG

BORING B-41

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant McDonough Hydrogeological Investigation

LOCATION Cobb County, GA

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | ELEVATION | SAMPLE TYPE NUMBER | SAMPLE DEPTH (ft.) | BLOW COUNTS (N VALUE) | RECOVERY % (RQD) | COMMENTS |
|---------------|----------------|---|-----------|-----------------------|-----------------------|-----------------------------|---------------------|----------|
| 55 | | Silt (ML)(con't) - light tan, damp, hard, SILT; contains fine to very fine-grained sand and angular quartz gravel | | SS -10 | 54.5 | 10-17-26 (43) | | |
| 60 | | - light tan, damp, saprolite; contains fine to medium-grained sand | 731.4 | SS -11 | 59.5 | 11-24-50 (74) | | |
| | | Bottom of borehole at 61.0 feet. | | | | | | |
| 65 | | | | | | | | |
| 70 | | | | | | | | |
| 75 | | | | | | | | |
| 80 | | | | | | | | |

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 8/26/20 20:44 - \\ALTRCFP01\1\APARKER\DESKTOP\GPCMW LOGS - SURVEY UPDATED.GPJ

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | | |
|---|--|----------------------------------|--|--------------------------|----------------------|--------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS Field Services | | WELL NAME B-41 | | |
| Hydrogeologic Investigation | | DRILLER: S. Denty | | | | |
| LOCATION: Ash Pond | | RIG TYPE: CME550 | | | | |
| LOGGER: Cale Sellers | | DRILLING METHODS: HS Auger | | | | |
| DATE CONSTRUCTED: 11/14/2012 | | N: 1390920.8 E:2201751.9 | | | | |
| | | | | DEPTH FEET | ELEVATION FT, MSL | |
| TOP OF RISER | | | | -2.8 | 795.20 | |
| 2" Threaded Riser Cap | | | | | | |
| 4 ft x 4 ft concrete pad | | | | GROUND SURFACE | 0.0 | 792.40 |
| PROTECTIVE CASING SIZE: 4" x 4" TYPE: aluminum | | | | | | |
| BOTTOM OF GROUT | | | | | | |
| BACKFILL MATERIAL TYPE: Portland cement/bentonite grout AMOUNT: 7 bags cement 10 lbs bentonite | | | | | | |
| RISER CASING DIA: 2 inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | | | | |
| TOP OF SEAL | | | | 45.2 | 747.2 | |
| ANNULAR SEAL TYPE: PelPlug TR-30 3/8" bentonite pellets; 5-gallon buckets AMOUNT: 1.25 buckets PLACEMENT: Tremie | | | | | | |
| TOP OF FILTER PACK | | | | 47.3 | 745.1 | |
| FILTER PACK TYPE: Filtersil #61 Size 1A; 50 lbs/bag AMOUNT: 7 Bags PLACEMENT: Tremie | | | | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | | | 49.4 | 743.0 | |
| SCREEN DIA: 2" prepack (3.45" OD) TYPE: Schedule 40 PVC OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.1 inch | | | | | | |
| BOTTOM OF SCREEN | | | | 59.4 | 733.0 | |
| Flush-threaded end cap | | | | BOTTOM OF CASING | 60.0 | 732.4 |
| HOLE DIA: 7 inch | | | | | | |

RECORD OF BOREHOLE B-50




SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 36.00 ft
LOCATION: Smyrna, GA

DRILL RIG: 100C Track Mounted Rig
DATE STARTED: 6/24/16
DATE COMPLETED: 6/24/16

NORTHING: 1,391,657.10
EASTING: 2,201,841.00
GS ELEVATION: 809.20
TOC ELEVATION: 809.67 ft

DEPTH W.L.: 20.8
ELEVATION W.L.: 788.4
DATE W.L.: 6/24/2016
TIME W.L.: 10:50

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | |
|---------------|-------------------|--|------|---|---------------|------------|------|-----|--|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | REC | | | |
| | | | | | DEPTH (ft) | | | | | | |
| 0 | | 0.00 - 12.00 SILT; grayish brown, dry, soft (fill) | ML |  | | | | | <div>Portland Type I – Protective Casing</div> <div>Portland Type I/ Type II/ Bentonite Gel mix</div> <div>3/8" Bentonite – Pellets</div> <div>Filtersil std #61</div> <div>0.010" slot screen</div> <div>Sump –</div> | WELL CASING Interval: 0'-35.2' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush threaded with O-ring WELL SCREEN Interval: 24.8'-34.8' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 21.8'-36' Type: Filtersil std61 FILTER PACK SEAL Interval: 15.9'-21.8' Type: 3/8" Bentonite Pellets ANNULUS SEAL Interval: 3'-15.9' Type: Portland Type I/Type II/Bentonite Gel Mix WELL COMPLETION Pad: 4'x4'x4" Protective Casing: Aluminum DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic | |
| 805 | | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| 800 | | | | | | | | | | | |
| 10 | | 12.00 - 29.50 SILT; organish gray, some fine to coarse sand, micaceous, moist to wet, soft to firm (saprolite) | ML |  | 797.2 | | | | | | |
| 795 | | | | | 12.00 | | | | | | |
| 15 | | | | | | | | | | | |
| 790 | | | | | | | | | | | |
| 20 | | | | | | | | | | | |
| 785 | | | | | | | | | | | |
| 25 | | | | | | | | | | | |
| 780 | | | | | | | | | | | |
| 30 | | 29.50 - 36.00 SILTY SAND; brownish gray, fine sand, wet, very soft | SM |  | 779.7 | | | | | | |
| 775 | | | | | 29.50 | | | | | | |
| 35 | | | | | | | | | | | |
| | | Boring completed at 36.00 ft | | | 773.2 | | | | | | |
| 770 | | | | | | | | | | | |
| 40 | | | | | | | | | | | |
| 765 | | | | | | | | | | | |
| 45 | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Bill Lindsey

GA INSPECTOR: K. Jurinko, PG
CHECKED BY: Rachel P. Kirkman, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-51

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 66.00 ft
LOCATION: Smyrna, GA

DRILL RIG: 100C Track Mounted Rig
DATE STARTED: 6/27/16
DATE COMPLETED: 6/27/16

NORTHING: 1,390,501.20
EASTING: 2,200,906.50
GS ELEVATION: 763.29
TOC ELEVATION: 765.92 ft

DEPTH W.L.: 8.85
ELEVATION W.L.: 754.45
DATE W.L.: 6/28/2016
TIME W.L.: 13:22

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|-------|----------------|------------------------|------------|------|-----|--|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 0 | | 0.00 - 3.00 SILT; brown, some fine to coarse sand, dry, soft, micaceous (topsoil) | ML | | 760.3 | | | | Portland Type I/ _ Aluminum Casing | WELL CASING Interval: 0'-65' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush threaded with O-ring WELL SCREEN Interval: 55'-65' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 53'-65.4' Type: Filtersil std61 FILTER PACK SEAL Interval: 47.5'-53' Type: 3/8" Bentonite Pellets ANNULUS SEAL Interval: 3'-47.5' Type: Portland Type I/Type II/Gel Mix WELL COMPLETION Pad: 4'x4'x4" Protective Casing: Aluminum DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic |
| 760 | | 3.00 - 15.00 SILT; red to reddish brown, some fine to coarse gravel, black, subrounded, some clayey silt, orangish white and black, dry, soft, micaceous (saprolite) | ML | | 3.00 | | | | | |
| 5 | | | | | | | | | | |
| 755 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| 750 | | | | | | | | | | |
| 15 | | 15.00 - 58.00 SILT and SAND; orangish brown, brown, and grey, fine to medium sand, some laminations and black mottling, micaceous, some biotite schist gravel, fine to coarse, dry to wet, very soft to very stiff | | | 748.3 | | | | Portland Type I/ Type _ II/ Bentonite Gel mix | |
| 745 | | | | | 15.00 | | | | | |
| 20 | | | | | | | | | | |
| 740 | | | | | | | | | | |
| 25 | | | | | | | | | | |
| 735 | | | | | | | | | | |
| 30 | | | SP-SM | | | | | | | |
| 730 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 725 | | | | | | | | | | |
| 40 | | | | | | | | | | |
| 720 | | | | | | | | | | |
| 45 | | | | | | | | | | |

Log continued on next page

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Scotty Vermillion

GA INSPECTOR: K. Jurinko, PG
CHECKED BY: Rachel P. Kirkman, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-51

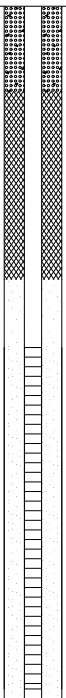
SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 66.00 ft
LOCATION: Smyrna, GA

DRILL RIG: 100C Track Mounted Rig
DATE STARTED: 6/27/16
DATE COMPLETED: 6/27/16

NORTHING: 1,390,501.20
EASTING: 2,200,906.50
GS ELEVATION: 763.29
TOC ELEVATION: 765.92 ft

DEPTH W.L.: 8.85
ELEVATION W.L.: 754.45
DATE W.L.: 6/28/2016
TIME W.L.: 13:22

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|-------|----------------|------------------------|------------|------|-----|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 45 | | 15.00 - 58.00 SILT and SAND; orangish brown, brown, and grey, fine to medium sand, some laminations and black mottling, micaceous, some biotite schist gravel, fine to coarse, dry to wet, very soft to very stiff (Continued) | SP-SM | | | | | |  <p>3/8" Bentonite Pellets</p> <p>Filtersil std #61</p> <p>0.010" slot screen</p> <p>Sump</p> | <p>WELL CASING Interval: 0'-65' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush threaded with O-ring</p> <p>WELL SCREEN Interval: 55'-65' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC</p> <p>FILTER PACK Interval: 53'-65.4' Type: Filtersil std61</p> <p>FILTER PACK SEAL Interval: 47.5'-53' Type: 3/8" Bentonite Pellets</p> <p>ANNULUS SEAL Interval: 3'-47.5' Type: Portland Type I/Type II/Gel Mix</p> <p>WELL COMPLETION Pad: 4"x4"x4" Protective Casing: Aluminum</p> <p>DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic</p> |
| 715 | | | | | | | | | | |
| 50 | | | | | | | | | | |
| 710 | | | | | | | | | | |
| 55 | | | | | | | | | | |
| 705 | | 58.00 - 66.00 biotite SCHIST; some clayey silt and sand to gravel, coarse-grained, gray, orange staining, micaceous, dry to wet, very stiff (saprock) | PWR | | 705.3 58.00 | | | | | |
| 60 | | | | | | | | | | |
| 700 | | | | | | | | | | |
| 65 | | | | | | | | | | |
| | | Boring completed at 66.00 ft | | | 697.3 | | | | | |
| 695 | | | | | | | | | | |
| 70 | | | | | | | | | | |
| 690 | | | | | | | | | | |
| 75 | | | | | | | | | | |
| 685 | | | | | | | | | | |
| 80 | | | | | | | | | | |
| 680 | | | | | | | | | | |
| 85 | | | | | | | | | | |
| 675 | | | | | | | | | | |
| 90 | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Scotty Vermillion

GA INSPECTOR: K. Jurinko, PG
CHECKED BY: Rachel P. Kirkman, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-52

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 50.00 ft
LOCATION: Northside of the Lab Parking lot

DRILL RIG: CME 55
DATE STARTED: 9/27/16
DATE COMPLETED: 9/28/16

NORTHING: 1,392,308.30
EASTING: 2,201,314.80
GS ELEVATION: 820.18
TOC ELEVATION: 822.89 ft

DEPTH W.L.: 25.72
ELEVATION W.L.: 794.58
DATE W.L.: 10/6/2016
TIME W.L.: 1330

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | | |
|----------------------------|-------------------|---|------|----------------|----------------|------------|------|--|---------|---|---------------------------------|--|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | | | REC | |
| | | | | | DEPTH (ft) | | | | | | | | |
| 0 | 820 | 0.00 - 10.00 Top 10' were Hydrovac for utilities. | | | | | | | | | | CETCO puregold grout (70:30) – / aluminum casing | WELL CASING Interval: 0'-38.9' Material: Schedule 40 PVC Diameter: 2 Joint Type: FLUSH/SCREW WELL SCREEN Interval: 38.9'-48.9' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 35.7-50' Type: FilterSil FILTER PACK SEAL Interval: 31.0-35.7 Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0-31' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5' aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: N/A |
| 5 | 815 | | | | | | | | | | | | |
| 10 | 810 | 10.00 - 15.00 SM, silty SAND, fine to medium grained, non to low plasticity, tan, non-cohesive, dry, W<PL, loose | SM | | 810.2 10.00 | | | | | | | | |
| 15 | 805 | 15.00 - 33.50 ML, SILT with some SAND, fine to coarse, non to moderate plasticity, orange-brown to white to silver, slightly weathered, highly micaceous, cohesive, dry to wet (increasing with detpth), W<PL, firm to stiff, PWR. | | | 805.2 15.00 | 1 | DO | 8-8-4 | 12 | 1.50 1.50 | | | |
| 20 | 800 | | | | | 2 | DO | 7-9-8 | 17 | 1.50 1.50 | | CETCO puregold – grout (70:30) | |
| 25 | 795 | | ML | | | 3 | DO | 7-13-11 | 24 | 1.50 1.50 | | | |
| 30 | 790 | | | | | 4 | DO | 18-50/3 | 68/9 | 0.75 1.50 | | | |
| 35 | 785 | 33.50 - 50.00 SM, silty SAND, fine to coarse, non to moderate plasticity, trace rock fragments, yellow-orange, non-cohesive, dry to moist, W<PL, compact to very dense, PWR | | | 786.7 33.50 | 5 | DO | 17-20-50/4 | 70/10 | 1.50 1.50 | | PEL-PLUG 3/8" – Bentonite pellets | |
| 40 | 780 | | SM | | | 6 | DO | 50/5 | 50/5 | 0.41 0.41 | | | |
| 45 | | | | | | 7 | DO | 50/2 | 50/2 | 0.16 0.16 | | FilterSil – | |
| Log continued on next page | | | | | | | | | | | | | |

Log continued on next page

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: Shawn Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-52

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 50.00 ft
LOCATION: Northside of the Lab Parking lot

DRILL RIG: CME 55
DATE STARTED: 9/27/16
DATE COMPLETED: 9/28/16

NORTHING: 1,392,308.30
EASTING: 2,201,314.80
GS ELEVATION: 820.18
TOC ELEVATION: 822.89 ft

DEPTH W.L.: 25.72
ELEVATION W.L.: 794.58
DATE W.L.: 10/6/2016
TIME W.L.: 1330

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|------|--|---------|--------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 45 | 775 | 33.50 - 50.00 SM, silty SAND, fine to coarse, non to moderate plasticity, trace rock fragments, yellow-orange, non-cohesive, dry to moist, W<PL, compact to very dense, PWR (Continued) | SM | | | | | | | | 0.010 Slotted Screen | WELL CASING Interval: 0'-38.9' Material: Schedule 40 PVC Diameter: 2 Joint Type: FLUSH/SCREW WELL SCREEN Interval: 38.9'-48.9' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 35.7-50' Type: FilterSil FILTER PACK SEAL Interval: 31.0-35.7 Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0-31' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5' aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: N/A |
| | | | | | | 8 | DO | 50/3 | 50/3 | 0.25 0.25 | | |
| 50 | 770 | Boring completed at 50.00 ft | | | 770.2 | | | | | | | |
| 55 | 765 | | | | | | | | | | | |
| 60 | 760 | | | | | | | | | | | |
| 65 | 755 | | | | | | | | | | | |
| 70 | 750 | | | | | | | | | | | |
| 75 | 745 | | | | | | | | | | | |
| 80 | 740 | | | | | | | | | | | |
| 85 | 735 | | | | | | | | | | | |
| 90 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: Shawn Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



RECORD OF BOREHOLE B-54




SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 34.20 ft
LOCATION: Eastside of the stream north of AP4

DRILL RIG: CME 55
DATE STARTED: 9/26/16
DATE COMPLETED: 9/26/16

NORTHING: 1,394,423.50
EASTING: 2,203,140.70
GS ELEVATION: 782.54
TOC ELEVATION: 785.46 ft

DEPTH W.L.: 4.56
ELEVATION W.L.: 778.04
DATE W.L.: 10/6/2016
TIME W.L.: 839

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | | | |
|---------------|-------------------|--|-------|---|-------------------------|------------|------|--|---------|---|---|--|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | | | REC | | |
| | | | | | DEPTH (ft) | | | | | | | | | |
| 0 | | 0.00 - 13.50 Top 10' were Hydrovac for utilities. | | | | | | | | | <div>Portland Type I/Type II/Gel Mix / — aluminum casing</div> <div>Portland Type I/Type — II/Gel Mix</div> <div>PEL-PLUG 3/8" — Bentonite pellets</div> <div>FilterSil —</div> <div>0.010 Slotted — Screen</div> | <div>WELL CASING Interval: 0'-23.8' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw</div> <div>WELL SCREEN Interval: 23.8'-33.8' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC</div> <div>FILTER PACK Interval: 21.9'-34.2' Type: FilterSil</div> <div>FILTER PACK SEAL Interval: 17.8'-21.9' Type: PEL-PLUG 3/8" Bentonite pellets</div> <div>ANNULUS SEAL Interval: 0-17.8' Type: Portland Type I/Type II/Gel Mix</div> <div>WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5' aluminum</div> <div>DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: HQ Core Barrell</div> | | |
| 780 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 775 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| 770 | | | | | | | | | | | | | | |
| 15 | | 13.50 - 28.50 SM, silty SAND, fine to coarse, non to low plasticity; white to gray, weathered, well foliated gneiss saprolite; cohesive, moist, w<PL, stiff. | SM |  | 769.0 | 1 | DO | 6-7-6 | 13 | 0.83 1.50 | | | | |
| 765 | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | |
| 760 | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | |
| 755 | | | | | | | | | | | | | | |
| 30 | | 28.50 - 29.00 GPS, poorly-graded sandy GRAVEL, fine to coarse, non plastic, some silt; white to tan to pink, K-spar and Quartz; non-cohesive, wet, w<PL, dense., PWR. Auger Refusal at 29.0 29.00 - 34.20 Bedrock; AUGEN GNEISS; fresh to slightly weathered, well foliated, gray, fine grained, medium strong to strong, (locally contains pegamitite zones). Boring completed at 34.20 ft | GP-GM |  | 754.0 753.5 29.00 | 4 | DO | 21-50/1 | 71/7 | 0.50 0.58 | | | | |
| 750 | | | BR |  | 748.3 | | | | | | | | | |
| 35 | | | | | | | | | | | | | | |
| 745 | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | |
| 740 | | | | | | | | | | | | | | |
| 45 | | | | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Terracon
DRILLER: Shep Becker

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-55

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 52.00 ft
LOCATION: West of the cement plant

DRILL RIG: CME 55
DATE STARTED: 9/21/16
DATE COMPLETED: 9/22/16

NORTHING: 1,394,142.60
EASTING: 2,204,147.90
GS ELEVATION: 822.86
TOC ELEVATION: 825.12 ft

DEPTH W.L.: 12.05'
ELEVATION W.L.: 810.85
DATE W.L.: 10/6/2016
TIME W.L.: 850

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|------|--|---------|--------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | | 0.00 - 3.50 SM, silty SAND, non to low plasticity; red-brown; cohesive, moist, w<PL, soft. | SM | | | 1 | DO | 4-8-11 | 19 | 0.75 1.50 | Portland Type I/Type II/Gel Mix / -- aluminum casing | WELL CASING Interval: 0'-41' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw WELL SCREEN Interval: 41' - 51' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 39'-52' Type: FilterSil FILTER PACK SEAL Interval: 32'-39' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-32' Type: Portland Type I/Type II/Gel Mix WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5' aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: N/A |
| 820 | | | | | 819.4 | | | | | | | |
| 5 | | 3.50 - 13.50 ML, SILT, trace to some sand and clay, non to low plasticity; light brown to red-brown to silverish gray; cohesive, dry to moist, w<PL, soft to firm. | ML | | 3.50 | 2 | DO | 7-7-9 | 16 | 1.00 1.50 | | |
| 815 | | | | | | 3 | DO | 7-11-12 | 23 | 1.33 1.50 | | |
| 10 | | | | | | 4 | DO | 5-8-11 | 19 | 1.50 1.50 | Portland Type I/Type -- II/Gel Mix | |
| 810 | | | | | 809.4 | | | | | | | |
| 15 | | 13.50 - 23.50 ML, SILT, trace fine to coarse sand, non plastic; light brown, deeply weathered, foliated, schist saprolite, cohesive, dry to moist, w<PL, soft to firm. | ML | | 13.50 | 5 | DO | 8-17-24 | 41 | 1.50 1.50 | | |
| 805 | | | | | | 6 | DO | 9-10-11 | 21 | 1.50 1.50 | | |
| 20 | | | | | | | | | | | PEL-PLUG 3/8" -- Bentonite pellets | |
| 800 | | | | | 799.4 | | | | | | | |
| 25 | | 23.50 - 52.00 ML, SILT, some sand, non plastic; light brown to tan to silverish gray, schist saprolite; cohesive, moist to wet (increases with depth), w<PL, soft to firm. | ML | | 23.50 | 7 | DO | 5-12-12 | 24 | 1.50 1.50 | | |
| 795 | | | | | | 8 | DO | 8-12-15 | 27 | 1.50 1.50 | | |
| 30 | | | | | | | | | | | FilterSil -- | |
| 790 | | | | | | 9 | DO | 9-14-17 | 31 | 1.50 1.50 | | |
| 35 | | | | | | | | | | | | |
| 785 | | | | | | 10 | DO | 10-12-16 | 28 | 1.50 1.50 | | |
| 40 | | | | | | | | | | | | |
| 780 | | | | | | 11 | DO | 7-12-23 | 35 | 1.50 1.50 | | |
| 45 | | | | | | | | | | | | |

Log continued on next page

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Terracon
DRILLER: Shep Becker

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-55

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 52.00 ft
LOCATION: West of the cement plant

DRILL RIG: CME 55
DATE STARTED: 9/21/16
DATE COMPLETED: 9/22/16

NORTHING: 1,394,142.60
EASTING: 2,204,147.90
GS ELEVATION: 822.86 TOC
ELEVATION: 825.12 ft

DEPTH W.L.: 12.05'
ELEVATION W.L.: 810.85
DATE W.L.: 10/6/2016
TIME W.L.: 850

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|------|--|---------|-----|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 45 | | 23.50 - 52.00 ML, SILT, some sand, non plastic; light brown to tan to silverish gray, schist saprolite; cohesive, moist to wet (increases with depth), w<PL, soft to firm. (Continued) | ML | | | | | | | | 0.010 Slotted _ Screen | WELL CASING Interval: 0' - 41' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw WELL SCREEN Interval: 41' - 51' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 39'-52' Type: FilterSil FILTER PACK SEAL Interval: 32'-39' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-32' Type: Portland Type I/Type II/Gel Mix WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5' aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: N/A |
| 775 | | | | | | | | | | | | |
| 50 | | | | | | | | | | | | |
| 770 | | Boring completed at 52.00 ft | | | 770.9 | | | | | | | |
| 55 | | | | | | | | | | | | |
| 765 | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | |
| 760 | | | | | | | | | | | | |
| 65 | | | | | | | | | | | | |
| 755 | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | |
| 750 | | | | | | | | | | | | |
| 75 | | | | | | | | | | | | |
| 745 | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | |
| 740 | | | | | | | | | | | | |
| 85 | | | | | | | | | | | | |
| 735 | | | | | | | | | | | | |
| 90 | | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Terracon
DRILLER: Shep Becker

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-57

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 50.50 ft
LOCATION: North of the 4-wide construction trailer

DRILL RIG: CME 55
DATE STARTED: 9/24/16
DATE COMPLETED: 9/24/16

NORTHING: 1,391,396.30
EASTING: 2,202,736.90
GS ELEVATION: 786.03
TOC ELEVATION: 789.04 ft

DEPTH W.L.: 21.49
ELEVATION W.L.: 764.51
DATE W.L.: 10/6/2016
TIME W.L.: 920

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|-------|----------------|------------------------|------------|------|--|---------|--------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | 785 | 0.00 - 10.00 Boring was hydrovac'd to 10' bgs (material appears to be SM-ML) | SM-ML | | 776 10.00 | | | | | | Portland Type I/Type II/Gel Mix / -- aluminum casing | WELL CASING Interval: 0'-40' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw WELL SCREEN Interval: 40'-50' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 34.6'-50.5' Type: FilterSil FILTER PACK SEAL Interval: 29'-34.6' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-29' Type: Portland Type I/Type II/Gel Mix WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5' aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: HQ Core Barrell |
| 5 | 780 | | | | | | | | | | | |
| 10 | 775 | 10.00 - 30.00 ML- Sandy Clayey SILT, fine to coarse sand, some fine gravel; reddish-brown to brown, dense, dry; micaceous, PWR | | | | | | | | | | |
| 15 | 770 | | ML | | 756 30.00 | 1 | DO | 4-10-14 | 24 | 1.00 1.50 | Portland Type I/Type II/Gel Mix | |
| 20 | 765 | | | | | | | | | | | |
| 25 | 760 | | | | | 2 | DO | 11-24-50/5 | 74/11 | 1.00 1.50 | | |
| 30 | 755 | 30.00 - 34.50 CL- Silty CLAY, SOME fine to medium SAND, trace gravel: brown; loose, W<PL; micaceous, PWR. Auger Refusal at 34.5 | | | | | | | | | | |
| 35 | 750 | 34.50 - 50.50 Bedrock; SCHIST; strong to very strong, light to dark gray with white and black laminae, sub-parallel; slightly weathered top with red oxidation on fractured surfaces to fresh and unfractured at the bottom. | BR | | 751.5 34.50 | 3 | DO | 4-8-14 | 22 | 1.33 1.50 | PEL-PLUG 3/8" -- Bentonite pellets | |
| 40 | 745 | | | | | 4 | DO | 4-4-8 | 12 | 1.33 1.50 | | |
| 45 | | | | | | 5 | DO | 50/3 | 50/3 | 0.00 0.25 | FilterSil -- 0.010 Slotted Screen | |
| | | | | | | | | | | | | |

Log continued on next page

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Terracon
DRILLER: Shep Becker

GA INSPECTOR: Aubrey Ellis
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-57


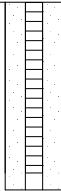
SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 50.50 ft
LOCATION: North of the 4-wide construction trailer

DRILL RIG: CME 55
DATE STARTED: 9/24/16
DATE COMPLETED: 9/24/16

NORTHING: 1,391,396.30
EASTING: 2,202,736.90
GS ELEVATION: 786.03
TOC ELEVATION: 789.04 ft

DEPTH W.L.: 21.49
ELEVATION W.L.: 764.51
DATE W.L.: 10/6/2016
TIME W.L.: 920

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|---|---------------|------------|------|--|---------|-----|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| | | | | | DEPTH (ft) | | | | | | | |
| 45 | 740 | 34.50 - 50.50 Bedrock; SCHIST; strong to very strong, light to dark gray with white and black laminations, sub-parallel; sightly weathered top with red oxidation on fractured surfaces to fresh and unfractured at the bottom. <i>(Continued)</i> | BR |  | | | | | | |  | WELL CASING Interval: 0'-40' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw WELL SCREEN Interval: 40'-50' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 34.6'-50.5' Type: FliterSil FILTER PACK SEAL Interval: 29'-34.6' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-29' Type: Portland Type I/Type II/Gel Mix WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5' aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: HQ Core Barrell |
| 50 | 735 | Boring completed at 50.50 ft | | | 735.5 | | | | | | | |
| 55 | 730 | | | | | | | | | | | |
| 60 | 725 | | | | | | | | | | | |
| 65 | 720 | | | | | | | | | | | |
| 70 | 715 | | | | | | | | | | | |
| 75 | 710 | | | | | | | | | | | |
| 80 | 705 | | | | | | | | | | | |
| 85 | 700 | | | | | | | | | | | |
| 90 | | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Terracon
DRILLER: Shep Becker

GA INSPECTOR: Aubrey Ellis
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-58

SHEET 1 of 2






PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 45.00 ft
LOCATION: SW corner of the new overflow parking lot of the NEW admin building

DRILL RIG: CME 55
DATE STARTED: 9/22/16
DATE COMPLETED: 9/23/16

NORTHING: 1,391,125.70
EASTING: 2,202,426.50
GS ELEVATION: 785.20
TOC ELEVATION: 788.17 ft

DEPTH W.L.: 22.30
ELEVATION W.L.: 762.9
DATE W.L.: 10/6/2016
TIME W.L.: 940

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | | | | |
|---------------|-------------------|--|-------|---|----------------|------------|------|--|---------|---|---------------------------------|--|---|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | | | REC | | | |
| | | | | | DEPTH (ft) | | | | | | | | | | |
| 0 | 785 | 0.00 - 13.50 Top 10' were Hydrovac for utilities. | | | | | | | | | | CETCO puregold grout (70:30) – / aluminum casing | WELL CASING Interval: 0'- 34.5' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw WELL SCREEN Interval: 34.5'-44.5' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 31.7'-45.' Type: FilterSil FILTER PACK SEAL Interval: 24.1'-31.7' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-24.1' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5' aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: N/A | | |
| 5 | 780 | | | | | | | | | | | | | | |
| 10 | 775 | | | | | | | | | | | | | | |
| 15 | 770 | 13.50 - 18.50 SC-SM, silty SAND/ clayly SAND, fine to coarse, low plasticity; red to red orang, fill; cohesive, moist, w<PL, soft to firm. | SC-SM |  | 771.7 13.50 | 1 | DO | 5-6-7 | 13 | 1.50 1.50 | | | | | |
| | | | | | | | | | | | | | | | |
| 20 | 765 | 18.50 - 23.50 ML, SILT, trace sand, low to moderate plasticity; red orange, micaceous, fill; cohesive, moist, w<PL, soft to firm. | ML |  | 766.7 18.50 | 2 | DO | 2-1-2 | 3 | 1.50 1.50 | | | | | |
| | | | | | | | | | | | | | | | |
| 25 | 760 | 23.50 - 28.50 ML, SILT, some fine sand, low plasticity; tan to white; cohesive, wet, w<PL (over saturated), soft. | ML |  | 761.7 23.50 | 3 | DO | 2-3-3 | 6 | 1.50 1.50 | | | | | |
| | | | | | | | | | | | | | | | |
| 30 | 755 | 28.50 - 33.50 ML, SILT, non plastic; brown to silver, slight to deeply weathered, schistose gneiss saprolite; cohesive, wet, w<PL, firm to stiff. | ML |  | 756.7 28.50 | 4 | DO | 4-7-9 | 16 | 1.50 1.50 | | | | | |
| | | | | | | | | | | | | | | | |
| 35 | 750 | 33.50 - 45.00 ML, SILT, trace to some sand, low to moderate plasticity; brown to dark brown, micaceous, schistose gneiss/shcist saprolite; cohesive, moist to wet, w<PL, soft to stiff. | ML |  | 751.7 33.50 | 5 | DO | 1-4-7 | 11 | 1.50 1.50 | | | | | |
| | | | | | | | | | | | | | | | |
| 40 | 745 | | | | | | | 6 | DO | 3-6-11 | 17 | 1.50 1.50 | | | |
| | | | | | | | | | | | | | | | |
| 45 | | | | | | 7 | DO | 3-7-12 | 19 | 1.50 1.50 | | | | | |
| | | Boring continued on next page | | | 740.2 | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



RECORD OF BOREHOLE B-58

SHEET 2 of 2

PROJECT: Plant McDonough
 PROJECT NUMBER: 1668496.18
 DRILLED DEPTH: 45.00 ft
 LOCATION: SW corner of the new overflow parking lot of the NEW admin building

DRILL RIG: CME 55
 DATE STARTED: 9/22/16
 DATE COMPLETED: 9/23/16

NORTHING: 1,391,125.70
 EASTING: 2,202,426.50
 GS ELEVATION: 785.20
 TOC ELEVATION: 788.17 ft

DEPTH W.L.: 22.30
 ELEVATION W.L.: 762.9
 DATE W.L.: 10/6/2016
 TIME W.L.: 940

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--------------|------|----------------|------------------------|------------|------|--|---------|-----|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 45 | 740 | | | | | | | | | | | WELL CASING Interval: 0'-34.5' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw WELL SCREEN Interval: 34.5'-44.5' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 31.7'-45.' Type: FilterSil FILTER PACK SEAL Interval: 24.1'-31.7' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-24.1' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5' aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: N/A |
| 50 | 735 | | | | | | | | | | | |
| 55 | 730 | | | | | | | | | | | |
| 60 | 725 | | | | | | | | | | | |
| 65 | 720 | | | | | | | | | | | |
| 70 | 715 | | | | | | | | | | | |
| 75 | 710 | | | | | | | | | | | |
| 80 | 705 | | | | | | | | | | | |
| 85 | 700 | | | | | | | | | | | |
| 90 | | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
 DRILLING COMPANY: Southern Company Services
 DRILLER: S. Milam

GA INSPECTOR: Michael Boatman, PG
 CHECKED BY: Timothy Richards, PG
 DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-59

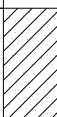



SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 30.25 ft
LOCATION: westside of the stream north of AP4

DRILL RIG: CME 55
DATE STARTED: 9/23/16
DATE COMPLETED: 9/23/16

NORTHING: 1,394,349.10
EASTING: 2,203,001.10
GS ELEVATION: 785.41
TOC ELEVATION: 788.00 ft

DEPTH W.L.: 5.56
ELEVATION W.L.: 779.94
DATE W.L.: 10/6/2016
TIME W.L.: 828

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | |
|---------------|-------------------|--|------|---|---------------|------------|------|--|---------|--------------|--|--|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | | |
| | | | | | DEPTH (ft) | | | | | | | | |
| 0 | 785 | 0.00 - 3.50 SC, clayly SAND, fine to coarse, non plastic; red, micaceous, fill; cohesive, dry, w<PL, stiff. | SC |  | 781.9 | 1 | DO | 3-5-7 | 12 | 1.16 1.50 | CETCO puregold grout (70:30) – / aluminum casing |  | WELL CASING Interval: 0'-20.2' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw WELL SCREEN Interval: 20.2'-30.2' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 17'-30.2' Type: FilterSil FILTER PACK SEAL Interval: 12'-17' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-12' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5' aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: HQ Core Barrell |
| 5 | 780 | 3.50 - 9.00 CH, CLAY, moderate to high plasticity; aark brown to red brown, fill; cohesive, moist, w>PL, soft. | | | 776.4 | 2 | DO | 2-1-1 | 2 | 0.75 1.50 | | | |
| 10 | 775 | 9.00 - 14.00 SM, SAND and SILT, fine, trace organics, non to low plasticity; gray; cohesive, wet, w<PL, very soft. | SM |  | 771.4 | 3 | DO | WOH-1-1 | 2 | 1.50 1.50 | PEL-PLUG 3/8" – Bentonite pellets | | |
| 15 | 770 | 14.00 - 19.00 SP-SW, moderate- graded SAND, fine to coarse, non plastic; tan to white; non-cohesive, wet, w<PL, loose. | | | 766.4 | 4 | DO | 4-5-7 | 12 | 1.50 1.50 | | | |
| 20 | 765 | 19.00 - 24.50 SM, silty SAND, low plasticity; gray to black, deeply weathered, gneissic saprolite; cohesive, moist to wet, w<PL, firm to very stiff, PWR. Auger Refusal at 24.3 | SM |  | 760.9 | 5 | DO | 5-4-5 | 9 | 1.00 1.50 | FilterSil – | | |
| 25 | 760 | 24.50 - 30.25 Bedrock; AUGEN GNEISS; slightly weathered, foliated, gray to dark gray, fine to medium grained, medium strong. | | | 755.2 | 6 | DO | 50/4 | 50/4 | 0.66 0.33 | | | 0.010 Slotted Screen |
| 30 | 755 | Boring completed at 30.25 ft | | | | | | | | | | | |
| 35 | 750 | | | | | | | | | | | | |
| 40 | 745 | | | | | | | | | | | | |
| 45 | | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



RECORD OF BOREHOLE B-60





SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 49.80 ft
LOCATION: Almost due south of B-58 ~ 300 to 400 feet

DRILL RIG: CME 55
DATE STARTED: 9/29/16
DATE COMPLETED: 9/29/16

NORTHING: 1,391,100.70
EASTING: 2,202,881.60
GS ELEVATION: 779.25
TOC ELEVATION: 782.13 ft

DEPTH W.L.: 33.35
ELEVATION W.L.: 745.85
DATE W.L.: 10/6/2016
TIME W.L.: 955

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | |
|---------------|-------------------|--|-------|---|----------------|------------|------|--|---------|---|--|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | | | REC |
| | | | | | DEPTH (ft) | | | | | | | |
| 0 | | 0.00 - 13.50 Top 10' were Hydrovac for utilities. | | | | | | | | | CETCO puregold grout (70:30) – / aluminum casing | WELL CASING Interval: 0'-39.3' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw WELL SCREEN Interval: 39.3' - 49.3' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 36.9'-50' Type: FilterSil FILTER PACK SEAL Interval: 30.2'-36.9' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-30.2' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5" aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: N/A |
| 775 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 770 | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | |
| 15 | | 13.50 - 23.50 SC-SM, clayey SAND - silty SAND; brown to red brown; non-cohesive, moist, loose. | SC-SM |  | 765.8 13.50 | 1 | DO | 4-3-4 | 7 | 0.66 1.50 | CETCO puregold – grout (70:30) | |
| 20 | | | | | 760 | 2 | DO | 3-2-3 | 5 | 1.33 1.50 | | |
| 25 | | | | | 755 | 3 | DO | 1-3-5 | 8 | 1.50 1.50 | | |
| 30 | | 23.50 - 28.50 CL, silty CLAY, low plasticity; contains mica; moist, W<PL. | CL |  | 755.8 23.50 | | | | | | | |
| 35 | | | | | 750 | 4 | DO | 2-8-10 | 18 | 1.50 1.50 | | |
| 40 | | 28.50 - 33.50 SC-SM, clayey SAND - silty SAND, fine grained, low to non-plastic; brown to gray; non-cohesive, moist, compact. | SC-SM |  | 750.8 28.50 | | | | | | | |
| 45 | | | | | 745 | 5 | DO | 50/4 | 50/4 | 0.33 0.33 | PEL-PLUG 3/8" Bentonite pellets | |
| 50 | | 33.50 - 48.50 SM, silty SAND; brown to red brown, saprolite; non-cohesive, moist to wet (increases with depth), dense, PWR. | SM |  | 745.8 33.50 | 6 | DO | 50/4 | 50/4 | 0.33 0.33 | | |
| 55 | | | | | 740 | 7 | DO | 50/4 | 50/4 | 0.25 0.33 | FilterSil – | |
| 60 | | | | | 735 | | | | | | | |
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| 790 | | | | | | | | | | | | |
| 795 | | | | | | | | | | | | |
| 800 | | | | | | | | | | | | |
| 805 | | | | | | | | | | | | |
| 810 | | | | | | | | | | | | |
| 815 | | | | | | | | | | | | |
| 820 | | | | | | | | | | | | |
| 825 | | | | | | | | | | | | |
| 830 | | | | | | | | | | | | |
| 835 | | | | | | | | | | | | |
| 840 | | | | | | | | | | | | |
| 845 | | | | | | | | | | | | |
| 850 | | | | | | | | | | | | |
| 855 | | | | | | | | | | | | |
| 860 | | | | | | | | | | | | |
| 865 | | | | | | | | | | | | |
| 870 | | | | | | | | | | | | |
| 875 | | | | | | | | | | | | |
| 880 | | | | | | | | | | | | |
| 885 | | | | | | | | | | | | |
| 890 | | | | | | | | | | | | |
| 895 | | | | | | | | | | | | |
| 900 | | | | | | | | | | | | |
| 905 | | | | | | | | | | | | |
| 910 | | | | | | | | | | | | |
| 915 | | | | | | | | | | | | |
| 920 | | | | | | | | | | | | |
| 925 | | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Nortey Yeboah
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-60

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 49.80 ft
LOCATION: Almost due south of B-58 ~ 300 to 400 feet

DRILL RIG: CME 55
DATE STARTED: 9/29/16
DATE COMPLETED: 9/29/16

NORTHING: 1,391,100.70
EASTING: 2,202,881.60
GS ELEVATION: 779.25
TOC ELEVATION: 782.13 ft

DEPTH W.L.: 33.35
ELEVATION W.L.: 745.85
DATE W.L.: 10/6/2016
TIME W.L.: 955

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|-------------------------|------------|------|--|---------|--------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 45 | | 33.50 - 48.50 SM, silty SAND; brown to red brown, saprolite; non-cohesive, moist to wet (increases with depth), dense, PWR. (Continued) | SM | | | | | | | | 0.010 Slotted Screen | WELL CASING Interval: 0'-39.3' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw WELL SCREEN Interval: 39.3' - 49.3' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 36.9'-50' Type: FilterSil FILTER PACK SEAL Interval: 30.2'-36.9' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-30.2' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5' aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: N/A |
| 730 | | 48.50 - 49.80 SM, silty SAND; gray to brown, saprolite, contains mica; non-cohesive, moist to wet (increases with depth), dense, PWR Boring completed at 49.80 ft | SM | | 730.8 48.50 729.5 | 8 | DO | 50/3 | 50/3 | 0.16 0.25 | | |
| 50 | | | | | | | | | | | | |
| 725 | | | | | | | | | | | | |
| 55 | | | | | | | | | | | | |
| 720 | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | |
| 715 | | | | | | | | | | | | |
| 65 | | | | | | | | | | | | |
| 710 | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | |
| 705 | | | | | | | | | | | | |
| 75 | | | | | | | | | | | | |
| 700 | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | |
| 695 | | | | | | | | | | | | |
| 85 | | | | | | | | | | | | |
| 690 | | | | | | | | | | | | |
| 90 | | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Nortey Yeboah
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-61

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 52.40 ft
LOCATION: SSW of B-57. on the NE corner of the switch yard

DRILL RIG: CME 55
DATE STARTED: 9/28/16
DATE COMPLETED: 9/29/16

NORTHING: 1,390,957.80
EASTING: 2,202,505.80
GS ELEVATION: 778.95
TOC ELEVATION: 782.09 ft

DEPTH W.L.: 22.25
ELEVATION W.L.: 756.75
DATE W.L.: 10/6/2016
TIME W.L.: 950

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | |
|---------------|-------------------|--|------|----------------|---------------|------------|------|--|---------|---|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | | | REC |
| | | | | | DEPTH (ft) | | | | | | | |
| 0 | | 0.00 - 13.50 Top 10' were Hydrovac for utilities. | | | | | | | | | CETCO puregold grout (70:30) – / aluminum casing | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><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BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



RECORD OF BOREHOLE B-61

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 52.40 ft
LOCATION: SSW of B-57. on the NE corner of the switch yard

DRILL RIG: CME 55
DATE STARTED: 9/28/16
DATE COMPLETED: 9/29/16

NORTHING: 1,390,957.80
EASTING: 2,202,505.80
GS ELEVATION: 778.95
TOC ELEVATION: 782.09 ft

DEPTH W.L.: 22.25
ELEVATION W.L.: 756.75
DATE W.L.: 10/6/2016
TIME W.L.: 950

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|------|--|---------|--------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 45 | | 38.50 - 52.40 SM, silty SAND, fine to coarse, non to low plasticity; dark brown to gray to black, deeply weathered, schistose gneiss / schist saprolite; non-cohesive to cohesive, moist, w<PL, compact to dense / firm to stiff, PWR. (Continued) | SM | | | | | | | | 0.010 Slotted _ Screen | WELL CASING Interval: 0'-41.5' Material: Schedule 40 PVC Diameter: 2 Joint Type: Flush/Screw WELL SCREEN Interval: 41.5'-51.5' Material: Schedule 40 PVC Diameter: 2 Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 39.5'-51.9' Type: FilterSil FILTER PACK SEAL Interval: 35'-39.5' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-35' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 4"x4"x5' aluminum DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: N/A |
| 730 | | | | | | 8 | DO | 14-9-14 | 23 | 1.50 1.50 | | |
| 50 | | | | | | | | | | | | |
| | | Boring completed at 52.40 ft | | | 726.6 | | | | | | | |
| 725 | | | | | | | | | | | | |
| 55 | | | | | | | | | | | | |
| 720 | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | |
| 715 | | | | | | | | | | | | |
| 65 | | | | | | | | | | | | |
| 710 | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | |
| 705 | | | | | | | | | | | | |
| 75 | | | | | | | | | | | | |
| 700 | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | |
| 695 | | | | | | | | | | | | |
| 85 | | | | | | | | | | | | |
| 690 | | | | | | | | | | | | |
| 90 | | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 12/22/17



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

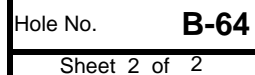


DRILLING LOG **GEOLOGICAL SERVICES**

Hole No. **B-64**
Sheet 1 of 2

| | | | |
|--|-----------------------------|-------------------------------|--------------------------------------|
| SITE Plant McDonough | | HOLE DEPTH 31' | SURFELEV 786.10 |
| LOCATION North of AP-4, near property line at Atkinson Rd | | COORDINATES 33.832856 | -84.474746 |
| ANGLE _____ | BEARING _____ | CONTRACTOR SCS | DRILL NO. _____ |
| DRILLING METHOD HSA | | NO. SAMPLES _____ | NO. U.D. SAMPLES 0 |
| CASING SIZE 2" | LENGTH 10' | CORE SIZE _____ | TOTAL % REC. _____ |
| WATER TABLE DEPTH 4.9' BLS | ELEV. 781.20' NAVD88 | TIME AFTER COMP. 24 hr | DATE TAKEN 11/3/2016 |
| TYPE GROUT Bentonite | QUANTITY _____ | MIX . | DRILLING START DATE 11/2/2016 |
| DRILLER Milam | RECORDER Abraham | APPROVED _____ | DRILLING COMP. DATE 11/2/2016 |

| Depth | Elev. | Material Description, Classification and Remarks | Sample No. | Standard Penetration Test | | | Comments | % Rec | RQD |
|-------|--------|--|------------|---------------------------|-------|---|----------|-------|-----|
| | | | | From To | Blows | N | | | |
| 0 | 786.10 | | | | | | | | |
| 1 | 785.10 | HYDRO-EXCAVATION Hydrovac from land surface to 20-feet below land. No samples | | | | | | | |
| 2 | 784.10 | | | | | | | | |
| 3 | 783.10 | | | | | | | | |
| 4 | 782.10 | | | | | | | | |
| 5 | 781.10 | | | | | | | | |
| 6 | 780.10 | | | | | | | | |
| 7 | 779.10 | | | | | | | | |
| 8 | 778.10 | | | | | | | | |
| 9 | 777.10 | | | | | | | | |
| 10 | 776.10 | | | | | | | | |
| 11 | 775.10 | | | | | | | | |
| 12 | 774.10 | | | | | | | | |
| 13 | 773.10 | | | | | | | | |
| 14 | 772.10 | | | | | | | | |
| 15 | 771.10 | | | | | | | | |
| 16 | 770.10 | | | | | | | | |
| 17 | 769.10 | | | | | | | | |
| 18 | 768.10 | | | | | | | | |
| 19 | 767.10 | | | | | | | | |
| 20 | 766.10 | | | | | | | | |
| 21 | 765.10 | | | | | | | | |
| 22 | 764.10 | SANDY SILT SAPROLITE Light gray sandy silt saprolite; minor quartz & feldspar grains, micaceous; oxidation along relict foliations; Fe stains; 2.5Y/6/1; SM. | S-1 | 23.5 - 25 | 1-1-2 | | | 85 | |
| 23 | 763.10 | | | | | | | | |
| 24 | 762.10 | | | | | | | | |

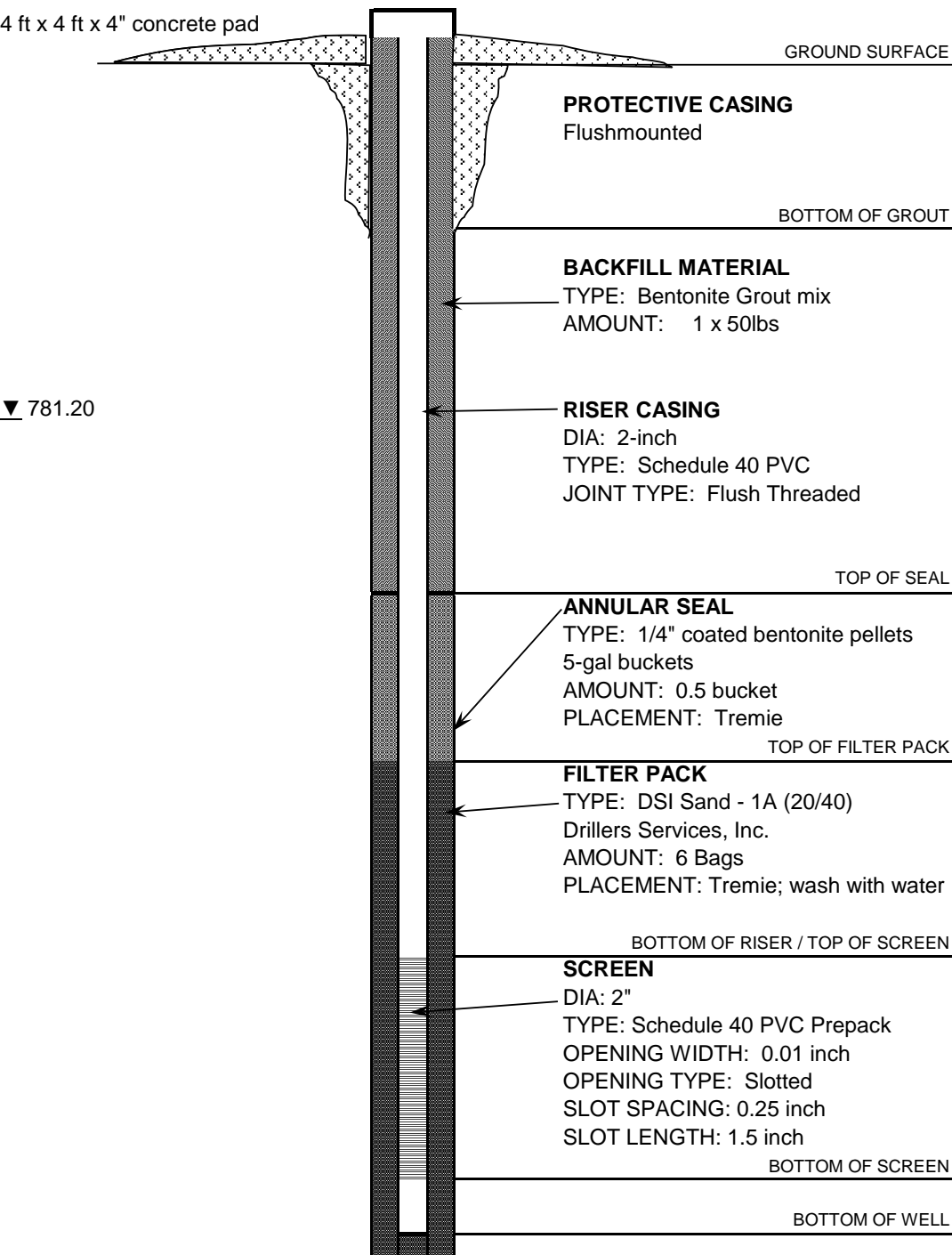


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|------|-----------------|-------------|-----|------------|--------|
| SITE | Plant McDonough | TOTAL DEPTH | 31' | SURF.ELEV. | 786.10 |
|------|-----------------|-------------|-----|------------|--------|

| Depth | Elev. | Material Description, Classification and Remarks | Sample No. | Standard Penetration Test | | | Comments | % Rec | RQD |
|-------|--------|--|------------|---------------------------|-------|---|----------|-------|-----|
| | | | | From To | Blows | N | | | |
| 25 | 761.10 | SANDY SILT SAPROLITE Light brown sandy silt saprolite; micaceous; highly weathered biotite gneiss; quartz, feldspar, biotite, FeO; 2.5Y/8/1; SM. | S-2 | 28.5 - 30 | 1-2-2 | | | 90 | |
| 26 | 760.10 | | | | | | | | |
| 27 | 759.10 | | | | | | | | |
| 28 | 758.10 | | | | | | | | |
| 29 | 757.10 | | | | | | | | |
| 30 | 756.10 | END OF BORING AT 30.4-FT REGOLITH WELL | | | | | | | |
| 31 | 755.10 | | | | | | | | |
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WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | |
|--|-------|---|--|---------------|----------------------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS, Inc. | | WELL NAME | |
| North of AP-4, at Atkinson Rd | | DRILLER: Milam | | | |
| LOCATION: 33.832856 / -84.474746 | | RIG TYPE: CME550 | | B-64 | |
| LOGGER: Abraham | | DRILLING METHODS: HSA | | | |
| DATE CONSTRUCTED: 11/2/2016 | | Survey Coordinates: N: 1394381.9 E: 2203031.3 | | | |
|  <p>4 ft x 4 ft x 4" concrete pad</p> <p>GROUND SURFACE</p> <p>PROTECTIVE CASING Flushmounted</p> <p>BOTTOM OF GROUT</p> <p>BACKFILL MATERIAL TYPE: Bentonite Grout mix AMOUNT: 1 x 50lbs</p> <p>RISER CASING DIA: 2-inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded</p> <p>TOP OF SEAL</p> <p>ANNULAR SEAL TYPE: 1/4" coated bentonite pellets 5-gal buckets AMOUNT: 0.5 bucket PLACEMENT: Tremie</p> <p>TOP OF FILTER PACK</p> <p>FILTER PACK TYPE: DSI Sand - 1A (20/40) Drillers Services, Inc. AMOUNT: 6 Bags PLACEMENT: Tremie; wash with water</p> <p>BOTTOM OF RISER / TOP OF SCREEN</p> <p>SCREEN DIA: 2" TYPE: Schedule 40 PVC Prepack OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.25 inch SLOT LENGTH: 1.5 inch</p> <p>BOTTOM OF SCREEN</p> <p>BOTTOM OF WELL</p> <p>HOLE DIA: 9 inch</p> <p>▼ 781.20</p> | | | | DEPTH FEET | ELEVATION FT, MSL |
| | | | | TOC | 785.83 |
| | | | | 0.0 | 785.98 |
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| | | | | 3.0 | 783.0 |
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| | | | | 8.10 | 777.9 |
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| | | | | 16.50 | 769.5 |
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| 20.00 | 766.0 | | | | |
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| 30.00 | 756.0 | | | | |
| | | | | | |
| 30.40 | 755.6 | | | | |

DRILLING LOG
GEOLOGICAL SERVICES

Hole No. **B-65**
Sheet 1 of 2

SITE **Plant McDonough** HOLE DEPTH **50'** SURFELEV **822.30**
LOCATION **North of AP-4, near property line, NW end of parking lot** COORDINATES **33.832862** **-84.471389**
ANGLE _____ BEARING _____ CONTRACTOR **SCS** DRILL NO. _____
DRILLING METHOD **HSA** NO. SAMPLES _____ NO. U.D. SAMPLES **0**
CASING SIZE **2"** LENGTH **10'** CORE SIZE _____ TOTAL % REC. _____
WATER TABLE DEPTH **10.5' BLS** ELEV. **811.80 NAVD88** TIME AFTER COMP. **24 HR** DATE TAKEN **11/16/2016**
TYPE GROUT _____ QUANTITY _____ MIX **.** DRILLING START DATE **11/15/2016**
DRILLER **Milam** RECORDER **Abraham** APPROVED _____ DRILLING COMP. DATE **11/15/2016**

| Depth | Elev. | Material Description, Classification and Remarks | Sample No. | Standard Penetration Test | | | Comments | % Rec | RQD |
|-------|--------|---|------------|---------------------------|-----------|----|----------|-------|-----|
| | | | | From To | Blows | N | | | |
| 0 | 822.30 | | | | | | | | |
| 1 | 821.30 | HYDRO-EXCAVATION Hydrovac from land surface to 10-feet below land. No samples | | | | | | | |
| 2 | 820.30 | | | | | | | | |
| 3 | 819.30 | | | | | | | | |
| 4 | 818.30 | | | | | | | | |
| 5 | 817.30 | | | | | | | | |
| 6 | 816.30 | | | | | | | | |
| 7 | 815.30 | | | | | | | | |
| 8 | 814.30 | | | | | | | | |
| 9 | 813.30 | | | | | | | | |
| 10 | 812.30 | | | | | | | | |
| 11 | 811.30 | SILTY SAND SAPROLITE Light brown silty sand with minor clay; weathered schist fragments; minor oxidation bands; minor quartz fragments 10YR/3/2; SM; At 15-ft, large rock fragments brownish black color; damp. | | | | | | | |
| 12 | 810.30 | | | | | | | | |
| 13 | 809.30 | | | | | | | | |
| 14 | 808.30 | | S-1 | 13.5-15 | 13-50/3 | | | 90 | |
| 15 | 807.30 | | | | | | | | |
| 16 | 806.30 | SILTY SAND SAPROLITE Blackish brown silty sand saprolite; large micas with a greenish tinge; highly oxidized with FeO parallel to foliations; 10YR/3/2; SM; damp to moist. | | | | | | | |
| 17 | 805.30 | | | | | | | | |
| 18 | 804.30 | | | | | | | | |
| 19 | 803.30 | | S-2 | 18.5-20 | 24-30-31 | 61 | | 90 | |
| 20 | 802.30 | CLAYEY SILT Dark gray to reddish brown silty sand saprolite; micas abundant; softer than interval above; few gravel-size rock fragments; FeO bands with minor MnO streaks; 2.5Y/3/2; SM; moist to saturated. | | | | | | | |
| 21 | 801.30 | | | | | | | | |
| 22 | 800.30 | | | | | | | | |
| 23 | 799.30 | | S-3 | 23.5 - 25 | 2-16-50/2 | | | 90 | |
| 24 | 798.30 | | | | | | | | |

DRILLING LOG
GEOLOGICAL SERVICES

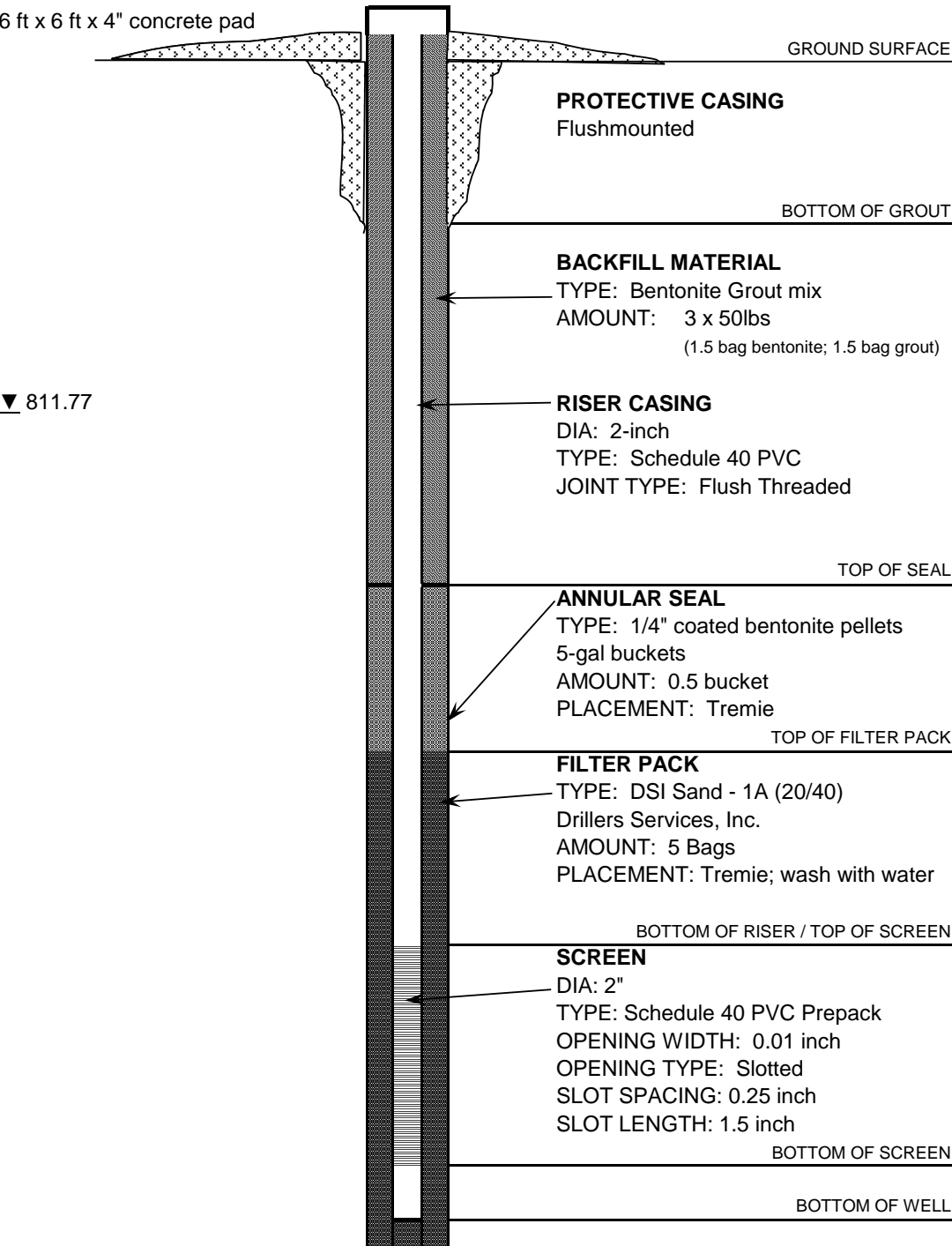
Hole No. **B-65**

Sheet 2 of 2

| SITE | | Plant McDonough | | TOTAL DEPTH | | 50' | | SURF.ELEV. | | 822.30 | |
|-------|--------|--|------------|---------------------------|--------|-----|----------|------------|-----|--------|--|
| Depth | Elev. | Material Description, Classification and Remarks | Sample No. | Standard Penetration Test | | | Comments | % Rec | RQD | | |
| | | | | From To | Blows | N | | | | | |
| 25 | 797.30 | SILTY SAND SAPROLITE Dark gray to reddish brown silty sand with minor clay; few structures; 2.5Y/3/2; SM; saturated. | S-4 | 28.5-30 | 50/2 | | | 90 | | | |
| 26 | 796.30 | | | | | | | | | | |
| 27 | 795.30 | | | | | | | | | | |
| 28 | 794.30 | | | | | | | | | | |
| 29 | 793.30 | | | | | | | | | | |
| 30 | 792.30 | SILTY SAND SAPROLITE Dark gray to reddish brown silty sand with minor gravel; damp to saturated; 2.5Y/3/2 | S-5 | 33.5 - 35 | 50/2 | | | 90 | | | |
| 31 | 791.30 | | | | | | | | | | |
| 32 | 790.30 | | | | | | | | | | |
| 33 | 789.30 | | | | | | | | | | |
| 34 | 788.30 | | | | | | | | | | |
| 35 | 787.30 | SILTY SAND SAPROLITE Dark gray to reddish brown silty sand with minor clay; saprolite; saturated; 2.5YR/3/2 | S-6 | 38.5 - 40 | 6-9-32 | | | 90 | | | |
| 36 | 786.30 | | | | | | | | | | |
| 37 | 785.30 | | | | | | | | | | |
| 38 | 784.30 | | | | | | | | | | |
| 39 | 783.30 | | | | | | | | | | |
| 40 | 782.30 | Top of Rock - 42-ft | S-7 | 40 - 42 | 50/2 | | | 90 | | | |
| 41 | 781.30 | | | | | | | | | | |
| 42 | 780.30 | | | | | | | | | | |
| 43 | 779.30 | | | | | | | | | | |
| 44 | 778.30 | | | | | | | | | | |
| 45 | 777.30 | MUSCOVITE-BIOTITE SCHIST; minor chlorite; 2 horizontal fractures, non-water bearing, 44' 1 sub-vertical fracture, water-bearing, 46' - 50' | | 42 - 49.9 | | | | 95 | | | |
| 46 | 776.30 | | | | | | | | | | |
| 47 | 775.30 | | | | | | | | | | |
| 48 | 774.30 | | | | | | | | | | |
| 49 | 773.30 | | | | | | | | | | |
| 50 | 772.30 | BACKFILLED & SET REGOLITH WELL | | | | | | | | | |
| 51 | 771.30 | | | | | | | | | | |
| 52 | 770.30 | | | | | | | | | | |
| 53 | 769.30 | | | | | | | | | | |
| 54 | 768.30 | | | | | | | | | | |
| 55 | 767.30 | | | | | | | | | | |
| 56 | 766.30 | | | | | | | | | | |
| | | END OF BORING - 49.9-FT | | | | | | | | | |

WELL CONSTRUCTION LOG

Southern Company Generation

| | | | | | | | |
|---|--|---|-------|---|-----------|--------|-------|
| PROJECT: Plant McDonough | | DRILLING CO.: SCS, Inc. | | WELL NAME | | | |
| NE of AP-4 at Argos, near N corner parking lot | | DRILLER: Milam | | | | | |
| LOCATION: 33.832862 / -84.471389 | | RIG TYPE: CME550 | | B-65 | | | |
| LOGGER: Abraham | | DRILLING METHODS: HSA | | | | | |
| DATE CONSTRUCTED: 11/15/2016 | | Survey Coordinates: N: 1394381.2 E: 2204050.8 | | | | | |
|  | | | | DEPTH | ELEVATION | | |
| | | | | FEET | FT, MSL | | |
| | | | | TOC | 821.95 | | |
| | | | | GROUND SURFACE | 0.00 | 822.30 | |
| | | | | PROTECTIVE CASING Flushmounted | | | |
| | | | | BOTTOM OF GROUT | | 3.00 | 819.3 |
| | | | | BACKFILL MATERIAL TYPE: Bentonite Grout mix AMOUNT: 3 x 50lbs (1.5 bag bentonite; 1.5 bag grout) | | | |
| | | | | RISER CASING DIA: 2-inch TYPE: Schedule 40 PVC JOINT TYPE: Flush Threaded | | | |
| | | | | TOP OF SEAL | | 26.8 | 795.5 |
| | | | | ANNULAR SEAL TYPE: 1/4" coated bentonite pellets 5-gal buckets AMOUNT: 0.5 bucket PLACEMENT: Tremie | | | |
| | | | | TOP OF FILTER PACK | | 31.8 | 790.5 |
| | | | | FILTER PACK TYPE: DSI Sand - 1A (20/40) Drillers Services, Inc. AMOUNT: 5 Bags PLACEMENT: Tremie; wash with water | | | |
| BOTTOM OF RISER / TOP OF SCREEN | | 34.4 | 787.9 | | | | |
| SCREEN DIA: 2" TYPE: Schedule 40 PVC Prepack OPENING WIDTH: 0.01 inch OPENING TYPE: Slotted SLOT SPACING: 0.25 inch SLOT LENGTH: 1.5 inch | | | | | | | |
| BOTTOM OF SCREEN | | 44.4 | 777.9 | | | | |
| BOTTOM OF WELL | | 45.4 | 776.9 | | | | |
| HOLE DIA: 9 inch | | | | | | | |
| TYPE: 1/4" coated bentonite pellets between 45.4' and 49.9' | | 49.9 | 772.4 | | | | |

RECORD OF BOREHOLE B-68 / DGWC-68

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 40.40 ft
LOCATION: West Toe of AP-1

DRILL RIG: Geoprobe
DATE STARTED: 3/16/17
DATE COMPLETED: 3/16/17

NORTHING: 1,391,298.20
EASTING: 2,200,714.20
GS ELEVATION: 759.05
TOC ELEVATION: 758.68 ft

DEPTH W.L.: 3.5
ELEVATION W.L.: 755.06
DATE W.L.: 3/16/17
TIME W.L.: 1700

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|---|------------|------|--|---------|--------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | | 0.00 - 10.00 Hydrovac | | | | | | | | | Flush Mounted Casing CETCO puregold grout (70:30) | WELL CASING Interval: 0'-8' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screen WELL SCREEN Interval: 8.0'-18.0' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 6.1'-18.4' Type: FilterSil FILTER PACK SEAL Interval: 4.1'-6.1' Type: PEL-PLUG 3/8" Bentonite pellets ANNULUS SEAL Interval: 0'-4.1' Type: CETCO puregold grout (70:30) WELL COMPLETION Pad: 4'x4' Concrete Protective Casing: 8" Round Flush Mount DRILLING METHODS Soil Drill: Hollow-stem auger Rock Drill: HQ Core Barrell |
| 755 | | | | | | | | | | | PEL-PLUG 3/8" Bentonite pellets | |
| 5 | | | | | | | | | | | | |
| 750 | | | | | | | | | | | | |
| 10 | | 10.00 - 15.00 Sandy Silt, fine to medium sand, dark brown, highly weathered, micaceous, cohesive, moist, firm, sample spoon wet | ML | | 749 10.00 | | | | | | FilterSil | |
| 745 | | | | | | | | | | | | |
| 15 | | 15.00 - 18.80 Silty Sand, fine to coarse, trace gravel, greenish grey, weathered, thinly bedded, noncohesive, very dense, (weathered gneiss) | PWR | | 744 15.00 | S1 | SPT | 5-6-5 | 11 | 1.08 1.50 | .010" Slotted Schedule 40 PVC | |
| 740 | | | | | | | | | | | | |
| 20 | | 19.20 - 22.80 Slightly weathered to fresh, weakly foliated, light gray to white, fine to very fine grained, medium strong to strong, MYLONITE (White Mylonite). | BR | | 740.2 19.20 | S2 | SPT | 50/3 | 50/3 | 0.25 0.25 | FilterSil | |
| 735 | | 22.80 - 24.10 Slight to moderately weathered, weakly foliated, dary gray to black, fine to very fine grained, medium strong, MYLONITE (Black Mylonite). | BR | | 736.2 22.80 734.9 24.10 | | | | | | | |
| 25 | | 24.10 - 28.90 Slightly weathered to fresh, weakly foliated, interlayered with vein quartz (~1"), light grey to white, fine to very fine grained, medium strong to strong, MYLONITE (White Mylonite). | BR | | 730.1 28.90 | | | | | | | |
| 730 | | 28.90 - 38.00 Slightly weathered to fresh, moderate to strongly foliated, interlayered with Black Mylonite (~1") and pegmatites (~1 to 2"), light to dark gray, fine to coarse grained, medium strong to strong, Sheared Gneiss (Long Island Creek). | BR | | 721 38.00 719.8 39.20 718.6 | | | | | | PEL-PLUG 3/8" Bentonite pellets | |
| 30 | | | | | | | | | | | | |
| 725 | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | |
| 720 | | 38.00 - 39.20 Slight to moderately weathered, weakly foliated, dary gray to black, fine to very fine grained, medium strong, MYLONITE (Black Mylonite). | BR | | | | | | | | | |
| 40 | | 39.20 - 40.40 Slightly weathered to fresh, moderate to strongly foliated, light to dark gray, fine to coarse grained, medium strong to strong, Sheared Gneiss (Long Island Creek). | BR | | | | | | | | | |
| 715 | | Boring completed at 40.40 ft | | | | | | | | | | |
| 45 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST BACKUP SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: Sean Denty

GA INSPECTOR: Ben Hodges
CHECKED BY: Timothy Richards, PG
DATE: 1/16/18



RECORD OF BOREHOLE B-72

SHEET 1 of 1

PROJECT: SCS-Plant McDonough
PROJECT NUMBER: 1779172
DRILLED DEPTH: 21.90 ft
LOCATION: ~50' SSE of B-68

DRILL RIG: Geoprobe 7822DT
DATE STARTED: 4/19/17
DATE COMPLETED: 4/19/17

NORTHING: 1,391,241.4
EASTING: 220,0725.9
GS ELEVATION: 758.45
TOC ELEVATION: 758.46 ft

DEPTH W.L.: 2.90
DATE W.L.: 5/2/2017
TIME W.L.: 09:00

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|-------|----------------|------------------------|------------|------|--|---------|--------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | | 0.00 - 5.00 ML, SILT, with trace fine sand and gravels (rock fragments), low plasticity; brown; cohesive, moist, w<PL, soft. | ML | | | | | | | | <p>8" Diameter Round Flush Mount</p> <p>Pure Gold Grout Mixture</p> <p>Pel-Plug 3/8" Bentonite Pellets</p> <p>FilterSil gravel pack</p> <p>Pre-pack 0.010" Slotted Schedule PVC</p> | <p>WELL CASING Interval: 0' - 21.9' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw</p> <p>SURFACE CASING Interval: Material: Diameter:</p> <p>WELL SCREEN Interval: 11.5' - 21.5' Material: Schedule 40 PVC Pre-Pack Diameter: 2" Slot Size: 0.010" End Cap: 21.5' - 21.9'</p> <p>FILTER PACK Interval: 9.8' - 21.9' Type: FilterSil gravel pack</p> <p>FILTER PACK SEAL Interval: 7.7' - 9.8' Type: Pel-Plug 3/8" Bentonite Pellets</p> <p>ANNULUS SEAL Interval: 0' - 7.7' Type: Pure Gold Grout Mixture</p> <p>WELL COMPLETION Pad: 4' x 4' concrete Protective Casing: 8" Diameter Round Flush Mount</p> <p>DRILLING METHODS Soil Drill: 4.25-inch ID HSA Rock Drill: N/A</p> <p>NOTES</p> |
| 5 | | 5.00 - 13.50 SP-SM, Poorly-graded SAND with Silt, fine, low plasticity; red-orange brown, relict structure, highly micaceous; cohesive, wet, w<PL, very soft. | SP-SM | | 753.5 5.00 | | | | | | | |
| 10 | | | | | | | | | | | | |
| 15 | | 13.50 - 18.50 SM, Silty SAND with trace fine gravels, non-plastic to low plasticity; dark brown to dark gray, highly micaceous; non-cohesive, dry to moist, w<PL, compact. | SM | | 745.0 13.50 | S1 | OD | 25-50/3 | 50/3 | 0.75 1.50 | | |
| 20 | | 18.50 - 21.50 ML, SILT, with trace sand and large gravels, low plasticity; brown to dark gray black, saprolitic, highly micaceous, gneiss; cohesive, wet, w<PL, soft to firm. | ML | | 740.0 18.50 | S2 | OD | 17-34-8 | 42 | 1.50 1.50 | | |
| 21.90 | | Boring completed at 21.90 ft | | | 737.0 21.50 | | | | | | | |

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/17/17



BOREHOLE RECORD 1779172.GPJ PIEDMONT.GDT 5/18/17

RECORD OF BOREHOLE B-73

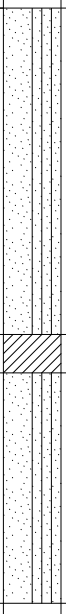
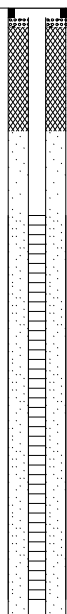

SHEET 1 of 1

PROJECT: SCS-Plant McDonough
PROJECT NUMBER: 1779172
DRILLED DEPTH: 15.80 ft
LOCATION: ~50' NNW of B-68

DRILL RIG: Geoprobe 7822DT
DATE STARTED: 4/19/17
DATE COMPLETED: 4/19/17

NORTHING: 1,391,351.8
EASTING: 2,200,699.4
GS ELEVATION: 759.16
TOC ELEVATION: 759.21 ft

DEPTH W.L.: 4.11
DATE W.L.: 4/26/2017
TIME W.L.: 12:00

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | SAMPLES | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | | | |
|---------------|-------------------|--|-------|---|--------------------------------|------|--|---------|---|---|--|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | | | REC | | |
| | | | | | DEPTH (ft) | | | | | | | | |
| 0 | | 0.00 - 8.50 SP-SM, Poorly-graded SAND with Silt, non-plastic; red-orange brown; non-chesive, dry to moist, w<PL, loose. | SP-SM |  | | | | | |  | WELL CASING Interval: 0' - 15.8' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw SURFACE CASING Interval: Material: Diameter: WELL SCREEN Interval: 5.4' - 15.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 15.4' - 15.8' FILTER PACK Interval: 3.2' - 15.8' Type: FilterSil FILTER PACK SEAL Interval: 0.5' - 3.2' Type: Pel-Plug 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0 - 0.5' Type: Pure Gold Grout Mixture WELL COMPLETION Pad: 4' x 4' concrete Protective Casing: 8" Diameter Round Flush Mount DRILLING METHODS Soil Drill: 4.25-inch ID HSA Rock Drill: N/A NOTES | | |
| 755 | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | |
| 750 | | 8.50 - 9.50 CL, CLAY, with some silt, low plasticity; red brown; cohesive, moist, w<PL, soft. | CL |  | 750.7 8.50 749.7 9.50 | S1 | DO | 1-8-15 | 23 | 1.50 1.50 | Pre-pack 0.010" Slotted Schedule PVC | | |

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/17/17



BOREHOLE RECORD 1779172.GPJ PIEDMONT.GDT 5/18/17

RECORD OF BOREHOLE B-74




SHEET 1 of 1

PROJECT: SCS-Plant McDonough
PROJECT NUMBER: 1779172
DRILLED DEPTH: 16.50 ft
LOCATION: ~50' West of B-68

DRILL RIG: Geoprobe 7822DT
DATE STARTED: 4/24/17
DATE COMPLETED: 4/25/17

NORTHING: 1,391,279.9
EASTING: 2,200,666.1
GS ELEVATION: 759.18
TOC ELEVATION: 759.06 ft

DEPTH W.L.: 3.3'
DATE W.L.: 4/25/2017
TIME W.L.: 09:37

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|-------|---|------------------------|------------|------|--|---------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | |
| 0 | | 0.00 - 4.00 CL, CLAY, with some silt, low plasticity; red brown, fill; cohesive, moist, w<PL, soft. | CL |  | | | | | | | WELL CASING Interval: 0' - 16.2' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw SURFACE CASING Interval: Material: Diameter: WELL SCREEN Interval: 10.8' - 15.8' Material: Pre-pack Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 15.8' - 16.2' FILTER PACK Interval: 9.0' - 16.5' Type: FilterSil gravel pack FILTER PACK SEAL Interval: 4.8' - 9.0' Type: Pel-Plug 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0' - 4.8' Type: Pure Gold Grout Mixture WELL COMPLETION Pad: 4' x 4' concrete Protective Casing: 8" Diameter Round Flush Mount DRILLING METHODS Soil Drill: 4.25-inch ID HSA Rock Drill: N/A NOTES N/A ABANDONMENT NOTES: Abandoned on 10/4/2023 Tremmie grouted 17lbs Aquagrard/4 gallons water Overdrilled to 10 feet bgs.; 10-foot PVC removed. Final Grout: 38 lbs Quickrete/10 lbs AquaGuard/6.5 gallons water. |
| 755 | | 4.00 - 13.50 SP-SM, Poorly-graded SAND with Silt and trace gravel, fine to coarse, non-plastic; white to tan, deeply weathered, granitic; non-cohesive, moist, w<PL, loose/soft. | SP-SM |  | 755.2 4.00 | | | | | | |
| 750 | | | | | | S1 | OD | 3-18-20 | 38 | 0.75 1.50 | |
| 745 | | 13.50 - 16.50 SM, Silty SAND, non-plastic; white to light gray; non-cohesive, dry to moist, w<PL, dense. | SM |  | 745.7 13.50 | | | | | | |
| 742.7 | | Boring completed at 16.50 ft | | | | S2 | OD | 50/3 | 50/3 | 0.25 1.50 | |
| 740 | | | | | | | | | | | |
| 735 | | | | | | | | | | | |
| 730 | | | | | | | | | | | |
| 725 | | | | | | | | | | | |
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| 445 | | | | | | | | | | | |
| 440 | | | | | | | | | | | |
| 435 | | | | | | | | | | | |
| 430 | | | | | | | | | | | |
| 425 | | | | | | | | | | | |
| 420 | | | | | | | | | | | |
| 415 | | | | | | | | | | | |
| 410 | | | | | | | | | | | |
| 405 | | | | | | | | | | | |
| 400 | | | | | | | | | | | |

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/17/17



BOREHOLE RECORD 1779172.GPJ PIEDMONT.GDT 5/18/17

RECORD OF BOREHOLE B-76

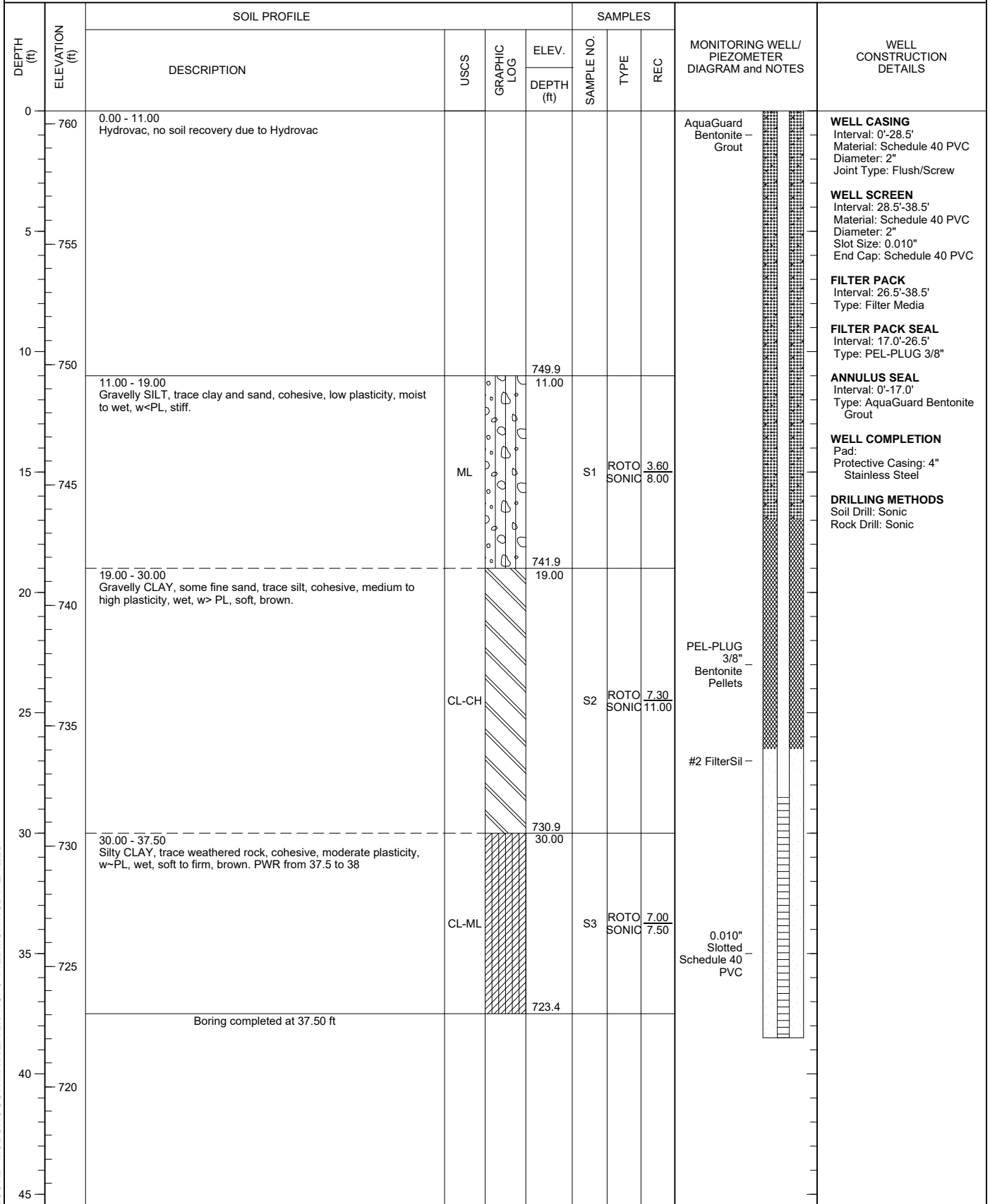
SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496-01
DRILLED DEPTH: 37.50 ft
LOCATION: South by river, SE of B-83

DRILL RIG: Rotosonic 1159
DATE STARTED: 9/16/19
DATE COMPLETED: 9/16/19

NORTHING: 1,390,717.4
EASTING: 2,202,756.9
GS ELEVATION: 760.87 ft
TOC ELEVATION: 760.53 ft

DEPTH W.L.: 38.5
DATE W.L.: 9/17/2019
TIME W.L.: 1300
GW ELEVATION:



BOREHOLE RECORD MCDONOUGH MASTER LIST.GPJ PIEDMONT.GDT 2/12/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Jose

GA INSPECTOR: D. Thomas
CHECKED BY: Brian Steele, PG
DATE: 2/10/20



RECORD OF BOREHOLE B-78

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 30.00 ft
LOCATION: South of road on north side of plant property

DRILL RIG: Rotosonic 1159
DATE STARTED: 9/22/19
DATE COMPLETED: 9/22/19

NORTHING: 1,394,328.20
EASTING: 2,202,958.20
GS ELEVATION: 787.79
TOC ELEVATION: 790.75 ft

DEPTH W.L.: 9.05
ELEVATION W.L.: 778.95
DATE W.L.: 1/13/2020
TIME W.L.: 13:44

BOREHOLE RECORD MCDONOUGH MASTER LIST BACKUP SURVEY UPDATED (5).GPJ PIEDMONT.GDT 9/22/20

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|--------|----------------|------------------------|------------|------------|--------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 0 | | 0.00 - 8.70 Hydrovac | | | | 0 | | 0.00 0.73 | Concrete Surface Completion | WELL CASING Interval: 0.0 - 29.0' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 20.0-29.5' Material: Schedule 40 PVC Schedule 40 PVC Diameter: 2" ID 4" OD Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 17.5 - 30.0 Type: 20/40 FilterSil FILTER PACK SEAL Interval: 9.0 - 17.5' Type: Pel-Plug 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0.4 - 9.0' Type: Baroid 3/8" Bentonite Chips (Holeplug) WELL COMPLETION Pad: 4' x 4' x 4" Protective Casing: 4" Stainless Steel DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic ~250 gallons of water used while drilling |
| 785 | | | | | | | | | Baroid 3/8" Bentonite Chips (Holeplug) | |
| 5 | | | | | | | | | | |
| 780 | | | | | 779.1 | | | | | |
| | | 8.70 - 11.20 (MLS) sandy SILT, low plasticity fines, fine to medium sub-angular sand, trace organics (roots); light brown (5YR 5/6) to Pale Brown (5YR 2/2), residual soil with frequent micaceous minerals present; cohesive, w-PL, soft | MLS | | 8.70 | 1 | ROTO SONIC | 0.94 0.94 | | |
| 10 | | | | | 776.6 | | | | | |
| | | 11.20 - 17.00 (MLS) sandy SILT, non to low plasticity fines, fine sub-angular sand, trace soft (crumbles with pressure from fingers) gravels with relic foliations; pale yellowish brown (10YR 6/2) with light gray (N7) and dark yellowish brown (10YR 4/2) foliations, highl | MLS | | 11.20 | | | | Pel-Plug 3/8" Bentonite Pellets | |
| 775 | | | | | | | | | | |
| 15 | | | | | 770.8 | | | | | |
| | | 17.00 - 25.10 (SM) SILTY SAND, fine sub-angular to sub-rounded sand, non-plastic fines, trace fine angular soft (crumbles with pressure from fingers) with relic foliations; pale yellowish brown (10YR 6/2) with very pale orange (10YR 8/2) and dark yellowish brown (10YR | SM | | 17.00 | 2 | ROTO SONIC | 0.18 0.42 | 20/40 FilterSil Sandpack | |
| 20 | | | | | | | | | | |
| 765 | | | | | | | | | | |
| | | 25.10 - 30.00 BEDROCK, GNEISS, slightly to moderately weathered (W2 - W3), medium dark gray (N4), with light bluish gray (5B 5/1) and light gray (N7) foliations, fine to medium grained, medium strong rock (R3) | GNEISS | | 762.7 25.10 | 3 | ROTO SONIC | 0.31 0.42 | 2"ID, 4"OD 0.010 Slot SCH 40 PVC U-Pack Screen | |
| 25 | | | | | | | | | | |
| 760 | | | | | 757.8 | | | | PVC Cap | |
| 30 | | Boring completed at 30.00 ft | | | | | | | | |
| 755 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 750 | | | | | | | | | | |
| 40 | | | | | | | | | | |
| 745 | | | | | | | | | | |
| 45 | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Jose

GA INSPECTOR: Jeff Ingram
CHECKED BY: Timothy Richards, PG
DATE: 2/12/20



RECORD OF BOREHOLE B-79

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 35.00 ft
LOCATION: South of road on north side of plant property

DRILL RIG: Rotasonic 1159
DATE STARTED: 9/20/19
DATE COMPLETED: 9/21/19

NORTHING: 1,394,458.60
EASTING: 2,203,223.00
GS ELEVATION: 785.84
TOC ELEVATION: 788.66 ft

DEPTH W.L.: 5.92
ELEVATION W.L.: 779.98
DATE W.L.: 1/13/2020
TIME W.L.: 14:26

BOREHOLE RECORD MCDONOUGH MASTER LIST BACKUP SURVEY UPDATED (5).GPJ PIEDMONT.GDT 9/2/20

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|------------|---------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 0 | 785 | 0.00 - 9.20 Hydrovac | NA | | | 0 | | 0.00 0.77 | Concrete Surface Completion | WELL CASING Interval: 0.0 - 34.9' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 24.93-34.43' Material: Schedule 40 PVC Schedule 40 PVC Diameter: 2" ID 4" OD Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 22.0 - 35.0' Type: 20/40 FilterSil FILTER PACK SEAL Interval: 14.0 - 22.0' Type: Pel-Plug 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0.4 - 14.0' Type: Baroid 3/8" Bentonite Chips (Holeplug) WELL COMPLETION Pad: Protective Casing: 4" Stainless Steel DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic ~175 gallons of water used while drilling |
| 5 | 780 | | | | 776.6 | | | | | |
| 10 | 775 | 9.20 - 13.70 (ML) sandy SILT, non to low plasticity fines, fine sand; layered light brown (5YR 5/6) with dark yellowish brown (10YR 4/2) and pale yellowish brown (10YR 6/2) layers, some relic curved laminated layers (relic foliations); non-cohesive, wet, loose | ML | | 9.20 | | | | Baroid 3/8" Bentonite Chips (Holeplug) | |
| 15 | 770 | 13.70 - 30.00 (SM) silty SAND, fine sub-angular sand, non-plastic fines, some soft (crumbles with pressure from fingers) fine to coarse sub-angular gravels; pale yellowish brown (10YR 6/2) with some light brown (5YR 5/6) iron oxide staining, PWR with frequent micaceous mineral; non-cohesive, wet, loose | SM | | 772.1 | 1 | ROTO SONIC | 0.77 10.80 | | |
| 20 | 765 | | | | | 2 | ROTO SONIC | 0.42 0.90 | Pel-Plug 3/8" Bentonite Pellets | |
| 25 | 760 | | | | | 3 | ROTO SONIC | 0.42 0.42 | | |
| 30 | 755 | 30.00 - 35.00 (SM) SILTY SAND, fine sub-angular sand, non-plastic fines, trace soft (crumbles with pressure from fingers) fine gravels with some relic foliations; pale yellowish brown (10YR 6/2) to dark yellowish brown (10YR 4/2) layers, PWB; non-cohesive, moist, compact | | | 755.8 | 4 | ROTO SONIC | 0.38 0.42 | 2"ID, 4"OD 0.010 Slot SCH 40 PVC U-Pack Screen | |
| 35 | 750 | Boring completed at 35.00 ft | | | 750.8 | | | | | |
| 40 | 745 | | | | | | | | PVC Cap - Backfill | |
| 45 | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Jose

GA INSPECTOR: Jeff Ingram
CHECKED BY: Timothy Richards, PG
DATE: 2/12/20



RECORD OF BOREHOLE B-80

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 30.00 ft
LOCATION: North to northeast of CCR Unit

DRILL RIG: Rotosonic 1159
DATE STARTED: 9/20/19
DATE COMPLETED: 9/20/19

NORTHING: 1,394,372.60
EASTING: 2,203,533.90
GS ELEVATION: 801.73
TOC ELEVATION: 804.47 ft

DEPTH W.L.: 16.48
ELEVATION W.L.: 785.32
DATE W.L.: 1/13/2020
TIME W.L.: 14:46

BOREHOLE RECORD MCDONOUGH MASTER LIST BACKUP SURVEY UPDATED (5).GPJ PIEDMONT.GDT 9/2/20

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|---------|-------------|------------------------|------------|------------|--------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 0 | | 0.00 - 8.70 Hydrovac | NA | | | 0 | | 0.00 0.73 | Concrete Surface Completion | WELL CASING Interval: 0.0 - 19.8' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 19.8-29.3' Material: Schedule 40 PVC Schedule 40 PVC Diameter: 2" ID 4" OD Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 17.5 - 30.0' Type: 20/40 FilterSil FILTER PACK SEAL Interval: 9.0 - 17.5' Type: Pel-Plug 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0.4 - 9.0' Type: High Solids Bentonite (AquaGuard) WELL COMPLETION Pad: 4' x 4' x 4" Protective Casing: 4" Stainless Steel DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic ~150 gallons of water used while drilling |
| 800 | | | | | | | | | High Solids Bentonite (AquaGuard) | |
| 5 | | | | | | | | | | |
| 795 | | | | | 793.0 | | ROTO SONIC | | | Pel-Plug 3/8" Bentonite Pellets 20/40 FilterSil Sandpack 2"ID, 4"OD 0.010 Slot SCH 40 PVC U-Pack Screen PVC Cap |
| | | 8.70 - 10.00 (ML) sandy SILT, non-plastic to low plasticity fines, fine to medium sub-rounded sand, trace organics (roots); moderate brown (5YR 4/4) to pale yellowish brown (10YR 6/2); non-cohesive, dry, loose | ML | | 8.70 | 1 | ROTO SONIC | 0.11 0.11 | | |
| 10 | | 10.00 - 13.20 (ML and SP) SILT and SAND, non-plastic to low plasticity fines, fine sub-angular sand; light brown (5YR 5/6) with some moderate reddish brown (10R 4/6) layers, some laminated layers (relic foliations), SAPROLITE; non-cohesive, moist, loose | ML & SP | | 791.7 10.00 | 2 | ROTO SONIC | 0.81 0.83 | | |
| 790 | | | | | 788.5 | | | | | |
| | | 13.20 - 25.90 (SM) SILTY SAND, non-plastic to low plasticity fines, fine sub-angular sand; light brown (5YR 5/6) and pale yellowish brown (10YR 6/2) with trace very pale orange (10YR 8/1) grains, SAPROLITE; non-cohesive, wet, loose | SM | | 13.20 | | | | | |
| 15 | | | | | | | | | | |
| 785 | | | | | | | | | | |
| | | 20.00: SAA, with frequent weathered micaceous minerals | SM SM | | | 3 | ROTO SONIC | 0.83 0.83 | | |
| 20 | | | | | | | | | | |
| 780 | | | | | | | | | | |
| | | | | | 775.8 | | | | | |
| 25 | | 25.90 - 30.00 (SM-SP) SAND, fine to medium sub-rounded sand, some non-plastic fines, trace angular fine to coarse soft (crumbles with pressure from fingers) gravels; very pale orange (10YR 8/2) with pale yellowish brown (10YR 6/2) mottling, PWR; non-cohesive, moist to wet, compact | SP-SM | | 25.90 | | | | | |
| 775 | | | | | | | | | | |
| | | | | | 771.7 | | | | | |
| 30 | | Boring completed at 30.00 ft | | | | | | | | |
| 770 | | | | | | | | | | |
| | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 765 | | | | | | | | | | |
| | | | | | | | | | | |
| 40 | | | | | | | | | | |
| 760 | | | | | | | | | | |
| | | | | | | | | | | |
| 45 | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Jose

GA INSPECTOR: Jeff Ingram
CHECKED BY: Timothy Richards, PG
DATE: 2/12/20



RECORD OF BOREHOLE B-81

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 50.00 ft
LOCATION: North to northeast of CCR Unit

DRILL RIG: Rotosonic 1159
DATE STARTED: 9/20/19
DATE COMPLETED: 9/22/19

NORTHING: 1,394,364.90
EASTING: 2,203,741.10
GS ELEVATION: 817.64
TOC ELEVATION: 820.56 ft

DEPTH W.L.: 31.39
ELEVATION W.L.: 786.31
DATE W.L.: 1/13/2020
TIME W.L.: 15:06

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | | |
|---------------|-------------------|--|--------------------|----------------|----------------------------------|------------|------------|--------------|--|---|--------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | REC | | | | |
| | | | | | DEPTH (ft) | | | | | | | |
| 0 | | 0.00 - 9.00 Hydrovac | NA | | | 0 | | 0.00 0.75 | Concrete Surface Completion | WELL CASING Interval: 0.0 - 39.17' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 39.17 - 49.17' Material: 39.17 - 49.17' Diameter: 2" ID 4 " OD Slot Size: 0.010 End Cap: Schedule 40 PVC FILTER PACK Interval: 37.0 - 50.0' Type: 20/40 FilterSil FILTER PACK SEAL Interval: 17.0 - 37.0' Type: Pel-Plug 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0.4 - 17.0' Type: High Solids Bentonite (Aquagard) WELL COMPLETION Pad: 4' x 4' x 4" Protective Casing: 4" Stainless Steel DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic ~150 gallons of water used while drilling | | |
| 815 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 810 | | | | | | | | | | | | |
| | | 9.00 - 13.10 (SM) SILTY SAND, fine to medium sub-rounded sand, non-plastic fines, trace organics (roots); light brown (5YR 5/6) and moderate reddish brown (10R 4/6), SAPROLITE; non-cohesive, dry, compact | SM | | 808.6 9.00 | 1 | ROTO SONIC | 0.91 0.92 | High Solids Bentonite (Aquagard) | | | |
| 10 | | | | | | | | | | | | |
| | | 13.10 - 17.90 (SM) SILTY SAND, fine sub-rounded sand, non-plastic fines; very pale orange (10YR 8/2) to grayish orange (10YR 7/6), PWR with frequent micaceous mineralization; non-cohesive, dry, loose | SM | | 804.5 13.10 | | | | Cave in prior to installing Aquagard due to sampling requirements | | | |
| 805 | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | |
| | | 17.90 - 19.00 (ML and SP) SILT and SAND, non-plastic fine, fine to medium sub-rounded sand; light brown (5YR 5/6), PWR; non-cohesive, dry, compact. | ML & SP | | 799.7 17.90 798.6 19.00 | | ROTO SONIC | | | | | |
| 800 | | | | | | | | | | | | |
| 20 | | 19.00 - 23.50 (SP-SM) SAND, fine to medium sub-rounded sand, some non-plastic fines; grayish orange (10YR 7/4) with light brown (5YR 5/6) and dark yellowish brown (10YR 2/2) grains, PWR; non-cohesive, dry, compact 20.00: SAA with some pale reddish brown (10R 5/6) coloration | SP-SM SP-SM | | | 2 | | 0.83 0.83 | | | | |
| 795 | | | | | | | | | | | | |
| | | 23.50 - 33.60 (ML) sandy SILT, non-plastic to low plasticity fines, fine sub-angular sand; pale yellowish brown (10YR 6/2) to light brown (5YR 5/6), PWR; non-cohesive, moist, loose | ML | | 794.1 23.50 | | | | Pel-Plug 3/8" Bentonite Pellets | | | |
| 25 | | | | | | | | | | | | |
| 790 | | | | | | | | | | | | |
| 30 | | 30.00: SAA wit some greenish gray (5G 6/1) layers, trace fine soft angular gravels (crumble with finger pressure). | | | ML | | | 3 | | | 0.83 0.83 | |
| 785 | | | | | | | | | | | | |
| | | 33.60 - 40.00 (SM and SP) SILT and SAND, non-plastic to low plasticity fines, fine sub-rounded sand, trace sub-angular soft (crumbles with finger pressure) gravels; yellowish gray (5YR 8/1) to pale pink (5RP 8/2) to greenish gray (5G 6/1), very micaceous, PWR; non-cohesive, moist, loose | ML & SP | | 784.0 33.60 | | | | Backfill - | | | |
| 35 | | | | | | | | | | | | |
| 780 | | | | | | | | | 20/40 FilterSil Sandpack | | | |
| 40 | | 40.00 - 41.30 (ML and SP) SILT and SAND, non-plastic to low plasticity fines, fine to medium sub-rounded sand; grayish orange (10YR 7/6) to light olive gray (5Y 5/2), highly weathered with some relic foliation layers, PWR; non-cohesive, moist, compact | ML & SP | | 777.6 40.00 776.3 41.30 | 4 | ROTO SONIC | 0.83 0.83 | | | | |
| 775 | | 41.30 - 45.40 (SP and ML) SAND and SILT, fine sand, non-plastic fines; yellowish gray (5Y 8/1), very micaceous, PWR; non-cohesive, moist, loose | | | SP & ML | | | | | | 2"ID, 4"OD 0.010 Slot | |
| 45 | | Log continued on next page | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST BACKUP SURVEY UPDATED (5).GPJ PIEDMONT.GDT 9/22/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Jose

GA INSPECTOR: Jeff Ingram
CHECKED BY: Timothy Richards, PG
DATE: 2/12/20



RECORD OF BOREHOLE B-84









SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 50.00 ft
LOCATION: NE of security gate, along road

DRILL RIG: CME550X
DATE STARTED: 10/1/19
DATE COMPLETED: 10/1/19

NORTHING: 1,390,411.90
EASTING: 2,202,241.90
GS ELEVATION: 776.52
TOC ELEVATION: 776.34 ft

DEPTH W.L.: 30.12
ELEVATION W.L.: 746.48
DATE W.L.: 1/14/2020
TIME W.L.: 12:32

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | | |
|---------------|-------------------|---|-------|---|----------------------------------|---|-------------------------|--|---------|---|---------------------------------|-----------------------------------|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | | | REC | |
| | | | | | DEPTH (ft) | | | | | | | | |
| 0 | | 0.00 - 14.50 Hydrovac to 14.5' to for utilities | | | | | | | | | | AquaGuard Bentonite – Grout | WELL CASING Interval: 0'-39.1' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 39.1'-49.1' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 36.0'-49.5' Type: Filter Media FILTER PACK SEAL Interval: 30.6'-36.0' Type: PEL-PLUG 3/8" ANNULUS SEAL Interval: 0'-30.6' Type: AquaGuard Bentonite Grout WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 8" Round Ground Flush DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Auger Rock Drill: N/A |
| 775 | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | |
| 770 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | |
| 765 | | | | | | | | | | | | | |
| 15 | | 14.50 - 20.00 ML-CL, silty CLAY with some gravel, brown-black, micaceous, W-PL, moist, very soft | CL-ML |  | 762.0 14.50 | | | | | | | | |
| 760 | | | | | | | | | | | | | |
| 20 | | 20.00 - 25.00 ML, sandy SILT with some gravel, brown-black, dry, W<PL, very soft | ML |  | 756.5 20.00 | S1 | SS | 3-1-2 | 3 | 0.75 1.50 | | | |
| 755 | | | | | | | | | | | | | |
| 25 | | 25.00 - 30.00 CL, silty CLAY with some gravel, brown-black, micaceous, W-PL, moist, very soft to soft | CL |  | 751.5 25.00 | | | | | | | | |
| 750 | | | | | | | | | | | | | |
| 30 | | 30.00 - 35.00 CL, silty CLAY with some sand, brown-black with tan, W-PL, moist | CL |  | 746.5 30.00 | S3 | SS | 1-2-3 | 5 | 1.50 1.50 | | | |
| 745 | | | | | | | | | | | | | |
| 35 | | 35.00 - 39.00 CL, silty CLAY, brown-black, W-PL, wet to moist | CL |  | 741.5 35.00 | S4 | SS | 2-2-3 | 5 | 1.50 1.50 | | | |
| 740 | | | | | | | | | | | | | |
| 40 | | 39.00 - 40.00 SM, silty SAND with gravel, black-grey, moist, compact 40.00 - 44.00 CL, silty CLAY, brown-black, W-PL, moist, very soft to soft | SM |  | 737.5 39.00 736.5 40.00 | S5 | SS | 15-18-11 | 29 | 1.50 1.50 | | | |
| 735 | | | CL |  | | | | | | | | | |
| 45 | | 44.00 - 45.00 ML, gravelly SILT with some sand, Log continued on next page | | | ML |  | 732.5 44.00 731.5 | S6 | SS | 7-7-8 | 17 | 1.50 1.50 | |
| | | | | | | | | | | | | #2 FilterSil – | |
| | | | | | | | | | | | | 0.010" Slotted | |

WELL
ABANDONED
ON 4/28/2022

BOREHOLE RECORD MCDONOUGH MASTER LIST BACKUP SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: K. Minkara
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



RECORD OF BOREHOLE B-84

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 50.00 ft
LOCATION: NE of security gate, along road

DRILL RIG: CME550X
DATE STARTED: 10/1/19
DATE COMPLETED: 10/1/19

NORTHING: 1,390,411.90
EASTING: 2,202,241.90
GS ELEVATION: 776.52
TOC ELEVATION: 776.34 ft

DEPTH W.L.: 30.12
ELEVATION W.L.: 746.48
DATE W.L.: 1/14/2020
TIME W.L.: 12:32

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|------|--|---------|--------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 45 | | brown-black, micaceous, PWR, moist | | | 45.00 | | | | | | Schedule 40 PVC | WELL CASING Interval: 0'-39.1' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 39.1'-49.1' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 36.0'-49.5' Type: Filter Media FILTER PACK SEAL Interval: 30.6'-36.0' Type: PEL-PLUG 3/8" ANNULUS SEAL Interval: 0'-30.6' Type: AquaGuard Bentonite Grout WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 8" Round Ground Flush DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Auger Rock Drill: N/A |
| 730 | | ML, sandy SILT with gravel, brown-black, PWR, W<PL, wet to moist, PWR, very dense | ML | | | S7 | SS | 25-33-24 | 57 | 1.50 1.50 | | |
| 50 | | Boring completed at 50.00 ft | | | 726.5 | | | | | | | |
| 725 | | | | | | | | | | | | |
| 55 | | | | | | | | | | | | |
| 720 | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | |
| 715 | | | | | | | | | | | | |
| 65 | | | | | | | | | | | | |
| 710 | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | |
| 705 | | | | | | | | | | | | |
| 75 | | | | | | | | | | | | |
| 700 | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | |
| 695 | | | | | | | | | | | | |
| 85 | | | | | | | | | | | | |
| 690 | | | | | | | | | | | | |
| 90 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: K. Minkara
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



RECORD OF BOREHOLE B-85

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 34.50 ft
LOCATION: North of site, adjacent to B-54

DRILL RIG: CME 550
DATE STARTED: 11/17/19
DATE COMPLETED: 11/18/19

NORTHING: 1,394,433.40
EASTING: 2,203,134.50 GS
ELEVATION: 782.71 TOC
ELEVATION: 782.54 ft

DEPTH W.L.: 2.27
ELEVATION W.L.: 780.43
DATE W.L.: 1/13/2020
TIME W.L.: 14:16

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|--------|----------------|------------------------|------------|------|--|---------|--------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | | 0.00 - 10.00 Hydrovac to 10.0' to for utilities | | | | | | | | | AquaGuard Bentonite – Grout | WELL CASING Interval: 0'-34.2' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screen WELL SCREEN Interval: 24.2'-34.2' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 21.6'-34.5' Type: Filter Media FILTER PACK SEAL Interval: 16.6'-21.6' Type: PEL-PLUG 3/8" ANNULUS SEAL Interval: 0'-16.6' Type: AquaGuard Bentonite Grout WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 8" Round Ground Flush DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Auger Rock Drill: HQ Core Barrell |
| 780 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | PEL-PLUG 3/8" – Bentonite Pellets | |
| 775 | | | | | | | | | | | | |
| 10 | | 10.00 - 15.00 SM, silty SAND with trace clay, white to grey, fine to coarse sand, well foliated, saprolite, low to no plasticity, W<PL, moist, cohesive | SM | | 772.7 10.00 | | | | | | #2 FilterSil – | |
| 770 | | | | | | 1 | SPT | 4-8-9 | 17 | 1.00 1.50 | | |
| 15 | | 15.00 - 20.00 SM, silty SAND with some clay and trace gravel, orange to brown and white to grey, fine to coarse sand, saprolite, no plasticity, W<PL, moist, cohesive, firm | SM | | 767.7 15.00 | | | | | | 0.010" Slotted Schedule 40 PVC | |
| 765 | | | | | | 2 | SPT | 2-6-8 | 14 | 0.50 1.50 | | |
| 20 | | 20.00 - 25.00 SW, SAND with some silt, white to grey and brown, fine to coarse sand, saprolite, non-cohesive, moist, compact | SP-SM | | 762.7 20.00 | | | | | | | |
| 760 | | | | | | 3 | SPT | 6-15-12 | 27 | 1.00 1.50 | | |
| 25 | | 25.00 - 29.50 PWR, AUGEN GNEISS, gravelly sand, grey to white, some orange staining, fine to coarse, moist, very dense | PWR | | 757.7 25.00 | | | | | | | |
| 755 | | | | | | 4 | SPT | 27-50/1 | >50 | 0.50 0.50 | | |
| 30 | | 29.50 - 34.50 BEDROCK, AUGEN GNEISS, fresh to slightly weathered, white to light pink, feldspar porphyroclasts up to 1 cm in diameter, well foliated, strong to medium strong | GNEISS | | 753.2 29.50 | | | | | | | |
| 750 | | | | | | 5 | CORE | | | 4.80 5.00 | | |
| 35 | | Boring completed at 34.50 ft | | | 748.2 | | | | | | | |
| 745 | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | |
| 740 | | | | | | | | | | | | |
| 45 | | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: W.Ballow
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-86




SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 34.10 ft
LOCATION: North of site along fence adjacent to B-79

DRILL RIG: CME 550
DATE STARTED: 11/18/19
DATE COMPLETED: 11/18/20

NORTHING: 1,394,480.00
EASTING: 2,203,206.60
GS ELEVATION: 784.52
TOC ELEVATION: 784.29 ft

DEPTH W.L.: 0.91
ELEVATION W.L.: 783.69
DATE W.L.: 1/13/2020
TIME W.L.: 14:54

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|--------|---|---------------|------------|------|--|---------|--------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| | | | | | DEPTH (ft) | | | | | | | |
| 0 | | 0.00 - 7.00 Hydrovac to 7.00' to for utilities | | | | | | | | | AquaGuard Bentonite – Grout | WELL CASING Interval: 0'-34.1' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screen WELL SCREEN Interval: 24.1'-34.1' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 22.1'-34.1' Type: Filter Media FILTER PACK SEAL Interval: 17'-22.1' Type: PEL-PLUG 3/8" ANNULUS SEAL Interval: 0.0'-17' Type: AquaGuard Bentonite Grout WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 8" Round Ground Flush DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Auger Rock Drill: HQ Core Barrell |
| 5 | 780 | | | | 777.5 | | | | | | | |
| | | 7.00 - 18.50 No Recovery | | | 7.00 | | | | | | | |
| 10 | 775 | | | | | | | | | | | |
| 15 | 770 | | | | 766.0 | | | | | | | |
| | | 18.50 - 23.50 SM, silty SAND, white to black and brown, fine to medium sand, saprolite, non-cohesive, wet, compact | SM |  | 18.50 | 1 | SS | 5-10-14 | 24 | 1.00 1.50 | PEL-PLUG 3/8" – Bentonite Pellets | |
| 20 | 765 | | | | 761.0 | | | | | | | |
| | | 23.50 - 28.00 SW-SM, SAND with some silt and trace gravel, brown and white to black, saprolite, non-cohesive, wet, compact | SM |  | 23.50 | 2 | SS | 4-9-17 | 26 | 1.00 1.50 | #2 FilterSil – | |
| 25 | 760 | | | | 756.5 | | | | | | | |
| | | 28.00 - 34.10 Bedrock, AUGEN GNEISS, white to black, fresh to slightly weathered, strong | GNEISS |  | 28.00 | 3 | CORE | | | 4.00 5.00 | 0.010" – Slotted Schedule 40 PVC | |
| 30 | 755 | | | | 750.4 | | | | | | | |
| 35 | 750 | Boring completed at 34.10 ft | | | | | | | | | | |
| 40 | 745 | | | | | | | | | | | |
| 45 | 740 | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: W.Ballow
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-87


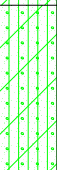




SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 42.00 ft
LOCATION: North of site along fence, ~25 feet north of B-80

DRILL RIG: CME 550
DATE STARTED: 11/17/19
DATE COMPLETED: 11/17/19

NORTHING: 1,394,401.90
EASTING: 2,203,531.30
GS ELEVATION: 800.32
TOC ELEVATION: 803.37 ft

DEPTH W.L.: 15.56
ELEVATION W.L.: 784.84
DATE W.L.: 1/13/2020
TIME W.L.: 14:54

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | SAMPLES | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | | |
|---------------|-------------------|---|------|---|----------------|------------|------|--|---|---------------------------------|-----------------------------------|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | | | N-VALUE | REC |
| | | | | | DEPTH (ft) | | | | | | | |
| 0 | 800 | 0.00 - 10.00 Hydrovac to 10.00' to for utilities | | | | | | | | | AquaGuard Bentonite – Grout | WELL CASING Interval: 0'-42' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screen |
| 5 | 795 | | | | | | | | | | | WELL SCREEN Interval: 31.7'-41.7' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC |
| 10 | 790 | 10.00 - 15.00 ML, clayey SILT with trace sand, light orange brown, W<PL, firm, cohesive | ML |  | 790.3 10.00 | | | | | | | FILTER PACK Interval: 29.2'-42.1' Type: Filter Media |
| | | | | | | 1 | SS | 3-4-5 | 9 | 1.50 1.50 | | FILTER PACK SEAL Interval: 24'-29.2' Type: PEL-PLUG 3/8" |
| 15 | 785 | 15.00 - 20.00 ML, clayey SILT with some sand, orange brown, saprolite, W<PL, soft to firm. cohesive | ML |  | 785.3 15.00 | | | | | | | ANNULUS SEAL Interval: 0'-24' Type: AquaGuard Bentonite Grout |
| | | | | | | 2 | SS | 2-2-9 | 11 | 1.50 1.50 | | WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 8" Round Ground Flush |
| 20 | 780 | 20.00 - 25.00 MLS, sandy SILT with trace gravel, dark brown, saprolite, non-cohesive, moist, very dense | MLS |  | 780.3 20.00 | | | | | | | DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Auger Rock Drill: N/A |
| | | | | | | 3 | SS | 9-14-44 | >50 | 1.00 1.50 | | |
| 25 | 775 | 25.00 - 28.90 SM, silty SAND with some gravel, fine to coarse sand, dark grey, saprolite, moist to wet, very dense | SM |  | 775.3 25.00 | | | | | | | PEL-PLUG 3/8" – Bentonite Pellets |
| | | | | | | 4 | SS | 50/5 | >50 | 0.40 0.40 | | |
| 30 | 770 | 28.90 - 33.80 SM, silty SAND, dark grey, saprolite, moist to wet, very dense | SM |  | 771.4 28.90 | | | | | | | #2 FilterSil – |
| | | | | | | 5 | SS | 50/4 | >50 | 0.30 0.30 | | |
| 35 | 765 | 33.80 - 38.80 SM, silty SAND with gravel, white and grey, augen gneiss, moist to wet, very dense | SM |  | 766.5 33.80 | | | | | | | 0.010" Slotted Schedule 40 PVC |
| | | | | | | 6 | SS | 50/4 | 750 | 0.30 0.30 | | |
| 40 | 760 | | | | 761.5 38.80 | | | | | | | |
| | | Boring completed at 42.00 ft | | | | | | | | | | |
| 45 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: W.Ballow
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



RECORD OF BOREHOLE B-89


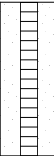
SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 49.50 ft
LOCATION: North of site in cement plant lot, next to retaining wall

DRILL RIG: CME 550
DATE STARTED: 11/19/19
DATE COMPLETED: 11/19/19

NORTHING: 1,394,398.40
EASTING: 2,204,049.40
GS ELEVATION: 822.53
TOC ELEVATION: 822.36 ft

DEPTH W.L.: 21.78
ELEVATION W.L.: 800.82
DATE W.L.: 1/13/2020
TIME W.L.: 16:36

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | SAMPLES | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | | |
|---------------|-------------------|--|------|---|---------------|------------|------|--|---|---------------------------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | | | N-VALUE | REC |
| | | | | | DEPTH (ft) | | | | | | | |
| 45 | | 44.00 - 49.50 Bedrock, SCHIST, light grey to dark grey, fresh to slightly weathered, strong to very strong <i>(Continued)</i> | |  | | | | | | | <div>Schedule 40 PVC</div>  | WELL CASING Interval: 0'-49.5' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screen WELL SCREEN Interval: 39.5'-49.5' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 33.5'-49.5' Type: Filter Media FILTER PACK SEAL Interval: 28.5'-33.5' Type: PEL-PLUG 3/8" ANNULUS SEAL Interval: 0'-28.5' Type: AquaGuard Bentonite Grout WELL COMPLETION Pad: 2' x 2' concrete Protective Casing: 8" Round Ground Flush DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Auger Rock Drill: HQ Core Barrell |
| 775 | | | | | 773.0 | | | | | | | |
| 50 | | Boring completed at 49.50 ft | | | | | | | | | | |
| 770 | | | | | | | | | | | | |
| 55 | | | | | | | | | | | | |
| 765 | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | |
| 760 | | | | | | | | | | | | |
| 65 | | | | | | | | | | | | |
| 755 | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | |
| 750 | | | | | | | | | | | | |
| 75 | | | | | | | | | | | | |
| 745 | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | |
| 740 | | | | | | | | | | | | |
| 85 | | | | | | | | | | | | |
| 735 | | | | | | | | | | | | |
| 90 | | | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: W.Ballow
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-90

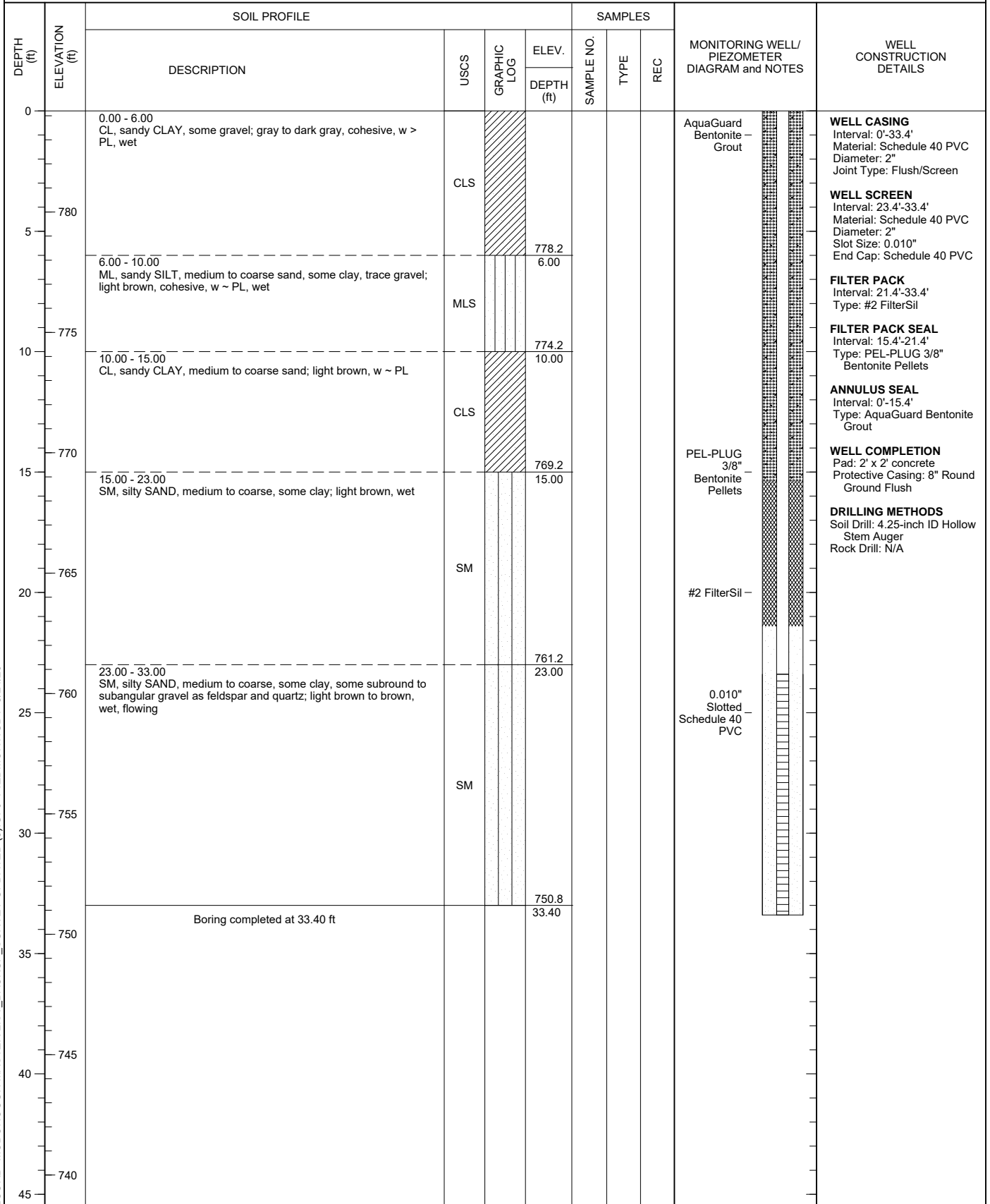
SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 33.40 ft
LOCATION: North of site along Plant Atkinson Road

DRILL RIG: CME 550
DATE STARTED: 12/10/19
DATE COMPLETED: 12/10/19

NORTHING: 1,394,501.00
EASTING: 2,203,212.60
GS ELEVATION: 784.16
TOC ELEVATION: 784.00 ft

DEPTH W.L.: 0.88
ELEVATION W.L.: 783.32
DATE W.L.: 1/14/2020
TIME W.L.: 12:32



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: W.Ballow
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



RECORD OF BOREHOLE B-91

SHEET 1 of 1

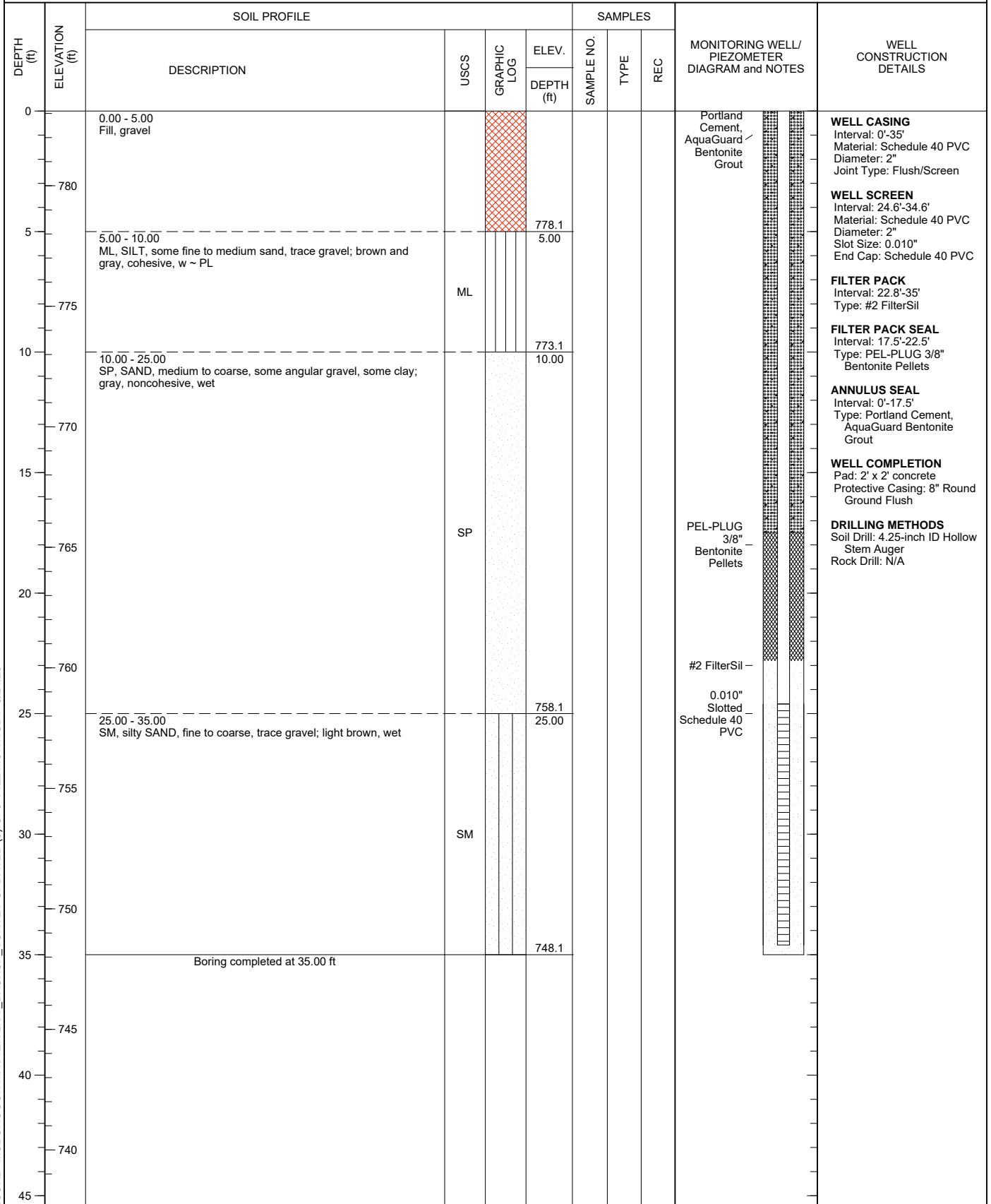
PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 35.00 ft
LOCATION: North of site along Plant Atkinson Road

DRILL RIG: CME 550
DATE STARTED: 12/11/19
DATE COMPLETED: 12/11/19

NORTHING: 1,394,447.10
EASTING: 2,203,123.90
GS ELEVATION: 783.10
TOC ELEVATION: 782.98 ft

DEPTH W.L.: 2.90
ELEVATION W.L.: 780.2
DATE W.L.: 1/14/2020
TIME W.L.: 12:34

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20



LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: W.Ballow
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



RECORD OF BOREHOLE B-94

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 45.24 ft
LOCATION: Northeast side, on property line

DRILL RIG: CME 550
DATE STARTED: 1/21/20
DATE COMPLETED: 1/23/20

NORTHING: 1,394,402.00
EASTING: 2,203,513.70
GS ELEVATION: 799.12
TOC ELEVATION: 801.74 ft

DEPTH W.L.: 13.81 ft bTOC
ELEVATION W.L.: 770.49
DATE W.L.: 1/28/2020
TIME W.L.: 16:44

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM AND NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|------|--|---------|--------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | | 0.00 - 9.00 CL, silty CLAY, medium plasticity, some sand; reddish brown, cohesive, w > PL, soft | CL | | | S-01 | GRAB | | | 0.00 0.75 | | WELL CASING Interval: 0 ft-bgs - 45 ft-bgs Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush WELL SCREEN Interval: 34.6 ft-bgs - 44.6 ft-bgs Material: Schedule 40 PVC Diameter: 3" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 32.5 ft-bgs - 44.6 ft-bgs Type: FilterSII Sand FILTER PACK SEAL Interval: 28 ft-bgs - 32.5 ft-bgs Type: PEL-PLUG 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0 ft-bgs - 28 ft-bgs Type: Portland Cement, AquaGuard Bentonite Grout WELL COMPLETION Pad: 4' x 4' Concrete Pad Protective Casing: Aluminum Riser DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Augers Rock Drill: N/A |
| 795 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 790 | | 9.00 - 13.50 ML, SILT, non-plastic, trace sand; orange-brown, micaceous, non-cohesive, moist, firm to stiff | ML | | 790.1 9.00 | S-02 | DO | 2-2-4 | 6 | 1.50 1.50 | | |
| 10 | | | | | | | | | | | | |
| 785 | | 13.50 - 45.24 SM, silty SAND, fine; mottled tan-brown and white, micaceous, saprolitic, non-cohesive, dry to moist, very dense | SM | | 785.6 13.50 | S-03 | DO | 18-24-33 | 57 | 1.50 1.50 | | |
| 15 | | | | | | | | | | | | |
| 780 | | 18.50: Compact | | | | S-04 | DO | 6-10-20 | 30 | 1.50 1.50 | | |
| 20 | | | | | | | | | | | | |
| 775 | | | | | | S-05 | DO | 4-5-16 | 21 | 1.42 1.50 | | |
| 25 | | | | | | | | | | | | |
| 770 | | 28.50: Trace quartz gravel from pegmatitic vein, dense | | | | S-06 | DO | 21-24-22 | 46 | 1.08 1.50 | | |
| 30 | | 30.00: Trace quartz gravel, very dense | | | | S-07 | DO | 10-50 | 50/4 | 0.83 0.83 | | |
| | | | | | | S-08 | DO | 50 | 50/3 | 0.25 0.25 | | |
| | | | | | | S-09 | DO | 50 | 50/5 | 0.42 0.42 | | |
| 765 | | | | | | S-10 | DO | 50 | 50/4 | 0.33 0.33 | | |
| 35 | | | | | | S-11 | DO | 50 | 50/3 | 0.58 0.25 | | |
| | | | | | | | | | | | | |
| 760 | | 37.50: 1.0" pegmatitic vein consisting of potassium feldspar and plagioclase feldspar | | | | S-12 | DO | 50 | 50/4 | 0.83 0.83 | | |
| 40 | | | | | | S-13 | DO | 19-50 | 50/2 | 0.17 0.17 | | |
| | | Log continued on next page | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST BACKUP SURVEY UPDATED (5).GPJ PIEDMONT.GDT 9/2/20

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Heather Brissey & Michael Boatman PG
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



RECORD OF BOREHOLE B-94

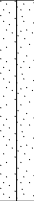
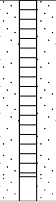
SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 45.24 ft
LOCATION: Northeast side, on property line

DRILL RIG: CME 550
DATE STARTED: 1/21/20
DATE COMPLETED: 1/23/20

NORTHING: 1,394,402.00
EASTING: 2,203,513.70
GS ELEVATION: 799.12
TOC ELEVATION: 801.74 ft

DEPTH W.L.: 13.81 ft bTOC
ELEVATION W.L.: 770.49
DATE W.L.: 1/28/2020
TIME W.L.: 16:44

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|---|------------------------|------------|------|--|---------|--------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 40 | | 13.50 - 45.24 SM, silty SAND, fine; mottled tan-brown and white, micaceous, saprolitic, non-cohesive, dry to moist, very dense (Continued) 42.00: Trace gravel | SM |  | | S-14 | DO | 50 | 50/2 | 0.17 0.17 |  | WELL CASING Interval: 0 ft-bgs - 45 ft-bgs Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush WELL SCREEN Interval: 34.6 ft-bgs - 44.6 ft-bgs Material: Schedule 40 PVC Diameter: 3" Slot Size: 0.010" End Cap: Schedule 40 PVC FILTER PACK Interval: 32.5 ft-bgs - 44.6 ft-bgs Type: FilterSII Sand FILTER PACK SEAL Interval: 28 ft-bgs - 32.5 ft-bgs Type: PEL-PLUG 3/8" Bentonite Pellets ANNULUS SEAL Interval: 0 ft-bgs - 28 ft-bgs Type: Portland Cement, AquaGuard Bentonite Grout WELL COMPLETION Pad: 4' x 4' Concrete Pad Protective Casing: Aluminum Riser DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Augers Rock Drill: N/A |
| | | | | | | S-15 | DO | 8-26-50 | 76/10 | 0.83 0.83 | | |
| | | | | | | S-16 | DO | 50 | 50/4 | 0.33 0.33 | | |
| 45 | | Boring completed at 45.24 ft | | | 753.9 | | | | | | | |
| 755 | | | | | | | | | | | | |
| 750 | | | | | | | | | | | | |
| 50 | | | | | | | | | | | | |
| 745 | | | | | | | | | | | | |
| 55 | | | | | | | | | | | | |
| 740 | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | |
| 735 | | | | | | | | | | | | |
| 65 | | | | | | | | | | | | |
| 730 | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | |
| 725 | | | | | | | | | | | | |
| 75 | | | | | | | | | | | | |
| 720 | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 9/2/20

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Heather Brissey & Michael Boatman PG
CHECKED BY: Timothy Richards, PG
DATE: 2/11/20



RECORD OF BOREHOLE B-95

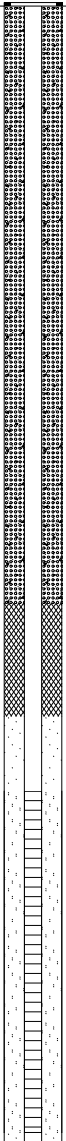
SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 33.30 ft
LOCATION: East of B-96

DRILL RIG: CME 550
DATE STARTED: 2/11/20
DATE COMPLETED: 2/11/20

NORTHING: 1,394,518.60
EASTING: 2,203,167.70
GS ELEVATION: 784.18
TOC ELEVATION: 784.00 ft

DEPTH W.L.: 1.7 ft bTOC
ELEVATION W.L.: 782.3
DATE W.L.: 2/26/2020
TIME W.L.: 13:49

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|------|--|---------|-------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | | 0.00 - 10.00 Hydro Vac'd for utilities clearance | | | | | | | | |  <p>Bentonite Grout</p> <p>Bentonite Pellets</p> <p>Sand Filter Pack</p> <p>3" PVC 0.010 Slot U-Pack Screen</p> | <p>WELL CASING Interval: 0 ft-bgs - 33.3 ft-bgs Material: PVC Diameter: 2" Joint Type: Flush</p> <p>WELL SCREEN Interval: 23 ft-bgs - 33 ft-bgs Material: Schedule 40 PVC Diameter: 3" Slot Size: 0.010" End Cap: 4"</p> <p>FILTER PACK Interval: 20.8 ft-bgs - 33.3 ft-bgs Type: FilterSil Sand</p> <p>FILTER PACK SEAL Interval: 17.5 ft-bgs - 20.5 ft-bgs Type: PEL-PLUG 3/8" Bentonite Pellets</p> <p>ANNULUS SEAL Interval: 0 ft-bgs - 17.5 ft-bgs Type: Portland Cement, AquaGuard Bentonite Grout</p> <p>WELL COMPLETION Pad: 2'x2' Concrete Pad Protective Casing: 8" Round Flush Mount</p> <p>DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Augers Rock Drill: N/A</p> |
| 780 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 775 | | | | | 774.2 | | | | | | | |
| 10 | | | | | 10.00 | | | | | | | |
| 770 | | 13.50 - 33.30 SANDY SILT, low plasticity, fine grained sand; brown; non-cohesive, wet, loose | | | 770.7 | S-01 | DO | 3-3-4 | 7 | N/A 1.50 | | |
| 15 | | | | | | | | | | | | |
| 765 | | 18.50: SANDY SILT, low plasticity, fine grained sand; tan, orange, bronze, laminated, saprolite (gneiss parent rock), micaceous; non-cohesive, moist, very dense | | | | S-02 | DO | 14-27-27 | 54 | N/A 1.50 | | |
| 20 | | | | | | | | | | | | |
| 760 | | 23.50: Trace fine gravel | ML | | | S-03 | DO | 8-50 | 50/5 | N/A 0.92 | | |
| 25 | | | | | | | | | | | | |
| 755 | | 28.50: Compact | | | | S-04 | DO | 3-2-8 | 10 | N/A 1.50 | | |
| 30 | | | | | | | | | | | | |
| 750 | | Boring completed at 33.30 ft | | | 750.9 | | | | | | | |
| 35 | | | | | | | | | | | | |
| 745 | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | |
| 740 | | | | | | | | | | | | |
| 45 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 9/2/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Heather Brissey
CHECKED BY: Timothy Richards, PG
DATE: 4/28/20



RECORD OF BOREHOLE B-96


SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 33.10 ft
LOCATION: North side of AP4

DRILL RIG: CME 550
DATE STARTED: 2/10/20
DATE COMPLETED: 2/10/20

NORTHING: 1,394,478.70
EASTING: 2,203,099.30
GS ELEVATION: 785.19
TOC ELEVATION: 784.92 ft

DEPTH W.L.: 4.31 ft bTOC
ELEVATION W.L.: 780.61
DATE W.L.: 2/26/2020
TIME W.L.: 15:14

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|------|--|---------|--------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | BLOWS per 6 in 140 lb hammer 30 inch drop | N-VALUE | REC | | |
| 0 | 785 | 0.00 - 10.00 Hydro Vac'd for utilities clearance | | | | | | | | |  <p>Bentonite Grout</p> <p>Bentonite Pellets</p> <p>Sand Filter Pack</p> <p>3" PVC 0.010 Slot U-Pack Screen</p> | <p>WELL CASING Interval: 0 ft-bgs - 33.1 ft-bgs Material: PVC Diameter: 2" Joint Type: Flush</p> <p>WELL SCREEN Interval: 23.1 ft-bgs - 33.1 ft-bgs Material: Schedule 40 PVC Diameter: 3" Slot Size: 0.010" End Cap: 4"</p> <p>FILTER PACK Interval: 20 ft-bgs - 33.1 ft-bgs Type: FilterSil Sand</p> <p>FILTER PACK SEAL Interval: 15.8 ft-bgs - 20 ft-bgs Type: PEL-PLUG 3/8" Bentonite Pellets</p> <p>ANNULUS SEAL Interval: 0 ft-bgs - 15.8 ft-bgs Type: Portland Cement, AquaGuard Bentonite Grout</p> <p>WELL COMPLETION Pad: 2'x2' Concrete Pad Protective Casing: 8" Round Flush Mount</p> <p>DRILLING METHODS Soil Drill: 4.25-inch ID Hollow Stem Augers Rock Drill: N/A</p> |
| 5 | 780 | | | | | | | | | | | |
| 10 | 775 | | | | 775.2 10.00 | | | | | | | |
| 15 | 770 | 13.50 - 33.10 SILTY SAND, low to no plasticity; light grey, saprolitic (gneiss parent rock); non-cohesive, dry to moist, very dense | | | 771.7 13.50 | S-01 | DO | 50 | 50/5 | 0.17 0.50 | | |
| 20 | 765 | | | | | S-02 | DO | 4-50 | 50/3 | 0.50 1.00 | | |
| 25 | 760 | 23.50: grey to tan | SM | | | S-03 | DO | 17-50 | 50/5 | 1.00 1.00 | | |
| 30 | 755 | 28.50: Iron staining | | | | S-04 | DO | 5-26-50 | 76/11 | 1.30 1.50 | | |
| 35 | 750 | Boring completed at 33.10 ft | | | 752.1 | | | | | | | |
| 40 | 745 | | | | | | | | | | | |
| 45 | | | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST BACKUP SURVEY UPDATED (5).GPJ PIEDMONT.GDT 9/2/20

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: Southern Company Services
DRILLER: S. Milam

GA INSPECTOR: Michael Boatman PG
CHECKED BY: Timothy Richards, PG
DATE: 4/28/20



RECORD OF BOREHOLE B-99

SHEET 1 of 1

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 12.30 ft
LOCATION: Smyrna, GA

DRILL RIG: CME 550X
DATE STARTED: 7/7/20
DATE COMPLETED: 7/7/20

NORTHING: 1,394,524.20
EASTING: 2,203,084.50
GS ELEVATION: 782.57
TOC ELEVATION: 782.39 ft

DEPTH W.L.: 5.93
ELEVATION W.L.: 776.46
DATE W.L.: 7/7/20
TIME W.L.: 16:10

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | |
|---------------|-------------------|--|-------|----------------|---------------|------------|------|---|--|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | | | REC |
| | | | | | DEPTH (ft) | | | | | |
| 0 | | 0.00 - 5.00 GRAVEL WITH SILT; non-native, brown to brown-tan with some red, silty, poorly graded gravel with some concrete fill, some organics, slightly weathered, non-cohesive, moist to wet, loose to compact (fill) | GW-GM | | | | | | <p>Bentonite Grout</p> <p>Bentonite Pellets</p> <p>Sand Filter Pack</p> <p>3" PVC 0.010 Slot U-Pack Screen</p> | <p>WELL CASING Interval: 0'-12'3" Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam</p> <p>WELL SCREEN Interval: 7'3"-12'3" Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC</p> <p>FILTER PACK Interval: 5'-12'3" Type: Filtersil std61</p> <p>FILTER PACK SEAL Interval: 3'-5" Type: 3/8" Coated Pel-Plug</p> <p>ANNULUS SEAL Interval: 0'-3" Type: Aquagard Bentonite Grout</p> <p>WELL COMPLETION Pad: 4'x4'x4" Protective Casing: Aluminum</p> <p>DRILLING METHODS Soil Drill: Auger Rock Drill:</p> |
| 5 | | 5.00 - 9.00 GRAVEL WITH SILT; non-native, brown to brown tan with red, silty, poorly graded gravel with some concrete fill, some organics, slightly weathered, non-cohesive, wet, loose to compact (fill) | GW-GM | | 777.6 5.00 | R1 | | 12.30 | | |
| 10 | | 9.00 - 12.30 SILTY GRAVEL; brown, tan and red, non-cohesive, wet, loose to compact (mix of fill and saprolite) | GM | | 773.6 9.00 | | | | | |
| 12.30 | | Boring completed at 12.30 ft | | | 770.3 | | | | | |
| 15 | | | | | | | | | | |
| 20 | | | | | | | | | | |
| 25 | | | | | | | | | | |
| 30 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 40 | | | | | | | | | | |
| 45 | | | | | | | | | | |

LOG SCALE: 1 in = 5.5 ft
DRILLING COMPANY: SCS CFS
DRILLER: S. Deuty

GA INSPECTOR: Chris Tidwell
CHECKED BY: Brian Steele, PG
DATE: 8/24/2020



BOREHOLE RECORD MCDONOUGH MASTER LIST_BACKUP_SURVEY UPDATED (5).GPJ PIEDMONT.GDT 8/24/20

RECORD OF BOREHOLE B-103D

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 70.00 ft
LOCATION: East of DGWC-47

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 10/14/20
DATE COMPLETED: 10/15/20

NORTHING: 1391543.5
EASTING: 2202614.4
GS ELEVATION: 793.77 ft
TOC ELEVATION: 795.96 ft

DEPTH W.L.: 12.0
ELEVATION W.L.: 783.9
DATE W.L.: 10/15/2020
TIME W.L.: 0740

BOREHOLE RECORD MCDONOUGH MASTER LIST (2) GPJ PIEDMONT.GDT 2/3/21

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|-------------|------------------------|------------|------------|----------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 0 | | 0.00 - 5.00 (SM), SILTY SAND; red brown; low plasticity, moist, w<PL, loose, contains muscovite, FILL | SM | | | 1 | ROTO SONIC | 2.50 5.00 | Stick-up -- | B-103D Borehole Diameter: 4" WELL CASING Interval: 0'-70' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 60'-70' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 57.9'-70.0' Type: FilterSil Quantity: 3.5-50 lbs bags FILTER PACK SEAL Interval: 53.5'-57.9' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-53.5' Type: AquaGuard Bentonite Grout Quantity: Approximately 40 gallons NOTES |
| 5 | | 5.00 - 15.00 (ML), SILT; tan to gray-brown; low plasticity, moist, fine, w<PL, loose | ML | | 5.00 | 2 | ROTO SONIC | 6.50 10.00 | | |
| 15 | | 15.00 - 18.00 (SM), SILTY SAND; dark brown, gravel; moist, non to low plasticity, w<PL | SM | | 15.00 | 3 | ROTO SONIC | 5.50 5.00 | | |
| 20 | | 18.00 - 20.00 (SCHIST), BEDROCK; feldspar, biotite, muscovite, moderate to well foliated, fresh, rock | BR | | 18.00 | | | | | |
| 25 | | 20.00 - 23.00 (SCHIST), BEDROCK; well foliated, poorly jointed, feldspar, quartz, muscovite | BR | | 20.00 | | | | | |
| 30 | | 23.00 - 40.00 (GNEISS), BEDROCK; light to dark gray; partially foliated, poorly jointed, biotite, feldspar, quartz, locally contains garnet | BR | | 23.00 | 4 | ROTO SONIC | 10.00 12.00 | | |
| 35 | | | | | | 5 | ROTO SONIC | 5.60 8.00 | AquaGuard Bentonite -- Grout | |
| 40 | | 40.00 - 70.00 (GNEISS), BEDROCK; light gray-green to dark gray; well foliated, poorly jointed, muscovite, biotite, feldspar, quartz | BR | | 40.00 | 6 | ROTO SONIC | 9.00 10.00 | | |
| 50 | | Log continued on next page | | | | | | | | |

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-103D

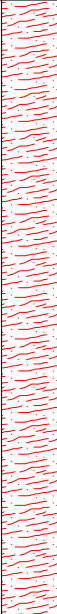
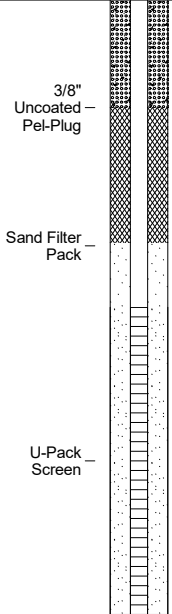
SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 70.00 ft
LOCATION: East of DGWC-47

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 10/14/20
DATE COMPLETED: 10/15/20

NORTHING: 1391543.5
EASTING: 2202614.4
GS ELEVATION: 793.77 ft
TOC ELEVATION: 795.96 ft

DEPTH W.L.: 12.0
ELEVATION W.L.: 783.9
DATE W.L.: 10/15/2020
TIME W.L.: 0740

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|---|------------------------|------------|------------|---------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 50 | | 40.00 - 70.00 (GNEISS), BEDROCK; light gray-green to dark gray; well foliated, poorly jointed, muscovite, biotite, feldspar, quartz (Continued) | BR |  | | | | |  | B-103D Borehole Diameter: 4" WELL CASING Interval: 0'-70' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 60'-70' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 57.9'-70.0' Type: FilterSil Quantity: 3.5-50 lbs bags FILTER PACK SEAL Interval: 53.5'-57.9' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-53.5' Type: AquaGuard Bentonite Grout Quantity: Approximately 40 gallons NOTES |
| 55 | | | | | | 7 | ROTO SONIC | 7.50 10.00 | | |
| 60 | | | | | | 8 | ROTO SONIC | 9.65 10.00 | | |
| 65 | | | | | | | | | | |
| 70 | | Boring completed at 70.00 ft | | | | | | | | |
| 75 | | | | | | | | | | |
| 80 | | | | | | | | | | |
| 85 | | | | | | | | | | |
| 90 | | | | | | | | | | |
| 95 | | | | | | | | | | |
| 100 | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-109D

SHEET 1 of 2










PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 100.00 ft
LOCATION: Next to DGWC-2

DRILL RIG: Geoprobe 8140LS
DATE STARTED: 10/30/20
DATE COMPLETED: 10/31/20

NORTHING: 1393957.5
EASTING: 2202127
GS ELEVATION: 847.78 ft
TOC ELEVATION: 850.73 ft

DEPTH W.L.: 23.50
ELEVATION W.L.: 827.2
DATE W.L.: 10/31/2020
TIME W.L.: 1157

BOREHOLE RECORD MCDONOUGH MASTER LIST (2) (3) (1) (2) GPJ PIEDMONT.GDT 7/19/21

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM AND NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|---|------------------------|------------|------------|----------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 0 | | 0.00 - 10.00 Air knife; FILL | FILL |  | | | | | Stick-up -- | B-109D Borehole Diameter: 4" WELL CASING Interval: 0'-100' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 89.4'-99.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 86.5'-99.4' Type: FilterSil Quantity: 4-50 lbs bags FILTER PACK SEAL Interval: 83.9'-86.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-83.9' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons NOTES |
| 5 | | | | | | | | | | |
| 10 | | 10.00 - 13.50 (ML). SILT; brown, soft, | ML |  | 10.00 | | | | | AquaGuard Bentonite Grout |
| 15 | | 13.50 - 20.00 (CL). CLAY; red to red brown, trace sand, medium plasticity, w<PL, firm, moist to dry, | CL |  | 13.50 | 1 | ROTO SONIC | 10.00 10.00 | | |
| 20 | | 20.00 - 30.00 (SM). SILTY SAND; gray to reddish gray, fine to medium, loose to soft, dry to moist, w<PL, low plasticity, quartz, biotite, feldspar | SM |  | 20.00 | 2 | ROTO SONIC | 3.70 10.00 | | |
| 25 | | | | | | | | | | |
| 30 | | 30.00 - 36.00 (SM). SILTY SAND; gray to reddish gray, some clay, fine to medium, loose to soft, dry to moist, w<PL, low plasticity, quartz, biotite, feldspar | SM |  | 30.00 | 3 | ROTO SONIC | 6.00 6.00 | | |
| 35 | | | | | | | | | | |
| 40 | | 36.00 - 40.00 (CL). CLAY; black to dark gray, low plasticity, w<PL, very soft to hard, dry to moist, saprolite, biotite gneiss, saprolite, | CL |  | 36.00 | 4 | ROTO SONIC | 4.00 4.00 | | |
| 45 | | 40.00 - 45.00 (TWR). TRANSITIONALLY WEATHERED ROCK; black to dark gray, silt with some fine sand, trace gravels, low plasticity, w<PL, soft, moist to wet, biotite gneiss fragments | TWR |  | 40.00 | 5 | ROTO SONIC | 2.20 5.00 | | |
| 50 | | 45.00 - 46.00 (GRANITE). BEDROCK; biotite, feldspar, quartz, white to light gray, fine grain, quartz veins, weakly foliated, poorly jointed, fresh to slightly weathered, medium strong | BR |  | 45.00 | 6 | ROTO SONIC | 4.20 10.00 | | |
| | | 46.00 - 55.00 (GNEISS). BEDROCK; feldspar, quartz, biotite, black to dark gray, well foliated, poorly jointed fresh to slightly weathered, medium strong to weak, iron staining | BR |  | 46.00 | | | | | |

Log continued on next page

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-109D

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 100.00 ft
LOCATION: Next to DGWC-2

DRILL RIG: Geoprobe 8140LS
DATE STARTED: 10/30/20
DATE COMPLETED: 10/31/20

NORTHING: 1393957.5
EASTING: 2202127
GS ELEVATION: 847.78 ft
TOC ELEVATION: 850.73 ft

DEPTH W.L.: 23.50
ELEVATION W.L.: 827.2
DATE W.L.: 10/31/2020
TIME W.L.: 1157

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|-------------|------------------------|------------|------------|----------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | TYPE | REC | | |
| 50 | | 46.00 - 55.00 (GNEISS), BEDROCK; feldspar, quartz, biotite, black to dark gray, well foliated, poorly jointed fresh to slightly weathered, medium strong to weak, iron staining (<i>Continued</i>) | BR | | | 6 | ROTO SONIC | 4.20 10.00 | | B-109D Borehole Diameter: 4" WELL CASING Interval: 0'-100' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 69.4'-99.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 86.5'-99.4' Type: FilterSil Quantity: 4-50 lbs bags FILTER PACK SEAL Interval: 83.9'-86.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-83.9' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons NOTES |
| 55 | | 55.00 - 65.00 (GNEISS), BEDROCK; feldspar, quartz, biotite, black to dark gray, well foliated, poorly jointed, fresh to slightly weathered, medium strong to weak, iron staining. Pegmatitic zone 57.75' - 58.75' bgs (biotite, quartz, feldspar). | BR | | 55.00 | 7 | ROTO SONIC | 8.25 10.00 | | |
| 60 | | | | | | | | | | |
| 65 | | 65.00 - 80.00 (GNEISS), BEDROCK; quartz, feldspar, biotite, black to dark gray, well foliated, poorly jointed fresh to slightly weathered, medium strong to weak, iron staining. | BR | | 65.00 | 8 | ROTO SONIC | 10.00 10.00 | | |
| 70 | | | | | | | | | | |
| 75 | | | | | | 9 | ROTO SONIC | 5.00 5.00 | | |
| 80 | | 80.00 - 85.00 (GNEISS), BEDROCK; feldspar, quartz, biotite, black to dark gray, well foliated, poorly jointed, fresh, fine to medium grain, medium strong, iron staining, locally contains chlorite | BR | | 80.00 | 10 | ROTO SONIC | 4.25 5.00 | 3/8" Uncoated - Pel-Plug | Sand Filter Pack U-Pack Screen |
| 85 | | 85.00 - 100.00 (GNEISS), BEDROCK; feldspar, quartz, biotite, green when dry and dark gray to black when wet, well foliated, poorly jointed fresh, fine to medium grain, medium strong, iron staining, locally contains chlorite and epidote | BR | | 85.00 | 11 | ROTO SONIC | 5.00 5.00 | | |
| 90 | | | | | | 12 | ROTO SONIC | 8.40 10.00 | | |
| 95 | | | | | | | | | | |
| 100 | | Boring completed at 100.00 ft | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2) (3) (1) (2) GPJ PIEDMONT.GDT 7/19/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-110D

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 65.00 ft
LOCATION: Next to DGWC-68A

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 11/14/20
DATE COMPLETED: 11/17/20

NORTHING: 1391294.4
EASTING: 2200736
GS ELEVATION: 764.55 ft
TOC ELEVATION: 764.61 ft

DEPTH W.L.: 9.35
ELEVATION W.L.: 755.3
DATE W.L.: 11/17/2020
TIME W.L.: 1110

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|---------------|------|------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | TYPE | REC | | |
| | | | | | DEPTH (ft) | | | | |
| 0 | | 0.00 - 5.00 Hand Auger 0'-10'; core loss from 0'-5', | NR | | | 1 | ROTO SONIC | 7.00 12.00 | Flush mount – < |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-110D

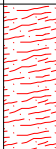
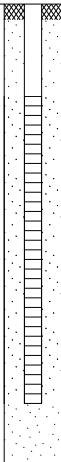
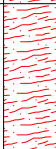
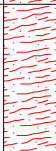
SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 1668496.18
DRILLED DEPTH: 65.00 ft
LOCATION: Next to DGWC-68A

DRILL RIG: Geoprobe 8140LC
DATE STARTED: 11/14/20
DATE COMPLETED: 11/17/20

NORTHING: 1391294.4
EASTING: 2200736
GS ELEVATION: 764.55 ft
TOC ELEVATION: 764.61 ft

DEPTH W.L.: 9.35
ELEVATION W.L.: 755.3
DATE W.L.: 11/17/2020
TIME W.L.: 1110

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|---|---------------|------------|------------|---------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | TYPE | REC | | |
| | | | | | DEPTH (ft) | | | | | |
| 50 | | 45.00 - 55.00 (GNEISS), BEDROCK; biotite, feldspar, quartz, light gray to white, well foliated, poorly jointed, veing quartz, fine to medium-grained, fresh to slightly weathered, strong rock, zones of fine-grained biotite <i>(Continued)</i> | BR |  | | 6 | ROTO SONIC | 8.70 10.00 |  | B-110D Borehole Diameter: 4" WELL CASING Interval: 0'-65' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam WELL SCREEN Interval: 53'-63' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC FILTER PACK Interval: 50.5'-63' Type: FilterSil Quantity: 3.5-50 lbs bags FILTER PACK SEAL Interval: 46'-50.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket ANNULUS SEAL Interval: 0'-46' Type: AquaGuard Bentonite Grout Quantity: Approximately 85 gallons NOTES |
| 55 | | 55.00 - 60.00 (GNEISS), BEDROCK; biotite, feldspar, quartz, light gray to white, well foliated, poorly jointed, veing quartz, fine to medium grain, fresh to slightly weathered, strong rock, local zones of fine-grained biotite | BR |  | 55.00 | 7 | ROTO SONIC | 5.00 5.00 | | |
| 60 | | 60.00 - 65.00 (GNEISS), BEDROCK; biotite, feldspar, quartz, light gray to white, well foliated, poorly jointed, veing quartz, fine-to medium-grained, fresh to slightly weathered, strong rock, local zones of fine grained biotite | BR |  | 60.00 | 8 | ROTO SONIC | 4.00 5.00 | | |
| 65 | | Boring completed at 65.00 ft | | | | | | | | |
| 70 | | | | | | | | | | |
| 75 | | | | | | | | | | |
| 80 | | | | | | | | | | |
| 85 | | | | | | | | | | |
| 90 | | | | | | | | | | |
| 95 | | | | | | | | | | |
| 100 | | | | | | | | | | |

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG
CHECKED BY: Timothy Richards, PG
DATE: 2/3/21



RECORD OF BOREHOLE B-113D







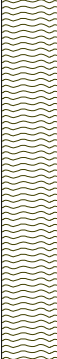



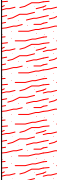
SHEET 1 of 3

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 85.00 ft
LOCATION: Offset of B-72

DRILL RIG: TS1 150CC
DATE STARTED: 3/22/21
DATE COMPLETED: 3/30/21

NORTHING: 1,391,264.6
EASTING: 2,200,719.2
GS ELEVATION: 758.87
TOC ELEVATION: 758.22 ft

DEPTH W.L.: 1.46
ELEVATION W.L.: 756.76
DATE W.L.: 4/12/2021
TIME W.L.: 12:00

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|---|------------------------|------------|--|---------------|---------------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 0 | | 0.00 - 3.00 CL, Silty CLAY, low plasticity; red-brown; soft, dry to moist, W<PL | CL |  | 755.9 3.00 | | | | 8" Flush Mount | WELL CASING Interval: 0-74.4' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 74.4-84.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 84.4-84.7' FILTER PACK Interval: 72.4-84.7' Type: #1 Filter Sand Quantity: 3.5 - 50 lbs bags FILTER PACK SEAL Interval: 68.0-72.4' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-68.0' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 8" Flush Mount DRILLING METHODS Soil Drill: Rotosonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotosonic Sample Type: Rotosonic |
| 755 | | 3.00 - 10.00 ML, Clayey SILT, non to low plasticity; dark brown to brown; soft, moist to wet (with depth), W<PL | ML |  | | Hand Auger | | 0.00 10.00 | | |
| 750 | | | | | 748.9 10.00 | |  | | | |
| 10 | | 10.00 - 15.50 ML, Clayey SILT with some sand, low plasticity; dark brown to brown; soft to firm, dry to moist, W<PL | ML |  | | | | | | |
| 745 | | | | | 743.4 15.50 | 1 | | 7.60 10.00 | | |
| 15 | | 15.50 - 20.00 TWR, Transitional Weathered Rock; breaks down to a ML, Clayey SILT with some sand, low plasticity; dark brown to brown; soft to firm, dry to moist, W<PL | TWR |  | | | | | | |
| 740 | | | | | 738.9 20.00 | |  | | | |
| 20 | | 20.00 - 30.00 Highly weathered, poorly foliated, poorly jointed, gray to black, fine-medium grained, very weak to weak, quartz-feldspar-biotite-muscovite SCHIST; locally contains vein quartz and water staining | BR |  | | 2 | | 3.80 10.00 | | |
| 735 | | | | | 728.9 30.00 | |  | | | |
| 25 | | 30.00 - 35.15 Highly weathered, poorly foliated, poorly jointed, gray to black, fine-medium grained, very weak to weak, quartz-feldspar-biotite-muscovite SCHIST; locally contains vein quartz, water staining, and garnets | BR |  | | | | | | |
| 730 | | | | | 723.7 35.15 | 3 |  | 7.00 10.00 | AquaGuard Grout | |
| 30 | | 35.15 - 50.00 Fresh to slightly weathered, poorly foliated, white to pink and green, very fine to medium grained, medium strong to very strong, muscovite-plagioclase-k-spar-quartz GNEISS; locally contains vein quartz, epidote, and garnets | BR |  | | | | | | |
| 725 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 720 | | | | | | | | | | |
| 40 | | | | | | | | | | |

Log continued on next page

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

RECORD OF BOREHOLE B-113D

SHEET 2 of 3

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 85.00 ft
LOCATION: Offset of B-72

DRILL RIG: TSi 150CC
DATE STARTED: 3/22/21
DATE COMPLETED: 3/30/21

NORTHING: 1,391,264.6
EASTING: 2,200,719.2
GS ELEVATION: 758.87
TOC ELEVATION: 758.22 ft

DEPTH W.L.: 1.46
ELEVATION W.L.: 756.76
DATE W.L.: 4/12/2021
TIME W.L.: 12:00

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS | |
|---------------|-------------------|--|------|----------------|----------------|------------|-------|---------------------------------|---------------------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | PHOTO | | | REC |
| | | | | | DEPTH (ft) | | | | | |
| 40 | | 35.15 - 50.00 Fresh to slightly weathered, poorly foliated, white to pink and green, very fine to medium grained, medium strong to very strong, muscovite-plagioclase-k-spar-quartz GNEISS; locally contains vein quartz, epidote, and garnets <i>(Continued)</i> | BR | | | 4 | | 6.50 10.00 | | WELL CASING Interval: 0-74.4' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 74.4-84.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 84.4-84.7' FILTER PACK Interval: 72.4-84.7' Type: #1 Filter Sand Quantity: 3.5 - 50 lbs bags FILTER PACK SEAL Interval: 68.0-72.4' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-68.0' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 8" Flush Mount DRILLING METHODS Soil Drill: Rotasonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotasonic Sample Type: Rotasonic |
| 715 | | | | | | | | | | |
| 45 | | | | | | | | | | |
| 710 | | | | | | | | | | |
| 50 | | 50.00 - 60.00 Fresh, weakly foliated, poorly jointed, light gray to greenish white, fine to medium grained, medium strong to strong, epidote-muscovite-biotite-feldspar-quartz GNEISS; locally contains garnets and pyrite. | BR | | 708.9 50.00 | 5 | | 10.00 10.00 | | |
| 705 | | | | | | | | | | |
| 55 | | | | | | | | | | |
| 700 | | | | | | | | | | |
| 60 | | 60.00 - 76.00 Fresh, weakly foliated, poorly jointed, green to white to gray, fine to medium grained, medium strong to strong, GNEISS; locally contains vein quartz and garnets | BR | | 698.9 60.00 | 6 | | 7.50 10.00 | | |
| 695 | | | | | | | | | | |
| 65 | | | | | | | | | | |
| 690 | | | BR | | | 7 | | 8.70 10.00 | | |
| 70 | | | | | | | | | | |
| 685 | | | | | | | | | | |
| 75 | | 76.00 - 85.00 Fresh to slightly weathered, weak to moderately foliated, poorly jointed, greenish white to gray, fine to medium grained, strong, GNEISS; locally contains folds, vein quartz, and garnets; rock becomes schistose in localized areas. | BR | | 682.9 76.00 | | | | | |
| 680 | | | | | | | | | | |
| 80 | | Log continued on next page | | | | | | | | |

BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



RECORD OF BOREHOLE B-113D

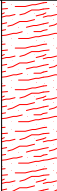

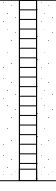
SHEET 3 of 3

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 85.00 ft
LOCATION: Offset of B-72

DRILL RIG: TS1 150CC
DATE STARTED: 3/22/21
DATE COMPLETED: 3/30/21

NORTHING: 1,391,264.6
EASTING: 2,200,719.2
GS ELEVATION: 758.87
TOC ELEVATION: 758.22 ft

DEPTH W.L.: 1.46
ELEVATION W.L.: 756.76
DATE W.L.: 4/12/2021
TIME W.L.: 12:00

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|---|------------------------|------------|--|---------------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 80 | | 76.00 - 85.00 Fresh to slightly weathered, weak to moderately foliated, poorly jointed, greenish white to gray, fine to medium grained, strong, GNEISS; locally contains folds, vein quartz, and garnets; rock becomes schistose in localized areas. <i>(Continued)</i> | BR |  | | 8 |  | $\frac{4.50}{5.00}$ | <div>0.010" Slotted Schedule 40 PVC</div> <div>Sump</div>  | WELL CASING Interval: 0-74.4' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 74.4-84.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 84.4-84.7' FILTER PACK Interval: 72.4-84.7' Type: #1 Filter Sand Quantity: 3.5 - 50 lbs bags FILTER PACK SEAL Interval: 68.0-72.4' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-68.0' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 8" Flush Mount DRILLING METHODS Soil Drill: Rotosonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotosonic Sample Type: Rotosonic |
| 675 | | Boring completed at 85.00 ft | | | 673.9 | | | | | |
| 85 | | | | | | | | | | |
| 90 | | | | | | | | | | |
| 95 | | | | | | | | | | |
| 100 | | | | | | | | | | |
| 105 | | | | | | | | | | |
| 110 | | | | | | | | | | |
| 115 | | | | | | | | | | |
| 120 | | | | | | | | | | |

BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



RECORD OF BOREHOLE B-115D

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 80.00 ft
LOCATION: South of overflow parking

DRILL RIG: TSi 150CC
DATE STARTED: 3/19/21
DATE COMPLETED: 3/20/21

NORTHING: 1,391,265.3
EASTING: 2,202,580.7
GS ELEVATION: 786.43
TOC ELEVATION: 789.17 ft

DEPTH W.L.: 19.32
ELEVATION W.L.: 769.85
DATE W.L.: 4/7/2021
TIME W.L.: 14:15

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM AND NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|--------------|---------------|---------------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 0 | 785 | 0.00 - 10.00 FILL- Backfilled with cuttings from air knife clearance | | | | | | | | WELL CASING Interval: 0-69.2' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 69.2-79.2' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 79.2-79.5' FILTER PACK Interval: 66.7-79.5' Type: #1 Filter Sand Quantity: 4 - 50 lbs bags FILTER PACK SEAL Interval: 62.5-66.7' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-62.5' Type: AquaGuard Bentonite Grout Quantity: Approximately 100 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 4"x4" Aluminium DRILLING METHODS Soil Drill: Rotosonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotosonic Sample Type: Rotosonic |
| 5 | 780 | | | | 776.4 | | Air Knife | 0.00 10.00 | | |
| 10 | 775 | 10.00 - 13.00 CL, Silty CLAY with trace organics, low to moderate plasticity; dark brown; fill; soft to firm, moist, W<PL | CL | | 10.00 | | | | | |
| 15 | 770 | 13.00 - 18.00 SC, Clayey SAND, low plasticity, fine to coarse; dark red brown to red brown; fill; soft/loose, dry to moist, W<PL | SC | | 773.4 | 13.00 | | 10.00 | | |
| 20 | 765 | 18.00 - 20.00 ML, Clayey SILT, low plasticity; tan; soft, moist, W<PL | ML | | 768.4 | 18.00 | | 10.00 | | |
| 25 | 760 | 20.00 - 25.00 TWR, Transitional Weathered Rock; breaks down to a ML, Sandy SILT with trace coobles, non to low plasticity; light brown to brown; soft/loose, moist, W<PL | TWR | | 766.4 | 20.00 | | | | |
| 30 | 755 | 25.00 - 30.00 Highly to moderately weathered, well foliated, well jointed, dark gray to black, fine to medium grained, very weak to weak, muscovite SCHIST; locally is water stained | BR | | 761.4 | 25.00 | | 8.50 10.00 | | |
| 35 | 750 | 30.00 - 50.00 Fresh to moderately weathered, well foliated, well jointed, green to gray to black, fine to medium grained, very weak to medium strong, muscovite SCHIST; locally interlayered with a epidote- quartz-muscovite schistose GNEISS | BR | | 756.4 | 30.00 | | 7.50 10.00 | AquaGuard - Grout | |
| 40 | | Log continued on next page | | | | | | | | |

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

RECORD OF BOREHOLE B-115D

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 80.00 ft
LOCATION: South of overflow parking

DRILL RIG: TS1 150CC
DATE STARTED: 3/19/21
DATE COMPLETED: 3/20/21

NORTHING: 1,391,265.3
EASTING: 2,202,580.7
GS ELEVATION: 786.43
TOC ELEVATION: 789.17 ft

DEPTH W.L.: 19.32
ELEVATION W.L.: 769.85
DATE W.L.: 4/7/2021
TIME W.L.: 14:15

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|-------|----------------|---------------------------------|---------------------------------------|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 40 | | 30.00 - 50.00 Fresh to moderately weathered, well foliated, well jointed, green to gray to black, fine to medium grained, very weak to medium strong, muscovite SCHIST; locally interlayered with a epidote-quartz-muscovite schistose GNEISS (Continued) | BR | | | | | | | |
| 745 | | | | | | 4 | | 6.50 10.00 | | |
| 45 | | | | | | | | | | |
| 740 | | | | | | | | | | |
| 50 | | 50.00 - 70.00 Fresh to slightly weathered, well foliated, well jointed, light gray to green, fine to medium grained, weak to strong, chlorite-quartz-muscovite SCHIST | BR | | 736.4 50.00 | | | | | |
| 735 | | | | | | 5 | | 6.50 10.00 | | |
| 55 | | | | | | | | | | |
| 730 | | | | | | | | | | |
| 60 | | | BR | | | | | | | |
| 725 | | | | | | | | | | |
| 65 | | | | | | 6 | | 8.00 10.00 | | |
| 720 | | | | | | | | | | |
| 70 | | 70.00 - 80.00 Fresh to Slightly weathered, weak to moderately foliated, poorly jointed, gray to black, fine grained, medium strong to strong, quartz-biotite-muscovite SCHIST; locally contains pyrite and garnets | BR | | 716.4 70.00 | | | | | |
| 715 | | | | | | 7 | | 10.00 10.00 | | |
| 75 | | | | | | | | | | |
| 710 | | | | | | | | | | |
| 80 | | Boring completed at 80.00 ft | | | 706.4 | | | | | |

WELL CASING
Interval: 0-69.2'
Material: Schedule 40 PVC
Diameter: 2"
Joint Type: Flush/Screw

WELL SCREEN
Interval: 69.2-79.2'
Material: Schedule 40 PVC
Diameter: 2"
Slot Size: 0.010"
End Cap: 79.2-79.5'

FILTER PACK
Interval: 66.7-79.5'
Type: #1 Filter Sand
Quantity: 4 - 50 lbs bags

FILTER PACK SEAL
Interval: 62.5-66.7'
Type: 3/8" Uncoated Pel-Plug
Quantity: 1 - 5 gallon bucket

ANNULUS SEAL
Interval: 0-62.5'
Type: AquaGuard Bentonite Grout
Quantity: Approximately 100 gallons

WELL COMPLETION
Pad: 4'x4'x4" Concrete
Protective Casing: 4'x4" Aluminium

DRILLING METHODS
Soil Drill: Rotosonic (6 inch casing by 4 inch core barrel)
Rock Drill: Rotosonic
Sample Type: Rotosonic

Bentonite Seal

#1 Filter Sand

0.010" Slotted Schedule 40 PVC

Sump

BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



RECORD OF BOREHOLE B-116D









SHEET 1 of 3

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 90.00 ft
LOCATION: Offset DGWC-70A

DRILL RIG: TS1 150CC
DATE STARTED: 3/7/21
DATE COMPLETED: 3/8/21

NORTHING: 1,390,483.7
EASTING: 2,200,611.0
GS ELEVATION: 805.31
TOC ELEVATION: 807.82 ft

DEPTH W.L.: 40.82
ELEVATION W.L.: 767.00
DATE W.L.: 4/6/2021
TIME W.L.: 15:11

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM AND NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|---|------------------------|------------|-------|-----|---------------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 0 | 805 | 0.00 - 3.00 CL, Silty CLAY, low plasticity; red brown; soft to firm, moist, W<PL | CL |  | 802.3 | | | | | WELL CASING Interval: 0-79.2' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 79.2-89.2' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 89.2-89.5' FILTER PACK Interval: 75.5-89.5' Type: #1 Filter Sand Quantity: 4.5 - 50 lbs bag FILTER PACK SEAL Interval: 70.6-75.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-70.6' Type: AquaGuard Bentonite Grout Quantity: Approximately 120 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 4"x4" Aluminium DRILLING METHODS Soil Drill: Rotasonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotasonic Sample Type: Rotasonic |
| | | 3.00 - 6.00 ML, Clayey SILT with trace to some fine to coarse sand, non plasticity; brown; soft/ loose, dry to moist, W<PL | ML |  | 3.00 | | | | | |
| 5 | 800 | 6.00 - 10.00 SM, SILTY SAND, non to low plasticity; yellow-brown to tan; loose, dry, W<PL | SM |  | 799.3 | | | | | |
| | | 10.00 - 11.00 CL, Silty CLAY with some silt, low plasticity; red brown to brown; soft, moist, W<PL | CL |  | 795.3 | | | | | |
| 10 | 795 | 11.00 - 20.00 ML, Clayey SILT, non plasticity; brown to gray-brown; soft/ loose, moist, W<PL; locally contains books of muscovite | ML |  | 794.3 | | | | | |
| | | 20.00 - 21.50 CL, Silty CLAY with some fine sand, low plasticity; orange brown; soft, moist, W~PL | CL |  | 785.3 | | | | | |
| 20 | 785 | 21.50 - 30.00 ML, Clayey SILT with trace clay and fine sand, non plasticity; brown to gray-brown; soft/ loose, moist, W<PL; locally contains books of muscovite | ML |  | 783.8 | | | | | |
| | | 30.00 - 40.00 ML, Clayey SILT with trace fine sand and trace to some clay, non to low plasticity; gray; soft, moist, W<PL to W~PL | ML |  | 775.3 | | | | | |
| 30 | 775 | | | | 30.00 | | | | | |
| 35 | 770 | | | | | | | | | |
| 40 | | Log continued on next page | | | 765.3 | | | | | |

BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



RECORD OF BOREHOLE B-116D








SHEET 2 of 3

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 90.00 ft
LOCATION: Offset DGWC-70A

DRILL RIG: TSi 150CC
DATE STARTED: 3/7/21
DATE COMPLETED: 3/8/21

NORTHING: 1,390,483.7
EASTING: 2,200,611.0
GS ELEVATION: 805.31
TOC ELEVATION: 807.82 ft

DEPTH W.L.: 40.82
ELEVATION W.L.: 767.00
DATE W.L.: 4/6/2021
TIME W.L.: 15:11

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS | | |
|----------------------------|-------------------|--|------|--|----------------|------------|--|----------------|---------------------------------|---|----------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | PHOTO | REC | | | | |
| | | | | | DEPTH (ft) | | | | | | | |
| 40 | 765 | 40.00 - 50.00 ML, Clayey SILT with some fine to coarse sand, non to low plasticity; gray to gray-brown; soft (becoming firm to stiff with depth), moist to wet, W<PL | ML |  | 40.00 | 4 |  | 12.00 10.00 | | WELL CASING Interval: 0-79.2' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 79.2-89.2' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 89.2-89.5' FILTER PACK Interval: 75.5-89.5' Type: #1 Filter Sand Quantity: 4.5 - 50 lbs bag FILTER PACK SEAL Interval: 70.6-75.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-70.6' Type: AquaGuard Bentonite Grout Quantity: Approximately 120 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 4"x4" Aluminium DRILLING METHODS Soil Drill: Rotosonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotosonic Sample Type: Rotosonic | | |
| 45 | 760 | | | | | | | | | | | |
| 50 | 755 | 50.00 - 54.90 TWR, Transitional Weathered Rock; breaks down to a ML, Clayey SILT with some fine to coarse sand, non to low plasticity; gray to gray-brown; soft (becoming firm to stiff with depth), moist to wet, W<PL | TWR |  | 755.3 50.00 | 5 |  | 5.10 10.00 | | | | |
| 55 | 750 | 54.90 - 90.00 Fresh to slightly weathered, well foliated, well jointed, gray to black, fine to medium grained, weak to medium strong, garnet-chlorite-quartz-biotite-muscovite SCHIST | | | | | | | | | 750.4 54.90 | |
| 60 | 745 | | BR |  | | 6 |  | 7.00 10.00 | | | | |
| 65 | 740 | | | | | | | | | | | |
| 70 | 735 | | | | | | | | | | | |
| 75 | 730 | | | | | 7 |  | 8.00 10.00 | | Bentonite Seal | | |
| 80 | | | | | | | | | | | | |
| Log continued on next page | | | | | | | | | | | | |

BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



RECORD OF BOREHOLE B-116D

SHEET 3 of 3

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 90.00 ft
LOCATION: Offset DGWC-70A

DRILL RIG: TS1 150CC
DATE STARTED: 3/7/21
DATE COMPLETED: 3/8/21

NORTHING: 1,390,483.7
EASTING: 2,200,611.0
GS ELEVATION: 805.31
TOC ELEVATION: 807.82 ft

DEPTH W.L.: 40.82
ELEVATION W.L.: 767.00
DATE W.L.: 4/6/2021
TIME W.L.: 15:11

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|-------|---------------|---------------------------------|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 80 | 725 | 54.90 - 90.00 Fresh to slightly weathered, well foliated, well jointed, gray to black, fine to medium grained, weak to medium strong, garnet-chlorite-quartz-biotite-muscovite SCHIST (<i>Continued</i>) | BR | | | 8 | | 9.00 10.00 | 0.010" Slotted Schedule 40 PVC | WELL CASING Interval: 0-79.2' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 79.2-89.2' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 89.2-89.5' FILTER PACK Interval: 75.5-89.5' Type: #1 Filter Sand Quantity: 4.5 - 50 lbs bag FILTER PACK SEAL Interval: 70.6-75.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-70.6' Type: AquaGuard Bentonite Grout Quantity: Approximately 120 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 4"x4" Aluminium DRILLING METHODS Soil Drill: Rotosonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotosonic Sample Type: Rotosonic |
| 85 | 720 | | | | | | | | | |
| 90 | 715 | Boring completed at 90.00 ft | | | 715.3 | | | | #1 Filter Sand | |
| 95 | 710 | | | | | | | | Sump | |
| 100 | 705 | | | | | | | | | |
| 105 | 700 | | | | | | | | | |
| 110 | 695 | | | | | | | | | |
| 115 | 690 | | | | | | | | | |
| 120 | | | | | | | | | | |

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

RECORD OF BOREHOLE B-117D

SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 75.00 ft
LOCATION: Offset of DGWC-71

DRILL RIG: TSi 150CC
DATE STARTED: 3/17/21
DATE COMPLETED: 3/17/21

NORTHING: 1,393,963.8
EASTING: 2,201,727.3
GS ELEVATION: 861.23
TOC ELEVATION: 863.82 ft

DEPTH W.L.: 27.88
ELEVATION W.L.: 835.94
DATE W.L.: 4/7/2021
TIME W.L.: 9:35

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|-------|--------------|---------------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 0 | 860 | 0.00 - 10.00 FILL- Backfilled with cuttings from air knife clearance | | | | | | | | WELL CASING Interval: 0-64.7' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 64.7-74.7' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 74.7-75' FILTER PACK Interval: 62.5- 75' Type: #1 Filter Sand Quantity: 4 - 50 lbs bags FILTER PACK SEAL Interval: 58.5-62.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-58.5' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 4'x4' Aluminium DRILLING METHODS Soil Drill: Rotasonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotasonic Sample Type: Rotasonic |
| 5 | 855 | | | | 851.2 | | | Air Knife | 0.00 10.00 | |
| 10 | 850 | 10.00 - 16.00 SM, SILTY SAND, low plasticity; red brown; soft/loose, moist, W<PL | SM | | 10.00 | | | | | |
| 15 | 845 | 16.00 - 19.00 ML, Clayey SILT with trace sand, low plasticity; light gray to white; soft, moist, W<PL | ML | | 845.2 16.00 | 1 | | | 7.00 9.00 | |
| 20 | 840 | 19.00 - 29.00 SM, SILTY SAND, low plasticity, very fine; light gray to tannish white; soft, moist, W<PL | | | 842.2 19.00 | | | | | |
| 25 | 835 | | SM | | | 2 | | | 9.50 10.00 | |
| 30 | 830 | 29.00 - 39.00 SM, SILTY SAND with trace gravels, low plasticity, fine to coarse; light gray to tannish white; soft, moist (becoming dry with depth), W<PL | | | 832.2 29.00 | | | | | |
| 35 | 825 | | SM | | | 3 | | | 10.00 10.00 | |
| 40 | | | SM | | 822.2 39.00 | 4 | | | 9.00 10.00 | |

Log continued on next page

AquaGuard
Grout

BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



RECORD OF BOREHOLE B-117D

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 75.00 ft
LOCATION: Offset of DGWC-71

DRILL RIG: TS1 150CC
DATE STARTED: 3/17/21
DATE COMPLETED: 3/17/21

NORTHING: 1,393,963.8
EASTING: 2,201,727.3
GS ELEVATION: 861.23
TOC ELEVATION: 863.82 ft

DEPTH W.L.: 27.88
ELEVATION W.L.: 835.94
DATE W.L.: 4/7/2021
TIME W.L.: 9:35

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|-------|---------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 40 | 820 | 39.00 - 41.00 SM, SILTY SAND with trace gravels, low plasticity, fine to coarse; light gray to tannish white; compact/dense to firm/stiff, moist (becoming dry with depth), W<PL (Continued) | SM | | 820.2 41.00 | | | | | WELL CASING Interval: 0-64.7' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 64.7-74.7' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 74.7-75' FILTER PACK Interval: 62.5- 75' Type: #1 Filter Sand Quantity: 4 - 50 lbs bags FILTER PACK SEAL Interval: 58.5-62.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-58.5' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 4'x4' Aluminium DRILLING METHODS Soil Drill: Rotasonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotasonic Sample Type: Rotasonic |
| 45 | 815 | 41.00 - 49.00 TWR, Transitional Weathered Rock; breaks down to abreaks down to aSM, SILTY SAND with trace gravels, low plasticity, fine to coarse; light gray to tannish white; compact/dense to firm/stiff, moist (becoming dry with depth), W<PL | TWR | | | 4 | | 9.00 10.00 | | |
| 50 | 810 | 49.00 - 75.00 Fresh to moderately weathered, well foliated, moderately jointed, gray to dark gray, fine to medium grained, medium strong, biotite-quartz-feldspar GNEISS; locally contains pegmatite and quartz veins | | | 812.2 49.00 | | | | | |
| 55 | 805 | | | | | 5 | | 7.50 10.00 | | |
| 60 | 800 | | BR | | | 6 | | 8.50 10.00 | Bentonite Seal | |
| 65 | 795 | | | | | | | | | |
| 70 | 790 | | | | | 7 | | 4.50 6.00 | #1 Filter Sand 0.010" Slotted Schedule 40 PVC | |
| 75 | 785 | Boring completed at 75.00 ft | | | 786.2 | | | | | |
| 80 | | | | | | | | | | |

BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



RECORD OF BOREHOLE B-118
















SHEET 1 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 75.00 ft
LOCATION: West of gas pipeline

DRILL RIG: TSi 150CC
DATE STARTED: 3/8/21
DATE COMPLETED: 3/9/21

NORTHING: 1,391,219.3
EASTING: 2,200,449.7
GS ELEVATION: 804.99
TOC ELEVATION: 807.70 ft

DEPTH W.L.: 50.65
ELEVATION W.L.: 757.05
DATE W.L.: 4/6/2021
TIME W.L.: 9:36

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|---|------------------------|------------|--|---------------|---------------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 0 | 805 | 0.00 - 3.00 CL, Silty CLAY with trace to some fine sand, low plasticity; dark red; soft, dry to moist, W<PL | CL |  | 802 | Hand Auger |  | 0.00 10.00 | | WELL CASING Interval: 0-64.85' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 64.85-74.85' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 74.85-75.15' FILTER PACK Interval: 61.8-75.15 Type: #1 Filter Sand Quantity: 4 - 50 lbs bags FILTER PACK SEAL Interval: 56.6-61.8' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-56.6' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 4"x4" Aluminium DRILLING METHODS Soil Drill: Rotasonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotasonic Sample Type: Rotasonic |
| 5 | 800 | 3.00 - 10.00 SP, SAND, non plasticity, uniformly graded; yellow-orange; loose, dry to moist, W<PL | SP |  | 3.00 | | | | | |
| 10 | 795 | 10.00 - 18.50 CL, Silty CLAY with trace to some fine sand, low plasticity; red-orange and white; soft, moist, W<PL | CL |  | 795 10.00 | 1 |  | 5.00 10.00 | | |
| 15 | 790 | | | | | | | | | |
| 20 | 785 | 18.50 - 20.00 ML, Clayey SILT with trace sand and fine gravels, non plasticity; olive brown to brown; loose, dry, W<PL | ML |  | 786.5 18.50 | |  | | | |
| | | 20.00 - 25.00 SP, SAND, non plasticity, fine to coarse, poorly graded; tannish-orange; loose, moist, W<PL | SP |  | 785 20.00 | | | | | |
| 25 | 780 | 25.00 - 30.00 SM, SILTY SAND, low plasticity, fine to medium; orange to tan; loose/soft, moist, W<PL | SM |  | 780 25.00 | 2 |  | 7.50 10.00 | | |
| | | | | | | | | | | |
| 30 | 775 | 30.00 - 32.00 ML, Sandy SILT, non plasticity; brown to dark brown; soft, moist, W<PL | ML |  | 775 30.00 | 3 |  | 2.50 2.00 | | |
| | | | | | | | | | | |
| 35 | 770 | 32.00 - 40.00 TWR, Transitional Weathered Rock; breaks down to a SW-SM, SAND AND SILT with some gravels, non to low plasticity, fine to coarse; white; loose, wet, W<PL | TWR |  | 773 32.00 | 4 |  | 1.00 6.00 | AquaGuard Grout | |
| | | | | | | | | | | |
| 40 | 765 | | | | 765 | 5 |  | 1.50 2.00 | | |

Log continued on next page

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

RECORD OF BOREHOLE B-118

SHEET 2 of 2

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 75.00 ft
LOCATION: West of gas pipeline

DRILL RIG: TSi 150CC
DATE STARTED: 3/8/21
DATE COMPLETED: 3/9/21

NORTHING: 1,391,219.3
EASTING: 2,200,449.7
GS ELEVATION: 804.99
TOC ELEVATION: 807.70 ft

DEPTH W.L.: 50.65
ELEVATION W.L.: 757.05
DATE W.L.: 4/6/2021
TIME W.L.: 9:36

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|-------|---------------|---------------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 40 | 765 | 40.00 - 50.00 Slightly to moderately weathered, well foliated, moderately jointed, tan to white to gray, fine to medium grained, medium strong, plagioclase-K-spar-biotite-quartz GNEISS | BR | | 40.00 | | | | | WELL CASING Interval: 0-64.85' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 64.85-74.85' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 74.85-75.15' FILTER PACK Interval: 61.8-75.15 Type: #1 Filter Sand Quantity: 4 - 50 lbs bags FILTER PACK SEAL Interval: 56.6-61.8' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-56.6' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 4"x4" Aluminium DRILLING METHODS Soil Drill: Rotasonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotasonic Sample Type: Rotasonic |
| 45 | 760 | | | | | 6 | | 4.80 10.00 | | |
| 50 | 755 | 50.00 - 60.00 Moderately weathered, well foliated, well jointed, tan to white to brown, fine to medium grained, weak to medium strong, plagioclase-K-spar-biotite-quartz GNEISS | | | 755 50.00 | | | | | |
| 55 | 750 | | BR | | | 7 | | 2.50 10.00 | | |
| 60 | 745 | 60.00 - 75.00 Fresh to slightly weathered, well foliated, poorly jointed, greenish gray to gray, fine to medium grained, medium strong, epidote-biotite-feldspar-quartz GNEISS | | | 745 60.00 | | | | | |
| 65 | 740 | | BR | | | 8 | | 0.00 10.00 | | |
| 70 | 735 | | | | | 9 | | 2.50 5.00 | | |
| 75 | 730 | Boring completed at 75.00 ft | | | 730 | | | | | |
| 80 | 725 | | | | | | | | | |

BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



RECORD OF BOREHOLE B-119D


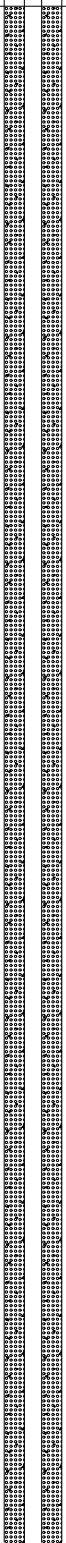











SHEET 1 of 3

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 105.00 ft
LOCATION: Offset of B-118

DRILL RIG: TS1 150CC
DATE STARTED: 3/10/21
DATE COMPLETED: 3/16/21

NORTHING: 1,391,236.4
EASTING: 2,200,446.6
GS ELEVATION: 804.53
TOC ELEVATION: 807.15 ft

DEPTH W.L.: 49.94
ELEVATION W.L.: 757.21
DATE W.L.: 4/5/2021
TIME W.L.: 13:37

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|---|------------------------|------------|--|---------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 0 | | 0.00 - 12.50 CL, Sandy CLAY, low plasticity, fine to coarse; red to red-orange; soft/loose, dry to moist, W<PL | CL |  | | | | |  | WELL CASING Interval: 0-94.7' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 94.7-104.7' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 104.7-105' FILTER PACK Interval: 91.5-105' Type: #1 Filter Sand Quantity: 4.5 - 50 lbs bags FILTER PACK SEAL Interval: 86.5-91.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-86.5' Type: AquaGuard Bentonite Grout Quantity: Approximately 160 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 4"x4" Aluminium DRILLING METHODS Soil Drill: Rotosonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotosonic Sample Type: Rotosonic |
| 5 | 800 | | | | | Hand Auger | | 0.00 10.00 | | |
| 10 | 795 | | | | 792 | | | | | |
| 15 | 790 | 12.50 - 18.00 ML, Clayey SILT with some fine sand, low plasticity; pink-brown to tan; loose, dry to moist, W<PL | ML |  | 12.50 | 1 |  | 7.50 9.00 | | |
| 20 | 785 | 18.00 - 19.00 SP, SAND with trace to some silt, low plasticity, uniformly graded; white to tan; loose, dry, W<PL | SP |  | 18.00 785.5 | | | | | |
| | | 19.00 - 20.00 SC, CLAYEY SAND, moderate plasticity, fine to medium; dark brown; soft, moist, W~PL | SC |  | 19.00 784.5 | | | | | |
| | | 20.00 - 21.50 SP, SAND with some silt, low plasticity, fine; white to tan to gray; loose, dry to moist, W<PL | SP |  | 20.00 783 | | | | | |
| | | 21.50 - 23.50 SM, SILTY SAND, low plasticity; beige brown; soft, moist to wet, W~PL | SM |  | 21.50 781 | | | | | |
| 25 | 780 | 23.50 - 27.50 ML, Clayey SILT with some fine sand, moderate plasticity; light to dark brown; soft/loose, dry to moist, W<PL | ML |  | 23.50 | 2 |  | 9.50 10.00 | | |
| | | 27.50 - 29.00 SP, SAND with trace to some silt, non plasticity, fine to coarse; white to beige; loose, dry, W<PL | SP |  | 27.50 777 | | | | | |
| 30 | 775 | 29.00 - 39.00 ML, Sandy SILT with trace gravels, low plasticity, fine; tan to light brown; loose, dry to moist, W<PL | | | 775.5 29.00 | | | | | |
| | | | ML | | | 3 |  | 9.50 10.00 | | |
| 35 | 770 | | | | | | | | | |
| 40 | 765 | | ML | | 765.5 39.00 | 4 |  | 4.50 6.00 | | |

Log continued on next page

AquaGuard
Grout

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

RECORD OF BOREHOLE B-119D

SHEET 2 of 3

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 105.00 ft
LOCATION: Offset of B-118

DRILL RIG: TSi 150CC
DATE STARTED: 3/10/21
DATE COMPLETED: 3/16/21

NORTHING: 1,391,236.4
EASTING: 2,200,446.6
GS ELEVATION: 804.53
TOC ELEVATION: 807.15 ft

DEPTH W.L.: 49.94
ELEVATION W.L.: 757.21
DATE W.L.: 4/5/2021
TIME W.L.: 13:37

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|-------|---------------|---------------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 40 | | 39.00 - 45.00 ML, Sandy SILT with trace gravels and cobbles, low plasticity, fine; tan to light brown; loose, dry to wet, W<PL <i>(Continued)</i> | ML | | | 4 | | 4.50 6.00 | | WELL CASING Interval: 0-94.7' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 94.7-104.7' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 104.7-105' FILTER PACK Interval: 91.5-105' Type: #1 Filter Sand Quantity: 4.5 - 50 lbs bags FILTER PACK SEAL Interval: 86.5-91.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-86.5' Type: AquaGuard Bentonite Grout Quantity: Approximately 160 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 4"x4" Aluminium DRILLING METHODS Soil Drill: Rotosonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotosonic Sample Type: Rotosonic |
| 45 | 760 | 45.00 - 50.00 TWR, Transitional Weathered Rock; breaks down to a SM, SILTY SAND with trace gravels(weatherd gneiss) low plasticity; light gray to tan; firm/compact, moist to wet, W<PL | TWR | | 759.5 45.00 | 5 | | 6.00 5.00 | | |
| 50 | 755 | 50.00 - 53.40 Slightly to moderately weathered, well foliated, moderately jointed, gray to brown, fine grained, weak to medium strong, muscovite-quartz-feldspar-biotite GNEISS | BR | | 754.5 50.00 | | | | | |
| 55 | 750 | 53.40 - 60.00 TWR, Transitional Weathered Rock; breaks down to a SM, SILTY SAND, low plasticity; grayish brown to gray; loose, dry to moist, W<PL | TWR | | 751.1 53.40 | 6 | | 6.20 10.00 | | |
| 60 | 745 | 60.00 - 67.00 Slightly to moderately weathered, well foliated, moderately jointed, gray to brown, fine grained, weak to medium strong, muscovite-quartz-feldspar-biotite GNEISS | BR | | 744.5 60.00 | 7 | | 4.00 10.00 | | |
| 65 | 740 | | | | | | | | | |
| 70 | 735 | 67.00 - 87.00 Fresh to slightly weathered, moderately foliated, poorly jointed, dark gray to black, very fine to fine grained, medium strong, feldspar-quartz-biotite GNEISS | BR | | 737.5 67.00 | 8 | | 8.50 10.00 | | |
| 75 | 730 | | | | | | | | | |
| 80 | 725 | | | | | | | | | |

Log continued on next page

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

RECORD OF BOREHOLE B-119D

SHEET 3 of 3

PROJECT: Plant McDonough
PROJECT NUMBER: 166849621
DRILLED DEPTH: 105.00 ft
LOCATION: Offset of B-118

DRILL RIG: TS1 150CC
DATE STARTED: 3/10/21
DATE COMPLETED: 3/16/21

NORTHING: 1,391,236.4
EASTING: 2,200,446.6
GS ELEVATION: 804.53
TOC ELEVATION: 807.15 ft

DEPTH W.L.: 49.94
ELEVATION W.L.: 757.21
DATE W.L.: 4/5/2021
TIME W.L.: 13:37

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | PIEZOMETER DIAGRAM and NOTES | PIEZOMETER CONSTRUCTION DETAILS |
|---------------|-------------------|---|------|----------------|------------------------|------------|-------|---------------|-----------------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 80 | | 67.00 - 87.00 Fresh to slightly weathered, moderately foliated, poorly jointed, dark gray to black, very fine to fine grained, medium strong, feldspar-quartz-biotite GNEISS (<i>Continued</i>) | BR | | | | | | | WELL CASING Interval: 0-94.7' Material: Schedule 40 PVC Diameter: 2" Joint Type: Flush/Screw WELL SCREEN Interval: 94.7-104.7' Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: 104.7-105' FILTER PACK Interval: 91.5-105' Type: #1 Filter Sand Quantity: 4.5 - 50 lbs bags FILTER PACK SEAL Interval: 86.5-91.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1 - 5 gallon bucket ANNULUS SEAL Interval: 0-86.5' Type: AquaGuard Bentonite Grout Quantity: Approximately 160 gallons WELL COMPLETION Pad: 4'x4'x4" Concrete Protective Casing: 4"x4" Aluminium DRILLING METHODS Soil Drill: Rotasonic (6 inch casing by 4 inch core barrel) Rock Drill: Rotasonic Sample Type: Rotasonic |
| 85 | 720 | | | | 717.5 | 9 | | 7.00 10.00 | | |
| | | 87.00 - 90.00 Fresh to slightly weathered, poor to moderately foliated, poorly jointed, dark gray to black, medium grained, medium strong, chlorite-epidote-quartz-feldspar-biotite GNEISS | BR | | 87.00 | | | | | |
| 90 | 715 | | | | 714.5 | | | | Bentonite Seal # 1 Filter Sand | |
| | | 90.00 - 105.00 Fresh to slightly weathered, foliated, poorly jointed, light gray to dark gray, fine to medium grained, medium strong to strong, feldspar-biotite-quartz GNEISS; locally contains garnets and k-spar augens | BR | | 90.00 | | | | | |
| 95 | 710 | | | | | 10 | | 9.00 10.00 | | 0.010" Slotted Schedule 40 PVC Sump |
| 100 | 705 | | | | | | | | | |
| | | | | | | 11 | | 4.90 5.00 | | |
| 105 | 700 | Boring completed at 105.00 ft | | | 699.5 | | | | | |
| 110 | 695 | | | | | | | | | |
| 115 | 690 | | | | | | | | | |
| 120 | 685 | | | | | | | | | |

BOREHOLE RECORD 166849621.GPJ PIEDMONT.GDT 5/24/21

LOG SCALE: 1 in = 5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Tommy Ardito

INSPECTOR: Michael Boatman, PG
CHECKED BY: Rachel Kirkman, PG
DATE: 5/24/21



RECORD OF BOREHOLE B-123D

SHEET 1 of 4

PROJECT: SCS Plant McDonough
PROJECT NUMBER: GL166849621
DRILLED DEPTH: 160.00 ft
LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
Truck-Mounted Sonic
DATE STARTED: 3/25/22
DATE COMPLETED: 4/4/22

NORTHING: 1,391,234.4
EASTING: 2,202,608.4
GS ELEVATION: 778.85
TOC ELEVATION: 781.80 ft

DEPTH W.L.:13.2
ELEVATION W.L.:765.65
DATE W.L.:4/4/22
TIME W.L.:14:55

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|-------|-------------|------------------------|------------|-------|---------------|--------------------------------------|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 0 | | 0.00 - 10.00 FILL, CL, SILTY CLAY, moist, micaceous, trace of organics; Air knifed for utility clearance | | | | | | | Aquaguard - Grout | WELL CASING Interval: 0'-110' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded WELL SCREEN Interval: 110'-160' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3" FILTER PACK Interval: 107.3'-160' Type: Filter Sil - Filtration sand and gravel, industrial quartz Quantity: 16 x 50 lb bag FILTER PACK SEAL Interval: 62.5'-107.3' Type: Pel Plug Bentonite Pellets / Haliburton Bentonite Chips 3/8" Quantity: 3 x 50 lb bucket, 10 bags chips ANNULUS SEAL Interval: 0'-55.5' Type: Aquaguard bentonite grout Quantity: 2.5 batches of 2 bags Aquaguard + 40 gal water WELL COMPLETION Pad: 4' x 4' Protective Casing: Aluminum DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic |
| 5 | | | CL | | | 1 | | NA 10.00 | | |
| 10 | | 10.00 - 20.00 ML-CH, SILT and CLAY, moist, red, orange, brown, some fine sand, trace of fine schist gravel, micaceous | | | 768.9 10.00 | | | | | |
| 15 | | | ML-CH | | | 2 | | 9.75 10.00 | | |
| 20 | | 20.00 - 28.00 Same as above | | | 758.9 20.00 | | | | | |
| 25 | | | ML-CH | | | 3 | | 8.50 10.00 | | |
| 30 | | 28.00 - 30.00 ML, sandy SILT, moist, gray, fine, trace of coarse gravel | | | 750.9 28.00 | | | | | |
| 35 | | 30.00 - 31.50 Same as above | ML | | 748.9 30.00 | | | | | |
| 40 | | 31.50 - 40.00 muscovite biotite SCHIST, fine grained, strong, slightly to moderately weathered, slight, fractured, some iron staining | | | 747.4 31.50 | | | | | |
| 45 | | | | | | 4 | | 9.75 10.00 | | |
| 50 | | 40.00 - 50.00 muscovite biotite garnet SCHIST, fine to coarse grained, strong, fresh to slightly weathered, slightly fractured, traces iron staining | | | 738.9 40.00 | | | | | |
| | | | | | | 5 | | 7.50 10.00 | | |
| | | Log continued on next page | | | 728.9 | | | | | |

BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D.GPJ PIEDMONT.GDT 5/13/22

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
CHECKED BY: Rachel Kirkman, PG
DATE: 5/10/22

wsp GOLDER

RECORD OF BOREHOLE B-123D

SHEET 2 of 4

PROJECT: SCS Plant McDonough
PROJECT NUMBER: GL166849621
DRILLED DEPTH: 160.00 ft
LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
Truck-Mounted Sonic
DATE STARTED: 3/25/22
DATE COMPLETED: 4/4/22

NORTHING: 1,391,234.4
EASTING: 2,202,608.4
GS ELEVATION: 778.85
TOC ELEVATION: 781.80 ft

DEPTH W.L.:13.2
ELEVATION W.L.:765.65
DATE W.L.:4/4/22
TIME W.L.:14:55

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|-------|---------------|---|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 50 | | 50.00 - 60.00 muscovite biotite SCHIST, fine to coarse grained, strong, fresh to slightly weathered, slightly fractured, traces of iron staining | | | 50.00 | | | | Pel Plug - Pellets | WELL CASING Interval: 0'-110' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded WELL SCREEN Interval: 110'-160' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3" FILTER PACK Interval: 107.3'-160' Type: Filter Sil - Filtration sand and gravel, industrial quartz Quantity: 16 x 50 lb bag FILTER PACK SEAL Interval: 62.5'-107.3' Type: Pel Plug Bentonite Pellets / Haliburton Bentonite Chips 3/8" Quantity: 3 x 50 lb bucket, 10 bags chips ANNULUS SEAL Interval: 0'-55.5' Type: Aquaguard bentonite grout Quantity: 2.5 batches of 2 bags Aquaguard + 40 gal water WELL COMPLETION Pad: 4' x 4' Protective Casing: Aluminum DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic |
| 725 | | | | | | 6 | | 9.30 10.00 | | |
| 55 | | | | | | | | | Haliburton Bentonite - Chips 3/8" | |
| 720 | | | | | | | | | | |
| 60 | | 60.00 - 70.00 muscovite biotite chlorite SCHIST, fine to coarse grained, strong, fresh, unfractured to slightly fractured, trace of iron staining | | | 718.9 60.00 | | | | | |
| 715 | | | | | | 7 | | 9.50 10.00 | | |
| 65 | | | | | | | | | | |
| 710 | | | | | | | | | | |
| 70 | | 70.00 - 80.00 muscovite biotite SCHIST, fine to coarse grained, strong, fresh, unfractured to slightly weathered, slightly fractured, secondary mineralization of fractures, trace of iron staining | | | 708.9 70.00 | | | | | |
| 705 | | | | | | 8 | | 9.50 10.00 | | |
| 75 | | | | | | | | | | |
| 700 | | | | | | | | | | |
| 80 | | 80.00 - 90.00 muscovite biotite SCHIST, fine to coarse grained, strong, fresh, unfractured to slightly weathered, slightly fractured, secondary mineralization of fractures, trace of iron staining | | | 698.9 80.00 | | | | | |
| 695 | | | | | | 9 | | 7.50 10.00 | | |
| 85 | | | | | | | | | | |
| 690 | | | | | | | | | | |
| 90 | | 90.00 - 100.00 muscovite biotite SCHIST, fine to coarse grained, strong, fresh, fresh to slightly weathered, unfractured to slightly fractured | | | 688.9 90.00 | | | | | |
| 685 | | | | | | 10 | | 8.00 10.00 | | |
| 95 | | | | | | | | | | |
| 680 | | | | | | | | | | |
| 100 | | Log continued on next page | | | 678.9 | | | | | |

BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D.GPJ PIEDMONT.GDT 5/13/22

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
CHECKED BY: Rachel Kirkman, PG
DATE: 5/10/22

wsp GOLDER

RECORD OF BOREHOLE B-123D

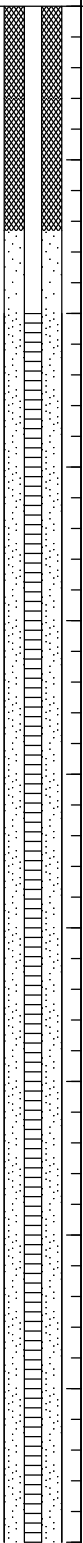
SHEET 3 of 4

PROJECT: SCS Plant McDonough
PROJECT NUMBER: GL166849621
DRILLED DEPTH: 160.00 ft
LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
Truck-Mounted Sonic
DATE STARTED: 3/25/22
DATE COMPLETED: 4/4/22

NORTHING: 1,391,234.4
EASTING: 2,202,608.4
GS ELEVATION: 778.85
TOC ELEVATION: 781.80 ft

DEPTH W.L.: 13.2
ELEVATION W.L.: 765.65
DATE W.L.: 4/4/22
TIME W.L.: 14:55

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | | SAMPLES | | | MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|---------------|-------------------|--|------|----------------|------------------------|------------|-------|---------------|--|--|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. DEPTH (ft) | SAMPLE NO. | PHOTO | REC | | |
| 100 | | 100.00 - 110.00 muscovite biotite SCHIST, fine to coarse grained, strong, fresh, fresh to slightly weathered, unfractured to slightly fractured | | | 100.00 | | | |  | WELL CASING Interval: 0'-110' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded WELL SCREEN Interval: 110'-160' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3" FILTER PACK Interval: 107.3'-160' Type: Filter Sil - Filtration sand and gravel, industrial quartz Quantity: 16 x 50 lb bag FILTER PACK SEAL Interval: 62.5'-107.3' Type: Pel Plug Bentonite Pellets / Haliburton Bentonite Chips 3/8" Quantity: 3 x 50 lb bucket, 10 bags chips ANNULUS SEAL Interval: 0'-55.5' Type: Aquaguard bentonite grout Quantity: 2.5 batches of 2 bags Aquaguard + 40 gal water WELL COMPLETION Pad: 4' x 4' Protective Casing: Aluminum DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic |
| 675 | | | | | | 11 | | 9.75 10.00 | | |
| 105 | | | | | | | | | | |
| 670 | | | | | | | | | | |
| 110 | | 110.00 - 120.00 muscovite Biotite SCHIST, fine to coarse grained, strong, fresh to slightly weathered, slightly fractured, secondary mineralization of fractures with calcite @ 114' bgs, measured -0.018 gallons per minute (gpm) from borehole geophysics heat-pulse flow meter (HPFM), trace vein quartz | | | 668.9 110.00 | | | | | |
| 665 | | | | | | 12 | | 8.25 10.00 | | |
| 115 | | | | | | | | | | |
| 660 | | | | | | | | | | |
| 120 | | 120.00 - 130.00 Same as above. Water producing fracture at 129.5' identified using borehole geophysics | | | 658.9 120.00 | | | | | |
| 655 | | | | | | 13 | | 9.75 10.00 | | |
| 125 | | | | | | | | | | |
| 650 | | | | | | | | | | |
| 130 | | 130.00 - 140.00 Same as above; Trace secondary mineralization of calcite within fractures @ 131 bgs, water producing fracture at 130.5' identified using borehole geophysics, measured -0.027 gallons per minute (gpm) from HPFM | | | 648.9 130.00 | | | | | |
| 645 | | | | | | 14 | | 9.00 10.00 | | |
| 135 | | | | | | | | | | |
| 640 | | | | | | | | | | |
| 140 | | 140.00 - 150.00 muscovite biotite, garnet SCHIST, fine to coarse grained, strong, fresh to slightly weathered, slightly fractured, calcite precipitation @ 145' bgs | | | 638.9 140.00 | | | | | |
| 635 | | | | | | 15 | | 9.00 10.00 | | |
| 145 | | | | | | | | | | |
| 630 | | | | | | | | | | |
| 150 | | Log continued on next page | | | 628.9 | | | | | |

BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D.GPJ PIEDMONT.GDT 5/13/22

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
CHECKED BY: Rachel Kirkman, PG
DATE: 5/10/22

wsp GOLDER

RECORD OF BOREHOLE B-123D



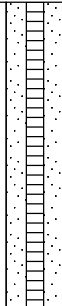
SHEET 4 of 4

PROJECT: SCS Plant McDonough
PROJECT NUMBER: GL166849621
DRILLED DEPTH: 160.00 ft
LOCATION: Smyrna, GA

DRILL RIG: Terra Sonic 150T
Truck-Mounted Sonic
DATE STARTED: 3/25/22
DATE COMPLETED: 4/4/22

NORTHING: 1,391,234.4
EASTING: 2,202,608.4
GS ELEVATION: 778.85
TOC ELEVATION: 781.80 ft

DEPTH W.L.:13.2
ELEVATION W.L.:765.65
DATE W.L.:4/4/22
TIME W.L.:14:55

| DEPTH (ft) | ELEVATION (ft) | SOIL PROFILE | | | SAMPLES | | | MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS | |
|---------------|-------------------|--|------|---|---------------|------------|--|--------------------------------------|---|---|
| | | DESCRIPTION | USCS | GRAPHIC LOG | ELEV. | SAMPLE NO. | PHOTO | | | REC |
| | | | | | DEPTH (ft) | | | | | |
| 150 | | 150.00 - 160.00 Same as above; calcite @ 157.5' bgs | |  | 150.00 | |  | |  | WELL CASING Interval: 0'-110' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded |
| 625 | | | | | | 16 | | 9.75 10.00 | | WELL SCREEN Interval: 110'-160' Material: 0.010" Slotted Diameter: 2" Slot Size: 0.010" End Cap: 3" |
| 155 | | | | | | | | | | FILTER PACK Interval: 107.3'-160' Type: Filter Sil - Filtration sand and gravel, industrial quartz Quantity: 16 x 50 lb bag |
| 620 | | | | | | | | | | FILTER PACK SEAL Interval: 62.5'-107.3' Type: Pel Plug Bentonite Pellets / Haliburton Bentonite Chips 3/8" Quantity: 3 x 50 lb bucket, 10 bags chips |
| 160 | | Boring completed at 160.00 ft | | | 618.9 | | | | | ANNULUS SEAL Interval: 0'-55.5' Type: Aquaguard bentonite grout Quantity: 2.5 batches of 2 bags Aquaguard + 40 gal water |
| 615 | | | | | | | | | | WELL COMPLETION Pad: 4' x 4' Protective Casing: Aluminum |
| 165 | | | | | | | | | | DRILLING METHODS Soil Drill: Sonic Rock Drill: Sonic Sample Type: Sonic |
| 610 | | | | | | | | | | |
| 170 | | | | | | | | | | |
| 605 | | | | | | | | | | |
| 175 | | | | | | | | | | |
| 600 | | | | | | | | | | |
| 180 | | | | | | | | | | |
| 595 | | | | | | | | | | |
| 185 | | | | | | | | | | |
| 590 | | | | | | | | | | |
| 190 | | | | | | | | | | |
| 585 | | | | | | | | | | |
| 195 | | | | | | | | | | |
| 580 | | | | | | | | | | |
| 200 | | | | | | | | | | |

LOG SCALE: 1 in = 6.5 ft
DRILLING COMPANY: Cascade Drilling
DRILLER: Corey Franklin

GA INSPECTOR: Connor Mikilitus
CHECKED BY: Rachel Kirkman, PG
DATE: 5/10/22



BOREHOLE RECORD PLANT MCDONOUGH_DGWC-121, B-122D, B-123D.GPJ, PIEDMONT.GDT 5/13/22

DRILLER BONDS

CLIENT'S COPY

SURETY BOND CONTINUATION CERTIFICATE

TO: State of Georgia
Division of Environmental Protection
2 Martin Luther King Jr. Drive SE
Suite 1252
Atlanta, GA 30334

To be attached to and form a part of: Performance Bond for Well Contractors and Drillers

Principal on the Bond: Michael C. Rice/Cascade Drilling, L.P.

Surety Bond Number: K08315607

Bond Amount: Twenty Thousand and 00/100 Dollars (\$20,000.00)

In consideration of the agreed premium charged for this bond, it is understood and agreed that the following change shall be made to this obligation:

[x] CONTINUATION CERTIFICATE

This certificate extends the life of the bond to June 30, 2017. It is executed upon the express condition that the surety's liability under said bond, together with this and all previous continuation certificates, shall not be cumulative and shall in no event exceed the amount specifically set forth in said bond or any existing certificate changing the amount of said bond.

Signed, sealed and dated this 26th day of May , 2015 .

Westchester Fire Insurance Company

By: Katie S

Katie Snider, Attorney-in-Fact

Surety of Record: Westchester Fire Insurance Company
436 Walnut Street
Philadelphia, PA 19106
Phone: (415) 547-4513

Agent of Record: Kibble & Prentice, a USI Company
601 Union Street, Suite 1000
Seattle, WA 98101
Phone: (206) 441-6300

Power of Attorney

WESTCHESTER FIRE INSURANCE COMPANY

Know all men by these presents: That WESTCHESTER FIRE INSURANCE COMPANY, a corporation of the Commonwealth of Pennsylvania pursuant to the following Resolution, adopted by the Board of Directors of the said Company on December 11, 2006, to wit:

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into the ordinary course of business (each a "Written Commitment"):

- (1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.
- (2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such persons written appointment as such attorney-in-fact.
- (3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (4) Each of the Chairman, the President and Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested.

Does hereby nominate, constitute and appoint Heather Allen, Holly E Ulfers, Katie Snider, Nancy N Hill, Roxana Palacios, Steven W Palmer, all of the City of SEATTLE, Washington, each individually if there be more than one named, its true and lawful attorney-in-fact, to make, execute, seal and deliver on its behalf, and as its act and deed any and all bonds, undertakings, recognizances, contracts and other writings in the nature thereof in penalties not exceeding Fifteen million dollars & zero cents (\$15,000,000.00) and the execution of such writings in pursuance of these presents shall be as binding upon said Company, as fully and amply as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office,

IN WITNESS WHEREOF, the said Stephen M. Haney, Vice-President, has hereunto subscribed his name and affixed the Corporate seal of the said WESTCHESTER FIRE INSURANCE COMPANY this 22 day of December 2014.

WESTCHESTER FIRE INSURANCE COMPANY



Stephen M. Haney, Vice President

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF PHILADELPHIA ss.

On this 22 day of December, AD. 2014 before me, a Notary Public of the Commonwealth of Pennsylvania in and for the County of Philadelphia came Stephen M. Haney, Vice-President of the WESTCHESTER FIRE INSURANCE COMPANY to me personally known to be the individual and officer who executed the preceding instrument, and he acknowledged that he executed the same, and that the seal affixed to the preceding instrument is the corporate seal of said Company; that the said corporate seal and his signature were duly affixed by the authority and direction of the said corporation, and that Resolution, adopted by the Board of Directors of said Company, referred to in the preceding instrument, is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at the City of Philadelphia the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
KAREN E. BRANDT, Notary Public
City of Philadelphia, Phila. County
My Commission Expires Sept. 26, 2018

Notary Public

I, the undersigned Assistant Secretary of the WESTCHESTER FIRE INSURANCE COMPANY, do hereby certify that the original POWER OF ATTORNEY, of which the foregoing is a substantially true and correct copy, is in full force and effect.

In witness whereof, I have hereunto subscribed my name as Assistant Secretary, and affixed the corporate seal of the Corporation, this 26th day of May, 2015.



William L. Kelly, Assistant Secretary

THIS POWER OF ATTORNEY MAY NOT BE USED TO EXECUTE ANY BOND WITH AN INCEPTION DATE AFTER December 22, 2016.



CONTINUATION
CERTIFICATE

SAFECO Insurance Company of America

, Surety upon

a certain Bond No. 4993104

dated effective June 30, 1987
(MONTH-DAY-YEAR)

on behalf of Southern Company Services, Inc.
(PRINCIPAL)

and in favor of Georgia - Dept. of Natural Resources
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2016
(MONTH-DAY-YEAR)

and ending on June 30, 2017
(MONTH-DAY-YEAR)

Amount of bond \$10,000.00

Description of bond Water Well Contractors & Drillers

PROVIDED: That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.

Signed and dated on April 07, 2016
(MONTH-DAY-YEAR)

SAFECO Insurance Company of America

By 

D-Ann Kleidosty, Attorney-in-Fact

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 7310252

First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America are corporations duly organized under the laws of the State of New Hampshire (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Brooke A. Sharp; Christine Doczy; D-Ann Kleidosty; Gary D. Eklund; Sharon J. Potts; Sylvia M. Ogle; William G. Moody

all of the city of Atlanta, state of GA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 1st day of April, 2016.



First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

By: David M. Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 1st day of April, 2016, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Plymouth Twp., Montgomery County
My Commission Expires March 28, 2017
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-law and Authorizations of First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, which are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS - Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Gregory W. Davenport, the undersigned, Assistant Secretary, of First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 7th day of April, 2016.



By: Gregory W. Davenport
Gregory W. Davenport, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit,
currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call
1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

CONTINUATION
CERTIFICATE

SAFECO Insurance Company of America

, Surety upon

a certain Bond No. 4993104

dated effective June 30, 1987
(MONTH-DAY-YEAR)

on behalf of Southern Company Services, Inc.
(PRINCIPAL)

and in favor of Georgia - Dept. of Natural Resources
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2016
(MONTH-DAY-YEAR)

and ending on June 30, 2017
(MONTH-DAY-YEAR)

Amount of bond \$10,000.00

Description of bond Water Well Contractors & Drillers

PROVIDED: That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.

Signed and dated on April 07, 2016
(MONTH-DAY-YEAR)

SAFECO Insurance Company of America

By 

D-Ann Kleidosty, Attorney-in-Fact

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 7310252

First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America are corporations duly organized under the laws of the State of New Hampshire (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Brooke A. Sharp; Christine Doczy; D-Ann Kleidosty; Gary D. Eklund; Sharon J. Potts; Sylvia M. Ogle; William G. Moody

all of the city of Atlanta, state of GA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 1st day of April, 2016.



First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

By: David M. Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 1st day of April, 2016, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Plymouth Twp., Montgomery County
My Commission Expires March 28, 2017
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-law and Authorizations of First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, which are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS - Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Gregory W. Davenport, the undersigned, Assistant Secretary, of First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 7th day of April, 2016.



By: Gregory W. Davenport
Gregory W. Davenport, Assistant Secretary

To confirm the validity of this Power of Attorney call
1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

GENERAL PURPOSE RIDER

To be attached to and form part of Bond Number 09157828 effective June 30, 2015 issued by the Fidelity and Deposit Company of Maryland in the amount of Twenty Thousand and No/100 (\$20,000.00), on behalf of Craig Penton dba Terracon Consultants, Inc. as Principal, and in favor of Director of the Environmental Protection Division, Department of Natural Resources, State of Georgia as Obligee:

NOW Therefore, it is agreed that:

The expiration date of the bond is hereby amended to:

June 30, 2017

It is further understood and agreed that all other terms and conditions of this bond shall remain unchanged.

This rider is to be effective the 30th day of June , 2015 .

Signed, sealed and dated this 4th day of November , 2015 .

Craig Penton dba Terracon Consultants, Inc.
Principal

Fidelity and Deposit Company of Maryland
Surety

Christy M. Braile, Attorney-in-Fact

6/4/14 sent to
Craig Penton
(Stacy Adams)

FOR YOUR RECORDS

Bond Number 09157828

Performance Bond For Water Well Contractors And Drillers

Name of Water Well Contractor or Driller Craig Penton dba Terracon Consultants, Inc.

Know All Men By These Present

That we Craig Penton dba Terracon Consultants, Inc. AND ANY AND ALL EMPLOYEES, OFFICERS AND PARTNERS, as Principal, and Fidelity and Deposit Company of Maryland as Surety, are held and firmly bound unto the Director of the Environmental Protection Division (Director), Department of Natural Resources, State of Georgia and his or her Successor or Successors in office, as Oblige, in the full sum of **TWENTY THOUSAND AND NO/00 DOLLARS (\$20,000.00)** for the payment of which will and truly to be made, we bind ourselves, our heir, administrators, successors and assigns, jointly and severally, by the present.

WHEREAS, the WATER WELL STANDARDS ACT OF 1985 (Ga. Laws 1985, p. 1192) (the "ACT") requires that water well contractors and drillers file performance bonds with the director to ensure compliance with the ACT; and WHEREAS the above bound PRINCIPAL is subject to the terms and provisions of said ACT. NOW, THEREFORE, the conditions of this obligation are such that if the above bound PRINCIPAL shall fully and faithfully perform the duties and in all things comply with the procedures and standards set forth in the ACT as now and hereafter amended, and the rules and regulations promulgated pursuant thereto, including but not limited to the correction of any violation of such procedures and standards upon discovery, irrespective of whether such discovery is made before completion of any well subject to this bond, then this obligation shall be void; otherwise of full force and effect.

And Surety, for value received, agrees that no amendment to existing laws, rules or regulations, or adoption of new laws, rules or regulations shall in anyway discharge its obligation on this bond, and does hereby waive notice of any such amendment, adoption or modification.

This bond shall be effective from date of issuance and shall continue in effect until terminated by expiration, mutual agreement or cancellation upon sixty (60) days written notice to Principal and Oblige; provided that the rights of the oblige and beneficiaries under this bond which arose prior to such termination shall continue.

The bond is effective June 4, 2014 and unless sooner terminated, this bond shall terminate June 30, 2015. In Witness Whereof the Principal and Surety have caused these present to be duly signed and sealed, this 4th day of, June 20 14.

PRINCIPAL, BY _____ (L.S.) TITLE: _____

SURETY BY: Christy M. McCart, Attorney-in-Fact

GEORGIA REGISTERED AGENT N/A SEAL: _____

Revised December 2012

COPY

CONTINUATION
CERTIFICATE

Atlantic Specialty Insurance Company

, Surety upon

a certain Bond No. **800031223**

dated effective June 30, 2017
(MONTH-DAY-YEAR)

on behalf of Michael C. Rice and Cascade Drilling, L.P., any and all employees, officers and partners
(PRINCIPAL)

and in favor of State of Georgia
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2019
(MONTH-DAY-YEAR)

and ending on June 30, 2021
(MONTH-DAY-YEAR)

Amount of bond Thirty Thousand and Zero/100 (\$30,000.00)

Description of bond Water Well Contractor Performance Bond

Premium: \$1,200.00

PROVIDED: That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.

Signed and dated on May 9, 2019
(MONTH-DAY-YEAR)
Atlantic Specialty Insurance Company

By _____
Attorney-in-Fact Elizabeth R. Hahn

Parker, Smith & Feek, Inc.
Agent

2233 112th Ave NE Bellevue, WA 98004
Address of Agent

(425) 709-3600
Telephone Number of Agent

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that ATLANTIC SPECIALTY INSURANCE COMPANY, a New York corporation with its principal office in Plymouth, Minnesota, does hereby constitute and appoint: **Deanna M. French, Susan B. Larson, Elizabeth R. Hahn, Jana M. Roy, Scott McGilvray, Mindee L. Rankin, Ronald J. Lange, John R. Claeys, Roger Kaltenbach, Guy Armfield, Scott Fisher, Andrew P. Larsen, Nicholas Fredrickson**, each individually if there be more than one named, its true and lawful Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof; provided that no bond or undertaking executed under this authority shall exceed in amount the sum of: **sixty million dollars (\$60,000,000)** and the execution of such bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof in pursuance of these presents, shall be as binding upon said Company as if they had been fully signed by an authorized officer of the Company and sealed with the Company seal. This Power of Attorney is made and executed by authority of the following resolutions adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the

Resolved: That the President, any Senior Vice President or Vice-President (each an "Authorized Officer") may execute for and in behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and affix the seal of the Company thereto; and that the Authorized Officer may appoint and authorize an Attorney-in-Fact to execute on behalf of the Company any and all such instruments and to affix the Company seal thereto; and that the Authorized Officer may at any time remove any such Attorney-in-Fact and revoke all power and authority given to any such Attorney-in-Fact.

Resolved: That the Attorney-in-Fact may be given full power and authority to execute for and in the name and on behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and any such instrument executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed and sealed by an Authorized Officer and, further, the Attorney-in-Fact is hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof.

This power of attorney is signed and sealed by facsimile under the authority of the following Resolution adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the signature of an Authorized Officer, the signature of the Secretary or the Assistant Secretary, and the Company seal may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing an Attorney-in-Fact for purposes only of executing and sealing any bond, undertaking, recognizance or other written obligation in the nature thereof, and any such signature and seal where so used, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this twenty-sixth day of October, 2017.

STATE OF MINNESOTA
HENNEPIN COUNTY

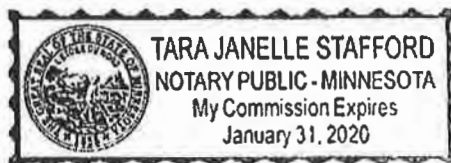


By



Paul J. Brehm, Senior Vice President

On this twenty-sixth day of October, 2017, before me personally came Paul J. Brehm, Senior Vice President of ATLANTIC SPECIALTY INSURANCE COMPANY, to me personally known to be the individual and officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, that he is the said officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the seal of said Company and that the said seal and the signature as such officer was duly affixed and subscribed to the said instrument by the authority and at the direction of the Company.

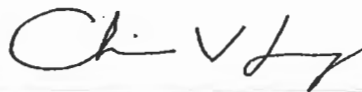


Notary Public

I, the undersigned, Secretary of ATLANTIC SPECIALTY INSURANCE COMPANY, a New York Corporation, do hereby certify that the foregoing power of attorney is in full force and has not been revoked, and the resolutions set forth above are now in force.

Signed and sealed. Dated 9 day of May, 2019

This Power of Attorney expires
October 1, 2019



Christopher V. Jerry, Secretary

CONTINUATION
CERTIFICATE

SAFECO Insurance Company of America

, Surety upon

a certain Bond No. **4993104**

dated effective June 30, 1987
(MONTH-DAY-YEAR)

on behalf of Southern Company Services, Inc.
(PRINCIPAL)

and in favor of Georgia Department of Natural Resources, Environmental Protection Division
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2021
(MONTH-DAY-YEAR)

and ending on June 30, 2022
(MONTH-DAY-YEAR)

Amount of bond Fifteen Thousand Dollars and 00/100 (\$15,000.00)

Description of bond Water Well Contractors & Drillers

Premium: \$100.00

PROVIDED: That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.

Signed and dated on 05/06/2021
(MONTH-DAY-YEAR)
SAFECO Insurance Company of America
175 Berkeley Street, Boston, MA 02116

By 
Attorney-in-Fact Jeffrey M. Wilson, Attorney-in-Fact

McGriff Insurance Services, Inc.
Agent

2211 7th Avenue South, Birmingham, AL 35233
Address of Agent

(205) 252-9871
Telephone Number of Agent



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

American States Insurance Company
First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

Certificate No: **8205019-016032**

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American States Insurance Company is a corporation duly organized under the laws of the State of Indiana, that First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America are corporations duly organized under the laws of the State of New Hampshire (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Alisa B. Ferris; Anna Childress; Jeffrey M. Wilson; Mark W. Edwards II; Richard H. Mitchell; Robert R. Freel; Sam Audia; William M. Smith

all of the city of Birmingham state of AL each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 11th day of March, 2021.

American States Insurance Company
First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

By: David M. Carey
David M. Carey, Assistant Secretary



State of PENNSYLVANIA ss
County of MONTGOMERY

On this 11th day of March, 2021 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-law and Authorizations of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, which are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorney-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 6th day of May, 2021.



By: Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

CONTINUATION
CERTIFICATE

SAFECO Insurance Company of America

, Surety upon

a certain Bond No. **4993104**

dated effective June 30, 1987
(MONTH-DAY-YEAR)

on behalf of Southern Company Services, Inc.
(PRINCIPAL)

and in favor of Georgia Department of Natural Resources, Environmental Protection Division
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2022
(MONTH-DAY-YEAR)

and ending on June 30, 2023
(MONTH-DAY-YEAR)

Amount of bond Fifteen Thousand Dollars and 00/100 (\$15,000.00)

Description of bond Water Well Contractors & Drillers

Premium: \$100.00

PROVIDED: That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.

Signed and dated on 05/06/2021
(MONTH-DAY-YEAR)

SAFECO Insurance Company of America

175 Berkeley Street, Boston, MA 02116

By

Jeffrey M. Wilson, Attorney-in-Fact

McGriff Insurance Services, Inc.

Agent

2211 7th Avenue South, Birmingham, AL 35233

Address of Agent

(205) 252-9871

Telephone Number of Agent



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

American States Insurance Company
First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

Certificate No: **8205019-016032**

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American States Insurance Company is a corporation duly organized under the laws of the State of Indiana, that First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America are corporations duly organized under the laws of the State of New Hampshire (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Alisa B. Ferris; Anna Childress; Jeffrey M. Wilson; Mark W. Edwards II; Richard H. Mitchell; Robert R. Freel; Sam Audia; William M. Smith

all of the city of Birmingham state of AL each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 11th day of March, 2021.

American States Insurance Company
First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

By: David M. Carey
David M. Carey, Assistant Secretary



State of PENNSYLVANIA ss
County of MONTGOMERY

On this 11th day of March, 2021 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-law and Authorizations of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, which are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorney-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

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Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 6th day of May, 2021.



By: Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

CERTIFIED WELL SURVEY REPORT



1469 HIGHWAY 20 WEST • McDONOUGH, GA 30253
phone: 770-707-0777 fax: 770-707-0755
WWW.METRO-ENGINEERING.COM

SURVEYOR'S REPORT

SCOPE OF WORK:

Field survey of existing monitoring wells at Georgia Power Company, Plant McDonough in Smyrna, GA.

Horizontal and vertical datum was derived from RTK GPS observations with corrections from the eGPS network and conventional surveying equipment. Horizontal datum is Georgia State Plane, West Zone, NAD83(2011) and vertical datum is NAVD88.

EQUIPMENT USED TO ESTABLISH THE MONITORING WELL LOCATIONS:

Trimble R8 Dual Frequency GPS Receiver
Leica TS16 Total Station
Leica DNA10 Digital Level

CERTIFICATION:

I hereby certify that the center of well casing (PVC) has a horizontal accuracy of 0.5+/- feet or better using a Trimble R8 Dual Frequency RTK (survey-grade) global positioning system receiver referencing the Georgia State Plane, west zone, NAD83(2011) coordinate system in US survey feet. The top of well casing (PVC) elevation data was determined in feet above mean sea level based on the NAVD88 vertical datum. Vertical data was confirmed to be accurate within 0.01 foot through establishment of a closed level check loop with a Leica DNA10 digital level having a published accuracy of 0.9mm per dual-traverse kilometer.


James R. Green R.L.S. No. 2543



Date: 8/10/20

Plant McDonough
Monitoring Well Locations
August 7, 2020

| Well ID | LATITUDE | LONGITUDE | NAIL NORTHING | NAIL EASTING | NAIL ELEV | PVC NORTHING | PVC EASTING | TOP PVC ELEV | ELEV AT BASE |
|---------|------------|------------|------------------|-----------------|--------------|-----------------|----------------|-----------------|-----------------|
| B-100 | N33.821507 | W84.477304 | 1390255.7 | 2202241.1 | 775.32 | 1390254.8 | 2202242.1 | 777.95 | 775.3 |
| B-16 | N33.827948 | W84.473793 | 1392595.3 | 2203314.4 | 823.54 | 1392595.1 | 2203315.4 | 826.47 | 823.6 |
| B-18 | N33.827740 | W84.475241 | 1392520.2 | 2202876.1 | 823.89 | 1392521.0 | 2202875.5 | 826.56 | 823.9 |
| B-24 | N33.827616 | W84.479935 | 1392479.7 | 2201451.1 | 819.19 | 1392479.9 | 2201450.0 | 822.11 | 819.3 |
| B-25 | N33.828532 | W84.479765 | 1392813.0 | 2201503.9 | 833.41 | 1392813.3 | 2201502.7 | 836.54 | 833.5 |
| B-26 | N33.829336 | W84.479610 | 1393105.5 | 2201551.4 | 850.61 | 1393105.6 | 2201550.4 | 853.60 | 850.6 |
| B-28 | N33.826209 | W84.479175 | 1391968.5 | 2201678.9 | 813.28 | 1391967.4 | 2201679.2 | 816.08 | 813.3 |
| B-29 | N33.825994 | W84.480021 | 1391891.0 | 2201421.4 | 813.47 | 1391890.0 | 2201422.0 | 816.43 | 813.5 |
| B-3 | N33.831925 | W84.476784 | 1394044.3 | 2202412.0 | 834.86 | 1394045.1 | 2202411.5 | 837.78 | 835.0 |
| B-31 | N33.826387 | W84.481648 | 1392034.9 | 2200928.0 | 794.84 | 1392034.3 | 2200928.5 | 797.47 | 794.9 |
| B-41 | N33.823333 | W84.478925 | 1390921.5 | 2201751.1 | 792.40 | 1390920.8 | 2201751.9 | 795.20 | 792.4 |
| B-50 | N33.825358 | W84.478639 | 1391656.0 | 2201840.9 | 806.49 | 1391657.1 | 2201841.0 | 809.67 | 809.2 |
| B-51 | N33.822173 | W84.481705 | 1390500.7 | 2200905.6 | 763.29 | 1390501.2 | 2200906.5 | 765.92 | 763.3 |
| B-52 | N33.827143 | W84.480378 | 1392307.3 | 2201314.3 | 820.18 | 1392308.3 | 2201314.8 | 822.89 | 820.3 |
| B-54 | N33.832971 | W84.474387 | 1394422.3 | 2203141.2 | 782.54 | 1394423.5 | 2203140.7 | 785.46 | 782.6 |
| B-55 | N33.832207 | W84.471067 | 1394142.2 | 2204146.8 | 822.86 | 1394142.6 | 2204147.9 | 825.12 | 822.9 |
| B-56 | N33.831700 | W84.470934 | 1393957.6 | 2204186.8 | 820.95 | 1393957.9 | 2204187.8 | 823.59 | 821.0 |
| B-57 | N33.824649 | W84.475687 | 1391397.5 | 2202736.1 | 786.03 | 1391396.3 | 2202736.9 | 789.04 | 786.0 |
| B-58 | N33.823902 | W84.476706 | 1391126.5 | 2202426.0 | 785.20 | 1391125.7 | 2202426.5 | 788.17 | 785.2 |
| B-59 | N33.832766 | W84.474846 | 1394348.1 | 2203001.5 | 785.41 | 1394349.1 | 2203001.1 | 788.00 | 785.5 |
| B-6 | N33.832961 | W84.473972 | 1394420.5 | 2203266.5 | 786.45 | 1394419.5 | 2203266.5 | 789.47 | 786.5 |
| B-60 | N33.823839 | W84.475205 | 1391101.4 | 2202882.2 | 779.25 | 1391100.7 | 2202881.6 | 782.13 | 779.2 |
| B-61 | N33.823442 | W84.476443 | 1390958.4 | 2202506.9 | 778.95 | 1390957.8 | 2202505.8 | 782.09 | 779.0 |
| B-62 | N33.820331 | W84.478719 | N.A. | N.A. | N.A. | 1389828.1 | 2201811.2 | 760.08 | 760.4 |
| B-63 | N33.823559 | W84.474888 | 1390998.7 | 2202977.5 | 777.37 | 1390999.1 | 2202978.1 | 777.10 | 777.3 |
| B-64 | N33.832856 | W84.474746 | 1394382.3 | 2203030.6 | 785.98 | 1394381.9 | 2203031.3 | 785.83 | 786.1 |
| B-65 | N33.832862 | W84.471389 | N.A. | N.A. | N.A. | 1394381.2 | 2204050.8 | 821.95 | 822.3 |
| B-66 | N33.831427 | W84.470638 | 1393859.2 | 2204277.7 | 813.33 | 1393858.2 | 2204277.5 | 815.90 | 813.3 |

Plant McDonough
Monitoring Well Locations
August 7, 2020

| | | | | | | | | | |
|----------|------------|------------|-----------|-----------|--------|-----------|-----------|--------|-------|
| B-68 | N33.824362 | W84.482346 | 1391298.8 | 2200715.2 | 759.05 | 1391298.2 | 2200714.2 | 758.68 | 759.0 |
| B-7 | N33.832841 | W84.472887 | 1394375.6 | 2203596.0 | 806.04 | 1394374.6 | 2203596.1 | 809.16 | 806.1 |
| B-76 | N33.822783 | W84.475614 | 1390716.5 | 2202756.0 | 760.87 | 1390717.4 | 2202756.9 | 760.53 | 766.5 |
| B-77 | N33.823420 | W84.475007 | 1390949.4 | 2202941.4 | 777.12 | 1390948.7 | 2202942.0 | 776.86 | 777.1 |
| B-78 | N33.832708 | W84.474987 | 1394327.3 | 2202958.7 | 787.79 | 1394328.2 | 2202958.2 | 790.75 | 788.0 |
| B-79 | N33.833068 | W84.474116 | 1394457.8 | 2203223.6 | 785.84 | 1394458.6 | 2203223.0 | 788.66 | 785.9 |
| B-80 | N33.832834 | W84.473091 | 1394373.5 | 2203533.9 | 801.73 | 1394372.6 | 2203533.9 | 804.47 | 801.8 |
| B-81 | N33.832815 | W84.472409 | 1394365.8 | 2203741.3 | 817.64 | 1394364.9 | 2203741.1 | 820.56 | 817.7 |
| B-82 | N33.831129 | W84.470701 | 1393750.1 | 2204256.8 | 807.55 | 1393750.0 | 2204258.1 | 810.07 | 807.5 |
| B-83 | N33.822832 | W84.475816 | 1390735.9 | 2202695.1 | 777.17 | 1390735.5 | 2202695.6 | 776.98 | 777.1 |
| B-84 | N33.821939 | W84.477307 | 1390411.2 | 2202242.5 | 776.52 | 1390411.9 | 2202241.9 | 776.34 | 776.6 |
| B-85 | N33.832998 | W84.474407 | 1394432.8 | 2203134.8 | 782.71 | 1394433.4 | 2203134.5 | 782.54 | 782.7 |
| B-86 | N33.833127 | W84.474170 | 1394479.5 | 2203207.0 | 784.52 | 1394480.0 | 2203206.6 | 784.29 | 784.6 |
| B-87 | N33.832915 | W84.473100 | 1394400.8 | 2203531.3 | 800.32 | 1394401.9 | 2203531.3 | 803.37 | 800.4 |
| B-88 | N33.832914 | W84.472419 | 1394399.9 | 2203738.1 | 816.80 | 1394401.1 | 2203738.3 | 820.07 | 817.0 |
| B-89 | N33.832910 | W84.471394 | 1394398.7 | 2204048.6 | 822.53 | 1394398.4 | 2204049.4 | 822.36 | 822.6 |
| B-90 | N33.833185 | W84.474151 | 1394500.4 | 2203212.8 | 784.16 | 1394501.0 | 2203212.6 | 784.00 | 784.2 |
| B-91 | N33.833036 | W84.474442 | N.A. | N.A. | N.A. | 1394447.1 | 2203123.9 | 782.98 | 783.1 |
| B-92 | N33.832887 | W84.474761 | 1394393.2 | 2203026.4 | 785.30 | 1394392.7 | 2203026.7 | 785.08 | 785.3 |
| B-93 | N33.832763 | W84.475024 | 1394348.1 | 2202947.0 | 789.19 | 1394348.7 | 2202946.7 | 789.07 | 789.2 |
| B-94 | N33.832915 | W84.473158 | 1394400.9 | 2203513.8 | 799.12 | 1394402.0 | 2203513.7 | 801.74 | 799.2 |
| B-95 | N33.833233 | W84.474299 | 1394519.5 | 2203167.2 | 784.18 | 1394518.6 | 2203167.7 | 784.00 | 784.3 |
| B-96 | N33.833122 | W84.474524 | 1394479.4 | 2203098.8 | 785.19 | 1394478.7 | 2203099.3 | 784.92 | 785.3 |
| B-97 | N33.832988 | W84.474823 | 1394430.6 | 2203008.0 | 786.50 | 1394430.0 | 2203008.3 | 786.29 | 786.6 |
| B-98 | N33.832883 | W84.475066 | 1394392.7 | 2202934.6 | 789.81 | 1394392.5 | 2202934.0 | 789.67 | 789.8 |
| B-99 | N33.833247 | W84.474573 | 1394524.7 | 2203084.9 | 782.57 | 1394524.2 | 2203084.5 | 782.39 | 782.6 |
| DGWA-53 | N33.830346 | W84.479224 | 1393473.5 | 2201667.7 | 841.37 | 1393472.8 | 2201668.8 | 844.26 | 841.3 |
| DGWA-70A | N33.822116 | W84.482741 | 1390480.2 | 2200591.7 | 805.67 | 1390481.4 | 2200591.6 | 808.52 | 805.8 |
| DGWA-71 | N33.831695 | W84.479078 | 1393964.3 | 2201714.7 | 861.22 | 1393963.3 | 2201714.8 | 863.84 | 861.2 |
| DGWC-8 | N33.832699 | W84.471944 | 1394323.0 | 2203882.3 | 824.02 | 1394322.2 | 2203882.1 | 826.38 | 824.1 |

Plant McDonough
Monitoring Well Locations
August 7, 2020

| | | | | | | | | | |
|----------|------------|------------|-----------|-----------|--------|-----------|-----------|--------|-------|
| DGWC-37 | N33.822121 | W84.481661 | 1390483.0 | 2200920.7 | 763.64 | 1390482.2 | 2200919.8 | 766.21 | 763.7 |
| DGWC-10 | N33.831317 | W84.470889 | 1393818.1 | 2204200.0 | 820.82 | 1393818.3 | 2204201.1 | 823.55 | 820.9 |
| DGWC-11 | N33.830571 | W84.471001 | 1393546.9 | 2204167.3 | 797.99 | 1393547.1 | 2204166.2 | 800.57 | 798.1 |
| DGWC-12 | N33.829478 | W84.471122 | 1393149.8 | 2204127.3 | 771.10 | 1393149.4 | 2204128.3 | 773.86 | 771.2 |
| DGWC-13 | N33.828740 | W84.471263 | 1392880.8 | 2204085.7 | 791.20 | 1392881.1 | 2204084.6 | 794.10 | 791.3 |
| DGWC-14 | N33.827896 | W84.471495 | 1392574.5 | 2204014.4 | 789.69 | 1392574.2 | 2204013.3 | 792.40 | 789.8 |
| DGWC-15 | N33.827810 | W84.472595 | 1392544.2 | 2203677.9 | 821.43 | 1392544.1 | 2203679.0 | 824.50 | 821.5 |
| DGWC-17 | N33.828084 | W84.474664 | 1392645.0 | 2203050.2 | 834.14 | 1392645.6 | 2203051.0 | 837.05 | 834.2 |
| DGWC-19 | N33.827248 | W84.476143 | 1392341.8 | 2202601.5 | 822.87 | 1392342.6 | 2202601.0 | 825.46 | 822.9 |
| DGWC-2 | N33.831683 | W84.477745 | 1393957.1 | 2202119.4 | 848.17 | 1393958.0 | 2202119.5 | 850.88 | 848.3 |
| DGWC-20 | N33.826754 | W84.477079 | 1392163.7 | 2202316.3 | 819.66 | 1392164.5 | 2202315.6 | 822.14 | 819.8 |
| DGWC-21 | N33.826487 | W84.477911 | 1392066.4 | 2202063.3 | 813.47 | 1392067.5 | 2202063.5 | 816.28 | 813.5 |
| DGWC-22 | N33.826647 | W84.478805 | 1392125.2 | 2201791.7 | 813.69 | 1392126.3 | 2201791.9 | 816.59 | 813.7 |
| DGWC-23 | N33.826957 | W84.479498 | 1392240.4 | 2201582.8 | 815.63 | 1392239.7 | 2201582.0 | 818.37 | 815.7 |
| DGWC-38 | N33.821795 | W84.480906 | 1390363.6 | 2201149.0 | 754.67 | 1390362.7 | 2201148.6 | 757.43 | 754.7 |
| DGWC-39 | N33.821635 | W84.479616 | 1390302.5 | 2201539.8 | 756.93 | 1390303.6 | 2201540.1 | 759.89 | 757.0 |
| DGWC-4 | N33.832275 | W84.475959 | 1394170.6 | 2202662.7 | 812.06 | 1394171.5 | 2202662.4 | 814.85 | 812.1 |
| DGWC-40 | N33.822523 | W84.478678 | 1390625.1 | 2201826.7 | 776.12 | 1390625.7 | 2201825.9 | 779.06 | 776.2 |
| DGWC-42 | N33.824453 | W84.478540 | 1391327.4 | 2201869.1 | 801.98 | 1391327.8 | 2201870.2 | 804.68 | 802.0 |
| DGWC-47 | N33.825080 | W84.476104 | 1391553.1 | 2202611.3 | 794.35 | 1391553.8 | 2202610.5 | 797.45 | 794.3 |
| DGWC-48 | N33.824420 | W84.477157 | 1391314.2 | 2202289.2 | 785.21 | 1391314.6 | 2202290.2 | 788.33 | 785.2 |
| DGWC-5 | N33.832647 | W84.474964 | 1394305.3 | 2202965.3 | 788.64 | 1394306.3 | 2202965.1 | 791.75 | 788.7 |
| DGWC-67 | N33.823417 | W84.481959 | 1390953.6 | 2200830.0 | 766.80 | 1390953.8 | 2200830.7 | 766.70 | 767.0 |
| DGWC-68A | N33.824370 | W84.482278 | 1391300.9 | 2200733.4 | 765.06 | 1391301.2 | 2200734.9 | 765.33 | 765.4 |
| DGWC-69 | N33.825150 | W84.482537 | 1391583.9 | 2200657.2 | 763.99 | 1391585.0 | 2200657.1 | 763.75 | 764.0 |
| DGWC-9 | N33.831969 | W84.470993 | 1394055.6 | 2204168.9 | 821.86 | 1394055.9 | 2204170.0 | 824.35 | 821.8 |



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SURVEYOR'S REPORT

SCOPE OF WORK:

Field survey of existing monitoring wells at Georgia Power Company, Plant McDonough in Smyrna, GA.

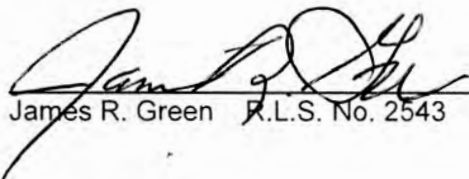
Horizontal and vertical datum was derived from RTK GPS observations with corrections from the eGPS network and conventional surveying equipment. Horizontal datum is Georgia State Plane, West Zone, NAD83(2011) and vertical datum is NAVD88.

EQUIPMENT USED TO ESTABLISH THE MONITORING WELL LOCATIONS:

Trimble R8 Dual Frequency GPS Receiver
Leica TS16 Total Station
Leica DNA10 Digital Level

CERTIFICATION:

I hereby certify that the center of well casing (PVC) has a horizontal accuracy of 0.5+/- feet or better using a Trimble R8 Dual Frequency RTK (survey-grade) global positioning system receiver referencing the Georgia State Plane, west zone, NAD83(2011) coordinate system in US survey feet. The top of well casing (PVC) elevation data was determined in feet above mean sea level based on the NAVD88 vertical datum. Vertical data was confirmed to be accurate within 0.01 foot through establishment of a closed level check loop with a Leica DNA10 digital level having a published accuracy of 0.9mm per dual-traverse kilometer.


James R. Green R.L.S. No. 2543

Date: 1/6/21



Plant McDonough
Monitoring Well Locations
January 6, 2021

| Well ID | LATITUDE | LONGITUDE | NAIL NORTHING | NAIL EASTING | NAIL ELEV | PVC NORTHING | PVC EASTING | TOP PVC ELEV | ELEV AT BASE |
|---------|------------|------------|------------------|-----------------|-----------|-----------------|----------------|-----------------|-----------------|
| B-101D | N33.831990 | W84.470999 | 1394063.3 | 2204167.1 | 821.24 | 1394063.6 | 2204168.2 | 824.29 | 821.2 |
| B-102D | N33.831344 | W84.470891 | 1393828.2 | 2204199.0 | 820.64 | 1393828.4 | 2204200.4 | 823.42 | 820.6 |
| B-103D | N33.825052 | W84.476091 | 1391542.8 | 2202615.0 | 793.77 | 1391543.5 | 2202614.4 | 795.96 | 793.8 |
| B-104D | N33.824431 | W84.477129 | 1391317.9 | 2202297.4 | 785.31 | 1391318.3 | 2202298.5 | 787.90 | 785.3 |
| B-105D | N33.822547 | W84.478659 | 1390633.9 | 2201832.7 | 776.03 | 1390634.5 | 2201831.9 | 779.01 | 776.0 |
| B-106D | N33.832712 | W84.471987 | 1394328.3 | 2203869.6 | 823.39 | 1394327.1 | 2203869.2 | 826.21 | 823.5 |
| B-107D | N33.827226 | W84.476158 | 1392333.6 | 2202597.0 | 820.44 | 1392334.5 | 2202596.4 | 823.38 | 820.6 |
| B-108D | N33.826733 | W84.477091 | 1392155.6 | 2202313.1 | 818.33 | 1392156.1 | 2202312.5 | 821.13 | 818.4 |
| B-109D | N33.831682 | W84.477720 | 1393956.4 | 2202127.0 | 847.78 | 1393957.5 | 2202127.0 | 850.73 | 847.8 |
| B-110D | N33.824352 | W84.482274 | 1391294.0 | 2200734.6 | 764.55 | 1391294.4 | 2200736.0 | 764.61 | 764.7 |
| B-111D | N33.832640 | W84.474992 | 1394302.6 | 2202956.5 | 789.04 | 1394303.4 | 2202956.4 | 791.87 | 789.1 |
| B-72 | N33.824206 | W84.482307 | 1391241.2 | 2200724.9 | 758.45 | 1391241.4 | 2200725.9 | 758.46 | 758.5 |
| B-73 | N33.824509 | W84.482395 | 1391351.5 | 2200698.5 | 759.16 | 1391351.8 | 2200699.4 | 759.21 | 759.2 |
| B-74 | N33.824311 | W84.482504 | 1391278.9 | 2200666.3 | 759.18 | 1391279.9 | 2200666.1 | 759.06 | 759.2 |
| DW-D1 | N33.832657 | W84.474840 | NA | NA | NA | 1394309.5 | 2203002.8 | 786.78 | 786.2 |
| DW-D2 | N33.832842 | W84.473838 | NA | NA | NA | 1394375.8 | 2203307.1 | 788.53 | 788.3 |
| DW-D3 | N33.832812 | W84.472368 | NA | NA | NA | 1394363.7 | 2203753.5 | 817.50 | 817.2 |
| DW-D4 | N33.831941 | W84.470988 | NA | NA | NA | 1394045.5 | 2204171.7 | 820.68 | 820.4 |

| STAFF GAGE | LATITUDE | LONGITUDE | T/POST NORTHING | T/POST EASTING | TOP T/POST ELEV | TOP GAGE ELEV @ 8' | ELEV AT GRD |
|------------|------------|------------|--------------------|-------------------|--------------------|-----------------------|----------------|
| WT-1 | N33.825586 | W84.482522 | 1391743.6 | 2200662.1 | 759.85 | 759.32 | 755.3 |
| WT-3 | N33.824028 | W84.482353 | 1391176.9 | 2200711.8 | 757.80 | 756.92 | 752.6 |
| WT-4 | N33.822014 | W84.481690 | 1390443.3 | 2200910.8 | 754.13 | 753.21 | 749.2 |
| WT-5 | N33.821283 | W84.480144 | 1390175.9 | 2201379.5 | 749.01 | 749.07 | 744.9 |
| ET-1 | N33.832761 | W84.474439 | 1394347.0 | 2203124.5 | NA | 779.94 | 775.9 |



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SURVEYOR'S REPORT

SCOPE OF WORK:

Field survey of existing monitoring wells at Georgia Power Company, Plant McDonough in Smyrna, GA.

Horizontal and vertical datum was derived from RTK GPS observations with corrections from the eGPS network and conventional surveying equipment. Horizontal datum is Georgia State Plane, West Zone, NAD83(2011) and vertical datum is NAVD88.

EQUIPMENT USED TO ESTABLISH THE MONITORING WELL LOCATIONS:

Trimble R8 Dual Frequency GPS Receiver
Leica TS16 Total Station
Leica DNA10 Digital Level

CERTIFICATION:

I hereby certify that the center of well casing (PVC) has a horizontal accuracy of 0.5+/- feet or better using a Trimble R8 Dual Frequency RTK (survey-grade) global positioning system receiver referencing the Georgia State Plane, west zone, NAD83(2011) coordinate system in US survey feet. The top of well casing (PVC) elevation data was determined in feet above mean sea level based on the NAVD88 vertical datum. Vertical data was confirmed to be accurate within 0.01 foot through establishment of a closed level check loop with a Leica DNA10 digital level having a published accuracy of 0.9mm per dual-traverse kilometer.


James R. Green R.L.S. No. 2543

Date: 5/11/21



Plant McDonough
Monitoring Well Locations
April 11, 2021

| Well ID | LATITUDE | LONGITUDE | NAIL NORTHING | NAIL EASTING | NAIL ELEV | PVC NORTHING | PVC EASTING | TOP PVC ELEV | ELEV AT BASE |
|---------|------------|------------|------------------|-----------------|--------------|-----------------|----------------|-----------------|-----------------|
| B-111D | N33.832640 | W84.474992 | 1394302.7 | 2202956.6 | 788.99 | 1394303.6 | 2202956.4 | 791.84 | 789.0 |
| B-112D | N33.825093 | W84.482513 | 1391564.0 | 2200663.1 | 765.98 | 1391564.2 | 2200664.1 | 765.58 | 766.1 |
| B-113D | N33.824270 | W84.482329 | 1391264.7 | 2200720.2 | 758.87 | 1391264.6 | 2200719.2 | 758.22 | 758.8 |
| B-115D | N33.824287 | W84.476200 | 1391266.0 | 2202580.1 | 786.43 | 1391265.3 | 2202580.7 | 789.17 | 786.4 |
| B-116D | N33.822123 | W84.482677 | 1390483.0 | 2200611.0 | 805.31 | 1390483.7 | 2200611.0 | 807.82 | 805.3 |
| B-117D | N33.831696 | W84.479036 | 1393964.7 | 2201727.1 | 861.23 | 1393963.8 | 2201727.3 | 863.82 | 861.2 |
| B-118 | N33.824143 | W84.483216 | 1391220.2 | 2200449.5 | 804.99 | 1391219.3 | 2200449.7 | 807.70 | 805.0 |
| B-119D | N33.824190 | W84.483226 | 1391237.5 | 2200446.4 | 804.53 | 1391236.4 | 2200446.6 | 807.15 | 804.5 |
| B-120D | N33.831931 | W84.476702 | 1394046.4 | 2202436.8 | 834.03 | 1394047.2 | 2202436.4 | 836.42 | 834.0 |



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SURVEYOR'S REPORT

SCOPE OF WORK:

Field survey of existing monitoring wells at Georgia Power Company, Plant McDonough in Smyrna, GA.


Horizontal and vertical datum was derived from RTK GPS observations with corrections received via a cellular modem utilizing the Leica "Smartnet" RTK Network and conventional surveying equipment. Horizontal datum is Georgia State Plane, West Zone, NAD83(2011) and vertical datum is NAVD88.

EQUIPMENT USED TO ESTABLISH THE MONITORING WELL LOCATIONS:

Leica GS18T GPS Receiver
Leica TS16 Total Station
Leica DNA10 Digital Level

CERTIFICATION:

I hereby certify that the center of well casing (PVC) has a horizontal accuracy of 0.5+/- feet or better using a Leica GS18T GPS (survey-grade) global positioning system receiver referencing the Georgia State Plane, West Zone, NAD83(2011) coordinate system in US survey feet. The top of well casing (PVC) elevation data was determined in feet above mean sea level based on the NAVD88 vertical datum. Vertical data was confirmed to be accurate within 0.01 foot through establishment of a closed level check loop with a Leica DNA10 digital level having a published accuracy of 0.9mm per dual-traverse kilometer.


James R. Green R.L.S. No. 2543

Date: 5/10/22



Plant McDonough
Monitoring Well Locations
May 9, 2022

| Well ID | LATITUDE | LONGITUDE | NAIL NORTHING | NAIL EASTING | NAIL ELEV | PVC NORTHING | PVC EASTING | TOP PVC ELEV | ELEV AT BASE |
|---------|------------|------------|------------------|-----------------|--------------|-----------------|----------------|-----------------|-----------------|
| B-122D | N33.823541 | W84.474897 | 1390992.06 | 2202975.35 | 777.32 | 1390992.8 | 2202975.4 | 777.03 | 777.3 |
| B-123D | N33.824203 | W84.476108 | 1391233.80 | 2202608.91 | 778.85 | 1391234.4 | 2202608.4 | 781.80 | 779.0 |
| DWGC121 | N33.822829 | W84.481895 | 1390739.51 | 2200848.27 | 764.52 | 1390739.7 | 2200849.4 | 764.16 | 764.6 |



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SURVEYOR'S REPORT

SCOPE OF WORK:

Field survey of existing monitoring wells at Georgia Power Company, Plant McDonough in Smyrna, GA.

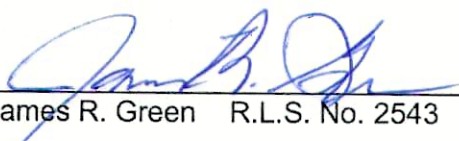
Horizontal and vertical datum was derived from RTK GPS observations with corrections received via a cellular modem utilizing the Leica "Smartnet" RTK Network and conventional surveying equipment. Horizontal datum is Georgia State Plane, West Zone, NAD83(2011) and vertical datum is NAVD88.

EQUIPMENT USED TO ESTABLISH THE MONITORING WELL LOCATIONS:

Leica GS18T GPS Receiver
Leica TS16 Total Station
Leica DNA10 Digital Level

CERTIFICATION:

I hereby certify that the center of well casing (PVC) has a horizontal accuracy of 0.5+/- feet or better using a Leica GS18T GPS (survey-grade) global positioning system receiver referencing the Georgia State Plane, West Zone, NAD83(2011) coordinate system in US survey feet. The top of well casing (PVC) elevation data was determined in feet above mean sea level based on the NAVD88 vertical datum. Vertical data was confirmed to be accurate within 0.01 foot through establishment of a closed level check loop with a Leica DNA10 digital level having a published accuracy of 0.9mm per dual-traverse kilometer.


James R. Green R.L.S. No. 2543



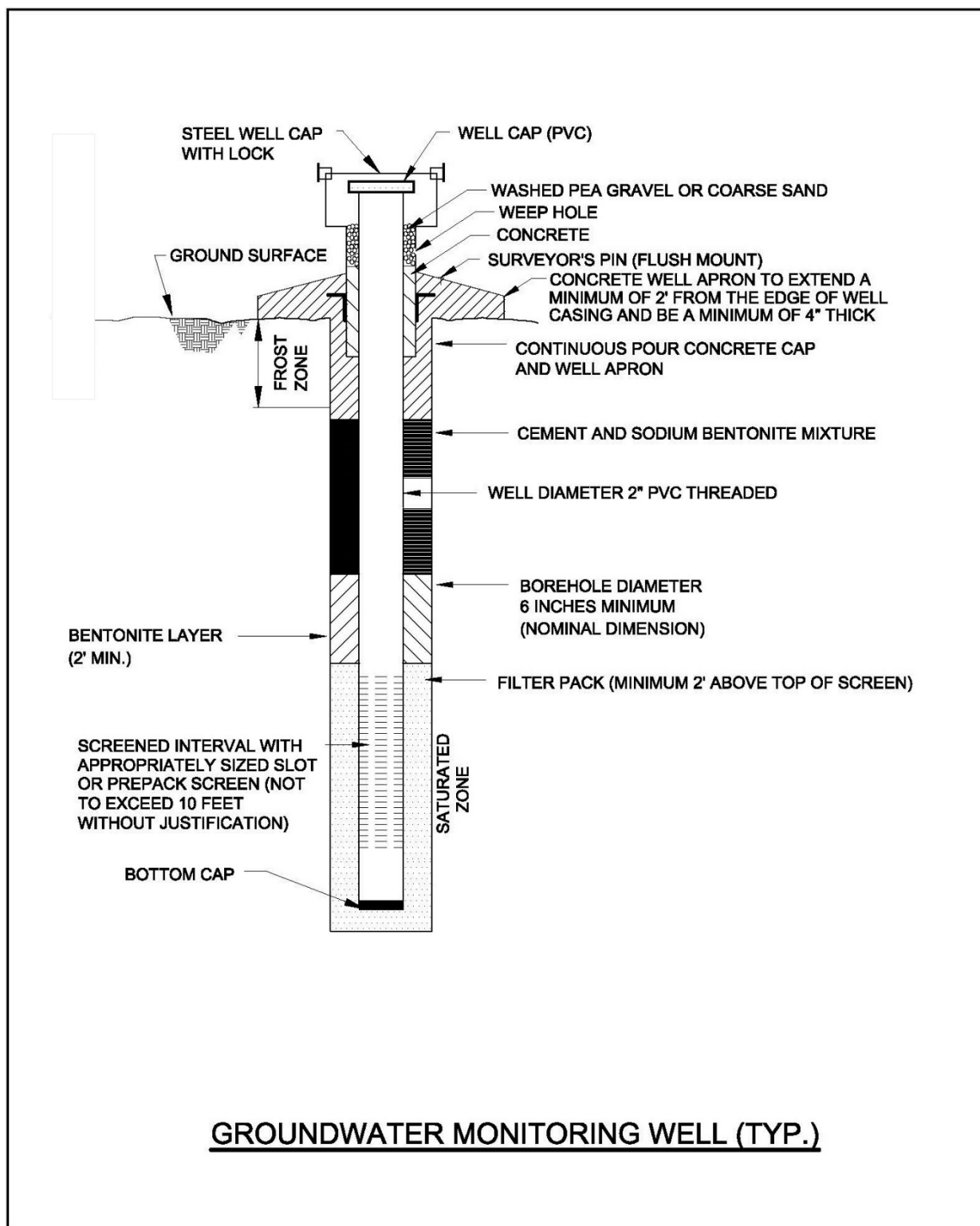
Date: 5/8/23

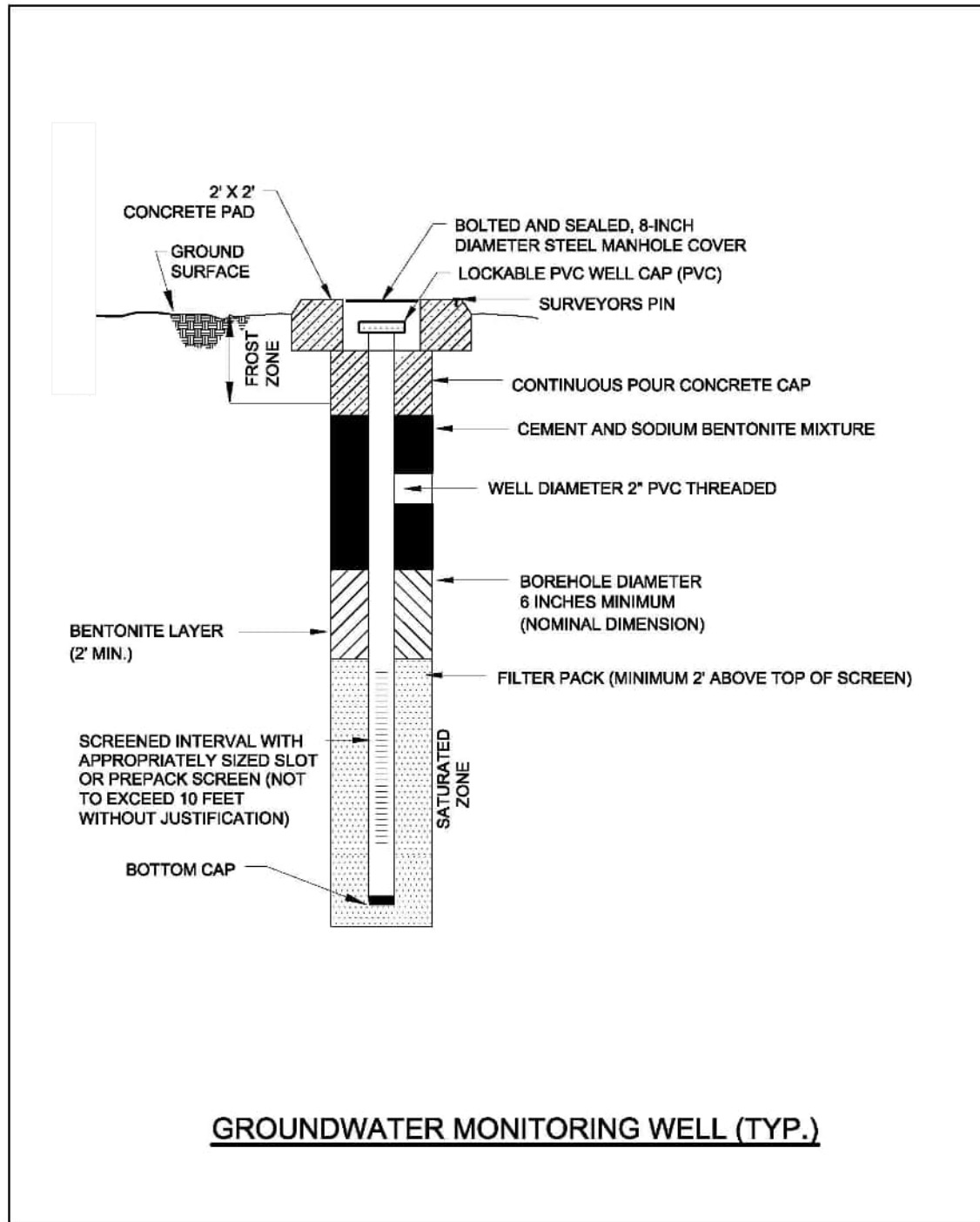
Plant McDonough
Monitoring Well Locations
May 4, 2023

| Well ID | LATITUDE | LONGITUDE | NAIL NORTHING | NAIL EASTING | NAIL ELEV | PVC NORTHING | PVC EASTING | TOP PVC ELEV | ELEV AT BASE |
|---------|------------|------------|------------------|-----------------|--------------|-----------------|----------------|-----------------|-----------------|
| B-125D | N33.832109 | W84.476228 | 1394111.1 | 2202580.9 | 819.15 | 1394111.6 | 2202580.7 | 821.70 | 819.1 |

APPENDIX B

GROUNDWATER MONITORING WELL DETAILS

APPENDIX B. GROUNDWATER MONITORING WELL DETAIL

APPENDIX B. GROUNDWATER MONITORING WELL DETAIL-FLUSH MOUNT WELL

APPENDIX C

GROUNDWATER SAMPLING PROCEDURES

APPENDIX C. GROUNDWATER SAMPLING PROCEDURES

Groundwater sampling will be conducted using the most current United States Environmental Protection Agency (US EPA) Region 4 Field Quality and Technical Procedures as a guide. The following procedures describe the general methods associated with groundwater sampling at the Site. Prior to sampling, the well must be evacuated (purged) to ensure that representative groundwater is obtained. To accomplish this objective, low-flow purging from the screened interval is recommended until target parameters listed below are stabilized and then, representative groundwater flowing from the geologic formation is collected. Any item coming in contact with the inside of the well casing, or the well water will be kept in a clean container and handled only with gloved hands. Field logbooks and forms shall be kept for each sampling event, and should include, but not be limited to, the following: well signage, well access, sampling and purging equipment condition, and any site conditions that may affect sampling.

The sampling team will follow the procedures below at each well to ensure that a representative sample is collected:

- 1) Check the well, the lock, and the locking cap for damage or evidence of tampering. Record observations and notify Georgia Power if it appears that the well has been compromised.
- 2) Measure and record the depth to water in all wells to be sampled prior to purging. Static water levels will be measured from each well, within a 24-hour period. The water level measuring device will consist of a probe and measuring tape capable of measuring water levels with accuracy to 0.01 feet.
- 3) Install Pump: If a dedicated pump is not present, slowly lower the pump into the well to the midpoint of the well screen or a depth otherwise approved by the hydrogeologist or project scientist. The pump intake must be kept at least two (2) feet above the bottom of the well to prevent disturbance and suspension of any sediment present in the bottom of the well. Record the depth to which the pump is lowered. Non-dedicated pumps and wiring will be decontaminated before use and between well locations using procedures described in the latest version of the Region 4 U.S. Environmental Protection Agency Laboratory Services and Applied Science Division *Operating Procedure for Field Equipment Cleaning and Decontamination* as a guide.
- 4) Measure Water Level: Immediately prior to purging, measure the water level again with the pump in the well. Leave the water level measuring device in the well.
- 5) Purge Well: Begin pumping the well at approximately 100 to 500 milliliters per minute (ml/min). Monitor the water level continually. Maintain a steady flow rate that results in a stabilized water level with 0.3 ft. or less of variability. Avoid entraining air in the tubing. Record each adjustment made to the pumping rate and the water level measured immediately after each adjustment.
- 6) Monitor Indicator Parameters: Monitor and record the field indicator parameters (turbidity, temperature, specific conductance, pH, oxidation reduction potential (ORP), and dissolved oxygen (DO)) approximately every three to five minutes. The well is considered stabilized and ready for sample collection when the indicator parameters have stabilized for three consecutive readings at a minimum:
 - ± 0.1 S.U. for pH
 - $\pm 5\%$ for specific conductance (conductivity)

- $\pm 10\%$ or 0.2 milligrams per liter (mg/L) for DO where DO>0.5 mg/L. If DO<0.5 mg/L no stabilization criteria apply
 - ≤ 5 nephelometric turbidity units (NTUs) for turbidity
 - Temperature – Record only, not used for stabilization criteria
 - ORP – Record only, not used for stabilization criteria
- 7) Collect samples at a low -flow rate according to the most current version of US EPA Region 4 Laboratory Services and Applied Science Division (LSASD) guidance document, *Operating Procedure: Groundwater Sampling* (US EPA, LSASDPROC-301-R6 and updates and such that drawdown of the water level within the well is stable. Flow rate must be reduced if excessive drawdown is observed during sampling. Sample containers should be filled with minimal turbulence by allowing the groundwater to flow from the tubing gently down the inside of the container. Sample collection should be performed according to the most current version of US EPA Region 4 LSASD, *Operating Procedure: Groundwater Sampling* (US EPA LSASDPROC-301-R6) (US EPA 2023b).
 - 8) Compliance samples will be unfiltered; however, to determine if turbidity is affecting sample results, duplicate samples may be filtered in the field prior to being placed in a sample container, clearly marked as filtered and preserved. Filtering will be accomplished by the use of 0.45-micron filters on the sampling line. At least two filter volumes of sample will pass through before filling sample containers. Filtered samples are not considered compliance samples and are only used to evaluate the effects of turbidity. A new filter must be used for each well and each sampling event.
 - 9) Sample bottles will be filled, capped, and placed in an ice containing cooler immediately after sampling where temperature control is required. Samples that do not require temperature control will be placed in a clean and secure container.
 - 10) Sample containers and preservative will be appropriate for the analytical method being used.
 - 11) Information contained on sample container labels will include:
 - a) Name of facility
 - b) Date and time of sampling
 - c) Sample description (well number)
 - d) Sampler's initials
 - e) Preservatives
 - f) Analytical method(s)
 - 12) After the samples are collected, samplers will remove non-dedicated equipment. Upon completion of field activity, the well will be closed and locked.
 - 13) Non-dedicated equipment will be decontaminated between wells in general accordance with US EPA LSASDPROC-205-R4 (US EPA, 2020).
 - 14) Samples will be delivered to the laboratory following appropriate chain-of-custody (COC) and temperature control requirements. The goal for sample delivery will be within 48 hours of collection.

Throughout the sampling process new nitrile gloves will be worn by the sampling personnel. A clean pair of new, disposable gloves will be worn each time a different location is sampled, and new gloves donned prior to filling sample bottles. Gloves will be discarded after sampling each well and before sampling the next well.

The goal when sampling is to attain a turbidity of less than 5 NTUs however, samples may be collected where turbidity is less than 10 NTUs and the stabilization criteria described above are met.

If sample turbidity is greater than 5 NTUs and other stabilization criteria have been met, samplers will continue purging for 3 additional hours in order to reduce the turbidity to 5 NTUs or less.

- If turbidity remains above 5 NTUs but is less than 10 NTUs, and other parameters are stabilized, the well can be sampled.
- Where turbidity remains above 10 NTUs, an unfiltered sample will be collected followed by a filtered sample that has passed through an in-line 0.45-micron filter attached to the discharge (sample collection) tube. Data from filtered samples will only be used to quantify the effects of turbidity on sample results.

Samplers will identify the sample bottle as containing a filtered sample on the sample bottle label and on COC form.

A brief overview of purging and sampling methodologies, including the type of sampling equipment used will be provided in routine monitoring reports.

APPENDIX D

SURFACE WATER SAMPLING PROCEDURES

APPENDIX D SURFACE WATER SAMPLING PROCEDURES

Surface water samples will be collected in accordance with the general procedures outlined below if flowing water is observed at each sampling location. These procedures were developed using field sampling guidelines described in the *US EPA Region 4 Field Branches Quality System and Technical Procedures* (<https://www.epa.gov/quality/quality-system-and-technical-procedures-sesd-field-branches>) and U.S. Environmental Protection Agency, Laboratory Services and Applied Science Division, *Surface Water Sampling, (LSASDPROC-201-R6)*, (US EPA, 2023a). Surface water samples will be analyzed for the field parameters and Appendix IV constituents contained in Table 5.

If a dipper or other transfer vessel other than the sample container is used, it must be composed of a non-porous inert material such as glass, PVC, polyethylene, or stainless steel. The following procedures will be used to collect surface water samples:

- Hold the bottle near the base with one hand, and with the other, remove the cap.
- Rinse the sample container with the water to be sampled prior to filling the container, unless the sample containers are pre-preserved. Pre-preserved sample containers should not be rinsed prior to sampling.
- Hold the container underneath the water surface and allow the container to be filled with water. Remove the container from underneath the surface and place the cap back on the container.
- Label the sample container, at a minimum, include Sample Number, Name of Collector, Date and Time of Collection, and Place/Point of Collection.
- Place the samples in a cooler containing water-ice, if required, for courier or hand delivery to the laboratory within the sample hold times.
- Follow COC and temperature protocols.

The minimum sampling frequency for surface water will be semi-annual, provided water is present and flowing in the surface water feature.



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