52561

SCANA
Corporate Environmental Services
220 Operation Way
Cayce, SC 29033-3701

July 12, 2016

Mr. Lucas Berresford
Project Manager
South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management
2600 Bull Street
Columbia, South Carolina 29201

RE: Field Demonstration Project – Documentation Report
SCE&G - Congaree River Sediments
Columbia, South Carolina

Dear Mr. Berresford:

SCANA Services, Inc., (SCANA), on behalf of their primary subsidiary, South Carolina Electric & Gas Company Inc. (SCE&G) has enclosed the attached document entitled, Field Demonstration Project (FDP) – Documentation Report, which is being submitted for review and approval by the Department.

This Documentation Report provides a detailed description of site preparation activities, permits and approvals, regulatory interactions, subcontractors and the findings of the completed field work in support of the FDP. Photographs of the project area and short videos of the actual unexploded ordnance (UXO) screening activities are also included on the CD.

As originally envisioned, implementation of the FDP was to be completed within a relatively small area, located on "dryland", [also referred to as the alluvial fan area] adjacent to river. The primary objective of the FDP was to further investigate and remove the previously identified metal anomalies in this area that may potentially be unexploded ordnances (UXOs). In summary, 51 previously identified metal anomalies were evaluated and **no potential UXO or historically significant items were located or identified**.

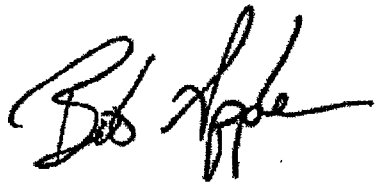
As described in the attached Documentation Report, the weather conditions encountered at the time of implementation of the FDP severely impacted the ability to complete the work in a timely manner. Major flooding and unprecedented extended high river elevations resulted in numerous false-starts and delays. More importantly, the "superstorm" that occurred in early October 2015, resulted in significant and lasting physical changes to the river environment in the general area and the proposed Modified Removal Area (MRA). The breach of the Columbia Canal and the resulting newly deposited sediment within the MRA, has necessitated a reconsideration of the capping option (i.e., Alternative 3, Sediment Capping and Institutional Controls, EE/CA, approved February 7, 2013).

Due to numerous project-related circumstances (e.g., negative effects of a proposed cofferdam, new sediment deposition in the project area and direct experience working in this dynamic river project area), It is anticipated that SCDHEC will now direct SCE&G to proceed with a capping approach to address the TLM-impacted sediment within the Modified Removal Area (MRA). Obviously, capping is much less intrusive than the excavation and removal via a cofferdam approach.

(324)

If you have any questions or require any additional information, please call Rusty Contrael at 412-829-9650 or me at 919-819-2748.

Sincerely,



Robert M. Apple
Remediation Project Manager

cc: B. McKoy, C. Ridgeway – USACE (w/ enclosure)
S. Norris - TRC - (w/ enclosure)
T. Effinger – SCANA (w/o enclosure)
R. Contrael, B. Zeli, T. Wolf – Apex (w/o enclosure)

FIELD DEMONSTRATION PROJECT
DOCUMENTATION REPORT

CONGAREE RIVER SEDIMENTS
COLUMBIA, SOUTH CAROLINA

July 2016

Prepared for:

SCANA Services, Inc.
220 Operation Way
Cayce, South Carolina 29033

Prepared by:

Apex Companies, LLC

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1.0 INTRODUCTION

SCANA Services, Inc., on behalf of their primary subsidiary, South Carolina Electric and Gas (SCE&G) is submitting this Field Demonstration Project (FDP) Documentation Report for the Congaree River Sediment Project located in Columbia, SC. This project has been ongoing since June of 2010 when a tar-like material (TLM) was discovered in the area downstream of the Gervais Street Bridge. SCE&G has conducted numerous investigations to determine the extent of the TLM impacts and is currently in the process of developing work plans, design documents and permit submittals for the installation of an engineered capping system.

The project area is located approximately 300 feet south of the Gervais Street Bridge, adjacent to the eastern shoreline as shown on Figure 1. In addition to the TLM impacted material, this area is also a recognized historically significant dump site from the Civil War (Site ID: 3838RD286) and an Underwater Deposit of Historic Ceramics and Metal Artifacts - Possible Dump Site of 38RD234. Figure 2 shows the historical and archaeological sites within and/or near the project area. Based on the delineation work previously completed by SCE&G (Project Delineation Report, MTR March 2012), numerous magnetic anomalies were also present within the project area. The magnetometer work was conducted by Tidewater Atlantic Research, Inc. (Tidewater) in conjunction with the TLM delineation work and approximately 570 magnetic anomalies were detected within the project area. According to the Tidewater reports, 425 of these magnetic anomalies exhibited ***"signature characteristics that could be associated with ordnance"*** **and** ***"those anomalies should be considered potentially hazardous until material generating the signatures can be identified"*** [These quotes were found verbatim or in equivalent words in all reports provided by Tidewater] (A Remote-Sensing Survey of the Congaree River Below the Gervais Street Bridge, Columbia, South Carolina, Preliminary-Phase IV Reports, Tidewater October 2010 – February 2012). Therefore, out of an abundance of caution and since these magnetic anomalies could be unexploded ordnance (UXO) from the Civil War era, the safe management of these magnetic anomalies became an important component of the project.

The primary purpose of the Field Demonstration Project (FDP) was to implement, evaluate and improve (if necessary) the UXO management plans and procedures on "dryland", in the alluvial fan area shown on Figure 1, before expanding the work into the river for the larger-scale phase of the project. A total of 84 magnetic anomalies were located within the proposed FDP boundary. Completion of the FDP was intended to provide the project team and the regulatory agencies with valuable insight into the actual risks associated with the magnetic anomalies / UXO management activities. In addition, successful completion of the FDP would result in "clearing" the alluvial fan area of potentially hazardous UXO, which would facilitate the primary access way into the river for future activities.

2.0 PREPARATION FOR IMPLEMENTATION OF THE FDP

2.1 Permits and Approvals

A number of permit applications and approval requests were developed and submitted to various state and federal agencies and the City of Columbia, during the planning phase of the project. The Joint Federal and State Application for Activities Affecting Waters of the United States or Critical Areas of the

State of South Carolina/Preconstruction Notification (JA/PCN) permit application package was submitted to the United States Army Corps of Engineers (USACE) on June 12, 2015. Following USACE review, the FDP activities were determined to meet the Department of the Army Nationwide Permit #38 (NWP-38) requirements and the approval was transmitted on September 1, 2015. This review and approval included review of the UXO specific plans developed by EOTI, Inc. by the USACE Huntsville Center, Ordnance and Explosives Design Center. The South Carolina Department of Health and Environmental Control (SCDHEC) provided approval of the FDP Work Plan on September 2, 2015. Both approvals are provided in Appendix A.

The USACE authorization included nine special conditions, which were adhered to during implementation of the FDP. These special conditions are provided in the approval included in Appendix A. In summary they required that the impacts to aquatic resources be limited to those specified in the PCN and the supplemental documents and associated drawings, that all work will be conducted in the dry and that the following plans and agreements would be adhered to:

- Phase I – Field Demonstration Project Work Plan (dated June 2015);
- Draft Final Work Plan for Munitions Response Removal Action and Construction Support Congaree River Project (dated May 2015);
- Archaeological Data Recovery Plan for the Mitigation of Site 38RD286/38RD278. The Ordnance Dump Site for the Congaree River Sediment Removal Project, Columbia, South Carolina (dated August 2015);
- Memorandum of Agreement (MOA) between the permittee, the Corps and the South Carolina Archives and History regarding the Congaree River Remediation Project (dated August 24, 2015); and
- SCDHEC Voluntary Cleanup Contract.

A city business license, building and fencing permits were also obtained from the City of Columbia and a Notice of Intent (NOI) form was completed and submitted to the City of Columbia Stormwater Division. Copies of the above referenced approvals are provided in Appendix A.

2.2 Subcontractors

For implementation of the FPD, Apex Companies, Inc. (Apex) served as the overall project coordinator, with support being provided by various subcontractors that included:

- A&D Environmental Services, LLC (A&D), Lexington, SC - provided construction support services:
- Explosive Ordnance Technologies, Inc. (EOTI) a full-service military munitions contractor from Oak Ridge, Tennessee - provided UXO management and clearing support activities;
- TRC Environmental Inc., (TRC), Columbia, SC - provided archaeological support; and
- Various local subcontractors were used for installing the temporary fence, security cameras, tree removal, surveying and establishing utility connections.

3.0 IMPLEMENTATION OF THE FDP

3.1 Mobilization and Site Set-Up

Prior to commencing field work, a site support area was constructed on the landside area near the corner of Gist and Senate Streets (Figure 1). Site set-up activities were conducted from September 8 through September 28, 2015. Apex and A&D personnel were on-site throughout this time along with several local contractors to install the office trailer compound, security cameras, fencing, electricity, telecommunication services and prepare for the implementation of the FDP.

3.2 Trailer Compound

The office trailer compound was constructed in the northeastern corner of the available work area, directly adjacent to the City Park parking lot. The working surface of the compound area was created by placement of a geotextile material overlain by a compacted layer of crushed stone. The trailer compound area was constructed to provide an office and support area for the site related activities and to provide parking for personnel and visitors. The appropriate City of Columbia building permits were obtained prior to installing the two office trailers. Figure 1 shows the office trailer compound location and Figure B-1 located in Appendix B provides photographic documentation of the site set-up activities. Placement of the trailers required removing several small trees; however, a number of prominent trees were protected during construction and are still in place within the compound area. Once the trailers were in place, electrical and telecommunications services were established.

In addition, a series of light poles were installed by SCE&G in the trailer compound area and along the asphalt boat ramp that extends towards the river in order to illuminate the compound and access road. The poles also provided an electrical power source and mounting surface for the security system described below.

3.3 Security

City of Columbia Police were on site during the majority of the project to ensure the project area was secure and unauthorized personnel did not gain access to the premises. For additional security purposes, a video monitoring system was installed by ELI Controls, LLC. A total of four video cameras were installed on the site and included a mobile tripod camera, one camera overlooking the trailer compound area, and two cameras overlooking the FDP/alluvial fan area.

In addition to providing security, the cameras also provided a means for overseeing and documenting project work activities. As described in the approved UXO management plans, nonessential and untrained personnel were not permitted within the active project area while UXO “clearing” activities were being conducted. “Clearing” can be described as field locating the subsurface object believed to be generating the original magnetic anomaly signal, positively identifying and/or recovering the object and declaring the localized area to be safe (i.e., free and clear of any potential UXO). The cameras allowed project personnel, stakeholders and regulators to view the UXO clearing operations from a safe distance, while physically remaining outside of the exclusion zone. A viewing area was established in one of the on-site construction trailers and video access was also available through the internet and a mobile phone

application. The mobile tripod camera was especially useful and provided a closer, more detailed view of the actual UXO clearing activities.

For documentation purposes, eight videos were compiled and set to fast motion to provide a visual summary of the actual site activities. These videos are available on a DVD provided in Appendix B and include:

- Five videos that show EOTI performing magnetic anomaly clearing activities;
- Two videos show the site set-up activities, equipment mat and sand bag deployment; and
- One video showing a time-lapse of the October 2015 flood from three different camera views.

The numbers at the end of each video file name correspond to the date and camera location from which the video originated. Cameras number 1 and number 2 represent the cameras closest to the river, camera number 3 represents the camera overlooking the trailer compound area, and camera number 4 represents the mobile tripod camera. Additionally, terabytes of video were collected during implementation of the FDP and are available, if required.

3.4 Fencing

Approximately 1,200 linear feet of semi-permanent, 6-foot tall chain link fence with a visual barrier screen was installed along the perimeter of the project area. The appropriate City of Columbia fence permit was obtained prior to installation of the fence. Two vehicle gates and three man gates were also installed in the locations shown on Figure 1. Orange safety fence was placed around the perimeter of the two historical areas (located to the east of the planned FDP area) in order to demarcate and protect these areas from intrusive activities. In order to minimize land disturbance in the northern historical area, modular temporary fence panels were utilized to complete the northern boundary of the project area fence line. A representative from TRC, the project archaeologist's staff, was present on-site for intrusive fence installation activities. No items of historical significance were observed or recovered during the fence installation activities.

Approximately 300 linear feet of temporary fence panels with a visual barrier screen was placed along the western edge of the FDP area, along the river's edge, to increase security along the riverbank and reduce the potential for recreational river users to enter the project area from the river side. Additionally, a taller visual barrier was constructed along the river's edge to create an extra high visual barrier. Temporary fence was also placed at the top of the asphalt boat ramp to function as an access gate and demarcate the exclusion zone for "non-essential" on-site personnel during intrusive UXO activities.

3.5 Magnetic Anomaly – Initial Identification and Surveyor Relocation

In conjunction with the original TLM delineation investigations and based on the documented historical nature of the site, it was deemed necessary to conduct a magnetometer survey in the project area to try and ascertain the number and location of any magnetic anomalies that may be present within the sediment. From a safety perspective, it was imperative that each proposed sediment sampling location be free and clear of any magnetic anomaly that could potentially be a UXO. To that end, Tidewater conducted the initial magnetometer and side-scan sonar survey work in 2010 and 2012. This work

resulted in identifying approximately 570 magnetic anomalies within the entire investigation area, with 101 being located within the general FDP area. Tidewater conducted additional analysis to identify the source of the magnetic signatures encountered and specifically if the signatures were UXO related. ***"Analysis of each target signature included consideration of magnetic and sonar signature characteristics previously demonstrated to be reliable indicators of historical ordnance."*** Tidewater cautioned…***"those anomalies should be considered potentially hazardous until material generating the signatures can be identified."*** [This quote was found verbatim or in equivalent words in all reports provided by Tidewater] (A Remote-Sensing Survey of the Congaree River Below the Gervais Street Bridge, Columbia, South Carolina, Preliminary-Phase IV Reports, Tidewater October 2010 – February 2012). Based on the precision of Tidewater's methods and the equipment utilized, the target object or source of each identified magnetic anomaly could be located anywhere within a 10-foot diameter circle surrounding the center point.

For implementation of the FDP, the previously identified magnetic anomaly locations were relocated and flagged by a licensed surveyor (GEL) using conventional surveying methods. GEL successfully located 85 magnetic anomaly locations with 12 being characterized as "pipeline" associated. The remaining 16 magnetic anomalies in the project area were unable to be relocated due to either the high water level and/or dense brush on the river bank inhibiting satellite communication to the global positioning system (GPS) thus preventing an accurate relocation. GEL also field-located the site-specific grid nodes for use by site personnel to help document the UXO clearing activities. The surveyor re-established magnetic anomaly locations are shown on Figure 3.

3.6 Water and Impacted Material Management Contingencies

Consistent with the approved FDP Work Plan, a water management system was established on-site to assist the UXO teams with keeping the small excavations clear of standing water, if required. As planned, the initial method for managing water would consist of a pump and associated hoses that would transfer excavation dewatering water to a sediment dewatering bag, which would contain any sediment and allow the water to drain out onto a vegetated area. This method was approved by the City of Columbia, Stormwater Division. Details and conclusions associated with water management activities are discussed later in this report.

As a contingency, in the event that potentially visually-impacted water was encountered, a frac tank was staged on-site that could contain such water, prior to proper off-site disposal. No impacted water was observed during implementation of the FDP.

Two roll-off boxes were also staged on-site and were to be used to containerize any TLM impacted sediment or large, non-historically significant debris found by the UXO teams, if it was encountered. The frac tank and roll-off boxes were staged on top of a base of geotextile overlain with compacted stone directly west of the overhead powerline corridor and the gravel site road (Figure 1). Some debris recovered from the FDP area was disposed of in the support area dumpster.

4.0 OVERVIEW OF FDP SITE ACTIVITIES

The FDP was conducted in two separate phases due to the extreme weather conditions encountered during implementation. For reporting purposes, these phases are referred to as Phase 1A and Phase 1B. The extreme weather conditions (i.e., record-breaking rainfalls and subsequent extended periods of high-water levels in the river) severely limited accessibility to the FDP area. The remainder of this overview presents a brief description of the timeline of site activities that were dictated by the challenging weather conditions encountered. Sections 4.1 through 4.6 provide a description of the actual UXO field activities and the findings for each phase. Section 4.3 discusses additional site preparations that were completed in between Phases 1A and 1B. Section 4.6 discusses additional excavation activities that were also completed as part of the FDP.

Figure 4 (also referred to as Figure D-1 in Appendix D) provides a vivid graphical representation of the timing and magnitude of the storm events that occurred in October and November of 2015. These extreme weather conditions and the subsequent impacts from the flooding in the Columbia area severely limited the scope of work that could be completed in support of the FDP. Please note how soon after each of EOTI's mobilization events that the river elevation spiked. Figure 4 also clearly illustrates the anomalous nature of the severe storm events in the fall of 2015 with respect to the last six years of river elevation data. The rising river levels flooded the project area and resulted in a failure of the Columbia Canal dike, located above the project area. The dike failure, in addition to the large amount of sediment entrained in the runoff from the upstream drainage basin, resulted in the deposition of approximately 1-2 feet of sediment on the alluvial fan area and a greater sediment accumulation within the river (recently obtained data indicates approximately up to 5 feet of new sediment exists below the alluvial fan area).

Phase 1A screening activities were conducted during the week of September 28, 2015. The field investigation work began on September 29, 2015, after a safety meeting was held for all project team members and regulatory personnel. The field work continued until the end of the day on Thursday, October 1, 2015 when site operations were discontinued in order to prepare for an upcoming severe weather event and anticipated high river water levels. It rained steadily over the next few days and the City of Columbia received 12.5 inches of rain within a 5-day period. On October 4, the river crested at 31.81 feet (based on the river gage located directly across from the FDP area), which corresponds to an approximate elevation of 145 feet (NGVD '29). The general elevation of the FDP area is between 116 feet to 122 feet, which means that the previously dry work area was under approximately 29 feet of water at the peak river flow. The last time river levels exceeded this elevation was in 1936 (33.34 feet) and the river has only exceeded this elevation a total of seven times since 1893. The highest historic crest was 39.80 feet in 1908. Photographic documentation of the river flooding event is provided on Figure B-2 located in Appendix B. Video was also captured by site security cameras during the flood and a compilation of three cameras is provided as October 2015 Flood Event Appendix B.

Damage from the flooding events to the site support facilities was minimal. The perimeter security fence was partially removed by the flood water and two security cameras, installed on a pole on the river bank near the water's edge, were completely submerged for multiple days by flood water and were not repairable. No damage occurred to the on-site construction trailers or construction related equipment. Project personnel were demobilized until the flood water receded and the work area became suitable for the continued activities described below. Photographic documentation of the post-flood site conditions is

provided in Appendix B on Figure B-3 and Appendix C contains photos comparing the site before and after the flood event. These photos clearly show the significant amount of sediment deposition that occurred as a result of the October 2015 flood.

After making several adjustments and improvements to the FDP program, Phase 1B field screening activities were conducted on two separate mobilizations, November 2, 2015 and November 18-19, 2015. As shown on Figure 4, both of these mobilizations were also interrupted by significant storm events that caused unprecedented flooding of the Congaree River.

Finally, given the time of year (December 2015), the decision was made to abandon the remaining work for the implementation of the FPD due to the increased likelihood of sustained higher water levels.

A Health and Safety plan was kept on-site at all times for reference and all on-site personnel were briefed on the environmental (TLM) and UXO health and safety concerns at the site. A daily, in-depth health and safety meeting was held at the beginning of each work day to outline the daily activities planned and the health and safety concerns involved. EOTI and A&D also conducted individual daily health and safety meetings.

Additional details and findings for each phase of work is provided below.

4.1 Phase 1A – Field Activities

Phase 1A screening activities were conducted during the week of September 28, 2015. EOTI, the UXO contractor, and TRC, the archaeology contractor, were on-site beginning on Tuesday, September 29, 2015. A USACE representative was also on-site to provide independent oversight and assurance that the safety protocols set forth in the approved Explosive Safety Submission (ESS) plans were adhered to during intrusive UXO field activities. Apex was on-site to provide field coordination for the overall project and A&D was on-site to provide construction support assistance, as needed. A SCANA/SCE&G representative was also on-site for overall project management.

During the first week of field activities, James Spirek, a State Underwater Archaeologist from the South Carolina Institute of Archaeology and Anthropology (SCIAA) was on site to provide an informational and educational presentation on the potential ordnance assemblage of the archaeological site 38RD286. On-site personnel were presented with physical examples and a slide show of photographs of Civil War ordnance.

EOTI began their investigation by evaluating the re-surveyed, original magnetic anomaly locations previously identified by Tidewater. The objective was simple; to positively identify/recover the potential source of the magnetic signal previously documented. Ideally, this approach would develop and confirm a correlation between the previous investigation information and the actual conditions encountered within the FDP area, as each anomaly and/or area was “cleared”. As discussed previously, “cleared” can be described as field locating the subsurface object believed to be generating the original magnetic anomaly and positively identifying and/or recovering the object and declaring the localized area to be safe. The process of “clearing” the previously flagged anomalies consisted of using numerous Schonstedt magnetic locators (the yellow cane-looking device shown in the in the videos of Appendix B) to screen the general area surrounding a flagged location. Generally, the crew would start screening within approximately 3

feet of the pin flag and then carefully begin hand digging and retrieving any metallic object(s) in the vicinity. Initially, the UXO team was targeting metallic objects larger than 3 inches in size. In some areas where the anomaly signals were confirmed to be deeper or the area was found to contain a significant amount of metallic debris, a mini-excavator with a 12-inch bucket was used to increase the efficiency of the excavation operations. The actual findings from Phase 1A are discussed in the next section.

Once the accessible flagged anomaly locations were checked and cleared, EOTI began to establish grids for the systematic investigation of the entire alluvial fan area. This process was referred to as "UXO lane clearing" and activities were prematurely discontinued on October 2, 2015 due to the large storm event described above.

In order to fulfill the archaeological requirements of this project, TRC personnel were permitted to enter the project area and visually inspect cleared anomaly locations during the EOTI team breaks, at lunch time and after EOTI completed work for the day. The hand dug or small excavations were left open with the excavated material staged beside each hole. TRC would carefully evaluate the spoils for any signs of significant cultural artifacts.

4.2 Phase 1A – Findings

The Phase 1A activities were initially focused on clearing the flagged anomaly locations previously identified by Tidewater. EOTI was able to clear 49 anomaly locations during Phase 1A. Of the cleared locations, 45 were determined to be, what EOTI referred to as "cultural debris" or "CD" on their daily dig sheets. Cultural debris can be defined as non-hazardous modern-day items such as tin cans, fishing hooks, nails, wire, pipes, metal pans, metal banding "magnet pieces", glass bottles, trash, etc. Four (4) previously identified locations were determined to be a "negative find"; meaning no metallic object was located within the within 10-foot diameter circle represented by the pin flag. Figure 5 provides a photographic summary of the screening operations, some of the metallic "cultural debris" encountered and some of the open excavations. Table 1 provides the specific findings and other information for each location evaluated. Some of the larger items recovered/identified during Phase 1A included a brake rotor from a car, a man-hole cover, an old hot water heater, fence posts and tent stakes. Most notable is the fact that no UXOs or other material of explosive concern (MEC) or historical artifacts were observed or recovered.

A second documented underwater historic dump site (38RD234) is located in the southern portion of the project area near locations 521 to approximately 560. Due to a strong magnetic signal response observed by EOTI in this area (and limited time due to site conditions), EOTI concentrated their efforts within/beneath the southern dump area to determine if potential UXO could be documented in this location. However, no UXO material was located during the Phase 1A activities. Figure 3 shows the UXO cleared magnetic anomalies and areas and Figure 5 provides photographs of the findings from both Phase 1A and 1B.

While investigating flagged anomalies, EOTI personnel noticed the soil near the southern tip of the project area had a reported "gasoline-type" odor and suspect material that was black in color. Knowing the environmental history of the site, EOTI immediately informed the project oversight personnel and upon closer investigation it was determined that the odor and dark-colored material appeared to be the result of

buried creosote-treated wood timber. Since screening operations had been completed in this area, the small excavation was backfilled and UXO screening work was resumed.

Based on TRC's review and oversite of Phase 1A, only two glass bottles, believed to date to the 1900's, and some miscellaneous items that were of unknown origin were recovered. No other potentially historically significant items or artifacts were identified during Phase 1A.

4.3 Phase 1B – Additional Site Preparation Activities

Due to the extreme weather conditions encountered during Phase 1A, additional site preparation and restoration activities were completed before UXO clearing activities could resume on November 2. The restoration and preparations included the following:

- Relocating the newly deposited sediment from the flooding event that occurred in early October 2015;
- Employing the use of large sand bags to keep river water out of the FDP area; and
- Using specially designed equipment mats to facilitate access on the soft, wet sediment for access to the alluvial fan and southern portion of the project area.

4.3.1 "New" Sediment Relocation

As stated previously, the material from the damaged dike and other sediment was deposited on the alluvial fan area to a depth of approximately 1-2 feet, in addition to other parts of the project area. The additional depth of material present on the alluvial fan would increase the difficulty and amount of material that EOTI would need to search through and remove to reach any potential magnetic anomaly located below the original ground surface. Therefore, in a status update letter to the USACE, (dated October 23, 2015, a copy is provided in Appendix D), SCE&G proposed that the new sediment be removed from the alluvial fan area and temporarily staged on-site and replaced after completing the FDP work.

During the last week of October 2015, the newly deposited sediment was carefully removed down to the approximate original ground surface of the alluvial fan. Care was taken to not disturb the original ground surface and risk exposing potential UXO or artifacts. The removed sediment was stockpiled on the landside area east of the alluvial fan and surrounded by silt fence. Figure B-4 provides photographic documentation of the excess sediment removal (Appendix B).

4.3.2 Phase 1B – Isolation Berm (Big Bags)

Given the difficulties encountered with intrusion of the river water during Phase 1A and as proposed in the status letter to the USACE, an isolation berm would be constructed prior to remobilizing the UXO team. As described in the FDP Work Plan, another primary objective of the FDP was to test the feasibility of utilizing large sand bags (i.e., Big Bags) as an isolation barrier since it may be a component of a future remedial approach.

Placement and testing of the Big Bags was completed prior to and during Phase 1B. The testing was meant to serve the dual purpose of controlling minor fluctuations in water levels and evaluate the efficacy of the Big Bags with respect to water tightness, handling and ease of placement/removal. Large, approximately 3' x 3' sand bags were filled with imported sand in the landside support area near the powerline corridor and transported down the boat ramp to the work area with heavy equipment. Due to

the soft wet conditions of the alluvial fan, the Big Bags were placed with a long-reach excavator utilizing a specially designed hook mechanism that could be released on demand when a Big Bag was in the correct location. The first layer of the Big Bags were placed along the approximate 116 to 117 elevation line, as shown on Figure 3. Throughout completion of Phase 1B, additional Big Bags were placed to further bolster the system and increase the water tightness. The final structure was approximately two to three Big Bags wide at the base and two Big Bags high. Figure B-5 in Appendix B provides photographic documentation of the Big Bag placement operations. Video showing Big Bag placement is available on a DVD in Appendix B.

In all, five different types of large sand bags were evaluated during the project. The approximate 3' x 3' Duffle Top / Closed Bottom One Ton Bag™ proved to be adequate and the most cost effective bag. The National Guard and the USACE successfully utilized the same sand bags in conjunction with large stone and other material to stabilize the banks and restrict significant water flow from the canal breech area.

4.3.3 Phase 1B – Water Management

Dewatering of the lower alluvial fan areas isolated by the Big Bags was successfully conducted during Phase 1B of the project. Water located in the isolated areas was pumped to the landside area and into a sediment bag. The sediment was contained in the bag and the water was drained into a vegetated area. Water was also pumped from the northern isolated area to the southern area and vice versa, depending on field activities.

4.3.4 Phase 1B – Equipment Mats

Final preparations for Phase 1B included placing equipment mats, also referred to as "mud-mats", on the alluvial fan area and in a line extending south from the alluvial fan, along the shoreline to a proposed debris excavation area previously identified during Phase 1A. The mud mats were mobilized to the site to provide a stable working platform for operations by personnel and excavation equipment. Video showing mud mat deployment is available on a DVD provided in Appendix B.

4.4 Phase 1B – UXO Field Activities

By November 2, 2015, the site was prepared for Phase 1B UXO and historical artifact screening activities. EOTI, TRC and the USACE over-sight personnel were on-site with the intentions of completing magnetic anomaly and lane clearing activities. The investigation work only lasted until approximately 2:00 PM on November 2, 2015 when site operations were again discontinued due to high river water levels. Please refer to Figure 4.

On November 18, 2015, all parties (EOTI, TRC, USACE, Apex, and A&D) returned to the site, again with intentions of completing UXO and historical artifact clearing activities. Prior to this mobilization of the UXO and archaeological personnel, SCANA representatives contacted the SCE&G operated Saluda Hydroelectric Dam, which is located approximately 11 miles up the Saluda River from the project area. The hydroelectric dam controls the flow of the Saluda River, which can directly impact the river water elevations in the project area. The controller of the hydroelectric dam was able to reduce the discharge flow from the dam from approximately 9,000 cubic feet per second (CFS) to about 2,100 CFS. This reduction corresponded to a temporary drop of approximately 2 feet in river elevation in the project area. The Parr Shoals Dam located approximately 25 miles up the Broad River from the project area was also contacted and restricted their output flow, as well. The flow at both dams was curtailed as much as

possible until precipitation and runoff amounts necessitated increasing the discharge. The investigation work continued until 9:15 AM on Thursday, November 19, 2015 when site operations were again discontinued due to high river water levels. The site was shut down over the Thanksgiving holiday and partial demobilization began on Monday, November 30, 2015.

4.5 Phase 1B – Findings

During the first Phase 1B mobilization (November 2, 2015), the majority of the alluvial fan was under water and EOTI began working up higher on the bank by setting up 5-foot wide search lanes using wooden stakes and string. UXO lane clearing investigations consisted of walking within a lane and sweeping a Schonstedt magnetic locator from side to side, extending into the lane boundary string, and flagging any magnetic anomaly locations. After sweeping and locating within the lane, the flagged locations were investigated by hand digging and retrieving any metal object(s). The small excavations were left open with the material staged beside them for archaeological inspection. An approximate 719 square foot area of the alluvial fan was cleared during the first mobilization and is shown on Figure 3. Only cultural debris was found in this location.

During the second Phase 1B mobilization (November 18 and 19, 2015), the debris area to the south was investigated and was found to not contain any UXOs or historical artifacts. Additional lane clearing was conducted on the alluvial fan, which resulted in approximately 599 additional square feet being deemed clear of UXO. This alluvial fan area also contained a large amount of metallic debris described as cultural debris (Figure 3). Two additional flagged anomalies (field located by Apex) were cleared by EOTI on November 19, 2015 during Phase 1B activities. One location, 502, was determined to be cultural debris and the other location, 501, was determined to be a negative find.

As with Phase 1A, TRC personnel were permitted to enter the project area (after EOTI had screened the area) and visually inspect cleared anomaly locations and excavated material temporarily staged next to a hole. No potentially historically significant items were identified during Phase 1B. One small shell casing, believed to be from the “modern era” as described by TRC, was also found in the alluvial fan area (Figure 3). It is interesting to note the size of this small shell casing (approximately 1-inch long) recovered by the UXO team, given the vast areas and depths that were evaluated and the volume of cultural debris uncovered during the FDP.

4.6 Additional Excavation Activities

During the week of November 30, 2015, SCANA, Apex, A&D and TRC personnel were on-site and conducted additional excavation investigations in the areas previously cleared by EOTI and deemed to be safe. In all, there were five areas excavated and the locations are shown on Figure 3. These areas included the approximately 190 square foot, “L”-shaped area located north of the bottom of the boat ramp, near the upper side of the river bank and four, approximate 50 square foot cells located along the sand bag isolation berm next to the water.

These additional dig investigations consisted of creating a pile of sediment removed from the target areas using an excavator. The sediment pile was then evaluated by sorting through the sediment by the archeologists, separating any debris or objects. No historically significant artifacts were found, only

cultural debris. Figure 3 provides a summary of all cleared areas including those investigated during the additional excavation investigation, Phase 1A and Phase 1B.

4.7 Summary of FDP Findings

The following provides a summary regarding the UXO screening activities:

1. A total of fifty-one (51) previously identified magnetic anomaly locations were investigated by EOTI and **no potential UXO or historically significant items were located**.
   - 35 of the anomaly locations on the alluvial fan area were cleared; and
   - 16 of the anomaly locations located south of the alluvial fan were cleared.
2. In general, EOTI found that metallic debris (likely attributable to the previously identified magnetic anomalies) was located within an approximate 5-foot radius around the established locations. However, there were five "negative finds", or approximately 10% of the total locations cleared, indicating that there was nothing found at the previously identified magnetic anomaly location.
3. During the Phase 1A and Phase 1B lane clearing investigations:
   - ~ 5% (1,288 SF) of the total FDP area (25,968 SF) was cleared; and
   - ~ 9% (1,288 SF) of the alluvial fan area (14,602 SF) was cleared.

   No potential UXO or historically significant items were located during the lane clearing investigations.
4. During the additional excavation investigations, approximately 390 SF were investigated and no potential UXO or historically significant items were located.
5. The significant amount of metallic cultural debris within the project area increased the time required for EOTI to successfully clear the areas evaluated.
6. The southern historical dump site 38RD286, containing cultural debris (tin cans, fishing hooks, nails, wire, pipes, metal pans, metal banding "magnet pieces", glass bottles, trash, etc.) was confirmed by TRC archeologists.
7. The larger items identified included a brake rotor from a car, a man-hole cover, an old hot water heater, fence posts and tent stakes.
8. The method of EOTI leaving investigation locations open for review of the spoils by TRC was successful and efficient.
9. EOTI was also properly informed of the environmental impacts in the project area and immediately stopped work and notified Apex of an odiferous and discolored soil located in the southern FDP area.

In summary, a significant number of the formerly identified magnetic anomalies located in the FDP project area were screened and none were found to be UXO or historically significant. Lane clearing and additional excavation operations were conducted in a small portion of the project area and these activities also did not identify UXO or historical objects. UXO clearing operations were slowed by the density of metallic objects in the project area. Figure 5 shows the photographs and approximate locations of the FDP findings and several videos are included on a DVD in Appendix B showing EOTI lane clearing activities.

5.0 DEMOBILIZATION

Partial demobilization activities were completed from November 30, 2015 through December 16, 2015. During this period, the sand bags were removed from along the river and the relocated sediment was returned to the alluvial fan. All equipment, frac tanks, roll-off boxes and equipment mats were demobilized from the site. Disturbed areas were re-graded and hydroseeded, as required. The southern portion of the semi-permanent fence was removed and temporary fence was placed around the trailer compound to lessen the footprint of the project area during non-working time periods. The construction trailers were initially left in place for use during future site operations but were removed on February 2, 2016, along with the temporary fence surrounding the trailer compound. The temporary fence, empty extra sand bags and trailer contents were staged at the Huger Street site. A photographic summary of demobilization activities is provided in Appendix B (Figure B-6).

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Precipitation and River Level Observations

A project that was originally anticipated to last one week lasted for over three months because of repeated bad weather conditions and the work area being located in such close proximity to the river. Some positive conclusions and recommendations from the FDP include:

- The method for monitoring the weather (National Weather Service) and the river level forecast (NOAA National Weather Service Advanced Hydrologic Prediction Service, USGS river gage 00169500 Congaree River at Columbia, SC) was successful in alerting the project team to the significant incoming storm events, which provided enough time to discontinue activities and remove equipment and material from the FDP area and secure the site. However, there is no longer-term precision (greater than 24-48 hours ahead of time) for forecasting river elevations.
- Historical river level data is important but does not assure future river levels. The previously proposed construction season from May 1 through October 31 should be adhered to.
- Coordination with the operators of Saluda River Hydroelectric Dam and the Parr Shoals Dam was very successful in temporarily reducing the river flows and lowering the water level in the project area in early December. This coordination could be invaluable for future remediation activities.

6.2 Dewatering Operations

The use of pumps, hoses and dewatering sediment bags was found to be a viable means of managing water from within the alluvial fan area. The water was pumped onto the landside support area to a dewatering sediment bag, which contained the sediment and allowed the water to infiltrate into the ground in a vegetated area. This method worked well and facilitated dewatering of the lower alluvial fan area in order for the area to be screened by EOTI. Water was also pumped from the northern isolated area to the southern area and vice versa, depending on field activities. Similar water management techniques can be utilized, as needed, during future remediation activities.

6.3 Big Bag Isolation Berm Viability

The Big Bags placed singularly within the river in the FDP project area were able to withstand the significant river level increases and the increased flow rate during the flood events. The Big Bags were still present and intact after the river water level receded.

During construction of the isolation berm, it was found that it was best to fill the Big Bags to approximately one-half to two-thirds capacity in order to achieve the best results with respect to usability and water tightness. Specialized equipment, such as a long-reach excavator, is required to effectively place the bags any significant distance from the shoreline. Filling the Big Bags, transporting them to the limited-access, river work area and placing them in position was a relatively slow process. Removing the Big Bags at the end of the project was a relatively time consuming task as well. This was primarily due to the need to handle each Big Bag separately.

The two to three Big Bag wide base and two Big Bag tall configuration utilized during this phase of the project was not adequate to control water intrusion/infiltration, leaking and overtopping. For actual work in the river, a wider base of staggered Big Bags (minimum five wide) and higher and wider top layers would be required to be at least minimally effective at controlling water. Deploying this amount of bags up to 200 feet into the river would be extremely difficult. Also, excavation of the sediment at the base of the Big Bags and placement of additional Big Bags in this zone would also likely be required. A heavy duty liner placed on the outboard side of the Big Bags would also provide added benefit. As a result of these limitations, utilizing Big Bags for the isolation berm for the MRA would not be a viable alternative.

6.4 UXO and Historical Artifacts – Conclusions from the FDP

1. Based solely on the findings of the FDP, there is no correlation between the previous magnetic anomaly locations and the actual finding and recovery of an unexploded ordnance (UXO) or material of explosive concern (MEC). The same conclusion can be made for zero correlation of magnetic anomalies to historical artifacts, for at least the FDP areas evaluated.
2. One can only conclude that if the UXOs/artifact were deposited in the alluvial fan area in 1865, they must have been removed by previously documented and undocumented recovery/salvage operations.
3. It has been positively confirmed that there is a significant amount of metallic “cultural debris” (non-hazardous modern-day items such as tin cans, fishing hooks, nails, wire, pipes, metal pans, metal banding “magnet pieces”, glass bottles, trash, etc.) that exists within the alluvial fan and the southern dump site area. This metallic debris yielded a magnetic signal that Tidewater conservatively assumed or interpreted to be UXO-related (i.e., ***“signature characteristics that could be associated with ordnance”***), most likely based on the historical nature of the site.
4. Tidewater also cautioned within its magnetometer survey reports that…***“those anomalies should be considered potentially hazardous until material generating the signatures can be identified”.*** Based on the findings of the FDP, all of the metallic debris generating the magnetic signals was positively identified and none was found to be “hazardous”.
5. Out of an abundance of caution, SCE&G and its’ consultants worked with the USACE and developed numerous plans for safely managing the potential UXOs, using a similar, rigorous, protocol identical to how a federal project of this nature would be conducted. Since no UXOs were found during the FDP activities, the need for these plans and the extent to which they may be implemented for any future remedial approach, must be re-evaluated.

6. Since no items of historical interest were identified during implementation of the FDP, the need for SCANA and SHPO to consult to determine the format for a public education component for the project, as outlined in the MOA between the USACE, SHPO and SCANA, is not currently required.
7. Due to numerous project-related circumstances (i.e., negative effects of a proposed cofferdam, new sediment deposition in the project area and direct experience working in this dynamic river project area), it is anticipated that SCDHEC will direct SCE&G to proceed with a capping approach to address the TLM-impacted sediment. Obviously, capping is much less intrusive than the excavation and removal via a cofferdam approach.

7.0 REFERENCES

MTR, March 2012. Project Delineation Report – Congaree River Sediments Investigation

Tidewater Atlantic Research, Inc., October 2010-February 2012. A Remote-Sensing Survey of the Congaree River Below the Gervais Street Bridge, Columbia, South Carolina, Preliminary-Phase IV Reports

Apex, June 2015. Phase I – Field Demonstration Project Work Plan

MTR, January 2013. Draft Engineering Evaluation/Cost Analyses (EE/CA) – Congaree River Sediments.

TABLE

TABLE 1

MAGNETIC ANOMALY UXO CLEARING SUMMARY
SEPTEMBER 29 THROUGH NOVEMBER 19, 2015

Congaree River Sediments
Columbia, South Carolina

Anomaly Designation	Original Description	Anomaly Status	Identified Anomaly Type and Description	Offset Direction[1]	Offset Distance (inches)[1]	Notes
252	Possible Ordnance	NA[2]	Cultural Debris - UNK[3]	0	0	Redo
254	Possible Ordnance	Clear	Cultural Debris - Nail, small conduit, hot rock	W	8	Hot Rock[4]
255	Possible Ordnance	Clear	Cultural Debris - Hot Rock	S	7	Hot Rock
256	Possible Ordnance	Clear	Cultural Debris - Nail	0	0	
259	Possible Ordnance	Clear	Cultural Debris - wire, car rotor	SE	12	Backhoe Dig
260	Possible Ordnance	Clear	Cultural Debris - Metal Can	0	0	
261	Possible Ordnance	Clear	Cultural Debris - UNK	NE	15	
262	Possible Ordnance	Clear	Cultural Debris - metal plate, bolt	0	0	
263	Possible Ordnance	Clear	Cultural Debris - UNK	E	26	
264	Possible Ordnance	Clear	Cultural Debris - UNK	0	0	
265	Manhole	Clear	Cultural Debris - Manhole Cover	NA	NA	
266	Possible Ordnance	Clear	Cultural Debris - Metal	NA	NA	
267	Possible Ordnance	Clear	Cultural Debris - Wire	W	18	
268	Possible Ordnance	Clear	Negative Find	S	10	
268	Possible Ordnance	NA	Cultural Debris - magnet particles, pipe, long cable	N	18	Backhoe Dig
269	Possible Ordnance	Clear	Cultural Debris - UNK	NW	8	
269	Possible Ordnance	Clear	Cultural Debris - nail, hot rock, fish line spool, pipe, long cable, rail road spike	W	30	Backhoe Dig
487	Possible Ordnance	Clear	Negative Find	NA	NA	
492	Possible Ordnance	Clear	Negative Find	NA	NA	
499	Possible Ordnance	Clear	Cultural Debris - wire	S	48	
501	Possible Ordnance	Clear	Negative Find	NA	NA	
502	Possible Ordnance	Clear	Cultural Debris - Metal Pipe/Fence Post	NA	NA	
503	Possible Ordnance	Clear	Cultural Debris - wire	SE	20	
504	Possible Ordnance	NA	Cultural Debris - wire	NE	12	
506	Possible Ordnance	Clear	Cultural Debris - bottle cap	S	12	
507	Possible Ordnance	Clear	Cultural Debris - can	0	0	
508	Possible Ordnance	Clear	Cultural Debris - lid	0	0	
509	Possible Ordnance	Clear	Cultural Debris - razor blade, can, sheet metal	W	18	
511	Possible Ordnance	Clear	Cultural Debris - wire	SW	18	
513	Possible Ordnance	Clear	Cultural Debris - wire, hot rock, nail	N	3	
514	Possible Ordnance	Clear	Cultural Debris - hot rock	E	12	Hot Rock
515	Possible Ordnance	Clear	Cultural Debris - wire, hot rock, screw	E	8	
517	Possible Ordnance	Clear	Cultural Debris - metal wire	N	12	
518	Possible Ordnance	Clear	Cultural Debris - wire	E	20	
522	Possible Ordnance	Clear	Cultural Debris - wire	W	18	
525	Possible Ordnance	Clear	Cultural Debris - UNK	0	0	
533	Possible Ordnance	Clear	Cultural Debris - pipe	W	18	
534	Possible Ordnance	Clear	Cultural Debris - fish hook, wire, can	0	0	Hot Rock
541	Possible Ordnance	Clear	Cultural Debris - banding	W	4	
544	Possible Ordnance	Clear	Cultural Debris - small medal(?)	S	12	
545	Possible Ordnance	Clear	Cultural Debris - bottle cap	S	6	
546	Possible Ordnance	Clear	Cultural Debris - UNK	W	12	
547	Possible Ordnance	Clear	Cultural Debris - Metal plate	E	18	
552	Possible Ordnance	Clear	Negative Find	NA	NA	
554	Possible Ordnance	Clear	Cultural Debris - sheet metal, wire, bolt	NE	6	Trash Pit Outside
555	Possible Ordnance	Clear	Cultural Debris - banding	N	12	
556	Possible Ordnance	Clear	Cultural Debris - lid	NA	NA	
564	Possible Ordnance	Clear	Cultural Debris - tin can, large metal plate, wire	0	0	
565	Possible Ordnance	Clear	Negative Find	NA	NA	
566	Possible Ordnance	Clear	Cultural Debris - nail	W	14	

TABLE 1

MAGNETIC ANOMALY UXO CLEARING SUMMARY
SEPTEMBER 29 THROUGH NOVEMBER 19, 2015

Congaree River Sediments
Columbia, South Carolina

Anomaly Designation	Original Description	Anomaly Status	Identified Anomaly Type and Description	Offset Direction[(1)]	Offset Distance (inches)[(1)]	Notes
567	Possible Ordnance	Clear	Cultural Debris - metal, hot rock, aluminum, rubber tire	0	0	
568	Possible Ordnance	NA	Cultural Debris - magnet particles, pipe, long cable, magnet pieces	N	18	Backhoe Dig
569	Possible Ordnance	Clear	Cultural Debris - nail, hot rock, fish line spool, pipe, long cable, rail road spike	W	30	Backhoe Dig
50	Lanes	NA	Hot Water Heater	NA	NA	
51	Lanes	NA	Sheet Metal 5" x 5"	NA	NA	
52	Lanes	NA	Sheet Metal 30" x 30"	NA	NA	
53	Lanes	NA	Tent Stake	NA	NA	
54	Lanes	NA	Wire Solid Core	NA	NA	
55	Lanes	NA	Wire Bundle, Soild Core	NA	NA	
56	Lanes	NA	Old Style Cartridge Case	NA	NA	
57	Lanes	NA	Sheet Metal, Barrel Lids, Bottles	NA	NA	
58	Lanes	NA	Sheet Metal, Pipe Scrap, Wire Scrap	NA	NA	
59	Lanes	NA	Length of Cable	NA	NA	

Notes:
(1) Represents the offset direction and distance from the staked anomaly.
(2) NA - information is not available on corresponding dig sheet provided by EOTI.
(3) UNK - unknown
(4) Hot Rock is defined as stone that has a magnetic signature. Slag containing some metals was brought on-site to repair the boat ramp and generated a magnetic response.
(5) Information included in this table is from Daily Dig Sheets provided by EOTI at the end of each day.

FIGURES

GERVAIS STREET BRIDGE

CONGAREE RIVER

FIELD DEMONSTRATION PROJECT AREA

BOULDER FIELD

SAND BAR

38RD224

38RD234

38RD278

GATE

GATE

TEMPORARY FENCE

TEMPORARY FREE STANDING FENCE

JOB TRAILERS

GRAVEL LOT

GW

CONCRETE WALK

PARKING

GIST STREET

SENATE STREET

GATE

GATE

GATE

GATE

ASPHALT BOAT RAMP

TREE LINE

TREE LINE

TREE LINE

ROAD IMPROVEMENT AREA

ROLL-OFF BOXES

FRAC TANK

SANDBAG FILLING AREA

ROCK AND GRASS ROAD

GRAVEL ROAD

EARTH BERM

TEMPORARY FENCE

ALLUVIAL FAN SEDIMENT STAGING AREA

18"DIP

N

LEGEND

- APPROXIMATE EDGE OF RIVER
- APPROXIMATE EXTENT OF ALLUVIAL FAN UXO SCREENING
- OVERHEAD POWER
- GAS
- FIBER OPTIC
- SANITARY SEWER
- GRAVEL AREAS
- SITE OPERATIONS COMPONENT
- HISTORICAL SITES

0' 40' 80' 160'

(Feet Scale)

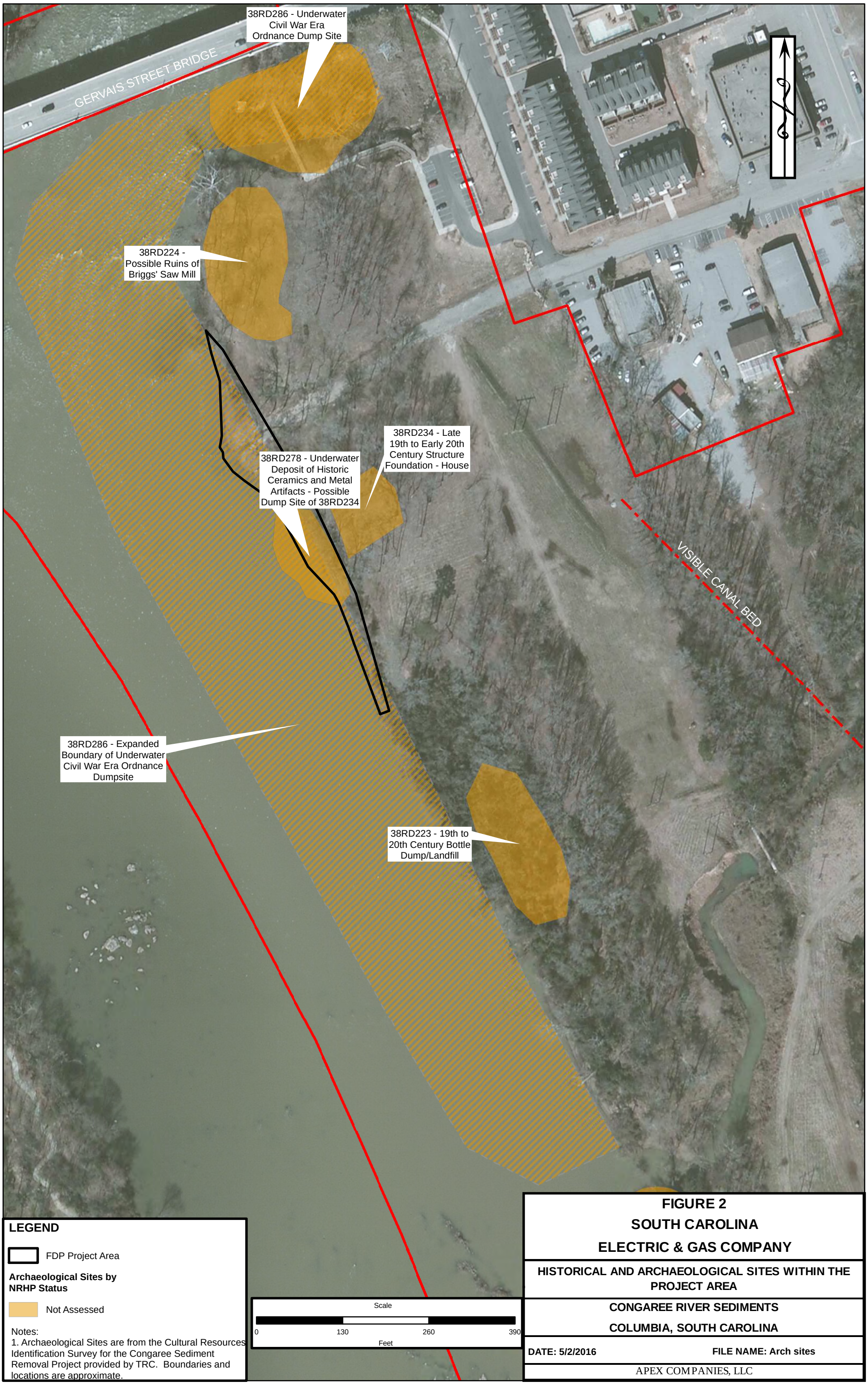
FIGURE 1
SOUTH CAROLINA
ELECTRIC & GAS COMPANY

FIELD DEMONSTRATION PROJECT AREA

CONGAREE RIVER SEDIMENTS
COLUMBIA, SOUTH CAROLINA

DATE: 5/16/16 FILE NAME: CONG357

APEX COMPANIES, LLC



LEGEND

FDP Project Area

Archaeological Sites by NRHP Status

Not Assessed

Notes:
1. Archaeological Sites are from the Cultural Resources Identification Survey for the Congaree Sediment Removal Project provided by TRC. Boundaries and locations are approximate.

Scale

0 130 260 390

Feet

FIGURE 2

SOUTH CAROLINA ELECTRIC & GAS COMPANY

HISTORICAL AND ARCHAEOLOGICAL SITES WITHIN THE PROJECT AREA

CONGAREE RIVER SEDIMENTS

COLUMBIA, SOUTH CAROLINA

DATE: 5/2/2016 **FILE NAME: Arch sites**

APEX COMPANIES, LLC

38RD224 -
Possible Ruins of
Briggs' Saw Mill

38RD234 -
Late 19th to Early
20th Century
Structure
Foundation - House

Possible
Casing

Southern Pit
(4 ft. deep by 6 ft. wide)

38RD278 - Underwater
Deposit of Historic
Ceramics and Metal
Artifacts - Possible
Dump Site of 38RD234

LEGEND

Magnetic Anomalies

- Manhole (1)
- Electromagnetic Anomaly (5)
- Possible Ordnance (83)
- Pipeline Associated (12)

Magnetic Anomaly Status

- Location Cleared - Cultural Debris (46)
- Location Cleared - Negative Find (5)
- Location Not Cleared (23)
- Location Unable to be Located by Surveyor (13)

Lane Status

- Lane Status
- Cleared Lane (1,288 Sq. Ft.)
- Additional Excavation Investigation Location
- Location Cleared During Lane Clearing - Cultural Debris (3)

Archaeological Sites by NRHP Status

- Not

Soil Borings with TLM Observations

- No Visual TLM
- Visual TLM
- Potential TLM

- Isolation Berm - Big Bags
- Alluvial Fan
- Southern FDP

1 inch = 40 feet

0 40 80

Feet

FIGURE 3
SOUTH CAROLINA
ELECTRIC & GAS COMPANY

UXO CLEARED MAGNETIC ANOMALIES AND AREAS

CONGAREE RIVER SEDIMENTS
COLUMBIA, SOUTH CAROLINA

DATE: 4/29/2016

FILE NAME: All cleared UXO

APEX COMPANIES, LLC

Notes:

1. River Elevation data from USGS Gage 02169500.

2. USGS Gage 02169500 is located approximately near the 11 line and therefore, the elevations shown are of river elevations at this location (near the 11 line).

2015 2014 2013

2012 2011 2010

Top of proposed cofferdam elevations
- 122.73 feet (NAVD '88)
- 123.50 feet (NGVD '29)

September 28, 2015 EOTI mobilized to site

November 2, 2015 EOTI mobilized to site

November 17, 2015 EOTI mobilized to site

December 16, 2015 site demobilized

River Elevation (feet, NGVD '29)

146 144 142 140 138 136 134 132 130 128 126 124 122 120 118 116 114

5/1 5/16 5/31 6/15 6/30 7/15 7/30 8/14 8/29 9/13 9/28 10/13 10/28 11/12 11/27 12/12 12/27

Time (month, day and year)

FIGURE 4

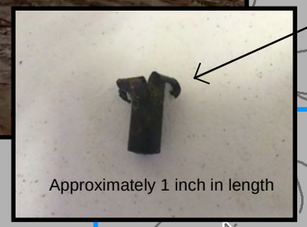
SOUTH CAROLINA ELECTRIC & GAS COMPANY

CONGAREE RIVER ELEVATIONS MAY THROUGH DECEMBER 2010-2015

CONGAREE RIVER SEDIMENTS
COLUMBIA, SOUTH CAROLINA

DATE: 05/05/16 FILENAME: FIGURE 4

APEX COMPANIES, LLC



LEGEND

Magnetic

- Manhole (1)
- Electromagnetic Anomaly (5)
- Possible Ordnance (83)
- Pipeline Associated (12)

Magnetic Anomaly

- Location Cleared - Cultural Debris (46)
- Location Cleared - Negative Find (5)
- Location Not Cleared (23)
- Location Unable to be Located by Surveyor (13)

Lane Status

- Point of Interest
- Backhoe Investigation
- Cleared Lane (1,288 Sq. Ft.)
- Location Cleared During Lane Clearing - Cultural Debris (3)

- Isolation Berm - Big Bags
- Alluvial Fan
- Southern FDP

Soil Borings with TLM Observations

- No Visual TLM
- Visual TLM
- Potential TLM

1 inch = 40 feet

0 40 80

Feet

FIGURE 5

SOUTH CAROLINA ELECTRIC & GAS COMPANY

PHOTOGRAPHIC SUMMARY OF FINDINGS AND ACTIVITIES

CONGAREE RIVER SEDIMENTS

COLUMBIA, SOUTH CAROLINA

DATE: 5/2/2016

FILE NAME: Findings and activities photos

APEX COMPANIES, LLC

APPENDIX A

PERMITS AND APPROVALS

C. Cochrane (USACE) Email to L. Berresford (SCDHEC)
Regarding USACE Approval of the EOTI Work Plan
Dated September 1, 2015

-----Original Message-----
From: Cochrane, Chris HNC [mailto:Chris.Cochrane@usace.army.mil]
Sent: Tuesday, September 01, 2015 6:19 PM
To: Berresford, James
Cc: APPLE, ROBERT M; Whiteman, James G SAC; D'Auben, Michael J HNC
Subject: Congaree River Project: USACE Huntsville Review and Approval of Military Muntions Response Work Plan (UNCLASSIFIED)

***This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source.

Dear Mr. Berresford,

This e-mail is to inform you that my team at the U.S. Army Corps of Engineers (USACE), Huntsville Center, Ordnance and Explosives Design Center have reviewed and approved the military munitions response work plan for the Congaree River Project.

The purpose of the work plan is to explain how the work will be done and who will do it. Safety requirements, geophysical techniques, and GIS are also addressed by the work plan. This particular work plan follows the requirements set forth in the USACE Huntsville contract with EOTI for removal of military munitions. EOTI is not doing this work under a USACE contract, however the entire team decided that it would be sensible to follow the Huntsville requirements for the work plan.

The experts who reviewed the Draft, Draft Final, and Final versions are Audrey Nore, a USACE Engineer who specializes in explosives safety, Brian McComas who is an Ordnance and Explosives Safety Specialist and former military Explosives Ordnance Disposal (EOD) expert, Debra Edwards who is a geophysicist and specializes in sub-surface location of munitions, and Michael D'Auben who is a chemist and the Huntsville Technical Manager for this project.

The comments from the USACE Huntsville experts are attached for your files. I did not attach the Final Work Plan because it is too large to e-mail. Let me know if you need a copy. And please don't hesitate to let me know if you have any questions.

Best regards,
Chris

Chris Cochrane, PMP
US Army Engineering and Support Center, Huntsville Ordnance and Explosives Design Center
4820 University Square
Huntsville, AL 35816
Desk Phone: 256-895-1696
Cell Phone: 256-990-0888
chris.cochrane@usace.army.mil

Classification: UNCLASSIFIED
Caveats: NONE

USACE Approval Letter for the PCN
Dated September 1, 2015

DEPARTMENT OF THE ARMY
CHARLESTON DISTRICT, CORPS OF ENGINEERS
1835 Assembly Street Room 865 B-1
COLUMBIA, SOUTH CAROLINA 29201

REPLY TO
ATTENTION OF

September 1, 2015

Regulatory Division

Mr. Robert Apple
South Carolina Electric and Gas Company
220 Operation Way
Cayce, South Carolina 29033

Dear Mr. Apple:

This letter is in response to a Pre-Construction Notification (PCN) dated June 15, 2015, which was considered complete on August 24, 2015. By submittal of the PCN, you requested verification that the proposed project is authorized by a Department of the Army Nationwide Permit.

The PCN contains the following identifying information for this project. The work affecting waters of the United States is part of an overall project known as the Congaree River Field Demonstration Project. The project involves impacts to 600.0 linear feet of other waters of the U.S for the excavation and subsequent restoration of an alluvial fan area in the Congaree River. The project is located on the Congaree River, just south of the Gervais Street Bridge, Richland County, South Carolina. The PCN also includes the following supplemental information:

a. Drawing sheets 1-4 of 4 titled "Congaree River Field Demonstration Project" and dated August 19, 2015;

b. A delineation of wetlands, other special aquatic sites, and other waters (SAC-2014-728-6, October 20, 2014);

Based on a review of the PCN, including the supplemental information indicated above, it has been determined that the proposed activity will result in minimal individual and cumulative adverse environmental effects and is not contrary to the public interest. Furthermore, the activity meets the terms and conditions of Department of the Army Nationwide Permit(s) #38.

For this authorization to remain valid, the project must comply with the enclosed Nationwide Permit General Conditions, Charleston District Regional Conditions, and the following special conditions:

1. That impacts to aquatic areas do not exceed those specified in the above mentioned PCN, including any supplemental information or revised permit drawings that were submitted to the Corps by the permittee;

2. That the construction, use, and maintenance of the authorized activity is in accordance with the information given in the PCN, including the supplemental information listed above, and is subject to any conditions or restrictions imposed by this letter;

3. That the permittee shall submit the attached signed compliance certification to the Corps within 30 days following completion of the authorized work.

4. That the permittee agrees that all work is to be conducted in the dry.

5. That the permittee must adhere to the plan entitled, "**PHASE I – FIELD DEMONSTRATION PROJECT WORK PLAN**", and dated June, 2015.

6. That the permittee must adhere to the plan entitled, "**DRAFT FINAL WORK PLAN FOR MUNITIONS RESPONSE REMOVAL ACTION AND CONSTRUCTION SUPPORT CONGAREE RIVER PROJECT**", and dated May 2015.

7. That the permittee must adhere to the plan entitled, "**ARCHAEOLOGICAL DATA RECOVERY PLAN FOR THE MITIGATION OF SITE 38RD286/38RD278. THE ORDNANCE DUMP SITE, FOR THE CONGAREE RIVER SEDIMENT REMOVAL PROJECT, COLUMBIA, SOUTH CAROLINA**", and dated August 2015.

8. That the permittee must adhere to the stipulations outlined in the Memorandum of Agreement (MOA) between the permittee, the Corps, and South Carolina Archives and History regarding the Congaree River Remediation Project and dated August 24, 2015.

9. That the permittee must adhere to the stipulations as required by DHEC pursuant to the voluntary cleanup contract for the site.

This verification is valid until March 18, 2017, unless the district engineer modifies, suspends, or revokes the nationwide permit authorization in accordance with 33 CFR 330.5(d). If prior to this date, the NWP authorization is reissued without modification or the activity complies with any subsequent modification of the NWP authorization, the verification continues to remain valid until March 18, 2017. If you commence, or are under contract to commence, this activity before the nationwide permit expires, or the nationwide permit is modified, suspended, or revoked by the Chief of Engineers or division engineer in accordance with 33 CFR 330.5(b) or (c), respectively, so that the activity would no longer comply with the terms and conditions of the nationwide permit, you will have 12 months after the date the nationwide permit expires or is modified, suspended, or revoked, to complete the activity under the present terms and conditions of this nationwide permit.

This Nationwide permit is being verified based on the information you have provided. It is your responsibility to read the attached Nationwide Permits(s) along with the General, Regional, and Special Conditions before you begin work. If you determine that your project will not be able to meet the Nationwide Permit and the conditions, you must contact the Corps before you proceed.

Your cooperation in the protection and preservation of our navigable waters and natural resources is appreciated. In all future correspondence concerning this matter, please refer to our file number SAC-2011-1365-6NO. You may need state or local assent. Prior to performing any work, you should contact the South Carolina Department of Health and Environmental Control. A copy of this letter is being forwarded to certain State and/or Federal agencies for

their information. If you have any questions concerning this matter, please contact Chip Ridgeway at 803-253-3906.

Respectfully,

Kristin Andrade
Watershed Manager

Enclosures:
Permit Drawings
Nationwide Permit #38
Nationwide Permit General Conditions
Nationwide Permit Regional Conditions
Compliance Certification Form

Copy furnished:

South Carolina Department of
Health and Environmental Control
Attn: Mr. Chuck Hightower
Bureau of Water Pollution Control
2600 Bull Street
Columbia, South Carolina 29201

SCDHEC Approval Letter for the FDP Work Plan
Dated September 2, 2015

D H E C
PROMOTE PROTECT PROSPER
W. Marshall Taylor Jr., Acting Director
Promoting and protecting the health of the public and the environment

September 2, 2015

Mr. Robert Apple
Environmental Division
South Carolina Electric and Gas Company
4077 Haywood Road
Mills River NC 28759

RE: Field Demonstration Project Work Plan
SCE&G Huger Street Former MGP
Columbia SC
File # 52561, VCC # 02-4295-RP

Dear Mr. Apple:

The Department of Health and Environmental Control (Department) has reviewed SCANA's Field Demonstration Project Work Plan. In conjunction with this Work Plan, the U.S. Army Corps of Engineers (USACE), Huntsville Center, Ordnance and Explosives Design Center provided, to the Department, a copy of their detailed reviews and approvals of the Explosives Safety Submission (ESS) and the Military Munitions Response Work Plan (MMRWP) for the Congaree River Project. The Department approves the Field Demonstration Project Work Plan based on the Department's review of this document and the Army Corps approval of the MMRWP and ESS plans.

Please contact the Department at least 5 business days before the start of field activities. If you have any questions or comments please contact me at (803)898-0747 or by email at berresjl@dhec.sc.gov.

Sincerely

Lucas Berresford
State Remediation Section
Bureau of Land and Waste Management

CC: Harry L. Mathis, P.G., Midlands Region EQC Director, via email
R. Gary Stewart, P.E., Manager, State Remediation Section, via email
Mark Giffen, BOW
File 52561

20 CITY OF COLUMBIA, SOUTH CAROLINA 15

BUSINESS AND PROFESSIONAL LICENSE

Apex TITAN, Inc.

1600 Commerce Cir
Trafford, PA 15085

1600 Commerce Cir Trafford, PA 15085

Location of Business
Notify this office of any change in location or ownership

LICENSE EXPIRES: December 31, 2015

DATE ISSUED: 09-03-15

TYPE OF BUSINESS: Environmental Consulting

The issuance of this business license shall serve as a Zoning permit by the Zoning Administrator as required by $ 17-83 of the Zoning Ordinance. In accordance with $17-85, a change in use, arrangement, location or construction may be deemed a violation of the Zoning ordinance.

BUSINESS CODE: 541620

LICENSE NUMBER: BL009110-09-2015

The above named concern has been licensed to do business in Columbia, subject to the provisions of all ordinances of the city.

K. Bu Cook

Zoning Administrator

Roger Myers

Business License Administrator

THIS LICENSE MUST BE DISPLAYED IN A CONSPICUOUS PLACE PURSUANT TO SECTION 11-38

BUILDING PERMIT CARD
CITY OF COLUMBIA, S.C.

ADDRESS 1105 Gist St

Columbia, SC

DESCRIPTION

two temporary job trailers and fencing as per site plan

ISSUED TO South Carolina Electric and Gas (scana)

PERMIT NO. TR-15-03377

DATE

BY awb

NOTICE TO OWNER OR POSSESSOR

PURSUANT TO S.C. CODE SEC. 15-3-640 YOU HAVE THE RIGHT TO CONTRACT FOR A GUARANTEE OF THE STRUCTURE BEING FREE FROM DEFECTIVE OR UNSAFE CONDITIONS BEYOND EIGHT YEARS AFTER SUBSTANTIAL COMPLETION OF THE IMPROVEMENT FOR WHICH THIS PERMIT IS ISSUED.

SECTION 105.5 OF THE STANDARD BUILDING CODE READS AS FOLLOWS:

WORK REQUIRING A PERMIT SHALL NOT COMMENCE UNTIL THE PERMIT HOLDER OR THEIR AGENT POSTS THE PERMIT CARD IN A CONSPICUOUS PLACE ON THE PREMISES. THE PERMIT SHALL BE PROTECTED FROM THE WEATHER AND LOCATED IN SUCH A POSITION AS TO PERMIT THE BUILDING OFFICIAL OR REPRESENTATIVE TO CONVENIENTLY MAKE THE REQUIRED ENTRIES THEREON. THIS PERMIT CARD SHALL BE MAINTAINED IN SUCH POSITION BY THE PERMIT HOLDER UNTIL THE CERTIFICATE OF OCCUPANCY OR COMPLETION IS ISSUED BY THE BUILDING OFFICIAL.

ALL CONSTRUCTION DEBRIS SHALL BE REMOVED FROM SITE

* PUPS -PALMETTO UTILITY PROTECTION SERVICES INC. CALL 72 HOURS BEFORE YOU DIG IT'S THE LAW! 1-888-721-7877

CITY OF COLUMBIA
BUILDING PERMIT

PERMIT NUMBER	INVOICE NUMBER	APPLIED DATE	FEE	ISSUE DATE	ISSUED BY	CENSUS	TMS NUMBER
TR-15-03377	15-06618	09/03/2015	$		awb		08911-01-01

NAME & ADDRESS

LOCATION OF IMPROVEMENT: 1105 Gist St
Columbia, SC

South Carolina Electric and Gas (scana)
Columbia, SC 29218

OWNER: City Of Columbia Planning and Development Services
1136 Washington St
Columbia, SC 29201

LIC. NO.:

SELECTED CHARACTERISTICS OF WORK

NATURE OF WORK:
Other

NO. OF FLOORS:
TOTAL FLOOR AREA OF NEW CONST.: Sq. Ft.
SQ. FT. BASEMENT.: Sq. Ft.
ACCESSORY STRUCTURES: Sq. Ft.
LAND AREA.: Sq. Ft.

DESCRIPTION OF WORK
two temporary job trailers and fencing as per site plan

OWNERSHIP: 1. PRIVATE 2. PUBLIC

PERMIT EXPIRES: 03/01/2016

OCCUPANCY

REVIEW NUMBERS:

TYPE FRAME:
1. FIREPROOF 4. NON-COMBUSTIBLE
2. FIRE RESISTANT 5. ORD. CONSTRUCTION
3. HEAVYTIMBER 6. WOOD FRAME

HEATING FUEL:
1. GAS 4. COAL
2. OIL 5. WOOD
3. ELEC. 6. OTHER

SINGLE FAMILY ONLY
NO. OF BATHROOMS:
NO. OF BEDROOMS:
TOTAL ROOMS:

WATER: SEWER: TOTAL COST: $ 40000.00 PENALTY: ZONING APPR.:

AFFADAVIT OF APPLICANT

1. No work will be started before permit card is posted.
2. No work will be continued if permit card is destroyed, lost, or stolen.
3. Contractor and subcontractors will secure (if required) a business license before beginning any work.
4. This permit is void if job is not started within 6 months of application date.
5. I will be responsible and will pay for the business license of any contractor or subcontractor doing work on this project if found without a license.
6. The undersigned owner or agent understands that the approval of this application does not constitute a privilege to violate any applicable governmental ordinances, codes, or laws, and that any omission of or misrepresentation of fact with or without the intention of the undersigned or any alteration or change from this application without approval of the Building Official, shall constitute sufficient ground for the revocation of any permit issued which was based on the approval of this application. This permit does not authorize any encroachment on public property.

Signature of Applicant _____ Date _____

Print Name _____ Address _____

BUILDING PERMIT CARD
CITY OF COLUMBIA, S.C.

ADDRESS 1105 Gist St

Columbia, SC

DESCRIPTION

two temporary job trailers and fencing as per site plan

ISSUED TO South Carolina Electric and Gas (scana)

PERMIT NO. TR-15-03377

DATE

BY awb

NOTICE TO OWNER OR POSSESSOR

PURSUANT TO S.C. CODE SEC. 15-3-640 YOU HAVE THE RIGHT TO CONTRACT FOR A GUARANTEE OF THE STRUCTURE BEING FREE FROM DEFECTIVE OR UNSAFE CONDITIONS BEYOND EIGHT YEARS AFTER SUBSTANTIAL COMPLETION OF THE IMPROVEMENT FOR WHICH THIS PERMIT IS ISSUED.

SECTION 105.5 OF THE STANDARD BUILDING CODE READS AS FOLLOWS:

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ALL CONSTRUCTION DEBRIS SHALL BE REMOVED FROM SITE

* PUPS -PALMETTO UTILITY PROTECTION SERVICES INC. CALL 72 HOURS BEFORE YOU DIG IT'S THE LAW! 1-888-721-7877

CITY OF COLUMBIA

BUILDING PERMIT

PERMIT NUMBER	INVOICE NUMBER	APPLIED DATE	FEE	ISSUE DATE	ISSUED BY	CENSUS	TMS NUMBER
TR-15-03376	15-06617	09/03/2015	$		awb		08911-01-01

NAME & ADDRESS

LOCATION OF IMPROVEMENT: 1105 Gist St
Columbia, SC

South Carolina Electric and Gas (scana)
Columbia, SC 29218

OWNER: City Of Columbia Planning and Development Services
1136 Washington St
Columbia, SC 29201

LIC. NO.:

SELECTED CHARACTERISTICS OF WORK

NATURE OF WORK:
Other

NO. OF FLOORS:
TOTAL FLOOR AREA OF NEW CONST.: Sq. Ft.
SQ. FT. BASEMENT.: Sq. Ft.
ACCESSORY STRUCTURES: Sq. Ft.
LAND AREA.: Sq. Ft.

DESCRIPTION OF WORK
two temporary job trailers and fencing as per site plan

OWNERSHIP: 1. PRIVATE 2. PUBLIC

PERMIT EXPIRES: 03/01/2016

OCCUPANCY

REVIEW NUMBERS:

TYPE FRAME:
1. FIREPROOF
2. FIRE RESISTANT
3. HEAVY TIMBER
4. NON-COMBUSTIBLE
5. ORD. CONSTRUCTION
6. WOOD FRAME

HEATING FUEL:
1. GAS
2. OIL
3. ELEC.
4. COAL
5. WOOD
6. OTHER

SINGLE FAMILY ONLY
NO. OF BATHROOMS:
NO. OF BEDROOMS:
TOTAL ROOMS:

WATER: SEWER: TOTAL COST: $ 40000.00 PENALTY: ZONING APPR.:

AFFADAVIT OF APPLICANT

1. No work will be started before permit card is posted.
2. No work will be continued if permit card is destroyed, lost, or stolen.
3. Contractor and subcontractors will secure (if required) a business license before beginning any work.
4. This permit is void if job is not started within 6 months of application date.
5. I will be responsible and will pay for the business license of any contractor or subcontractor doing work on this project if found without a license.
6. The undersigned owner or agent understands that the approval of this application does not constitute a privilege to violate any applicable governmental ordinances, codes, or laws, and that any omission of or misrepresentation of fact with or without the intention of the undersigned or any alteration or change from this application without approval of the Building Official, shall constitute sufficient ground for the revocation of any permit issued which was based on the approval of this application. This permit does not authorize any encroachment on public property.

Signature of Applicant _____ Date _____

Print Name _____ Address _____

APPENDIX B

PHOTOGRAPHIC SUMMARY FIGURES AND SECURITY CAMERA FOOTAGE (DVD)

9/22/2015 - Surveyor establishing magnetic anomalies located by TAR

9/29/2015 - Visual barrier installed on northern side of project area

9/29/2015 - Fence demarcating exclusion zone

9/23/2015 - Orange fence demarcating historical area

9/28/2015 - Security cameras overlooking the FDP area

9/28/2015 - Temporary fence with visual barrier & equipment staging

FIGURE B-1

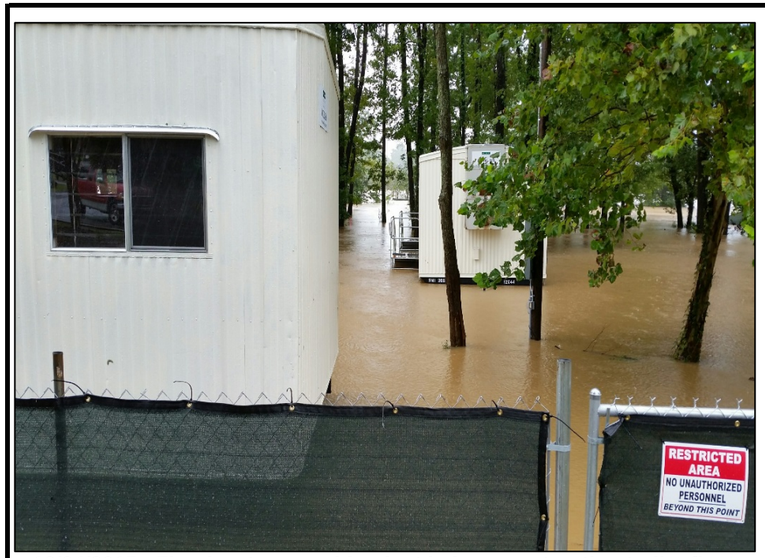
SOUTH CAROLINA ELECTRIC & GAS COMPANY

PHOTOGRAPHIC SUMMARY OF SITE SET-UP
SEPTEMBER 2015

CONGAREE RIVER SEDIMENTS
COLUMBIA, SOUTH CAROLINA

DATE: 12/18/2015 FILENAME: SITE SET-UP

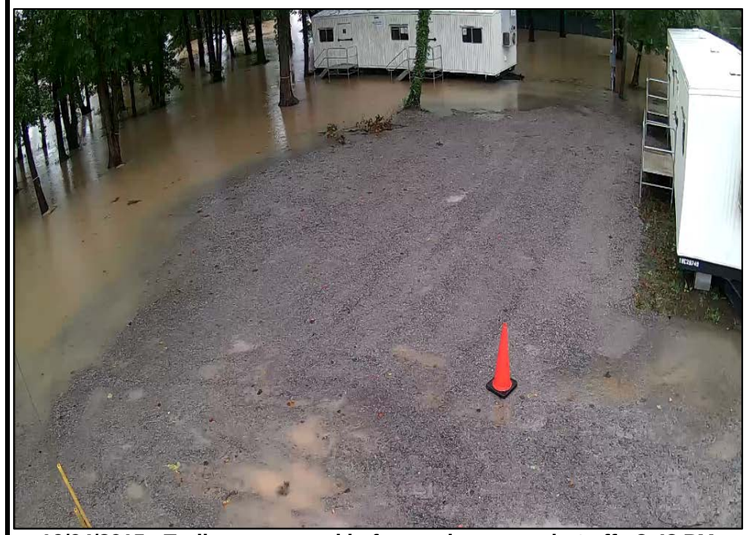
APEX COMPANIES, LLC



10/04/2015 - Flood waters reaching just below construction trailer floors

10/04/2015 - View from outside of project area

10/04/2015 - Another view from outside of project area



10/04/2015 - Trailer compound before main power shut off - 2:42 PM

10/04/2015 - View from riverfront camera looking upriver - 11:13 AM
Cameras mounted approx. 10 feet above ground

10/04/2015 - View from riverfront camera looking downriver - 11:13 AM
Cameras mounted approx. 10 feet above ground

FIGURE B-2

SOUTH CAROLINA ELECTRIC & GAS COMPANY

PHOTOGRAPHIC SUMMARY OF OCTOBER 2015 FLOOD

CONGAREE RIVER SEDIMENTS
COLUMBIA, SOUTH CAROLINA

DATE: 12/21/2015 FILENAME: FLOOD

APEX COMPANIES, LLC

10/05/2015 - Trailer and parking lot after flood water receded

10/06/2015 - Waterfront cameras with flood water receding

10/07/2015 - Historical area with flood waters receding

10/19/2015 - View of alluvial fan showing amount of sediment deposited during flood

10/19/2015 - View looking down boat ramp

10/19/2015 - View of alluvial fan showing amont of sediment deposited during flood

FIGURE B-3

SOUTH CAROLINA ELECTRIC & GAS COMPANY

PHOTOGRAPHIC SUMMARY OF SITE FOLLOWING FLOOD IN OCTOBER 2015

CONGAREE RIVER SEDIMENTS
COLUMBIA, SOUTH CAROLINA

DATE: 12/21/2015 FILENAME: POST FLOOD

APEX COMPANIES, LLC

10/23/15 - Stabilizing boat ramp to allow access to alluvial fan

10/23/2015 - Boat ramp stabilized

10/28/2015 - Sediment deposited by flood event removed and alluvial fan restored to pre-flood elevations

10/30/2015 - Stockpile of sediment removed from alluvial fan area

11/2/2015 - Deploying equipment mats to allow access to areas of thick sediment

11/17/2015 - Mats deployed along southern alluvial fan to permit access by EOTI

FIGURE B-4

SOUTH CAROLINA ELECTRIC & GAS COMPANY

PHOTOGRAPHIC SUMMARY OF PHASE 1B PREP STABILIZATION OF ALLUVIAL FAN

CONGAREE RIVER SEDIMENTS
COLUMBIA, SOUTH CAROLINA

DATE: 12/21/2015 FILENAME: REST. AND MATS

APEX COMPANIES, LLC

10/27/2015 - View from west river bank of site area with sand bag berm

10/29/2015 - Deploying sand bags along river's edge

10/29/2015 - Deploying sand bags along river's edge

11/16/2015 - Deploying sand bags along river's edge

11/17/2015 - Sand bag berm along river's edge

11/17/2015 - Sand bag berm along river's edge

FIGURE B-5

SOUTH CAROLINA ELECTRIC & GAS COMPANY

PHOTOGRAPHIC SUMMARY OF SAND BAG DEPLOYMENT

CONGAREE RIVER SEDIMENTS
COLUMBIA, SOUTH CAROLINA

DATE: 12/21/2015 FILENAME: SAND BAG DEPLOY

APEX COMPANIES, LLC

12/07/2015 - Placing removed sediment back on alluvial fan surface and restoring to post-flood elevations

12/07/2015 - Placing removed sediment back on alluvial fan surface and restoring to post-flood elevations

12/07/2015 - Removing sand bags and restoring alluvial fan surface to post-flood conditions

12/14/2015 - Temporary fence placed around trailer compound area

12/14/2015 - Temporary fence placed around trailer compound area

12/14/2015 - Alluvial fan surface restored to post-flood elevations

FIGURE B-6

SOUTH CAROLINA ELECTRIC & GAS COMPANY

PHOTOGRAPHIC SUMMARY OF DEMOBILIZATION ACTIVITIES

CONGAREE RIVER SEDIMENTS
COLUMBIA, SOUTH CAROLINA

DATE: 12/21/2015 FILE NAME: DEMOB

APEX COMPANIES, LLC

APPENDIX C

PHOTOGRAPHIC COMPARISON OF SITE APPEARANCE BEFORE AND AFTER THE FLOOD OF OCTOBER 2015

9/24/2015 – View from the Alluvial Fan looking towards the southern FDP area.
Orange flags represent located magnetic anomalies.

10/19/2015 – View from Alluvial Fan looking towards the southern FDP area. Note: no orange flags can be seen due to amount of sediment deposited during the October flooding event.

9/28/2015 – View looking at the boat ramp, towards the river.

10/14/2015 – View looking at the boat ramp, towards the river.

9/24/2015 – View of Alluvial Fan and drainage creek from boat ramp.

10/14/2015 – View of Alluvial Fan and drainage creek from boat ramp.

9/24/2015 – View of the drainage creek and southern FDP area from the Alluvial Fan.

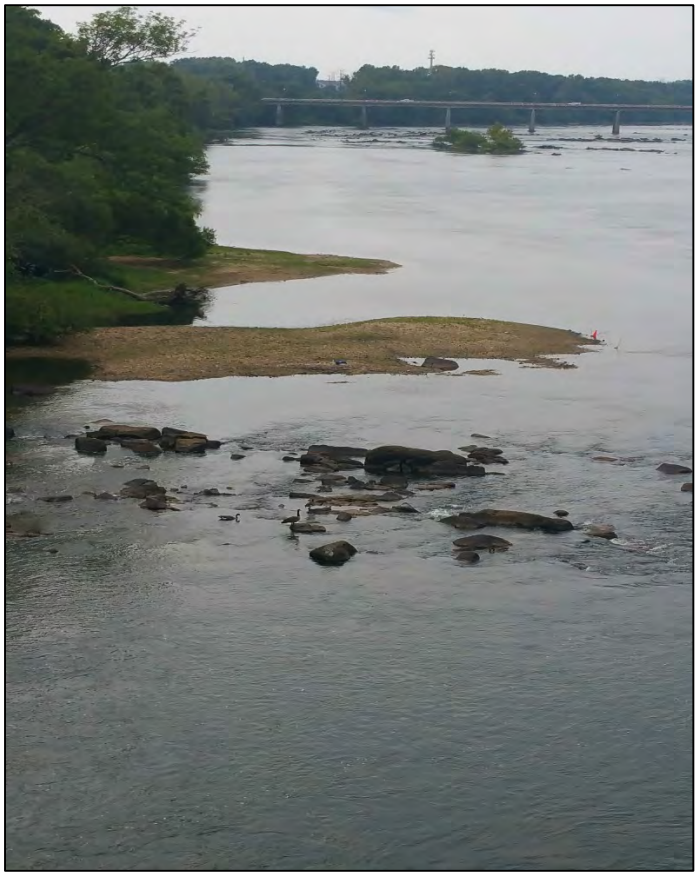
10/19/2015 – View of southern FDP area from the Alluvial Fan. Notice amount of deposited sediment.

9/2/2015 – View of southern Alluvial Fan from the bottom of the boat ramp.

10/19/2015 - View of southern Alluvial Fan from the bottom of the boat ramp.

9/28/2015 – View of northern Alluvial Fan.

10/19/2015 – View of northern Alluvial fan.



8/11/2015 – View of sand bar from the Gervais Street Bridge.

10/19/2015 – View of sand bar from the Gervais Street Bridge.

APPENDIX D

LETTER TO USACE “UPDATE - POST COLUMBIA FLOODING EVENT”, OCTOBER 23, 2015 AND CONGAREE RIVER WATER LEVEL PLOT

SCANA
Corporate Environmental Services
220 Operation Way
Cayce, SC 29033-3701

October 23, 2015

Mr. Brice McKoy
Northwest Regulatory Branch Chief

Mr. Chip Ridgeway
Project Manager
U.S. Army Corps of Engineers
Strom Thurmond Federal Building
1835 Assembly Street, Room 865 B-1
Columbia, South Carolina 29201

RE: Update – Post Columbia Flooding Event
Joint Application and Pre-Construction Notification (PCN) - Nation Wide Permit – 38
Phase 1 – Field Demonstration Project
SCE&G - Congaree River Sediments
Columbia, South Carolina
USACE Project Number: SAC-2011-01356-6NO

Dear Sirs:

On behalf of SCANA Services, Inc., (SCANA) and their primary subsidiary, South Carolina Electric & Gas Company Inc. (SCE&G), this letter is intended to provide a brief status update for the above referenced permit. This letter will also serve to provide a description of planned activities and the tentative schedule for moving forward with completion of the Field Demonstration Project (FDP).

LOCALIZED IMPACTS FROM THE STORM EVENT

As we know your office is aware, a major storm precipitation event occurred throughout South Carolina and surrounding states in early October, the effects of which are still being felt throughout the Midlands. From October 1 through October 5 approximately 12-14 inches of rain fell in the Columbia metropolitan area alone. The storm event caused the waters of the Congaree River to crest at an elevation approximately 30 feet higher than “normal” flow elevations and caused many dams across the Midlands to also fail. In the vicinity of the FDP area, a dike wall of the Columbia Canal failed on the Broad River, immediately above the hydroelectric dam, located just north of the Gervais St. Bridge. This localized dam failure, in addition to the vast amount of sediment entrained in the runoff from the upstream drainage basin, has resulted in depositing a great deal of sediment in and around the FDP area. Preliminary estimates consist of approximately 12-18 inches of new sediment on the former “alluvial fan area”, centrally located in the FDP project area. For the remaining project area (targeted for removal of coal tar like material [TLM] in 2016) it is estimated that an additional 2-4 feet of sediment has been deposited by the effects of the storm event. Areas north of the project area in the vicinity of the Congaree River Bridge are impacted by even greater volumes of sediment.

SITE SUPPORT FACILITY IMPACTS

Damage to the site support facilities was minimal. The perimeter security fence was partially removed by the flood water, but has since been repaired. Two security cameras, installed on the river bank near the water's edge, were completely submerged for multiple days by flood water. The cameras will be replaced prior to restarting field activities. On site, the flood water crested a few inches below the floor of the construction trailers, so fortunately, there was no damage to the trailers. All construction-related equipment was relocated to higher ground prior to the compound being inundated with flood waters. Thankfully, with our project staff's vigilance of the weather forecast and river prediction service and the resulting implementation of shut-down procedures, more severe or costly damages to the site facilities was avoided.

BRIEF SUMMARY OF WORK COMPLETED

In the first part of the week prior to the storm event, the various contractors and the USACE Huntsville oversight personnel had mobilized to the site and the project was successfully initiated. Various safety briefings were conducted and by mid-week, the upper part of the alluvial fan area had been "cleared" of the previously identified metal anomalies. "Cleared" is understood to mean field locating the object believed to be generating the original metal anomaly signal, positively identifying and/or recovering the object and declaring the localized area to be safe. By Thursday, October 1st, it became abundantly clear to the field personnel that a major storm event was imminent and the decision was made to cease operations and begin to prepare the site for high water.

PRELIMINARY FINDINGS

In summary, the preliminary findings of the initial work related to the FDP consisted of the following:

- 47 (previously identified) metal anomalies were evaluated and confirmed as **no ordnance, nor materials of explosive concern (MEC). No** other cultural items of historical significance were identified or recovered at or near these pre-determined locations.
- There exists a great deal of metallic "urban" debris in the study area that presents more challenging field conditions for EOTI. With the metallic debris present, it becomes more difficult to determine the precise location or nature of the object that may have generated the original signal.
- Based on the size of the alluvial fan area and consistent with the approved plans, EOTI had just begun laying out "lanes" to screen the entire alluvial fan area when the work was stopped due to the impending precipitation event.
- Moving forward and based on the vast occurrence of "other metallic debris" located in the study area (and the apparent lack of direct correlation to the existing metallic anomaly points), we have decided to have EOTI screen the entire project area using lanes and the "mag and dig" approach, consistent with the approved plans.

CRITICAL TASKS TO BE COMPLETED

Given the impact of the historic flooding event and the associated sediment deposit on the alluvial fan it is necessary to slightly modify our approach to complete the metallic anomaly assessment in a safe, timely and efficient manner. EOTI staff are prepared to remobilize to the site and restart work on November 2nd. Therefore it is critically important to have the site properly prepared before November 2nd to permit EOTI

staff to continue assessment activities. Ideally, this preparatory work will involve completing two major items prior to that date:

1. Temporarily relocating the newly deposited sediment on the FDP alluvial fan. The newly deposited sediment material must be relocated for the following reasons:

    - The material is excessively wet and very soft in many areas and will not support personnel access, this presents a physical hazard to all site personnel, especially EOTI.
    - The extra 12-18 inches of new sediment results in more work and less effectiveness with EOTI's metal detecting equipment and approved techniques. In addition, the extra sediment greatly increases the amount of material to be removed (most likely by hand) to unearth detected metal anomalies.
    - Therefore, we are proposing to temporarily relocate the "new" sediment from the alluvial fan and to return the alluvial fan to surface elevations present before the flooding event. We propose to use the new sediment to fill large one cubic yard sand bags that will be utilized to construct an "isolation berm" around the toe of the alluvial fan (as discussed below).
    - At the conclusion of EOTI's work and TRC's inspection/review/approval, the "new" sediment will be emptied from the sand bags and replaced to its existing elevations.

2. Placing the "isolation berm" **prior** to EOTI's return:

    - Originally, the FDP was to be conducted in a small area along the eastern shoreline of the Congaree River on "dryland", and big sand bags were permitted to be installed to keep river water from infiltrating into the project area, as required. Initially, the approach was to place the bags around certain clusters of known metal anomalies as river conditions dictated. It was envisioned that this work could be completed in concert with EOTI's work, without significantly delaying EOTI. Given the conditions that exist at the site today, a new approach is warranted as described herein.
    - A temporary isolation berm will be constructed at the pre-storm, approximate elevation of 117 feet [within the permitted area] to help make sure that the work is conducted in the dry. Please refer to Figure 1.
    - The isolation berm will be constructed of one cubic yard sandbags filled with the newly deposited sand on the alluvial fan.
    - Since non-essential personnel have restricted access while EOTI is performing their work, we will significantly delay EOTI if we need to make them stop work during the week of November 2, to construct the temporary berm (via sand bags).
    - Given the recent delay and the time of year (e.g., the increasing likelihood of unfavorable river conditions as time marches on), we believe that our construction window may be closing and we do not want to further delay EOTI's work.
    - As with the original approved plans, temporary mats may be placed overtop soft and/or wet sediment to facilitate access within the project area.

SCHEDULE

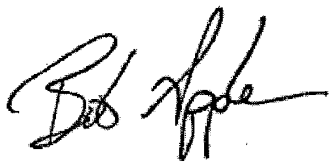
We are currently making preparations at the site to resume work as soon as possible. Currently, we plan to have the EOTI team return to the site to begin work on November 2, 2015. EOTI is projecting that they can complete the remaining work within one week, assuming the site can be restored to pre-storm event conditions, and favorable weather and river conditions during implementation.

SUMMARY

The work stated herein is consistent with the existing permit in that it will be completed "in the dry". Given the recent historical storm event and the resulting sediment overlaying the project area, we desire to install a temporary sand bag isolation berm, constructed from big sand bags as originally proposed (using relocated "new" sediment) at the approximate original 117 elevation. After the FDP is completed, the sediment will be regraded to the current elevations. Since we are merely temporarily removing, using (for sand bags) and replacing the sediment within the originally approved FDP project area – we believe that there are essentially no changes adversely impacting the existing permit.

We know that your office is currently responding to the aftermath of this historic flood event and likely is stretched providing support to 100's of sites impacted by the flood event. Therefore, it is our hope that this correspondence adequately expresses our need to quickly complete the FDP and provides you with the necessary information to support our plans. Should you desire, we are available to review this information with you at your earliest convenience and sincerely appreciate your interest and assistance in this project. If you have any questions or require any additional information, please call Rusty Contrael at 412-829-9650 or me at 919-819-2748.

Sincerely,



Robert M. Apple
Remediation Project Manager

cc: L. Berresford – SCDHEC (w/o enclosure)
T. Effinger – SCANA (w/o enclosure)
R. Contrael, B. Zeli, T. Wolf – Apex (w/o enclosure)

SAND BAR

ASPHALT BOAT RAMP

APPROXIMATE LOCATION OF TEMPORARY BERM - BIG SAND BAGS

EQUIPMENT MATS

6' CHAIN LINK FENCE

N

LEGEND

- APPROXIMATE EXTENT OF ALLUVIAL FAN UXO SCREENING
- POTENTIAL PIPELINES AND CABLES
- POTENTIAL BURIED UXO
- ELECTROMAGNETIC SIGNATURES
- LOCATION CLEARED – CULTURAL DEBRIS (41)
- LOCATION CLEARED – NEGATIVE FIND (4)
- LOCATION ASSUMED TO BE CLEARED NO RECORD FROM EOTI (3)
- LOCATION NOT CLEARED (39)
- LOCATION UNABLE TO BE LOCATED BY SURVEYOR DUE TO RIVER LEVEL OR DENSE BRUSH (28)
- HISTORICAL SITES
- SAND BAGS
- APPROXIMATE LOCATION OF TEMPORARY MATS

0' 40' 80' 120'

(Feet Scale)

FIGURE 1
SOUTH CAROLINA ELECTRIC & GAS COMPANY

FIELD DEMONSTRATION PROJECT
UPDATED IMPLEMENTATION APPROACH

CONGAREE RIVER SEDIMENTS
COLUMBIA, SOUTH CAROLINA

DATE: 10/23/15 FILE NAME: CONG350KJ2

APEX COMPANIES, LLC.

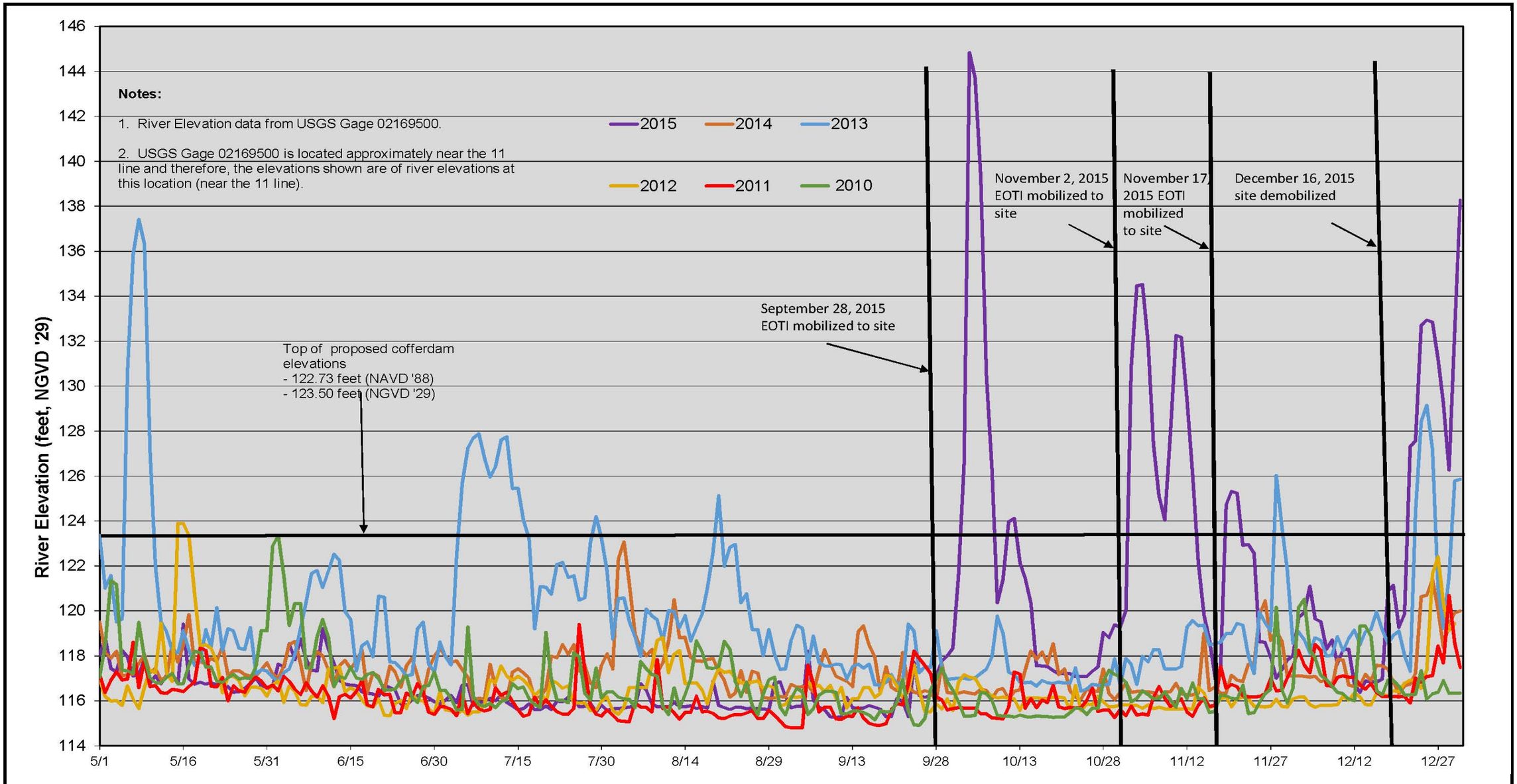


FIGURE D-1

SOUTH CAROLINA ELECTRIC & GAS COMPANY

CONGAREE RIVER ELEVATIONS MAY THROUGH DECEMBER 2010-2015

CONGAREE RIVER SEDIMENTS
COLUMBIA, SOUTH CAROLINA

DATE: 05/05/16 FILENAME: FIGURE 4

APEX COMPANIES, LLC

APPENDIX E

EOTI DAILY DIG SHEETS

Dig Sheet for Geophysical Anomalies

Anomaly ID: ~~259~~ 259
Grid ID: ~~1867~~ LK67

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: ~~259~~ 0008 Date: 9/29/2015

Team Number: 2 Team Lead: Koch

Grid Status: clear Anomaly Type: CD/wire; car Rotor

Anomaly Information

LENGTH: _____ Offset Direction: SE
DEPTH: _____ Offset Distance: 12"
Diameter: _____
WEIGHT: _____
Orientation: _____
Quantity: _____
Description: Possible Ordnance

Intrusive Results

MEC Status: _____
MEC Condition: _____
Nomenclature: _____
MEC LBS: _____ MD LBS: _____
Fuze Type: _____
Filler: _____
Photo Name: _____

Notes:

Backhoe Dig

XCOORD: 1985126.5 YCOORD: 786471.9

Dig Sheet for Analog Anomalies

Grid ID: ML67 Sub Grid Number: _____ Anomaly ID: 0025 Date: 252

Team Number: _____ Team Lead: _____ XCOORD: _____

Grid Status: _____ Anomaly Type: CD/Junk YCOORD: _____

Anomaly Information

LENGTH: _____ Offset Direction: 0

DEPTH: _____ Offset Distance: 0

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: _____

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes: _____

Redo

Dig Sheet for Geophysical Anomalies

Anomaly ID: 255

Grid ID: ML67

Grid ID: ML67 Sub Grid Number: _____ Anomaly ID: ~~255~~ 0021 Date: _____

Team Number: 2 Team Lead: Koch

Grid Status: Clear Anomaly Type: OD/Hot Rock

Anomaly Information

LENGTH: _____ Offset Direction: S

DEPTH: _____ Offset Distance: 7"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

Hot Rock

XCOORD: 1985114.5 YCOORD: 786378.2

Dig Sheet for Geophysical Anomalies

Anomaly ID: 569
Grid ID: LK67

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: ~~569~~ 0005 Date: 9/29/2015

Team Number: 1 Team Lead: Koch

Grid Status: clear Anomaly Type: CD/Nail, Hot Rock, Fish Line spool, Pipe Long Cable (2ea), Rail Road spike

Anomaly Information

LENGTH: _____ Offset Direction: W
DEPTH: _____ Offset Distance: 30"
Diameter: _____
WEIGHT: _____
Orientation: _____
Quantity: _____
Description: Possible Ordnance

Intrusive Results

MEC Status: _____
MEC Condition: _____
Nomenclature: _____
MEC LBS: _____ MD LBS: _____
Fuze Type: _____
Filler: _____
Photo Name: _____

Notes:

Back Hoe Dig

XCOORD: 1985140.3 YCOORD: 786389.4

Dig Sheet for Geophysical Anomalies

Anomaly ID: 568

Grid ID: LK67

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: ~~568~~ 0010 Date: 9/29/2015

Team Number: 1 Team Lead: Koch

Grid Status: _____ Anomaly Type: CD/magnet Particles, ~~Railroad spike~~, Pipe ~~cable/chain~~), Long cable, Magnet Piece

Anomaly Information

LENGTH: _____ Offset Direction: N

DEPTH: _____ Offset Distance: 10"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

Backhoe Dig

XCOORD: 1985269.89999999 YCOORD: 786219.8

Dig Sheet for Geophysical Anomalies

Anomaly ID: 567

Grid ID: LK67

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: ~~567~~ 0007 Date: 9/29/2015

Team Number: 2 Team Lead: Koch

Grid Status: clear Anomaly Type: CD/metal, Hot Rock, Aluminum, Rubber Tire

Anomaly Information

LENGTH: _____ Offset Direction: 0

DEPTH: _____ Offset Distance: 0

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985294.1 YCOORD: 786175.3

Dig Sheet for Geophysical Anomalies

Anomaly ID: 533
Grid ID: LK67

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: G014 Date: 9/29/2015

Team Number: 1 Team Lead: Koch

Grid Status: Clean Anomaly Type: ES/ Pipe

Anomaly Information

LENGTH: _____ Offset Direction: W
DEPTH: _____ Offset Distance: 18"
Diameter: _____
WEIGHT: _____
Orientation: _____
Quantity: _____
Description: Possible Ordnance

Intrusive Results

MEC Status: _____
MEC Condition: _____
Nomenclature: _____
MEC LBS: _____ MD LBS: _____
Fuze Type: _____
Filler: _____
Photo Name: _____

Notes:

XCOORD: 1985213.89999999 YCOORD: 786292.599999999

Dig Sheet for Geophysical Anomalies

Anomaly ID: 515

Grid ID: LK67

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: ~~515~~ 0004 Date: 9/29/2015

Team Number: 2 Team Lead: Koch

Grid Status: clear Anomaly Type: CD/wire, Hot Rock, Screw

Anomaly Information

LENGTH: _____ Offset Direction: E

DEPTH: _____ Offset Distance: 8"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985143.8 YCOORD: 786384.8

Dig Sheet for Geophysical Anomalies

Anomaly ID: 513

Grid ID: LK67

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: ~~513~~ 0006 Date: 9/29/2015

Team Number: 2 Team Lead: Koch

Grid Status: clear Anomaly Type: ED/wire, Hot Rock, Mag

Anomaly Information

LENGTH: _____ Offset Direction: N

DEPTH: _____ Offset Distance: 3"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985211.2 YCOORD: 786311.3

Dig Sheet for Geophysical Anomalies

Anomaly ID: 504
Grid ID: LK67

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: ~~504~~ 0003 Date: 9/29/2015

Team Number: 2 Team Lead: Koch

Grid Status: _____ Anomaly Type: EP wire

Anomaly Information

LENGTH: _____ Offset Direction: NE
DEPTH: _____ Offset Distance: 12"
Diameter: _____
WEIGHT: _____
Orientation: _____
Quantity: _____
Description: Possible Ordnance

Intrusive Results

MEC Status: _____
MEC Condition: _____
Nomenclature: _____
MEC LBS: _____ MD LBS: _____
Fuze Type: _____
Filler: _____
Photo Name: _____

Notes:

XCOORD: 1985217.39999999 YCOORD: 786337

Dig Sheet for Geophysical Anomalies

Anomaly ID: 503

Grid ID: LK67

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: ~~503~~ 0012 Date: 9/29/2015

Team Number: 1 Team Lead: Koch

Grid Status: clear Anomaly Type: CD/wire

Anomaly Information

LENGTH: _____ Offset Direction: SE

DEPTH: _____ Offset Distance: 20"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985206.5 YCOORD: 786349.199999999

Dig Sheet for Geophysical Anomalies

Anomaly ID: ~~533~~ 269

Grid ID: LK67

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: ~~533~~ 0009 Date: 9/29/2015

Team Number: 1 Team Lead: Koch

Grid Status: Clear Anomaly Type: SD / unk

Anomaly Information

LENGTH: _____ Offset Direction: NW

DEPTH: _____ Offset Distance: 8"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985213.89999999 YCOORD: 786292.599999999

Dig Sheet for Geophysical Anomalies

Anomaly ID: ~~295~~ 263
Grid ID: ~~ML67~~ LK67

Grid ID: ML67 Sub Grid Number: _____ Anomaly ID: ~~295~~ 0013 Date: _____

Team Number: 1 Team Lead: Koch

Grid Status: Clear Anomaly Type: CD/Junk

Anomaly Information

LENGTH: _____ Offset Direction: E
DEPTH: _____ Offset Distance: 26"
Diameter: _____
WEIGHT: _____
Orientation: _____
Quantity: _____
Description: Possible Ordnance

Intrusive Results

MEC Status: _____
MEC Condition: _____
Nomenclature: _____
MEC LBS: _____ MD LBS: _____
Fuze Type: _____
Filler: _____
Photo Name: _____

Notes:

XCOORD: 1985114.5 YCOORD: 786378.2

Dig Sheet for Geophysical Anomalies

Anomaly ID: ~~254~~ 262
Grid ID: ~~ML67~~ LK67

Grid ID: ML67 Sub Grid Number: _____ Anomaly ID: ~~264~~ 0011 Date: 9/29/2015

Team Number: 2 Team Lead: Koch

Grid Status: clear Anomaly Type: CO/metal Plate, Bolt

Anomaly Information

LENGTH: _____ Offset Direction: C
DEPTH: _____ Offset Distance: C
Diameter: _____
WEIGHT: _____
Orientation: _____
Quantity: _____
Description: Possible Ordnance

Intrusive Results

MEC Status: _____
MEC Condition: _____
Nomenclature: _____
MEC LBS: _____ MD LBS: _____
Fuze Type: _____
Filler: _____
Photo Name: _____

Notes:

1

XCOORD: 1985121 YCOORD: 786362.2

Dig Sheet for Geophysical Anomalies

Anomaly ID: 487

Grid ID: KJ67

Grid ID: KJ67 Sub Grid Number: _____ Anomaly ID: ~~487~~ 0002 Date: 9/29/2015

Team Number: 1 Team Lead: Koch

Grid Status: clear Anomaly Type: Mag Field

Anomaly Information

LENGTH: _____ Offset Direction: _____

DEPTH: _____ Offset Distance: _____

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985142.1 YCOORD: 786443.4

Dig Sheet for Geophysical Anomalies

Anomaly ID: 268

Grid ID: LK56

Grid ID: LK56 Sub Grid Number: _____ Anomaly ID: ~~268~~ 0015 Date: 9/29/2015

Team Number: 2 Team Lead: Koch

Grid Status: clear Anomaly Type: None

Anomaly Information

LENGTH: _____ Offset Direction: S

DEPTH: _____ Offset Distance: 10"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985103.6 YCOORD: 786509.5

Dig Sheet for Geophysical Anomalies

Anomaly ID: 267

Grid ID: LK56

Grid ID: LK56 Sub Grid Number: _____ Anomaly ID: ~~267~~ 0015 Date: 9/29/2015

Team Number: 1 Team Lead: Koch

Grid Status: clear Anomaly Type: CD/wire

Anomaly Information

LENGTH: _____ Offset Direction: W

DEPTH: _____ Offset Distance: 18"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Manhole

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985095.5 YCOORD: 786524.3

Dig Sheet for Geophysical Anomalies

Anomaly ID: 261

Grid ID: LK56

Grid ID: LK56 Sub Grid Number: _____ Anomaly ID: ~~261~~ 0017 Date: 9/29/2015

Team Number: 1 Team Lead: Koch

Grid Status: Clear Anomaly Type: Cultural

Anomaly Information

LENGTH: _____ Offset Direction: NE

DEPTH: _____ Offset Distance: 15"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985130.8 YCOORD: 786383.199999999

Dig Sheet for Geophysical Anomalies

Anomaly ID: 264

Grid ID: LK56

Grid ID: LK56 Sub Grid Number: _____ Anomaly ID: ~~264~~ 0016 Date: 9/29/2015

Team Number: 2 Team Lead: Koch

Grid Status: _____ Anomaly Type: CD/anom

Anomaly Information

LENGTH: _____ Offset Direction: 0

DEPTH: _____ Offset Distance: 0

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985136.7 YCOORD: 786398.9

KJ910

Anomaly ID 555

Dig Sheet for Analog Anomalies

Grid ID: KJ910 Sub Grid Number: _____ Anomaly ID: 0048 Date: 9/30/2015

Team Number: 2 Team Lead: Koch XCOORD: _____

Grid Status: Clear Anomaly Type: CD/Banding YCOORD: _____

Anomaly Information

LENGTH: _____ Offset Direction: N

DEPTH: _____ Offset Distance: 12"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: _____

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes: _____

KJ910
Anomaly ID 545

Dig Sheet for Analog Anomalies

Grid ID: KJ910 Sub Grid Number: _____ Anomaly ID: 0049 Date: _____

Team Number: 1 Team Lead: Koch XCOORD: _____

Grid Status: clear Anomaly Type: CD / Bottle Cap YCOORD: _____

Anomaly Information

LENGTH: _____ Offset Direction: S

DEPTH: _____ Offset Distance: 6"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: _____

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes: _____

Dig Sheet for Geophysical Anomalies

Anomaly ID: 525

Grid ID: ML67

Grid ID: ML67 Sub Grid Number: _____ Anomaly ID: ~~525~~ 0026 Date: 9/30/2015

Team Number: 2 Team Lead: Koch

Grid Status: Clear Anomaly Type: CD/UNK

Anomaly Information

LENGTH: _____ Offset Direction: 0

DEPTH: _____ Offset Distance: 0

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Pipeline Associated

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985170 YCOORD: 786325.8

Dig Sheet for Geophysical Anomalies

Anomaly ID: 254

Grid ID: ML67

Grid ID: ML67 Sub Grid Number: _____ Anomaly ID: ~~254~~ 0027 Date: 9/30/2015

Team Number: 2 Team Lead: Koch

Grid Status: Clear Anomaly Type: CD/Nail, small conduit, Hot Rock

Anomaly Information

LENGTH: _____ Offset Direction: W

DEPTH: _____ Offset Distance: 8"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

Hot Rock

XCOORD: 1985121 YCOORD: 786362.2

Dig Sheet for Geophysical Anomalies

Anomaly ID: 260
Grid ID: ML67

Grid ID: ML67 Sub Grid Number: _____ Anomaly ID: ~~260~~ 0028 Date: 9/30/2015

Team Number: 1 Team Lead: koch

Grid Status: clear Anomaly Type: CD/metal can

Anomaly Information

LENGTH: _____ Offset Direction: 0
DEPTH: _____ Offset Distance: 0
Diameter: _____
WEIGHT: _____
Orientation: _____
Quantity: _____
Description: Possible Ordnance

Intrusive Results

MEC Status: _____
MEC Condition: _____
Nomenclature: _____
MEC LBS: _____ MD LBS: _____
Fuze Type: _____
Filler: _____
Photo Name: _____

Notes:

XCOORD: 1985107.6 YCOORD: 786392.599999999

Dig Sheet for Geophysical Anomalies

Anomaly ID: 256
Grid ID: ML67

Grid ID: ML67 Sub Grid Number: _____ Anomaly ID: ~~256~~ 0030 Date: 9/30/2015

Team Number: 1 Team Lead: Koch

Grid Status: clear Anomaly Type: ~~MEC~~ MD/Nail

Anomaly Information

LENGTH: _____ Offset Direction: 0
DEPTH: _____ Offset Distance: 0
Diameter: _____
WEIGHT: _____
Orientation: _____
Quantity: _____
Description: Possible Ordnance

Intrusive Results

MEC Status: _____
MEC Condition: _____
Nomenclature: _____
MEC LBS: _____ MD LBS: _____
Fuze Type: _____
Filler: _____
Photo Name: _____

Notes:

XCOORD: 1985121 YCOORD: 786362.199999999

Dig Sheet for Geophysical Anomalies

Anomaly ID: 534

Grid ID: ML67

Grid ID: ML67 Sub Grid Number: _____ Anomaly ID: ~~534~~ 0032 Date: 9/30/2015

Team Number: 1 Team Lead: Koch

Grid Status: clear Anomaly Type: CD/Fish Hook, wire, can

Anomaly Information

LENGTH: _____ Offset Direction: 0

DEPTH: _____ Offset Distance: 0

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Pipeline Associated

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

Hot Rock

XCOORD: 1985174.8 YCOORD: 786332.4

Dig Sheet for Geophysical Anomalies

Anomaly ID: 514

Grid ID: LK67

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: ~~514~~ 0033 Date: 9/30/2015

Team Number: 2 Team Lead: Koch

Grid Status: Clear Anomaly Type: CD/Hot Rock

Anomaly Information

LENGTH: _____ Offset Direction: E

DEPTH: _____ Offset Distance: 12"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Pipeline Associated

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

Hot Rock

XCOORD: 1985178.8 YCOORD: 786338.9

Dig Sheet for Geophysical Anomalies

Anomaly ID: 566

Grid ID: KJ89

Grid ID: KJ89 Sub Grid Number: _____ Anomaly ID: ~~566~~ 0024 Date: 9/30/2015

Team Number: 1 Team Lead: Koch

Grid Status: clear Anomaly Type: CD/Nail

Anomaly Information

LENGTH: _____ Offset Direction: W

DEPTH: _____ Offset Distance: 14"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985290.39999999 YCOORD: 786171.9

Dig Sheet for Geophysical Anomalies

Anomaly ID: 266

Grid ID: LK56

Grid ID: LK56 Sub Grid Number: _____ Anomaly ID: ~~266~~ 0029 Date: 9/30/2015

Team Number: 1 Team Lead: Koch

Grid Status: Clear Anomaly Type: CD/metal

Anomaly Information

LENGTH: _____ Offset Direction: _____

DEPTH: _____ Offset Distance: _____

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985127.89999999 YCOORD: 786439.9

KJ910

Anomaly ID 544

Dig Sheet for Analog Anomalies

Grid ID: KJ910 Sub Grid Number: _____ Anomaly ID: 0047 Date: 9/30/2015

Team Number: 1 Team Lead: Koch XCOORD: _____

Grid Status: clear Anomaly Type: CD/small medal YCOORD: _____

Anomaly Information

LENGTH: _____ Offset Direction: S

DEPTH: _____ Offset Distance: 12"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: _____

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes: _____

556

Anomaly ID KJ910

Dig Sheet for Analog Anomalies

Grid ID: KJ910 Sub Grid Number: _____ Anomaly ID: 0046 Date: 9/30/2015

Team Number: 1 Team Lead: Koch XCOORD: _____

Grid Status: Clear Anomaly Type: CD/Lid YCOORD: _____

Anomaly Information

LENGTH: _____ Offset Direction: _____

DEPTH: _____ Offset Distance: _____

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: _____

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes: _____

KJ910
Anomaly ID 541

Dig Sheet for Analog Anomalies

Grid ID: KJ910 Sub Grid Number: _____ Anomaly ID: 0045 Date: 9/30/2015

Team Number: 2 Team Lead: Koch XCOORD: _____

Grid Status: clear Anomaly Type: CD/Banding YCOORD: _____

Anomaly Information

LENGTH: _____ Offset Direction: W

DEPTH: _____ Offset Distance: 4"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: _____

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes: _____

KJ 910
Anomaly ID 554

Dig Sheet for Analog Anomalies

Grid ID: KJ910 Sub Grid Number: _____ Anomaly ID: 0044 Date: 9/30/2015

Team Number: 2 Team Lead: Koch XCOORD: _____

Grid Status: Cleared Anomaly Type: CD/Sheet metal, wire, Bolt YCOORD: _____

Anomaly Information

LENGTH: _____ Offset Direction: NE

DEPTH: _____ Offset Distance: 6"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: _____

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes: _____

Trash Pit outside

Dig Sheet for Geophysical Anomalies

Anomaly ID: 517

Grid ID: LK78

Grid ID: LK78 Sub Grid Number: _____ Anomaly ID: ~~99~~ 4108 Date: 9/30/2015

Team Number: 1 Team Lead: Koch

Grid Status: clear Anomaly Type: CD/metal wire

Anomaly Information

LENGTH: _____ Offset Direction: N

DEPTH: _____ Offset Distance: 12"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985146 YCOORD: 786363.9

Dig Sheet for Geophysical Anomalies

Anomaly ID: 511

Grid ID: LK78

Grid ID: LK78 Sub Grid Number: _____ Anomaly ID: ~~511~~ 0038 Date: 9/30/2015

Team Number: 1 Team Lead: Koch

Grid Status: clear Anomaly Type: CD/wire

Anomaly Information

LENGTH: _____ Offset Direction: SW

DEPTH: _____ Offset Distance: 18"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985241.7 YCOORD: 786271.599999999

Dig Sheet for Geophysical Anomalies

Anomaly ID: 522

Grid ID: LK78

Grid ID: LK78 Sub Grid Number: _____ Anomaly ID: ~~522~~ 0035 Date: 9/30/2015

Team Number: 2 Team Lead: Koch

Grid Status: Clear Anomaly Type: CD/wire

Anomaly Information

LENGTH: _____ Offset Direction: W

DEPTH: _____ Offset Distance: 18"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985233.8 YCOORD: 786259.699999999

Dig Sheet for Geophysical Anomalies

Anomaly ID: 506

Grid ID: LK78

Grid ID: LK78 Sub Grid Number: _____ Anomaly ID: ~~506~~ 0036 Date: 9/30/2015

Team Number: 1 Team Lead: Koch

Grid Status: Clear Anomaly Type: CD/Bottle Cap

Anomaly Information

LENGTH: _____ Offset Direction: S

DEPTH: _____ Offset Distance: 15"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985168.8 YCOORD: 786370.599999999

Dig Sheet for Geophysical Anomalies

Anomaly ID: ~~494~~ 509

Grid ID: KJ78

Grid ID: KJ78 Sub Grid Number: _____ Anomaly ID: ~~494~~ 0043 Date: 9/30/2015

Team Number: 1 Team Lead: Koch

Grid Status: Clear Anomaly Type: CD/ Razor Blade, can, sheet metal

Anomaly Information

LENGTH: _____ Offset Direction: W

DEPTH: _____ Offset Distance: 18"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985218 YCOORD: 786328.199999999

Dig Sheet for Geophysical Anomalies

Anomaly ID: ~~502~~ 508

Grid ID: KJ78

Grid ID: KJ78 Sub Grid Number: _____ Anomaly ID: ~~502~~ 0041 Date: 9/30/2015

Team Number: 2 Team Lead: Koch

Grid Status: clear Anomaly Type: CD/Lid

Anomaly Information

LENGTH: _____ Offset Direction: 0

DEPTH: _____ Offset Distance: 0

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Pipeline Associated

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985194.39999999 YCOORD: 786371.8

Dig Sheet for Geophysical Anomalies

Anomaly ID: ~~492~~ 518

Grid ID: KJ78

Grid ID: KJ78 Sub Grid Number: _____ Anomaly ID: ~~492~~ 0042 Date: 9/30/2015

Team Number: 1 Team Lead: Koch

Grid Status: Clear Anomaly Type: CD/Wire

Anomaly Information

LENGTH: _____ Offset Direction: E

DEPTH: _____ Offset Distance: 20'

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Pipeline Associated

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985180.2 YCOORD: 786369

Dig Sheet for Geophysical Anomalies

Anomaly ID: ~~501~~ 507

Grid ID: KJ78

Grid ID: KJ78 Sub Grid Number: _____ Anomaly ID: ~~501~~ 0039 Date: 9/30/2015

Team Number: 2 Team Lead: Koch

Grid Status: clear Anomaly Type: CD / can

Anomaly Information

LENGTH: _____ Offset Direction: 0

DEPTH: _____ Offset Distance: 0

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985173.5 YCOORD: 786413.8

Dig Sheet for Geophysical Anomalies

Anomaly ID: 492

Grid ID: KJ78

Grid ID: KJ78 Sub Grid Number: _____ Anomaly ID: ~~492~~ 0037 Date: 9/30/2015

Team Number: 4 Team Lead: Koch

Grid Status: Clear Anomaly Type: NO Contact

Anomaly Information

LENGTH: _____ Offset Direction: _____

DEPTH: _____ Offset Distance: _____

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Pipeline Associated

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985180.2 YCOORD: 786369

Dig Sheet for Geophysical Anomalies

Anomaly ID: 565

Grid ID: KJ910

Grid ID: KJ910 Sub Grid Number: _____ Anomaly ID: ~~565~~ 0023 Date: 9/30/2015

Team Number: 1 Team Lead: Koch

Grid Status: clear Anomaly Type: Neg Find

Anomaly Information

LENGTH: _____ Offset Direction: _____

DEPTH: _____ Offset Distance: _____

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985253.39999999 YCOORD: 786209.199999999

Dig Sheet for Geophysical Anomalies

Anomaly ID: 564
Grid ID: KJ910

Grid ID: KJ910 Sub Grid Number: _____ Anomaly ID: ~~564~~ 0022 Date: 9/30/2015

Team Number: 1 Team Lead: Koch

Grid Status: clear Anomaly Type: CD/Tin can, Large metal plate, wire

Anomaly Information

LENGTH: _____ Offset Direction: 0
DEPTH: _____ Offset Distance: 0
Diameter: _____
WEIGHT: _____
Orientation: _____
Quantity: _____
Description: Possible Ordnance

Intrusive Results

MEC Status: _____
MEC Condition: _____
Nomenclature: _____
MEC LBS: _____ MD LBS: _____
Fuze Type: _____
Filler: _____
Photo Name: _____

Notes:

XCOORD: 1985257.6 YCOORD: 786200.8

Dig Sheet for Geophysical Anomalies

Anomaly ID: 552
Grid ID: KJ910

Grid ID: KJ910 Sub Grid Number: _____ Anomaly ID: ~~552~~ 0021 Date: 9/30/2015

Team Number: 1 Team Lead: Koch

Grid Status: Clear Anomaly Type: Neg Find

Anomaly Information

LENGTH: _____ Offset Direction: _____

DEPTH: _____ Offset Distance: _____

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985249.39999999 YCOORD: 786203.699999999

Dig Sheet for Geophysical Anomalies

Anomaly ID: 547

Grid ID: KJ910

Grid ID: KJ910 Sub Grid Number: _____ Anomaly ID: ~~547~~ 0019 Date: 9/30/2015

Team Number: 1 Team Lead: Koch

Grid Status: Clear Anomaly Type: CO/metal Plate

Anomaly Information

LENGTH: _____ Offset Direction: E

DEPTH: _____ Offset Distance: 18"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985307.3 YCOORD: 786152.8

Dig Sheet for Geophysical Anomalies

Anomaly ID: 546

Grid ID: KJ910

Grid ID: KJ910 Sub Grid Number: _____ Anomaly ID: ~~546~~ 8018 Date: 9/30/~~2015~~

Team Number: 1 Team Lead: Koch

Grid Status: Clear Anomaly Type: Junk

Anomaly Information

LENGTH: _____ Offset Direction: W

DEPTH: _____ Offset Distance: 12"

Diameter: _____

WEIGHT: _____

Orientation: _____

Quantity: _____

Description: Possible Ordnance

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes:

XCOORD: 1985301.3 YCOORD: 786190.9

Dig Sheet for Analog Anomalies

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: LK67-055 Date: 2 May 2015

Team Number: 1 Team Lead: Koch XCOORD: _____

Grid Status: _____ Anomaly Type: wire YCOORD: _____

Anomaly Information

LENGTH: 15" Offset Direction: _____

DEPTH: 8" Offset Distance: _____

Diameter: 3/16"

WEIGHT: 1/2 lb

Orientation: _____

Quantity: 1

Description: Wire Bundle, solid core

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes: _____

Dig Sheet for Analog Anomalies

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: LK67-054 Date: 2 Nov 2015

Team Number: 1 Team Lead: Koch XCOORD: _____

Grid Status: _____ Anomaly Type: wire YCOORD: _____

Anomaly Information

LENGTH: 36" Offset Direction: _____

DEPTH: 10" Offset Distance: _____

Diameter: 1/8"

WEIGHT: ½ lb

Orientation: _____

Quantity: 1

Description: 1/8" x 36" wire solid core

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes: _____

Dig Sheet for Analog Anomalies

Grid ID: LK67 Sub Grid Number: _____ Anomaly ID: LK67-053 Date: 2 Nov 2015

Team Number: 1 Team Lead: Koch XCOORD: _____

Grid Status: _____ Anomaly Type: Stake YCOORD: _____

Anomaly Information

LENGTH: 12" Offset Direction: _____

DEPTH: 12" Offset Distance: _____

Diameter: 3/4"

WEIGHT: 1 lb

Orientation: _____

Quantity: 1

Description: Tent Stake

Intrusive Results

MEC Status: _____

MEC Condition: _____

Nomenclature: _____

MEC LBS: _____ MD LBS: _____

Fuze Type: _____

Filler: _____

Photo Name: _____

Notes: _____