



March 9, 2012

Laurens County Development Corporation
P.O. Box 427
Laurens, SC 29360

Attention: Mr. Marvin Moss SCCED

Reference: Ground Penetrating Radar Services Report
Potential Unmarked Cemetery at Powers South Industrial Site
Laurens County, South Carolina
S&ME Project No. 1616-12-073

Dear Mr. Moss:

S&ME, Inc. (S&ME) has conducted a ground penetrating radar survey at the above referenced site located in Laurens County, South Carolina. These services were performed in general accordance with S&ME proposal number 1161-8613-12 dated February 14, 2012.

PROJECT AND SITE DESCRIPTION

We understand that the Laurens County Development Corporation has been informed that an old unmarked cemetery may exist at the Powers Industrial Site located in Laurens County, South Carolina (**Figure 1**). The estimated extent of the potential cemetery was purported to be approximately 150 feet by 250 feet. Upon further field investigations performed by others, the potential cemetery limits were reduced to an approximate 70 feet by 70 feet area. Laurens County Development Corporation has requested S&ME provide ground penetrating radar services to determine if potential unmarked graves exist within the defined boundary at the site. Several slight surficial depressions were also noted prior to our arrival.

METHODOLOGY AND FIELD TESTING

On February 28, 2012, S&ME completed a ground penetrating radar (GPR) survey within the proposed cemetery limits to identify the locations of potential unmarked graves. GPR is a technique that works by transmitting electromagnetic waves into the subsurface and measuring the time for wave reflections to be received. Reflections occur at contacts between distinctly different materials (e.g., sand/clay, soil/air, etc.) whereby general locations of subsurface objects can be determined.

S&ME used a Geophysical Survey Systems (GSSI) SIR-3000 unit equipped with a 400 MHz antenna. A total of 55 GPR profiles were collected at the site and data were collected along a grid spaced at 5-foot intervals. In addition, several supplementary GPR profiles were collected across the surficial depressions. The approximate locations of the GPR profiles are located in **Figure 2**.

RESULTS

The GPR survey identified numerous small shallow responses across the site but none consistent with reflections typical of burials; including within the surficial depressions. GPR responses indicative of burials are typically associated with broad hyperbolic reflections perpendicular to the grave and linear reflections along its length. The GPR responses identified in this survey appear to be associated with localized small objects one to two feet below ground surface and may be related to debris or tree roots. Example GPR profiles are located in **Figure 3**.

LIMITATIONS

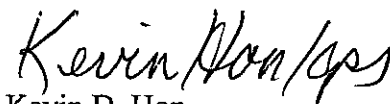
The geophysical method proposed for this survey is commonly used to assist in locating unmarked burials and other archaeological remains. However, these methods do have inherent limitations and site features can cause interference. Variables such as size and age of the remains, and local soil conditions all affect the possibility of locating the archaeological targets. As such, S&ME does not guarantee the locations of all gravesites present will be located. The locations of potential burials are based on our interpretation of the GPR data.

CLOSURE

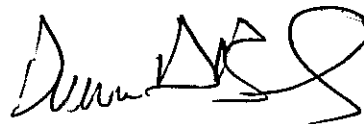
S&ME, Inc. appreciates the opportunity to assist you during this phase of the project. If you should have any questions concerning this report or if we may be of further assistance, please contact us.

Very truly yours,

S&ME, Inc.



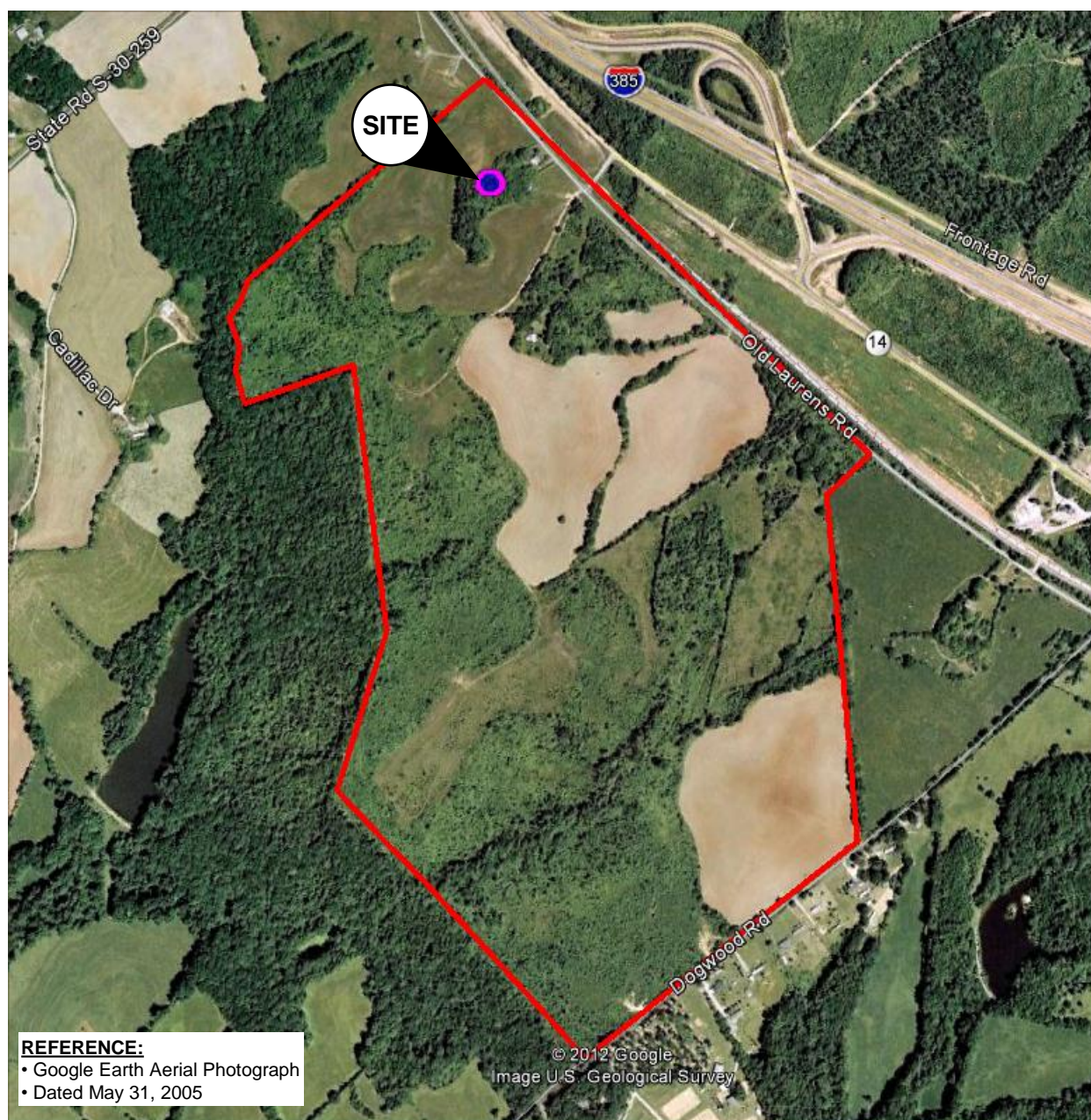
Kevin D. Hon
Project Geophysicist



Duane D. Bents, P.E.
Geotechnical/Geophysical Manager

Senior Reviewed By: Bill Green, S&ME Senior Archeologist

Attachments: Site Vicinity Map, Figure 1
GPR Test Location Plan - Figure 2
Example GPR Profiles – Lines 17, 50, 52 and 54, Figure 3



SCALE: NTS

DRAWN BY: JBC

CHECKED BY: DDB

DATE: 3-1-12

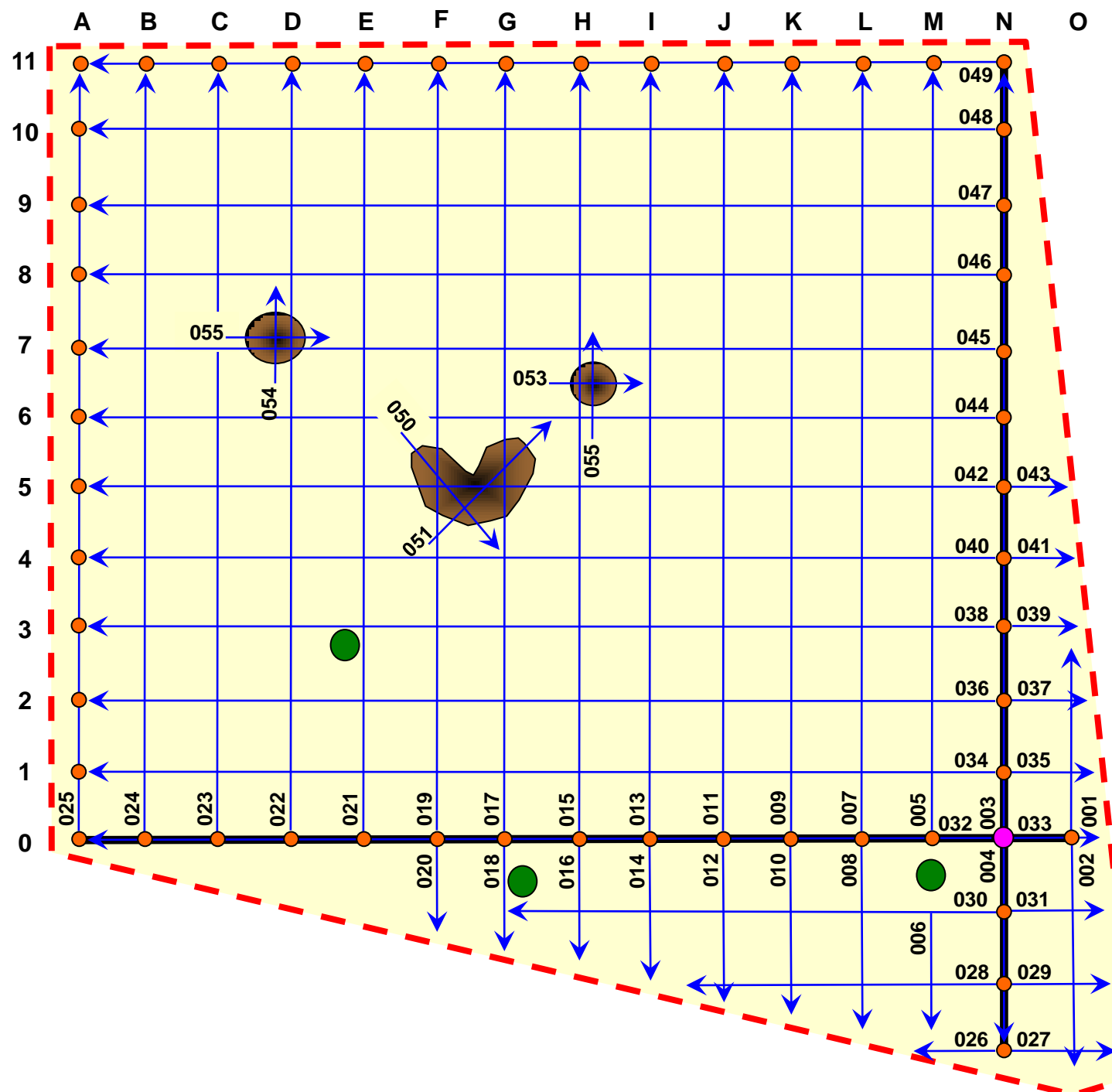


SITE VICINITY MAP
POTENTIAL UNMARKED CEMETERY AT POWERS SOUTH INDUSTRIAL SITE
Laurens County, South Carolina

JOB NO.:1616-12-073

FIGURE NO.

1



LEGEND

- GPR Profile (with designation) →
- Pin Flag Location ●
- Large Tree ●
- Surface Depression ●
- Approximate Site Boundary - - -
- Base Line —

SCALE: NTS

DRAWN BY: JBC

CHECKED BY: DDB

DATE: 3-1-12



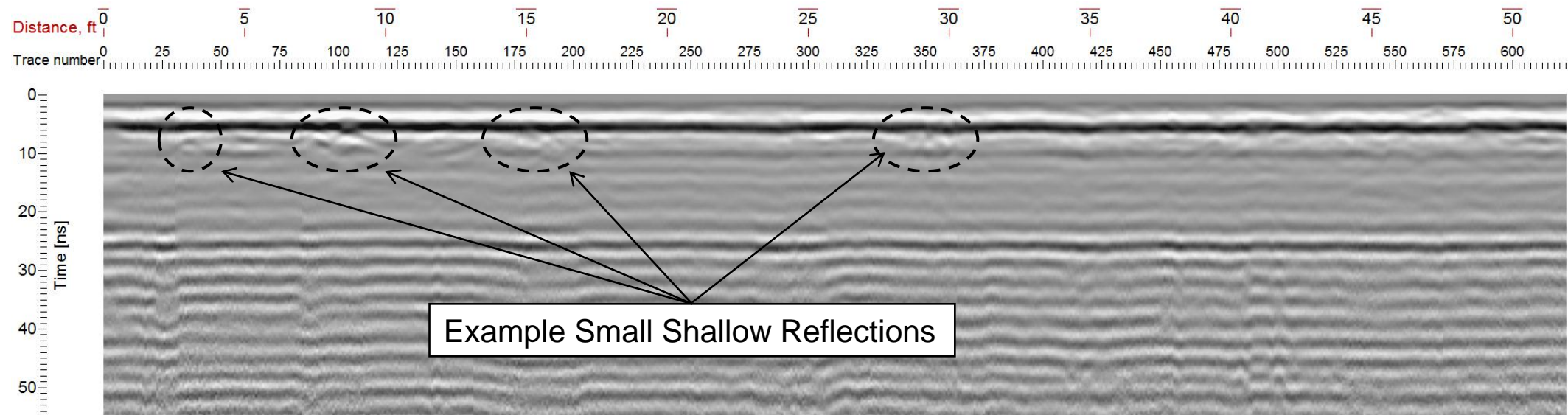
GPR TEST LOCATION PLAN
POTENTIAL UNMARKED CEMETERY AT POWERS SOUTH INDUSTRIAL SITE
Laurens County, South Carolina

JOB NO.: 1616-12-073

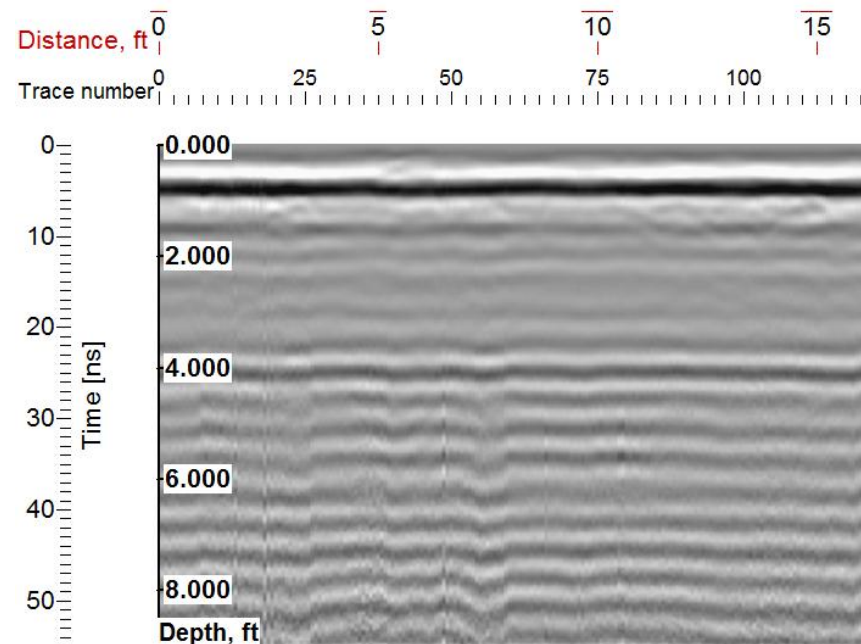
FIGURE NO.

2

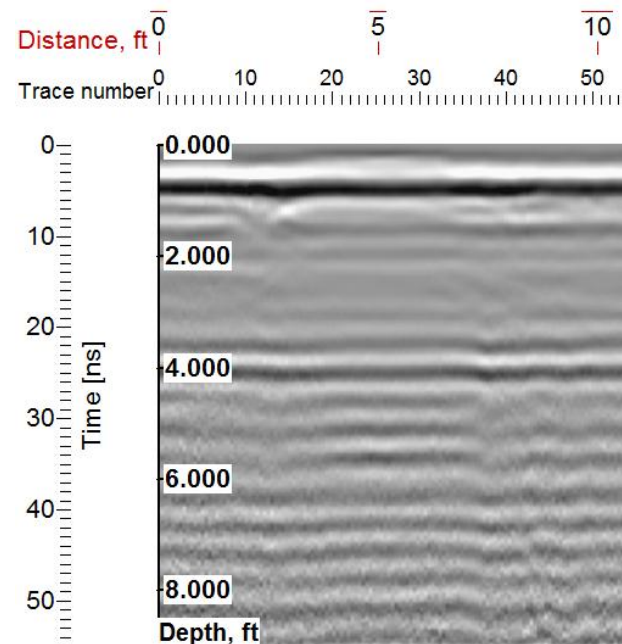
Line 17



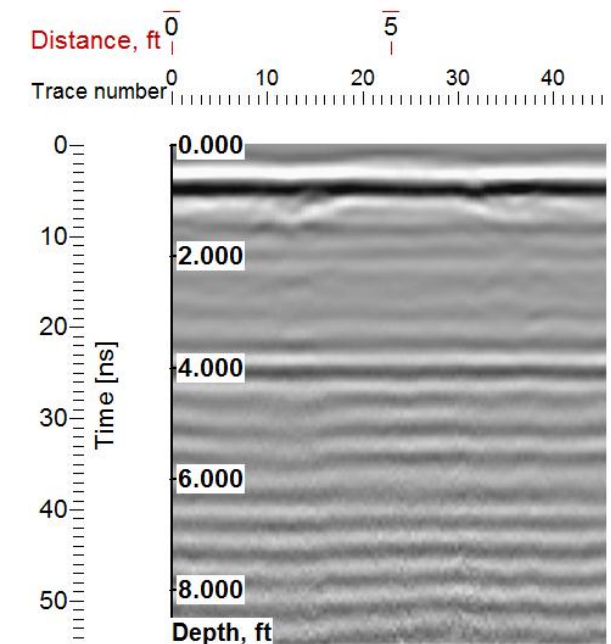
Line 50



Line 54



Line 52



SCALE: AS SHOWN

DRAWN BY: JBC

CHECKED BY: DDB

DATE: 3-1-12



EXAMPLE GPR PROFILES – LINES 17, 50, 52 AND 54
POTENTIAL UNMARKED CEMETERY AT POWERS SOUTH INDUSTRIAL SITE
Laurens County, South Carolina

JOB NO.: 1616-12-073

FIGURE NO.

3