



Geophysical Investigation of Wyatt Chapel Cemetery,
Prairie View, TX

presented by
Participants in ESCI 515
July 30, 2009

RICE

Goals of Investigation

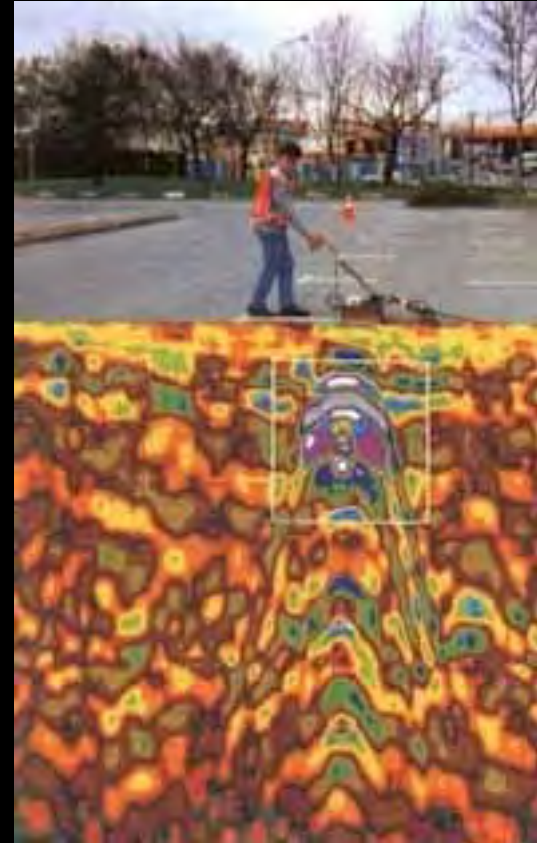
- Continue to explore Wyatt Chapel Cemetery using ground-penetrating radar, building upon project in Summer 2007
- Record surface data as accurately as possible, using total station
- Work toward goal of obtaining historical designation for cemetery

Methods of Investigation

- Field Work
 - Ground-penetrating radar (GPR) to image subsurface
 - Global positioning system (GPS) and total station to locate GPR profiles and other features
- Background research
 - PVAMU archives
 - Rice archives
- Document our efforts using video recorders

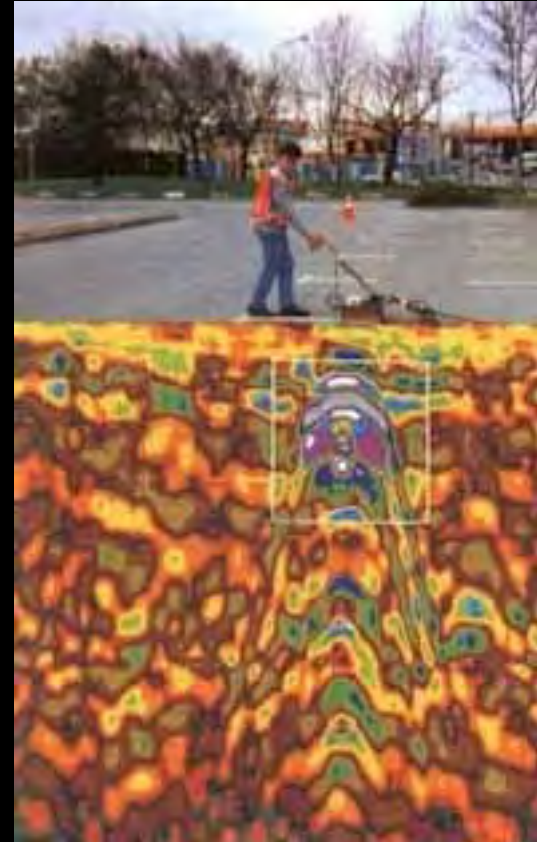
What is GPR?

- Ground-penetrating radar
- Non-intrusive method for studying subsurface – no digging or excavating required
- Cover large areas quickly
- Uses radar waves to image subsurface



How does GPR work?

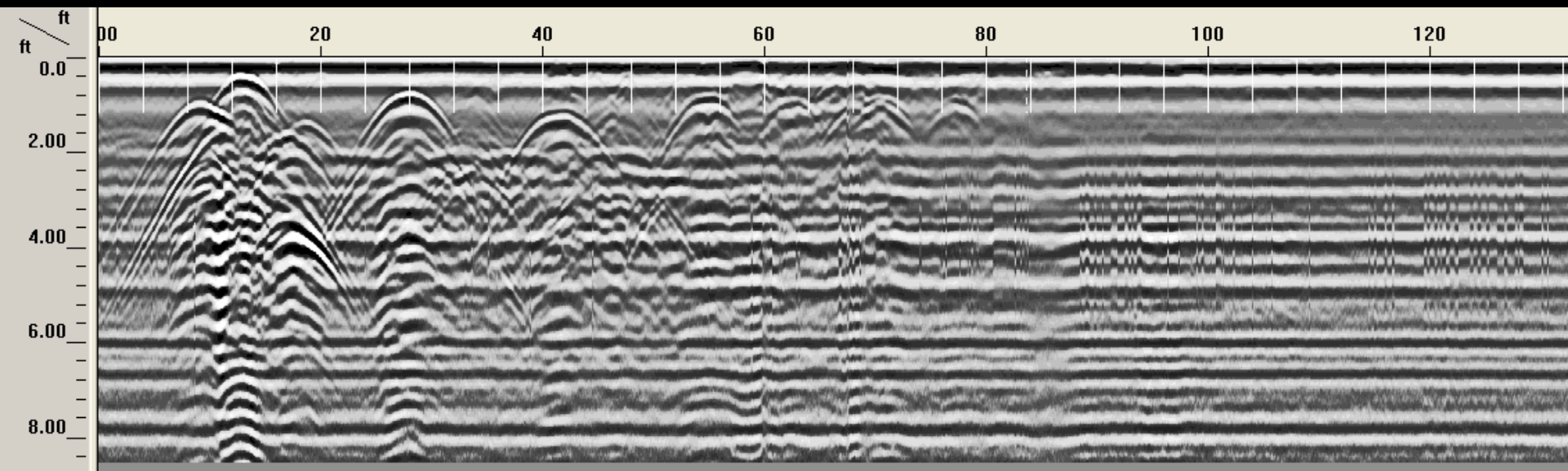
- Send EM waves into the ground
- Waves reflect off electrical boundaries (void, metal pipe, change in lithology, etc.)
- Pull transmitter and receiver across ground to image cross-section of subsurface

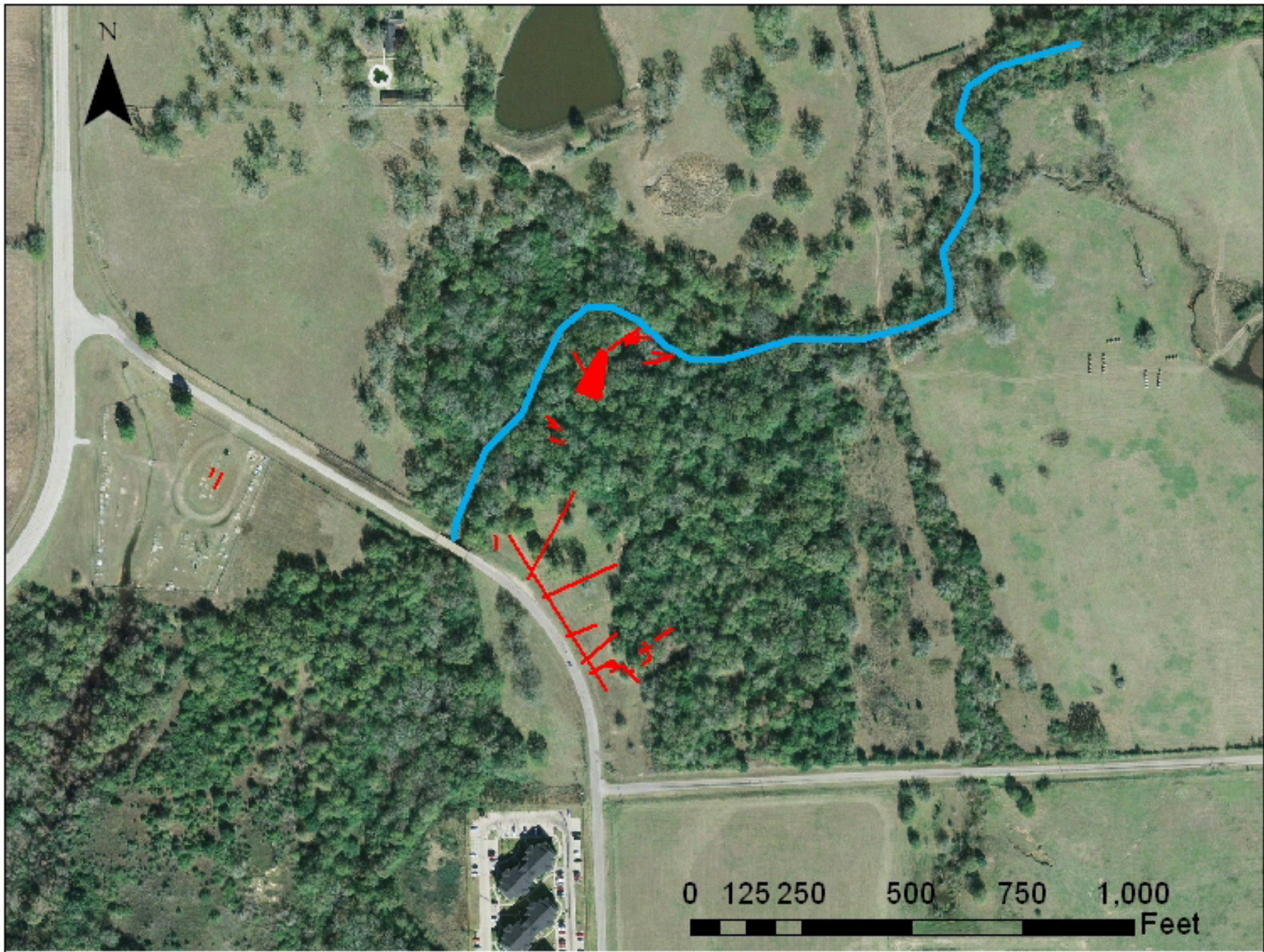


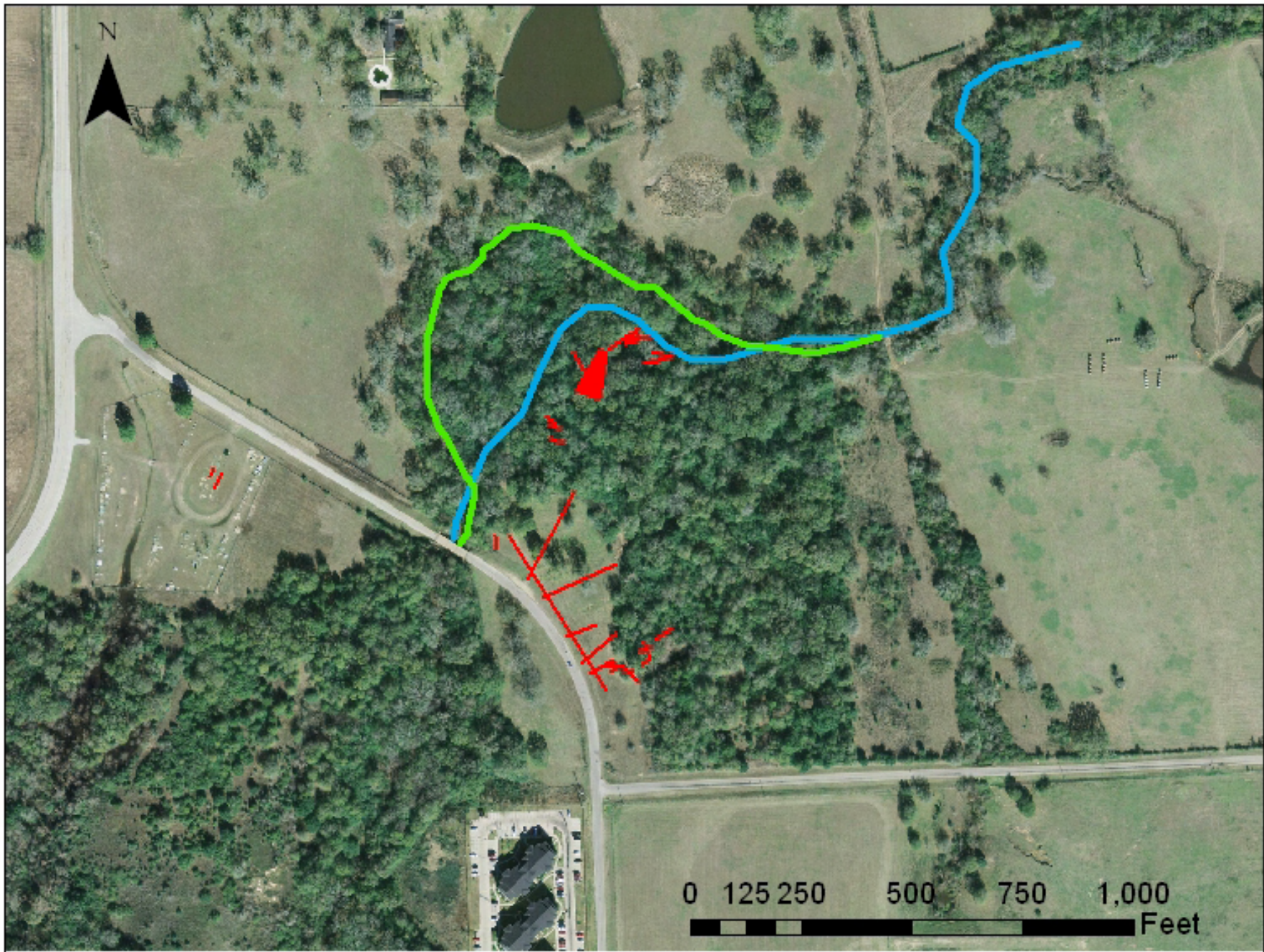


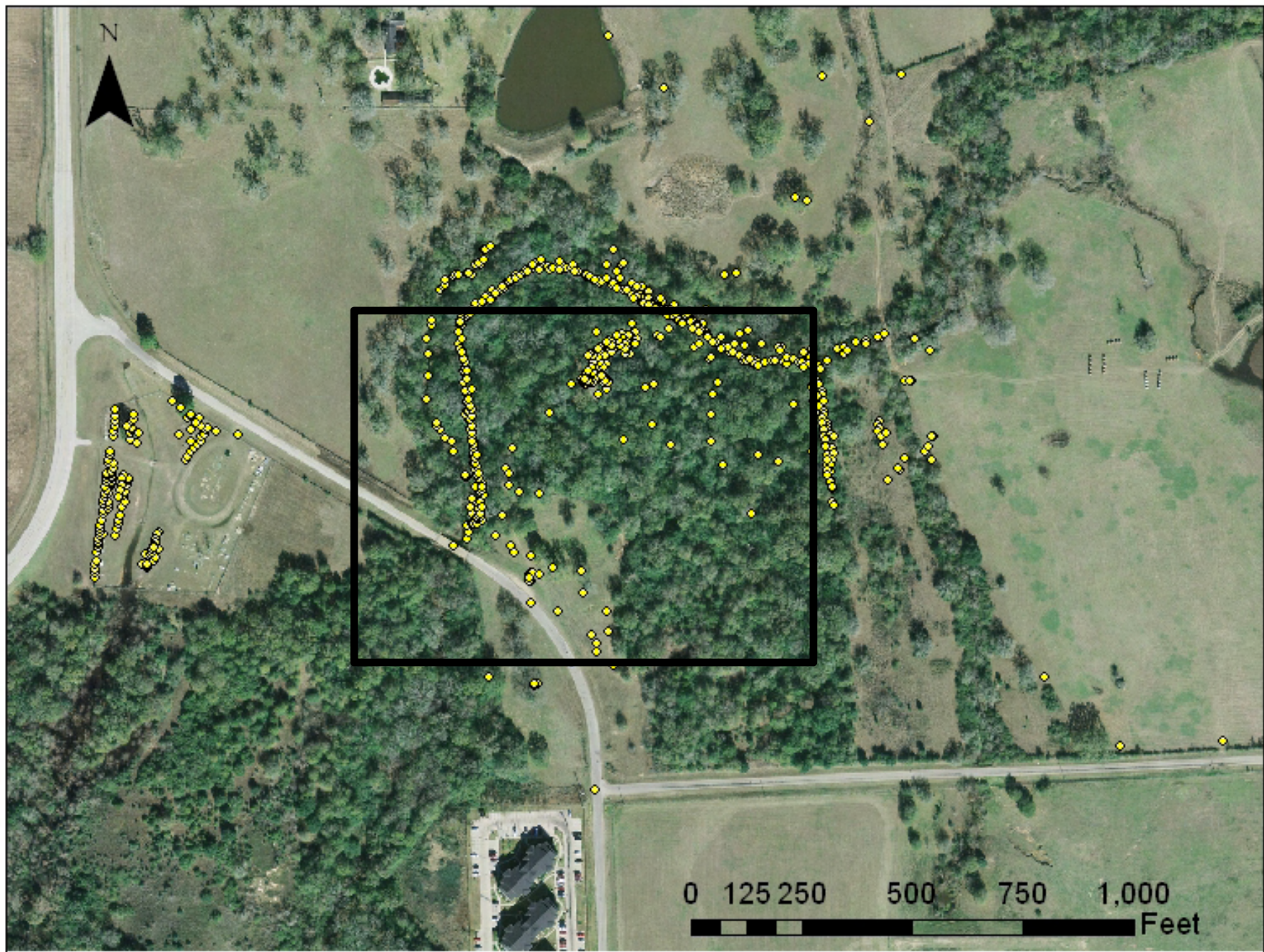


GPR profile from modern cemetery



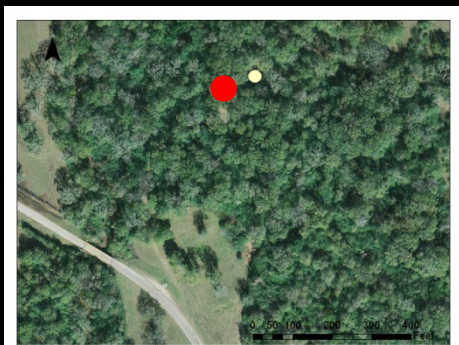
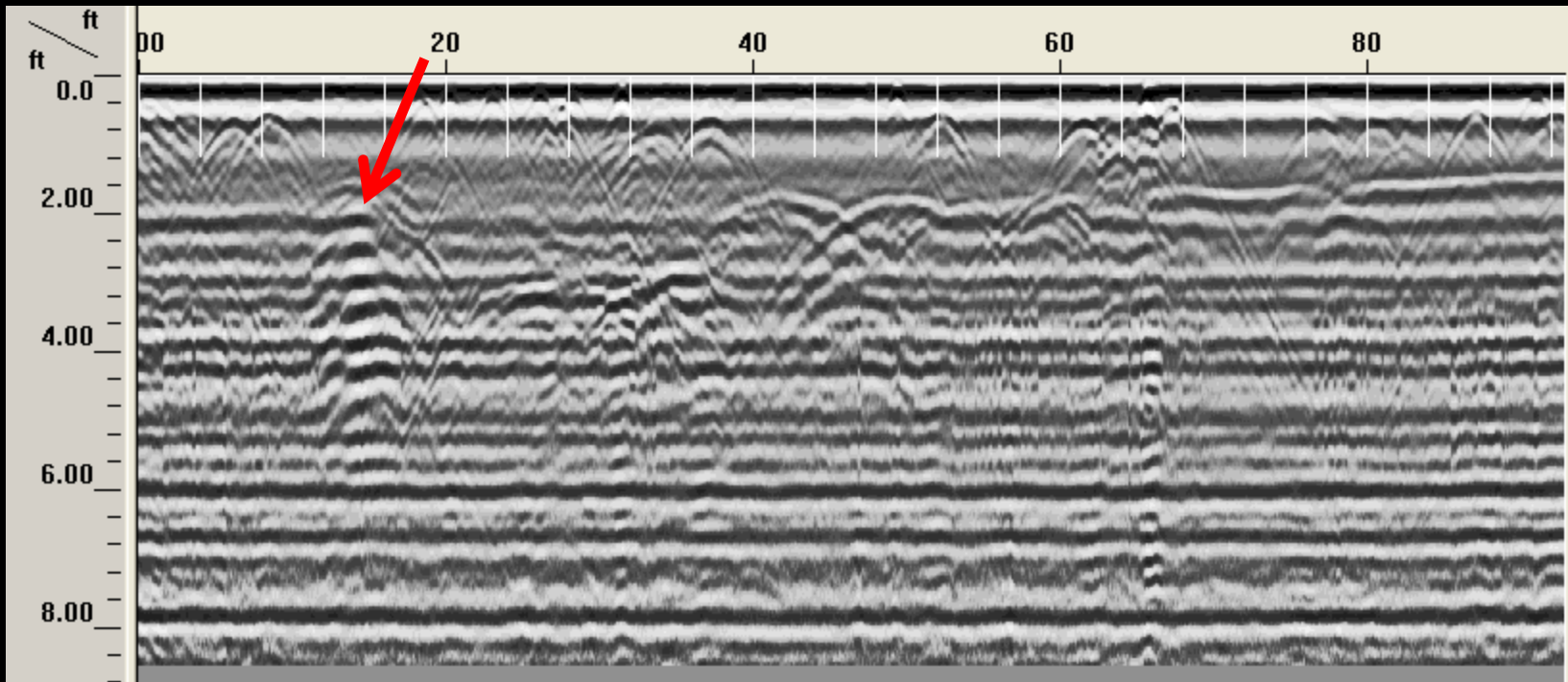




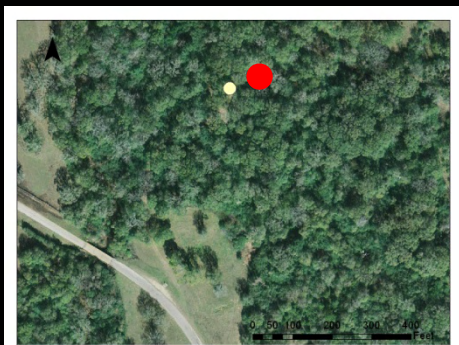
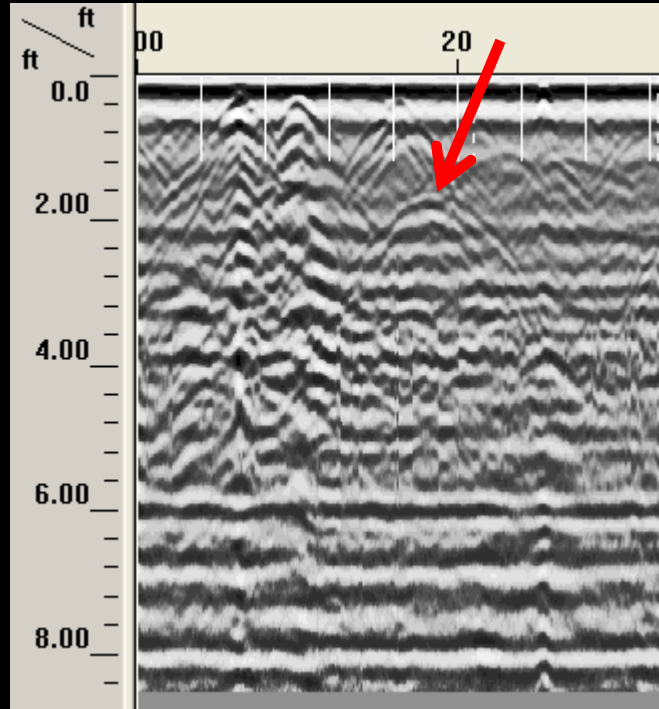


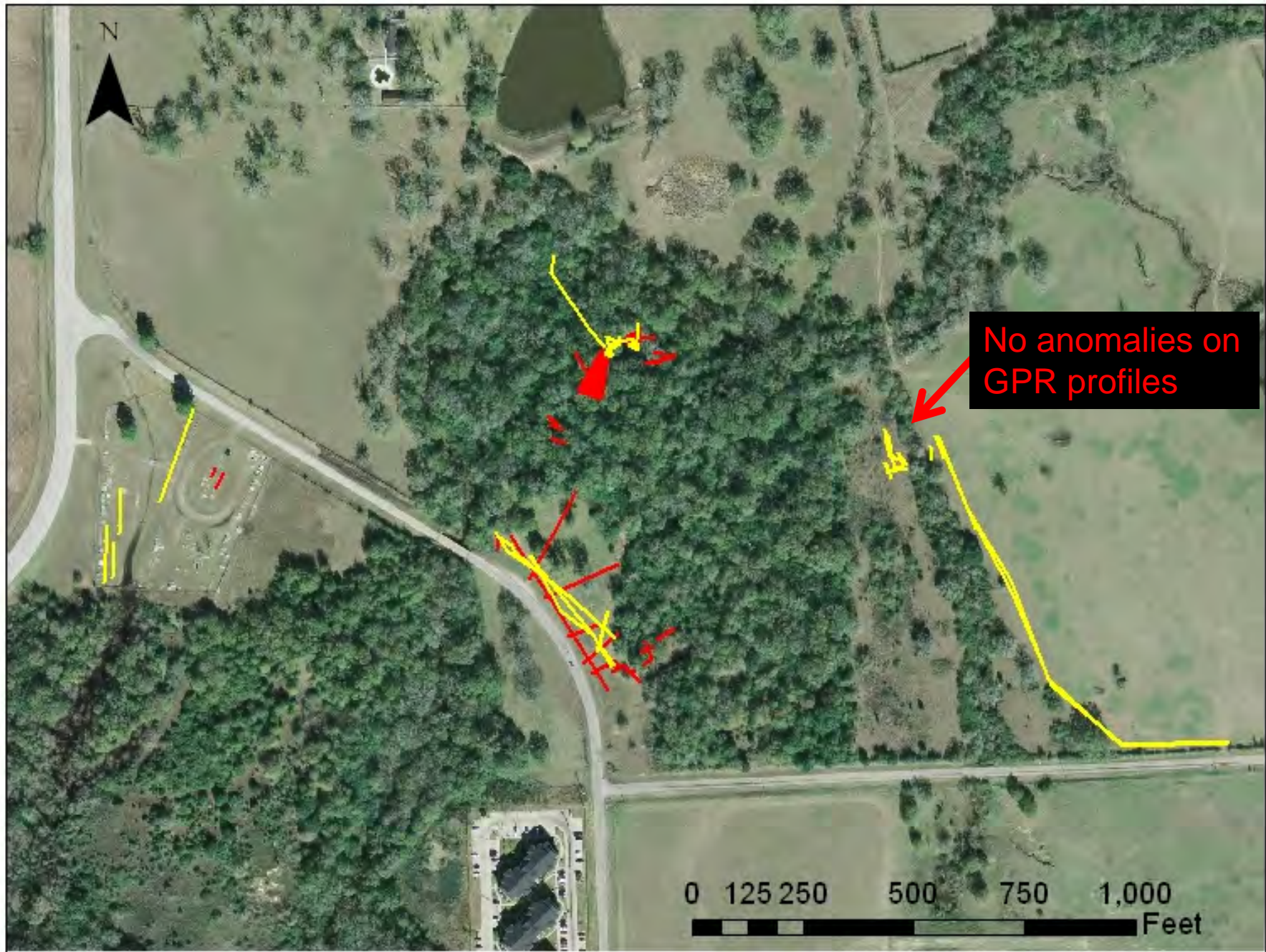


GPR profile in main clearing



GPR profile in main clearing





No anomalies on
GPR profiles

0 125 250 500 750 1,000
Feet

Conclusions

- More anomalies discovered near main clearing that appear to be unmarked burials
- Several possible unmarked burials also discovered in modern cemetery
- Pond Creek located further NW than originally thought – more area west of main clearing could contain burials
- No anomalies found on GPR data near pasture
- Focus future efforts on areas adjacent to main clearing on west and east sides

Acknowledgments

- Prairie View A&M University, especially Dr. Akel Kahera and staff of University Archives
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