SOIL SCIENTIST
Summary

Tennessee Licensed Professional Soil Scientist, SSSA-CSSE Certified Professional Soil Scientist (CPSS), Alabama Professional Soil Classifier, Georgia Board Certified Soil Classifier, North Carolina Licensed Soil Scientist Tennessee

Accomplishments

- Experience Proficient using Trimble GEOxh handheld GPS units, ArcGIS 8.0, 9.1, and 10 GIS software, and AutoCAD (many versions).
- Also experience using Topcon 700-series total station instruments, HP-48 data collectors (TDS software), Leica and Trimble GPS instruments, Bruker axs D8 Advance X-ray diffraction instruments, and Perkin Elmer AAnalyst 700 atomic absorption spectrometry instruments.

Experience
08/2006 to Current
Soil Scientist Department Of Agriculture ï¼ Alpine , AZ

- Generate high intensity soil maps specifically for the purpose of permitting onsite wastewater management systems.
- Evaluate and review high intensity soil maps that are being used for design of onsite wastewater management systems.
- Issue permits for installation and repair of onsite wastewater management systems.
- Oversee of installation of onsite wastewater management systems.
- Document relevant facts pertaining to all aspects of onsite wastewater management systems and real estate.
- Maintain a personal geodatabase for the storage and query of site-specific GIS/GPS data.

01/2003 to 07/2006
Soil Scientist Golder Associates ï¼ Manchester , NH

- Performed wetland delineations.
- Conducted Land Application System site evaluations.
- Assisted in stream assessments.
- Conducted Environmental Site Assessments (Phase I).
- Conducted high intensity soil investigations for the specific purpose of onsite wastewater management.
- Recommended site-specific septic systems given the limitations of soils encountered.
- Maintained site-specific GPS data for integration with all required duties.

01/2001 to 01/2003
Graduate Research Assistant Norc At The University Of Chicago ï¼ New York , NY

- Assisted in academic research - complete soil characterization projects involving soils from Russia, Kentucky, and Mississippi.
- Experience with atomic absorption spectrometry, X-ray diffraction, ground penetrating radar, GPS, and electromagnetic inductance instruments.
- Graduate teaching assistant in field based learning courses.

01/2000 to 01/2001
Land Surveyor Ghd ï¼ Baltimore , MD

- Assisted in boundary, topographic, and construction surveys; operated total station surveying instruments, TDS software, and Leica GPS rover units.

05/1999 to 08/1999
Land Surveyor Ghd ï¼ Dallas , TX

- Assisted in topographic mapping and construction surveys, conducted mortgage loan inspections, assisted in layout of septic fields for residential homes.

06/1998 to 05/1999
Soil Scientist Golder Associates ï¼ Richmond , VA

- Collected detailed soil descriptions based on landscape position, geology, soil morphology, etc., mapped soil types according to landscape and soil characteristics, identified tree species and herbaceous vegetation found throughout the area, entered soils information into database; completed detailed soil mapping projects in Tennessee, Missouri, and Kentucky; 12,533 acres mapped from June 1998 through May 1999.

Education
5 2003
Master of Science : Soil Science The University of Tennessee GPA: GPA: 4.0/4.0 Soil Science GPA: 4.0/4.0
12 1997
Bachelor of Science : Agriculture- Plant and Soil Science Environmental Science and Conservation of Natural Resources The University of

Tennessee Agriculture- Plant and Soil Science Environmental Science and Conservation of Natural Resources Research Experience The University of Tennessee Department of Biosystems Engineering and Environmental Science- Complete soil characterization projects involving soils from Russia, Kentucky, and Mississippi. Non-intrusive subsurface investigation involving ground penetrating radar and electromagnetic inductance in Kentucky and Mississippi. Thesis Identification of subsurface features that affect offsite movement of waterborne contaminants through the use of soil classification/mapping techniques, electromagnetic inductance (EM), and ground-penetrating radar (GPR).

Affiliations

Soil Science Society of America - Member of the Council of Soil Science Examiners Soil Scientists Association of Tennessee Secretary/Treasurer (2007-2012) Tennessee Onsite Wastewater Association Member of Board of Directors (2009-2012) National Society of Consulting Soil Scientists Member of Board of Directors 2007-2009) - now division S-12 of SSSA Phi Kappa Phi National Honor Society Training Army Corps of Engineers Wetland Delineation and Management (40 hours - 2005)

Publications

Raley, K.D. 2003. Identification of subsurface features that affect offsite movement of waterborne contaminants through the use of soil classification/mapping techniques, electromagnetic inductance (EM), and ground-penetrating radar (GPR). M.S. Thesis. The University of Tennessee, Knoxville. Raley, K.D., J.T. Ammons, R.R.P. Noble, D.J. Inman, and I.I. Vassenev. 2002. The comparison of two loessial soils found in Kursk Russia, and the Southeastern United States. Proceedings of the 17th World Congress of Soil Science. Bangkok, Thailand. Published Abstracts Ammons, J.T., R.R.P. Noble, K.D. Raley, and M. Ma. 2001. An Investigation of Two Soil Profiles Related to Landslips: Thorpdale, Australia. Poster presentation. Agronomy abstracts, ASA, Madison Wisconsin (CD-ROM). Raley, K.D., J.T. Ammons, and R.R.P. Noble. 2002. The Assessment of Traditional Soil Classification Techniques versus Ground Penetrating Radar and Electromagnetic Inductance at Two Separate Sites on The Southern Mississippi Valley Silty Uplands. Poster presentation. Agronomy abstracts, ASA, Madison Wisconsin (CD-ROM). Raley, K.D., J.T. Ammons, R.R.P. Noble, D.E. Smith, and R.L. Livingston. 2001. A Comparison of Physical and Chemical Characteristics in Two Soils on the Humbolt Terrace, West TN. Poster presentation. Agronomy abstracts, ASA, Madison Wisconsin (CD-ROM). Noble, R.R.P., J.T. Ammons, K.D. Raley, and I.I. Vassenev. 2001. The Genesis and Classification of Three Chernozem Soil Profiles in the Kursk Oblast, Russia. Poster presentation. Agronomy abstracts, ASA, Madison Wisconsin (CD-ROM). Noble, R.R.P., I.I. Vassenev, J.T. Ammons, and K.D. Raley. 2001. Soil Chemical Characterization of Protected Chernozems for Future Risk Assessment. Poster presentation. Materials of the International Symposium Functions of Soils in the Geosphere-Biosphere Systems; Moscow, Russia. p. 209-210. 1

Skills

academic, database, features, GIS, GPS, layout, radar, real estate, Research, TDS, teaching