

United States
Department of
Agriculture

Natural Resources
Conservation
Service

5 Radnor Corporate Center,
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Radnor, PA 19087-4585

Subject: Ground-penetrating radar Assistance;
Awbury Arboretum, Philadelphia

Date: 8 June 1998

To: Janet Oertly
State Conservationist
USDA-NRCS,
Suite 340, One Credit Union Place
Harrisburg, PA 17110-2993

Purpose:

The purpose of this study was to evaluate the suitability of ground-penetrating radar for soil investigations and culture resource projects within Awbury Arboretum Association, Germantown, Pennsylvania. Natural Resource Conservation Service is providing assistance to the Arboretum as part of the Philadelphia Urban Resource Partnership program.

Participating Agencies:

Awbury Arboretum Association
Natural Resource Conservation Service

Participants:

John Chibirka, Soil Scientist, USDA-NRCS, Leesport, PA
Jim Doolittle, Research Soil Scientist, USDA-NRCS, Radnor, PA
Tom Manns, Facility Manager, Awbury Arboretum Association, Germantown, PA
Tom Mishler, Executive Director, Awbury Arboretum Association, Germantown, PA
Elbert Wells, Project Leader, USDA-NRCS, West Chester, PA

Activities:

All field activities were on 24 June 1998.

Awbury Arboretum:

The Arboretum is located in the Germantown and Morton areas of Philadelphia. The evaluation of the radar's suitability for soil and culture resources assessments was conducted in two separate areas of the Arboretum. One area consisted of highly disturbed soils; one area consisted of relatively undisturbed soils. The disturbed area was in a locality known as McNabbtown. The disturbed area was the former site of homes and buildings. These structures had been razed and the covered with a thin fill deposit. The undisturbed area was in an open meadow.

The dominant soils within the Arboretum are members of the Chester and the Manor series. Chester is a member of the fine loamy, mixed, mesic Typic Hapludults family. Manor is a member of the coarse-loamy, micaceous, mesic Typic Dystrachrepts family. These very deep, well drained and somewhat poorly drained soils formed in materials weathered from micaceous schist on uplands. The medium texture and micaceous