# **Specially Formulated Bentonite Grout for Utility and Telecommunications Grounding**



Sprint, whose digital cellular phone network covers the entire United States, underwent installation of grounding protection for its PCS communication tower.

Ground Testing, Inc., of Billerica, MA, installed the grounding systems for Sprint. Burt Brooks, principal engineer for Ground Testing, Inc., estimated that nearly half of all interference problems encountered with ultra sensitive electronic equipment are the result of inadequate earth grounding.

Brooks said, "The increased use of sensitive electronic equipment requires continual research for practical applications and solutions to eliminate all forms of interference."

Ground Testing, Inc. chose to use GROUNDING GROUT over chemical electrolytic grounding systems because it forms a protective seal that prevents surface water from directly reaching the sensitive groundwater aquifer. GROUNDING GROUT is manufactured from natural occurring bentonite with specialty additives. After hydrating to ten times its dry volume, GROUNDING GROUT becomes a very dense, pasty clay that can hold its own shape and adhere to any surface on which it is placed. These characteristics eliminate the problem of compaction and soil/rod contact.

GROUNDING GROUT which is maintenance free lowers contact resistance to earth by 40% when used in conjunction with standard copper grounding equipment. It also requires only minimum instruction to mix and use.

Brooks said, "The three main purposes of a grounding system are protection from over voltages, to dissipate lightning and static charges, and to put non-concurrant carrying parts of an electrical system at zero potential to ground. GROUNDING GROUT provided us with a product that was easy to mix and apply, and offered a superior ground for the telecommunication tower."

#### **Application Instructions**

Drill or dig the hole to the required depth and diameter. Suspend ground rod in center of the hole. Pump or pour GROUNDING GROUT from the bottom of the hole to the surface.

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## **PROJECT DETAILS**

PCS Communication Tower

Contractor: Ground Testing Inc.

### **LOCATION**

Billerica, MA

### **PRODUCTS USED**

GROUNDING GROUT™



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#### **Horizontal or Grid Construction**

Pour into horizontal trench until level of ground wire is reached. Place ground wire. Pour in additional GROUNDING GROUT until ground wire is covered and desired height is reached. Cover with fill. No tamping is necessary. For grid construction, pour GROUNDING GROUT and spread over ground grid until desired thickness level is achieved. Cover with fill.

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