The Geometrics OhmMapper is a capacitively-coupled resistivity meter that measures the electrical properties of rock and soil without cumbersome galvanic electrodes used in traditional resistivity surveys. A simple coaxial cable array with transmitter and receiver sections is pulled along the ground either by a single person or by a small all-terrain vehicle. Data acquisition is many times faster than DC resistivity.

Multiple passes with the OhmMapper, or a single pass with multiple receivers at different transmitter-receiver spacings, permit 2D and even 3D electrical surveying at a fraction of the time of resistivity or electromagnetic methods. Data acquisition is near-continuous, providing maximum resolution.

The console provides graphical display of both position and data. View the last five profiles or scroll a window through the entire data set right in the field.

Data can be exported in ASCII-columnar format for plotting with Surfer or Geosoft software.
**Operating Principle:** Constant-current capacitively-coupled, dipole-dipole resistivity.

**Operating Range:** 1-100,000 Ω m.

**Cycle Rate:** 2 Hz.

**Data Storage:** 2 Mbytes of nonvolatile RAM.

**Audio Output:** Metronome, signal amplitude, disconnect.

**Visual Output:** 320 x 200 LCD.

**Data Display:** 5 line-profiles of resistivity.

**Output:** ASCII columnar.

**Clock Resolution:** 0.1 sec; drift <1 sec/day.

**Transmitter Frequency:** <18 kHz.

**Transmitter Output Current:** Variable from 16 mA to 0.25 mA.

**Dipole lengths:** 5, 10, 15, 20 m; longer lengths optional.

**Receiver Input:** 5 Mhos.

**Voltage Accuracy:** 1%.

**Receiver Input:** 0-2 Vrms.

**Power Line Rejection:** >100 dB.

**Transmitter/receiver Power:** 12 VDC (supplied by console).

**Console Power:** 28 VDC (Internal battery backup for clock and nonvolatile RAM).

**Array Type:** Dipole-dipole.

**Console Weight:** 1.6 kg (3.5 lb).

**Transmitter Weight:** 2 kg (4.4 lb).

**Receiver Weight:** 2 kg (4.4 lb).

**Battery Pack and Harness:** 1.6 kg (3.5 lb).

**Array Depressor Weight:** 3 kg (6.6 lb).

**Console Dimensions:** L: 15 cm; W: 8 cm; H: 28 cm (5.9x3.1x11 in).

**Battery Dimensions:** L: 8 cm; W: 14 cm; H: 20 cm (3.1x5.5x7.9 in).

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Plan and cross-sectional views of karst feature in Italy.