

Iowa Geological Survey

Electromagnetic Terrain Conductivity (EM)

The Iowa Geological Survey (IGS) has an array of geophysical capabilities to identify, understand, and visualize what's beneath the surface of the Iowa landscape.

What is EM?

EM is an effective way to measure the conductivity of the subsurface. An electric signal is sent from one end of the unit and picked up at the other end. The strength of the reading provides information on what lies below the surface. Researchers can walk the EM or drive it to cover large areas quickly.

Uses

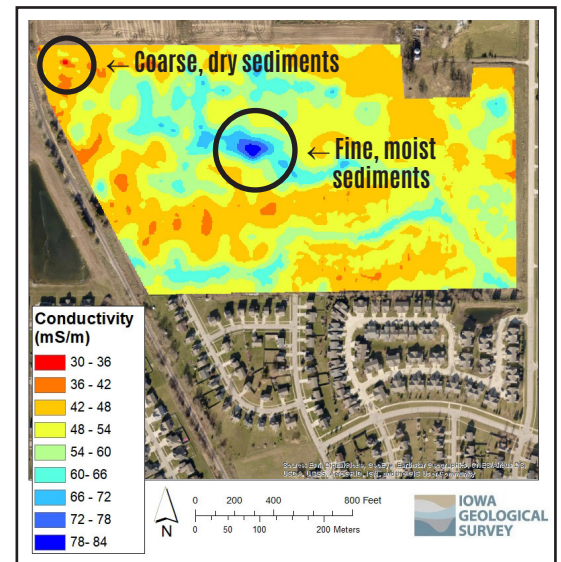
To identify, map, and understand features of the subsurface, such as aquifers, caves, sinkholes, and other hazards; compromised areas within levees; archaeological sites; etc.

Accessibility

The results are presented as a colorful, easy-to-understand map showing how the subsurface responds to the electric signal (see figure at right).

Advantages

EM surveys produce several readings per second and 70,000+ measurements in 2–3 hours of work. The process scans up to 20 feet below ground, offering one of the only ways to visualize the subsurface. EM surveys are cost-effective and efficient.



Want to know more? Contact us:

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