

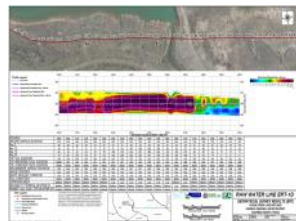
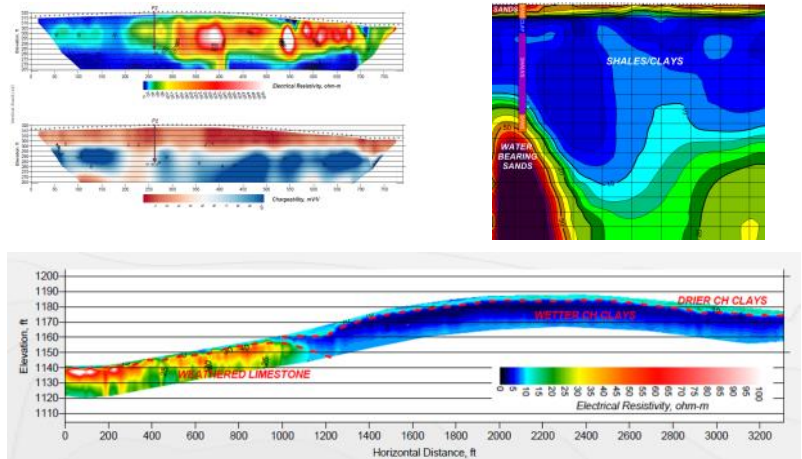
ENVIRONMENTAL GEOPHYSICS

ABOUT US

Gehrig, Inc. was incorporated in 2008 with the purpose of providing exploration, engineering and environmental geophysics services to quality clients. Our main office is located in Muenster, TX, with additional personnel located in Dallas and Fort Worth. Gehrig's expert team is well-equipped, mobile and client-focused to get the job done right.

EXPERIENCE

- 2-D, 3-D, and 4-D Subsurface Imaging
- UST and Buried Drum Location
- Waste Pit and Landfill Delineation
- Preferential Pathway Delineation
- Brine Spill Delineation
- Groundwater Mapping
- Boring Clearances
- Borehole Geophysical Logging
- Plume Delineation
- Lithology Mapping
- Karst and Void Mapping



Our Toolbox

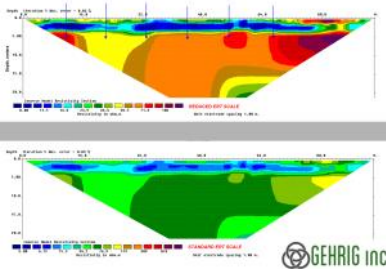
- Electrical Resistivity Tomography (ERT)
- Induced Polarization Tomography (IP)
- Multi-Channel Ground Conductivity (EM)
- Seismic Refraction and Reflection
- Seismo-electric Soundings
- Ground Penetrating Radar (GPR)
- Wireline Borehole Geophysics
- Magnetics
- Microgravity
- Geographic Information Systems (GIS)

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CASE STUDIES

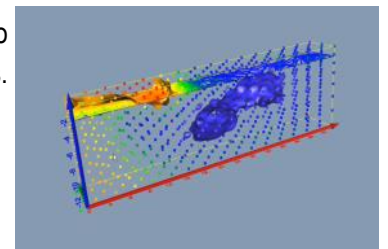
Plume Delineation, South Central United States



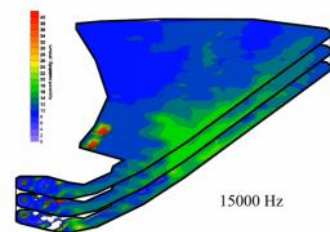
Our team tested multiple tools before choosing Electrical Resistivity Tomography (ERT) to map a contaminant plume across a one square mile site. Resistivity highs were associated with increased COC concentration. Additional influences associated with brine and lateral variation in geology made this site very challenging. However, a Geoprobe was used to explore the areas where we successfully identified high COC concentrations.

Landfill and Leachate Plume Delineation, Texas

We utilized 3-D ERT to successfully delineate a landfill in North Texas. The 3-D model allowed us to develop and present an animated visualization for the client to use during presentations to non-scientists. We also identified a saturated zone that may be associated with a leachate plume.



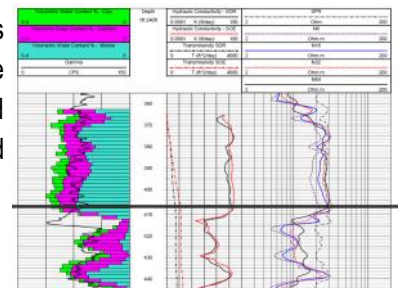
Underground Storage Tank Detection, Texas



We utilized an EM profiler to successfully locate two underground storage tanks on a two-acre site in North Texas. The use of multiple frequencies allowed us to determine the relative depth of metallic objects at the site.

Preferential Pathway Detection and Delineation, Oklahoma

The Gehrig, Inc. team used borehole Nuclear Magnetic Resonance logging to locate fracture zones that were acting as preferential pathways for TCE in a tight shale formation in Oklahoma. The fracture zones were delineated vertically as zones of increased water volume associated with high porosity and permeability. This information was successfully used by the client to develop a groundwater model and design a remediation plan for the site.



Karst Feature Delineation in Central Texas

We successfully acquired 3-D Electrical Resistivity Tomography (ERT) data on a five acre site in Central Texas with the goal of detecting air filled voids. The client was concerned that environmentally sensitive features would be encountered during construction because a cave entrance is located on the property and voids were encountered during preliminary geotechnical analysis. We drilled locations with anomalous high and low apparent resistivity measurements. Voids were detected where we measured extreme resistivity highs. Most of the low resistivity anomalies could be attributed to clay-filled voids.

