



Geo Jarf Azma Consulting Engineers

Established from 2011 with the mission to implement geophysical studies related to geotechnical engineering.

Today, the company's main activity targets specialized geophysical projects within geotechnical schemes and other relevant fields such as mine exploration and other subsurface detecting approaches by highly trained geophysicists and geological experts and technicians with Doctoral and Master Degrees in geophysics, mine engineering and other geological sub branches.

Geoelectrical Methods

Method and Application

Geoelectrical methods are applied to map the resistivity structure of the underground. A geoelectrical measurement is carried out by recording the electrical potential arising from current input into the ground via the use of two electrodes with the purpose of gathering information about the resistivity structure in the ground.

A related geophysical method and induced polarization measures the transient response. This technique is a geophysical imaging approach used to identify subsurface materials such as ore. The method is similar to electrical resistivity, in that an electric current is induced into the subsurface via two electrodes, and voltage is monitored through two other electrodes.

Facilities and Appliances

1. Electrical ground resistivity measurement appliances (WDS-3, WDS-1).
3. Ground resistivity measurement appliance (Megger).
2. Electrical power supply and cables, electrode and bobbins for up to AB=2000 measurement.

Geoelectrical Services

1. Underground water level determination.
2. Locating bedrock and subsurface bedding and its structure.
3. General information regarding the existence of aquifer, its location and thickness.
4. Geotechnical and pipeline route studies to measure shallow subsoil electrical properties, faults and mineral excavations.
5. Cavity and subsurface void investigations, especially if structures such as qantas are located in depths of more than 20 meters and usual approaches such as GPR method is not fit.

