



Induced Polarization & Resistivity



When Capability Counts...Count on Fugro Ground Geophysics
Tailoring solutions to meet ground geophysical challenges / opportunities

Induced Polarization & Resistivity

Fugro Ground Geophysics (FGG) have been at the forefront of the development of high resolution 3D Multipole-Dipole IP. FGG has developed Safe Operating Procedures, SOP's, which have been accredited by the Energy Safety Directorate of the WA Dept of Consumer and Employment Protection, DOCEP. This compulsory accreditation is now required, by law, by all providers of high-powered electrical surveys in West Australia, to ensure approved systems and procedures are in place to produce high standards of electrical safety for both the crew and general public.



Resistivity Survey for groundwater investigations

Applications

The induced polarisation method reliably detects disseminated sulphides often associated with economic base metal and gold deposits. The method is also used for geological mapping and groundwater studies.

- Mineral exploration - detection of ore bodies by their resistivity and/or IP anomalies. Fugro also performs Downhole IP surveys in addition to standard surface methods.
- Groundwater investigation - aquifers can be detected as resistivity anomalies.
- Stratigraphy mapping - differing soil and/or rock types may have different inherent resistivity.
- Geotechnical - soil or rock resistivity is important in many geotechnical projects.
- Environmental - IP methods can assist in the assessment of the acid generating potential of waste rock and tailings from mine operations. Resistivity can be used to map contamination plumes.



IP Survey for mineral exploration



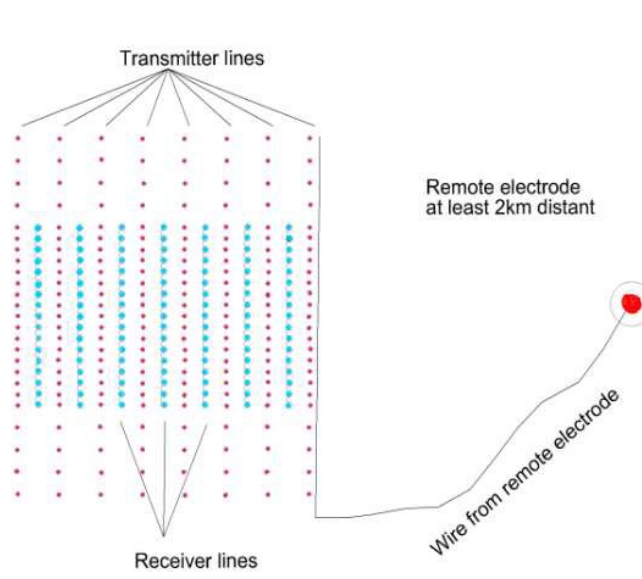
Industry Standard and custom in-house hardware and software

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Advantages

A variety of electrode configurations can be utilised including gradient array (for rapid, economical coverage, dipole-dipole array (for depth discrimination), and pole-dipole arrays (for better signal strength). To increase signal strength at greater n values, hybrid pole-dipole arrays are used and multiple receivers are used to efficiently acquire the high data density required for robust 3D inversions.

- Ideal for detecting disseminated sulfides, which often contain desired minerals.
- Resistivity and IP data can be collected simultaneously using the same instrumentation.
- Resistivity is equally effective at detecting resistive or conductive targets.
- IP may be used for mineral discrimination.
- A multitude of configurations are available depending on the survey target...



Fugro Ground Geophysics

Fugro Ground Geophysics are world leaders in acquiring and processing high quality ground geophysical data for mineral, oil, gas, and water exploration, for engineering studies and for environmental monitoring, throughout the world.

- IP (2D & 3D)
- GPS Gravity
- EM (surface and BH)
- Magnetics
- NMR
- Radiometrics
- Seismic & GPR
- CSAMT / MT



Global - Experienced - Safe

Fugro Ground Geophysics

Perth - Australia
 Email: perthmail@fugroground.com
 Phone: +6 18 9273 6400
 Contact: Alex Low, Tyler Raleigh

Peru - South America
 Email: perumail@fugroground.com
 Phone: +51 1 440 2346
 Contact: Glen Gooch