VALUE-ADDED GEOPHYSICS

Open Ground Resources is a geophysical service provider making use of extensive experience and technical excellence to provide clients with a pool of geophysical solutions & technology.

We provide ground-based geophysical solutions to appropriate mining, environmental, engineering and exploration projects. Geophysical services are customized which allow clients to access the most suitable and applicable geophysical techniques for their particular problem.

Our focus is the provision of high-resolution ground geophysics for shallow subsurface site characterization by using state of the art technology, software and experience.

WHY GEOPHYSICS?

Properly applied geophysical solutions can add tremendous value to investigations where accurate and large amounts of spatial subsurface information is required. Geophysical data can be acquired at small costs compared to standard intrusive techniques, and can be integrated with a guided drilling programme to obtain the required quantity and quality of subsurface information.

GPR Investigations can be conducted rapidly and efficiently with minimal disruptions to traffic and environment. Data can be previewed during data acquisition, allowing on-site data interpretation and quality control.

WHY USE OPEN GROUND?

Open Ground Resources is committed to provide the client with accurate and cost-effective geophysical solutions using site-appropriate geophysical techniques. We offer more than a decade of experience and utilize a wide range of geophysical techniques to solve subsurface problems. We work closely with the client to ensure that limitations and benefits of the geophysical investigation is fully understood. This is essential to minimise interpretation risks and to add maximum value to projects utilizing the geophysical information.

SITE CHARACTERIZATION THROUGH GEOPHYSICAL INNOVATION

We provide the following service solutions:

ENGINEERING
- Shear wave velocity measurements
- Bedrock topography and weathering profile
- Dolomite gravimetric investigations
- Mapping of pipes, services, voids & buried objects
- Resistivity measurements for cathodic/earthing requirements
- Roads, pavements and concrete investigations

ENVIRONMENTAL
- Preferential groundwater flow & aquifers
- Landfill and waste dump investigations
- Groundwater pollution plume mapping

MINING & EXPLORATION
- Alluvial diamonds
- Kimberlites
- Structural Geology
- Massive and Disseminated Sulphides
- Underground mining: Roof Intensity Investigations

KEY PROJECTS

Our applications and services have been used on geotechnical investigations for the 2010 Greenpoint Stadium, NS Remediation and Mapping of Voids, Jwaneng Open Pit Upgrade Cut-6 Project, Sandton Bulk Water Upgrade, Commissioner Street Services De-leccion, Meletset Golf Estate, Braamhoek & Lima Pumped Storage Schemes, Ciskei Town International Airport Apron Pavement Investigation, Port of Ngqura (Gqebera), various new and old power stations including Mmamabula (Boitswana), Bravo (Mpumulanga), Elandra, Amot and Kelvin. Exploration projects include TGME Exploration & Leach Pad Investigations, Nisizwa Ni-Cu Exploration and Ventersdorp Alluvial Diamonds.

RESOURCES

Open Ground Resources utilizes the latest in geophysic technology and software as well as a fleet of vehicles suitable for any terrain and application. These include:

- CG-5 Gravimeter
- SuperSting R8 8-channel Resistivity System
- IRIS VIP4000 and Eirec Pro Induced Polarization System
- Trimble R8 GNSS RTK GPS System
- SIR-3000 GPR system with 40, 200, 500, 900 MHz antennae
- Earthimager 2D, SurferSis 2.0, Encom PA 8.0, Seis-Geo2D, Radar 4.5, Processing, Interpretation and Visualization software
- Geometrics SmartSis Seismic Acquisition System

3D Visualization of geophysical data provide an effective means of projecting data in three-dimensional space, allowing the interpreter to view the data in any user-defined angle.

SPECIALIST EXPERTISE

Open Ground Resources is a specialist in the surface application of Ground Penetrating Radar (GPR) and Multichannel Analysis of Surface Waves (MASW). We utilize the following techniques:

- Ground Penetrating Radar (GPR)
- Seismic Refraction
- Multi-channel Analysis of Surface Waves (MASW)