

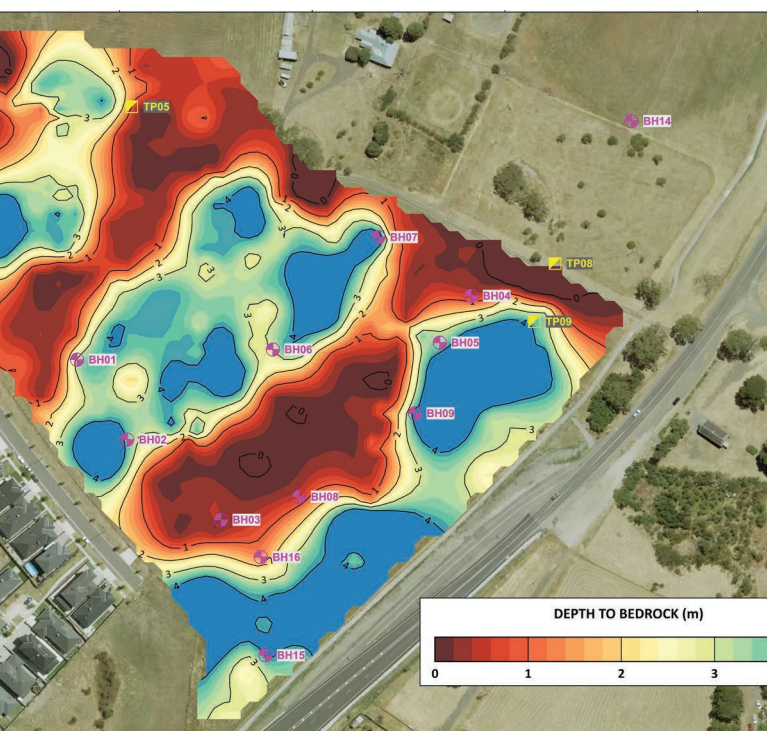
SubSpatial Information Modelling

Knowledge | Assurance | Insight



Geophysical investigations combined with **expert analysis** can provide invaluable insight to unknown subsurface conditions thereby **reducing site risks** and costs associated with unplanned remediation and variations in earthworks.

Focusing on the land development market, MNG SubSpatial can tailor a **cost-effective geophysical solution** to provide enhanced subsurface information to support better design and decision making.

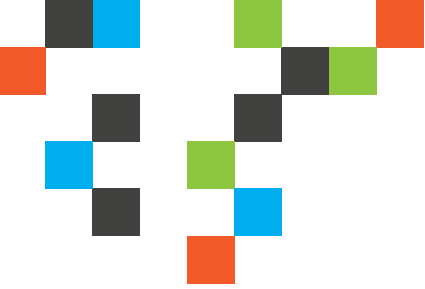


ROCK MAPPING SOLUTIONS

Our detailed rock mapping and subsurface modelling will provide you with **valuable insights** into rock depth and condition.

Working in partnership with traditional intrusive geotechnical methods, our **geophysical techniques** can connect the dots in between boreholes that generate 2D geological cross-sections of the subsurface. When combined, these 2D cross-sections create a **full 3D subsurface model** of the bedrock.

Our comprehensive site classification packages are an **essential tool** for the investigatory stage of any land development project. Reducing site uncertainty, unforeseen earthwork costs and financial risk.



SubSpatial Modelling - Land Development

We provide **detailed subsurface modelling** for land development and risk assessment.

Greenfield - Geotechnical

- 2D and 3D representation of subsurface rock models/layers
- Assessment of material strength, compaction, rippability and weathered zones
- Overlying material thickness and volume
- Identification of isolated features such as fractured zones, boulder floaters, and karst formations (cavities)
- Geotechnical engineering parameters, such as Shear and Young's modulus

Brownfield - Environmental

- Delineation of uncontrolled fill, buried waste, landfill extents
- Location of buried remnant infrastructure, footings, underground storage tanks
- Mapping of soil contaminants (chemical plumes, saline groundwater)
- Unexploded Ordnance (UXO) detection

Geophysical Investigation Techniques

MNG SubSpatial offers a range of geophysical techniques to **investigate the subsurface** that involve seismic, electrical and radar waves.

Seismic Techniques

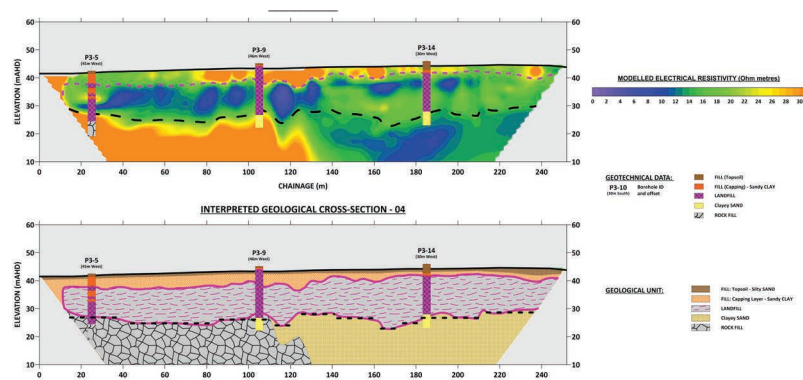
- Multi-channel Analysis of Surface Waves (MASW)
- Seismic Refraction (SR)
- Passive Seismic (ReMi, HVSR)

Electrical Techniques

- Electrical Resistivity Tomography / Imaging (ERT/ERI)
- Vertical Electrical Sounding (VES)
- Frequency-domain Electro-Magnetics (FEM)

Radar Techniques

- Ground Penetrating Radar (GPR)



**OUR KNOWLEDGE
MINIMISES YOUR RISK
HIDDEN BELOW THE SURFACE**

READY TO SEE WHAT LIES BENEATH YOUR PROJECT.
WE'D LOVE TO SIT DOWN WITH YOU AND TALK
THROUGH THE POSSIBILITIES.



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