

# ultragpr

Long-range ground penetrating radar technology





### THE DEEPEST GPR TECHNOLOGY

UltraGPR uses high-powered transmitters and realtime sampling receivers to capture the deepest images possible of the subsurface. Whilst the laws of physics limit the maximum practical depth of radar imaging in specific geology, UltraGPR provides significantly deeper penetration than consumer-grade systems.



### LIGHTEST AND FASTEST GPR

At a total weight of less than 4 kg, UltraGPR is highly transportable and easy to deploy in the most challenging terrain and environments. The entire GPR is designed to be enclosed within two small cylinders. No control unit, laptop and no fibre optics are used.



# THE MOST EXPERIENCED GPR COMPANY

Groundradar has over 22 years' experience in the mining and geotechnical industries. Our experience spans over 80 countries on all six continents in the widest variety of environments, ranging from the deserts of Libya to the jungles of Ecuador.



# THE LOWEST COST IMAGING TOOL

Groundradar offers UltraGPR and other custom GPR technologies for surveys worldwide. For large projects, instruments and training are provided at no cost for clients to acquire their own data, with Groundradar processing, interpreting and modelling the data



#### TYPICAL APPLICATIONS

As with any GPR, the environments most suitable for UltraGPR are limited. The majority of UltraGPR systems are used for mineral exploration (nickel laterites, karstic and lateritic bauxite, alluvials, mineral sands, BIF and canga iron ore deposits) and geotechnical projects (depth to bedrock, lake and river surveying, karst and void detection)





# » Rapid mapping of channels and potholes

- >> DEEPEST IMAGING RADAR PENETRATION IS NOT SIMPLY A MATTER OF INCREASING TRANSMITTER POWER. DEEPER PENETRATION IS GAINED THROUGH STACKING. USING FULL WAVEFORM RECEIVERS, ULTRAGPR IS ABLE TO STACK 32,000 TIMES, PROVIDING DEEPER IMAGING THAN CONSUMER-GRADE SYSTEMS
- >> PORTABLE AND LIGHT = LOW SURVEY COST BY DESIGNING ULTRAGPR
  SPECIFICALLY FOR EXTREME PORTABLIITY AND SURVEY SPEED, SURVEY
  COSTS ARE A FRACTION OF WHAT THEY ARE WITH CONVENTIONAL GPR
  SYSTEMS. EVERY COMPONENT HAS BEEN CUSTOM-DESIGNED FOR
  RUGGEDNESS IN THE MOST EXTREME SURVEY ENVIRONMENT
- >> LIMITATIONS UNDERSTANDING THE LIMITATIONS OF GPR IS CRITICAL TO THE PROPER APPLICATION OF THE TECHNOLOGY. ULTRAGPR IS DESIGNED FOR DEEP IMAGING, AND IS NOT DESIGNED FOR NEAR-SURFACE SURVEYING OR USE IN URBAN SETTINGS. AS WITH ALL GPR TECHNOLOGIES, PENETRATION IS BEST IN ELECTRICALLY RESISTIVE SOILS AND ROCKS (SANDS, GRAVELS, MOST BEDROCK AND TROPICAL CLAYS).
- >> EXPERIENCE GROUNDRADAR IS THE MOST EXPERIENCED GPR SERVICE PROVIDER IN THE MINING INDUSTRY. AS IMPORTANT AS OFFERING NEXT-GENERATION GPR TECHNOLOGY IS THE KNOWLEDGE OF WHERE AND HOW TO USE IT TO MAXIMISE RESULTS

