

# Sub Surface Profiler case study

## Identifying sub surface fractures



Overview of quarry site



Side view of fractures identified by SPP

The SSP was used to identify sub surface fractures (cracks) hidden within a block of granite. The sensor which was deployed in minutes, was rolled along the survey line with a length of roughly 10 meters orientated downwards. The area of interest starts at Point 1 and ends at Point 3. At Point 2 the SSP had to be lifted to accommodate for a step in the scan path.

The resulting SSP profile was generated in real time and clearly identified two fractures starting at a depth of 0.5m and continuing on to a depth of 4.5m. The step is clearly visible in the resulting scan data but did not effect the SSP ability to deal with discontinuities on the survey line.

The SSP is a versatile and flexible tool that can be used to perform scans either upwards or downwards into the area of interest

### AT A GLANCE

#### Rock Type:

Granite, surface application.

#### Challenge:

Identify low angle features within granite along non uniform scan line.

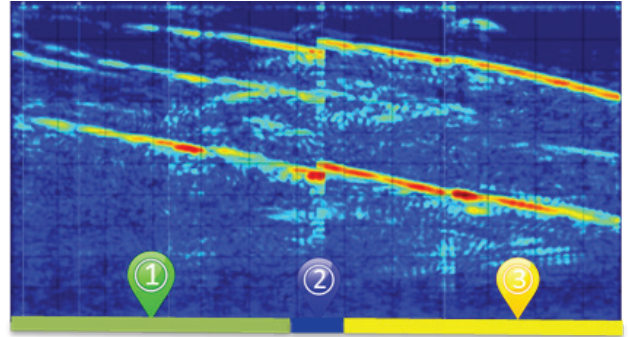
#### Results:

Two fractures identified at depths between 0.5m and 4.5 meters.

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Scan path



Real time SSP Results

## ABOUT THE SUB SURFACE PROFILER

Designed specifically for the challenges faced by underground mining operations globally, the SSP improves dynamic decision making through the precise management of Fall of Ground risks, as well as the optimal use of support mechanisms in an environment where every second counts.

Its light-weight and patented ergonomic design allows for one handed operation by one person in much the same way as a paint roller. Data collected is wirelessly transmitted and processed in real time, giving instant feedback on rock structures while scanning. This is Ground Penetrating Radar. Reimagined.



## ABOUT REUTECH AUSTRALIA

Our goal is to make your operation as safe and productive as possible. So we design innovative radar products that solve complex problems in simple ways. This passion drives our desire to think outside of the box; to rethink old problems and reimagine new solutions. It has led us to the SSP, a product that improves underground mining productivity and safety in a revolutionary simple way.

REUTECH AUSTRALIA,  
PTY LTD.

6 Babel Road, Welshpool,  
WA, 6106  
Australia

T +1300 899 235  
E [info@reutechaustralia.com](mailto:info@reutechaustralia.com)  
[www.reutechaustralia.com.au](http://www.reutechaustralia.com.au)

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