



Location
Perth,
Australia



Industry
Mining



Scanned
Mine tunnel

Words by

Evan Jones, Beck Engineering

“Beck Engineering is an Australian mining engineering consultancy specialising in mining and rock mechanics analysis.

Creating highly-accurate underground maps for the mining and natural resource sector is one of the most demanding forms of surveying. Most mine environments are hazardous, and we need to work in tight, enclosed spaces, which are uneven and difficult to access. GPS coverage is, of course, non-existent.

We map mines under intense time constraints using versatile technology which must be adaptable to this tough environment. For this purpose, we have chosen GeoSLAM’s handheld mobile mapping devices that are compact, portable and deliver a high level of accuracy.

With GeoSLAM’s ‘go-anywhere’ 3D technology, Beck Engineering has immediate access to invaluable data regarding underground conditions. This time-sensitive information means we can accurately measure the shape of an excavation or tunnel over time.

As a result, tunnels can be faster and better constructed, while being safer and considerably more cost efficient.

The applications of the spatially continuous monitoring data collected by GeoSLAM’s devices are being applied to a wide range of geo-mechanical applications, providing their clients with a previously unattainable insight into rock mass behaviour.

“ Laser scanning in underground mines is now routinely conducted to measure deformation, assess residual ground support capacity, determine rehabilitation requirements and confirm excavation stability. ”





We have continued to use GeoSLAM products as they have proven to be affordable, lightweight and sufficiently robust devices for their application underground. GeoSLAM continue to produce a high-quality device that is at the forefront of practical mobile laser scanning devices.”

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