

Underground Mining & Tunnelling Geotechnical Services

Our well respected team has extensive industry knowledge and experience in a diverse range of disciplines. Our work covers data collection, short term secondment through to peer reviews and investigations for lawyers.

With our engineering knowledge and skills using a variety of software packages we are able to provide safe, cost-effective and problem solving solutions which reduce mine operating costs, increase productivity and maximise economic extraction. Our geotechnical team work closely with our in-house or client's mining engineers to provide practical solutions.

Underground Geotechnical Capability

- Conceptual, scoping, pre-feasibility and feasibility studies e.g. Cibaliung (Indonesia), Tomingley (Australia), Angas Place (Australia)
- Underground ground support design, stability analysis
- Numerical stress analysis in linear-elastic and non-linear codes, including Map3D, Abaqus, 3DEC and FLAC 3D (Peak, St Barbara, Northparkes)
- Excavation instrumentation and monitoring using state-of-the-art systems
- Geotechnical reviews and audits (e.g. Henty, Stawell, Angas Place)
- Stability assessment of stoping areas, stoping sequencing advice
- Ground awareness training
- Geotechnical data collection - core logging and underground mapping (training or actual work)
- Ground support review and optimisations to assist in achieving faster development rates
- Stress measurement programs and stress monitoring
- Seismic monitoring, analysis and data review
- Dynamic ground support design (for seismic conditions)
- Operational support and mentoring of junior engineers
- Ground support audits
- Extensive portal and boxcut design
- Shaft assessment and design

Example Projects by Mining One Personnel

- Bendigo Mining Limited (Australia): Ground support design, operator training, operational geotechnical support, shaft construction supervision, long term involvement
- Victor South, Long Shaft (Australia): Numerical modelling, including room and pillar designs, stoping guidelines and sequencing
- CSA Cobarr mine (Australia): Stope design and sequencing, including 3D stress modelling
- Plutonic gold mine (Australia): Operational Senior Geotechnical Engineer role
- Stawell gold mine (Australia): Operational support, ground support design, project assistance as required, long term involvement
- Ballarat gold mine (Australia): Operational support, ground support design, project assistance as required, long term involvement
- Tritton Copper (Australia): Ground support and pillar designs as well as feasibility studies and stress measurements
- Numerous Portal Designs completed, including A1 gold mine, Fosterville, Hera Gold Project (various states in Australia)
- Shaft design and peer reviews e.g. Pike River, Solid Energy (New Zealand), Cibaliung (Indonesia), Peak gold mine, Bendigo Mining, Stawell gold mine and Ballarat (Australia)
- Ground support selection, optimisation and QA/QC for CityLink and EastLink, Melbourne



ABOUT US

Mining One is an exciting team of highly experienced and professional mining, geotechnical geological and hydrogeological consultants offering excellence in service and commitment to their clients with high level strategic, hands on practical design and implementation.

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For more information on any of our services please visit at:

www.miningone.com.au