

COMPANY OVERVIEW

Global Mine Design (GMD) provides best practice geomechanical engineering services to the mining industry. Our speciality is data driven decision-making. Our goal is to continually optimise your operational mining strategy by determining how ground conditions will evolve during extraction. This information is invaluable for creating safe, timely, and economic mining plans.

GMD was borne from a passion to understand the behaviour of soil, rock, and man-made ground material. Our foundation lies in being able to distinguish influential ground properties and communicate their effect on mining projects.

Whatever stage your venture is in, from concepts to fully established assets, GMD provides a complete range of mine engineering, blasting, and geomechanical services.

GMD is unique in focusing on ground material and behaviour when selecting successful mining methods. All of our personnel are field-trained to observe even the smallest anomaly

in typical conditions. Our extensive data evaluation techniques, using existing mine monitoring systems or dedicated systems that we design, allow us to search out the ground properties that directly influence key mine design criteria. Using sophisticated in-house modelling and monitoring techniques, we analyse data to produce design solutions that maximise production efficiency by saving cost and time.

We believe 'good engineering is about having options'. We use the latest reporting technology to present our solutions in a manner that be implemented from the worker level up, driven by the management level down.





Global Mine Design (GMD) provides the variety of services listed below. For more information and to read case studies of our work, visit our website <http://globalminedesign.com>

OPTIMISED MINE DESIGN

- Feasibility study and project support
- Mining method selection
- Detailed orebody extraction options
- Life of Mine planning
- Optimisation of mine layouts
- Design of ore handling infrastructure
- Drill & Blast design and operational management

DATA COLLECTION, ANALYSIS AND PRESENTATION

- Applied evaluation of seismic data
- Modelling and evaluation of underground stress conditions
- Open pit mine stability analysis
- Interaction between open pit and underground operations
- Design of site investigation programs for studies and projects
- Collection of as-built survey data using photogrammetry and laser scanners
- Design and build of fully integrated ground monitoring network arrays
- Data presentation – 5D visualisation of solutions

GROUND CONTROL MANAGEMENT

- Immediate response to ground falls
- Ground failure reporting and assessment
- Characterisation of influential ground properties
- Design of ground support systems for static and dynamic conditions
- Backfill selection and application
- Review of ground control quality control practices

CONTRACT SERVICES

- Provision of defined-term contract engineers to cover personnel shortages
- Site supervision during engineering works

AUDITING

- Internal management system compliance
- Preparation and audit of Ground Control Management Plans

SERVICES

- ▶ Providing specialist mine design solutions
- ▶ Feasibility studies and project evaluations
- ▶ Design and implementation of ground support and excavation monitoring systems
- ▶ Achieving economic mine designs at existing operations
- ▶ Developing protocols for mining in dynamic ground conditions
- ▶ Understanding the rockmass response to mining
- ▶ Advice to civil engineering and construction projects

