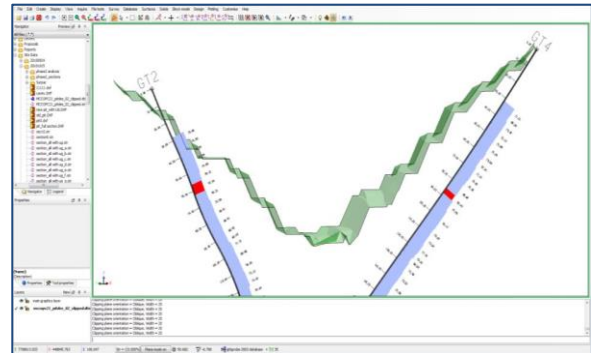


GEOHART is a geotechnical consultancy servicing the following areas:

- Open cut mine design
- Open cut mine slope stability assessment
- Open pit due diligence

Geohart Consultants is a mid-tier international mining geotechnical and geological consulting firm. With offices in Melbourne, Perth, Brisbane and Auckland we are central to the majority of our projects. We have successfully served more than 200 projects in Australia, China, South Africa, UAE and Philippines. The completed projects include geological/geotechnical evaluation, site inspection, geotechnical feasibility and design services, project management and site assistance services, from Greenfield projects to operational mines.

The geotechnical data is assessed and reworked to produce a rockmass classification. The rockmass classification (e.g. RMR) is used to empirically derive slope angles which are displayed in a format where the client can easily recognise design problems.



RMR values used to evaluate open cut slopes.



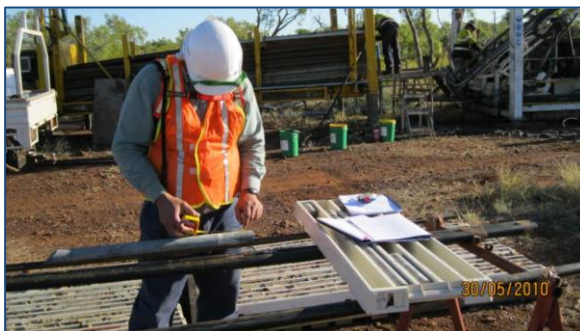
Core drilling supervision - North Queensland.

Geohart supplies site geotechnical drilling supervision and logging services.

Geohart further assists clients with regular in-pit inspections, waste dump inspections and risk assessments.

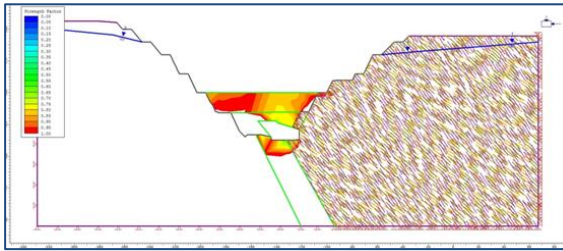


Open cut final bench blast preparation.



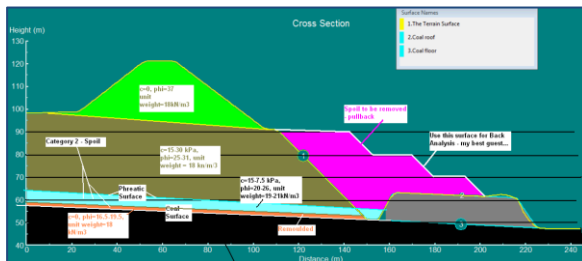
Geotechnical logging of core.

Geohart assesses overall risks, such as old underground mine workings which may have an impact on slope stability.



Phase² numerical analysis of underground cavity for pit bottom and slope stability.

Spoil removal for pit extraction is an art and could sometimes lead to instability. Geohart Consultants are capable of assessing a variety of problems using limit equilibrium analysis software.



Slope stability limit equilibrium 2D model.

- Mine geotechnical site investigations and program review
- Desktop studies and project management for feasibility projects
- Ground control management plan (GCMP) / Strata instability principal hazard management plans (SIPHMP) development and reviews
- Slope stability analysis, design and review
- Ground water and pore pressure evaluation for pit stability
- Blasting practices review and vibration monitoring
- Waste dump design
- Risk assessments (activity and process orientated) and ground related incident investigation
- Training – geotechnical training of mine management, shift supervisors, geotechnical personnel

Projects:

- Kumba iron ore pits geotechnical process review
- Sishen Iron Ore – Geotechnical review
- Hazelwood coal open pit – Ground Control Management Plan development
- Hazelwood coal open pit – quasi static slope stability assessment
- Hazelwood coal open pit – Bow Tie XP risk assessment
- Hazelwood coal open pit – site assistance
- Sunrise Dam Geotechnical – Review open pit mine geotechnical services
- Unity Mining – Dargues Reef boxcut
- Straits Resources – North East pits stability reviews
- Copperchem – Great Australian open pit Cloncurry, QLD

Geohart specific services:

- Site geotechnical drilling supervision, logging, sampling and reporting



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ABN: 20 614 120 731

Certification: ISO 9001:2008; ISO 14001:2004; BS OHSAS 18001:2007

