



GOLDEN ROCKS

GEOLOGY & MINING

- **Who We Are**

We are a group of engineers, scientists and technical professionals committed to provide best in class mining and geological exploration solutions across the Middle East. We specialize in mining, geological exploration, geological studies , geophysics , geochemistry , geotechnical engineering, special geotechnical studies, land and marine surveying, and environmental studies .

The company includes a team of highly qualified professionals with extensive experience in multiple fields, including geology, mining engineering, geotechnical , geophysics, geochemistry, mineral resource estimation, project management, data management, in addition to experts in geographic information systems.

WHY GOLDEN ROCKS

Experience

Our mining experts have experienced first-hand the day-to-day complexities and issues that arise at the mining face, giving them a higher level of understanding and insight to meet your challenges.

Practical Solutions

By implementing level-appropriate transformation tools, our behavioral and cultural change methodologies, data management, and analytics, our goal is to create a sustainable and positive impact on your mining operations.

Results-driven

We go beyond strategy to offer a direct and measurable approach to success. Our commitment extends to delivering real business outcomes and helping your team sustain those changes for the long haul.



Our Vision

We strive to optimize safe operations, maximize profitability, and drive sustainable growth for our clients.

o To become the pioneer in providing consulting solutions and services in the field of geology and mining, with our commitment to innovation and quality to meet the needs of our clients and achieve the goals of Saudi Vision 2030.



Our Mission

To provide mine operators with strategic business intelligence needed to identify, quantify and prioritize value creation opportunities.

To be your trusted partner in your exploration journey, providing you with the advisory and technical support you need to achieve success in your projects while adhering to the highest standards of quality, safety and compliance with international specifications.



Our values

Innovation

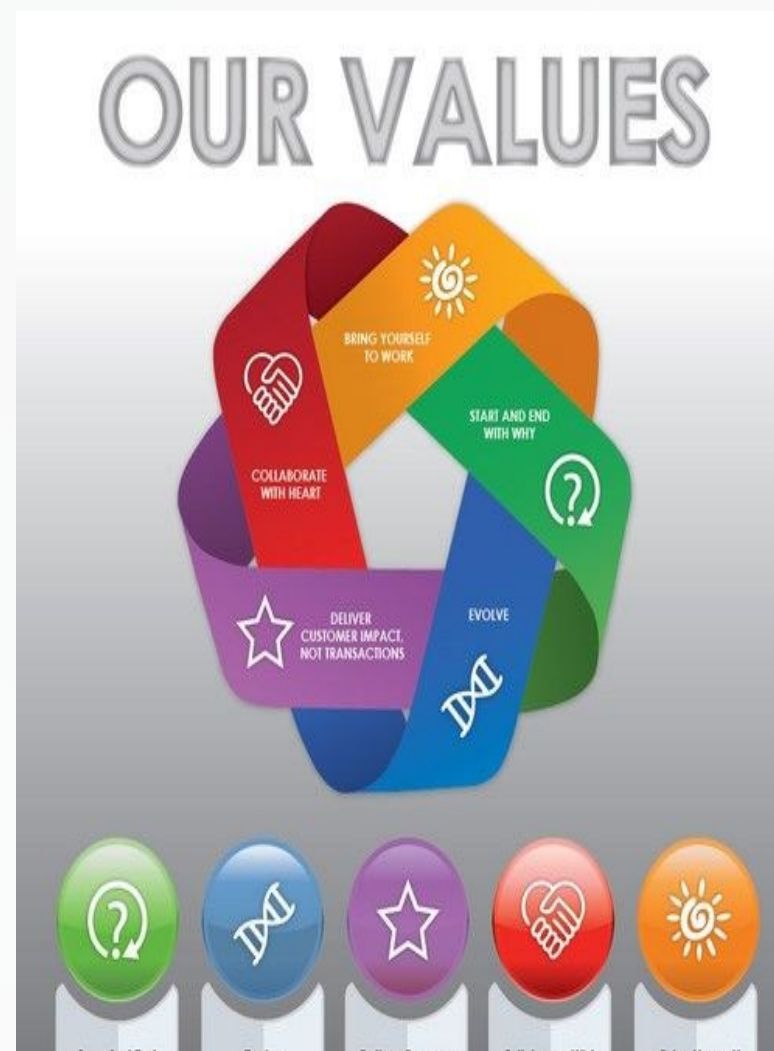
We keep pace with the latest developments in the mining and geology industry.

Integrity

We deal transparently with our customers and partners and adhere to the highest standards of ethics in all our dealings.

Quality

Providing high-quality services and products that meet our customers' expectations and comply with international standards.



Professionalism

We strive to achieve outstanding results through a qualified and specialized team.

Cooperation

We believe in effective cooperation with our customers and partners to achieve common goals.

Value Chain

Mine Planning

Master Schedule Strategy
Drill & Blast Strategy
Dilution Optimization Strategy
Maintenance Strategy
Reliability Strategy
Cutoff Grades & Life of Mine (LOM)

Data & Analytics

- Data by Equipment
- Data Visualization
- Architecture Centralization & Monitoring
- Data Governance
- Advanced Analytics
- Industry 4.0
- Digital Twins

Drilling & Blasting

Cost Per Ton Blasted
Pattern Compliance
Mining Sequence Optimization
Fragmentation Strategy
Cycle Time Optimization

Exploration & Studies

- DD , Air , RC , Water drilling
- Reconnaissance studies
- Preliminary, overall, details geological studies
- Geotechnical studies
- Geophysical studies
- Mineral resource estimations and ore reserve
- Environmental studies

Load & Haul

- Road Management
- Cycle Time Management
- Payload Improvements
- Delay Management
- Queue Management
- Dispatch Optimization
- Pit Conditions
- Pre-Spotting & Double-Sided Loading

Leadership & Talent

- Effective Skills Programs
- Workforce Planning & Analytics
- Organizational Design
- Change Management

Our Services

At Golden Rocks Co, we are proud to offer a wide range of services across five key sectors, each reflecting the highest standards of quality and a steadfast commitment to excellence. Our dedication to these principles distinguishes us from our competitors.



CONSULTING SERVICES

1. Reports and Licensing for the Ministry of Industry and Mineral Resources

- Providing consultancy for preparing environmental and social impact assessment reports, rehabilitation, and closure plans.
- Submission and follow-up of exploration and exploitation licenses through the Tadeen platform.
- Preparing economic feasibility studies and work programs for exploration licenses.
- Defining administrative areas for the required licenses.

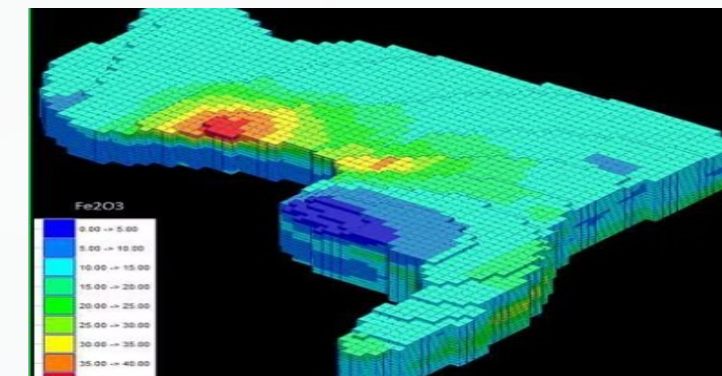
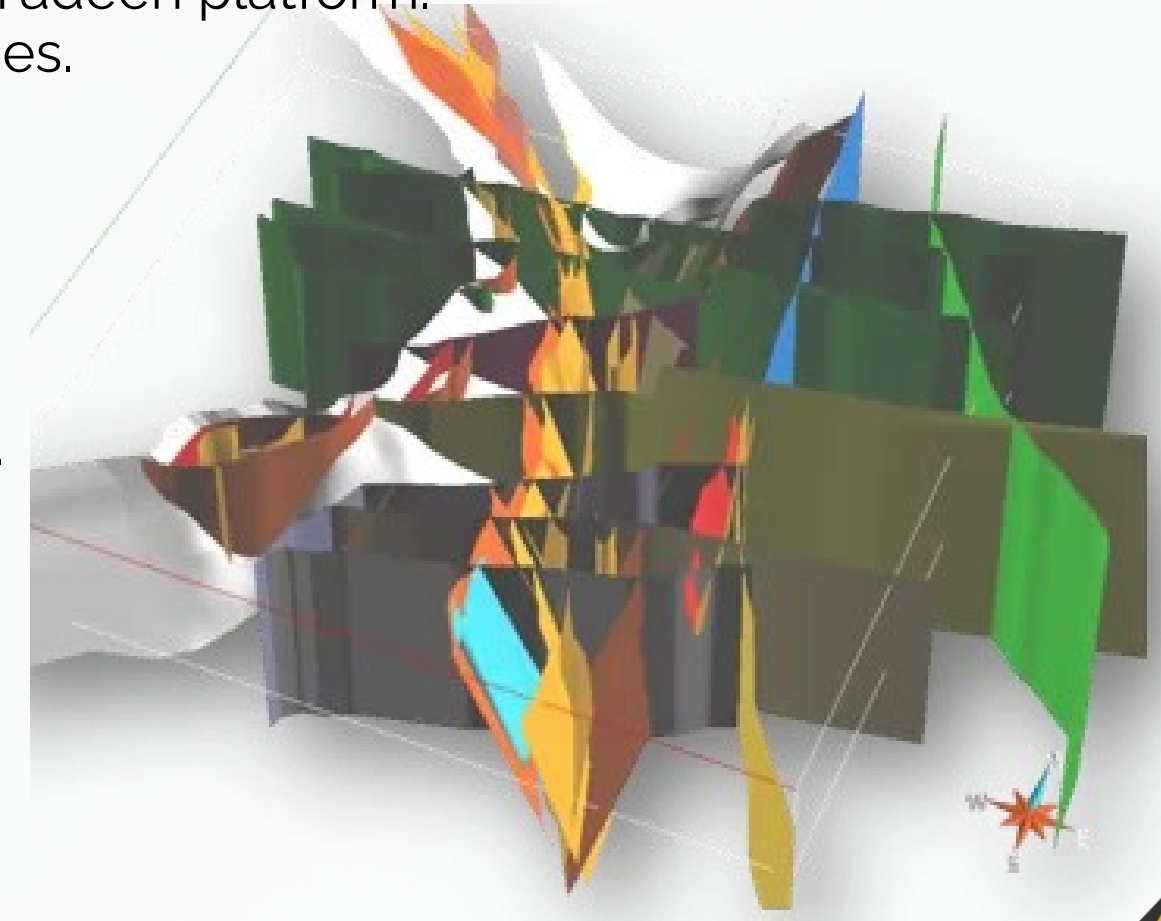
2. Exploration and Mining License Services

-Mine Planning and Design

- Selection of optimal mining methods, fleet analysis, and productivity evaluation.
- Mine infrastructure design, material handling, and backfilling management.
- Engineering and geotechnical assessments for sustainability and efficiency.
- Production planning and development of optimal mining strategies.
- Financial evaluations and risk analysis for sound investment decisions.
- Operational support through mine planning reviews and audits.

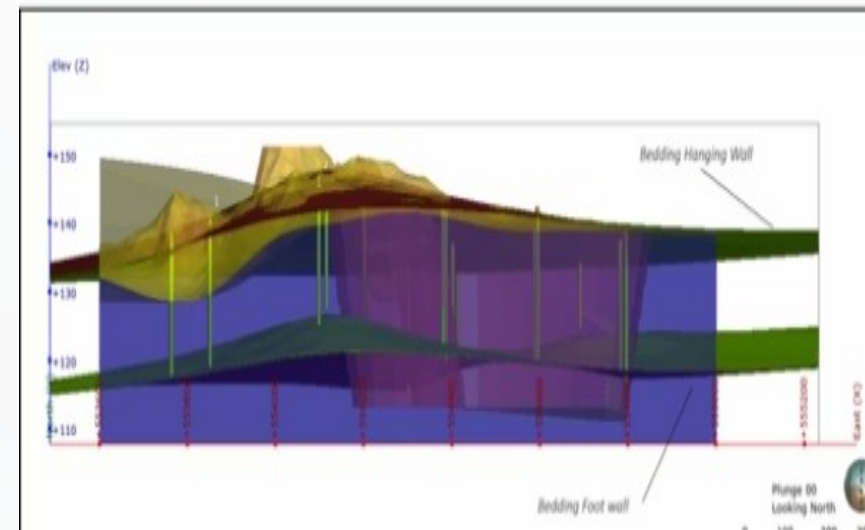
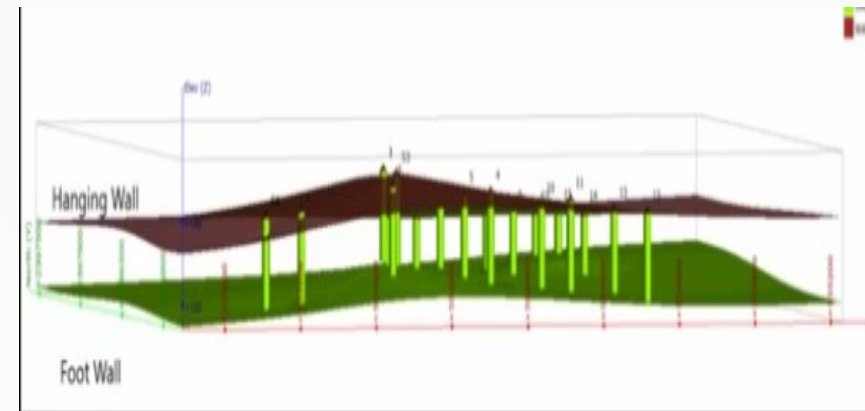
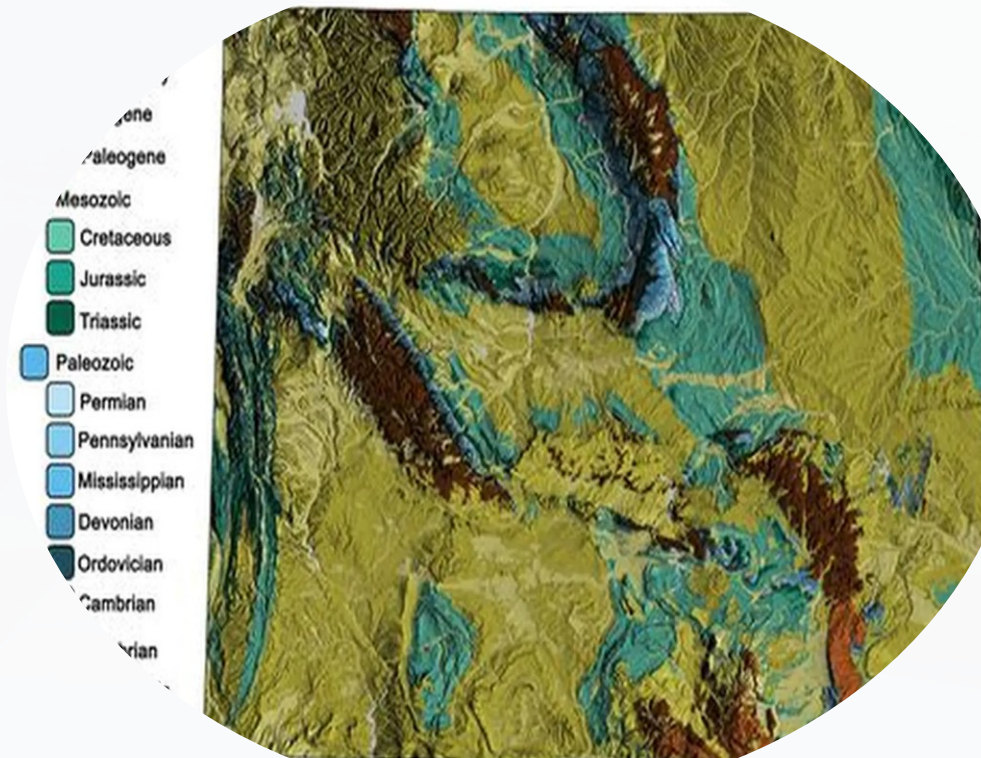
3. Resource and Reserve Estimation

- Geological Estimation and Modeling Techniques: 3D modeling, ore distribution simulation, data management, and quality assurance (QA/QC).
- Software Used: Surpac, Minex, Datamine, Vulcan, Gocad.



Complete Geological Investigation

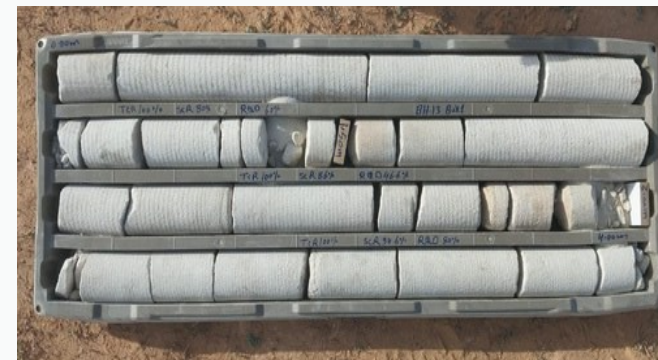
- Field Prospecting
- Geological Mapping
- Structural Geology
- Reconnaissance, Preliminary and Detailed Raw Materials Investigation
- Exploration Services



EXPLORATION SERVICES

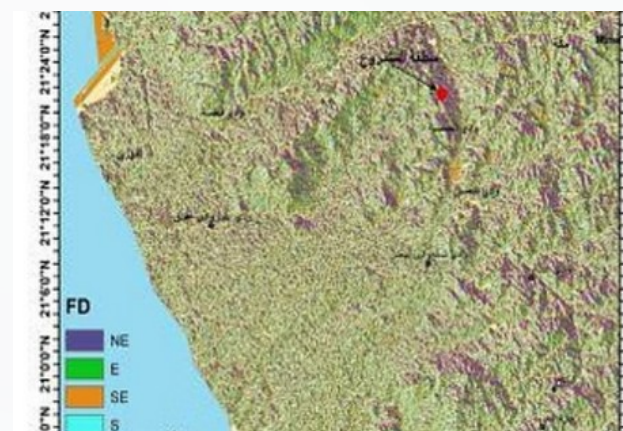
Drilling Works

- Diamond Core Drilling
- Rotary Drilling
- RC Drilling
- Air drilling
- water drilling



Remote Sensing

- Satellite Imagery
- Data Processing
- GIS Integration



Geophysical services

Electrical Resistivity test

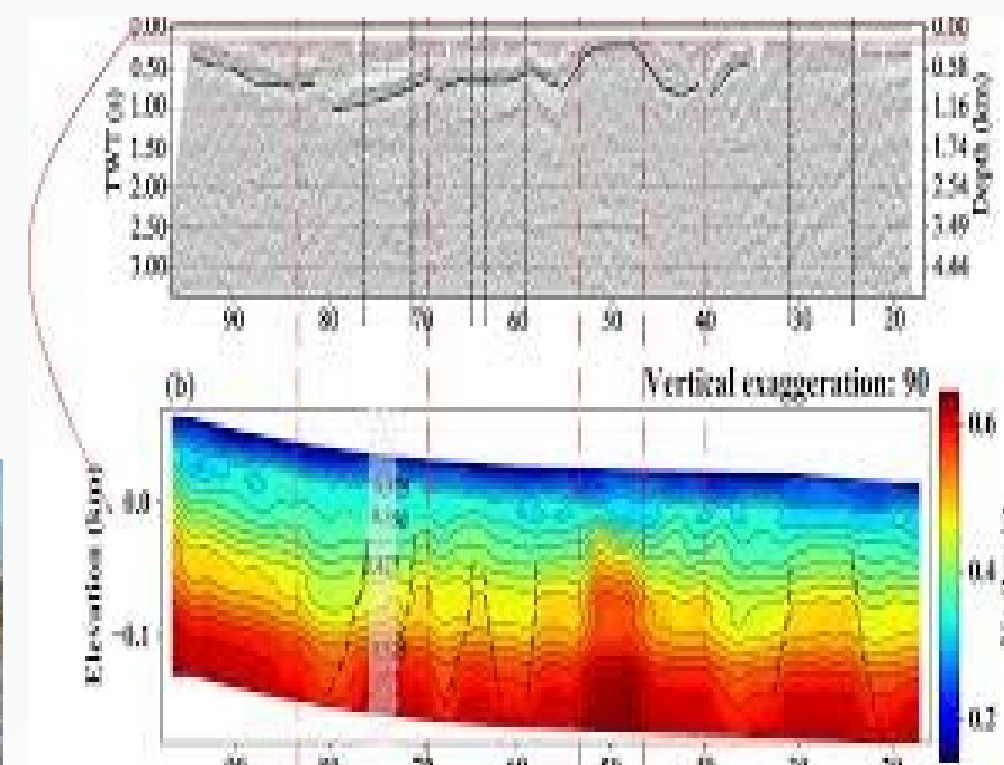
- Electrical Resistivity tomography (2D & 3D-ERT)
- Vertical Electric Sounding (VES)
- Induced Polarization (IP)
- Seismic Refraction (2D SR)

Surface Seismic Methods

- Spectral Analysis of surface waves (SASW)
- Multi-Channel Analysis of Surface Waves (MASW)
- Seismic Reflection (3D SR)
- Seismic Nodes

Ground Penetration Radar (GPR)

- 25MHZ Antenna
- 100MHZ Antenna
- 200MHZ Antenna
- 12.5MHZ Antenna



Geophysical services

Borehole Seismic Tomography

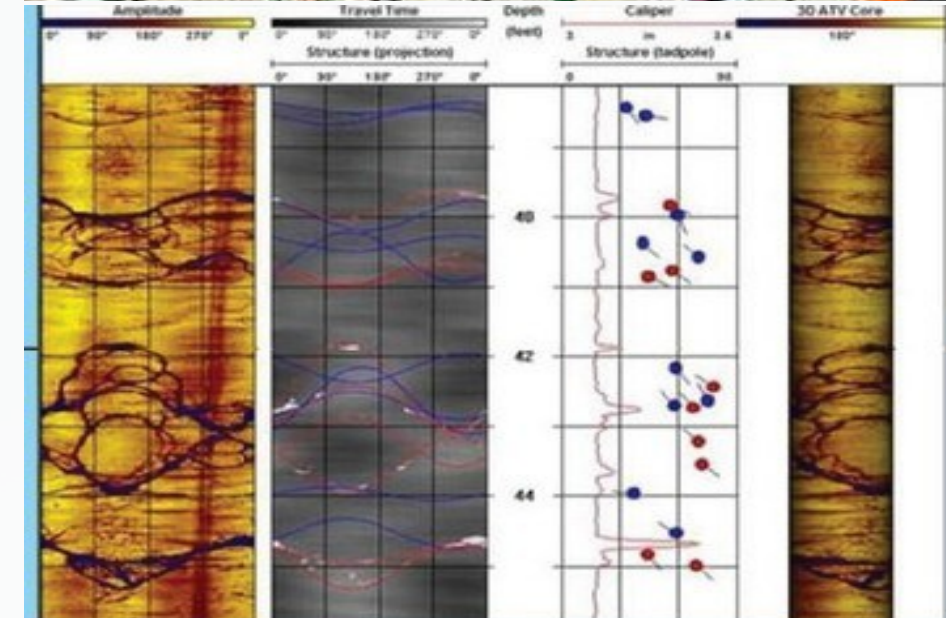
- Cross-hole Seismic Tomography
- Parallel Seismic Test (P.S.T)
- Single-hole Seismic Tomography

Borehole Seismic Surveys

- Down Hole Seismic Test
- Standard Cross Hole Seismic
- Full Wave from Sonic Logging

Borehole Geophysical Logging

- Fluid Resistivity – Conductivity
- Fluid Temperature
- Three Arm Caliper
- Impeller Flow meter
- Gamma – Gamma
- Deviation (Vertically)
- Acoustic Televierer Logging
- Optical Televierer Logging
- Marine Electrical Resistivity Tomography (Marine ERT)
- Sub-bottom Profiler Survey (Seismic Reflection)
- Video logging



Surveying Technologies and Services

Drone Survey

- Accurate survey (up to 5cm) in inaccessible areas
- Generation of orthophotos for the survey areas
- Point cloud generation, either directly from LiDAR or through photogrammetry

Mobile Mapping

- Speedy topographical surveying
- Accuracy in all areas that may be hard to reach with GPS systems
- Quality Control and Data Archiving
- All data documented with relative dates and pictures
- The formation of High Quality and Accurate databases

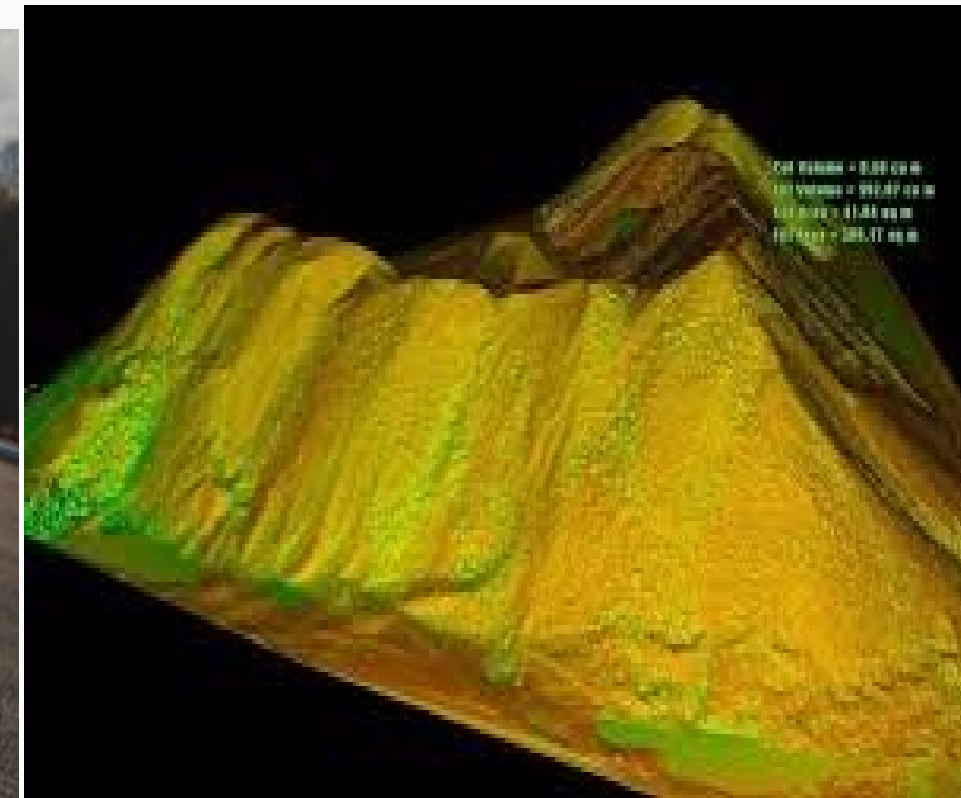


3D Laser Scanning

- 3D Laser Scanning is a non-contact, non-destructive technology that digitally captures the shape of physical objects using a line of laser light. 3D laser scanners create "point clouds" of data from the surface of an object. In other words, 3D laser scanning is a way to capture a physical object's exact size and shape into the computer world as a digital 3-dimensional representation.

Conventional Survey

- GPS
- Total Station
- Auto and Digital levels
- Topographic Survey
- Settlement monitoring
- Earthworks volume calculations
- Architectural and volumetric survey
- GIS and remote sensing services
- Ground and structural monitoring
- Geomatics and Geospatial services
- Underground utility survey services



MINING SERVICES

Our company of mining fleets operated by our experienced mining technicians team delivers the best mining operations (drilling, blasting, loading and hauling) to the mine site and help in optimizing targets, increasing production, analyze and reduce risks, and improve safety and manpower requirements by using the best mining applications and reporting systems.



Mine Design and Planning

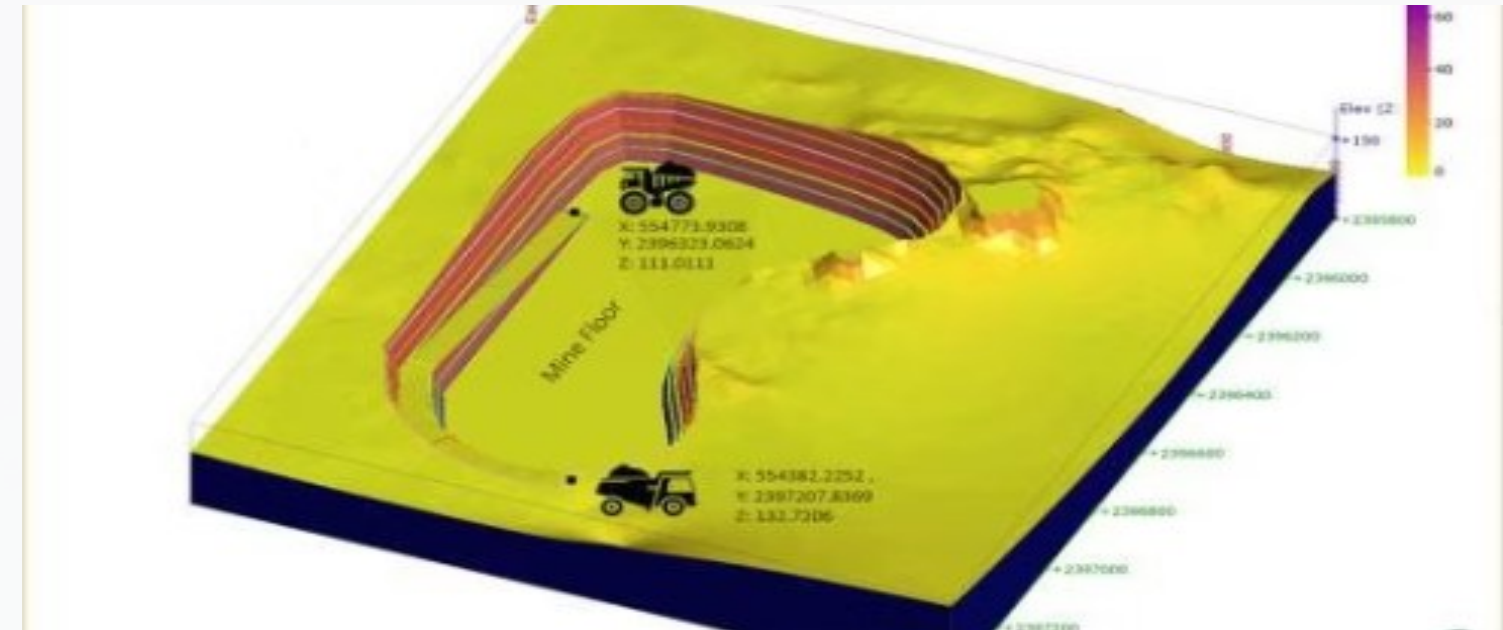
- **Mine/Quarry design**

- Mine/Quarry access and services designs
- Stockpiles and waste dumps designs
- Waste/ore definition
- Determination of fleet requirements
- Mine/Quarry opening details and developments
- Detailed mine production plans and scheduling
- Complete long-term & short-term mining plans
- Detailed shift-by-shift scheduling of all activities
- 3D visualization models
- Capital and operating cost estimates

Drill and Blast

Our drill and blast services include:

- Drilling pattern design
- Blasting circuit design
- Supplying authorized Shot – Firer
- Blast monitoring reports
- Obtain blasting permits for projects
- Supply explosives and detonators to blasting sites



Mine and Quarry Management

Our expertise in mine development, planning, and project management can significantly extend the lifespan of a mine. By utilizing the latest techniques and specialized equipment, you offer more profitable solutions for mining projects, innovative methods to tackle challenges, and ensure optimal equipment utilization with safety as a top priority.

We are equipped to deliver comprehensive mine management services and are fully capable of:

- Initiating and implementing mine/quarry designs and production plans.
- Providing your site with all required equipment for short or long-term.
- Optimizing operational equipment.
- Initiating drill and blast designs.
- Drill and blast implementation.
- Initiating and implementing grade control drilling and reconciliation.
- Providing on-site technical personnel required for short or long-term vacancy periods across technical and operational roles at senior and junior levels.



EARTHWORK & TAILING DAMS

Our earthworks consist of mucking and hauling the blasted materials to correct designated areas. It creates access roads for mines and quarries. Services are composed of drilling, blasting, ripping and dozing breakage of oversize rock, digging and hauling.

- Land survey and design
- Earthworks and perimeter Embankment construction includes blasting (if any)
- Distribution system
- Piping and mechanical works
- HDPE geomembrane.
- Waste distribution system
- Water management system
- Dewatering



INDUSTRIAL OPERATIONS AND MAINTENANCE

Our services:

- Commissioning and project management solutions;
- Engineering solutions;
- Plants maintenance services (installation and commissioning, inspection, preventative maintenance, and corrective maintenance)
- Plants upgrade and refurbishment activities;
- OEM spare parts and upgrades.

Specialized Works:

- Ball and Vertical Mills Maintenance (liners, diaphragms, tires, damring, rocker arm replacement)
- Pan Conveyors (buckets, rails, sprockets replacement)
- Bucket Elevators (chain, belt, buckets, and bearings replacement)
- Crushers (apron feeders, liners, hammers, bearings replacement)
- Patching, Ducts, and Expansion Joints' Works.
- Mills liners and bearings
- Clinker Cooler (grates, alignment, fixed and movable beams replacement)



Environmental services

Golden Rocks provides environmental services in the areas of air pollutant measurement as follows:

- Measuring air contaminants in the workplace.
- Monitoring of ambient air pollutants (PM_{2.5}/PM₁₀- SO₂- NO₂- O₃- CO- CO₂).
- Measurement of gas emissions in industrial facilities.
- employing the most recent dispersion modeling software to model air pollutants and creating regular environmental studies and reporting on environmental measurements of air and water pollutants..



Quality policy

The operation of the Quality System is subject to continuous review at the highest management level, to ensure that the established standards are maintained and improved wherever necessary. Has introduced systems that will set and review measurable quality objectives. The management actively encourage to personnel to demonstrate their own personnel commitment Quality to and to accept the responsibility for the achievement of the highest standards of workmanship.



Safety Policy

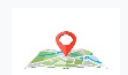
Golden Rocks will comply with its duties towards employees' requirements so far as is under local legislative reasonably practicable in order to:

- Ensure the safety and absence of risks to health in connection with the use, handling, storage and transport of articles and substances.
- Provide such information, instruction, training and supervision as may be necessary to ensure the health and safety at work of its employees.
- Make regular risk assessments available to employees, take appropriate preventative / protective measures. Provide employees with health surveillance necessary.
- Appoint competent personnel to secure compliance with statutory duties and to undertake reviews of the policy as necessary.





Contact us



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