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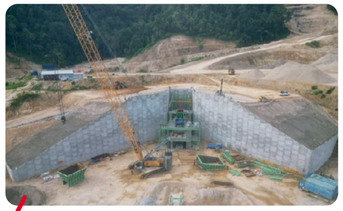

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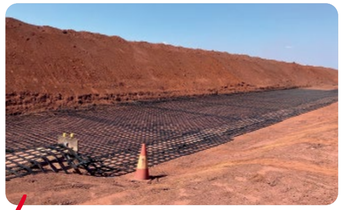

Mine soil reinforcement, Australia

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Geotechnical engineering, innovative solutions to

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GEOQUEST

Mining

As demand for critical minerals accelerates, mining operations are being pushed to deliver more, faster, and safer than ever before. Yet many projects are moving into remote, geotechnically complex and environmentally sensitive environments where conventional construction can't keep pace. Geoquest delivers resilient infrastructure solutions that perform under pressure, reducing risk, improving safety, and strengthening outcomes across the full mine lifecycle. From early development and operation to expansion and closure, mining infrastructure must withstand extreme loads from heavy machinery, unstable or weak ground conditions, seismic and climatic exposure, environmental and regulatory constraints.

Traditional construction methods are often too rigid, too slow or costly for today's mining realities. At Geoquest, we engineer solutions that go beyond reinforcement, we deliver resilience. By combining geotechnical expertise and innovative solutions, we help mining companies build smarter, operate safely and reduce risk at every stage of their projects.

Managing risk across the full mining lifecycle

Mining operations face interconnected challenges that cannot be addressed separately:

- Ensure stability and constructability in demanding environments and complex ground conditions.
- Manage water, drainage, and erosion to protect infrastructure and environmental performance.
- Deliver durable transport and logistics infrastructure under heavy loads and harsh conditions.
- Assure reliable operation of heap leaching structures under conditions of heavy loads, steep slopes, and exposure to chemicals.
- Secure long-term tailings and water containment in the face of settlement and extreme weather.
- Support mine closure with durable, low-maintenance solutions that reduce long-term risk.

Geoquest delivers a comprehensive and coordinated portfolio designed specifically for mining applications, combining engineered solutions that work together across the site to support performance, safety and long-term resilience.

Our mining solutions

Walls, slopes & load-bearing structures

High-capacity retaining and reinforced structures using Reinforced Earth® walls and slopes, and TerraLink® solutions for extreme loads and long-term stability.

Crushed ore and coal storage structures

Custom solutions based on Reinforced Earth® steep slopes technique with concrete facing designed for the storage and discharge of buffer volumes.

Buried tunnels and underpasses

Earth-covered structures using TechSpan® and corrugated steel solutions, providing robust, rapidly installed tunnels and underpasses capable of supporting heavy mining loads while ensuring efficient durability and reliable performance.

Heap leach pads, safe liquid storage & process infrastructure

Integrated reinforcement, liner support, and drainage using ArmaLynk®, ArmaWeb®, ArmaForce, and ArmaFlow solutions for reliable performance.

Access, platforms & logistics

Ground reinforcement and drainage structures with ArmaLynk®, ArmaWeb®, and ArmaFlow solutions for durable logistics infrastructure.

Drainage, erosion & site resilience

Water management and erosion control using FFCM (Fabric-Formed Concrete Mattresses) and ArmaFlow solutions to protect infrastructure under all operating conditions.

Geohazards & risk control

Protective nets and barriers designed to mitigate rockfall and slope instability across mining environments.

Why mining operators choose Geoquest

Geoquest solutions deliver measurable value across mining operations:

- Deliver extreme performance under heavy loads, vibrations, and demanding operating conditions.
- Provide flexible, modular solutions adapted to complex geometries and evolving mine layouts.
- Reduce construction time and site disruption through efficient precast and geosynthetic solutions.
- Ensure efficient durability against seismic activity, chemical exposure, erosion, and deformation.
- Enhance environmental protection through integrated containment, drainage, and barrier structures.
- Support full lifecycle performance with solutions designed for closure, rehabilitation, and regulatory compliance.

Engineered strength for mining challenges

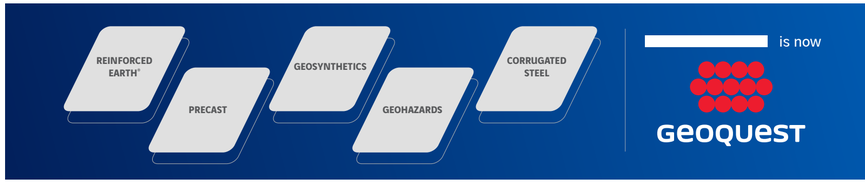
As the mining industry continues to evolve, the need for infrastructure that is not only robust but also high performing has never been more crucial. From the depths of underground operations to the heights of tailings dams and haul roads, every structure must withstand pressure, both literally and figuratively.

Geoquest brings more than materials; we bring expertise. Our approach is based on technical excellence, in-depth knowledge of geotechnics, and a strong commitment to increasing performance. Whether accelerating project timelines, ensuring operational safety, or reducing environmental risks, our solutions are designed to meet the future and current needs of your project.

In an industry where the margin for error is minimal, Geoquest supports mining companies to build with confidence, operate safely, and grow with agility.

Services tailored for your projects:

Engineering & design	**Operational sourcing**	**Installation support services**
Mineral processing support	**Operations & closure**	**Lifecycle project support**

From Reinforced Earth® to corrugated steel, passing through precast, geosynthetics and geohazards, Geoquest supports your projects with expertise for operational excellence.

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