



geoquest

Mining

Mining

Overview

An Industry Leader

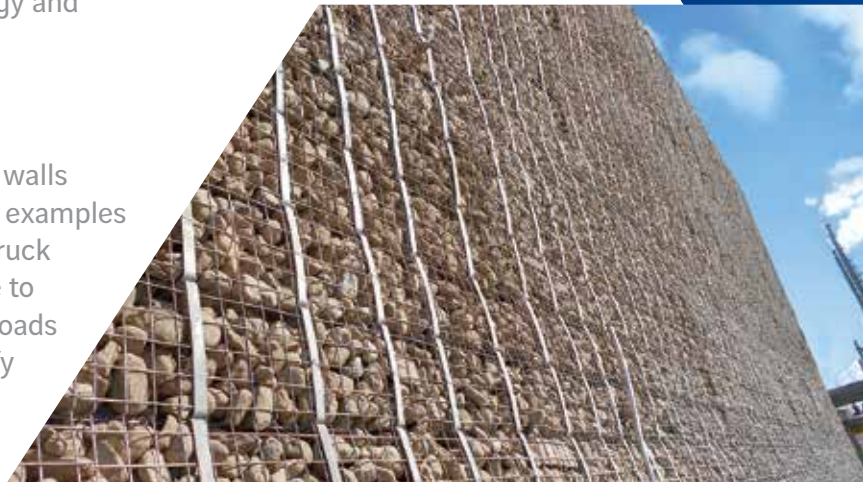
The contribution of Geoquest Canada, formerly known as Reinforced Earth Company Ltd. (RECo) to the mining industry in Canada started almost in parallel with the origins of the Company. The Company's operations started in 1970, and it was just four years later when Geoquest designed and supplied our first MSE truck dump structure ever built in Canada. Since then, over a hundred structures have been installed for the mining, oil & gas, energy and industry sectors from Canadian coast to coast.

Experts in complexity

Designing heavily loaded structures, high vertical walls and reduced tolerances for deformation are some examples of our daily activities. Applications ranging from truck dumps, reclaim tunnels and slot & conical storage to bridge abutments and retaining walls for access roads are carefully designed and manufactured to satisfy the Owner's requirements, giving them the confidence of having the safest and most competent structures with proven successful performance.

Your Peace of Mind is Guaranteed

In line with the Owner's needs, Structure Assets Management (SAM) is another important service that Geoquest offers to the Owner of any of our structures. During the use of the structure, the mine's requirements may change from the original design conditions. Common requests among other project-specific requirements include extending the structure's service life and changes in the load surcharges due to new and bigger equipment.



The Value of Experience

For nearly 50 years, Geoquest has been delivering solutions for mining and industrial clients. Understanding the needs for safe, reliable structures with little to no maintenance, we design and supply retaining wall structures and precast arch tunnels and crossings.

Applications to date

- Heavy Haul Road 'True' and 'False' Bridge Abutments
- Slot and Conical Storage
- Ore Preparation Dump Walls
- Access Road Walls
- Heavy Rail Road Support
- Conveyor Underpasses
- Reclaim Tunnels
- Thickener Settlement Tank Support Walls
- Other Plant Site Structures



Products

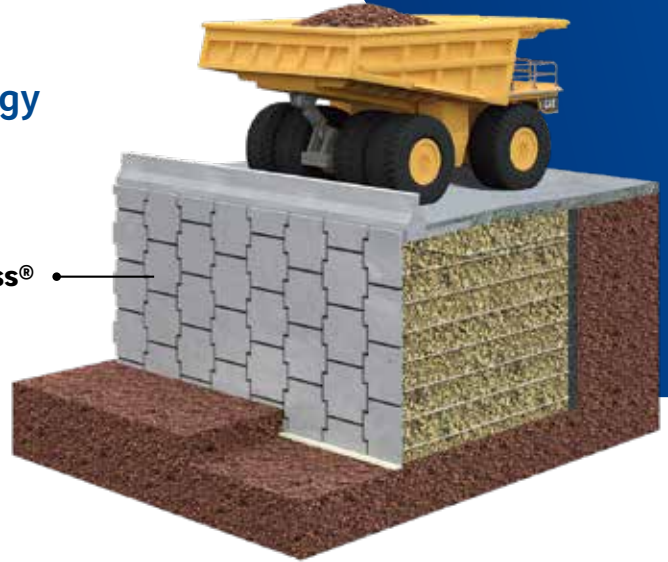
At Geoquest we can optimize our products to meet the Owner's specified design life. Varying thickness of steel, mix design of concrete, and addition of hot-dipped galvanizing, each product can be tailored to provide economy and durability for life.

Reinforced Earth® Wall Systems: The Original Reinforced Earth® Technology

Reinforced Earth® structures combine select and controlled granular backfill with steel or geosynthetic tensile reinforcements and a modular facing system. The facing is generally comprised of TerraClass® or TerraPlus® precast concrete panels in a variety of shapes (cruciform, square, rectangular), or TerraTrel® welded wire mesh which provides versatility for a variety of permanent or temporary applications. This ideal combination creates a long-lasting gravity retaining structure.

This technology can be adapted to suit retaining walls of any height. It is also capable of supporting major dead and live loads imposed by the associated structures, vehicles or other equipment or surcharge.

TerraClass®



TerraTrel®



Advantages

- Strength, flexibility and resilience
- Expected long service life and profitability
- Adaptability to a wide range of environments

TechSpan Precast Arches: The Perfect Custom-Designed Arch

Over 30 years ago, Geoquest developed the TechSpan® precast concrete arch system. This technology is based on the Group's soil expertise and finite element analysis, which paved the way for the development of this three-hinged system of two funicular curve-shaped segments.



Advantages

- Efficient, customizable shape
- Fast, simple construction
- Long service life with low maintenance
- Lower life cycle cost over metal arches
- Small environmental footprint



Site Access & Relocation

Together with the project stakeholders, we rise to the challenge of building structures that allow access and workability for extraction, storage and production.

Advantages

- Construction on poor and marginal soils
- Straightforward construction at sites, even in remote areas
- Not limited by weather constraints



Containment & Risk Mitigation

Through their intrinsic characteristics, our structures contribute toward mitigating environmental and industrial risks.

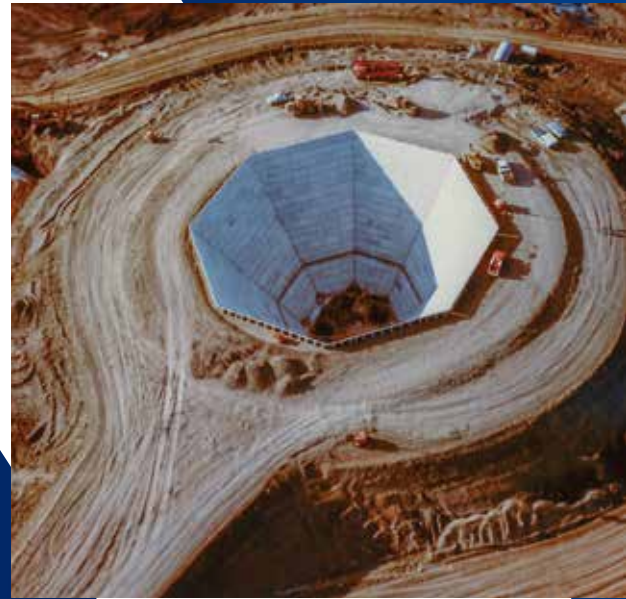
Advantages

- **Contains accidental flooding of aggressive liquids**
Reinforced Earth® structures are proven to withstand the drastic impact of the leakage and ignition of cryogenic volatile fluids.
- **Resists fire & thermal shock**
Materials that constitute our structures are substantially non-flammable and fire-resistant.
- **Protects against explosions**
Reinforced Earth® is a highly stable barrier that impedes the propagation of a blast at ground level and absorbs high levels of energy.
- **Absorbs stresses induced by seismic activity**
This is a result of the inherent ductility and resilience of our structures.



Production Process & Storage

The versatility of Reinforced Earth® allows the design of high-level engineering solutions.



Advantages

- **Supports heavy loads**

Even for tall walls, our structures have the capacity to bear loads generated by cranes, piling rigs and other heavy equipment – including the largest haul trucks in the world.

- **Withstands vibrations**

Reinforced Earth® structures are resistant to the loads associated with industrial processes such as crushing, screening and fracturing.

- **Storage solution**

Our structures are easily adapted to the storage of liquids, waste outputs and bulk materials.





To contact us and learn more about Geoquest products and services
please visit geoquest.ca/contact



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