



High Pressure potable water line

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**Antofagasta Minerals,
Pelambres Mine**
Chile | 2014-2015
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Working conditions:

Gravity flow on harsh ground at 3,400 m altitude. 300 meters elevation difference gravity flow

Pipes used:

Insulated Pexgol pipe 140 cl 50 (SDR 4.3) polyurethane insulation / Flexwell-Pex 140x32.5/233

Application:

Safe water transportation

Length:

300 m

The Challenge

"Pelambres" Mine required to install a safe water line to their new truck garage. The ground where the pipe needed to be installed was very complex with steep slopes.

The mine considered installing carbon steel pipes, but under those complicated conditions, the last 300 meter section was a very severe problem for the installation crew. The original plan considered 60 days for the assembly of that section.

The Solution

A pre-isolated Pexgol pipe was installed (Flexwell-Pex 140x32.5//233), that substituted the last 300 meters section of the carbon steel pipe. The Pexgol pipe was provided in three long sections and welded in the ground by the Golan team, who also instructed the mine workers and the contractor.

The three sections were de-coiled and were welded by electro-fusion. In the joints the polyurethane was replaced and reinforced.

The original schedule plan estimated 60 days for the installation, but with Pexgol it took only 15 days instead, with an optimal use of resources.



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Advantages

- **High resistance to wear:**
Pexgol is the preferred solution for abrasive materials transportation. Typically resists three times more than HDPE and twice more than steel.
- **Excellent chemical and corrosion resistance:**
Pexgol pipes can resist a wide range of chemical agents, slurries, toxic and radioactive materials.
- **High temperature resistance:**
Working temperatures can range from -50°C/-58°F up to 110°C/230°F.
- **Superb internal and external corrosion resistance:**
Our pipes are proven to withstand decades of exposure to corrosive environments, with non-stop performance in some of the world's harshest environments.
- **Low weight:**
Compared to steel or rubber, Pexgol's solution results in reduced transportation, storage and labor costs due to lower weight per meter.
- **Long pipe sections:**
Pexgol's pipes can be supplied in long lengths coils, reducing number of joints, installation time and risk.
- **Creep and impact resistance:**
Pexgol's crosslinking piping solution can withstand high amounts of axial and radial stresses and are highly resistant to impact, fracture and fatigue. Our pipes are also completely resistant to cracks – even when dragged over sharp rocky terrain and coagulated salt crystals.

