



Groundwater transportation with pH low levels

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Grupo México, Buena Vista del Cobre Mine
 Mexico | 2015

Working conditions:

Underground work (-250 m)

Pipes used:

Pexgol 90 mm (SDR 7.4)

Application:

Water transportation

Length:

200 m

The Challenge

At "Buena Vista del Cobre" Mine the process water was extracted from deep wells. Formerly they worked with stainless steel pipes 316 with 9 months of operational lifetime that required to be replaced due to the corrosion, as a consequence of the low pH (between 1.5 and 2.5) from the groundwater.

The Solution

The client required a more flexible pipe, with longer operational lifetime than the steel, and minimize the stops at the plant. Therefore, a 3 inch Pexgol pipe was installed in one section, holding the weight of the pump, the cables, the water column and the pipe itself. The new pipe operational lifetime is 50 years.

The client received not only a durable pipe but also a complete solution including fittings for the pump and the discharge head. For a 3 inch 250 meter steel pipe, it would require more than 40 thread joints. With Pexgol it only took 2 joints. This operation with a steel pipe it would cost \$22.000 USD, when a Pexgol operation cost just a third of it. Plus the savings the client got from avoiding to stop the production for the failures.



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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.

