



Water transportation trough shafts



# Agnico Eagle Pinos Altos Mine Mexico | 2017

# Working aditions:

300 psi, altitude difference= 174 m, mine water with 15-20% solids

# Pipes used:

Pexgol SDR 7.4 225x30.8

# Application:

Dewatering

### Length:

225 meters

### The Challenge

The ground water control system used at Pinos Altos Mine is trough dewatering, which is the method that better adjust to the characteristics of the mine work, furthermore it's the more efficient and cost-effective if it's handled the wright way.

The fluid transportation associated costs in the mining industry represents an important percentage of the total cost of the operation, consequently the development of work schemes and a hydraulic system optimization, generates important savings on operation pasts.

For the pumping system optimization the client designed a pool on level 28, that will gather the runoff water from the superior levels after pumping up to level 22.

# **The Solution**



For this conduction line a Pexgol pipe was chosen, since it fulfilled the technical features that the job required. Due its ability to be supplied in long length coils, and its capacity to hold 175 meters of water column (249 psi), plus its easy-to-maneuver and installation capabilities (since the pipe was installed through the shafts) and its supplied long sections (which prevents head losses through the joints), the Pexgol pipe was the perfect solution. In addition, the Pexgol pipe roughness coefficient is lower than other pipes, therefore less friction losses and energy savings were encountered.





### Grey water transportation for recycling

#### **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 nonstop

performance in some of the world's harshest environments.

#### • Long pipe sections:

Pexgol's pipes can be supplied in long lengths coils, reducing number of joints, installation time and risks.

#### • 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. Also are completely resistant to cracks even when dragged over sharp rocky terrain and coagulated salt crystals.



