



Transport of drinking water in harsh terrain.

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**Acueducto y Alcantarillado de Bogotá**  
Colombia | 2019  
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**Working Conditions:**

Pressure: 15 bar  
Temperature: Ambient

**Pexgol Pipes:**

Pexgol 110 mm (4"), class 15

**Application:**

Potable water transport

**Length:**

200 m / 656 ft

**The Challenge**

The Bogotá Aqueduct and Sewer Company (Acueducto y Alcantarillado de Bogotá) needed to provide potable water to the Aguas Claras area (Colombia). This community is located on place that is very difficult to access due to the topography of the place. The pipe to be installed had to go through a mountainous and vegetated area.

**Pexgol Solution**

The client chose Pexgol due to its advantages, and they also wanted to carry out this installation as a test to compare the performance of the PE-X versus the HDPE that they regularly used.

The installation was carried out by deploying the pipe on the field, with no sand bed or need to be buried, being placed and dragged directly on the ground in just 4 hours.

After 180 days of successful operation, the Aqueduct and Sewerage System in Bogotá certified the good behavior of the installed pipeline and justified its use for the following reasons:

- A 10-year guarantee was granted (for the transport of drinking water).
- The pipes are designed for a lifespan of more than 50 years.
- Easy manipulation in the field, which means fewer operators.
- Minimize the use of accessories reducing costs, head losses, labor and installation time.
- Due to its compatibility for connection with other pipes: HDPE, carbon steel, among others.



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### Advantages

#### Compatible for the transport of drinking water:

- They are designed for a lifespan of more than 50 years.
- They are resistant to high pressures.
- They can withstand water hammer up to 2.5 times the nominal pressure.
- They have a smooth internal surface that prevents sedimentation.
- Quick and safe installation.
- **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 pipes can be supplied in long coil lengths, reducing number of joints, installation time and risks.

- **Creep and impact resistance:**

Crosslinked Pexgol pipes can withstand high amounts of axial and radial stresses and are highly resistant to impact, fracture and fatigue. Furthermore, Pexgol pipes are completely resistant to cracks even when dragged over sharp rocky terrain and coagulated salt crystals.

