

Pexgol Simplifies Slurry Transportation at Buriticá Mine



Reducing maintenance and increasing safety in hydraulic backfill operations.



Zijin - Continental Gold Colombia | 2023

• Working Conditions

Temperature: 25°C / 77°F
Pressure: 8 bar
Fluid Components: Sand, water, cement
(70% solids)

• Pexgol Pipe

Pexgol 160 mm, class 15

• Application

Slurry transport for hydraulic backfill

• Length

70 m / 229.65 ft

The Challenge

Zijin-Continental Gold, operator of the Buriticá Mine in Colombia, faced a significant challenge in transporting slurry for hydraulic backfill—a complex application due to the abrasive and scaling nature of the fluid, composed of sand, cement, and water. The previously used HDPE pipes suffered from wear, leakage at connections, and installation difficulties in the underground environment, characterized by limited space, lack of lighting, and scarce resources. A more durable and efficient solution was clearly needed, especially in the section between levels 1140 and 1105, where the velocity on the slope increased wear on the pipes.

The Solution

To tackle these issues, 160 mm, class 15 Pexgol pipes were installed in a section of the project. Pexgol was selected for its high abrasion resistance and because it is supplied in coils of up to 600 meters, ensuring safe and efficient installation. The installation was completed over two shifts: during the first shift, the pipe was uncoiled, and in the second shift, it was lowered through the ventilation shaft, with the support system placed at the back of the setup, and transition joints between steel and Pexgol made using flanged couplings.

The implementation of Pexgol pipes at the Buriticá Mine resulted in a quick and efficient installation, eliminating the wear and leakage issues that affected the HDPE pipes. The flexibility of the material allowed for easy adaptation to the underground conditions, with supports required only every 3 meters in the horizontal section and no need for supports in the vertical section. This solution not only improved the durability and efficiency of the slurry transport system but also significantly reduced maintenance costs and enhanced operational safety.

This collaboration highlights how technological solutions can transform mining operations, improving both productivity and safety.

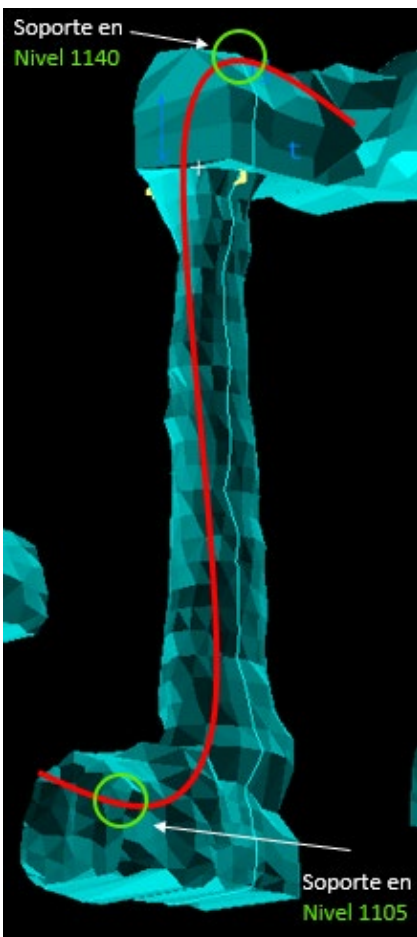
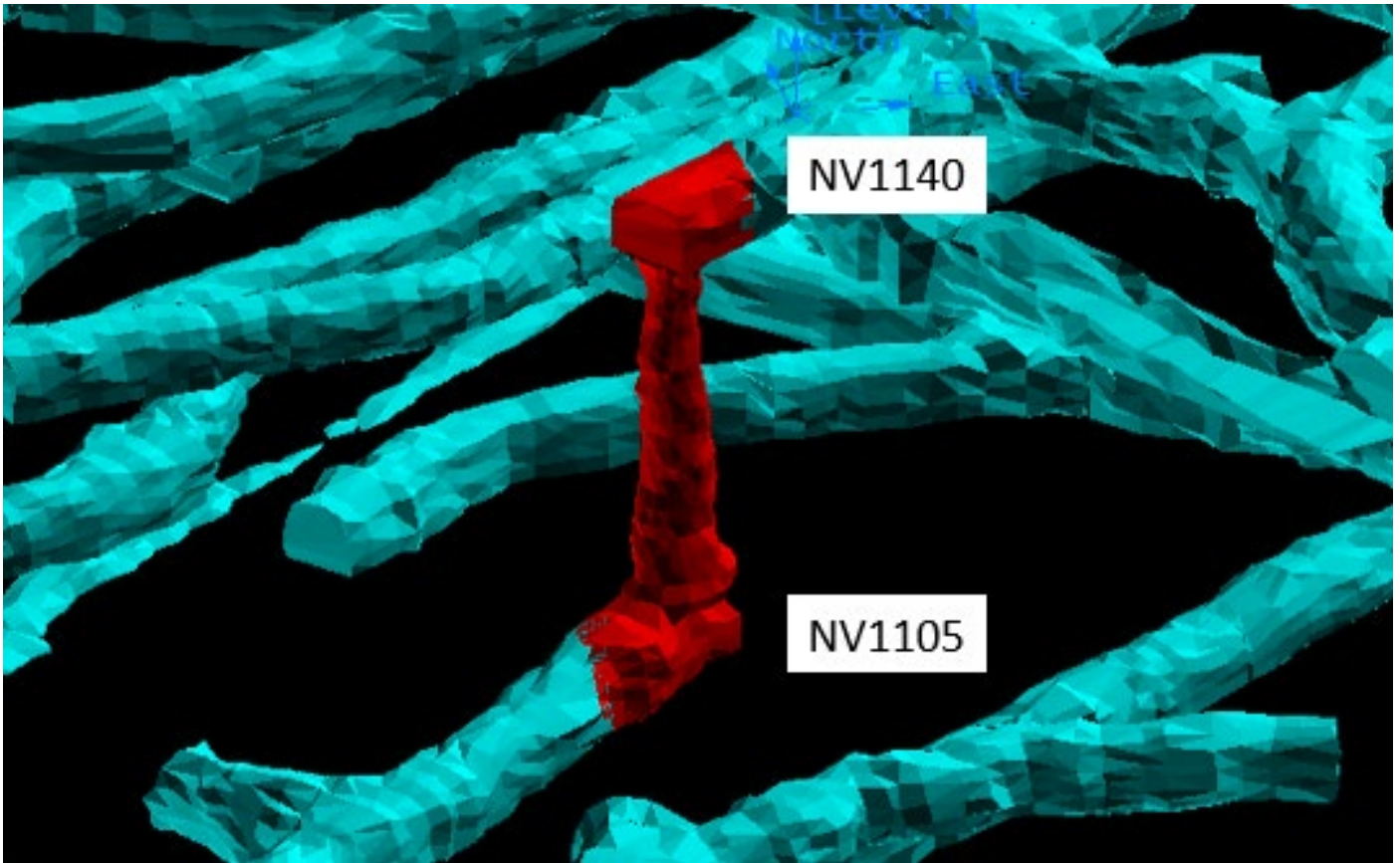


Installation
Video



Steel / Pexgol Transition

Installation location



The Advantages of Pexgol Pipe Systems



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.



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.



Excellent chemical and corrosion resistance

Pexgol pipes can resist a wide range of chemical agents, slurries, toxic and radioactive materials.



Long pipe sections

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



High temperature resistance

Working temperatures can range from -50°C / -58°F up to 110°C / 230°F .



Creep and impact resistance

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.

For more information please visit:
pexgol.com

