Case Study #194

A Flexible Solution for Formation Water Under Demanding Conditions

A solution designed to operate safely and reliably under high temperatures and demanding installation conditions.

Pluspetrol
Argentina | 2026

- **Working Conditions**

  Operating temperature: 72.5°C / 162.5 °F
  Operating pressure: 9 bar
  Flow rate: 1,000 m³/day
  Fluid: Water with hydrocarbons (< 2%)

- **Pexgol Pipe**

  Pexgol 160 mm, Class 24

- **Application**

  Formation Water Transport

- **Length**

  1.050 m / 3444 ft

The Challenge

In 2026, Pluspetrol needed to develop a new pipeline for the transport of formation water at its La Calera process plant in Argentina. The application required transporting 1,000 m³/day of water with less than 2% hydrocarbons, operating at a temperature of 72.5°C and a pressure of 9 bar.

The project conditions represented a significant challenge. On one hand, the construction complexity of the terrain required a pipe capable of easily adapting to the topography and simplifying installation tasks. On the other hand, the high operating temperatures required a robust solution that could ensure continuous and reliable long-term performance.

In addition, the project had to be executed within a very tight schedule, while maintaining high safety and quality standards throughout the entire installation process.

The Solution

To meet these requirements, Pluspetrol selected a 1,050-meter pipeline of 160 mm Class 24 Pexgol PE-Xa pipe, especially suitable for high-temperature formation water applications.

The combination of the material's inherent flexibility with its excellent thermal and chemical resistance enabled an efficient installation, even in areas with construction restrictions. The system was complemented with Victaulic Style 905 double mechanical connectors, providing a safe and reliable joint for the project's operating conditions.

Among the main benefits valued by the client were the fast installation, ease of handling due to the pipe's low weight, the possibility of using long sections and transporting the pipe in coils, as well as the material's flexibility and long service life. These characteristics helped reduce installation time, simplify on-site maneuvers, and ensure reliable operation under demanding temperature conditions and the presence of hydrocarbons.

Pexgol

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.

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

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