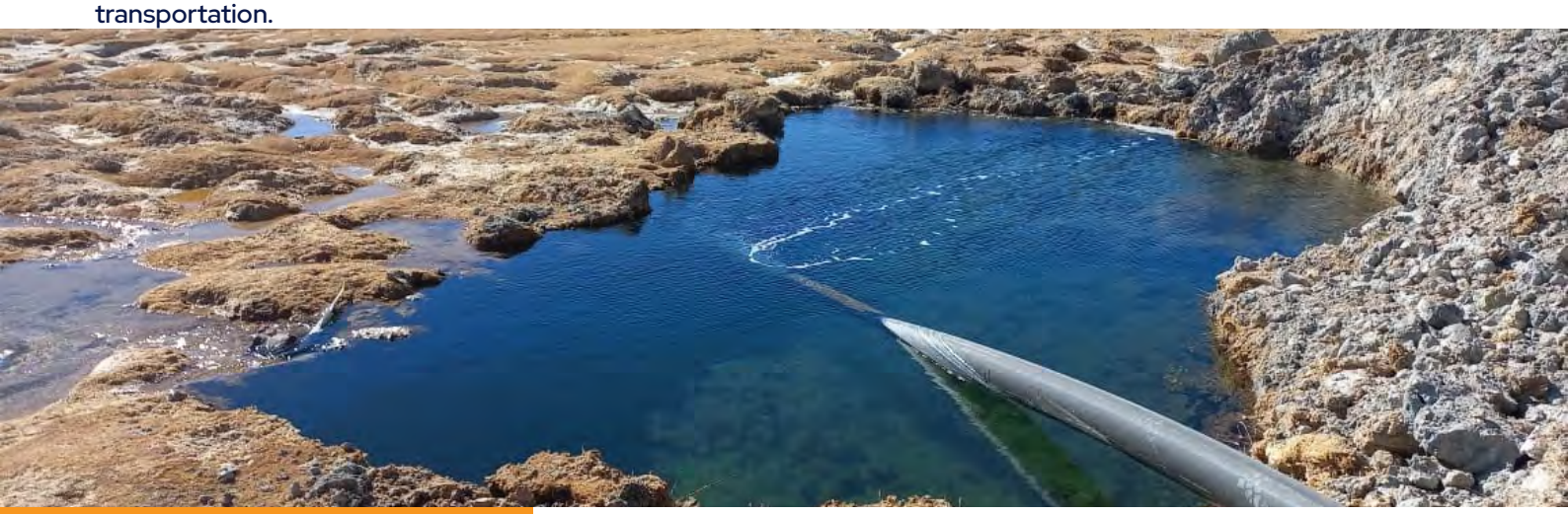
Case Study #171

Fast and Safe Brine Transport in the Salar de Hombre Muerto

Pexgol

Pan American Energy implements an efficient and sustainable solution for brine transportation.



Lithos (PAE)
Argentina | 2024

- **Working Conditions**
  Temperature: 20°C / 58°F
  Flow rate: 80.3 m³/h
  Pressure: 8.6 bar
  Fluid: Brine
- **Pexgol Pipe**
  Pexgol 160 mm (6") class 10
- **Application**
  Brine transport
- **Length**
  10,000 m / 32808.4 ft

The Challenge

Pan American Energy, a leader in oil, gas, and renewable energy exploration and production, faced a logistical challenge during the performance testing phase of its lithium mining project (Lithos) in the Salar de Hombre Muerto, Argentina. The company needed a reliable and flexible transport line for brine transfer between pumping wells, in a demanding salt flat environment.

The project called for a solution capable of withstanding abrasive terrain, enduring constant movement between wells, and ensuring pipeline integrity throughout the process. At the same time, Pan American Energy aimed to reduce operational costs and minimize environmental impact, in line with its sustainability objectives.

The Solution

To meet these challenges, Pan American Energy installed 10 kilometers of 6-inch Pexgol pipes in 450-meter coils. This solution proved ideal due to the following advantages:

- **Quick Installation:** Each 450-meter coil was deployed in just 15 minutes, significantly reducing installation time and enabling quick movement between wells.
- **High Chemical and Abrasion Resistance:** Pexgol pipes withstood the abrasive terrain and extreme weather conditions of the Salar de Hombre Muerto, ensuring uninterrupted operation without damage.
- **Long Sections:** The use of long-length coils minimized the number of joints required, reducing potential failure points and improving pipeline safety.

The operation was highly efficient: each well was tested for a set duration, and afterward, the same pipe was dragged to the next well, eliminating the need for multiple lines. This method allowed Pan American Energy to optimize resources, lower costs, and speed up its testing schedule.

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