Abrasive Liquid Transportation Case Study | No.21





Acid liquor line with high levels of abrasion and sedimentation

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Working conditions:

70°C - 3 Bars

Pipes used:

Pexgol 355 mm & Pexgol 315 mm, Class 12

Application:

Acid liquor transportation with nickel, iron, cobalt and NaOH particles

Length:

150 m

The Challenge

Moa Nickel used rubber lined steel pipes to transport acid liquor. Between 3 and 6 months they required to stop the plant for more than 24 hours, due to sedimentation issues that the steel pipe presented, reducing it inside diameter 60% less.

Furthermore, the steel pipe suffered leaks due to lined releases. Since the first moment that the liquid touched the steel, in a matter of minutes it was causing a leak.

The Solution

Golan provided Pexgol pipes of 355 mm and 315 mm with mechanical joints, and it only required to stop the plant one year after of the installation.

During that time, and due to the high sedimentation levels, the inside diameter was reduced just 30% less. The repair lasted only 4 hours, and it was done by hammer blows, in order to remove the material that was obstructing the pipe. At the end, the pipe was functioning without problems.

Pexgol, it not only achieved to raise the production, but also the maintenance expenses were reduced. For every hour that the plant stopped, it cost hundreds of dollars to the company.





Acid liquor line with high levels of abrasion and sedimentation

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 non-stop performance in some of the world's harshest environments.

Low weight:

Compared to steel or rubber, Pexgol's solution results in reduced transportation, storage and labor costs due to lower weight per meter.

• Long pipe sections:

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

• 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.

Our pipes are also completely resistant to cracks – even when dragged over sharp rocky terrain and coagulated salt crystals.

