



Transportation of mixed liquid and corrosive vapor (H₂S) from the dehumidifiers

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Working conditions:

High corrosive liquid operating at 95°C/203°F

Pipes used:

Pexgol 280 mm Class 10

Application:

Dehumidifier water line

Length:

800 meters

The Challenge

Cuba's nickel reserves are among the largest in the world largest exports, making it essential to provide reliable and durable pipelines for the transportation of its minerals. Unfortunately, the high percentage of hydrogen sulfide in the hot water from the dehumidifiers over an extended period of time lends itself to high levels of corrosion and functional deterioration. Problems occurred from the beginning in previous installations, forcing work halts.

Before turning to Pexgol, our client tried an alternative piping solution without success: Carbon steel rubber lined (CSRL) - which proved to be damaged by weather conditions as well as suffer from extensive problems of corrosion around the welds due to lack of rubber. Such high levels of corrosion can also lead to a potential reduction of hydraulic capacity.

The Solution

A Pexgol 280 mm class 10 pipe with electrofusion couplers surrounded by steel reinforcements was installed, enabling durability under very high temperatures.

Several months since the installation of Pexgol, the system operates without any problems, it resulted more cost-effective per meter and had lower installation costs. As a result of the new installation, the line hydraulic capacity increased beyond the maximum expected values by the operations managers.



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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.

