



Transport of leached mud from the treatment plant to an oxidation lagoon

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**Industria Chiquibul**  
Guatemala | 2018  
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**Operative Conditions:**  
Muddy water at 90°C, 2 bar pressure

**Pexgol Pipe:**  
Pexgol 200 mm (8") Class 15

**Application:**  
Transport of leached mud

**Length:**  
934 m

### The Challenge

Industria Chiquibul S.A. is an Agro-Industrial project focused on the sowing of African palm and the extraction of its oils. When the oil is processed, there are acid residues (pH 1) which, in addition to being very abrasive by the process itself, are at temperatures between 90° and 100°C.

Chiquibul required to transport this mud to the oxidation lagoons in order to finish the process of recycling the remaining material. Initially, this transport was carried out (in the vicinity of the process plant) with a carbon steel pipe, but it suffered great corrosion problems after only one year of work.

As the production grew, they needed to enlarge the line, and given the operating conditions and the complexity of the land (through a jungle area), Chiquibul decided to change the pipe material.





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#### Pexgol Solution



Chiquibul analyzed different pipe materials, and given Pexgol's ability to withstand high temperatures and its great chemical resistance, it was chosen for the change. Likewise, they analyzed the installation costs and detected that to make the installation with steel more than 75 unions and a large investment in supports would have been required. In contrast, the PE-X could be supplied in continuous 300 m sections, so the number of joints was reduced to only 3. Also the PE-X pipe could be installed at ground level, without having to make a big investment in supports.

The installation was faster than scheduled, only 4 operators were used, a backhoe in a period of 3 days. The connections used were flanged couplers provided by Pexgol, so only one jig and a set of tightening wrenches were used.





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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 nonstop performance in some of the world's harshest environments.
- **Long pipe sections:**  
Pexgol's pipes can be supplied in long lengths coils, reducing number of joints, installation time and risks.
- **Creep and impact resistance:**  
Pexgol's crosslinking piping solution can withstand high amounts of axial and radial stresses and is highly resistant to impact, fracture and fatigue. Also is completely resistant to cracks even when dragged over sharp rocky terrain and coagulated salt crystals.

