



Installation of Pexgol pipe in a formation water treatment plant.

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YPF
Argentina | 2020
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Working Conditions:

Maximum flow: 700m³ / h
(400 m³ / h Normal)
Maximum speed: 6.4 m / s
(3.6m / s Normal)
Temperature: 60°C / 140°F
Maximum pressure: 5 kg / cm²
Normal pressure: 2 kg / cm²

Pexgol Pipe:

Pexgol 225 mm (8"), Class 10

Application:

Formation salt water with traces of hydrocarbons

Length:

24 m / 78.7 ft

The Challenge

YPF, Argentina's national hydrocarbon exploration and production company, in its Formation Water Treatment Plant, for Secondary Injection in the La Ventana area, Vacas Muertas Oilfield, required an alternative solution to the replacement of a 25 m long pipe and 12" diameter. The formation water characteristics are high salt content (35 gr/l), with a high corrosive potential in carbon steel ducts, which require adequate internal coatings to avoid damage in less than a month of service. Even with the proper protections, the high flow rate, and changes of direction, there is a great probability of damage in relatively short times, especially in areas close to welds.





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Pexgol Solution

Together with the YPF Processing Plants department, it was proposed to carry out a test of the Pexgol pipes, as well as the electrofusion and flanged joints. The tests were carried out under the conditions and terms of a Test Protocol for 60 days. 12-inch steel pipe was replaced by 8-inch Pexgol pipe that will be subjected to the same conditions but with a higher flow velocity close to 6.5 m / s. Installation and commissioning took only two days: one for pre-assembly and the second day for installation. In contrast, the preparation, shipment and installation of the steel pipe would require a time close to two months. The cost of the Pexgol solution represents 25% of the 8-inch diameter steel pipe.





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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 pipes can be supplied in long coil lengths, reducing number of joints, installation time and risks.
- **Creep and impact resistance:**
Crosslinked 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.





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