GULFSTREAM OFFSHORE PIPELINE

PROJECT DESCRIPTION

Propipe supplied 36" articulated pigs for pre-commissioning and commissioning the Gulfstream offshore pipeline in 2002.

The pigs were developed for flooding, cleaning, drying, gauging and gassing-up operations for the 36" offshore pipeline. The dry uncoated pipeline runs for more than 780km and connects Alabama, Mobile bay to Florida, Tampa Bay.

As well as the long distance and (internally) uncoated pipe, the pigs were also designed to cope with large changes in diameter due to wall thickness changes throughout the pipe length.

Following the success of the dewatering operations, additional pigs were supplied and were used for gassing-up operations – running very successfully through the entire system in dry conditions.

The Gulfstream pipeline is the largest pipeline in the Gulf of Mexico. It was also the first new natural gas transportation system to serve Florida in more than 40 years. The system is expected to supply Florida with approximately 1.1 billion cubic feet of natural gas per day.

PIG DETAIL

Images below show pigs that were supplied to the project.

The pipe ID range for Gulfstream was from 844.5mm to 872.7mm, with the majority of the line from 863mm to 877.7mm.

The guide discs were sized at 855mm and it was accepted that the guides would deflect sufficiently to pass the short sections at 850.9mm and 844.6mm. Sealing discs could not be made in one size, to cover the entire ID range, so two sizes were used, at 891mm and 917mm OD's.

This design accepts that the pig will sit lower in the larger pipe ID's (because of the smaller guide discs), but compensates for this by using seals to cover the 'increased' ID range caused by the pig sitting down. If the pig had used larger, slotted guide discs, this would not have removed the need for two seal sizes, but would have added loading to the guide discs, due to their reduced rigidity and increased risk of tearing.

Pigs prior to despatch

Pig condition after dewatering run   **Pig condition after gassing-up**