

Pigging: Condensate Pipeline

Saudi Arabia

Problem

Black powder contamination in the condensate stream leaving a fractionator is accumulating on the pipeline walls. During pigging operations, the contamination is liberated back into the product.

Solution

As a proof of concept, the customer installed a 5" OD, 300#, 316 SS magnetic separator skid, on a 1" OD slipstream line, off of a 14" OD pipeline, for 8 days to test:

- (1) Removal of black powder in post-pigging operations vs. conventional filtration, and
- (2) Dirt holding capacity of a BPS system vs. conventional filtration.

The BPS system was tested after pigging operations, and 2.9 kgs of black powder was captured.

After the 8 days, testing showed the conventional filtration plugged off and caused a 25 psi pressure drop. In comparison, the BPS system registered 0 psi pressure differential while loaded with contamination.

