

WATER PRODUCED TREATMENT TEST IN CANTARELL OILFIELD

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Produced water management in Cantarell's oilfield represents a big challenge for PEMEX and Mexico.

Different compact technologies were chosen to start the first tests in the Gulf of Mexico, with good results in reducing grease and oils in the produced water byproduct of crude oil dehydration. The work deals with the three different technologies tested and their efficiency levels for three-phase processes and electrostatic dehydration in Cantarell offshore facilities.

The best technology tested was the compact flotation unit, getting less than 15 ppm of oil and grease in the water, with almost no injection of emulsion breaker. Second one was the solvent abstraction process for dissolved and dispersed hydrocarbons with hydrociclone. During the test, this pilot test can absorb up set from a three-phase separator getting an average 40 ppm of oil and grease in the water.

The third one was chemical treatment (embryonic technology), getting less than 15 ppm of oil and grease in the water. This new process is going to help in the smart strategy of production of Cantarell oilfield; it is expected to produce in the future around 500,000 BPD of water to drop it to the sea.

The main concern of this work was to meet ecological Mexican standards and also with international norms. Just to found the best technology environmentally friendly.

PEMEX expects built and start up the first system for December 2013 with one of the biggest projects for dehydrate and desalt oil at Akal-J1 platform in the Gulf of Mexico.

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