

Cleanout operations following well restart Caspian Sea, April 2016

Zero

HSE incidents



Vastly improved
well production rate

269 kg

Solids separated during the
cleanout operation

67.4 kg

Cleanout solids captured
by FourPhase's filter unit

Challenge

After completion in April 2014, a well in the Caspian Sea was put online. However, following a production trip, the well, which hadn't been flowing for long, had to be shut-in due to significant sand production (2000 pounds per thousand barrels) during operations.

Attempts to restart the well from multiple choke reductions, resulted in an initial positive performance but consistent sand free production could not be achieved. Eventually the well had to be closed completely.

The client had previously attempted special conditioning of the well giving a gradual increase in the production rate. However, this was interrupted by multiple unplanned production trips. Ultimately, the sand shut-off intervention failed and distributed acoustic sensing indicated multiple entry points along the wellbore.

Solution

Due to a low bottom hole pressure a concentric coiled tubing cleanout operation had to be undertaken. Since the particle size was as low as 10micron, the previous sand filtration system was replaced with a DualFlow solids removal system and a custom designed state of the art filter unit for a higher separation efficiency.

Result

The use of DualFlow technology to support the concentric coiled tubing cleanout led to a significantly increased well production rate. Throughout the operation there were no recorded HSE incidents and no recorded equipment downtime. What's more, the compact nature of our simpler, but more efficient separation technology, saw a reduction in POB.

