

Case Study – Vertechs Trident Rigless ESP System

Achieved a high production rate target offshore, China with a run-life more than 7 years.

Objective

The operator in North China Sea wanted to replace ESP in later stage due to potential high production rate target.

Challenges

- Ultra-High Production Rate Target

ESP is installed in a Rigless permanent string, the size of permanent string is large enough for further workover operations.

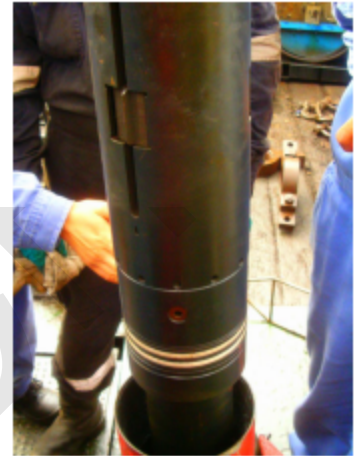
- Operation Reliability of Rigless System.

Main concern of client is to ensure the Rigless ESP itself is reliable enough in an ultra-high production well and will not cause more workover jobs.

- Success of ESP Replacement is the most basic requirement.

Solution

- Based on the requirement of high production rate compatibility, a 7" Trident Rigless ESP system was proposed.



Well & ESP Info.

Well Location: North China Sea	Deviation @ ESP setting depth: 3°
ESP setting depth: 1,411 ft (MD)	Dogleg @ ESP setting depth: 0.5°/100ft
Gas Contents: N/A	Solid Contents: N/A
Casing Size: 9 ⁵ / ₈ " Weight: 46 ppf	
Rigless ESP System: 7" Rigless System + 562 series ESP System	

Results

- The 7" Trident Rigless ESP System was successfully installed in 2013, and replaced larger ESP the next year.
- The system has been running for more than 7 years since then.
- The production rate was up to 15,000 BPD.