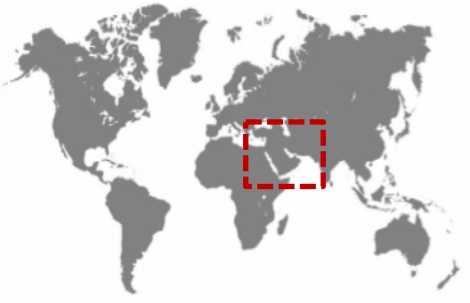
Case Study

InflataLOK™ Enables Rigless Installation of an Insert-Progressing Cavity Pump in the Middle East

Challenge:

Rigless conveyance of an insertable progressing cavity pump (I-PCP) was required to re-establish oil production in a well located in the Middle East. The well was configured with a 3-1/2" tubing completion and a pump seating nipple (PSN) installed as an integral part of the production string. Structural integrity damage caused by excessive corrosion prevented the utilization of the PSN as a base for anchoring the I-PCP in place. This represented a challenge as effective radial and axial anchoring were required to enable pump functionality while withstanding cyclic loads expected during flush-by operations, which are frequently required in this geographical area due to constant presence of produced solids and high viscosity fluids.



Region: Middle East
Customer: Onshore Operator
Well Type: Oil Producer

Key Facts:

- Field proven globally.
- Available for 2.875", 3.5" and 4.5" production tubing.
- Successfully deployed offshore and onshore
- Confirms Tubing Integrity
- Non-tortuous flow path.
- Provides axial and radial seal and anchor
- Available for HPHT applications
- Bi-directional seal with DuraGRIP technology
- Positive anchoring facilitating flush by operations.

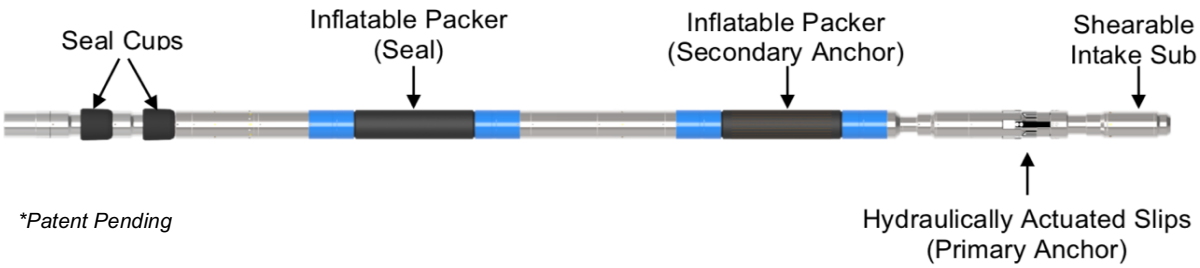
Solution:

The solution for this challenge was IPI's InflataLOK™*, which is the world's first nipple-less I-PCP anchor system utilizing inflatable packer technology. It was designed for rig-less deployment in extended-reach deviated applications where rods cannot effectively transmit axial loads to setting depth.

The system is set by applying differential pressure within the tubing annulus, against an integral set of seal cups. The setting sequence has four distinct steps, all pressure activated - set seal packer, set grip packer, set anchor slips after which mechanical integrity is confirmed by holding pressure within the tubing against the inflated packers. Once tubing integrity is confirmed, the final pressure step causes the intake sub to open, which provides a non-tortuous internal flow path allowing the operator to complete the I-PCP space out and place the well into production.

Results / Created Value:

An I-PCP supplied by a major service company was successfully set and tubing integrity was confirmed using the InflataLOK™ system. The client was able to hydraulically set the anchor in the challenging well conditions with presence of solids and high viscosity fluids, and the well was brought back into production without having to mobilize a rig to site. The operation was successfully executed in a timely manner, which generated substantial savings in operational time and costs.



*Patent Pending