MAXIMIZE DRAWDOWN MINIMIZE COSTS

Optimize the Tonkawa

Solving bottom hole pressure problems of gas lift

Tonkawa, Western Oklahoma, USA

Depth

8100 ftTVD

2470 mTVD

Oil Rate

40 – 80 bbl/d oil

6.3 – 12.7 m^3/d oil

Watercut 50-90%

Gas Oil Rate (GOR)

~2000 scf/bbl

~355 m^3/m^3

The Challenge

- The Tonkawa unconventional play is situated in the Northern region of Texas and extends into western Oklahoma.
- Gas lift is confined by high bottom hole pressures, limiting drawdown and thus production.
- Gas lift incurs high operating costs.
- Due to the depth, high initial decline rates and high GOR, it is difficult to design and operate an effective, efficient rod pumping system.

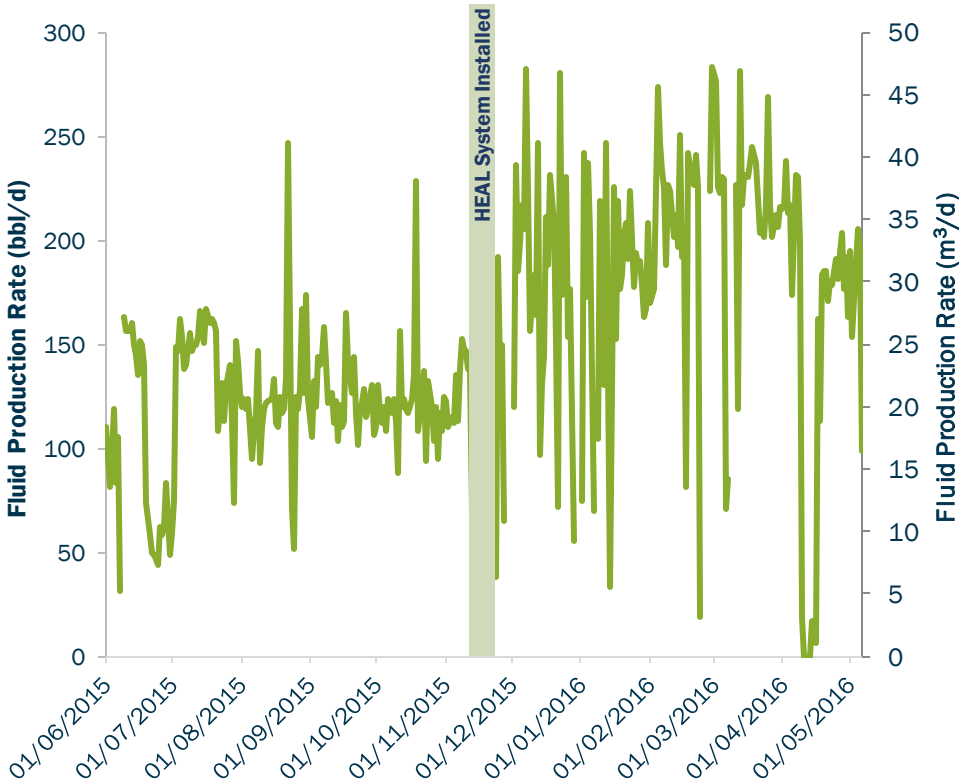
The HEAL System™

The foundation for efficient artificial lift in horizontal wells

The HEAL System is able to reliably lift produced fluids from the horizontal to shallower pump depths in the vertical while maintaining a very low bottomhole pressure (BHP). The ability to produce at low BHP maximizes drawdown to maximize production.

In data illustrated below, this well was struggling to produce with ESP, gas lift and rod pumping. Installation of the HEAL System allowed for a beneficial conversion from gas lift to reliable rod pumping at low BHP.

In this well, the HEAL System achieved comparable drawdown to an ESP with a more cost effective rod pumping solution. The HEAL System decreased the BHP by 450psi. This correlated to at least a 80% increase in fluid production from the preceding gas lift system.



PRODUCTION PLUS ENERGY SERVICES INC.

Learn more about the HEAL System™
www.pdnplus.com or email healsystem@pdnplus.com