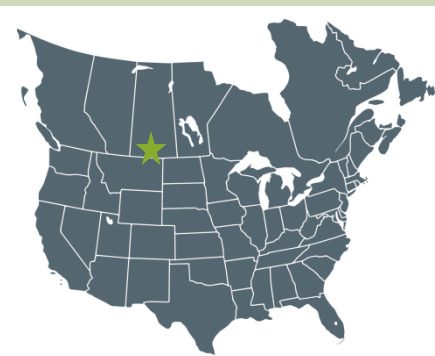


MAXIMIZE DRAWDOWN MINIMIZE COSTS

Optimize the Shaunavon

Achieve Lower Bottom Hole Pressure with a Vertically Set Pump



Shaunavon, Southern Saskatchewan, Canada

Depth

1475 mTVD

4840 ftTVD

Oil Rate

2 – 10 m³/d oil

12 – 63 bbl/d oil

Watercut ~ 65%

Gas Oil Rate (GOR)

100 – 200 m³/m³

560 – 1120 scf/bbl

The Challenge

- The Shaunavon formation is a stratigraphic unit of the Western Canadian Sedimentary Basin situated in southern Saskatchewan, Canada
- Due to the current high degree of underpressure, all wells require artificial lift and are particularly sensitive to back pressure on the formation.
- Conventionally pumps are run very low in the build section to achieve high drawdown, but in actual practice cannot fully pump-off the wells.

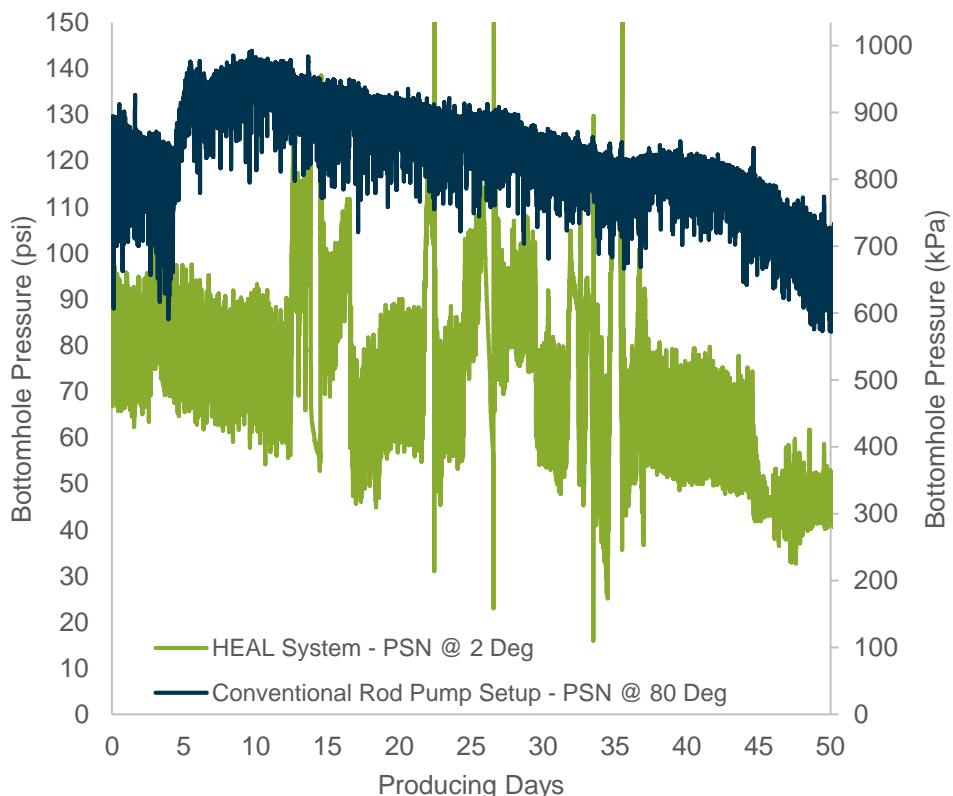
The HEAL System™

The foundation for efficient artificial lift in horizontal wells

The HEAL System is able to 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 the Shaunavon, a single operator provided data from two equivalent rod pumping wells, one with a HEAL System installation and one with conventional artificial lift. The conventional rod pump setup had the pump set at 80 degrees. The second well with a HEAL System installation had the pump set at 2 degrees.

The figure below illustrates BHP against producing days. The well with the HEAL System installation consistently maintained a lower BHP than the conventional setup. Despite the pump in the HEAL System well being 250 mTVD / 820 ftTVD higher than the conventional pump, it lowered the bottom hole pressure by approximately 400 kPa / 60 psi.



PRODUCTION PLUS
ENERGY SERVICES INC.

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