Harbison-Fischer® Increases Production for Permian Basin Operator that Equates to Over $20,000 in Revenue Per Well

Challenges

- A 500 well Permian Basin site, with 87 wells using rod pumps experienced gas interference
- Difficulties in optimizing production in deep wells with rod pumps
- Reduced efficiency
- Increased workover costs

Solutions

- Installed Harbison-Fischer Variable Slippage Pump® (VSP)
- Engineered with a patented tapered barrel that alleviates gas interference, with wide range of applications
- The pump’s design intentionally allows some of the produced fluid to slip back into the barrel eliminating gas interference
- HF sales and technical service experts designed the VSP lower API barrel length and recommended proper pump spacing to ensure the plunger enters the Variable Slippage barrel
- Conventional rod pumps allow fluid slippage to lubricate the pump, but not at a high enough rate to eliminate gas interference

Results

- Increased customer revenue over $20,000 per well
- Oil produced increased by 33%
- Natural gas returns up to 59%
- 35 VSPs have been installed at the site
- Customer has standardized using VSPs for all their rod pump wells in the Permian

In typical pumps, free gas can accumulate in the cavity below the plunger leading to reduce efficiency

In the VSP, fluid is able to slip from above the plunger into the cavity

The gradual I.D. tapered barrel at the top of the VSP allows a small amount of fluid to slip back down into the pump during it’s upstroke

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