

TOPS® Top-Intake Packerless Downhole Separator Revives Declining Permian Wells—Boosts Production up to 19% and Gas Rates 17%



Post-workover installation of TOPS improved gas release, eliminated ESP overheating, and increased production by 27%.

Objectives

- Restore declining well performance caused by poor downhole gas separation, low pump fillage, and inefficient lift.
- Reduce gas interference, overheating, and premature ESP failures limiting production and increasing HSE risk.
- Improve fluid handling across multiple wells on a single pad without increasing drawdown stress or pump speed.

Our Approach

- Install TOPS across three wells to improve downhole phase separation and gas management ahead of artificial lift.
- Optimize ALS configurations by pairing an insert pump with TOPS, enabling greater gas release through the casing.
- Reduce reliance on high stroke rates by improving pump-intake conditions and stabilizing flow regimes.

Value to Customer

- Drove production gains up to 18.6% with >20% higher gas rates after converting from ESP to rod lift, validating improved downhole separation and gas, boosting artificial lift reliability.
- Increased pump fillage from ~65% to >99%, enabling a 20% production uplift at lower SPM, reducing mechanical stress and operating costs while stabilizing inflow and improving pump intake performance.
- Boosted fluid and water handling up to 81.7% and delivered consistent, pad-wide results, proving TOPS as a scalable, repeatable solution for Permian well optimization.

LOCATION
Permian Basin

PRODUCTS/SERVICES
TOPS Top-Intake, Packerless
Downhole Separator

