

West Texas

West Texas Operator Installs 150+ SandRight® Fallback Preventers with Zero Sand Fallback Failures

732-day run pulled with all pumps passing API inspection saves \$900,000 in operating expenses

CHALLENGE

When ESP equipment shuts down, solids falling out of the solution can become lodged in pump stages. During restart, the motor can be overstressed, ultimately limiting run life and, in some cases, leading to catastrophic failure

SOLUTION

The SandRight's features mitigate issues with erosion/corrosion, paraffin buildup, incompatibility with desanders, and jamming issues while retaining the ability to perform through-tubing chemical treatments.

RESULTS

- Over 150 SandRight installations with one West Texas operator with zero solids-related failures
- Tear-down analysis proved SandRight's value when all pumps passed API inspection despite 60+ shutdowns over 732 day run life in a highly abrasive, corrosive wellbore environment

Overview

Unconventional wellbores in West Texas frequently experience power-related shutdowns. While the electric submersible pump (ESP) equipment is not running, produced frac/formation sand can fall back out of the solution and re-enter the ESP, lodging in pump stages.

Challenge

Restart attempts after a shutdown can overstress motors, accelerate pump wear, overheat the cable, and/or result in catastrophic failure. In unconventional sandy wellbores, the volume of solids in solution exacerbates the issues. This issue can shorten ESP run life to as little as 180 days in West Texas wells.

Solution

Developed with Halliburton's frac engineers, the SandRight Solids Fallback Preventer deters damaging solids from re-entering the ESP during shutdown events. This allows ESPs to return to stable operations without damaging hard restarts. Compact and easily deployed, SandRight's capabilities address the issues occurring with most fallback preventers—erosion/corrosion, paraffin buildup, incompatibility with desanders, and jamming issues—while retaining the ability to perform through-tubing chemical treatments.

150 SandRight

Installs with zero failures

732-day run saving **\$900,000**



A HALLIBURTON SERVICE

CASE STUDY

Benefits

- Utilizes a unique sandbridge phenomenon to stop sand from flowing in the reverse direction and falling back into the tool, creating clearance of the sand away from the pumps upon restart
- Creates a “leak-off” effect for a wide range of sand concentrations and flow rates up to as much as 5,000 BPD
- Metallurgy and ceramic coating features enhance abrasion and corrosion resistance
- Resists paraffin and scale build-up

Results

The operator, an early adopter of the SandRight fallback preventer technology, has installed over 150 units with zero sand fallback-related failures. A highly corrosive well with 55,000 PPM H₂S was recently pulled when production fell off after 732 days. The Sandright performed its job with distinction: all pumps passed API testing despite shutdowns occurring an average of every 12 days over the two-year run life. The extended run time quadrupled the normal ESP run time in this area, saving the customer roughly \$900,000 in operating expenses.

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