



Weatherford®

REAL RESULTS

COROD® Continuous-Rod Strings Replace Guided Conventional Rods, Increase Average Time Between Failures by Over 600%

Objectives

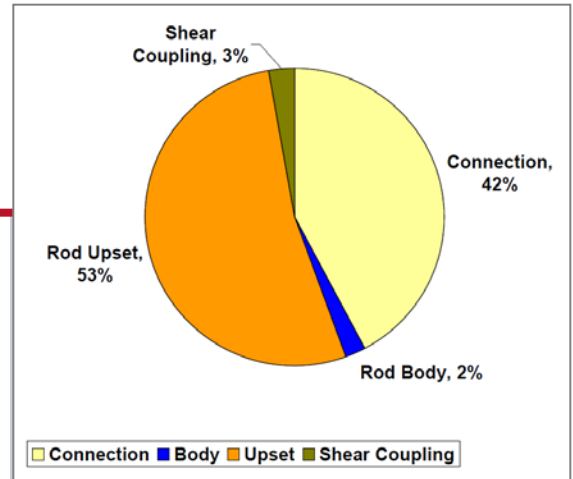
- Improve running time and overcome production losses stemming from recurrent failures in conventional guided sucker rods.
- Deviated well configurations in the field were responsible for 95 percent of failures occurring at the rod upset or at one of the connections, a result of bending and flexing that accelerates metal-fatigue failures.

Results

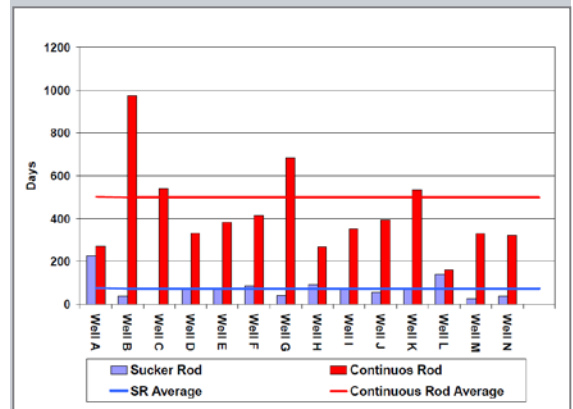
- Weatherford replaced the conventional sucker rods with COROD continuous rod strings in 14 of the 34 wells that experienced upset failures.
- The number of connections was reduced from 125 to 2 (one at the top of the rod string and one at the bottom), a significant improvement over conventional rod strings previously used.

Value to Client

- Using COROD continuous rod strings extended the average time between rod failures by over 600 percent, substantially reducing production losses and avoiding costly well interventions.
- COROD continuous rod strings substantially increased the run life of the well, providing the operator with an optimal solution for addressing deviated well configurations.
- Weatherford's COROD continuous rod string design provided the operator with increased averages in run time between rod failures from 70 days to over 510 days, reduced well servicing and rod repair/replacement costs, and minimized production losses.



The chart above illustrates the failure distribution by location in the centralized rod string before installing COROD continuous rod strings.



The graph above shows the average time between rod failures after replacing conventional sucker rods with COROD continuous rod strings. Following the installation of COROD continuous rod strings, the well continued to operate for over 975 consecutive days without failure. Previously, the well had experienced six failures over a period of 186 days.

Location

Tolima, Colombia

Well Type

Onshore S-shaped, deviated oil producer

Average Depth:

2,600 to 3,400 ft (793 to 1,036 m)

Products/Services

COROD continuous rod strings

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