CASE HISTORY

ESP FAILURES ELIMINATED IN THE PERMIAN

APPLICATION

Production, Artificial Lift, Electrical Submersible Pump

TECHNOLOGY

DuraSet
Precision Pump Placement

LOCATION

West Texas

CUSTOMER CHALLENGE

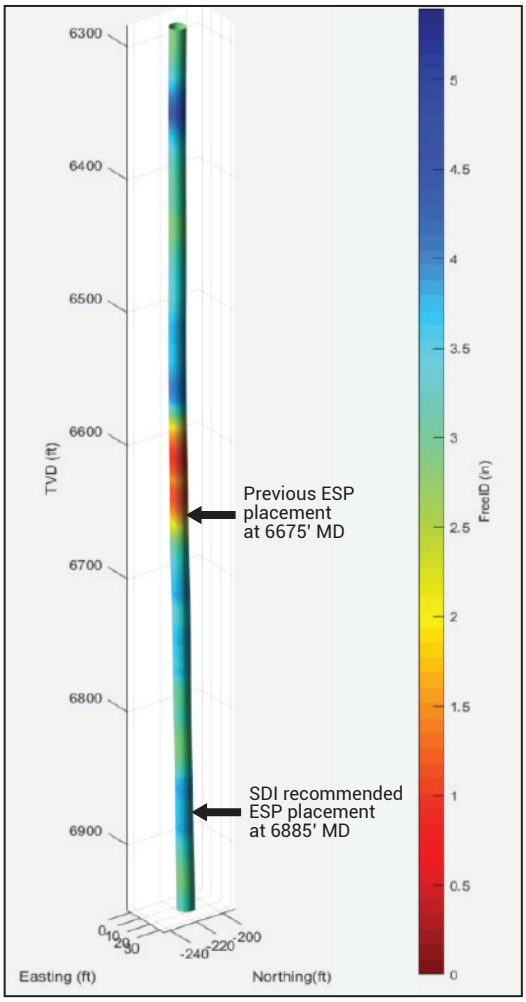
The customer experienced three ESP failures in a five month span on a recently completed wellbore. This frustrating situation placed the well under review for a premature conversion to Rod Lift, which would significantly reduce the well's return on investment. Scientifc Drilling was called out to evaluate the tortuosity of the wellbore at the ESP setting depth.

SCIENTIFIC SOLUTION

Scientific Drilling deployed the DuraSet service in order to provide a high resolution 3-D map of the wellbore. This imaging service showed that the ESP had been repeatedly set in a highly tortuous zone, which lead to premature failure due to excessive bending during operation. This zone did not appear on the original MWD survey listing, as the long survey interval masked localized doglegs. The customer then used the proprietary DuraSet FREEID log to evaluate the tortuosity of the wellbore against the specific combination of ESP and casing size.

CUSTOMER VALUE

Armed with a better understanding of the wellbore's tortuosity, a replacement ESP was installed at an optimal depth in the wellbore where bending was minimized, and ESP fatigue would be reduced. The well has now been online for nine months without another ESP issue, thus significantly increasing the well's ROI for the customer.



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