

Operator Drills Record-Setting Lateral in Marcellus Shale

6 3/4" iCRUISE® INTELLIGENT RSS REDUCES WELL TIME, PLACES WELL 100% IN ZONE

SUSQUEHANNA COUNTY, PA

OVERVIEW

An operator drilling in the Appalachian Basin needed to maximize reservoir contact and drilling efficiency. Halliburton Sperry Drilling listened to the technical challenges and collaborated with the operator to deliver an engineered drilling solution. The technology tools included the iCruise® intelligent rotary steerable system (RSS) and electromagnetic telemetry (EMT) drilling system. The Sperry Drilling team engineered a bottomhole assembly (BHA) design via DrillingXpert™ well engineering software, utilizing the equilibrium, force, and vibration BHA analysis modules to meet the steering objectives of the well. Another challenge was to balance the forces across the BHA and identify the drilling parameters to minimize downhole vibration.

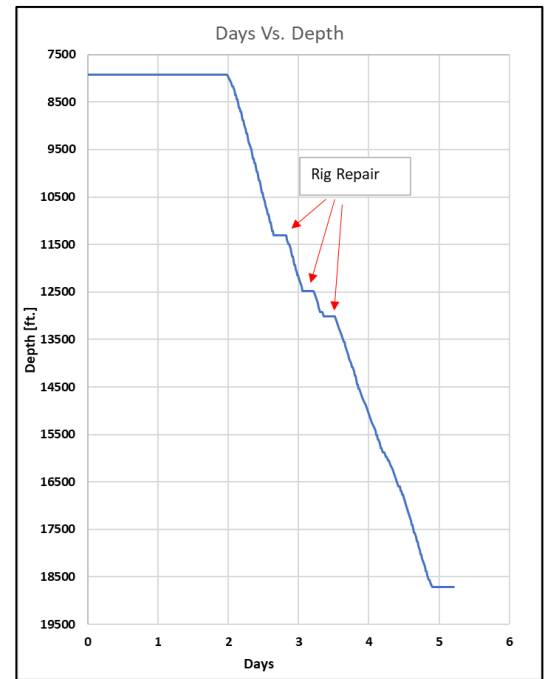
TOTAL DEPTH REACHED IN ONE RUN

The solution resulted in successfully drilling the lateral to total depth (TD) in a single run. The activation of CruiseControl™ technology allowed a specific inclination and azimuth to be maintained, delivering a smooth and high-quality wellbore with average tortuosity of 0.92° dogleg severity (DLS).

The customized BHA helped the operator achieve superior drilling performance, maintaining a high rate of penetration (ROP) at 230 ft/hr. They were able to drill 4,277 ft in 24 hrs., exceeding this KPI by 30%. These technology-driven results represent a significant improvement in drilling efficiency, helping to maximize the customer's asset value by reducing well time.



iCruise® intelligent RSS.



Graph (right) and table (below) show solution delivered outstanding ROP and drilling efficiency.

Lateral Footage	Avg. ROP (ft/hr.)	Max 24 hr. Footage	Avg. DLS (°/100')	Drilling hrs.
10792'	231.01	4277'	0.92	46.72

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