

Multitelemetry Accelerates ROP for Two-Mile Lateral and Reduces Drill Time by 1.36 Days

Operator uses xBolt G2 service to eliminate survey time and reduce total connection time by more than half to save 4.5 h during two-section lateral

An operator in the Permian Basin used multitelemetry surveying to drill nearly two miles in only two days while geosteering within a narrow pay zone.

The operator's concerns

The operator wanted to drill two-mile laterals across all major formation targets faster and more efficiently. Because high ROP was a factor, crucial to success was dependable real-time telemetry with superior data densities from the BHA.

What Schlumberger recommended

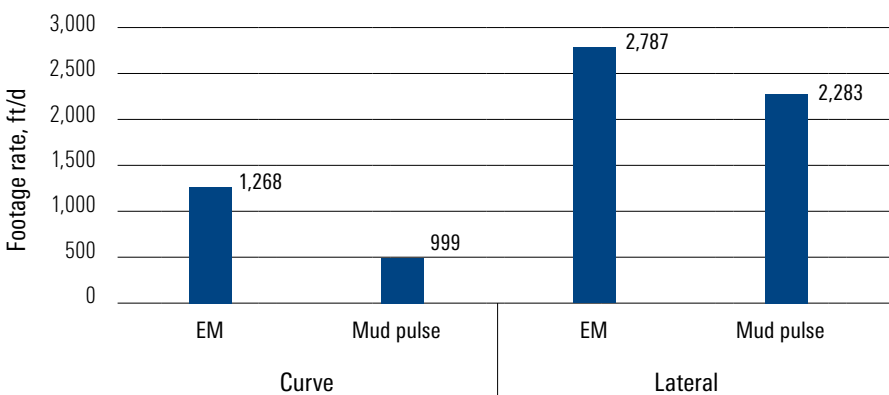
The xBolt G2* accelerated drilling service transmits survey information when pumps are down while in electromagnetic (EM) mode, eliminating survey wait time. Its increased data rate delivers more information from the rotary steerable system, enabling quicker, better decision making. And the hold-inclination and azimuth (HIA) enables highly accurate geosteering within tight windows.

What was achieved

With the xBolt G2 service integrated into the BHA, the operator drilled 9,212 ft in 52.5 h. Increased speed was significantly due to xBolt G2 service because lateral connection times were compressed from 4.28 to 1.78 minutes—saving 4.5 h over the course of the two-section lateral. Because telemetry was not solely dependent on mud pulses, higher flow rates helped increase efficiency because it enabled higher bit rates. The outcome was that average on-bottom footage per day increased 26% in the curve and 22% in the lateral. Additionally, the HIA capability was necessary to these record-breaking performances, holding course within a 20-ft target window.

Building on the success with our multitelemetry survey service, the operator now deploys all its rigs with the xBolt G2 accelerated drilling service.

On-Bottom Drill Time Using EM and Mud Pulse



The xBolt G2 service's EM telemetry in the lateral enabled drilling an average of 1.36 days faster than with conventional surveys.