

ZoneSelect® System Increases Stage Count from 32 to 50, Saves \$2 Million in Completion Costs

Objectives

- Maximize reservoir exposure and drainage by increasing the number of fracturing stages in an openhole 10,195-ft (3,107-m) lateral from 32 to 50 stages.

Our Approach

- The operator could choose either an openhole completion using ball-drop-activated frac sleeves or a cemented plug-and-perf completion. The operator selected an openhole completion because of the significant cost and time savings associated with not cementing the wellbore, pumping down plugs, and milling plugs.
- Weatherford installed 4 1/2-in. ZoneSelect SingleShot MXZ frac sleeves because they can fracture up to 59 stages in a single trip compared to the industry average of 40 stages. In this well, SingleShot sleeves increased the stage count from 32 to 50.
- In each zone, the Metallic Hybrid (MH) Invisiball® stimulation ball shifted the ports on the frac sleeves open. After stimulation, the balls dissolved downhole to eliminate the need for milling.
- Fraxis* swellable packers provided reliable zonal isolation against pressures up to 8,000 psi (55.1 MPa).

Value to Client

- Compared to a 50-stage cemented plug-and-perf completion in the same area, this 50-stage openhole completion saved approximately US \$2 million—or US \$40,000 per stage.
- By increasing the stage count, the Weatherford ZoneSelect system enhanced reservoir contact.



A key component of the ZoneSelect completion system, the SingleShot frac sleeve enhances fracturing efficiency by continually shifting to open the ports, stimulating, and then moving to the next zone.

LOCATION

North Dakota

FORMATION

Bakken Shale

WELL TYPE

Onshore, horizontal, openhole, oil

HOLE SIZE

6 in.

CASING SIZE

4-1/2 in.

TRUE VERTICAL DEPTH

11,077 ft (3,376 m)

MEASURED DEPTH

21,272 ft (6,483 m)

LATERAL LENGTH

10,195 ft (3,107 m)

SURFACE TREATING PRESSURE

8,000 psi (55.1 MPa)

PRODUCTS/SERVICES

- ZoneSelect SingleShot MXZ frac sleeve
- ZoneSelect Fraxis swellable packer
- MH Invisiball stimulation ball



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