

SelectShift Completes VertiCurve In Three Forks

7⅞-in. Vector Series 50 SelectShift downhole adjustable motor drills bottom hole vertical to landing point eliminating need for a dedicated curve BHA

Challenge:

To provide a premium motor capable of completing the bottom hole vertical and curve sections of the customers well. This interval typically requires multiple BHAs to complete. If this interval were able to be completed by changing bend angles downhole it would save the customer significant time and money by eliminating a trip.

Solution:

The 7⅞-in. Vector™ Series 50 SelectShift™ was chosen for this challenge, due to the motors ability to change bend settings downhole and eliminate a trip. This motor featured an 1.5° to 2.25° adjustable bend settings and was paired to a 7/8 lobe, 5.0 stage ERT™ power section. This configuration would provide the reliability and performance needed for this demanding application.

Results:

The SelectShift BHA was able to successfully complete the bottom vertical and curve section of the well in a single run. The SelectShift was set up for a single shift application and drilled from 8,130 ft to 10,680 ft in 34 drilling and circulating hours, while shifting from 1.5° to 2.25° inclination at the KOP of 9,710 MD. This enabled the client to eliminate the trip for a dedicated curve BHA assembly. Over the course of the run the SelectShift completed the following results:

- Completed bottom hole vertical and curve sections (1.4° Inc. to 81° Inc.)
- 2,550 ft interval drilled in 27.2 drilling hours
- 93.7 Average ROP
- 34 hours from beginning of bottom hole to landing point
- Eliminated dedicated curve assembly trip

Well Name	Motor Type	Depth in (ft)	Depth Out (ft)	BRT Hours	No. of BHA's
Subject well	SelectShift	8,130	10,680	55.93	1
Offset	Conventional	7,809	10,608	61.33	2



Client:	Confidential
Well Name:	Confidential
Field:	Three Forks
County:	Mountrail
State:	ND
Country:	USA
Date:	Q1 2021



675ERT7850 Power Section Specifications

Flow Range	300-700 GPM
Rev per Unit Volume	0.27 Rev/Gal
Speed Range	81-189 RPM
No Load Pressure Loss	221 psi
	PXP
Max Rec Pressure	1,380 psi
Torque @ Max Pressure	13,680 ft-lbs
Stall Pressure	2,530 psi
Stall Torque	25,030 ft-lbs