

Case study: North America

# NaviTrak HR highly reliable MWD service saved customer \$2.1M USD

The fast drilling operations of North America Land require a high level of performance and efficiency. Our customer was experiencing reliability issues within high temperature environments of 293°F – 311°F (145°C – 155°C). Multiple BHA runs due to failures were causing non-productive time (NPT) and increasing operational costs.

Baker Hughes provided the **NaviTrak™ HR highly reliable MWD service** featuring an upgraded onboard memory and high temperature directional sensor package. Additional features included configuration for flow off surveys and continuous inclination and azimuth, allowing the operator to drill a faster, more precise well.

Operations and technology collaborated with the customer providing a customized drilling procedure to eliminate invisible lost time (ILT), optimize BHA make up, and improve steering decisions based on highly accurate continuous inclination and azimuth. The customer gained visibility to track their well profile in real time, optimizing drilling to attain TD in the shortest period.

By deploying the NaviTrak HR highly reliable MWD service, Baker Hughes improved reliability over legacy performance and increased average ROP by 29%, saving the operator more than 7 days of rig time estimated at \$2.1M USD.

## Challenges

- High temperature environment
- Multiple BHA runs
- Increased operational cost

## Results

- Improved reliability
- Increased average ROP 29%
- Enhanced wellbore positioning
- Reduced rig time by 25%
- Saved \$2.1M USD

	Lateral duration (days)	Lateral duration on bottom (days)	Lateral drilling ROP (ft/day)	Lateral ROP (ft/hour)
<b>NaviTrak HR MWD service</b>	3.35	2.62	3107	162.41
<b>Legacy performance</b>	4.40	3.09	2406	139.71
<b>Improvement</b>	<b>23.86%</b>	<b>15.21%</b>	<b>29.4%</b>	<b>16.25%</b>

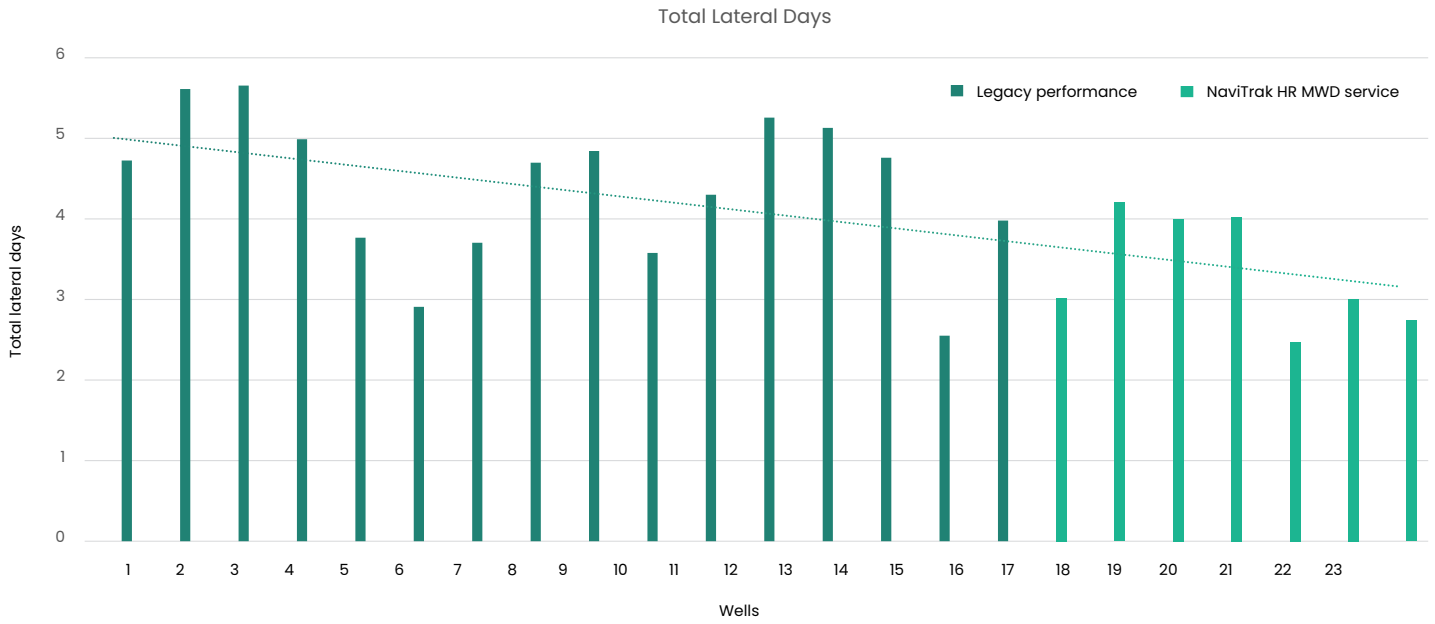


Figure 1 – Average drilling lateral section days