

High-resolution tortuosity logging

Visualize wellbore trajectory in real time and customize analysis to optimize drilling and completion

Applications

→ Drilling

- BHA design
- Wellbore quality
- Casing wear
- Drilling dynamics

→ Completions

- Torque and drag
- Insertion modeling
- Liner seal placement
- Packer placement and setting
- Perforating gun BHA optimization

→ Production

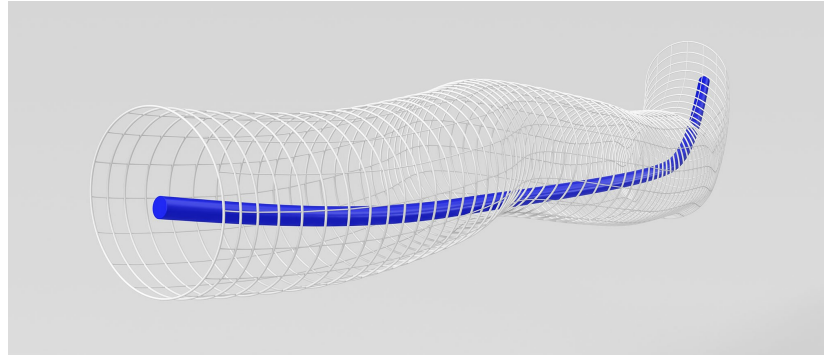
- ESP placement
- Rod guide design and placement
- Tubing tension
- Seating nipple location
- Subsidence monitoring

Benefits

- Enables visualization of wellbore trajectory in real time
- Facilitates completion designs
- Provides high-accuracy measurements and high-resolution images of the wellbore
- Optimizes drilling and completion

Features

- 3D visualization of borehole quality
- High-resolution tortuosity and obstruction analysis
- Future field development improvement by running in existing datasets
- Real-time decisions with TruLink™ definitive dynamic survey-while-drilling service



MicroGuide high-resolution tortuosity logging delivers 3D visualization of the wellbore shape to enable optimal wellbore and pump placement.

How it improves performance

MicroGuide™ high-resolution tortuosity logging enables operators to easily detect anomalies in the wellbore, facilitating smoother drilling, completion, and production operations. With its high-resolution 3D visualization and traditional log formats, it quickly highlights tight intervals or tortuosity issues using high-frequency survey data of the wellbore trajectory. These logs deliver comprehensive analyses of tortuosity and obstructions, helping to determine the optimal placement of artificial lift systems and other equipment, such as electric submersible pumps (ESPs) and rod lift systems. Additionally, interpretations and analysis reports from the MicroGuide logging can be tailored to provide specific insights for each wellbore to extend the life of the well and minimize costly workovers.

How it works

MicroGuide high-resolution tortuosity logging can be acquired through two modes. It can operate in continuous gyro surveys conducted through cased hole on wireline, allowing for precise identification of optimal locations for downhole ESPs and other completion equipment, such as packers. These devices are typically installed in the straightest sections of the well to reduce wear and damage, optimizing production and extending their lifespan. The second mode operates in combination with the TruLink definitive dynamic survey-while-drilling service, providing real-time insights on borehole quality, identifying tight spots before pulling out of the hole, and generating casing and completion running insights to improve well construction efficiency.

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