

# Local Dog Leg Analysis

Ref: SM02

## Objectives

- Reconstruct local doglegs between survey stations based on field data and BHA directional behaviour
- Improve friction factors determination; distinguish tortuosity and hole cleaning caused friction
- Enhance 3D wellbore positioning accuracy by identifying doglegs missed by survey
- Optimised sliding/rotating pattern to improve borehole quality and reduce wellbore tortuosity
- Analyse tortuosity induced sliding counter performance and casing RIH issues

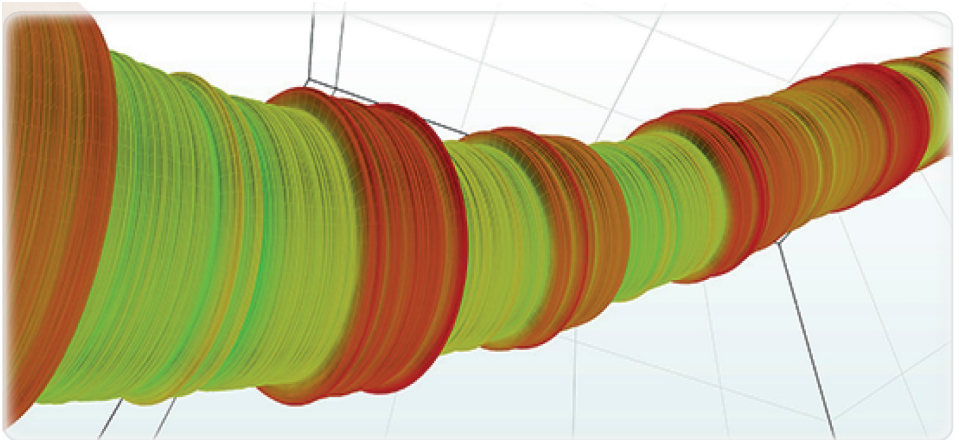
## Benefits /

Pre-Well

Real Time

Post-Well

- Increase safety by improving collision avoidance management
- Increase rig drilling envelop and extend horizontal drain limit
- Save NPT by avoiding mechanically stuck string issues
- Improve ROP by reducing the slide to rotate ratio of steerable motor assemblies
- Avoid being intrusive to the drilling process by over steering & downlinking with RSS tools



Reconstructed sliding/rotating pattern of a steerable motor BHA

## Includes

- Trajectory reconstruction between surveys using field data and step by step trajectory prediction
- Stiff-string model with unique contact point management and side force calculation
- Real time support in sensitive drilling phases (collision avoidance, intercept, ...)
- Step by step directional calculations, 3D inclination and azimuth corrections
- Applicable to any type of survey tool, drill string and BHA (Rotary, VGS, RSS, Motor, URWD)

## Deliverables and Timing

- Earliest result delivery within 4 days after reception of full and usable set of data
- Delivery of final PowerPoint® or written report within 2 weeks, intermediate reports on demand
- Result support from our most experienced Drilling Champions, upon request
- Result presentation in client's office (optional)
- Real time support available onsite or remotely (optional)