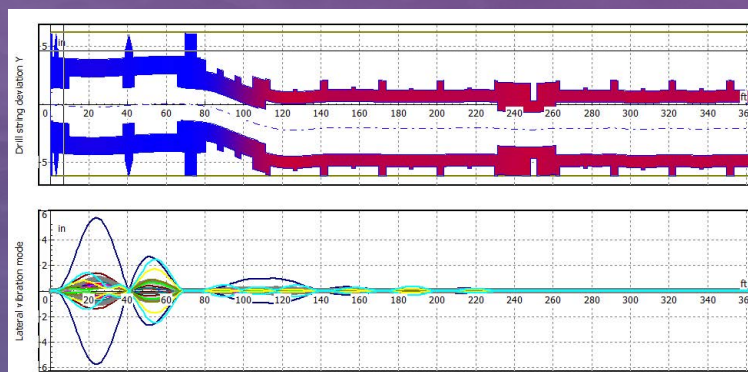


# RiMo Critical Speed Analysis

## Why

Vibration in drilling systems causes costly failures. It leads to BHA failure, bit damage and wears, poor borehole quality, fatigue, and even poor downhole logging. The Frequency domain models or critical speed analysis are fast running tools. The natural frequencies of the drill string and BHA are evaluated over a wide range of operating parameters like WOB, RPM and flow rates. A map of the safe operating range is developed from this analysis for drilling guidance.



CSA Lateral Vibrations

## Features

- Estimate drill-string & BHA vibrations.
- Evaluate safe operating window as a function of WOB vs. RPM.
- Evaluate axial, lateral and torsional vibration modes.
- BHA optimization to reduce vibrations
- Stabilizer placement and optimization
- Conventional drilling assemblies
- Directional drilling tools:
  - o Motors
  - o RSS - Point the Bit
  - o RSS - Push the Bit
- Fast running
- Can integrate to real time systems
- Results customization
- Automatic report generation
- Standard US, SI & Custom Units

## Benefits

The RiMo – Critical Speed Analysis (RiMo – CSA) module is a fast running easy to run package to evaluate the safe operating range of bottom hole assemblies (BHA). Drillstring vibrations like axial, torsional and lateral vibrations can be predicted as a function of WOB, RPM and flow rates. The module provides the following benefits:

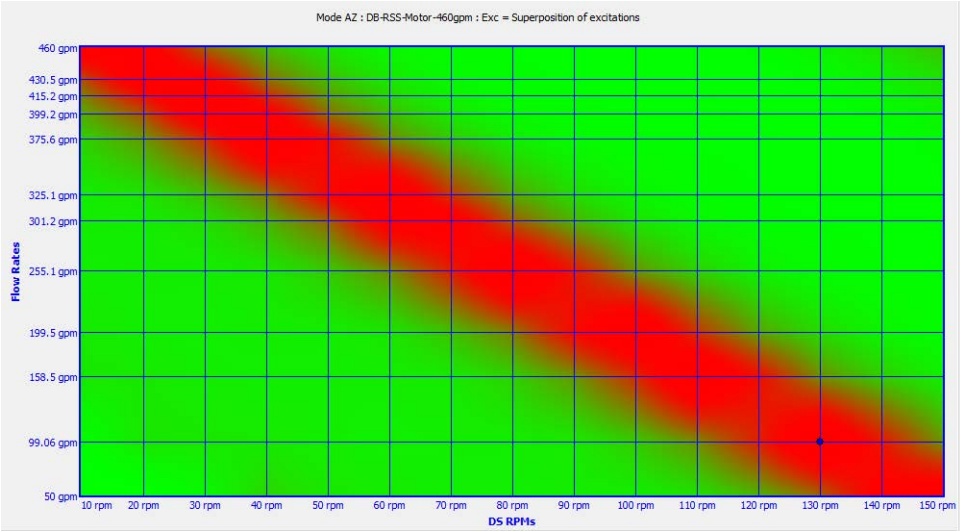
- BHA and drillstring stability analysis
- Identify different BHA/Drillstring vibration modes
- Provide map of critical and safe operating window
- Integrates with BHA sag calculations
- Easy to setup
- Fast running
- Multiple BHA & Multiple depth analysis
- Multiple excitation sources like bit, motors, shock subs, agitators etc.



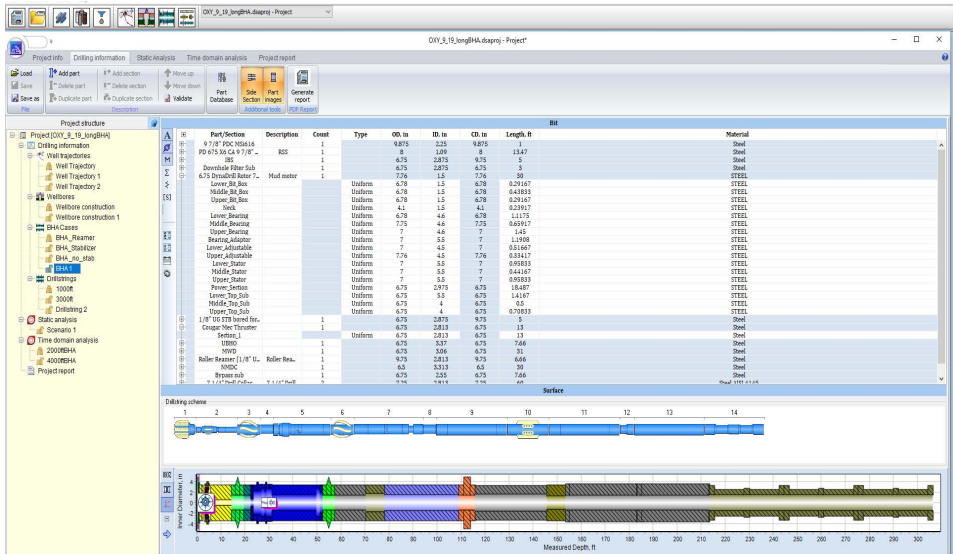
# Ready to move mountains? Talk to us now!

MindMesh Inc. ▪ (713) 489-7798 ▪ connect@mindmeshtech.com

Houston | Barcelona | Chennai | Detroit | Los Angeles



CSA Flow rate vs. DS RPM



RiMo Software Interface

WWW.MINDMESHTECH.COM