**CASE STUDY** 



# Nabors Avoids \$320,000 in Equipment Costs, Improves Downtime Using AI-Based Predictive Maintenance Solution

## Objective

Use machine health offering from RigCLOUD<sup>®</sup> and KCF Technologies ("KCF") to proactively predict equipment maintenance on drilling rigs, minimize equipment damage and avoid downtime

### Trial Overview

- > **Four** rigs in South and West Texas
- > 96 sensors
- 12 mud pumps
- Five months

Sensors were installed to monitor mud pump vibrations. Artificial Intelligence (AI) and certified subject matter experts from the Rigline 24/7<sup>™</sup> center in Houston remotely analyzed the data to identify potential issues. Recommended actions were communicated to the rig manager. Feedback was incorporated back into the system for continuous improvement.

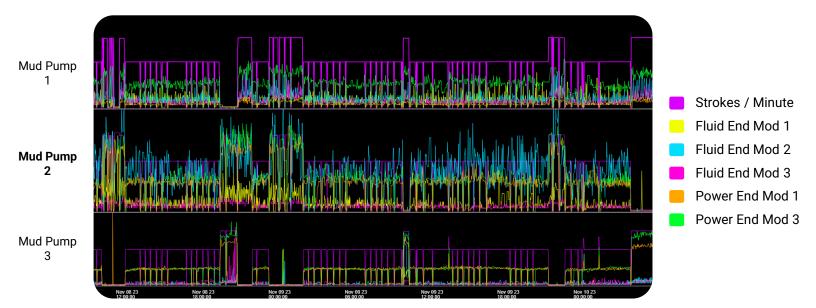
### Results

Nabors avoided \$320,000 in equipment costs, and downtime, during the pilot.

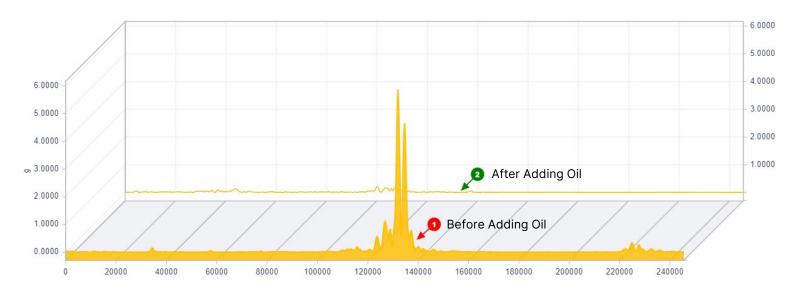


#### Highlights: Mitigating Power End Failures

KCF sensors detected abnormal power end vibrations from a mud pump. Upon inspection, the external oiler was not discharging oil over the power end or crossheads. Proactive adjustments were made, avoiding a potential failure with an **estimated cost of \$160,000** plus downtime.



KCF sensors detected high vibrations on a mud pump, upon inspection, the lube oil level was low. The crew promptly added oil, improving lubrication and lowering the vibrations. The proactive maintenance avoided a potential power end failure, resulting in a **cost avoidance of \$160,000**.



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