



Independent Operator Drilling in West Texas with Diesel OBM Reduces Lubricant Consumption Rate by 67% by Using Tribex™ ERD in Extended Reach Lateral

Well Summary

An independent operator in West Texas was experiencing high downhole torque values in ERD laterals. The costly impact to the operator was a reduction in drilling efficiency, a reduction in lateral length associated to rig limiting torque, increased rates of tool failure associated with downhole vibrations, and progressive costs associated with liquid lubricants. As a consequence, an evaluation was made comparing two common liquid lubricants vs. Tribex™ ERD Additive. Field trial data showed that at a 67% reduction in active concentration, Tribex™ ERD Additive achieved the same or better values of torque as compared to both common liquid lubricants. The operator was able to achieve an increase in drilling optimization and performance while lowering their overall lubricant spend.

Well Outline

Interval Length: +/- 10,000 ft.
Well MD: +/- 20,300 ft.
Well TVD: +/- 10,000 ft.
Hole Diameter: 6.25 inches

Objective

Operator wanted to evaluate performance of Tribex™ ERD Additive vs. Liquid lubricants used in ERD applications. The field evaluation was on a 3-well pad allowing for the closest offset data for comparison. Well #1 and Well #2 were drilled consecutively with 3% by volume liquid lubricant 1 and 2 respectively. Well #3 was drilled with 3 ppb of Tribex™ ERD Additive. Well #3 had reduced torque at one-third the concentration of liquid lubricant with controlled torque variations minimizing downhole vibrations.

CHALLENGES

- High torque values exceeding limitation of rig equipment
- High drag on trips
- Large torque variation (tortuosity)
- Progressive tool repair costs
- Tool failures

SOLUTION

- Tribex ERD Additive- 3 ppb

RESULTS

- Torque values reduced
- ERD lateral drilled to TD successfully
- Torque variations minimized

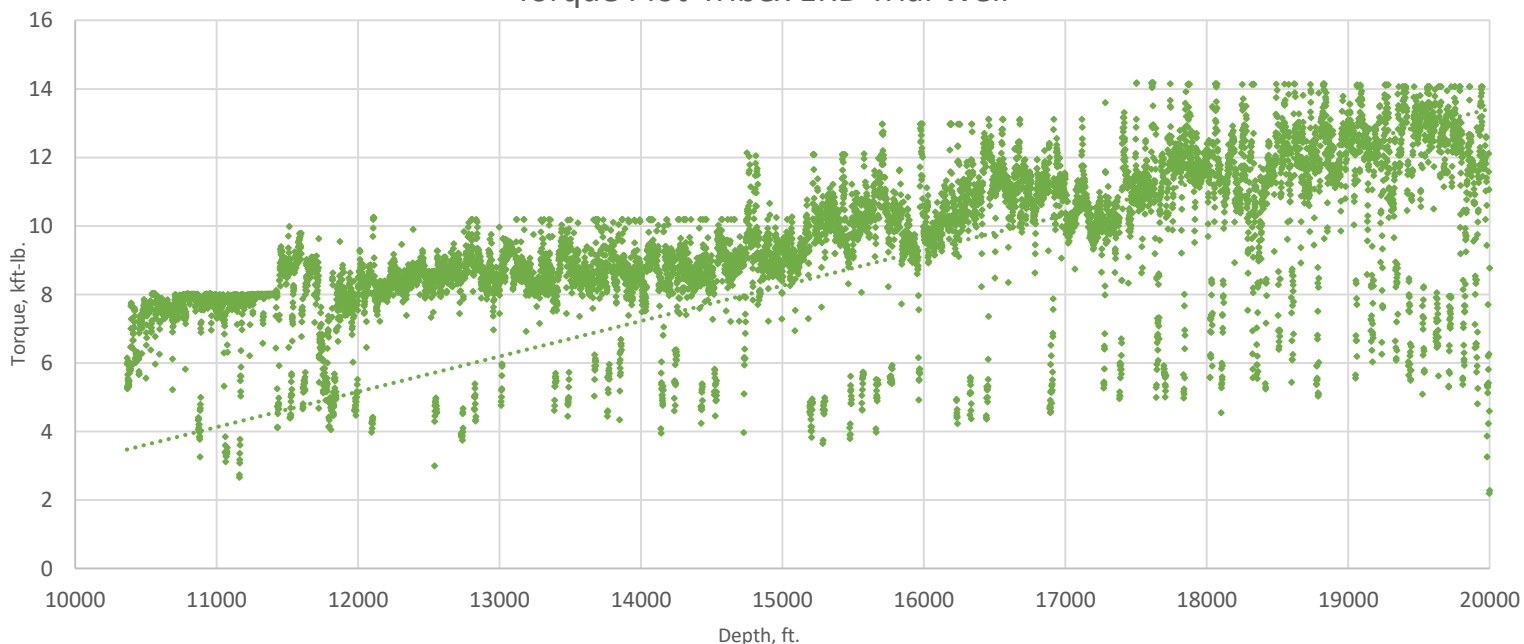
MUD TYPE

- 80:20 Diesel OBM



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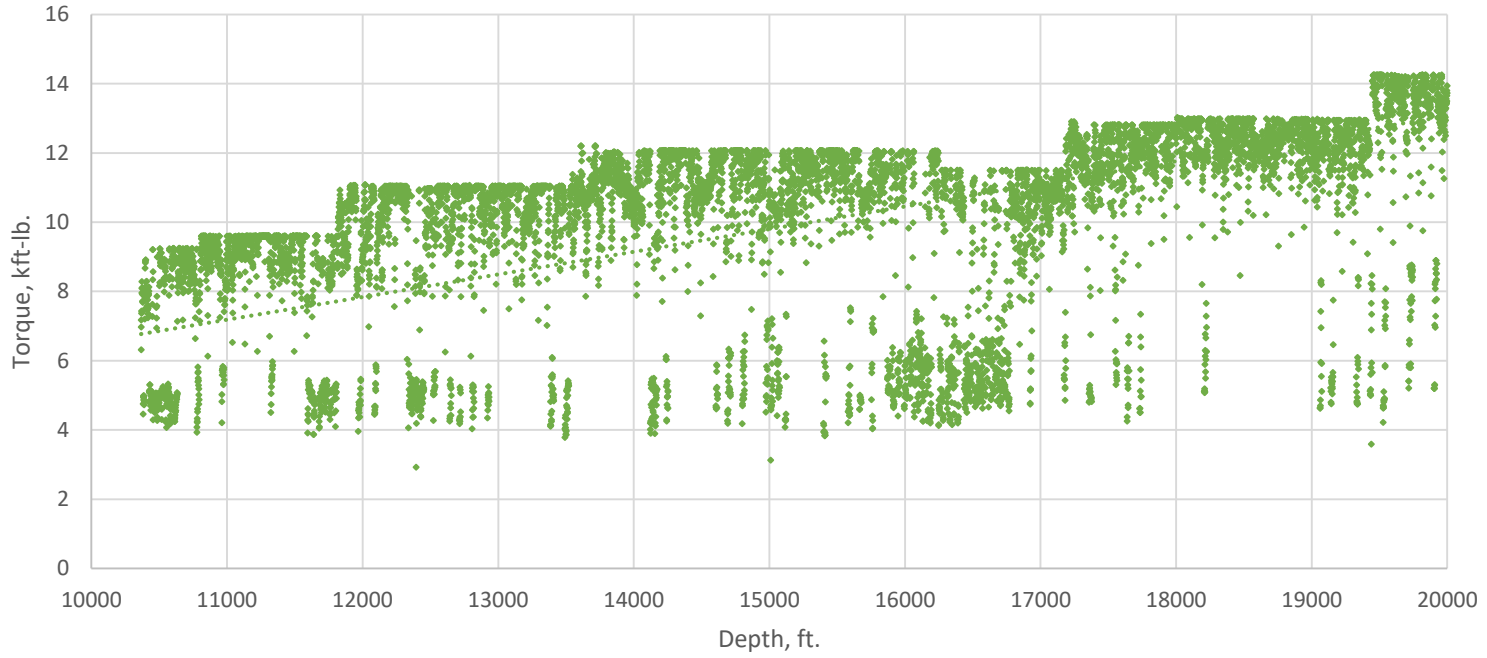
Torque Plot-Tribex ERD Trial Well



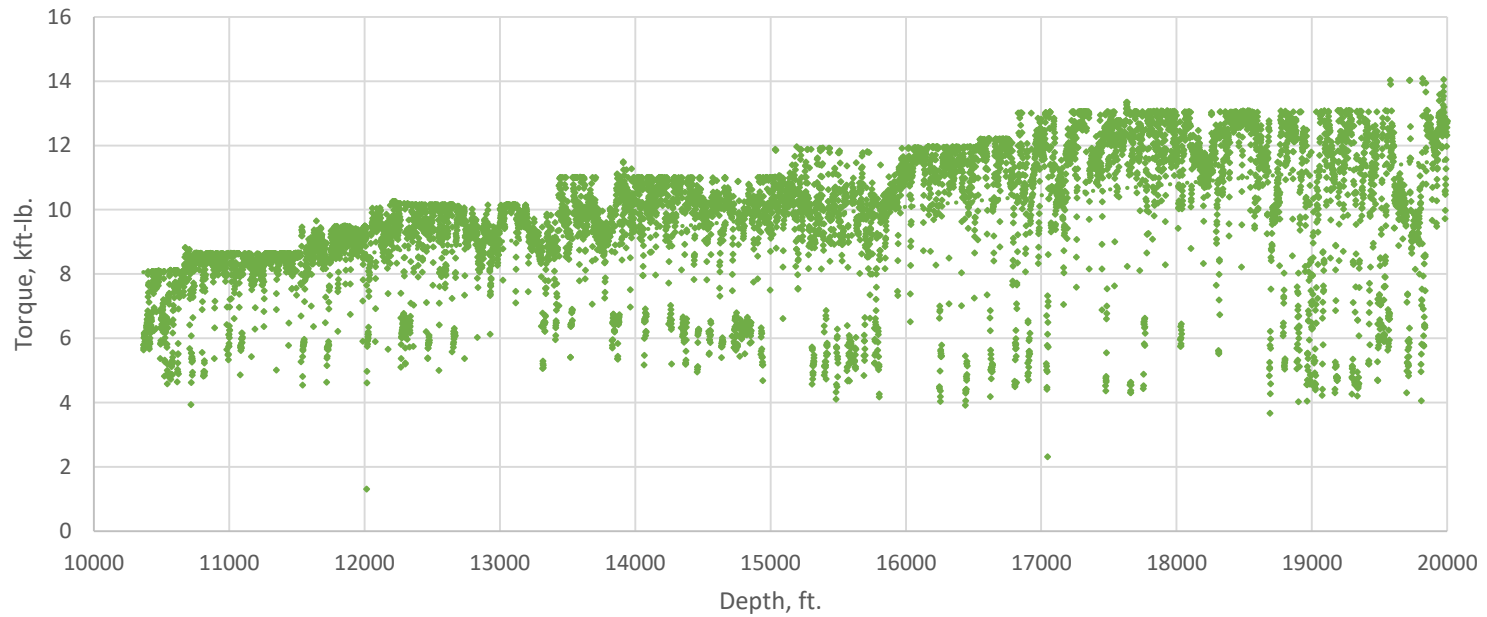


Tribex™ ERD Additive continued

Torque Plot-Offset #1



Torque Plot-Offset #2





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