



# WWT Silencer

WWT Silencer Helps Reduce Vibration, Resulting in Improved ROP and Reduced Bit Wear while Drilling 2-Mile Lateral

## WWT Silencer Helps Reduce Vibration and Improve ROP

### Executive Summary

- Drilling through the abrasive formations in the Permian's 2nd Bone Spring has caused numerous downhole MWD and drill bit failures due to high levels of vibrations. WWT Silencer Non-Rotating Sub assembly was utilized in the BHA to mitigate downhole vibrations, which resulted in improved drilling performance.

### Accomplishments

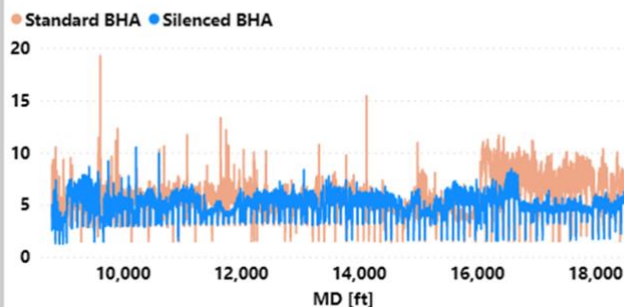
- Drilled 1 mile in 24 hours using conventional steerable BHA,
- Drilled the entire 2 mile lateral with one BHA.
- After drilling 2 mile lateral, bit showed almost no wear.

### Comparison to the other well on this 2-well pad

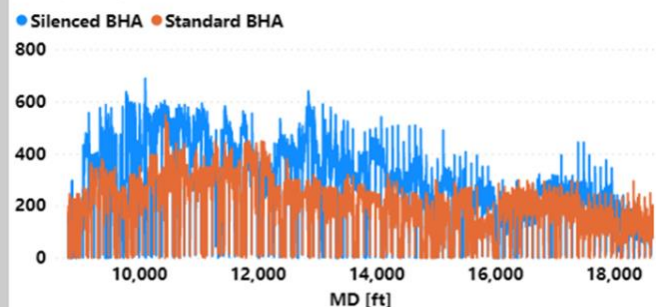
- 42% increase in average ROP through the lateral.
- 11% increase in WOB
- 12% reduction in axial vibration.
- 8% reduction in lateral vibration.



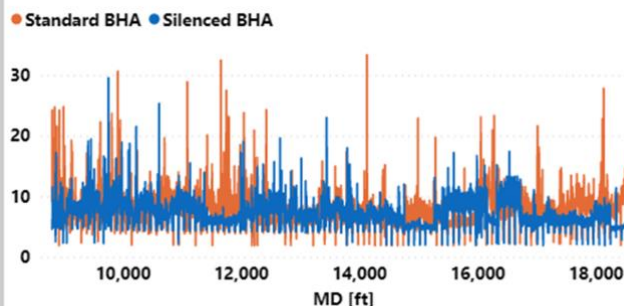
Shock Axial RMS - Vibration [g]



ROP [ft/hr]



Shock Lateral RMS - Vibration [g]



WOB [klbf]

