



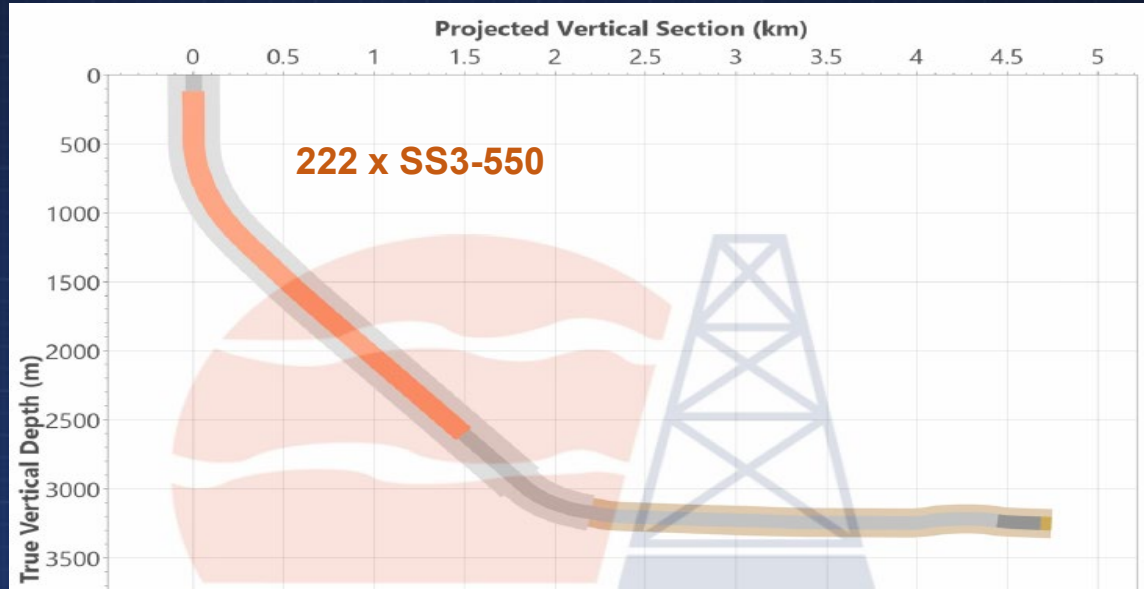
## NRPs Reduce Torque by 36% in Offshore Directional well

### Summary

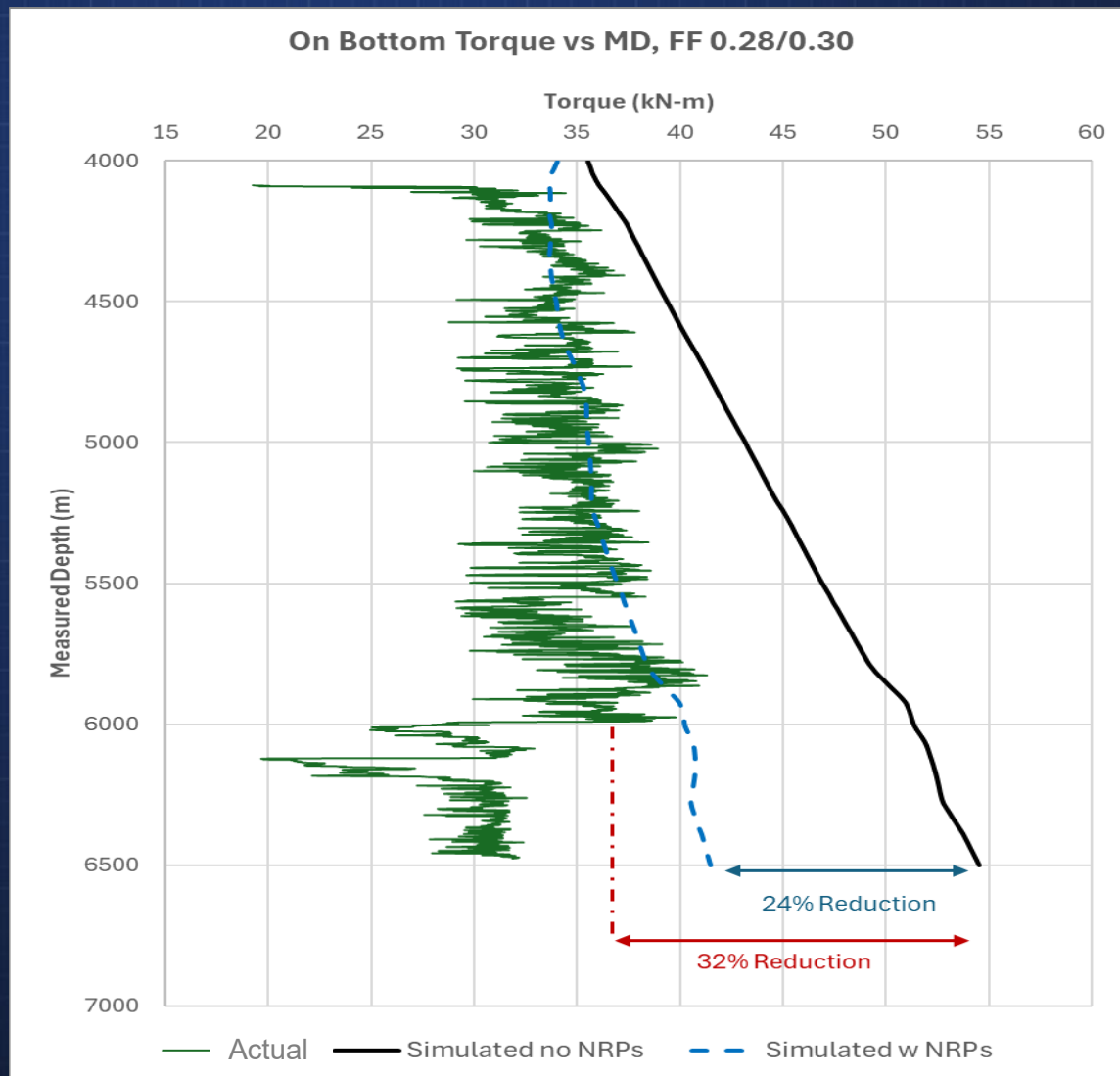
An operator drilling an offshore directional well used WWT's Non-Rotating Protectors (NRPs) to reduce torque while drilling the 8-1/2" section and 6-1/2" lateral sidetrack.

The 8-1/2" section was drilled from 4,060 – 6,475m MD.

The 6-1/2" sidetrack was drilled from 4,372 – 5,490m MD.



On Bottom Torque vs MD, FF 0.28/0.30



### NRP Performance

Results showed that NRPs helped reduce the torque by up to 32% in the 8-1/2".

RPM and WOB were reduced at 6,000m MD in the 8-1/2" section which reduced torque even further.

Data also shows that torque was reduced by 36% at TD of the 6-1/2" section.