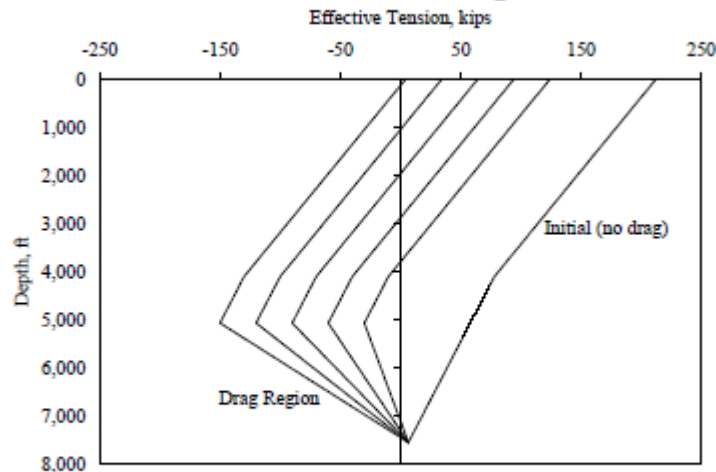


Stress Engineering Calculated Effective Tension Along Drill Pipe

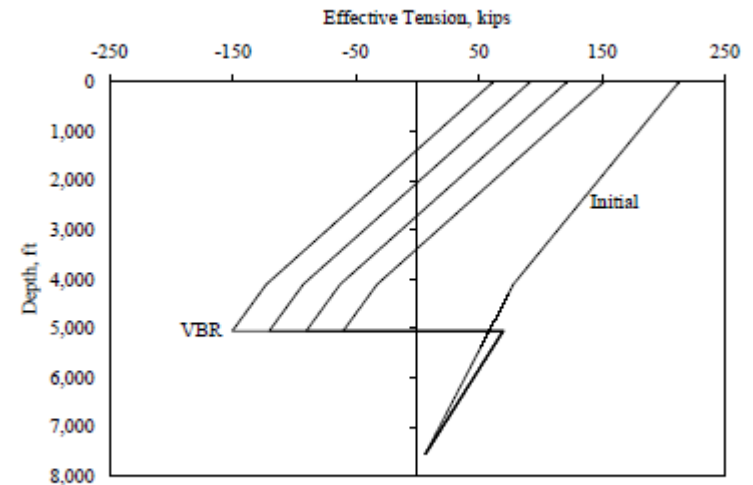
Effective tension for drag load cases



Pipe below the neutral point (effective tension = 0) will contact the wall and form a helix

Figure 3: Effective Tension for Five Drag Load Cases

Effective tension for VBR load cases



Assumes 2 ppg above VBR and 5 ppg below VBR

Figure 8: Effective Tension for Four VBR Load Cases

- Stress Engineering calculated the effective tension along the drill pipe for several different load cases
- Drag load cases are right before VBRs close and seal at 21:47
- VBR load cases are right after VBRs close and seal at 21:47
- Negative effective tension = compressive force
- Positive effective tension = tensile force