

### Scaling from laboratory to the field – typical loading rates & magnitudes

- In the laboratory, a 1000 psi pressure change is imposed over 10,000 seconds, and maybe over 31,536,000 seconds (1 year) in the field – ca. 3000 times slower.

- Compressibility acting over reservoir depletion time-scales will include creep and other “slow deformation” effects.

- Wire-line logging perturbations imposes a small pressure change at extremely high frequency. Seismic velocity has a lower frequency, but a similar stress change.

24

XAHXD15-000031

TREX 011519.0024