

5

Q X550 ft

- PEF ≈ 2 b/e → quartz,
- low GR → low clay.
- low Resistivity → water saturated ($\phi_N = \phi_0$)
- $\phi_N \approx \phi_0$ → we can read porosity directly (sandstone rock)

$$\phi \approx \phi_N \approx \phi_0 = 45 - 2.5 \times 12 \approx 15\%$$

Q X380 ft

- PEF ≈ 5 b/e → calcite
- low GR → low clay
- $\phi_N \approx \phi_0$ (limestone rock)

$$\phi \approx \phi_N \approx \phi_0 = -15 + 12 \times 1.5 = 3\%$$

- C
- PEF ≈ 2 b/e → quartz
 - low GR → low clay
 - $\phi_N \approx \phi_0$

$$\phi \approx 45 - 2.8(12) = 11.4\%$$