

Tech Sheet Well barriers versus pressure plot feature

Objective

- Make safe wells and contain pressure
- Clearly visualize your barrier definitions
- Make sure everyone understand the barriers, strengths and weaknesses in the wells

A new approach to well barrier design

Traditionally we have Well Barrier Schematics forms that list barrier elements, and how they are qualified and monitored. Wellbarrier have now developed a supplementary solution where we place the lithology and pore and fracture pressure curves next to the well barrier illustration to clearly see how they interact.



Features now available in the "Wellbarrier Illustration Tool"

- Easy import function of pressure and density data from excel format
- Lithology can be shown or omitted
- Easy correlation of illustration depths against the depth scale on the pressure plot
- Formation strength points on the illustration are drawn across to the pressure plot
- Horizontal reference lines are drawn at any point of interest (top of formations in particular)
- Single or dual gradient lines can be added to pressure plot. These will be automatically adjusted to the units, scale and physical height of the plot
- Allow any unit of measure to be used, so that understanding across operating entities is made easy.
- Can be presented as both pressure and density plots

Benefits

- Clearly identify vulnerable points in the well
- Ensure that the formation has sufficient strength at the defined barrier depths
- See effect of gas filled wells based on maximum formation spikes
- See how pressure applied from surface (or through leaking tubular) affect the well system
- Allows stakeholders to clearly see situations and risk in the well
- Shows evolution throughout the lifecycle of the well