

# The Unexpected: What We Do Know About Casing Deformation and How to Deal with It

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Alberto Casero is a Technical Advisor for Fracturing and Stimulation within the BP Wells Solutions. His presentation will be at 9:00 Central Time on Thursday, May 12, 2022. The topic is “*The Unexpected: What We Do Know About Casing Deformation and How to Deal with It.*”

## Abstract

Hydrocarbon exploration and production is hardly a mono-thematic science. The success of this technical and financial endeavor is the result of a multi-disciplinary effort required to achieve a good understanding of all the factors involved. Casing deformations proved to be a challenging problematic that is sometime difficult to avoid and good knowledge of geology, fluids and geomechanics is crucial to properly tackle it. Unconventional and conventional plays, especially in international regions are often located in areas where stresses are quite high and, in many cases, not normal fault regime, rather strike-slip or even reverse fault. In these geological settings, with horizontal wells drilled at great depths (>4000m TVD), presence of geological hazard such as faults and natural fractures, complex stratigraphy with multilayer features and geomechanical complexity such as high stress and active tectonic, the well can be occasionally subject to stresses easily exceeding the technical limitation of the materials used. Even with a good and sound tubular design, the conditions at which the technical design limits are exceeded can occur unexpectedly with onerous economic and operational consequences which usually result in limited well accessibility.

This presentation will address what should be put in place to understand, monitor, and mitigate casing deformations with the objective of providing the completion, drilling and intervention engineers with tools to minimize operational inefficiencies and financial impact.

## Biography

Alberto Casero is a Technical Advisor for Fracturing and Stimulation within the BP Wells Solutions where he provides technical solutions for tight gas and shale gas fields in North America and Overseas, including multistage horizontal wells. He joined BP in 2011 after working for both International operators and Service providers, including ENI and Halliburton, he has been involved and leading conventional and unconventional projects around the world for 25 years and has authored numerous papers. He graduated at the Polytechnic of Turin with an MSc in Mining Engineering.