



**Society of Petroleum Engineers**

# INCREASING PRODUCTION WITH BETTER WELL PLACEMENT IN UNCONVENTIONAL SHALE RESERVOIRS CHALLENGES AND SOLUTIONS

By Jason Pitcher (Halliburton)

Director of CamShale for Cameron based in Houston, Texas. He received his bachelors of Science degree in Geology from the University of Derby and his masters of Science degree in Mineral Exploration from Imperial College in London. Jason had 22 years of experience with Halliburton, having worked in multiple areas of data acquisition and interpretation. He has developed and managed well placement operations around the world, contributing to multiple national and international geosteering campaigns. He has co-authored over 20 papers and articles on LWD tools, petrophysics, geosteering, and unconventional shale exploration and development.

**Location:** Faculdade de Ciências da Universidade de Lisboa (FCUL)  
Campo Grande 1749-016, Lisbon  
Amphitheater 3.2.13

**Schedule:** Friday, March 11 @ 12h30

## An Extra 45 Minutes Can Provide a World of Knowledge

### **Abstract:**

The idea that the stimulation process "will take care of the geology" in unconventional reservoirs is proving false.

Unconventional reservoirs are often regarded as resource plays with little demand for reservoir analysis beyond simple geosteering techniques during the development campaign. This leads to the common practice of stimulating wells with equally spaced stages and treating all the stages exactly the same, with no regard to the nature of the rock being treated. As a result, production can vary from each stage, with some stages either not contributing or doing poorly.

Clearly, the stimulation process alone cannot mitigate the impact of geology in unconventional reservoirs; however, mechanisms do exist for improving results in these reservoirs. Mapping the distribution of geomechanical properties for optimal stimulation is one example of unconventional thinking that can be applied. The practice of "steering to brittleness" or similar techniques can have a direct impact beyond simple well placement. Given a map of geomechanical properties along the wellbore, completion engineers can optimize the position of plugs or packers, and stimulation engineers can fine tune the design of the treatment applied to the rock. By re-establishing the link between production and geology, these methods can decrease the exploitation costs of unconventional reservoirs.

Organized by:



Sponsored by:

