



QATAR CHAPTER



Guest Speaker
Erik Engelcke
Technical Advisor,
QUANTICO



Guest Speaker
Gareth Taylor
Technical Sales Manager,
QUANTICO

SPWLA Qatar Chapter Virtual Event
26th October 2020
12:00 - 13:00

“Machine Learning for Formation Evaluation Log Simulation and Optimized Perforating for Stimulation”

Zoom Meeting ID: 815 6164 4664
Meeting Passcode: 646041
Registration Required



Society of Petrophysicists and Well Log Analysts

Qatar Chapter

c/o North Oil Company

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Virtual Technical Talk

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The SPWLA – Qatar Chapter cordially invites you to a technical talk

Date: 26th October 2020
Time: 12:00 – 13:00 Qatar Time
Venue: Zoom Virtual Meeting
Details: Zoom Meeting ID: 815 6164 4664
Meeting Passcode: 646041

Presenter: Gareth Taylor & Erik Engelcke – QUANTICO Energy Solutions
Topic: Machine Learning for Formation Evaluation Log Simulation and Optimized Perforating for Stimulation

At the risk of sounding hyperbolic, it is quite reasonable to suggest the oil and gas exploration industry is on the cusp of a new revolution driven by the widespread adoption and deployment of artificial intelligence and machine learning technology. Once viewed with extreme cynicism by our historically conservative E&P industry, there is now a general sense that we are rapidly moving from theory to practice.

The first part of the presentation will feature Quantico's machine learning-driven approach to formation evaluation log (DTC, DTS, RHOB) simulation using only gamma ray and drilling dynamics data. This technology (QLog) can be applied in look back mode or in real-time, while drilling.

A brief introduction to the underlying data science will be presented followed by several onshore and offshore case studies. There are several compelling advantages related to synthetic log simulation; first, there is a significant HSE and sustainability consideration of having no requirements for staff on the wellsite, no tools in the hole and no nuclear sources in the wellbore; second, the cost-effectiveness of being 60%-80% of the cost of wireline logging with no appreciable sacrifice in accuracy; and thirdly, the value added by upgrading legacy well databases with a consistent suite of elastic data in the overburden section or in sidetracks, etc. where such log data is typically not acquired due to operational considerations or cost.

The second part of the presentation will focus on Quantico's QFrac technology which takes the output of QLog (DTC, DTS & RHOB) and provides Operators with key rock properties and their derivatives such as Poisson's Ratio, Young's Modulus and Minimum Horizontal Stress. These are used as inputs for stimulation modeling and design

Biography:

Gareth Taylor: a 40-year veteran of the oil industry, with a background in seismic data processing and quantitative seismic interpretation. Gareth was one of the founders, in 1998, of Houston-based Rock Solid Images and he joined Quantico as the Technical Sales Manager in October 2019.

Erik Engelcke: a hydraulic fracturing expert, who has had technical oversight over thousands of stimulation treatments in various basins across the southern US and international. Erik started his career at Halliburton and has since worked in various roles of increasing responsibility in engineering and management at public and private E&Ps in Houston. Erik is a technical advisor at Quantico.