

Symposium Keynote Speaker



Dr. Michael Fripp

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Dissolvable Fracturing Tools: How to turn a terrible material into a great product

Michael Fripp is a Distinguished Engineer and has worked for the last 18 years creating new oilfield technology for Halliburton. He has over 350 awarded and pending patents that address many aspects of downhole oil and gas production. He is a principal inventor of the materials in dissolving hydraulic fracturing tools as well as of oilfield acoustic telemetry and fluidic devices. He has been named as an Innovative Thinker by World Oil Magazine and has been recognized as a Texas Genius by the organization Genius Awards. Dr. Fripp has a PhD degrees in Aeronautics and Astronautics from MIT and is a licensed professional engineer. He has authored numerous technical papers and has coauthored 4 books.

Abstract:

Over 95% of new wells in the US are hydraulically fractured. Because fracturing of the rock is performed section-by-section, the process ends with a series of plugs remaining in the wellbore. These plugs must be removed before any oil or gas can flow. Traditionally, this takes a laborious process of drilling out all of these plugs.

We created a really terrible metal and a terrible rubber that both fall apart in water. While terrible for any long-term application, they are perfect for creating a frac plug that will dissolve after the fracturing is done. The oil and gas flow freely without any additional drilling.

This talk will describe the hydraulic fracturing process, the invention of the dissolvable materials, the challenge of testing terrible materials, as well as their use as a great product in the oilfield.