

Calibration of Hydraulic Fracture Modelling for Initial and Re-frac Operations via Real-time Fluid Tracking

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Adam Berre is the Director of Consultancy at Rockfield. His presentation will be at 9:00 Central Time on Thursday, September 29, 2022. The topic is “*Calibration of Hydraulic Fracture Modelling for Initial and Re-frac Operations via Real-time Fluid Tracking.*”

Abstract

Multi-cluster hydraulic fracture modelling conducted with the full-physics software ‘Elfen-tgr’ has been show to produce non-symmetric fractures due to the effect of stress shadowing between adjacent fractures - a phenomenon that is not captured in many fracturing simulators. The non-symmetric fracture patterns evolve dynamically during the fracture propagation phase, and are a function of many geological and operational factors such as rock stiffness, in-situ stress/pore pressure conditions, completion design (cluster spacing and perforation design), and injection rate and fluid type.

Advances in real-time fluid tracking provides a valuable calibration point for the non-symmetric fracture growth seem with the modelling; and has allowed successful operational decisions to be made with confidence for both initial and re-fracturing scenarios.

Biography

Adam has over 23 yrs employment at Rockfield and has overall charge of Rockfield’s consulting projects from a top-level management perspective, independently technically reviewing all elements of the projects prior to release to the client and continuously managing all manpower aspects that go with a busy, world leading, geomechanics software company.

Adam also feeds into many areas of the day-to-day operations of Rockfield providing both commercial and technology structure into the Joint Industry Projects (JIPs) and Rockfield's continuous research projects both internal and external. Also helping drive the future strategy of the company, identification, and scoping of "generic software tools for the industry" all driven from our core product ELFEN.