

It's Official... ProTechnics is GOHFERing It!!

Core Laboratories has built over the last few years the capability to offer a wide variety of services to optimize reservoir value. Most recently, the ProTechnics Division of Core Laboratories has successfully completed a formal alliance with Barree and Associates of Denver, Colorado to further enhance our capabilities in fracture stimulation optimization services. Through this powerful alliance, ProTechnics can now not only trace and image your frac job, but through the use of GOHFER (Grid Oriented Hydraulic Fracture Extension Replicator) we can also model and design your frac job.

GOHFER (a registered trademark of Barree and Associates) is an easy to use, realistic 3-D fracturing design simulator that is the ultimate tool for designing treatments in complex reservoirs and horizontal wells. Nothing has been assumed during the development of GOHFER. For the past 15 years GOHFER has been built up and continually refined through the use of established

formulations that have been verified both in the laboratory as well as in the field.

Some of the advantages of using GOHFER include:

- The only system able to properly predict proppant transport
- Not limited to horizontal "layer cake" formations, but enables the engineer to model any reservoir geometry and is able to handle horizontal and asymmetric well models including complex reservoir geometry
- Models multiple perforated intervals with diversion between perforations for limited entry design
- Allows for vertical and lateral variation of leak off and rheology across the fracture
- Accurately models FracPack designs by using pressure distribution screen-out criteria
- Accounts for hindered settling and convection
- Models fracture acidizing.

Ladies and Gentlemen: Dr. Bob...

Spearheading the effort in ProTechnics' newly acquired capabilities will be Robert D. (Bob) Barree, PhD. of Barree and Associates. Bob was formally the Senior Technical Consultant at Marathon's Petroleum Technology Center in Littleton, Colorado. During his 24 years with Marathon, he developed extensive expertise in the

areas of well completion, stimulation, numerical simulation, special core analysis, formation damage, and equipment design. He has been involved in the development of hydraulic fracture design simulators and fracture diagnostic procedures since 1980 and along with Valerie Barree, is the primary developer of GOHFER.

THE COMPLETION IMAGING COMPANY

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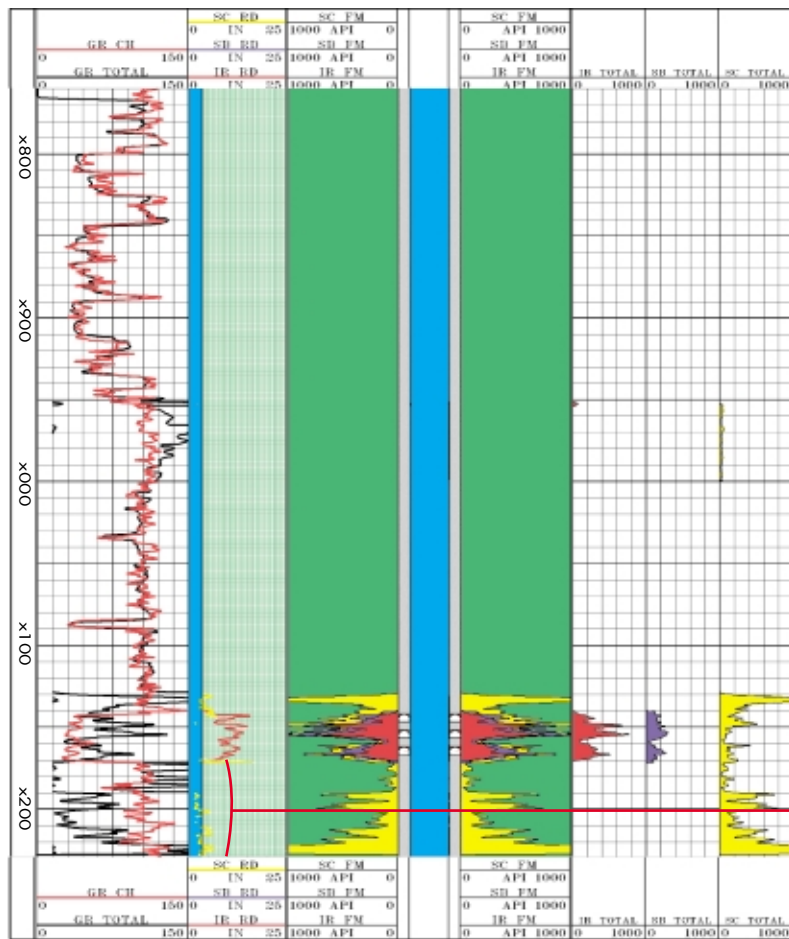
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ProTechnology Quiz: Relatively Speaking

The Answer: The existence of a microannulus

Only the SpectraScan® Completion Imager can determine the relative distance of ZeroWash® tracers from the imaging tool detectors. This is of paramount importance in making accurate and meaningful evaluations of proppant placement. Relative distance is calculated for each ZeroWash® isotope detected throughout the zone of interest. This measurement is invaluable in discerning between high proppant concentrations in the near-wellbore region versus ZeroWash® particles that reside closer to the imaging tool as in a channel or microannulus.



In the ProTechnology Quiz example to the (left), it would be quite easy to mistakenly assume that the high counts of Scandium – 46 ZW below the perforations were the result of uncontrolled downward fracture growth. However, with the added advantage of the SpectraScan® Imager's relative distance indicator and a CBL that indicated questionable bond in this area, the high counts of Scandium – 46 ZW can be easily identified as a pressure-induced microannulus created behind casing.

Congratulations to all of the winners in this edition of the ProTechnology Quiz.

Note near-field
Relative Distance
signature

ProTechnics Family grows by three...

Tasos Nickolakis - has joined ProTechnics as Business Development Manager - Eastern Hemisphere. Tasos has wide ranging experience in the international oil and gas industry and was most recently with BJ Services in Houston.

Paul Rios – joined the team as a Field Service Representative in tracer operations and will be based in Midland, Texas.

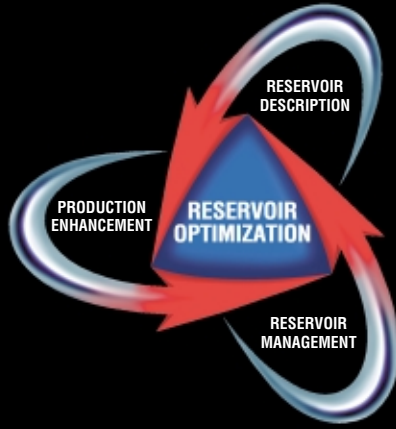
Arnold Olvera – is our latest addition in the Alice, Texas district. Arnold is a Field Service Representative in tracer operations.

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