South Australian Society of Petroleum Engineers

TRAINING COURSE

Hydraulic Fracturing: Geomechanics, Design and Analysis

Instructors:

Dr Ray Johnson Jr	Unconventional Reservoir Solutions
Dr Emma Tavener	Santos Limited

5 – 7 February 2018 | 09:00-17:00

Santos, Room G.01 | 60 Flinders Street | Adelaide SA

Register today for this comprehensive 3-day training course

Class size is limited, so don't delay – Register today!

For more information email: James Griffiths (education@spe-sa.org)

Turn over for further details...

Society of Petroleum Engineers
South Australian Section
www.spe-sa.org

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South Australian Section

South Australian Society of Petroleum Engineers

Hydraulic Fracturing: Geomechanics, Design and Analysis

SPE International
South Australian Section

Course Fees

SPE/PESA/EA Members:	$ 990
Student, Unemployed and Retired Members:	$ 750
Non Member:	$ 1500

Course fees are inclusive of 10% GST

To Register

RSVP by 29 January 2018
Sign-up at: www.spe-sa.org/events
Or send completed registration form to:
education@spe-sa.org

Payment required to guarantee your reservation

Course Description

In tight and unconventional reservoirs, hydraulic fracturing is the primary stimulation strategy to enable commercial resource development. Creation of successful hydraulic fractures requires identification of the prevailing stress regime and an understanding of the target reservoir to implement an effective fracture stimulation strategy. This three-day course will provide participants with in-depth knowledge of the geomechanics and engineering aspects of hydraulic fracturing from two subject matter experts.

Who Should Attend (Target Audience)

Reservoir, drilling, stimulation and production engineers, geoscientists, and team leaders involved in integrated teams addressing reservoir stimulation design, execution or evaluation as well as field development planning and implementation. This course assumes foundation background knowledge in geology, reservoir engineering, hydraulic fracturing and reservoir characterisation.

Course Outline

Topics to be covered include:

- Geomechanics – theory, rock-mechanical properties, pore pressure, rock strength
- The vertical stress profile, stress regimes and wellbore stability
- Determination of S-hmin, the diagnostic fracture injection test (DFIT) and DFIT before closure analyses (BCA) techniques
- DFIT after closure analysis (ACA) techniques
- Formation damage and stimulation strategies
- Hydraulic fracturing fluids, additives and proppants
- Hydraulic fracturing mechanics and simulation
- Hydraulic fracturing diagnostics and optimisation
- Production data analysis and frac optimisation

Attendees Will Receive

Student manual with full course materials

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About the Instructors

Dr Raymond (Ray) L. Johnson, Jr is presently Professor of Well Engineering and Production Technology at the University of Queensland. In addition, he is Principal at Unconventional Reservoir Solutions, serves as Adjunct Associate Professor at the University of Adelaide and has been an Adjunct Fellow at the University of Queensland. He has a PhD in mining engineering, a MSc in petroleum engineering, a Graduate Diploma in Information Technology, and a BA in Chemistry. Ray is active in the Society of Petroleum Engineers (SPE), past chair of the SPE Queensland Section, 2013 and 2015 Co-Chair of the SPE Unconventional Reservoir Conference and Exhibition Asia Pacific. He has over 37 years of hydraulic fracturing experience on several continents. Throughout his career, Ray has been involved as a technical committee member for numerous SPE technical conferences focusing on: reservoir geomechanics; hydraulic fracture design execution and evaluation; and, unconventional resource development.

Dr Emma Tavener is a Geomechanics Engineer with 15 years in the Petroleum industry. She has previously worked in Geomechanics with BP in the Drilling Exploration and Technology Group and with Santos as a Drilling and Completions Engineer. Emma holds a PhD from the University of Adelaide and is currently the Geomechanics Team Leader at Santos.

South Australian Section

TRAINING COURSE REGISTRATION FORM

Hydraulic Fracturing: Geomechanics, Design and Analysis

Santos, Room G.01 | 60 Flinders Street | Adelaide SA
5 – 7 February 2018

ATTENDEE DETAILS

NAME : _____

JOB TITLE : _____

ORGANISATION : _____

SPE or PESA MEMBER : YES / NO
IF YES, MEMBERSHIP # : _____

ATTENDANCE TYPE:

SPE, PESA & EA Members ($990) ☐ Student, Unemployed, Retired Members ($750) ☐
Non-Member ($1500) ☐

* Prices include GST

ADDRESS : (Street Name) _____

(Suburb) _____ (Post Code) _____

TEL (Mobile): _____ TEL (Work) : _____

EMAIL : _____

SIGNATURE : _____

Please send your completed registration form by **29 January 2018** to:
education@spe-sa.org

Or sign-up online at www.spe-sa.org/events

Forms of Payment :

Preferred method via Credit Card at www.spe-sa.org/events

Electronic Funds Transfer to: *(Please include your name in the transaction description)*
Account Name: Society of Petroleum Engineers SA
BSB : 085-070 Account # : 846313035