MESSAGE FROM CONFERENCE CHAIRMAN

Dear Colleagues,

On behalf of the Queensland Section of the Society of Petroleum Engineers (SPE) as well as the programme and conference organising committees, please accept my invitation to attend the SPE Asia Pacific Unconventional Resources Conference and Exhibition (URCE) to be held 9 to 11 November 2015 in Brisbane, Queensland, Australia. The theme for the conference is “The New Energy Age: Building on Success”.

As reflected in the theme, the conference builds on the success of the previous 2013 Asia Pacific URCE, also held in Brisbane, with the theme of “Delivering Abundant Energy for a Sustainable Future”. In that two year period, a lot has happened in the evaluation and development of unconventional resources in the region. Attending this conference will update you as well as keep you abreast of the technical and technology advances.

A notable advance is the world’s first large commercialisation of Coal Seam Gas (CSG) for LNG from CSG fields located west of Brisbane – there will be an informative Panel Session on this subject. In addition, there are a number of other Panel Sessions with local and internationally invited speakers that will address data analytics for unconventional reservoirs, the emerging plays in the region, the use of formation evaluation and geomechanics, the importance of sweet spots as well as an executive perspective on unconventional resources development.

The response to the Call for Papers was extraordinary. This has resulted in an excess of 20 technical sessions with as many papers again being presented via e-posters, a short interactive session with the author being held at stations in the exhibition hall. Technical sessions have been grouped into functional topics and case histories allowing attendees their choice to attend their topic of interest.

As part of SPE’s promotion of the industry and professional development, a Young Professionals Workshop will be held on 8 November before the conference commences, as well as Education Day on 10 November, Teachers’ Day on 11 November, and training courses following the conference from 12 to 13 November.

As an aside, I encourage you to attend the conference dinner on Tuesday evening and various social events to catch up with colleagues and make new acquaintances in a social environment with refreshments.

On a final yet important note, the recent downturn in oil price has been challenging our industry. To meet this challenge, it is imperative that the industry and its professional keep technically advancing to maintain its competitiveness, and attending this conference will help you to achieve this. One never knows what innovative idea may come from listening to the speakers, interacting with them, informal conversations with colleagues or discussions with exhibitors.

I look forward to welcoming you at the conference.

Stephen Kelemen
Conference Chairman
Santos Ltd.
TECHNICAL PROGRAMME COMMITTEE

Co-Chairmen

Tom Blasingame
Texas A&M University

Ray Johnson Jr.
Unconventional Reservoir Solutions

Committee Members

Usman Ahmed, Baker Hughes
Gabriel Amorer, Santos Ltd.
Bruce Anderson, BG Group
David Anderson, NCS Multistage
Luis Baez, BG Group
Mark Burgoyne, Santos Ltd.
Peter Burrows, Weatherford
Russell Byfield, Strategy Central
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Luke Connell, CSIRO Petroleum
Marcel Croon, Weatherford
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Frank Dennelle, Royal Dutch Shell
Doug Elliott, ProTechnics, a Division of Core Laboratories, L.P.
Mark Emanuele, Chevron Energy Technology Pty. Ltd.
Thomas Flottman, Origin Energy Ltd.
Hans-Christian Freitag, Baker Hughes
David Fulford, Apache Corp.
Thomas Gan, Arrow Energy Pty. Ltd.
Mike Gatens, Unconventional Gas Resources Canada
Daniel Taylan Georgi, Aramco Service Co.
Carlos Gilardone, FDC de Argentina Srl
Ian Gray, Sigra Pty. Ltd.
Guo Quan, M-I SWACO
Chad Hartman, Weatherford Laboratories
Dilhan Ilk, DeGolyer and MacNaughton
Rob Jeffrey, SCT Operations
George J. Koperna Jr., Advanced Resources International, Inc.
Tony Kourakis, Origin Energy Ltd.
Ted Lafrity, Schlumberger
Lau Hon Chung, Shell (China) Projects and Technology
Marie Louise Lees, Santos Ltd.
Jody Lowry, BHP Billiton Petroleum
Saikat Mazumder, Arrow Energy Ltd.
Jim McGowen, Halliburton
Kent F. Perry, RPSEA
Mark Pitkin, Beach Energy Ltd.
Sheik Rahman, University of New South Wales
Muthukumarappan Ramurthy, Halliburton
Jim Stannard, PETRONAS Australia
Emma Tavener, Santos Ltd.
John Thompson, NCS Multistage
James J. (Jim) Venditto, Trican Well Service
Sau-Wai Wong, Shell International E&P
Mike Zuber, Schlumberger

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Scan to visit the event website
www.spe.org/events/urce/2015
The Society of Petroleum Engineers wishes to gratefully acknowledge the contributions and support of the following companies towards the 2015 SPE Asia Pacific Unconventional Resources Conference and Exhibition.

CONFERENCE SPONSORS

(Additions/changes made after 31 July 2015 will be reflected in the Conference Programme.)

The Society of Petroleum Engineers wishes to gratefully acknowledge the contributions and support of the following companies towards the 2015 SPE Asia Pacific Unconventional Resources Conference and Exhibition.

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From left to right: Amir Farmahini, Stephen Kelemen (Conference Chairman), Andrew White, Karni Sudana, Matthew Loth and Parimal Raj.

Matthew Loth, Schlumberger – Conduct Committee Chairman
Andrew White, Santos GLNG – Exhibition and Sponsorship
Parimal Raj, Accenture – Exhibition and Sponsorship
Rod Bresnehan, CFT Energy – Exhibition and Sponsorship
David Baker, BreitBurn Energy Co. – Conference Dinner
Seamus O’Conner, Santos Ltd – Conference Dinner
Danielle Richards, BG Group – Conference Dinner
HamidReza Pourabed, Schlumberger – Training Courses

Anargul Kushkarina, SRK Consulting – Training Courses
Karni Sudana, Santos Ltd – Young Professionals Workshop
Amir Farmahini, University of Queensland – Young Professionals Workshop
Remzi Kaya, CS GAS – Young Professionals Workshop
Jacob Delilit, Santos Ltd – Education Days and Teachers Day
Sarah Bishop, Origin Energy – Social Media
### SCHEDULE OF EVENTS

*(Additions/changes made after 31 July 2015 will be reflected in the Conference Programme. All functions, unless otherwise specified, are scheduled at the Brisbane Convention & Exhibition Centre)*

#### Saturday, 7 November

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<td>0700-1800</td>
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#### Sunday, 8 November

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<td>1200-1700</td>
<td>SPE Headquarters</td>
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<td>Speaker/Author Check-In</td>
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<td>1200-1700</td>
<td>Speaker AV Preparation Room</td>
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<tr>
<td>1300-1700</td>
<td>Young Professionals Workshop</td>
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#### Monday, 9 November

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<td>0900-1000</td>
<td>Opening Session</td>
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<td>Coffee Break</td>
<td>Great Hall 1, 3 &amp; 4</td>
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<td>1030-1230</td>
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<td>Networking Luncheon and Knowledge Sharing ePoster Session 1</td>
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<td>Session 2: Shale and Tight Gas Fracturing I</td>
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<td>Session 3: Technical Advances From Shale/Tight Reservoirs I</td>
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<td>Session 4: Coal Seam Gas Reservoir Engineering I</td>
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<td>Session 5: Well Construction I</td>
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<td>Happy Hour and Knowledge Sharing ePoster Session 3</td>
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#### Tuesday, 10 November

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<td>Panel Session 2: Emerging Strategies in Data Analytics</td>
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<td>Session 6: Unconventional Formation Evaluation</td>
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<td>Session 7: Shale/Tight Gas Reservoir Engineering</td>
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<td>Session 8: Maintaining the Social License to Operate</td>
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### SCHEDULE OF EVENTS

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<td>1030-1200 hours</td>
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<td>- Session 9: Coal Seam Gas Reservoir Engineering II</td>
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<td>- Session 10: Geomechanics and Hydraulic Fracturing</td>
<td>Meeting Room M2</td>
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<td>- Session 11: Managing Your Business in Unconventional Reservoirs</td>
<td>Meeting Room M3</td>
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<tr>
<td>1200-1400 hours</td>
<td>Networking Luncheon and Knowledge Sharing ePoster Session 5</td>
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<td>- Session 12: Technical Advances From Shale/Tight Reservoirs II</td>
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<td>- Session 13: Shale/Tight Gas Reservoir Performance</td>
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<td>- Session 14: Coal Seam Gas Reservoir Modelling</td>
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<td>1530-1600 hours</td>
<td>Coffee Break and Knowledge Sharing ePoster Session 6</td>
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<td>- Session 15: Technical Advances From Shale/Tight Reservoirs III</td>
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<td>- Session 16: CSG Reservoir Development Strategies</td>
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<td>- Session 17: Shale and Tight Gas Hydraulic Fracturing II</td>
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<tr>
<td>1900 hours</td>
<td>Conference Dinner (Organised by SPE Queensland Section)</td>
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### Wednesday, 11 November

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<td>0830-1500 hours</td>
<td>Teachers’ Day</td>
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<td>0900-1030 hours</td>
<td><strong>Panel Session 4: Sweet Spot Identification</strong></td>
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<td>0900-1030 hours</td>
<td>Technical Sessions</td>
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<td>- Session 18: Coal Seam Gas Hydraulic Fracturing</td>
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<td>- Session 19: Production Analysis and Forecasting</td>
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<td>1030-1100 hours</td>
<td>Coffee Break and Knowledge Sharing ePoster Session 7</td>
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<td>1100-1230 hours</td>
<td><strong>Panel Session 5: Geomechanics Influence in Hydraulic Fracturing</strong></td>
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<td>1100-1230 hours</td>
<td><strong>Technical Sessions</strong></td>
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<td>- Session 20: Pore Scale Effects</td>
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<td>- Session 21: Emerging Resources and Recovery Technologies</td>
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<td>1230-1400 hours</td>
<td>Networking Luncheon and Knowledge Sharing ePoster Session 8</td>
<td>Great Hall 1, 3 &amp; 4</td>
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<td>1400-1530 hours</td>
<td><strong>Panel Session 6: “Mega Projects”: Past, Present and Future</strong></td>
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<td>1400-1530 hours</td>
<td><strong>Technical Sessions</strong></td>
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<td>- Session 22: Pore-Scale Modelling and Visualisation</td>
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<td>- Session 23: Multi-Stage Hydraulic Fracturing Completions</td>
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<tr>
<td>1600-2000 hours</td>
<td>Exhibition Move-Out</td>
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OPENING SESSION

Monday, 9 November ● 0900-1000 hours ● Great Hall 2

Stephen Kelemen, Conference Chairman and Manager
Unconventional Resources Growth, Santos Ltd.

Janeen Judah, 2017 SPE President and General Manager
Southern Africa Business Unit, Chevron

Stephen Kelemen, Conference Chairman, Manager Unconventional Resources Growth, Santos Ltd.;
Janeen Judah, 2017 SPE President, General Manager, Southern Africa Business Unit, Chevron; and a Senior Government Official; will open the conference.

Attendance at this event will include senior management from major petroleum related companies, representatives from Government Ministries and departments, engineering and technical industry professionals.

EXECUTIVE PLENARY SESSION

Monday, 9 November ● 1030-1230 hours ● Great Hall 2

David Knox

Vello Kuuskraa

Rudy Ryacudu

Jim Stannard

In the Asia Pacific region, the development of unconventional resources has undergone significant growth over the last decade and is poised to make a substantial impact on the future of energy in the region. Three large-scale LNG projects in eastern Australia have been developed with unconventional gas (coal seam gas, or CSG) providing the upstream gas resource base. As these projects have begun production, world oil and gas commodity prices, well performance, and other factors are impacting their economics. Looking forward, these and other project developers will have to adapt to changing market conditions and technical challenges to be successful. These Australian projects are the first in the world to rely almost exclusively on unconventional gas resources for their supply. A number of LNG projects in North America are also counting on unconventional gas for some or all of their supply volumes. Later this year, LNG shipments will begin from the US Gulf Coast with other projects on both Atlantic and Pacific coasts being planned to start service in the next 5 years.

This session will reassess the lessons learned over the last 2 years and the forward challenges for the Australian and North American projects which are counting on unconventional gas supplies. The senior executives on the panel will discuss key differences between North American and Asia Pacific projects in areas of stakeholder engagement, reservoir characterization, project economics, and project management.

Session Chairpersons:
Mike Gatens, Chief Executive Officer, Unconventional Gas Resources Canada
Stephen Kelemen, Manager Unconventional Resources Growth, Santos Ltd.
Mike Zuber, Advisor, Unconventional Resources, Schlumberger

Speakers:
• David Knox, Managing Director and Chief Executive Officer, Santos Ltd.
• Vello Kuuskraa, President, Advanced Resources International, Inc.
• Rudy Ryacudu, Director of Explorations, PT Pertamina Hulu Energi
• Jim Stannard, Chief Executive Officer and Managing Director, PETRONAS Australia

Stephen Kelemen

Janeen Judah

David Knox

Vello Kuuskraa

Rudy Ryacudu

Jim Stannard
PANEL SESSIONS

PANEL 1: Executive Perspective on Unconventional Development

Monday, 9 November ● 1400-1530 hours ● Great Hall 2

Over the past 10 years, most operators have moved a significant portion of their manpower and capital into unconventional resource development. However, with thin margins and high activity levels, unconventional resource development requires different workflows, processes and capabilities. This session will provide perspective from senior management on the changes required to be successful in this highly competitive and challenging sector. Specific topics to be discussed in this session will include:

- What are the keys to success in large scale unconventional development?
- What organizational changes were required to be competitive?
- What is the role of technology and innovation in achieving commercial results?

In addition to the above, operators will also provide an overview of their specific plays which will illustrate the magnitude of the activity levels and manpower requirements to undertake unconventional resource development on a material scale.

Session Chairpersons:
Mike Gatens, Chief Executive Officer, Unconventional Gas Resources Canada
Jim Stannard, Chief Executive Officer and Managing Director, PETRONAS Australia

 Speakers:
- Chris Faulkner, Chief Executive Officer, Breitling Energy Corporation
- Mark Fitzgerald, Senior Vice President, Production & Facilities, Progress Energy
- J. Blair Goertzen, President and Chief Executive Officer, Enerflex

PANEL 2: Emerging Strategies in Data Analytics

Tuesday, 10 November ● 0830-1000 hours ● Great Hall 2

For the oil and gas industry, managing large arrays of data and applying the appropriate analytics is not new to decision making processes, that ranges exploration to full field development. In order to better understand the subsurface integration and assimilation of a wide range of data – from seismic to production data – while integrating drilling, completion, and reservoir related data we require high resolution visualisation tools to allow better interpretation of data trends.

As we enter the world of unconventional resource exploitation and development, the level of uncertainty in reservoir subsurface properties increases by orders of magnitude. Hence, it is important that we implement appropriate and optimised algorithms, efficient manipulation of data, and proper analytical methods that result in concluding analytics, which ultimately, will allow optimal exploitation and development of unconventional resources.
In this panel we strive to achieve this goal by assembling experts in data mining (e.g. seismic, completion, stimulation and reservoir), data analysis and modelling methods. Panellists will discuss improved methods to manage and interpret large arrays of data to facilitate better informed decision-making in unconventional reservoir.

**Session Chairpersons:**
**Usman Ahmed**, Vice President and Chief Reservoir Engineer, Baker Hughes  
**Ray Johnson Jr.**, Principal, Unconventional Reservoir Solutions

**Speakers:**
- **Steve Begg**, Professor, University of Adelaide  
- **James C. Erdle**, Vice President – USA & Latin America, Computer Modelling Group  
- **Keith Holdaway**, Advisory Industry Consultant and Principal Solutions Architect, SAS Global Oil & Gas Business Unit

**PANEL 3: Integrating Formation Evaluation Data**

**Tuesday, 10 November ● 1030-1200 hours ● Great Hall 2**

Over the last few years, ever-increasing hydrocarbon production from unconventional resources or source rock reservoirs, especially in North America, has significantly altered the global energy supply and demand landscape.

Meanwhile, the last 10 years has also seen significant advances in the efficiency of wellbore construction and formation stimulation. However, our understanding of what “makes unconventional plays work” has not progressed at the same pace.

Most unconventional resource plays in Asia Pacific are in early stages of development compared to conventional reservoir systems. However, based on the multi-level scale of the reservoir and processes, both physical and in time, multiple analysis methods must be combined in order to develop a clearer understanding of unconventional resource plays.

Understanding unconventional plays requires a multi-disciplinary approach to formation evaluation from a petrophysical, geological and geomechanical point of view. Data from core, cuttings, petrophysical, geological and well test investigation methods need to be integrated to provide a more accurate model of the subsurface. Such a model can be used not only to better forecast formation response to hydraulic stimulation, but also to better forecast well production. A combination of a number of analysis methods (static and dynamic) yield the most reliable results. In turn, the reliability of these methods gains importance in times of low oil prices.

The scales of interest for unconventional resources range from the nano-pore-scale through the well log-scale up to the reservoir (or SRV), which is many orders of magnitude. Integration of these different data sets and analysis methods (static and dynamic) is essential and complex.

In this session, recent advances in tools, testing and analysis methods to enable better evaluation of unconventional resources are presented and discussed.

**Session Chairpersons:**
**Russell Byfield**, Director, Strategy Central  
**Hans-Christian Freitag**, Vice President, Integrated Technology, Baker Hughes  
**Marcel Croon**, Senior Geophysicist, Weatherford

**Speakers:**
- **Pat Lasswell**, Senior Research Scientist, Weatherford  
- **Rick Lewis**, Unconventional Petrophysics Technical Manager, Schlumberger  
- **Randall S. Miller**, Vice President, Core Laboratories
PANEL 4: Sweet Spot Identification

Wednesday, 11 November ● 0900-1030 hours ● Great Hall 2

Unconventional reservoirs are inherently complex and well production performance typically varies widely across basins, fields, and even well-to-well. Commercial success depends upon finding and developing the “sweet spots” in unconventional reservoirs to maximise production and reserves.

Sweet spots are the optimal place to drill, complete and stimulate a well. Sweet spots exist at the basin, play, reservoir and well scale. Historically, sweet spots have been found with the drillbit and statistics. However, we can no longer afford to take this approach. This panel discussion will explore the challenges of finding sweet spots in unconventional reservoirs – at all scales – and the current technologies that industry is using to define and exploit them.

Session Chairpersons:
Usman Ahmed, Vice President and Chief Reservoir Engineer, Baker Hughes
Mike Zuber, Advisor, Unconventional Resources, Schlumberger

Speakers:
• Mike Gatens, Chief Executive Officer, Unconventional Gas Resources Canada
• Khalil Rahman, Geomechanics Advisor, Baker Hughes
• Richard Salter, Exploration and Appraisal Manager, URG, Schlumberger

PANEL 5: Geomechanics Influence in Hydraulic Fracturing

Wednesday, 11 November ● 1100-1230 hours ● Great Hall 2

Tectonic provinces in the Asia Pacific region are particularly prone to significant variability in stress magnitudes and Andersonian type stress geometries (strike-slip, normal and reverse regime) both vertically and laterally. This creates challenges of constructing one-dimensional to three-dimensional geomechanical models that adequately represent the interaction of stress, rock properties and rock fabric on hydraulic fracture growth, particularly in regimes of high horizontal stress.

The panel session will present a brief overview of the technical journey of geomechanics to its present day use in design interpretation and modelling of hydraulic fracture stimulations. Speakers will introduce specific case studies showing both success and ongoing challenges in the use of geomechanical concepts and their implementation in fracture completions – especially in high tectonic stress regimes.

This session aims to draw out the complexity in designing hydraulic fractures in the context of contrasting rock-physical properties and varying stress parameters. Of particular interest is the fit-for-purpose adaptation of geomechanical concepts to design stimulations in environments with highly contrasting rock properties (eg. shale, coal) in combination with stress regimes. This should be evaluated in the context of the capability and theory currently applied in frac simulators or frac design applications.
The lesson-learned from the North American unconventional experience is that these plays cannot be exploited by small, incremental steps. If we are to be successful in developing these types of reservoirs, we have to use a “Mega-Projects” concept with dozens of wells to define a play, and hundreds of wells to develop a play.

A number of Asia Pacific unconventional gas “Mega-Projects” are near completion or are commencing deliveries. Successful delivery of these projects has depended on addressing key technical issues, project management challenges, political and community engagement issues. A panel of executives representing several of these successful projects are to share with the audience how each project fared in the “technical” metrics of a given “Mega Project,” including the following factors:

- scoping;
- cost management;
- scheduling and implementation; and
- achieving defined business objectives.

As well as sharing experiences relating to each panellist’s project, speakers will also provide insights into future “Mega-Projects” by addressing relevant questions based on their experiences, such as:

- What are the main impediments to such “Mega Projects” and what are some of the ways to overcome these impediments?
- With the risk profile and large capital costs, what is the impact of subsurface reservoir characterisation, prior to committing to development?
- What is the best way to acquire and manage resources (people, materials, and fabrication capacity)?
- How do we ensure that the development plan delivers the business objectives?
- What is the role of technology — as an enabler? As a game-changer?
- Do we have the project management skills and business climate required to ensure success of these projects at the current maturity of the unconventional market in the Asia Pacific region?

By hosting experienced executives on the “Mega-Projects” panel, the session aims to generate relevant and impactful discussions on key prerequisites for delivering mega-projects in the Asia-Pacific region in the past, as well as into the future.

Session Chairpersons:
Tom Blasingame, Professor, Texas A&M University
Ray Johnson Jr., Director, Unconventional Reservoir Solutions
Stephen Kelemen, Manager Unconventional Resources Growth, Santos Ltd.

Speakers:
Trevor Brown, Vice President Queensland, Santos
Van Lineberger, Chief Operating Officer (Integrated Gas, APLNG Operations), Origin Energy
YOUNG PROFESSIONALS WORKSHOP

Sunday, 8 November 2015 • 1300-1700 hours • Meeting Room M1

“Pathways With Petroleum”

As many Young Professionals are being placed with a higher level of responsibility in the industry, greater emphasis is being put on young employees to step into challenging technical and managerial roles. Equally important, Young Professionals have the responsibility to be proactively involved with the leadership development process as well as being creative and innovative in order to meet the challenges. To help address these issues, the Young Professionals Workshop is designed for graduates and young professionals in the oil and gas industry under the age of 35 with less than 10 years industry experience in any technical discipline. Industry executives, young professionals, and university students will have the opportunity to engage in discussions about the future directions for young professionals in the oil and gas industry.

Speakers:
- Janeen Judah, 2017 SPE President and General Manager, Southern Africa Business Unit, Chevron
- Stephen Kelemen, Manager Unconventional Resources Growth, Santos Ltd.
- Tom Blasingame, Texas A&M University
- Andrew Garnett, Centre for CSG, University of Queensland
- Mark Stone, Executive Petroleum Engineer, Department of Natural Resources and Mines

For further information, please contact the Workshop Coordinators, Karni Sudana, Tel: 61.7.3838.3588; Email: karni.sudana@santos.com or Amir Farmahini, Tel: 61.7.3365.4047; Email: a.farmahini@uq.edu.au

EDUCATION DAY

Tuesday, 10 November 2015 • 0830-1200 hours • Meeting Room M4

The Education Day is an initiative to introduce students to the discipline of petroleum engineering, and the industry in general. About 100 high school students with keen interest in science, who may consider majoring in Petroleum and related engineering programmes when they enter university, will be invited to attend.

A number of industry professionals have been invited to share their experience with students through talks on topics of general interest and relevance to the industry. Following the talks, the students will be given a guided tour of the exhibition area. They will be able to see first-hand the high-end technology used by engineers and the sophisticated software available for solving many engineering problems. It is hoped that they will leave the conference with a better understanding of what petroleum engineers do and their role in the broader community. Equally important, they will also become aware that a petroleum engineering career is full of challenges, teamwork and responsibilities.

For further information, please contact the Education Day Coordinator, Jacob Dellit, Tel: 61.7.3838.5715, Email: jacob.dellit@santos.com

TEACHERS’ DAY

Wednesday, 11 November 2015 • 0830-1500 hours • Meeting Room P1

SPE, through its Energy4me program will present a one-day energy education workshop for 50 Brisbane-area science teachers. Educators will receive comprehensive, objective information about the scientific concepts of energy and its global significance while discovering the world of oil and natural gas exploration and production. A variety of free instructional materials will be available to take back to the classroom.

Activities will include a technology tour of the exhibitions, a keynote presentation and age-appropriate hands-on classroom activities.

For further information, please contact the Teachers’ Day Coordinator, Jacob Dellit, Tel: 61.7.3838.5715, Email: jacob.dellit@santos.com
# CONFERENCE PROGRAMME SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Great Hall 2</th>
<th>Meeting Room M1</th>
<th>Meeting Room M2</th>
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<td>Monday, 9 November</td>
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<td>1400-1530 hours</td>
<td>Panel Session 1</td>
<td>Panel Session 1 Executive Perspective on Unconventional Development</td>
<td>Session 1 Shale Formation Evaluation I</td>
<td>Session 2 Shale and Tight Gas Hydraulic Fracturing I</td>
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<td>1600-1730 hours</td>
<td>Session 3 Technical Advances From Shale/Tight Reservoirs I</td>
<td>Technical Advances From Shale/Tight Reservoirs I</td>
<td>Session 4 Coal Seam Gas Reservoir Engineering I</td>
<td>Session 5 Well Construction I</td>
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<td>1730-1830 hours</td>
<td>Happy Hour and Knowledge Sharing ePoster Session 3</td>
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<td>Panel Session 2 Emerging Strategies in Data Analytics</td>
<td>Emerging Strategies in Data Analytics</td>
<td>Session 6 Unconventional Formation Evaluation</td>
<td>Session 7 Shale/Tight Gas Reservoir Engineering</td>
<td>Session 8 Maintaining the Social License to Operate</td>
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<td>Panel Session 3 Integrating Formation Evaluation Data</td>
<td>Integrating Formation Evaluation Data</td>
<td>Session 9 Coal Seam Gas Reservoir Engineering II</td>
<td>Session 10 Geomechanics and Hydraulic Fracturing</td>
<td>Session 11 Managing Your Business in Unconventional Reservoir</td>
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<td>1200-1400 hours</td>
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<td>1400-1530 hours</td>
<td>Session 12 Technical Advances From Shale/Tight Reservoirs II</td>
<td>Technical Advances From Shale/Tight Reservoirs II</td>
<td>Session 13 Shale/Tight Gas Reservoir Performance</td>
<td>Session 14 Coal Seam Gas Reservoir Modelling</td>
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<td>Session 15 Technical Advances From Shale/Tight Reservoirs III</td>
<td>Technical Advances From Shale/Tight Reservoirs III</td>
<td>Session 16 CGS Reservoir Development Strategies</td>
<td>Session 17 Shale and Tight Gas Hydraulic Fracturing II</td>
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<td>1900 hours</td>
<td>Conference Dinner</td>
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<td>Panel Session 4 Sweet Spot Identification</td>
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<td>Session 18 Coal Seam Gas Hydraulic Fracturing</td>
<td>Session 19 Production Analysis and Forecasting</td>
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<td>Panel Session 5 Geomechanics Influence in Hydraulic Fracturing</td>
<td>Geomechanics Influence in Hydraulic Fracturing</td>
<td>Session 20 Pore Scale Effects</td>
<td>Session 21 Emerging Resources and Recovery Technologies</td>
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<td>1400-1530 hours</td>
<td>Panel Session 6 “Mega Projects”: Past, Present and Future</td>
<td>“Mega Projects”: Past, Present and Future</td>
<td>Session 22 Pore-Scale Modelling and Visualisation</td>
<td>Session 23 Multi-Stage Hydraulic Fracturing Completions</td>
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www.spe.org/events/urce/2015
Monday, 9 November • 0900-1000 hours
OPENING SESSION
Great Hall 2
• Stephen Kelemen, Conference Chairman and Manager Unconventional Resources Growth, Santos Ltd.
• Janeen Judah, 2017 SPE President and General Manager, Southern Africa Business Unit, Chevron

Monday, 9 November • 1030-1230 hours
EXECUTIVE PLENARY SESSION
Great Hall 2
Session Chairpersons:
Mike Gatens, Chief Executive Officer, Unconventional Gas Resources Canada
Stephen Kelemen, Manager Unconventional Resources Growth, Santos Ltd.
Mike Zuber, Advisor, Unconventional Resources, Schlumberger
Speakers:
• David Knox, Managing Director and Chief Executive Officer, Santos Ltd.
• Yello Kuuskraa, President, Advanced Resources International, Inc.
• Rudy Rycudu, Director of Explorations, PT Pertamina Hulu Energi
• Jim Stannard, Chief Executive Officer and Managing Director, PETRONAS Australia

Monday, 9 November • 1400-1530 hours
PANEL SESSION 1: EXECUTIVE PERSPECTIVE ON UNCONVENTIONAL DEVELOPMENT
Great Hall 2
Session Chairpersons:
Mike Gatens, Chief Executive Officer, Unconventional Gas Resources Canada
Jim Stannard, Chief Executive Officer and Managing Director, PETRONAS Australia
Speakers:
• Chris Faulkner, Chief Executive Officer, Breitling Energy Corporation
• Mark Fitzgerald, Senior Vice President, Production & Facilities, Progress Energy
• J. Blair Goertzen, President and Chief Executive Officer, Enerflex

Monday, 9 November • 1400-1530 hours
TECHNICAL SESSION 1: SHALE FORMATION EVALUATION I
Meeting Room M1
Session Chairpersons:
Kent Perry, RPSEA
Marcel Croon, Weatherford
Chad Hartman, Weatherford Laboratories
Papers
176911 Advances in Flowback Chemical Analysis of Gas Shales
A.Z. Sharak and H. Dehghanpour, U. of Alberta, and D. Bearinger, Nexen Energy ULC
176908 Pore Size Distribution From Water Adsorption Isotherm
A.Z. Sharak and H. Dehghanpour, U. of Alberta, and D. Bearinger, Nexen Energy ULC
176971 An Innovative Technique for Estimation of Permeability of Shale Gas Reservoirs
Y. Yuan, J. Wang, N.G. Doonechaly and S.S. Rahman, School of Petroleum Engineering, U. of New South Wales

Monday, 9 November • 1600-1730 hours
TECHNICAL SESSION 2: SHALE AND TIGHT GAS HYDRAULIC FRACTURING I
Meeting Room M2
Session Chairpersons:
Mark Pitkin, Beach Energy Ltd.
Gabriel Amoré, Santos Ltd.
Sau-Wai Wong, Shell Intl. E&P
Papers
176836 A Study of the Interaction Between Hydraulic Fractures and Natural Fractures in the Keshen Tight Gas Reservoir
F. Zhang, PetroChina, and K. Qiu, Schlumberger
176863 Acoustic Based Methodology of Assessing Zonal Production Contribution, Hydraulic Fracture Productive Height, and Reservoir Fluid Type in Tight Gas Condensate and Oil Reservoirs
L. Mohsin and N. Marmin, Oman Oil Co. E&P LLC
176970 Finite Element Simulation of a Hydraulic Fracture Interacting With a Natural Fracture
Z. Chen, R.G. Jeffrey, X. Zhang and J. Kear, CSIRO Energy Flagship

Monday, 9 November • 1600-1730 hours
TECHNICAL SESSION 3: TECHNICAL ADVANCES FROM SHALE/TIGHT RESERVOIRS I
Great Hall 2
Session Chairpersons:
George Koperna, Advanced Resources Intl., Inc.
Craig Cipolla, Hess Corp.
Hans-Christian Freitag, Baker Hughes
Papers
176919 Mid-Field Fracture Complexity: Analysis Methodology and Signature Pressure Behaviour of Hydraulic Fracture Propagation From Horizontal Wellbores
176984 Economic and Operational Analysis of Systematically Deploying New Technologies in Two US Unconventional Plays
D. Snyder, Packers Plus Energy Services Inc.; S. Van Sickle, Louisiana State U.; and C. McClellan and J. Galloway, Chaparral Energy LLC
176855 A Computational Model for Simulating Pressure-Driven Proppant Transport Dynamics in Viscoelastic Fluids for Unconventional Treatments
H. Wu, Halliburton Energy Services, Inc.; S. Madasu, Halliburton; and A. Lin, Halliburton Energy Services, Inc.

Monday, 9 November • 1600-1730 hours
TECHNICAL SESSION 4: COAL SEAM GAS RESERVOIR ENGINEERING I
Meeting Room M1
Session Chairpersons:
Thomas Gan, Arrow Energy Pty. Ltd.
Natalie Chadud, Origin Energy Ltd.
Ian Gray, Signa Pty. Ltd.
Papers
176960 The Influence of Cleat De-Mineralisation on the Compressibility of Coal
176925 Novel Well Test Design for the Evaluation of Complete Well Permeability and Productivity for CSG Wells in the Surat Basin
W.E. Bottomley and J. Schouten, QGC - A BG Group Business
Tuesday, 10 November ● 0830-1000 hours
TECHNICAL SESSION 7: SHALE/TIGHT GAS
RESERVOIR ENGINEERING
Meeting Room M2
Session Chairpersons:
Dihan Ilk, DeGolyer and MacNaughton
Marie Louise Lees, Santos Ltd.
Keynote Speaker
Randall S. Miller, Vice President, Core Laboratories

Papers
176955 Measurement of Shale Anisotropic Permeability and Its Impact on Shale Gas Production
176965 Modelling Slip Flow and Surface Diffusion in Nanopores of Shale Gas Reservoirs With Real Gas Effect-Adsorption-Mechanical Coupling
K. Wu and Z. Chen, U. of Calgary

Tuesday, 10 November ● 0830-1000 hours
TECHNICAL SESSION 8: MAINTAINING THE SOCIAL LICENSE TO OPERATE
Meeting Room M3
Session Chairpersons:
George Koperna, Advanced Resources Intl., Inc.
Jim Stannard, PETRONAS Australia
Russell Byfield, Strategy Central

Papers
176901 Managing the Productive and Responsible Use of Energy Resources - The Role of the Regulator
M. Stone, Queensland Department of Natural Resources and Mines, and A. Troup, Geological Survey of Queensland
176941 Benefits for Rural Towns From Queensland’s Onshore Gas Development
176958 Can the Unconventional Gas Industry Maintain Their Social Licence?
R.M. Lightfoot, Casconsult Pty. Ltd.

Tuesday, 10 November ● 1030-1200 hours
PANEL SESSION 3: INTEGRATING FORMATION EVALUATION DATA
Great Hall 2
Session Chairpersons:
Russell Byfield, Director, Strategy Central
Hans-Christian Freitag, Vice President, Integrated Technology, Baker Hughes
Marcel Croon, Senior Geophysicist, Weatherford

Speakers:
• Pat Lasswell, Senior Research Scientist, Weatherford
• Rick Lewis, Unconventional Petrophysics Technical Manager, Schlumberger
• Randall S. Miller, Vice President, Core Laboratories

Tuesday, 10 November ● 1030-1200 hours
TECHNICAL SESSION 9: COAL SEAM GAS
RESERVOIR ENGINEERING II
Meeting Room M1
Session Chairpersons:
Mike Zuber, Schlumberger
Ian Gray, Sigra Pty. Ltd.

Papers
176834 A Practical Workflow for Characterising Stress-Dependent Behaviour of Coal From Changes in Well Productivity
M.W. Burgoyne and R. Shrivastava, Santos Ltd.
176829 Temperature Dependent Langmuir’s Model in the Coal and Methane Sorption Process: Statistics Relationship
X. Tang, Virginia Polytechnic Inst. and State U.
176944 Evaluating Dynamic Behaviour of a Complex In-Situ Gas Composition From a Coal Seam Reservoir - A Case Study From Fairview Early Permian Cattle Creek Coals
G.E. Guillen Falcon, Santos Ltd.

Tuesday, 10 November ● 1030-1200 hours
TECHNICAL SESSION 10: GEOMECHANICS AND HYDRAULIC FRACTURING
Meeting Room M2
Session Chairpersons:
Rob Jeffrey, SCT Operations
Thomas Flottman, Origin Energy Ltd.
Emma Tavener, Santos Ltd.

Papers
176978 Geomechanical Implications on Unconventional Reservoirs Fracturing in Saudi Arabia
M.V. Oparin, Saudi Aramco; S. Khan, Schlumberger; A. Sadykov, Saudi Aramco SAOO; A.M. Al-Momen, Saudi Aramco; and R. Tineo and D. Bentley, Schlumberger Saudi Arabia

176912 Estimation of the Propped Volume Through the Geomechanical Modelling of Multiple Hydraulic Fractures Interacting With Natural Fractures
Y.E. Aimene and J.A. Nairn, Oregon State U., and A. Ouenes, FracGeo

176839 Examining the Geomechanical Implications of Pre-Existing Fractures and Simultaneous-Multi-Fracturing Completions on Hydraulic Fractures: Experimental Insights Into Fracturing Unconventional Formations
E.A. Alabbad, Saudi Aramco, and J.E. Olson, The U. of Texas at Austin

Tuesday, 10 November ● 1030-1200 hours
TECHNICAL SESSION 11: MANAGING YOUR BUSINESS IN UNCONVENTIONAL RESERVOIRS
Meeting Room M3
Session Chairpersons:
Bernadette Cullinane, Accenture
Matthew Loth, Schlumberger

Papers
176856 Dynamic Production Targeting in Forecast Simulations With Complex Joint Venture Economics
C.J. Coman, Z. Mohiuddin and N. Morozov, Schlumberger Information Solutions, and A. Harichandran, QGC - A BG Group Business

176867 Litigation Against Unconventional Gas Producers; Lessons From the US Experience
R.M. Lightfoot, Casconsult Pty. Ltd.

176990 The Next Generation of Water and Fluid Management for Unconventional Exploration and Appraisal: Building on the Successes of Queensland Coal Seam Gas
N. Hudson, Resource Energy Solutions

Tuesday, 10 November ● 1400-1530 hours
TECHNICAL SESSION 13: SHALE/TIGHT GAS RESERVOIR PERFORMANCE
Meeting Room M1
Session Chairpersons:
Luke Connell, CSIRO Petroleum
Mark Burgoyne, Santos Ltd.
Christopher Clarkson, U. of Calgary

Papers
177024 Qualitative Analysis of Rate-Time Behaviour for US Gas Shale Plays
D. Symmons, Wilcox Wiggins; P.K. Pande, Anadarko Petroleum Corp.; and T.A. Blasingame, Texas A&M U.

177025 Reservoir Engineering Aspects of Gas and Liquids-Rich Unconventional Reservoir Systems
P.W. Collins, D. Ilk and N. Hosseinpour-zonoozi, DeGolyer and MacNaughton, and T.A. Blasingame, Texas A&M U.

176982 An Integrated Approach to Performance Analysis in a Low Permeability Gas Condensate Reservoir
A.K. Gupta, S. Saurav, P. Shankar and S. Verma, Cairn India Ltd.

Tuesday, 10 November ● 1400-1530 hours
TECHNICAL SESSION 14: COAL SEAM GAS RESERVOIR MODELLING
Meeting Room M2
Session Chairpersons:
Luis Baez, BG Group
Mark Burgoyne, Santos Ltd.
Christopher Clarkson, U. of Calgary

Papers
176862 Reservoir Modelling and Probabilistic Forecasting of the Walloons Coal Seam Gas Measures: Unique Challenges and Solutions to Regional CSG Reservoir Performance Prediction

176835 Reservoir Characterisation of the Spring Gully Coal Seam Gas Field
J.X. Lin, Sinopec, and P.M. Weatherstone, Origin Energy Ltd.

176881 Integrated Production Modelling for CSG Production Forecasting
A. Shields and S. Tihono, Santos Ltd., and L.A. Saputelli, Frontender Corp.
Tuesday, 10 November • 1600-1730 hours  
TECHNICAL SESSION 15: TECHNICAL ADVANCES FROM SHALE/TIGHT RESERVOIRS III  
Great Hall 2  
Session Chairpersons:  
Craig Cipolla, Hess Corp.  
Kent Perry, RPSEA  
Lau Hon-Chung, Shell (China) Projects and Technology  
Papers  
176884 Hydraulic Fracturing of Shale Wells With Degradable Materials - Case History of Barnett and Haynesville Wells  
J.L. Garza, S. Kakadjian, A. Rodriguez and J. Vu, Trican Well Service Ltd.  
177012 Geological and Petrophysical Characterisation of Tight Oil Reservoirs: A Case Study From Upper Triassic Yanchang Formation, Ordos Basin in North China  
H.W. Zhao, China U. of Petroleum; Beijing, and Z.F. Ning, T.Y. Zhao and R. Zhang, State Key Laboratory of Petroleum Resources and Prospecting, China U. of Petroleum  
176931 Sweet Spot Identification and Prediction of Frac Stage Performance Using Geology, Geophysics, and Geomechanics - Application to the Longmaxi Formation, China  
X. Yang and X. Wang, SCGC; A. Amares, Sigma Cubed; and A. Ouenes, FracGeo  

Tuesday, 10 November • 1600-1730 hours  
TECHNICAL SESSION 16: CSG RESERVOIR DEVELOPMENT STRATEGIES  
Meeting Room M1  
Session Chairpersons:  
Saikat Mazumder, Arrow Energy Ltd.  
Mark Burgoyne, Santos Ltd.  
Mike Zuber, Schlumberger  
Papers  
176890 Produced Gas Re-Injection Trial for a Coal Seam Gas Field  
O. Thomas, Origin Energy Ltd.  
176845 Impact of Varying Coal Continuity on Development Well Spacing in Surat Basin  
V. Sharma, Arrow Energy Ltd.; X. Gong and T. Stephan, Arrow Energy; and S. Mazumder, Arrow Energy Ltd.  
176904 Value Optimisation of Future Coal Seam Gas Field Developments Using Horizontal Wells  

Tuesday, 10 November • 1600-1730 hours  
TECHNICAL SESSION 17: SHALE AND TIGHT GAS HYDRAULIC FRACTURING II  
Meeting Room M2  
Session Chairpersons:  
Rob Jeffrey, SCT Operations  
James McGowen, Halliburton  
Sau-Wai Wong, Shell Int'l. E&P  
Papers  
176887 A Unique Hydraulic Fracturing Technique Utilising Dynamic Rock Behaviour and Temporary Changes in Geomechanical Stress Anisotropy to Optimise Hydrocarbon Recovery in Unconventional Formations  
B.J. Lewis and J.B. Surjaatmadja, Halliburton  
176851 Maximising Production in Multiple Zones Using Zipper Fracs in Small Acreages  
G.G. Gutierrez Murillo, Pemex; E. Medina and C. Henriquez, Halliburton; and J.C. Salguero, CalFrac  
H. Song, A. Gholami, G. Bazunu and S.S. Rahman, U. of New South Wales  

Wednesday, 11 November • 0900-1030 hours  
TECHNICAL SESSION 18: COAL SEAM GAS HYDRAULIC FRACTURING  
Meeting Room M1  
Session Chairpersons:  
Usman Ahmed, Vice President and Chief Reservoir Engineer, Baker Hughes  
Mike Zuber, Advisor, Unconventional Resources, Schlumberger  
Speakers:  
• Mike Gatens, Chief Executive Officer, Unconventional Gas Resources Canada  
• Khalil Rahman, Geomechanics Advisor, Baker Hughes  
• Richard Salter, Exploration and Appraisal Manager, URG, Schlumberger  

Wednesday, 11 November • 0900-1030 hours  
TECHNICAL SESSION 19: PRODUCTION ANALYSIS AND FORECASTING  
Meeting Room M2  
Session Chairpersons:  
Dilhan Ilk, DeGolyer and MacNaughton  
Tony Kourakis, Origin Energy Ltd.  
Papers  
176895 Hydraulic Fracture Design Optimisation in Low Permeability Coals, Surat Basin, Australia  
176885 Mathematical Modelling of Pressure Drop in Coal Seam Gas Wells  
M. Firouzi and B.F. Towler, The U. of Queensland  

Wednesday, 11 November • 0900-1030 hours  
PANEL SESSION 4: SWEET SPOT IDENTIFICATION  
Great Hall 2  
Session Chairpersons:  
Richard Salter, Exploration and Appraisal Manager, URG, Schlumberger  
Papers  
176914 Downhole Naturally Convective Hydrocarbon Separating Production System to Avoid Unnecessary Water and Sand Production  
J.B. Surjaatmadja and B.J. Lewis, Halliburton  
176893 Why CBM/CSG Water Production is Often Overestimated and Compartmentalisation Underestimated?  
J. Underschultz, The U. of Queensland; I.J. Duncan, The U. of Texas at Austin; and A.J. Garnett, The U. of Queensland  
176869 An Analytical Method for Forecasting Wells Completed in Undersaturated CBM Reservoirs  
C.R. Clarkson and F. Qanbari, U. of Calgary  
Papers  
176877 The Long Property Approach - Estimating Permeability from Undersaturated CBM Reservoirs  
C. Ouelles, FracGeo  
176848 The Effect of Fracture Tip Behaviour in Visco-Elastic/ Visco-Plastic Shale Rocks and Its Effect on Fracture Propagation  
H. Song, A. Gholami, G. Bazunu and S.S. Rahman, U. of New South Wales  
H. Song, A. Gholami, G. Bazunu and S.S. Rahman, U. of New South Wales
Wednesday, 11 November ● 1100-1230 hours
TECHNICAL SESSION 5: GEOMECHANICS INFLUENCE IN HYDRAULIC FRACTURING
Meeting Room M2

Session Chairpersons:
Thomas Flottman, Principal Geologist, Origin Energy Ltd.
Emma Tavener, Team Leader Geomechanics, Santos Ltd.

Speakers:
• Ahmed Abou-Sayed, Founder, Advantek International
• Michael Anthony Addis, Director for New Technology, Middle East-Asia Pacific, Baker Hughes
• Rob Jeffrey, Consultant, SCT Operations
• Sau-Wai Wong, Technology Advisor, Unconventional Gas, Shell International E&P

Wednesday, 11 November ● 1100-1230 hours
TECHNICAL SESSION 20: PORE SCALE EFFECTS
Meeting Room M1

Session Chairpersons:
Saikat Mazumder, Arrow Energy Ltd.
Rick Lewis, Schlumberger
Chad Hartman, Weatherford Laboratories

Papers
176870 The Effect of Rank on Wettability and Its Application to an Improved Relative Permeability Model in Coal Seam Gas
S.A. Mahoney, T. Rufford, V. Rudolph and K. Steel, The U. of Queensland
176999 Pore-Filling Nature of CH4 Adsorption Behaviour in Kerogen Nanopores: A Molecular View Based on Full-Atom Kerogen Models
Y. Sawa, Y. Liang, S. Murata and T. Matsuoka, Kyoto U., and T. Akai and S. Takagi, Japan Oil, Gas and Metals National Corp. (JOGMEC)
177021 Effect of Wettability Alteration on Productivity Enhancement in Unconventional Gas Reservoirs: Application of Nanotechnology
S. Naik, Z. You and P.G. Bedrikovetsky, The U. of Adelaide

Wednesday, 11 November ● 1100-1230 hours
TECHNICAL SESSION 21: EMERGING RESOURCES AND RECOVERY TECHNOLOGIES
Meeting Room M2

Session Chairpersons:
Marie Louise Lees, Santos Ltd.
Lau Hon-Chung, Shell (China) Projects and Technology
Russell Byfield, Strategy Central

Papers
176950 Taking the Heat Out of the Burning-Ice Debate: Potential and Future of Gas Hydrates
176954 Possibility of Bioelectrochemical Conversion of Carbon Dioxide Into Methane in Depleted Oil Fields
H. Maeda and M. Ikarashi, INPEX Corp., and N. Fukushima, H. Kobayashi and K. Sato, U. of Tokyo
176974 CO2 Flooding in Unconventional Reservoirs, Case Study of Utica Shale
M.O. Eshkalak and K. Sepehrnoori, The U. of Texas at Austin
An ePoster is an electronic version of the traditional poster, presented on a large digital flat screen. The electronic format offers the added benefit of animation and video to enhance the visual experience and provide greater interactivity between attendees and authors.

During the ePoster session, authors will present their technical papers at designated ePoster stations. Attendees are encouraged to attend the sessions for more knowledge sharing and networking opportunities. ePosters are also available for attendees’ viewing at ePoster stations throughout the conference.

Papers

176822 Water Injection in Tight Shaly Sandstone Formation
F. Ariessita, PT Medco E&P Indonesia

176824 Rapid Assessment Techniques for Unconventional Reservoir
S.T. Dang, The U. of Oklahoma, and N. Drenzek, Statoil ASA
(Alternate paper in technical session 3)

176825 Characterising Natural Fracture Parameters in CBM Reservoirs for Dual-Porosity Simulation
N. Bahrami, Curtin U.

176826 A Model for Oil Flow in Tight Oil Reservoirs Considering the Effects of the Pore Wall Roughness and Wettability
K. Wu, U. of Calgary
(Alternate paper in technical session 7)

176827 An Innovative Cup Seal Isolation Open Hole Packer Which Can React to Wellbore Variations
L. Adan, Weatherford

176832 First Successful Multistage Hydraulic Fracturing in Unconventional Oil Bearing Sand Horizontal Well in Barmer Hill, India
A. Kumar and A. Nagar, Cairn India Ltd.
(Alternate paper in technical session 23)

176833 Prediction of Fracture Population and Stimulated Reservoir Volume in Shale Gas/Oil Reservoirs
B. Guo and X. Cai, U. of Louisiana at Lafayette
(Alternate paper in technical session 23)

176837 New Al-Based Cross-Linkers to Form a Strong Gel for Hydraulic Fracturing Treatments
K. Sokhanvarian and H.A. Nasr-El-Din, Texas A&M U., and T. Harper, Maxflo Oilfield Chemical Solutions

176840 The Relationship Between Geomechanical Response of Natural Fractures and Reservoir Productivity in KS2 Tight Sandstone Gas Field, Tarim Basin, China
H. Yang, H. Zhang, Z. Cai, S. Chen, F. Yuan, X. Han and G. Yin, Research Inst. of E&D, Tarim Oilfield Co., PetroChina
(Alternate paper in technical session 17)

176841 The Influence of Mineral Matter Distribution on Desorption Characteristics of Australian Coals
A. Salmachi, M. Rajabi, Z. Yarmohammadtooski and J.D. Darby, U. of Adelaide
(Alternate paper in technical session 9)

176842 Tight Sand Gas Reservoirs Microscopic Pore Structure Characteristics and Numerical Simulation: An Example From Sulige Gas Field, China
Z. Sun, J. Yao, L. Zhang, H. Sun, Y. Xu and Y. Gao, China U. of Petroleum (East China)
(Alternate paper in technical session 22)

176843 A Coupled Model for Fractured Shale Reservoir With the Characteristics of Dual Continuum and Fractal Geometry
Y. Wei, D. He and J. Wang, Research Inst. of Petroleum Exploration and Development
(Alternate paper)

176844 Proving the Concept of Unconventional Gas Reservoirs in Saudi Through Multistage Fractured Horizontal Wells
A.M. Al-Momin, Saudi Aramco
(Alternate paper in technical session 21)

176846 The Contributing Factors of Stimulation Design to Incremental and Long-Term Productivity in Bakken Play
F. Zhou and Y. Xue, China U. of Petroleum, Beijing; H. Qu, State Key Laboratory of Petroleum Resources and Prospecting, China U. of Petroleum, Beijing; X. Qin, China U. of Petroleum, Beijing; and F. Zhou, Research Inst. of Petroleum Exploration & Development

176847 Geochemical Assessment of the Huntly Coalbed Methane (CBM) Field, New Zealand Using a Chloride, Bicarbonate, and Boron Ternary Diagramme
H. Abu Bakar, U. of Auckland
(Alternate paper)

176848 A Novel Thermal-Resistance and Salt-Tolerance Gel With Low-Concentration Crosslinkers for Water Shutoff in Tahe Oilfield
L. Chen, China U. of Petroleum (East China); G. Zhang, China U. of Petroleum, Beijing; and J. Ge, China U. of Petroleum (East China)

176850 Effect of Liquid Invasion Damage on Wireline Formation Tester Measurements in Tight Gas Reservoirs
N. Bahrami, Curtin U., and H. Pourabed, Schlumberger
(Alternate paper in technical session 6)

176852 Evaluating Ion Effect on Residue Content of Fracturing Fluids
D. Singh, Halliburton Energy Services (OK); E. Hampton, Halliburton Energy Services; and U.A. Inyang, Halliburton
(Alternate paper in technical session 12)

176853 Experimental Study of Controlling Factors of the Continental Shale Matrix Permeability in Ordos Basin
H. Qu, State Key Laboratory of Petroleum Resources and Prospecting, China U. of Petroleum, Beijing; F. Zhou, China U. of Petroleum, Beijing; Z. Pan, CSIRO; and Y. Xue, China U. of Petroleum, Beijing
(Alternate paper)

176859 Selection Criteria and Evaluation Technology for Casing Used in Shale Gas Wells in China
J. Wang, CNPC Tubular Goods Research Inst.
176861 Technology Feasibility and Production Driver Study in the First Integrated Shale Gas Block in Sichuan Basin
(Alternate paper in technical session 8)

176864 Solving 22” Roller Cone Endurance Issues Drilling Challenging Carbonates in Western Kuwait Sets New Single Run Footage Record and Reduces Trip Time
S.M. Jumah, M.S. Al-Mehailan, J. Ajareki and F. Juhail, Kuwait Oil Co., and S. Hassan, P. Nair, K. Beheiry and O. Ghoneim, Smith Bits, a Schlumberger Co.

176865 Reservoir Modelling for Pad Optimisation in Context of Hydraulic Fracturing
P. Pankaj, Schlumberger

176866 Exporting USA Percussion Tools/Techniques to Australia: Underbalanced System Increases ROP by 700% on First Run Drilling Ultra-Hard/Abrasive Formation
C. Rogers, R. Jangani and A. Spedale, Smith Bits, a Schlumberger Co.
(Alternate paper)

176871 Diffusion and Apparent Permeability in Tight Gas and Shale Gas Reservoirs
A. Ziariani, Trican Well Service Ltd.; R. Aguilera, U. of Calgary; and C. Cui, Trican Well Service Ltd.

176872 A Model for CH4-CO2 Flow in Shale Gas Reservoirs With Nano- to Micro-Scales
K. Wu, U. of Calgary
(Alternate paper in technical session 17)

176873 Proppant Transport Simulation in Hydraulic Fractures and Fracture Productivity Forecast
B. Kong, U. of Calgary, and E. Fathi, West Virginia U.
(Alternate paper in technical session 2)

176879 Zonal Isolation in a High Stress Environment: A Case History in Venezuela’s In-Situ Combustion Wells
A. Brandl, Baker Hughes
(Alternate paper in technical session 21)

176876 New Toe Sleeve Enables True Casing-Pressure Test in an Eagle Ford Shale Well - A Case Study
G.A. Haydell, Murphy Oil Co. Ltd.; B.J. Wellhoefer, Halliburton Energy Services Group; S. Canning, Halliburton Completion Products and Services; and T. Alkek, Halliburton Energy Services (OK)
(Alternate paper in technical session 12)

176877 Preparing for the Tight Gas Steeplechase, Talking to Canadians About Deep, Tight Gas Sand (TGS) Developments
R.M. Pearson, Tactical Gas Services Pty. Ltd.

J. Gao, L. Gross and S. Tyson, The U. of Virginia

176879 Hydrodynamic Modelling of Hydraulic Fracturing Fluid Injection in North Perth Basin Shale Gas Targets
S. Palat, S. Varma, M. Torbatnyia, K. Kanadikirk and M. Middleton, Department of Mines and Petroleum
(Alternate paper)

176880 Adsorption Behaviour Study of Shale Gas: Models and New Combination Approach
J. Li, State Key Laboratory of Oil and Gas Reservoir Geology and Exploitation, Southwest Petroleum U.; Z. Lie Hui, Southwest Petroleum U.; and C. Yulin, State Key Laboratory of Oil and Gas Reservoir Geology and Exploitation, Southwest Petroleum U.

176882 Experimental Research on the Shale Imbibition Characteristics and Its Relationship With Pore Structure
L. Yang, H. Ge, Y. Shen, K. Ren, M. Meng, X. Qin, H. Huang and S. Su, State Key Laboratory of Petroleum Reservoirs and Prospecting, China U. of Petroleum, Beijing

176883 Gas Transport in Shale Gas Reservoirs With the Effects of the Pore Wall Roughness and Wettability
K. Wu, U. of Calgary
(Alternate paper in technical session 1)

176885 Analysis of the Most Successful Shale Gas Reservoir in China
P. Wei, Sinopec Research Inst. of Petroleum Engineering
(Alternate paper in technical session 8)

176886 Geochemoical Exploration for Gas Hydrates in the Mulii Area, Qilianshan Permafrost, Northwestern China
C. Wu, Wuxi Research Inst. of Petroleum Geology, Petroleum Exploration and Production Research Inst. of Sinopec; and C. Zhao, Petroleum Geology, Petroleum Exploration and Production Research Inst. of Sinopec
(Alternate paper)

176887 Associative Non-Crosslinked Polymer as a Low Damage Fracturing Fluid
Z. Hu, Q. Jiang and Z. Song, China U. of Petroleum, Beijing

176888 Optimisation of Horizontal Well Spacing and Transverse Fracture Stages for a Thinly-Interbedded Tight Sand Reservoir Offshore Australia: An Integrated Geomechanical and Production Modelling Approach
A. Younessi and K. Rahman, Baker Hughes
(Alternate paper in technical session 11)

176889 Pressure Triggered Toe Sleeve in Lieu of a Tubing Conveyed Perforating Operation for First Stage Fracturing in the Neuquén Basin
F.J. Ortega and A. Govorushkina, Baker Hughes Solutions
(Alternate paper)

176900 Application of a Novel Temporary Blocking Agent in Refracturing

176903 Dynamic CBM Reservoir Characterisation of Southern Qinshui Basin
X. Zhao and S. Zhang, China U. of Petroleum, Beijing, and R.M. Bresnahan, CFT Energy
(Alternate paper in technical session 14)

176906 Evaluation of Microwave Heating on Fluid Invasion and Phase Trapping in Tight Gas Reservoirs
H. Wang, R. Rezaee and A. Saeedi, Curtin U.
(Alternate paper in technical session 13)
176907 Dynamic Modelling to Optimise the Field Development Plan for a Low Permeability Volcanic Reservoir With Multi Stage Hydraulic Fractures
A.K. Gupta, P. Shankar, S. Verma and S. Saurav, Cairn India Ltd. (Alternate paper in technical session 21)

176909 Lean Best Practices for Unconventional Projects: Learnings From CSG to LNG
C.M. Rieseley, QGC - A BG Group Business (Alternate paper in technical session 16)

176910 Effect of Well Interference on Shale Gas Wells’ SRV Interpretation
P. Wei, Sinopec Research Inst. of Petroleum Engineering

176916 Mechanical Interaction of Multiple 3D Fractures Propagation for Network Fracturing

176917 Development and Verification of Degradable Sealing Elements for Fully-Degradable Frac Plugs
S. Takahashi, T. Takahashi, T. Kobayashi and M. Okura, Kureha Corp. (Alternate paper)

176918 A Comparison of Plug and Perf and Cemented Multiple Entry Ball Drop Sleeve Completions

176921 Researches on Pore Connectivity and Scale-Dependent Permeability of Shale
X. Zhou, W. Pan, Z. Lun and C. Zhao, Sinopec

176922 Anisotropic Wellbore Stability Model for Transversely Isotropic Formation and Its Application in Drilling Through Shale Formation
M. Liu, Y. Jin, Y. Lu, M. Chen and X. Wen, China U. of Petroleum, Beijing (Alternate paper)

176924 Dynamic Synthesis of a CSG Field
J. Goodchild, G. Fontaine, K. Kim and M. Storey, Santos Ltd. (Alternate paper)

176926 PTA and Well Performance Comparison of Rich vs Dry Gas Unconventional Tight Sands: A Middle East Case Study
A.M. Al-Shawaf, Saudi Aramco PE&D; M.B. Issaka, Saudi Aramco; and L. Cai, Halliburton Co.

176927 Application of a New Hydraulic Fracturing Simulator in Changbei II, Ordos Basin, P.R. China

176929 An Evaluation of Velocity Analysis Methods for Estimation of Thomsen Anisotropy Parameters and Their Application for Sweet-Spot Identification and Flow Simulation in Coal Seam Gas
H.L. Wilson, L. Gross and S. Tyson, The U. of Queensland (Alternate paper in technical session 4)

176930 Boosting Performance of Component Assets Used in Unconventional Resource Plays With Nanolaminated Alloy Coatings
C. Lomasney, Modumetal

176932 Optimal Fracing Near Faults - Quantifying the Interaction Between Natural and Hydraulic Fractures Using Geomechanical Modelling

176933 Application of Innovative High Density Non-Aqueous Fluids Technology in the Efficient Development and Production of Ultra-Deep Complicated Formations in the Tian Mountain Front Block
L. Li, PetroChina Co. Ltd.

176934 Structural Controls on the River Morphology and Sedimentation Pattern in the South Pine River Basin, North Brisbane
B. Bhosle, Weatherford Laboratories Australia Pty. Ltd.; D.S. Bhagat, Independent Geoconsultant; and E.A. Barcelona, Weatherford Australia Pty. Ltd. (Alternate paper)

176935 Quick Tricks, Tips, Analytical Methods and Other Proxy Tools for the Unconventional Reservoir Engineer
C.L. Jordan, RISC (Alternate paper in technical session 17)

176938 Characterisation of Complex Multiscale Natural Fracture Systems of the Silurian LongMaXi Gas Shale in the Sichuan Basin, China
X. Liang, PetroChina; C. Xian, X. Liu and L. Wang, Schlumberger; and C. Zhao, Schlumberger Trinidad Inc.

176939 The Effect of Water Salinity on ECBM and CO₂ Sequestration in Coalbeds
A.F. Ibrahim and H.A. Nasr-El-Din, Texas A&M U. (Alternate paper in technical session 4)

176940 Study of Pore Structure of Gas Shale With Low-Field NMR: Examples From the Longmaxi Formation, Southern Sichuan Basin, China
Y. Chen, L. Zhang, J. Li and T. Zhang, Southwest Petroleum U. (Alternate paper in technical session 7)

176943 Optimal Core Retrieval Time to Minimise Core Decompression Damage
T. Hoeink, W. Van Der Zee and S.M. Arndt, Baker Hughes (Alternate paper in technical session 16)

176945 100% in the Sweet Section: An Effective Geosteering Approach for the Silurian Longmaxi Gas Shale in the Sichuan Basin, China
X. Liang, Y. Jiao and G. Wang, PetroChina, and L. Wang, Schlumberger; and C. Zhao, Schlumberger (Alternate paper in technical session 15)

176946 Natural and Induced Fracture Application Technology on Enhancing Unconventional Reservoir Wellbore Stability
Y. Al-Ghamdi and R.R. Sung, Saudi Aramco PE&D EASD (Alternate paper)
176947 Architecture of the Fracture Network of Shale Reservoirs by Tracking Exchangeable Cations
H. Roshan, U. of New South Wales, and M. Sarmadivaleh, Curtin U.
(Alternate paper in technical session 1)

176949 Pulse-Echo Cement Evaluation Tool Confirms the Effectiveness of New Optimised Cementing Practice in Fairview Field, Queensland, Australia
H. Pourbed, Schlumberger; A. Ablaghdar and G. Amor, Santos Ltd.; and J. Rosales, Schlumberger

176951 Causes and Responses for Abnormal Fracture Pressure of Ultra-Deep Shale in South China
Q. Shan, Y. Jin, M. Chen and B. Hou, China U. of Petroleum, Beijing

176952 A New Improved Shale Correction for Pulsed-Neutron Measurements
J. Quirein, Landmark Graphics Corp., and N. Mekic, W. Guo, D.F. Dorffer and C. Mcilroy, Halliburton
(Alternate paper in technical session 11)

176956 An Adventure in Accelerated Immersive Capability Development in Unconventional Resources

176959 Hydraulic Fracturing Simulations in Zhaquuan, Qaidam Basin, P.R. China: Can Early Screen-Outs be Avoided With Model Based Design?
D. Weng, Research Inst. of Petroleum Exploration and Development - Langfang Branch; S. Falser, Shell (China) Project & Technology; Y. Ding and Y. Xu, Research Inst. of Petroleum Exploration and Development - Langfang Branch; Z. Guo, Qinghai Offfield, PetroChina; and H. Liang, Research Inst. of Petroleum Exploration and Development - Langfang Branch
(Alternate paper)

176967 Single Component Gas Diffusion in Australian Black Coal - Experimental Characterisation and Modelling
(Alternate paper in technical session 20)

176968 Evaluation of Molecular Diffusion Effect by Using PVT Experimental Data: Impact on Gas Injection to Tight Fractured Gas Condensate/Heavy Oil Reservoirs
T. Ohata, M. Nakano and R. Ueda, Japan Petroleum Exploration Co. Ltd.

176972 Dynamic Variations of Petro-Physical Properties of Gas Shale During Gas Production
J. Wang, China U. of Petroleum, Beijing; H. Luo, The U. of Texas at Austin; H. Liu, China U. of Petroleum, Beijing; Y. Jiao, Research Inst. of Petroleum Exploration and Development; and K. Sepehrnoori, The U. of Texas at Austin
(Alternate paper)

176973 Effects of Sample Holding Time, Storage and Preservation on Sample Integrity for Source Rock Analysis: Experimental Results
B. Bhosle, P. Crozier and K.H. Flynn, Weatherford Laboratories (Australia)

176975 Use of Automated Well Placement for Optimised and Improved Geosteering - A North America Unconventional Case Study
C. Sirivuri and K. Saikia, Halliburton
(Alternate paper in technical session 5)

176976 A New Method for the Estimation of Lost Gas During the Measurement of the Gas Content of Coal
M. Lu, Z. Pan and L. Connell, CSIRO
(Alternate paper in technical session 16)

176980 Impact of Creep on Coal Permeability and Gas Production
N.N. Danesh, Z. Chen, S. Aminossadati and M. Kizil, The U. of Queensland
(Alternate paper in technical session 4)

176981 Production Simulation of Complex Fracture Networks for Shale Gas Reservoirs Using a Semi-Analytical Model
P. Jia, L. Cheng and S. Huang, China U. of Petroleum, Beijing

176983 Estimate the Effective Fracture Properties From Tight Formation Production Data
X. Wu and W. Tian, The U. of Oklahoma

176985 How SRV Determination by Properly Honoring Unconventional Depletion Mechanisms May Boost Producers’ Bottom Line by 30%
Y. Wang, L. Jin and Y. Li, InPetro Technologies Inc.
(Alternate paper)

176986 Optimising Hydraulic Fracture and Drilling Location Selection for Unconventional Gas Development Through a Full 3D Discrete Fracture Network Approach
M.G. Cottrell and P. La Pointe, Golder Associates, and P. Hayes, Golder Associates Pty.

176988 3D Pore Network Investigation in Marcellus Shale Rock Matrix
J. Goral and I. Miskovic, The U. of Utah
(Alternate paper in technical session 20)

176989 Slip Velocity and Permeability of Gas Flow in Nanopores for Shale Gas Development
N. Okamoto, Y. Liang, S. Murata and T. Matsuoka, Kyoto U., and T. Akai and S. Takagi, Japan Oil, Gas and Metals National Corp. (JOGMEC)
(Alternate paper in technical session 1)

176991 Novel Micro and Nano Particle-Based Drilling Fluids: Pioneering Approach to Overcome the Borehole Instability Problems in Shale Formations
J. Zhang, CNPC Drilling Research Inst.; L. Li, PetroChina Co. Ltd.; and J. Sun, Z. Zhao and S. Wang, CNPC Drilling Research Inst.
(Alternate paper)

176992 Quantifying Pore Size Distribution Effect on Gas in Place and Recovery Using SLDP-PR EOS for Multiple-Components Shale Gas Reservoir
X. Wu, The U. of Oklahoma
(Alternate paper in technical session 6)

176993 Reservoir Characteristics for Unconventional Shale Play of Huai Hin Lat Formation in Northeastern Thailand
C. Chumkratoke and S. Dunn-Norman, Missouri U. of Science and Technology

176995 Depth Distribution of Gas and Water Rates From Temperature and Pressure Profiles in Unconventional Gas Wells
Z. You and P.G. Bedrikovetsky, The U. of Adelaide
(Alternate paper in technical session 19)
176996 The Triaxial Mechanical Strength Experiments of Shale Under Supercritical Carbon Dioxide Conditions
H. Zhu, Southwest Petroleum U. (Alternate paper)

176997 Simulation of Shale Gas Transport in 3D Complex Nanoscale-Pore Structures Using the Lattice Boltzmann Method
Y. Ning, Y. Jiang and G. Qin, U. of Houston

176998 A Practical Method to Determine Aquifer Leakage Factor From Well Test Data in CBM Reservoirs

177001 Mechanism of Liquid-Phase Adsorption and Desorption in Coalbed Methane Systems - A New Look at an Old Problem
J. Li and J. Shi, China U. of Petroleum, Beijing, and K. Wu, U. of Calgary (Alternate paper in technical session 20)

177002 Petrophysical Characterisation of Tight Sands in Granite Wash, Anadarko Basin (USA)

177003 Improved Reservoir Performance Using Complex Nanofluid (CnF) Systems
S.A. Marinello, Flotek Industries; J.T. Pursley, CESI Chemical - Flotek Co.; and G. Flock, Flotek Industries

177004 Modified Hybrid Fracturing in Shale Stimulation: Experiments and Application
Y. Li, CCDC Downhole Service Co., and G. Qin, U. of Houston

177006 Isotherms, Gas Contents and Diffusion Coefficients of Coals and Shales in Vitro
I. Gray, Sigra Pty. Ltd. (Alternate paper in technical session 9)

177010 A Unified Model for Gas Transfer in Nanopores of Shale Gas Reservoirs: Coupling Pore Diffusion and Surface Diffusion
K. Wu and Z. Chen, U. of Calgary (Alternate paper)

177011 Laboratory and Mathematical Modelling of Fines Production From CSG Interburden Rocks

177013 Innovative PDC Cutter With Elongated Ridge Combines Shear/Crush Action, Improves PDC Bit Performance
Y. Zhang, X. Gan, H. Song, Z. Lin and M.G. Azar, Smith Bits, a Schlumberger Co.

177014 An Experiment Method to Determine the Fracture Toughness of Brittle and Heterogeneous Materials by Hydraulic Fracturing
J. Too, National U. of Singapore; S. Falser, Shell (China) Project & Technology; and P. Linga, B. Khoo and A.C. Palmer, National U. of Singapore (Alternate paper in technical session 10)

177015 High Pressure Swellable Packer Success and Lessons Learned
S.J. Kim, Halliburton Energy Services (OK); P. Ji, Shell; and T. Stein, Halliburton (Alternate paper in technical session 15)

177016 Pore-Scale Network Modelling for Prediction of Coal Permeability
A. Zamani and P. Mostaghimi, U. of New South Wales (Alternate paper in technical session 6)

177017 Micro CT Imaging for Coal Characterisation

177018 Production Forecasting for Shale Oil: Workflow
M.D. Rincones Garcia and D. Lee, U. of Houston, and J.M. Rutledge, Marathon Oil Co. (Alternate paper in technical session 7)

177020 DFNModelforFlowSimulationInHydraulicallyFracturedWellsWithPre-ExistingNaturalFracturesUsingUnstructuredQuadrilateralGrids
K. Wang, State Key Laboratory of Oil and Gas Reservoir Geology and Exploitation, Southwest Petroleum U.

177022 Avoiding Short Wiper Trips To Increase the Milling Efficiency of Composite Plug Drillout Operation With Coiled Tubing
J. Li, K. Isidahomen and S.M. Majko, Trican Well Service Ltd. (Alternate paper in technical session 5)

177023 De-Bottlenecking Drilling and Completion Operations for Shale Field Developments
M. Mitschanek, Montanuniversität Leoben; G. Thonhauser, TDEThonhauserDataEngineering; and M. Prohaska, Montanuniversität Leoben (Alternate paper)

177026 Applicability Comparison of Nuclear Magnetic Resonance and Mercury Injection Capillary Pressure in Characterisation Pore Structure of Tight Oil Reservoirs
H.W. Zhao, China U. of Petroleum, Beijing, and Z.F. Ning, T.Y. Zhao and R. Zhang, State Key Laboratory of Petroleum Resources and Prospecting, China U. of Petroleum (Alternate paper)
The technical exhibition will include an international cross section of service and supply companies providing opportunities to learn about new products and improvements to existing technologies. Representatives from exhibiting companies will be on hand to demonstrate solutions for the challenges facing stakeholders in oil and gas exploration and production.

Scheduled coffee breaks and a networking luncheon in the exhibition hall will provide ample opportunity to meet exhibitors, review old acquaintances, and make new contacts in the exhibition area.

Exhibitors’ List (As of 31 July 2015)

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<th>ALS Oil &amp; Gas</th>
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<td>Carl Zeiss X-ray Microscopy, Inc.</td>
<td>Santos</td>
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<td>Condor Energy Services Ltd.</td>
<td>Saltel Industries Australia</td>
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<td>Enersight Petroleum Planning</td>
<td>Schlumberger</td>
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<td>General Petroleum Oil Tools</td>
<td>Sharpe Com Au</td>
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<td>Golder Associates</td>
<td>Tendeka Oil &amp; Gas Pty. Ltd.</td>
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<td>Kudu Australia Pty. Ltd.</td>
<td>University of Queensland</td>
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<td>Magnum Oil Tools International</td>
<td>voestalpine Tubulars GmbH &amp; Co KG</td>
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<tr>
<td>Marubeni-Itochu Tubulars Oceania Pty. Ltd.</td>
<td>Weatherford</td>
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Sponsorship Opportunities

A Sponsorship Programme has been designed to offer maximum exposure and visibility of organisations in the energy industry. Among the sponsorship opportunities still available are:

- Principal Sponsor
- Digital Proceedings
- Networking Luncheons
- ePosters
- Evening Icebreaker
- Happy Hour
- Directional Signages
- Conference Preview/Programme
- Education Days
- Bottled Drinking Water
- Young Professionals Workshop
- Caps
- Juice Bar
- Ice Cream Social
- Author Gifts
- Writing Pads
- Satchel Insertion
- Coffee/Tea Breaks

For more information, please contact Christopher Wong, Sales Manager, Society of Petroleum Engineers at cwong@spe.org; Tel: +60.3.2182.3148

CONFERENCE DINNER (Organised by the SPE Queensland Section)

Tuesday, 10 November 2015 ● 1900-2300 hours ● Meeting Room M3 & M4
Brisbane Convention & Exhibition Centre

A$165 per person (SPE Member)
A$175 per person (Non Member)

Why not enjoy a casual evening with fellow industry colleagues and new acquaintances? The conference dinner is an informal opportunity for conference delegates, local members and partners to socialise and enjoy all that Brisbane has to offer. Superb food wine and live entertainment promises to make this an evening to remember. Join us for this not to be missed Conference Dinner!

Dress Code: Smart Casual
Advance Registration

Register by 9 September and Save!
To advance register, please complete and return the Early Bird/Advance Registration Form. Early Bird Registration deadline is 9 September 2015. The deadline for receipt of Advance Registration Form is 26 October 2015. Advance registration should be made by mail OR fax to the SPE Asia Pacific Office (Kuala Lumpur). To submit your registration on-line, please visit the SPE website http://www.spe.org/events/urce/2015 (credit card registrants only).

Advance registration payment:
1. Telegraphic Transfer or Electronic Funds Transfer (Bank details will be provided on the invoice).
2. Credit Card payments will be processed in U.S. Dollars equivalent at the current exchange rate specified on the conference website. Conference materials and badges will not be mailed in advance, but should be collected at the Conference Registration Counter, Main Foyer, Brisbane Convention & Exhibition Centre, during registration hours.

To avoid congestion during the event, delegates are encouraged to collect their materials/badges at the Registration Counter on Sunday, 8 November 2015 between 1200-1700 hours.

Full Conference Period Registration Fee includes: admission to technical/e-poster sessions and exhibition, happy hours, coffee/tea breaks, daily luncheons, and one Digital Proceedings.

One-Day Registration Fee includes: admission to technical/e-poster sessions and exhibition, luncheon and coffee/tea breaks for that day only.

Students: Registration for technical sessions and exhibition is complimentary for full time students. Complimentary registration does not include Proceedings or any function tickets.

On-Site Registration

Delegates may register onsite at the Registration Counter, Main Foyer, Brisbane Convention & Exhibition Centre at the following times and dates:
• 1200-1700 hours on Sunday, 8 November
• 0730-1730 hours on Monday, 9 November
• 0730-1730 hours on Tuesday, 10 November
• 0730-1530 hours on Wednesday, 11 November

Refund Deadline

Cancellations must be received in writing by SPE Asia Pacific Office address shown on the Early Bird/Advance Registration Form no later than 26 October 2015 to receive a refund less A$150 processing fee. No refund will be accepted after this date. Substitutions will be accepted.

Digital Proceedings

Advance full conference registration guarantees one set of Digital Proceedings and is available for collection at the conference. Additional Digital Proceedings may be pre-ordered on the Advance Registration Form or purchased during registration hours at the conference for A$275 member and A$330 non-member. Participants are encouraged to order Digital Proceedings in advance, as on-site availability is limited.

Hotel Accommodation

Hotel accommodation can be reserved at special rates at the Rydges South Bank, where room blocks are being held for conference delegates. Please complete the Hotel Booking Form to ensure your hotel accommodation during the conference and return by fax or email directly to the hotel. You may also visit http://www.rydges.com/customised-web-page/society-of-petroleum-engineers-conference-2015/ for online accommodation reservation. Alternatively, you may contact the Rydges South Bank reservation team directly via telephone at 61.7.3364.0800 or via email at reservations_southbank@rydges.com. Kindly quote the Society of Petroleum Engineers and provide the following code: 1511SOCIET for telephone or email reservations.

Immigration/Visa

A valid passport with a visa is required for all non-Australian citizens attending the conference. Visas can be applied for at any office of the Australian High Commission, Embassy or Consulate. An invitation letter to facilitate the application of visa will be issued to attendees if required. Please visit the SPE website http://www.spe.org/events/urce/2015/ for letter of invitation request form. It is important that people wishing to travel to Australia apply for their visas well in advance. Please ensure that your passport is also valid for the period of stay you are visiting Australia.

Please check with your travel agent or the Australian Embassy on regulations relating to immigration/visa for entry to Australia before your departure or visit www.immi.gov.au for further information.

The Society of Petroleum Engineers (SPE) is a not-for-profit organisation. Income from this event will be invested back into SPE to support many other Society programs. When you attend an SPE event, you help provide even more opportunities for industry professionals to enhance their technical and professional competence. Scholarships, certification, the Distinguished Lecturer program, and SPE’s energy education program Energy4me are just a few examples of programs that are supported by SPE.
ADVANCE REGISTRATION FORM  
SPE ASIA PACIFIC UNCONVENTIONAL RESOURCES CONFERENCE AND EXHIBITION  
9 TO 11 NOVEMBER 2015 • BRISBANE, AUSTRALIA

All portions of this form must be completed. Print your name as they should appear on meeting badge. Registration would not be processed without payment.

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<tr>
<th>Participant Profile</th>
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<td>Registrant’s First Name</td>
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<td>Spouse/Partner’s First Name</td>
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<td>Company</td>
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| SPE Member | Yes | No | Membership # |  |

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<th>Fee Per Person</th>
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<td>By 9 September</td>
<td>After 9 September</td>
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<td>FULL CONFERENCE PERIOD - Includes technical/ e-poster sessions, exhibition, happy hour, coffee/tea breaks, daily luncheons and one (1) copy of the Digital Proceedings</td>
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<td>A$1,215</td>
<td>A$1,265</td>
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<td>A$1,395</td>
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<td>Nonmember</td>
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<td>A$1,145</td>
<td>A$1,245</td>
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<td>Presenter/Author/Panelist/Committee/Sessions Chairperson</td>
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<td>Student (With valid college ID only, includes technical sessions, exhibition and coffee breaks)</td>
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| Total A$ | |
| Registration Fees include 10% GST |

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Hotel accommodation at preferential rates has been reserved at the Rydges South Bank (adjacent to BCEC) for the conference registrants. Room rates are inclusive of 10% GST. Reservations are subject to availability and may be made by fax or email directly to the hotel. No booking can be accepted without credit card details. Confirmation of your reservation will be sent to you directly from the Rydges South Bank. If you do not receive confirmation within 48 hours, contact the hotel reservations department directly by phone or email.

**INDICATE TYPE OF ROOM** (Room rates are exclusive of breakfast)

- Queen Room  
  (Queen Bed, 1-2 persons)  
  A$299.00
- Superior Queen Room  
  (Queen Bed, walkout balcony, 1-2 persons)  
  A$329.00
- Deluxe Queen Room  
  (Queen Bed, walkout balcony, River View, 1-2 persons)  
  A$369.00

**Payment Terms**

- Your card will not be charged in advance, but is held as security for your reservation and utilised for any applicable cancellation or non-arrival (“no show”) fees.
- Payment of accommodation is required upon check-in to the hotel. If the card holder will not be present at time of check-in, you will need to complete a third party charge authorisation. Please contact the Rydges South Bank for further information.
- Guests are responsible for their own incidental charges and each guest is to supply a credit card pre-authorisation or cash deposit upon check-in to cover incidental charges.
- Payments made by MasterCard, Visa and CUP will incur a transaction fee of 1.5% and Amex, Diners & JCB or 3.5%.
- Rydges South Bank must be notified of any cancellations:
  - Any cancellations within thirty (30) days prior arrival will incur a charge of one (1) night accommodation and will be charged to the credit card provided at time of booking.
  - Any cancellations within fourteen (14) days prior arrival will incur a charge equal to the value of total nights cancelled and will be charged to the credit card provided at time of booking.
- Non-arrivals/no show guests will be charged for the total accommodation booked. This will be charged to the credit card provided at time of booking.
- The check-in time is 1400 hours and check-out time is 1100 hours.

**EMAIL/FAX HOTEL BOOKING FORM TO:**

Rydges South Bank, Brisbane  
**GROUP CODE:** 1511SOCIET  
Tel: 61.7.3364.0800  
Fax: 61.7.3364.0801  
E-mail: reservations_southbank@rydges.com

**HOTEL BOOKING DEADLINE**

1 October 2015

Requests will be considered after this date, but special hotel rates and accommodation cannot be guaranteed.
**SPE WORKSHOPS**

“**Young Professionals Workshop – Oil and Gas Digital World: The Rise of Generations**”
- 9 to 11 August 2015 • Kuala Lumpur, Malaysia

“A Call to Action: Bringing Gender Diversity to the Next Level”
- 11 to 13 August 2015 • Kuala Lumpur, Malaysia

“Integrated Production Modelling - Maximising Asset Value”
- 16 to 19 August 2015 • Perth, Australia

“Reservoir Testing to Add Production Value”
- 2 to 5 September 2015 • Putrajaya, Malaysia

“Advanced Completion Technologies for Challenging Fields”
- 27 to 30 September 2015 • Putrajaya, Malaysia

“Developing Marginal/ Brown Fields - Managing Cost and Schedule”
- 28 to 30 September 2015 • Putrajaya, Malaysia

“Optimal Reservoir Characterisation Using Core Analysis Data and Models”
- 29 November to 2 December 2015 • Singapore, Singapore

“Process Safety & Integrity”
- 6 to 9 December 2015 • Kuala Lumpur, Malaysia

“Acid Stimulation: An Alternative for Production Enhancement”
- 10 to 13 January 2016 • Phuket, Malaysia

“Challenges of Frontier Deepwater Drilling”
- 24 to 27 January 2016 • Yangon, Myanmar

“Operating Ageing Assets – Operating, Upgrading and Extending the Production Life of Mature and Ageing Offshore Assets”
- 26 to 29 January 2016 • Kota Kinabalu, Sabah, Malaysia

“Digital Field Development & Management - Data Driven Analytics & Decision Making”
- 21 to 24 February 2016 • Kuala Lumpur, Malaysia

“Drilling and Completion Fluids/Waste Management – Maximising Drilling Performance & Well Productivity”
- 29 February to 3 March 2016 • Putrajaya, Malaysia

“Complex Fluid Characterisation - Impact on Gas Recovery & Production”
- 13 to 16 March 2016 • Kota Kinabalu, Sabah, Malaysia

**CONFERENCES**

**SPE Asia Pacific Enhanced Oil Recovery Conference and Exhibition**
- 11 to 13 August 2015 • Kuala Lumpur, Malaysia

**SPE/IATMI Asia Pacific Oil & Gas Conference and Exhibition**
- 20 to 22 October 2015 • Bali, Indonesia

**Offshore Technology Conference Asia**
- 22 to 25 March 2016 • Kuala Lumpur, Malaysia

**IADC/SPE Asia Pacific Drilling Technology Conference**
- 22 to 24 August 2016 • Singapore

**SPE Asia Pacific Oil & Gas Conference and Exhibition**
- 25 to 27 October 2016 • Perth, Australia

**International Petroleum Technology Conference**
- 14 to 16 November 2016 • Bangkok, Thailand

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**SPE OFFICES**

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