APOGCE
Asia Pacific Oil & Gas Conference and Exhibition
23 – 25 October 2018 | Royal International Convention Centre, Brisbane, Australia

Challenge the Conventional

ConocoPhillips
Principal Sponsor
Providing energy for the world while staying committed to our values.

ConocoPhillips is proud to be an industry leader in finding and producing the oil and gas the world needs. At the foundation of our work is the commitment we have to our SPIRIT Values—Safety, People, Integrity, Responsibility, Innovation and Teamwork.

To learn more, visit www.conocophillips.com
Dear Colleagues,

On behalf of SPE, the SPE Queensland Section and the conference organising committee, welcome to Brisbane and thank you for attending the SPE Asia Pacific Oil & Gas Conference and Exhibition (APOGCE) 2018.

APOGCE is known in Asia Pacific as the premier upstream technical conference that covers the broadest range of disciplines involved in exploration and production activities. This provides an important platform for industry professionals such as yourselves to get insights from the industry through a multitude of opportunities for technical knowledge sharing at a regional and global scale.

Themed “Challenge the Conventional”, the conference programme features high level dialogues between senior executives and industry experts at the Executive Plenary and Panel Sessions, deep-diving into topics such as:

- The Impact of Public Perception of the Oil and Gas Industry on Development Decisions
- Making Low Permeability Reservoirs Work
- Big Crew Change - Learning from the Past, Driving Future Success
- Data Analytics – Delivering Value
- R&D in Current Industry Scenario
- CSG Production – Past, Present and Future
- Delivering on Long Term Value

With over 200 technical presentations from 80 organisations, the technical and knowledge sharing ePoster sessions provides you the opportunity to learn from subject matter experts from around the world addressing a wide range of topics including coal seam gas, data analytics, workforce of the future, and asset integrity management, amongst others.

The conference welcomes attendees to also take part in the Welcome Reception and Conference Dinner for more networking.

The conference will also acknowledge the outstanding contributions of SPE volunteers at the SPE Asia Pacific Regional Awards Presentation, a momentous occasion celebrating the strong support received from around the region.

In collaboration with the SPE Queensland Section, the week-long programme has activities and programmes organised to inspire the younger generation and broaden their knowledge of the energy industry such as the Young Professionals Workshop, the Regional Student Paper Contest, Education Day and Teachers’ Day (Energy4Me).

Once again, we thank you for your support and participation at this event and we hope you will have an enriching experience while enjoying the vibrant city of Brisbane.

 Regards,

Wendy King
Conference Chair
President – Australia East
ConocoPhillips Australia

Chris Mijnssen
Technical Programme Chair
New Ventures Lead
Origin Energy

* This Conference Programme is updated as at 11 October 2018
Committees

Conference Chair

Wendy King
ConocoPhillips
Australia

Technical Programme Committee

Programme Chair

Chris Mijnssen
Origin Energy

Members

Saikat Mazumder, Arrow Energy
Khalil Rahman, Baker Hughes, a GE company
Sadegh Asadi, Baker Hughes, a GE company
Peter Behrenbruch, Bear and Brook Consulting
Roman Bulgachev, BP Norge AS
Rod Breshnehan, CFT Holdings
Daniel O’Reilly, Chevron Australia
Matthew Flett, Chevron Australia
Peter Tippet, Chevron Australia
Michelle Lim, ConocoPhillips Australia
Luke Connell, CSIRO Petroleum
Zis G. Katelis, Gaffney, Cline & Associates
David Kersey, Gatley Resources

Jeremy Meyer, Ikon Science
Mark Jackson, Independent
Marie-Louise Lees, Independent
Mike Zuber, Independent
Colin Ingram, Inflatable Packers International
Takaaki Uetani, INPEX Corporation
Xiuli Wang, Minerva Engineering
Baojun Bai, Missouri University of Science and Technology
Robyn Tamke, Oasis Oilfield Consulting
Sue Hyde, Oil Research
Chris Fair, Oilfield Data Services
Natalie Chadud, Origin Energy
Committees

Members

Sameer Ganpule, Origin Energy
Prady Chaliha, Osaka Gas Australia
Jan Bon, Petrolab Australia
Abdolrahim Ataei, PETRONAS
Dipak Mandal, PETRONAS
Khairul Nizam Idris, PETRONAS
Mohd. Solehuddin Abdul Razak, PETRONAS
Mohamad Othman, PETRONAS
Raj Deo Tewari, PETRONAS
Henricus Herwin, PT PERTAMINA Hulu Mahakam
Anwarudin Saidu Mohamed, Reservoir Link Solutions
Gianluca Di Martino, Quadrant Energy
Liu He, RIPE
Wu Shuhong, RIPE
Yang Qinghai, RIPE
Bruce Gunn, RISC
He Zhang, Ryder Scott Company
Darren Nicolson, Santos
David Close, Santos
Emma Tavener, Santos
James Griffiths, Santos
Mark Burgoyne, Santos
Simon Chipperfield, Santos
Jack Harfoushian, Schlumberger
Jaime Moreno Ortiz, Schlumberger
Salim Taoutaou, Schlumberger
Shripad Biniwale, Schlumberger
John (Jonggeun) Choe, Seoul National University
Dominic Pepicelli, South Australian Government
Piotr Sapa, South Australian Government
Keith Rae, TAM International Asia Pacific
Zahid Hassan, TechnipFMC
Abbas Zeinijahromi, University of Adelaide
Alireza Salmachi, University of Adelaide
Stephen Begg, University of Adelaide
Sheikh Rahman, University of New South Wales
Brian Towler, University of Queensland
Raymond Johnson Jr., University of Queensland
Vahab Honari, University of Queensland
Marcel Croon, Weatherford
Vikram Singh Grewal, Wipro
Alexis Whelan, Woodside Energy
Ben van Deijl, Woodside Energy
Neil Smith, Woodside Energy
Pieter Jagtenberg, Woodside Energy
Russell Byfield, Yokogawa Australia
Committees

Conduct Committee

Chair
Andrew White
Santos

Vice-Chair
Dean Sullivan
Weatherford Australia

SPE Australian Section Leads
Daniel O'Reilly, Chevron Australia
Ludovic Richard, CSIRO
Tony Kourakis, Lattice Energy
Izaz Haque, Oil Search
Jan Bon, Petrolab Australia
Kellie Hobbs, Shell New Zealand

Regional Student Paper Contest
Erhart Stockhausen, Origin Energy

Education Programmes
Natalie Chadud, Origin Energy

Young Professionals Workshop
Jay Zou, Origin Energy
Siang Teoh, Origin Energy
Janet Outhwaite, Santos

Training Courses
Daniel Kalinin, Schlumberger
Adam Kong, Senex Energy

Social Activities
Natalie Chadud, Origin Energy

Sponsorship And Exhibition
Rod Bresnehan, CFT Holdings
Audra L. Mulcahy, ConocoPhillips Australia
Alan Teimoori, Petro-Tech Central (PTC)
Mike Congreve, Independent
Thank You to Our Sponsors

**Principal Sponsor**

ConocoPhillips

**General Sponsors**

- **Gold Sponsor**
  - OSI
  - Panasonic
  - INPEX

- **Young Professionals Workshop (Co-Sponsor)**
  - INPEX

- **Educational Programmes (Co-Sponsor)**
  - Origin

- **Lanyards**
  - Senex

- **Silver Sponsor**
  - Aucerna
  - Halliburton
  - Contract Resources
Thank You to Our Sponsors

General Sponsors

- **ISI**
  - Silver Sponsor
  - IMPACT SELECTOR™
  - Intelligent Conveyance® Technologies

- **ODSI**
  - Silver Sponsor

- **Safer Together**
  - Silver Sponsor

- **SANDVIK**
  - Silver Sponsor

- **Sasol**
  - Silver Sponsor

- **Silverwell**
  - Silver Sponsor
  - ARTIFICIAL LIFT INTELLIGENCE

- **Stepan**
  - Silver Sponsor
ATTENDEE SURVEY

Tell us about your Asia Pacific Oil & Gas Conference and Exhibition experience
Your feedback is important to us!

THREE EASY WAYS TO COMPLETE THE SURVEY

1. Online
   Visit http://go.spe.org/SPEapog18 or scan the survey code with your mobile device

2. Speaker/Author Check-in Room

3. ePoster Stations
Meeting Room Guide

Royal International Convention Centre, Level 1

ROOM 1, 2 & 3
Technical Sessions

ROOM 4 & 5
Panel and Technical Sessions

ROOM 6 & 7
Regional Student Paper Contest (23 October)
Teachers’ Day (24 October)
Education Day (25 October)

GREEN ROOM
Conference Headquarters & Speaker/Author Check-In

MEDICAL ROOM

HALL A
Exhibition
Coffee Breaks
Networking Luncheons
Welcome Reception (23 October)

HALL B
Opening Session
Keynote Session
Executive Plenary Session
SPE Asia Pacific Regional Awards Presentation

HALL C

FOYER
Conference and Exhibition Registration

CONCOURSE
Knowledge Sharing ePoster Sessions

UPPER FOYER

HALL A

HALL B

HALL C
## Schedule of Events

### Monday, 22 October

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>0900 – 1700 hours</td>
<td>Registration</td>
<td>Foyer, Level 1</td>
</tr>
<tr>
<td></td>
<td>Speaker / Author Check-In</td>
<td>Green Room, Level 1</td>
</tr>
<tr>
<td>1200 – 1800 hours</td>
<td>Exhibitors Move-In</td>
<td>Hall A, Level 1</td>
</tr>
<tr>
<td>1200 – 1900 hours</td>
<td><strong>Young Professionals Workshop:</strong> New Age Engineers</td>
<td>Event Space 2 &amp; 3, Rydges Fortitude Valley</td>
</tr>
</tbody>
</table>

### Tuesday, 23 October

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>0730 – 1830 hours</td>
<td>Registration</td>
<td>Foyer, Level 1</td>
</tr>
<tr>
<td>0730 – 1730 hours</td>
<td>Speaker / Author Check-In</td>
<td>Green Room, Level 1</td>
</tr>
<tr>
<td>0900 – 0945 hours</td>
<td><strong>Opening Session</strong></td>
<td>Hall B, Level 1</td>
</tr>
<tr>
<td>0945 – 1015 hours</td>
<td><strong>Keynote Session</strong></td>
<td>Hall B, Level 1</td>
</tr>
<tr>
<td>1000 – 1830 hours</td>
<td>Exhibition</td>
<td>Hall A, Level 1</td>
</tr>
<tr>
<td>1015 – 1045 hours</td>
<td>Coffee Break</td>
<td>Hall A, Level 1</td>
</tr>
<tr>
<td>1045 – 1215 hours</td>
<td><strong>Executive Plenary Session:</strong> Challenge the Conventional</td>
<td>Hall B, Level 1</td>
</tr>
<tr>
<td>1215 – 1230 hours</td>
<td><strong>SPE Asia Pacific Regional Awards Presentation</strong></td>
<td>Hall B, Level 1</td>
</tr>
<tr>
<td>1230 – 1400 hours</td>
<td>Networking Luncheon</td>
<td>Hall A, Level 1</td>
</tr>
<tr>
<td>1300 – 1330 hours</td>
<td>Knowledge Sharing ePoster Session 1</td>
<td>Concourse, Level 1</td>
</tr>
<tr>
<td>1330 – 1400 hours</td>
<td>Knowledge Sharing ePoster Session 2</td>
<td>Concourse, Level 1</td>
</tr>
<tr>
<td>1400 – 1530 hours</td>
<td><strong>Panel Session 1:</strong> The Impact of Public Perception of the Oil and Gas Industry on Development Decisions</td>
<td>Room 4-5, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 1:</strong> Maximising Opportunity through Integrated Data Analysis</td>
<td>Room 1, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 2:</strong> Cementing and Drilling Fluids</td>
<td>Room 2, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 3:</strong> Modelling - Unconventional</td>
<td>Room 3, Level 1</td>
</tr>
<tr>
<td>1400 – 1730 hours</td>
<td><strong>SPE Regional Student Paper Contest</strong></td>
<td>Room 6 &amp; 7, Level 1</td>
</tr>
<tr>
<td>1530 – 1600 hours</td>
<td>Coffee Break</td>
<td>Hall A, Level 1</td>
</tr>
<tr>
<td></td>
<td>Knowledge Sharing ePoster Session 3</td>
<td>Concourse, Level 1</td>
</tr>
</tbody>
</table>
## Schedule of Events

### Tuesday, 23 October

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600 – 1730 hours</td>
<td>Panel Session 2: Making Low Permeability Reservoirs Work</td>
<td>Room 4-5, Level 1</td>
</tr>
<tr>
<td></td>
<td>Technical Session 4: EOR / Nanoparticle and Polymers</td>
<td>Room 1, Level 1</td>
</tr>
<tr>
<td></td>
<td>Technical Session 5: Sustainability, HSE and Well Integrity</td>
<td>Room 2, Level 1</td>
</tr>
<tr>
<td></td>
<td>Technical Session 6: Value Creation through Better Decision Making</td>
<td>Room 3, Level 1</td>
</tr>
<tr>
<td>1730 – 1830 hours</td>
<td>Welcome Reception</td>
<td>Hall A, Level 1</td>
</tr>
</tbody>
</table>

### Wednesday, 24 October

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>0730 – 1800 hours</td>
<td>Registration</td>
<td>Foyer, Level 1</td>
</tr>
<tr>
<td>0730 – 1730 hours</td>
<td>Speaker / Author Check-In</td>
<td>Green Room, Level 1</td>
</tr>
<tr>
<td>0900 – 1400 hours</td>
<td>Teachers’ Day</td>
<td>Room 7, Level 1</td>
</tr>
<tr>
<td>1000 – 1800 hours</td>
<td>Exhibition</td>
<td>Hall A, Level 1</td>
</tr>
<tr>
<td>0900 – 1030 hours</td>
<td>Panel Session 3: Big Crew Change - Learning from the Past, Driving Future Success</td>
<td>Room 4-5, Level 1</td>
</tr>
<tr>
<td></td>
<td>Technical Session 7: Shale, Deep Coal, Tight Gas Evaluation and Case Studies</td>
<td>Room 1, Level 1</td>
</tr>
<tr>
<td></td>
<td>Technical Session 8: Improved Oil Recovery - Water Flooding</td>
<td>Room 2, Level 1</td>
</tr>
<tr>
<td></td>
<td>Technical Session 9: Sand Control</td>
<td>Room 3, Level 1</td>
</tr>
<tr>
<td>1030 – 1100 hours</td>
<td>Coffee Break</td>
<td>Hall A, Level 1</td>
</tr>
<tr>
<td></td>
<td>Knowledge Sharing ePoster Session 4</td>
<td>Concourse, Level 1</td>
</tr>
<tr>
<td>1100 – 1230 hours</td>
<td>Panel Session 4: Data Analytics – Delivering Value</td>
<td>Room 4-5, Level 1</td>
</tr>
<tr>
<td></td>
<td>Technical Session 10: Geomechanics and Integrated Workflows</td>
<td>Room 1, Level 1</td>
</tr>
<tr>
<td></td>
<td>Technical Session 11: Well Testing and SCAL</td>
<td>Room 2, Level 1</td>
</tr>
<tr>
<td></td>
<td>Technical Session 12: Integrated Field Evaluation</td>
<td>Room 3, Level 1</td>
</tr>
<tr>
<td>1230 – 1400 hours</td>
<td>Networking Luncheon</td>
<td>Hall A, Level 1</td>
</tr>
<tr>
<td>1300 – 1330 hours</td>
<td>Knowledge Sharing ePoster Session 5</td>
<td>Concourse, Level 1</td>
</tr>
</tbody>
</table>
## Schedule of Events

### Wednesday, 24 October

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330 – 1400</td>
<td>Knowledge Sharing ePoster Session 6</td>
<td>Concourse, Level 1</td>
</tr>
<tr>
<td>1400 – 1530</td>
<td><strong>Panel Session 5:</strong> R&amp;D in Current Industry Scenario</td>
<td>Room 4-5, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 13:</strong> Enhanced Oil Recovery (EOR)</td>
<td>Room 1, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 14:</strong> Stimulation 1 - Hydraulic Fracturing</td>
<td>Room 2, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 15:</strong> Emerging Drilling Technologies 1 - Using Data Effectively</td>
<td>Room 3, Level 1</td>
</tr>
<tr>
<td>1530 – 1600</td>
<td>Coffee Break</td>
<td>Hall A, Level 1</td>
</tr>
<tr>
<td></td>
<td>Knowledge Sharing ePoster Session 7</td>
<td>Concourse, Level 1</td>
</tr>
<tr>
<td>1600 – 1730</td>
<td><strong>Panel Session 6:</strong> CSG Production – Past, Present and Future</td>
<td>Room 4-5, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 16:</strong> Advanced Information Analysis / Artificial Intelligence</td>
<td>Room 1, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 17:</strong> Modelling - Conventional</td>
<td>Room 2, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 18:</strong> Performance Excellence</td>
<td>Room 3, Level 1</td>
</tr>
<tr>
<td>1800 hours</td>
<td>Conference Dinner (Organised by SPE Queensland Section)</td>
<td>Paddock Bar, Rydges Fortitude Valley</td>
</tr>
</tbody>
</table>

### Thursday, 25 October

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>0730 – 1530</td>
<td>Registration</td>
<td>Foyer, Level 1</td>
</tr>
<tr>
<td></td>
<td>Speaker / Author Check-In</td>
<td>Green Room, Level 1</td>
</tr>
<tr>
<td>0900 – 1400</td>
<td><strong>Education Day</strong></td>
<td>Room 6-7, Level 1</td>
</tr>
<tr>
<td>1000 – 1400</td>
<td>Exhibition</td>
<td>Hall A, Level 1</td>
</tr>
<tr>
<td>0900 – 1030</td>
<td><strong>Technical Session 19:</strong> Characterising Coal Seam Gas Reservoirs</td>
<td>Room 4-5, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 20:</strong> Production Conformance and Water Flooding Technologies</td>
<td>Room 1, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 21:</strong> Case Studies - Drilling and Completion</td>
<td>Room 2, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 22:</strong> Advances in Optimisation</td>
<td>Room 3, Level 1</td>
</tr>
</tbody>
</table>
# Schedule of Events

## Thursday, 25 October

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1030 – 1100 hours</td>
<td>Coffee Break</td>
<td>Hall A, Level 1</td>
</tr>
<tr>
<td></td>
<td>Knowledge Sharing ePoster Session 8</td>
<td>Concourse, Level 1</td>
</tr>
<tr>
<td>1100 – 1230 hours</td>
<td><strong>Panel Session 7:</strong> Delivering on Long Term Value</td>
<td>Room 4-5, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 23:</strong> CSG and Deep Bowen Basin Drilling</td>
<td>Room 1, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 24:</strong> Emerging Production Technologies</td>
<td>Room 2, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 25:</strong> Artificial Lift</td>
<td>Room 3, Level 1</td>
</tr>
<tr>
<td>1230 – 1400 hours</td>
<td>Networking Luncheon</td>
<td>Hall A, Level 1</td>
</tr>
<tr>
<td>1300 – 1330 hours</td>
<td>Knowledge Sharing ePoster Session 9</td>
<td>Concourse, Level 1</td>
</tr>
<tr>
<td>1330 – 1400 hours</td>
<td>Knowledge Sharing ePoster Session 10</td>
<td>Concourse, Level 1</td>
</tr>
<tr>
<td>1400 – 1530 hours</td>
<td><strong>Technical Session 26:</strong> Production Technology - CSG</td>
<td>Room 4-5, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 27:</strong> Emerging Drilling Technologies 2 - New Tools and Methods</td>
<td>Room 1, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 28:</strong> Stimulation 2 - Acidising</td>
<td>Room 2, Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>Technical Session 29:</strong> Logging, Fluids, Capillary Pressure</td>
<td>Room 3, Level 1</td>
</tr>
</tbody>
</table>

## Friday, 26 October

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>0900 – 1700 hours</td>
<td><strong>Training Course (SPE International):</strong> Estimation, Classification, and Reporting of Reserves and Resources</td>
<td>Event Space 1, Rydges Fortitude Valley</td>
</tr>
<tr>
<td></td>
<td><strong>Training Course (SPE Queensland Section):</strong> Geomechanics for Conventional and Unconventional Resources</td>
<td>Event Space 2, Rydges Fortitude Valley</td>
</tr>
</tbody>
</table>
# Conference Programme Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Room 4-5</th>
<th>Room 1</th>
<th>Room 2</th>
<th>Room 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tuesday, 23 October</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0900 - 0945</td>
<td>Opening Session - Hall B, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0945 - 1015</td>
<td>Keynote Session - Hall B, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1015 - 1045</td>
<td>Coffee Break - Hall A, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1045 - 1215</td>
<td>Executive Plenary Session: Challenge the Conventional - Hall B, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1215 - 1230</td>
<td>SPE Asia Pacific Regional Awards Presentation - Hall B, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1230 - 1400</td>
<td>Networking Lunch - Hall A, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1300 - 1330</td>
<td>Knowledge Sharing ePoster Session 1 - Concourse, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1330 - 1400</td>
<td>Knowledge Sharing ePoster Session 2 - Concourse, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1400 - 1530</td>
<td>Panel Session 1 The Impact of Public Perception of the Oil and Gas Industry on Development Decisions</td>
<td>Technical Session 1 Maximising Opportunity through Integrated Data Analysis</td>
<td>Technical Session 2 Cementing and Drilling Fluids</td>
<td>Technical Session 3 Modelling - Unconventional</td>
</tr>
<tr>
<td>1400 - 1730</td>
<td>SPE Regional Student Paper Contest (Undergraduate) - Room 6, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1400 - 1730</td>
<td>SPE Regional Student Paper Contest (Postgraduate) - Room 7, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1530 - 1600</td>
<td>Coffee Break - Hall A, Level 1 / Knowledge Sharing ePoster Session 3 - Concourse, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1600 - 1730</td>
<td>Knowledge Sharing ePoster Session 4 - Concourse, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1730 - 1830</td>
<td>Welcome Reception - Hall A, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wednesday, 24 October</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0900 - 1030</td>
<td>Panel Session 3 Big Crew Change - Learning from the Past, Driving Future Success</td>
<td>Technical Session 7 Shale, Deep Coal, Tight Gas Evaluation and Case Studies</td>
<td>Technical Session 8 Improved Oil Recovery - Water Flooding</td>
<td>Technical Session 9 Sand Control</td>
</tr>
<tr>
<td>0900 - 1400</td>
<td>Teachers’ Day - Room 7, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1030 - 1100</td>
<td>Coffee Break - Hall A, Level 1 / Knowledge Sharing ePoster Session 4 - Concourse, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1230 - 1400</td>
<td>Networking Lunch - Hall A, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1300 - 1330</td>
<td>Knowledge Sharing ePoster Session 5 - Concourse, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1330 - 1400</td>
<td>Knowledge Sharing ePoster Session 6 - Concourse, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1400 - 1530</td>
<td>Panel Session 5 R&amp;D in Current Industry Scenario</td>
<td>Technical Session 13 Enhanced Oil Recovery (EOR)</td>
<td>Technical Session 14 Stimulation 1 - Hydraulic Fracturing</td>
<td>Technical Session 15 Emerging Drilling Technologies 1 - Using Data Effectively</td>
</tr>
<tr>
<td>1530 - 1600</td>
<td>Coffee Break - Hall A, Level 1 / Knowledge Sharing ePoster Session 7 - Concourse, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1600 - 1730</td>
<td>Knowledge Sharing ePoster Session 8 - Concourse, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Thursday, 25 October</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0900 - 1030</td>
<td>Technical Session 19 Characterising Coal Seam Gas Reservoirs</td>
<td>Technical Session 20 Production Conformance and Water Flooding Technologies</td>
<td>Technical Session 21 Case Studies - Drilling and Completion</td>
<td>Technical Session 22 Advances in Optimisation</td>
</tr>
<tr>
<td>0900 - 1400</td>
<td>Education Day - Room 6 &amp; 7, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1030 - 1100</td>
<td>Coffee Break - Hall A, Level 1 / Knowledge Sharing ePoster Session 8 - Concourse, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1100 - 1230</td>
<td>Panel Session 7 Delivering on Long Term Value</td>
<td>Technical Session 23 CSG and Deep Bowen Basin Drilling</td>
<td>Technical Session 24 Emerging Production Technologies</td>
<td>Technical Session 25 Artificial Lift</td>
</tr>
<tr>
<td>1230 - 1400</td>
<td>Networking Lunch - Hall A, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1300 - 1330</td>
<td>Knowledge Sharing ePoster Session 9 - Concourse, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1330 - 1400</td>
<td>Knowledge Sharing ePoster Session 10 - Concourse, Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
General Information

REMINDER: CONFERENCE AND EXHIBITION BADGES MUST BE WORN AT ALL TIMES

Venue
Royal International Convention Centre (Royal ICC)
Brisbane Showgrounds, 600 Gregory Terrace,
Bowen Hills, Brisbane,
Queensland 4006 Australia
Tel: +61 7 3253 3900

Event Headquarters
Green Room, Level 1
Brisbane Showgrounds, 600 Gregory Terrace,
Bowen Hills, Brisbane,
Queensland 4006 Australia
Tel: +61 7 3253 3900

Speaker/Author Check-In Room
Speakers, moderators, presenting authors and session chairs are required to report to the Speaker/Author Check-In Green Room, Level 1 to load/review their PowerPoint slides. Changes to presentation slides will not be accepted less than four hours prior to the session. Speakers, moderators, presenting authors and session chairs must report to their assigned session rooms 30 minutes before the session begins.

Badge Collection
Conference and exhibition badges are required for admission into the event and must be worn at all times. Badges are non-transferable. Use of a badge by a person not named on the badge is grounds for confiscation.

Badges can be collected at Registration Counter, Foyer, Level 1, Royal International Convention Centre during the following times:

• Monday, 22 October 2018: 0900 – 1700 hours
• Tuesday, 23 October 2018: 0730 – 1830 hours
• Wednesday, 24 October 2018: 0730 – 1800 hours
• Thursday, 25 October 2018: 0730 – 1530 hours

Safety and Security
The safety and security of our event attendees are of utmost importance. Please be aware of and observe the following:

• Conference and exhibition badges must be worn at all times while at the event venue. Use of a badge by a person not named on the badge is grounds for confiscation.
• If you lose your badge, please return to the registration counter to obtain a replacement.
• No one under the age of 15 is permitted in the exhibition halls.
• Be aware of your surroundings, remain alert and be vigilant.
• Should you observe any suspicious packages or behaviour, please report to event/venue staff immediately.
• Due to the popularity of some session topics, it is possible for overcrowding to occur in a session or meeting room. Should this occur, we must comply with policies regarding room capacity and limit admittance to a room that is at capacity. Please make plans to arrive early for sessions that you have a strong interest in attending.
• Please remember to stay hydrated throughout the event.
• In the event of an emergency, SPE and/or Royal ICC staff will provide attendees with the necessary information and instructions.
General Information

Digital Proceedings
Digital proceedings are available for collection at the Registration Counter, Foyer, Level 1.

To purchase the proceedings, please go to the Registration Counter located at Foyer, Level 1.

Exhibition Hours
The exhibition is open to all attendees at the following times:

- Tuesday, 23 October 2018: 1000 – 1830 hours
- Wednesday, 24 October 2018: 1000 – 1800 hours
- Thursday, 25 October 2018: 1000 – 1400 hours

Lost and Found
Lost and found items will be placed at Event Headquarters, Green Room, Level 1.

First Aid
In case of an emergency situation, please alert the nearest SPE staff immediately.

First aid and medical assistance is available at Medical Room, Level 1.

Photography and Videography
All conference sessions and the exhibition are protected by international copyright laws. Photography and video/audio recording of any kind in conference sessions and the exhibition are prohibited without prior written permission by SPE.

Mobile Phone
As a courtesy to the speakers and your fellow attendees, please turn off all mobile phones during all sessions.

Alcohol
We recognise that legitimate serving of alcohol beverages in the process of conducting business and social activities is acceptable. However, we also recognise that the use and consumption of alcohol carries the requirement for all attendees to consume these beverages responsibly and in keeping with our professional code of ethics and conduct. We strongly oppose the abuse and misuse of alcohol.

Consent to Use of Multimedia
Attendance or participation in SPE events and other activities constitutes an agreement by the registrant to SPE’s use and distribution of the registrant’s image or voice in promoting future SPE events in any way SPE deems appropriate.
Opening Session

**Tuesday, 23 October | 0900 - 0945 hours**
Hall B, Level 1

**Speakers**

Wendy King  
APOGCE 2018 Conference Chair and President – Australia East  
ConocoPhillips Australia

Sami Alnuaim  
2019 SPE President  
Saudi Aramco

Senator the Hon Matthew Canavan  
Senator of Queensland  
Minister for Resources and Northern Australia  
*(Video Message)*

Keynote Session

**Tuesday, 23 October | 0945 - 1015 hours**
Hall B, Level 1

**Speaker**

Gregory P. Leveille  
Chief Technology Officer  
ConocoPhillips
Executive Plenary Session

Challenge the Conventional

Tuesday, 23 October | 1045 - 1215 hours
Hall B, Level 1

Session Chairs

Wendy King
APOGCE 2018
Conference Chair and President – Australia East
ConocoPhillips
Australia

Chris Mijnssen
APOGCE 2018
Technical Programme Chair and New Ventures Lead
Origin Energy

Speakers

Frank Calabria
Managing Director and Chief Executive Officer
Origin Energy

Kevin Gallagher
Managing Director and Chief Executive Officer
Santos

Ian Davies
Managing Director and Chief Executive Officer
Senex Energy

Martin Ferguson AM
Strategic Director - Natural Resources
SGH Energy

Zoe Yujnovich
Chairman and Country Chair
Shell Australia
Panel Sessions

Panel Session 1: The Impact of Public Perception of the Oil and Gas Industry on Development Decisions

Tuesday, 23 October | 1400 - 1530 hours
Room 4-5, Level 1

Session Chairs

Natalie Chadud
Principal Petroleum Engineer
Origin Energy

Marie-Louise Lees
Independent

Speakers

Malcom Roberts
Chief Executive Officer
APPEA

Glenn Toogood
Regional Manager
Beach Energy

Tor McCaul
Managing Director
Comet Ridge

Stuart Smith
Chief Executive Officer
National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA)

Katherine Witt
Research Fellow
University of Queensland

Anthropogenic climate change, water quality, affordable energy supply, fracture stimulation: the oil and gas industry is inextricably linked with these and other social and environmental issues. Public perception of these issues has been shaped by the significant media attention and activist activity in the community. Despite a lack of technical understanding of the issues and the complex interrelationships, public perception of these issues has had a major impact on recent oil and gas developments. This session will discuss how companies have responded to overcome these challenges as well as what the industry can do to better inform the public of the social and economic benefits which are derived from industry.
There are points of commonality between “unconventional” CSG, shale gas and tight gas reservoirs; but there are also important distinctions. Australia has mature CSG fields in Queensland and tight-gas fields in a number of states; however, to date Australia has not progressed any shale projects past exploration despite relatively consistent efforts throughout the 2010s. Exploration models in the late 2000s to early 2010s, onshore Australia, drove a strong belief that large tight recoverable gas resources could be unlocked, however, subsequent appraisal has not yet resulted in economic projects. Elsewhere in the region, China has shale gas production and Indonesia has significant shale gas potential. Understanding the potential of the majority of low permeability plays requires evaluation of:

- How effectively hydraulic fracturing can be deployed - which is primarily a function of reservoir geomechanics and stresses (local and regional)
- How much gas is both in place and can be produced - which is a function of porosity, gas saturation, intrinsic permeability and the effectiveness of hydraulic fracturing (or any other artificial stimulation)

Geomechanical and petrophysical workflows specific to individual play types are critical to making good assessments during exploration projects and to optimising production during development projects. In this session, we will discuss different reservoir types and evaluation techniques and attempt to comprehensively cover the unconventional evaluation workflow. We will encourage participants to share lessons learnt and best practices and we will seek papers on specific reservoir types, workflows, or regions of exploration and/or development activity.
Panel Sessions

Panel Session 3: Big Crew Change - Learning from the Past, Driving Future Success

Wednesday, 24 October | 0900 - 1030 hours

Session Chairs

Mark Jackson
Independent

James Griffiths
Senior Reservoir Engineer
Santos

Speakers

John McCreery
Partner
Bain & Company

Paula Saftig
Human Resource Director – Australia East
ConocoPhillips
Australia

Mary Hackett
Chair - Industry Advisory Board
Curtin School of Science and Engineering

Ford Brett
Chief Executive Officer
PetroSkills

Andrew Garnett
Director – Centre for Coal Seam Gas
University of Queensland

In the not too distant past, one of the main risks faced by the oil and gas industry was a wave of experience heading rapidly towards retirement. The ‘Big Crew Change’ was coming and the vacuum left in its wake was forecast to disrupt the talent pool and ultimately place energy supplies at risk. Fast forward several years and, like the Y2K bug, it appears to have all been hype – or has it?

This session focuses on several key issues facing our industry and outlines ways to leverage off our current circumstances to grow sustainably within a volatile market. A range of topics will be covered which are of interest to students, young professionals, technical professionals, managers and strategists. The panel will tackle challenges including:

• Competing with emerging industries to attract talented students
• Partnering with universities to prepare graduates for a transforming industry
• Maintaining industry engagement with young professionals
• Optimising the learning curve to narrow the experience gap
• Enabling our technical professionals to do more with less
• Equipping the industry to capture value from changes in the commercial landscape

Our panel of industry experts will share valuable insights from their experience and offer opinions on how to challenge the conventional.

How are you planning to capture value from the ‘Big Crew Change’?
Panel Sessions

Panel Session 4: Data Analytics – Delivering Value

Wednesday, 24 October | 1100 - 1230 hours
Room 4-5, Level 1

Session Chairs

Prady Chaliha
General Manager – Subsurface
Osaka Gas Australia

Raymond Johnson Jr.
Professor
University of Queensland

Speakers

Rustom K Mody
Vice President – Technical Excellence /Enterprise Technology
Baker Hughes, a GE company

Shashank Panchangam
Digital Officer – MENA (Middle East, North Africa) and AP (Asia Pacific)
Halliburton

Lauchlan Wallace
General Manager Data Science
Woodside Energy

Managing large arrays of ‘big data’ and applying the appropriate analytics is not new to the oil and gas industry in making decisions ranging from exploration to full field development and field management. Today a wide range of data exists from seismic to production data, so integrating drilling, completion and reservoir related data requires new techniques and visualisation tools to interpret data trends. However, as the volume of data grows, the difficulties and importance of mining the ‘big data’ and finding value in it becomes more important. Hence it is important that we implement appropriate and optimised algorithms, efficient data manipulation techniques, and proper analytical methods that result in concluding analytics that deliver value or insight using limited resources and maximum efficiency.

In this panel, we will strive to better understand potential benefits, challenges as well as current and future impacts of data analytics. By assembling experts in data mining (e.g. seismic, reservoir, drilling, completion, stimulation, and production), data analysis and modelling methods we hope to understand methods to better manage and interpret large arrays of data, overcome ‘big data’ challenges, and how to achieve better informed business decisions.
Panel Sessions

Panel Session 5: R&D in Current Industry Scenario

Wednesday, 24 October | 1400 - 1530 hours
Room 4-5, Level 1

Session Chairs

Raj Deo Tewari
Custodian Reservoir Engineer
PETRONAS

Brian Towler
Professor
University of Queensland

 Speakers

Francis Norman
General Manager - Innovation and Strategy
National Energy Resources Australia (NERA)

Lau Hon Chung
Professor
National University of Singapore

Ajay Kumar Dwivedi
Director - Exploration Oil and Natural Gas Corporation (ONGC)

Rahim Masoudi
Custodian Reservoir Engineering
PETRONAS

Andrew Garnett
Director - Centre for Coal Seam Gas
University of Queensland

Many of the oil and gas fields worldwide are maturing and entering into a declining phase of production and, with current development strategies, are poised for a modest recovery factor of around 35-36% for oil fields. Much of the industry is also turning to unconventional reservoirs where the recovery factors and the production rates are low and need to be increased economically. Further, the capital and operational challenges can be substantial.

Therefore, it is important to understand and develop sound knowledge through R&D to unlock the full value of the asset. The panel session will discuss the current state of the art research on both unconventional and conventional reservoirs, their ongoing challenges, the breakthroughs of new tools and techniques, lessons learnt in subsurface and surface management, and mitigation of the major gaps in knowledge.

This session will focus on the fundamentals (e.g., reservoir characterisation, process mechanisms, relevant laboratory and modelling studies, advance field development planning, wells and facilities management, risk and uncertainty management) as well as synergies of processes, portfolio and people (i.e. the 3P’s) for making improved hydrocarbon recovery cost effective in a rather challenging economic environment.

This session will highlight the following topics:

- R&D evolution from concept to implementation
- Evaluating future trends and emerging technologies
- Innovation and risk
- Value creation and the role of IP and IP management
Within the last 15 to 20 years, growth in coal seam gas (CSG) in Queensland has been rapid. Throughout the first decade of this century, a number of small-scale developments took place to serve the domestic market. Development accelerated significantly from 2010 onwards with the development of three LNG plants in Curtis Island to be fed from the Coal Seam gas resources in the Bowen and Surat Basin.

With all three plants now up and running, it is time to reflect on the past, the present and what this means for the future. In the current financial climate, the demand for return on investment is stronger than ever with high expectations of the business around production and operational excellence. This panel session will reflect on the anticipated resource and operational outcomes, when the Curtis Island LNG schemes went through concept selection and final investment decision. It will also touch on where we are now and what insights that will give for the future in operating, developing and sourcing the significant volumes that are required to satisfy the life-cycle demand of the Curtis Island LNG schemes.
Panel Sessions

Panel Session 7: Delivering on Long Term Value

Thursday, 25 October | 1100 - 1230 hours
Room 4-5, Level 1

Session Chairs

Luke Connell
Group Leader
CSIRO

Zis Katelis
Technical Director
Gaffney, Cline and Associates

Speakers

Ahmed Ibrahim
Vice President, Digital Sales - APAC
Baker Hughes, a GE company

David Jamieson
Barossa Subsurface Manager
ConocoPhillips

Druvi Ruberu
Australia Technical Manager
ExxonMobil Australia

Fauzy Omar
Head, Facilities of Future, Group Research & Technology
PETRONAS Research Sdn Bhd

Delivering on long term value is an obvious focus of the oil and gas industry especially in the current environment of weaker demand and lower prices. Speakers will be sharing insights into what industry elements or focus areas they believe have the potential to deliver this value. NOCs, IOCs, and service companies have discussed publicly the following example areas:

- Technology and strategic value-added partnerships
- Enhanced recovery techniques
- Digital disruption
- Risk mitigation in large-scale project delivery
- Well field planning to optimise costs vs. resource recovery
New Age Engineers

A New Age of Engineering has arrived. Accelerated by the internet facilitating the connection between innovators and capital; Internet of Things (IoT), Artificial Intelligence (AI), big data, machine learning, and 3-D printing are being realised as solutions through all industries.

The roll-out of these technologies to the Oil & Gas industry is underway right now. The technologies of today were not in the textbooks of five years ago, so “How can Young Professionals Spot, Prepare and Capitalise on opportunities for an industry employing perpetually advancing technology?”

This workshop will host presentations from innovation leaders in the O&G industry. A panel session will provide an opportunity for Young Professionals to meet and learn from industry experts sharing their experiences adapting to technological advances and an ever-changing industry.

Programme Highlights

Panel Session

- People – Skills required for a new age engineer to succeed in the future by Chris Mijnssen, New Ventures Lead, Origin Energy
- Sustainability/Reputation - Striking the balance of growth and sustainability in the oil and gas industry by Yen Li Choong, General Manager - Venture Development Malaysia, Shell Malaysia
- Innovation and R&D – The impact of hydrogen on the oil and gas industry by Ben Van Deijl, Petrophysics Advisor, Woodside Energy

Leadership Panel Session

- The Honourable Ian MacFarlane, Chief Executive Officer, Queensland Resources Council
- Warwick King, Chief Executive Officer, Australia Pacific LNG Pty Ltd
Educational Programmes

SPE Regional Student Paper Contest

**Tuesday, 23 October | 1400 - 1730 hours**

At this regional contest, shortlisted students will present and compete for the opportunity to advance and represent Asia Pacific at the SPE International Student Paper Contest, to be held at SPE Annual Technical Conference and Exhibition (ATCE) from 30 September - 2 October 2019 in Calgary, Alberta, Canada. The winning regional representatives are sponsored to attend the international contest, with opportunity for their papers to be published in the conference proceedings and OnePetro. Conference delegates are encouraged to attend and support the students’ presentations.

Teachers’ Day

**Wednesday, 24 October | 0900 - 1400 hours**

Teachers’ Day is an initiative to introduce local high school teachers to the energy industry by showing them how they can incorporate science, engineering, technology and energy topics into classrooms through creative teaching and fun interactive activities.

Education Day

**Thursday, 25 October | 0900 - 1400 hours**

Education Day is an initiative to introduce local high school students to Petroleum Engineering and the broader oil and gas industry. Students with a keen interest in mathematics and science, and considering further education in engineering are invited to participate in this exciting, hands-on learning experience.

Conference Dinner (Organised by SPE Queensland Section)

**Wednesday, 24 October | 1800 hours**

The SPE Queensland Section invites APOGCE 2018 delegates to wind down into the evening with a relaxing dinner experience and to enjoy delicious Australian-influenced cuisine served in a sit-down setting. The dinner will feature a welcome remark by Saul Kavonic, Head - Australia Research Energy, Credit Suisse, bringing an opportunity for conference delegates to socialise among peers and industry leaders while being entertained with live music by a local band.
SPE Asia Pacific Regional Awards

Tuesday, 23 October | 1215 - 1230 hours

SPE Awards recognise members for their technical contributions, professional excellence, career achievements, service to colleagues, industry leadership, and public service. The awards recognise individuals and companies that make significant technical and professional contributions to the petroleum engineering profession and to the oil and gas industry.

In appreciation of the contributions of SPE members and distinguished organisations, the SPE Asia Pacific Regional Awards will be presented during APOGCE on Tuesday, 23 October 2018.

Distinguished Corporate Support Award

The award recognises outstanding support by an organisation and distinguished service to SPE members in the region through excellence in leadership and through commitment of time, energy and professional resources. It recognises organisations that make contributions to supporting SPE membership, programmes, and events, and are not based solely on financial contributions.

Northern Asia Pacific

- Anwarudin Saidu Mohamed
  - Reservoir Link Solutions Sdn Bhd

South Asia and the Pacific

- Christian D Winterfield
  - Santos Ltd.

Service Award

The award acknowledges exceptional contributions to SPE at section or regional level and recognises singular devotion of time and effort to the programmes and development of the member’s section and region that set it apart from the services rendered each year by many members of the Society.

Northern Asia Pacific

- Vinit Hansamuit
  - PTTEP

- Wu Shuhong
  - (RIPED)

- Thana Slanvetpan
  - PTTEP

South Asia and the Pacific

- Nitul Kakoty
  - Oil & Natrual Gas Corp. Ltd.

- Prashant D Motghare
  - Oil & Natrual Gas Corp. Ltd.
SPE Asia Pacific Regional Awards

Technical Award

The award acknowledges exceptional contributions to SPE at the section or regional level and recognises singular devotion of time and effort to the programmes and development of technical expertise in various technical discipline.

Northern Asia Pacific

Drilling Engineering

Phan Van Chinh
Schlumberger (Malaysia)

Formation Evaluation

Aqil Ahmed
Schlumberger (Malaysia)

Management and Information

Nurfitrah Mat Noh
Schlumberger Wireline (Malaysia)

Waranon Laprabang
PTTEP

Reservoir Description and Dynamics

Saifon Daungkaew
Schlumberger (Thailand)

Mohd Zaidi Jaafar
Universiti Teknologi Malaysia

South Asia and the Pacific

Completions Optimisation and Technology

Reghu Padmanabhan
Achariparampil
Weatherford

Production and Operations

Sheldon Swanson
ConocoPhillips Australia

Projects, Facilities and Construction

Dasari Ram Babu
Dasari Hydrocarbons & Technoconsultants

Reservoir Description and Dynamics

Henricus Herwin
PT Pertamina Hulu Mahakam

Drilling Engineering

Formation Evaluation

Production and Operations

Distinguished Achievement Award for Petroleum Engineering Faculty
SPE Asia Pacific Regional Awards

Distinguished Achievement Award For Petroleum Engineering Faculty
The award recognises superiority in classroom teaching, excellence in research, significant contributions to the petroleum engineering profession and/or special effectiveness in advising and guiding students.

Northern Asia Pacific
Mohd Zaidi Jaafar
Universiti Teknologi Malaysia

South Asia and the Pacific
Stephen H Begg
University of Adelaide

Young Member Outstanding Service Award
The award recognises contributions and leadership to the public, the community, SPE, and the petroleum engineering profession within the region.

Northern Asia Pacific
Amelia Karim
Integrated GGRE Asia Sdn Bhd
Phuc Van Truong
Idemitsu Kosan Co Ltd (Vietnam)

South Asia and the Pacific
Daniel O’Reilly
Chevron Corporation
Dominic Mark Pepicelli
Government of South Australia

Public Service Award
The award is intended to recognise distinguished public service of SPE members at the regional level to country, state, community, or public, with respect to local custom, through excellence in leadership, service, or humanitarianism, provided the service is over and above requirements of employment and, is therefore, not a compensated activity.

Northern Asia Pacific
Andrew L. Baker
Schlumberger

South Asia and the Pacific
Marie-Louise Lees
Independent
## Technical Programme

### Technical Session 1: Maximising Opportunity through Integrated Data Analysis

**Session Chairs:** Abdolrahim Ataei, PETRONAS; Shripad Biniwale, Schlumberger

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1400  | 192046  | **Rate Transient Analysis (RTA) and its Application for Well Connectivity Analysis:** An Integrated Production Driven Reservoir Characterisation and a Case Study  
| 1420  | 192047  | **Maximising the Opportunity in Multi-Layered Tight Sand Reservoirs in a Mature Field by Hydraulic Fracturing:** A Case Study of Tight Sand Development Project in Thailand  
T. Suppachoknirun, M. Wantawin and T. Kiatrabile, PTTEP |
| 1440  | 191961  | **Injectivity and Well Deliverability Test and Analysis in an Offshore Complex High CO₂ Gas Carbonate Asset**  
R. Masoudi, M.A. Ab Wahab, E. Motaei and A. Ataei, PETRONAS |
| 1500  | 191900  | **Waking Up the Dead: Rejuvenation of a 17 Year Idle Well**  

### Technical Session 2: Cementing and Drilling Fluids

**Session Chairs:** Colin Ingram, Inflatable Packers Intl.; Raymond Johnson Jr., U. of Queensland

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1400  | 192096  | **Structured Approach in Qualifying Cement Isolation through the Use of Cementing Scorecard and Post Job Execution Data**  
T. Heu, A. Wee, C.M. Combe, M. Md Radzi and T. Zhang, Sarawak Shell Bhd. |
| 1420  | 191953  | **Unconventional Techniques Overcome Narrow-Margin Cementing: Case Studies from Malikai Deepwater Project, Malaysia**  
Y. Hoe and A. Duong, Schlumberger; T. Heu and M. Razif, Sarawak Shell Bhd. |
Technical Programme

1440 192022

An Integrated Cement Design and Evaluation to Reduce Downhole Sanding Risk
P. Cadogan, K. Seth, R. Crabtree and V. Beales, INPEX Australia; A. Alsayed and B.C. Cheong, Schlumberger

1500 192104

Cementing Production Liners Terminating in Depleted Reservoirs: A Case Study on Deepwater Wells off the East Coast of India
A. Yadav, A. Kumar, V. Iyer, T. Ganjoo and D. Bhaisora, Halliburton

Tuesday, 23 October
1400 - 1530 hours  |  Room 3, Level 1

Technical Session 3: Modelling - Unconventional
Session Chairs: Saikat Mazumder, Arrow Energy; Raj Tewari, PETRONAS

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1400  | 191997  | An Efficient Approach for History-Matching Coal Seam Gas (CSG)  
G. Chang and G. Aibassov, Shell Australia |
| 1420  | 191986  | Integrated Modelling Workflow for Life Cycle Development of a Large Scale Coal Seam Gas Field  
V. Sharma, J. Davies, B. Vella, J. Jiang, I. Sugiarto and S. Mazumder, Arrow Energy |
| 1440  | 192010  | Optimising Horizontal Coal Seam Gas Wells by Combining Reservoir Simulation and Transient Well Modelling  
| 1500  | 191917  | Dynamic Modelling of Walloon Coal Measures: An Unsavoury Cocktail of Reservoir Variability, Mismatched Resolutions, and Unreasonable Expectations  
J.P. Cardwell, Santos Ltd. |
## Technical Programme

### Technical Session 4: EOR/Nanoparticle and Polymers

**Session Chairs:** Baojun Bai, Missouri U. of Science and Technology; Liu Xueqi, RIPED; Brian Towler, U. of Queensland

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1600  | 191971   | Enhanced Oil Recovery by Nanoparticle-Induced Crude Oil Swelling: Pore-Scale Experiments and Understanding  
D.K. Agrawal, K. Xu, Q. Darugar and V.N. Khabashesku, Baker Hughes, a GE company |
| 1620  | 192110   | Polymers and their Limits in Temperature, Salinity and Hardness: Theory and Practice  
E. Delamaide, IFP Technologies Canada Inc. |
| 1640  | 192113   | A Novel Ultra-Low Interfacial Tension Nanofluid for Enhanced Oil Recovery in Super-Low Permeability Reservoirs  
D. Xu, China U. of Petroleum (Beijing); B. Bai, China U. of Petroleum (Beijing) at Karamay, Missouri U. of Science and Technology; Z. Meng, Q. Zhou, Z. Li, Y. Lu, H. Wu and J. Hou, China U. of Petroleum (Beijing); W. Kang, China U. of Petroleum (East China) |
| 1700  | 192118   | Experimental Study on Charged Nanogels for Interfacial Tension Reduction and Emulsion Stabilisation at Various Salinities and Oil Types  
J. Geng, P. Han and B. Bai, Missouri U. of Science and Technology |

### Technical Session 5: Sustainability, HSE and Well Integrity

**Session Chairs:** Robyn Tamke, Oasis Oilfield Consulting; Natalie Chadud, Origin Energy

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1600  | 191921   | Comparing Carbon Intensity of Unconventional and Asia Pacific Production  
Technical Programme

1620 191955
Initiatives in Cooperating with Local Government and Communities Promote the Development of a HTHP Gas Field in Remote Area of China: Development of Keshen Gas Field
T. Jiang, Tarim Oilfield Co., CNPC; H. Liu, X. Yang, Y. Liu, J. Feng and H. Ren, Research Inst. of Oil and Gas Engineering, Tarim Oilfield Co., CNPC; H. Guo, China U. of Petroleum-Beijing

1640 192068
The Lean Fluid Lifecycle: Optimising Consumption and Waste in Hydraulic Fracturing Operations
R.H. Jukes, Santos Ltd.

1700 192106
Simple Numerical Simulations to Demonstrate Key Concepts Related to Coal Seam Gas Well Integrity
I. Rodger, A. Garnett and S. Hurter, The U. of Queensland

Tuesday, 23 October

Technical Session 6: Value Creation through Better Decision Making
Session Chairs: Prady Chaliha, Osaka Gas Australia; Stephen Begg, U. of Adelaide

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600</td>
<td>192144</td>
<td>Reserves Assessment in Petroleum Accumulations Straddling Boundaries: The Relationship between Reserves &amp; Resources and Unitisation D. Peacock, Gaffney, Cline &amp; Associates</td>
</tr>
<tr>
<td>1620</td>
<td>191992</td>
<td>Production Optimisation in the Real World: A Case Study in Gas Production Surveillance, Intervention Planning and Decision Making on an Unmanned Platform A. Kourakis and A. Nagel, Beach Energy</td>
</tr>
<tr>
<td>1640</td>
<td>192129</td>
<td>Improving Outcomes for Oil and Gas Projects through Better Use of Front End Loading and Decision Analysis D. Newman, S.H. Begg and M.B. Welsh, U. of Adelaide</td>
</tr>
<tr>
<td>1700</td>
<td>192008</td>
<td>Value Creations through Tangguh Big Gas Well Daily Surveillance Integration Challenge I.A. Kartawijaya, Y. Menanti, D. Saraswaty, S. Suganda, M. Iqbal and F. Anantokusumo and R.C. Dinata, BP Indonesia</td>
</tr>
</tbody>
</table>
## Technical Programme

### Wednesday, 24 October  
0900 - 1030 hours  |  Room 1, Level 1

**Technical Session 7: Shale, Deep Coal, Tight Gas Evaluation and Case Studies**  
**Session Chairs:** Zis Katelis, **Gaffney, Cline & Associates**; Jan Bon, **Petrolab Australia**; David Close, **Santos**

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 0900   | 191896   | **Controls on CH4 Adsorption on Shales: Characterisation of Beetaloo Sub-Basin Gas Shales and Comparison to Global Shales**  
| 0920   | 191963   | **The Permian Deep Coal Play, Cooper Basin, Australia: Unlocking the Next Gas Giant**  
G. Cooper, D. Lockhart and A. Walsh, Senex Energy Ltd. |
| 0940   | 191883   | **Impact of Laboratory Testing Variability in Fracture Conductivity for Stimulation Effectiveness in Permian Deep Coal Source Rocks, Cooper Basin, South Australia**  
S.A. Fraser, Santos Ltd.; R.L. Johnson, Jr., U. of Queensland |
| 1000   | 192134   | **A Comprehensive Approach for the Performance of the Re-Fracturing Horizontal Well in Tight Oil: Coupling Fluid Flow, Geomechanics and Fracture Propagation**  

### Wednesday, 24 October  
0900 - 1030 hours  |  Room 2, Level 1

**Technical Session 8: Improved Oil Recovery - Water Flooding**  
**Session Chairs:** Marie Louise Lees, **Independent**; Vahab Honari, **U. of Queensland**

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 0900   | 191974   | **Capillary Pressure Effects on Estimating the EOR Potential during Low Salinity and Smart Water Flooding**  
P. Andersen, U. of Stavanger |
| 0920   | 192111   | **An Investigation into the Benefits of Combined Polymer-Low Salinity Waterflooding**  
A. Santo and A.H. Muggeridge, Imperial College London |
Technical Programme

Mechanistic Modelling of Low Salinity Water Injection under Fracturing Condition in Carbonate Reservoirs: Coupled Geochemical and Geomechanical Simulation Study
S.M. Hosseini, S. Kord and A. Hashemi, Petroleum U. of Technology; H. Dashti, U. of Queensland

Fines Migration as an EOR Method During Low Salinity Waterflooding
A. Al-Sarihi, A. Zeinijahromi and P. Bedrikovetski, U. of Adelaide; L. C. Genolet, A. Behr and P. Kowollik, Wintershall Holding GmbH

Wednesday, 24 October

Technical Session 9: Sand Control
Session Chairs: Sadegh Asadi, Baker Hughes, a GE company; Colin Ingram, Inflatable Packers Intl.

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 0900   | 191931  | **Ceramic Sand Screens: Qualification Strategy for a High Rate Gas Application**  
P. Cadogan and S. Hall, INPEX; R. Jackson, F. Meschke, T. Read, B. Gundemoni and P. Barth, 3M |
| 0920   | 191942  | **Performance of Ceramic Sand Screen for High Rate Gas Application: Gas Sand Screen Erosion Testing**  
N. Manning, Oilfield Technologies; P. Cadogan, INPEX; P. Barth, 3M; B. Hoskin, Oilfield Technologies; T. Read, 3M; D. Manning, Oilfield Technologies; R. Jackson, and B. Gundemoni, 3M |
| 0940   | 191978  | **Calibration of Sand Production Prediction Models at Early Field Life in the Absence of Sanding Data**  
A. Younessi, A. Khaksar, F. Gui and M. Asadi, Baker Hughes, a GE company |
| 1000   | 192001  | **Erosion Resistance of Sand Screens in Gas Wells**  
D. Kumar, C. Malbrel and Z. Xu, Baker Hughes, a GE company |
# Technical Programme

## Wednesday, 24 October

**1100 - 1230 hours | Room 1, Level 1**

### Technical Session 10: Geomechanics and Integrated Workflows

**Session Chairs:** Sadegh Asadi, **Baker Hughes, a GE company**; Emma Taverner, **Santos**

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1100  | 191929  | **Geomechanics: A Key to Understanding the Underperformance of Fracture Treatments**  
K. Rahman, Baker Hughes, a GE company                                                                                     |
| 1120  | 191940  | **Geomechanics in Unconventional Reservoir: A New Approach to Drilling Integrating Advanced Acoustic Measurements and Formation Evaluation**  
C. Chatterjee, A. Reyes, V. Lujan Flores, C. Majumdar, K. Prasad and A. Kumar, Schlumberger |
| 1140  | 192045  | **A Rigorous Yet Simple Technique for Coupled Reservoir and Geomechanics Simulation**  
R. Matsunaga, S. Watase and K. Furui, Waseda U.                                                                                     |
| 1200  | 191966  | **A Novel Workflow to Model Geomechanical Properties Using Fracture Coherence Interpretation and Density Inversion in the Rangal Coal Measures of the Bowen Basin in Australia**  

## Wednesday, 24 October

**1100 - 1230 hours | Room 2, Level 1**

### Technical Session 11: Well Testing and SCAL

**Session Chairs:** Alexis Wheelan, **Woodside Energy**; Neil Smith, **Woodside Energy**

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1100  | 192053  | **Maximising Value of an Appraisal DST: Recording a 10,000 Hour Build-up in an Abandoned Well Using Wireless Downhole Gauges**  
S. Walters, G. Ward and M. J. Cullingford, Chevron Australia Pty. Ltd.                                                                                     |
## Technical Programme

### Wednesday, 24 October

**Technical Session 12: Integrated Field Evaluation**

**Session Chairs:** Abdolrahim Ataei, PETRONAS; Dipak Mandal, PETRONAS Carigali Sdn. Bhd.

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1100</td>
<td>192143</td>
<td><strong>Laminaria-Corallina: Application of an Advanced Methodology for Accurate Metering Provides New Reservoir Insights and Better Facility Planning</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N. Lange and D. Gilbert, Northern Oil &amp; Gas Australia; M. Soh and D. Teng, ReservoirMinds</td>
</tr>
<tr>
<td>1120</td>
<td>191994</td>
<td><strong>Integrated Operation for Gas Lift Optimisation: A Successful Story at Peninsular Malaysia Field</strong></td>
</tr>
<tr>
<td>1140</td>
<td>192080</td>
<td><strong>In-House Software Development for Gas Production Optimisation: A South East Asia Perspective</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>C. Wongkamthong, K. Wongpattananukul, C. Suranetnai, V. Vongsinudom and P. Ekkawong, PTT Exploration and Production Public Co. Ltd.</td>
</tr>
</tbody>
</table>
## Technical Session 13: Enhanced Oil Recovery (EOR)

**Session Chairs:** Takaaki Uetani, INPEX Corporation; Vahab Honari, U. of Queensland

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1400   | 192076  | **The Effect of Fines Migration During CO₂ Injection using Pore Scale Characterisation**  
F. Othman, Y. Wang and F. Hussain, U. of New South Wales |
| 1420   | 191995  | **EOR RMP: Addressing Key Risks through Sound Reservoir Management**  
W.F. Sifuentes, Schlumberger; D. Mandal, P. Nair and R. Ibrahim, PETRONAS  
| 1440   | 192023  | **Effect of Gas Injection Pressure on the Performance of CO₂-Assisted Gravity Drainage Process in Heterogeneous Clastic Reservoirs**  
W.J. Al-Mudhafar, Louisiana State U. and Basrah Oil Co.; D. Rao, Louisiana State U. |
| 1500   | 191912  | **Mechanisms Investigation of Super-Heated Steam Assisted Gravity Drainage**  
X. Liu and S. Liu, RIPED, CNPC |

## Technical Session 14: Stimulation 1 - Hydraulic Fracturing

**Session Chairs:** Khalil Rahman, Baker Hughes, a GE company; Sameer Ganpule, Origin Energy; Ming Li, RIPED

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1400   | 191877  | **Fracturing with Pure Liquid CO₂: A Case Study**  
S. Meng and Q. Yang, PetroChina Research Inst. Petroleum Exploration and Development; S. Chen and Y. Duan, PetroChina Jilin Oilfield |
| 1420   | 191920  | **Pushing the Thermal Stability Limits of Hydraulic Fracturing Fluids**  
T.A. Almubarak, Texas A&M U.; L. Li, Aramco Services Co.; H.A. Nasr-El-Din and J. Ng, Texas A&M U.; K. Sokhanvarian, Sasol Chemicals; M. Khaledi and S. Almubarak, Saudi Aramco |
### Technical Programme

#### A Case Study: The First Hydraulically Fractured Well in Carbonate Reservoirs in Iraq
- M. Cui, Y. Ding and D. Zhu, RIPED; Y. Chen and W. Cai, Halfaya Oil Co.; C. Liang, RIPED; Z. Hu, Halfaya Oil Co.; J. Yan, RIPED; D. Wang and T. Zhang, Antanoil Co.

#### Evaluating Natural Gas-Based Foamed Fracturing Fluid Application in Unconventional Reservoirs
- P. Pankaj, A. Phatak and S. Verma, Schlumberger

### Wednesday, 24 October

#### Technical Session 15: Emerging Drilling Technologies 1 - Using Data Effectively
**Session Chairs:** Abbas Zeinijahromi, *U. of Adelaide*; Alexis Whelan, *Woodside Energy*

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1400</td>
<td>191939</td>
<td><strong>An Open Approach to Drilling Systems Automation</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>H. Brackel, J. Macpherson, R. Mieting and I. Wassermann, Baker Hughes, a GE company</td>
</tr>
<tr>
<td>1420</td>
<td>191973</td>
<td><strong>How to Run Casing Efficiently in Extended Horizontal Wells Using Buoyancy</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>R. Rastegar, M. Munawar and W. Tait, National Oilwell Varco</td>
</tr>
<tr>
<td>1440</td>
<td>191869</td>
<td><strong>Middle East Success Story with World’s First Adaptive Drill Bit and Premium Rotary Steerable Technology</strong></td>
</tr>
<tr>
<td>1500</td>
<td>191937</td>
<td><strong>Using a Business Intelligence Tool for Drilling Data Analysis in the Permian Basin</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Z. Chen, A. Lo and T. Shahid, Schlumberger</td>
</tr>
</tbody>
</table>
## Technical Programme

### Wednesday, 24 October

#### Technical Session 16: Advanced Information Analysis / Artificial Intelligence

**Session Chairs:** Chris Fair, *Oilfield Data Services, Inc.*; Mark Burgoyne, *Santos*

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600</td>
<td>192019</td>
<td><strong>Edge Analytics and Future of Upstream Automation</strong>&lt;br&gt;F. Saghir, H. Gilabert and M. Boujonnier, Schneider Electric</td>
</tr>
<tr>
<td>1620</td>
<td>192002</td>
<td><strong>Case Study Applied Machine Learning to Optimise PCP Completion Design in a CBM Field</strong>&lt;br&gt;C. Prosper and D. West, Origin Energy</td>
</tr>
<tr>
<td>1640</td>
<td>192006</td>
<td><strong>Investigation on Automatic Recognition of Stratigraphic Lithology Based on Well Logging Data Using Ensemble Learning Algorithm</strong>&lt;br&gt;K. Gong, Z. Ye, D. Chen and D. Zhu, China U. of Petroleum; W. Wang, Xi’an Shiyou U.</td>
</tr>
<tr>
<td>1700</td>
<td>191909</td>
<td><strong>Leveraging Data Analytics to Optimise Production Performance</strong>&lt;br&gt;S. Copping, J. Payne and R. O’Malley, Wood</td>
</tr>
</tbody>
</table>

#### Technical Session 17: Modelling - Conventional

**Session Chairs:** Matthew Flett, *Chevron*; Gianluca Di Martino, *Quadrant Energy*; Roumen Sankoff, *Quadrant Energy*

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600</td>
<td>192074</td>
<td><strong>Improved Numerical Stability and Upscaling of Low Salinity Water Flooding</strong>&lt;br&gt;H.H. Al-Ibadi, K.D. Stephen and E.J. Mackay, Heriot-Watt U.</td>
</tr>
<tr>
<td>1620</td>
<td>192109</td>
<td><strong>The Importance of Optimal Choice of Relative Permeability Relationships in Reservoir Simulation</strong>&lt;br&gt;P. Behrenbruch, M. Do Huu, K.D. Bui, and T. Kennaird, Bear and Brook Consulting; T.G. Hoang, U. of Adelaide</td>
</tr>
</tbody>
</table>

Wednesday, 24 October 1600 - 1730 hours | Room 2, Level 1
### Technical Programme

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1640  | 192040  | **A New Tool to Evaluate Water Injection Performance in Water Flooded Reservoirs:**  
**A Technology Innovation**  
| 1700  | 191996  | **A General Purpose Model for Multiphase Compositional Flow Simulation**  
S. Wu, J. Dong, B. Wang, T. Fan and H. Li, State Key Laboratory of EOR, RIPED, PetroChina |

### Wednesday, 24 October

**Technical Session 18: Performance Excellence**  
**Session Chairs:** Prady Chaliha, Osaka Gas Australia; Bruce Gunn, RISC

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1600  | 192093  | **A Case Study on Drilling Complicated Infill Horizontal Wells in Low Cost Environment: Challenges in Well Construction and its Successful Mitigations**  
| 1620  | 191928  | **Malaysia’s Experience in Integrated Coordination of Offshore Vessels through Integrated Logistics Control Tower**  
N.A. Mohamad and M.F. Mohd Azani, PETRONAS |
| 1640  | 192063  | **Produced Water Reinjection at Wellpads: Leverage Terminal Liquid Handling and Accelerate Oil Production from MBA Fields**  
N. Mehta, R. Ray and G.N. Kapadia, Cairn Oil and Gas, Vedanta Ltd. |
| 1700  | 192072  | **A Human-Computer Hybrid Approach to Offshore Field Development: Combining Virtual Reality Aided Design with Stochastic Optimisation**  
M. Almedallah and T. Lau, U. of New South Wales; S.D. Walsh, Monash U. |
## Technical Programme

### Thursday, 25 October 0900 - 1030 hours | Room 4-5, Level 1

#### Technical Session 19: Characterising Coal Seam Gas Reservoirs

**Session Chairs:** Peter Behrenbruch, *Bear and Brook Consulting*; Marcel Croon, *Weatherford*

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0920</td>
<td>191904</td>
<td><strong>Discrete Net-to-Gross Truncated Gaussian Simulation: An Alternative CSG Static Modelling Approach, Bowen Basin, Eastern Australia</strong>&lt;br&gt;S. Rattazzi and A.P. Hansen, Santos</td>
</tr>
<tr>
<td>0940</td>
<td>192114</td>
<td><strong>Increasing Coal Seam Gas Field Productivity with Horizontal Well Technology: A Case Study</strong>&lt;br&gt;J.X. Lin, Sinopec Petroleum Do Brasil Ltda.; G. Sutherland, D. Cumming, B. Thomas and A. Sani, Origin Energy</td>
</tr>
<tr>
<td>1000</td>
<td>191863</td>
<td><strong>A Coal Seam Gas Development Evaluation Workflow</strong>&lt;br&gt;D. Kuznetsov, R. van Spaendonck and S. Beaney, Arrow Energy</td>
</tr>
</tbody>
</table>

### Thursday, 25 October 0900 - 1030 hours | Room 1, Level 1

#### Technical Session 20: Production Conformance and Water Flooding Technologies

**Session Chairs:** Shripad Biniwale, *Schlumberger*; Mohamad Othman, *PETRONAS*

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0900</td>
<td>191982</td>
<td><strong>A Particulate Gel Based System for Water Shut-off Applications</strong>&lt;br&gt;V. Lafitte, M.K. Panga, N. Vaidya, M. Nikolaev, P. Enkababian, L.K. Teng, and H. Zhao, Schlumberger</td>
</tr>
<tr>
<td>0920</td>
<td>191972</td>
<td><strong>Zonal Isolation of a Fractured and Gravel Packed Water Producing Zone Using an Organically Crosslinked Polymer Sealant: Case Study</strong>&lt;br&gt;A. Nagar, G. Dangwal, N. Pandey, A. Jain and A. Parasher, Cairn Oil and Gas, Vedanta Ltd.; M. Deshpande, V. Gupta and K. Pande, Halliburton</td>
</tr>
</tbody>
</table>
Technical Programme

0940 191924  The Application of Flexible Coiled Composite Pipe in Onshore Oilfields in China
E. Ming, T. Li, Y. Li, X. Pei, Z. Hao, and T. Guo, Research Inst. Petroleum Exploration and Development

1000 192136  Improving Conformance in an Injector Well Using Delayed Crosslink Polymer Gel: A Case Study
M. Varshney, A. Goyal, I. Goyal, A. Jain, N. Pandey, A. Parasher and S. Vermani, Cairn Oil and Gas, Vedanta Ltd.; A.S. Negi and V.P. Sharma, Baker Hughes, a GE company

Thursday, 25 October 0900 - 1030 hours | Room 2, Level 1

Technical Session 21: Case Studies - Drilling and Completion
Session Chair: Khalil Rahman, Baker Hughes, a GE company

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0900</td>
<td>192039</td>
<td>A Fully Integrated Approach for Screening of Well Completion and Stimulation Methods in Low Permeability, Heterogeneously Distributed Sandstone Reservoirs in the Deepwater Slope Channel, Kita-Akita Oil Field, Northern Japan</td>
</tr>
<tr>
<td>0920</td>
<td>192013</td>
<td>Managing Complex, Laterally and Vertically Compartmentalised Reservoirs in a Subsea Tie-Back via Smart Well Completions: Case Studies</td>
</tr>
</tbody>
</table>
N.H. Smith, A. Ghous and S. Bharatiya, Woodside Energy Ltd. |
| 0940  | 192083   | Systematic Approach in Extending Liquid Loaded Offshore Gas Wells Production in Natuna Sea with Partial and Full Wellbore Water Shut Off: Case Study and Method Selection |
Y.A. Praditya, A. Satiawarman, F. Nurrahman, M. Medianestrian and R. Rochaendy, Premier Oil Indonesia |
| 1000  | 191970   | A Priori Scenario Modelling with LWD Seismic for Successful Well Placement |
A. Tan, B.S. Lee, H.V. Vader, N. Holleman and R. Spiteri, Sarawak Shell Bhd.; A. Ahmed, F. Maula, S. Shamsuddin and E. Heng, Schlumberger |
## Technical Programme

### Thursday, 25 October

#### Technical Session 22: Advances in Optimisation
**Session Chairs:** Daniel O’Reilly, Chevron Australia; Gianluca Di Martino, Quadrant Energy; Craig Marshall, Quadrant Energy

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 0900 | 192088  | **Use of Probabilistic Methods to Assess a Portfolio of Conventional and Unconventional Resources**  
A. Jones, C. Mijnssen and M. Ewin, Origin Energy; A. Burton, ConocoPhillips |
| 0920 | 192119  | **Application of Ensemble Variance Analysis in the Development of the Wheatstone Field Start-up Strategy**  
M.A. Flett and P.A. Connell, Chevron Australia Pty. Ltd. |
| 0940 | 192116  | **Modelling of Inflow Control Devices: From the Flow Loop to the Simulator**  
R.D. Sankoff, B. Bijani, G. Di Martino, J. Watson and C.S. Marshall, Quadrant Energy |
| 1000 | 191962  | **Statistical Analysis of Effect of Sensor Degradation and Heat Transfer Modelling on Multiphase Flowrate Estimates from a Virtual Flow Meter**  
T. Bikmukhametov, M.E. Stanko and J. Jäschke, Norwegian U. of Science and Technology |

### Thursday, 25 October

#### Technical Session 23: CSG and Deep Bowen Basin Drilling
**Session Chairs:** Alireza Salmachi, U. of Adelaide; Raymond Johnson Jr., U. of Queensland

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1100 | 191866  | **Depleted Drilling System: Use of Aerated Mud in Surat CSG Wells**  
P. Bhavnani, Shell QGC; D. Richards, Schlumberger |
| 1120 | 192032  | **Planning and Drilling Execution of Early Permian Wells in Two String Design by Implementing New Drilling and Cementing Technologies**  
A. Shaban, M.B. Zaman and T.S. Dedigama, Santos; T. Saunders, Halliburton |
## Technical Programme

### Thursday, 25 October 1100 - 1230 hours | Room 2, Level 1

#### Technical Session 24: Emerging Production Technologies

**Session Chairs:** Sameer Ganpule, *Origin Energy*; Mark Burgoyne, *Santos*

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1100   | 192100  | **Truly Rigless: A World First through 3-1/2” Tubing Cable Deployed Electrical Submersible Pump on a Live Well**  
| 1120   | 192000  | **Rigless Intervention to Secure Internal Blow-Out (IBO) Monitoring Gas Wells Offshore of Brunei**  
| 1140   | 192099  | **Rigless Zonal Isolation in High-Permeability and Low-Pressure Sandstone Formations Using an Organically Crosslinked Polymer Sealant: Successful Field Application**  
B. Al-Shammari, N. Rane, S. Al Harbi, S. Mohammad and A. Al-Kinderi, Kuwait Oil Co.; Y. Santin and K. Matar, Halliburton |
| 1200   | 191879  | **Real-Time Fiber-Optic Integrated System with retrievable packer enables single trip dual zone evaluation: case study eastern foothills, Colombia**  
V. Vera, C. Torres, E. Delgado and C. Pacheco, Halliburton; J. Higuera and M. Torres, Equion Energia Ltd. |
### Technical Session 25: Artificial Lift

**Session Chairs:** Mark Jackson, Independent; Khairul Nizam Idris, PETRONAS

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1100  | 192071   | Application of Low-Carbon, Rodless Artificial Lift in Low-Production, Low-Permeability Oilfields  
S. Zhu, RIPED, CNPC; D. Lei, Xinjiang Oilfield Co. Engineering Technology Research Inst., CNPC; H. Liu, Z. Hao, Q. Wang and L. Zhang, RIPED, CNPC |
| 1120  | 191885   | Ground Breaking Technology in Artificial Lift: First Installation of Full Digital Intelligent Artificial Lift (DIAL) System at DL field, Brownfield Offshore Malaysia  
| 1140  | 192091   | Hydraulic Concentric Tubular Pumping System for Unloading Gas Wells  
C.J. Langbauer, P. Vita, J. Gerald and H. Herbert, Montanuniversität Leoben |

### Technical Session 26: Production Technology - CSG

**Session Chair:** Raymond Johnson Jr., U. of Queensland

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1400  | 192044   | CSG Reservoir Monitoring Technology: Advantages, Challenges and Selection Criteria, (Queensland Case Study)  
A. Mortezapour, A. Bassat and E. Lean, Weatherford Australia |
## Technical Programme

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1420  | 192017  | **Hydraulic Fracturing Treatment of Low-Permeability Coal Seam Gas Reservoirs with Finely Layered Coals**  
X. Zhang, B. Wu and L. Connell, CSIRO Energy; Y. Han, Aramco Services; R. Jeffrey, SCT Operations Pty. Ltd. |
| 1440  | 192102  | **Interburden Isolation and Slotted Liner Placement as Solids Control Measure to Improve Well Performance by Reducing Operating Costs and Maximising Gas Production**  
R. Viljoen, V. Sharma, S. Mazumder, A. Rajora, E. Cordova, K. Wilson and M.B. Thompson, Arrow Energy |
| 1500  | 191944  | **Underbalanced Jetting in CSG Play**  
M. Vatan, M. Desplat, A. Giambalvo and G.J. Amorer, Santos |

### Thursday, 25 October  
1400 - 1530 hours | Room 1, Level 1

#### Technical Session 27: Emerging Drilling Technologies 2 - New Tools and Methods  
**Session Chairs:** Rod Bresnehan, CFT Holdings; Mohamad Othman, PETRONAS

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1400  | 192051  | **Minimum Stress, Maximum Pressure: A New High Performance Bridging System Facilitates Drilling Depleted Formations at High Overbalance in Middle East**  
A. Addagalla, I. Maley, I. Lawal, P. Jadhav and L. Moroni, Baker Hughes, a GE company |
| 1420  | 191968  | **The Successful Application of MPD Technology in Drilling Ultra Deep and Ultra-High Pressure Saltwater Formation to Mitigate Drilling Hazards: A Case Study in Tarim Basin**  
| 1440  | 191933  | **Using Machine Learning to Predict Lost Circulation in the Rumaila Field, Iraq**  
| 1500  | 191964  | **Design, Fabrication and Field Trial Testing of a Novel Rotating Continuous Circulation Tool (RCCT)**  
M. Badran and C. Gooneratne, Saudi Aramco; A. Saqqa, Kasab Intl. |
## Technical Programme

**Technical Session 28: Stimulation 2 - Acidising**  
**Session Chairs:** Robyn Tamke, Oasis Oilfield Consulting; Khairul Nizam Idris, PETRONAS; Anwarudin Saidu Mohamed, Reservoir Link Solutions

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1400  | 191893  | **Enhanced Near-Wellbore Acid Stimulation in Horizontal Openhole Well Increased Influx from Tight Carbonate Formation in North Kuwait: Case Study**  
R. Bhagavatula and H. Al-Ajeel, Kuwait Oil Co.; A. Boushi, W. Eid, M. Elmofti, A. Allam and A. Alhamad, Halliburton |
| 1420  | 191991  | **An Uneven Acid Injection Technology for Long-Lateral Horizontal Wells in Complex Carbonate Reservoirs: Simulation, Optimisation and Practice**  
H. Zou, M. Cui, H. Liu and C. Liang, PetroChina Research Inst. of Petroleum Development and Exploration; P. Liu, SouthWest PetroChina U.; H. Xue, China Zhenghua Oil Co. Ltd.; P. Wang, PetroChina Southwest Oil and Gas |
| 1440  | 191914  | **Reliable Carbonate Stimulation Using Distributed Temperature Sensing Diagnostics and Real-Time Fiber-Optic Coiled Tubing Intervention in Kuwait**  
| 1500  | 191981  | **Introduction of Real-Time Flow Measurements Opens New Paths to Overcome Challenges Encountered during the Acid Stimulation of Extended Reach Wells**  
L. Duthie, H.A. Saiood and H. Almarri, Saudi Aramco; D. Ahmed, Schlumberger Saudi Arabia |
## Technical Programme

### Thursday, 25 October

**Technical Session 29: Logging, Fluids, Capillary Pressure**

**Session Chairs:** Jack H. Harfoushian, Schlumberger; Ben Van Deijl, Woodside Energy

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1400</td>
<td>192120</td>
<td>The First Application of Seismic While Drilling Technology in HTHP Offshore</td>
<td>S. Guo, Y. Gao and M. Chen, CNOOC Ltd.; P. Liu, Y. Chen, L. Zhang and Z. Huang, Schlumberger</td>
</tr>
<tr>
<td>1420</td>
<td>191938</td>
<td>Assessing Well Placement in Multi Faulted Reservoir</td>
<td>V. Vevakanandan, A. Ting and T. Zhang, Sabah Shell Petroleum Co. Ltd.; F. Maulana, A. Ahmad, G.I. Santoso and K. Alang, Schlumberger</td>
</tr>
<tr>
<td>1440</td>
<td>191874</td>
<td>Monitoring Water Flood Front Movement by Propagating High Frequency Pulses</td>
<td>J.M. Felix Servin, Saudi Aramco</td>
</tr>
<tr>
<td>1500</td>
<td>192011</td>
<td>Carbon Dioxide in Reservoir Gases: New Insights from Basin and Petroleum</td>
<td>N. Koronful and K. Peters, Schlumberger; M.F. Aoi and J. Skulsangjuntr, Malaysia-Thailand Joint Authority; L. Jiang, A. Kleine, D. Basu, J. Bencomo, J. Hernandez and G. Brink, Schlumberger</td>
</tr>
</tbody>
</table>
**Knowledge Sharing ePosters**

During the ePoster session, presenters will deliver their presentations in an informal setting and facilitate direct discussions with attendees 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.

<table>
<thead>
<tr>
<th>Tuesday, 23 October</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time</strong></td>
</tr>
<tr>
<td>1300</td>
</tr>
<tr>
<td>1530</td>
</tr>
<tr>
<td>1300</td>
</tr>
<tr>
<td>1330</td>
</tr>
<tr>
<td>1530</td>
</tr>
</tbody>
</table>
## Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1300</td>
<td>192048</td>
<td><strong>An Integrated Methodology for the Unified Optimisation of Injection/Production Rates and Surface Waterflooding Pipeline Network Operation Control</strong>&lt;br&gt;X. Zhou, Y. Liang and P. Di, China U. of Petroleum; C. Xiang, U. of Southern California; S. Xin and H. Zhang, China U. of Petroleum&lt;br&gt;(Alternate Paper in Technical Session 20)</td>
<td></td>
</tr>
<tr>
<td>1330</td>
<td>191947</td>
<td><strong>Novel Eco-friendly Cationic Surfactant for Improved Oil Recovery from Carbonate Reservoirs</strong>&lt;br&gt;M. Valluri, R. Cain and R. Lalgudi, Battelle&lt;br&gt;(Alternate Paper in Technical Session 4)</td>
<td></td>
</tr>
<tr>
<td>1530</td>
<td>192141</td>
<td><strong>Improving Polymer Flooding by Addition of Surface Modified Nanoparticles</strong>&lt;br&gt;L.M. Corredor, B.B. Maini and M. Husein, U. of Calgary&lt;br&gt;(Alternate Paper in Technical Session 4)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1300</td>
<td>191881</td>
<td><strong>A Multiscale Study on the Onset of Sand Production</strong>&lt;br&gt;A. Lv, H.L. Ramandi and H. Roshan, U. of New South Wales</td>
</tr>
<tr>
<td>1530</td>
<td>191930</td>
<td><strong>From Preservation to Execution: Value Creation through Successful FDP Optimisation for an Offshore Green Field Gas in Peninsular Malaysia</strong>&lt;br&gt;A. Sabzabadi, PETRONAS; A. Daeng and N. Hamza, PETRONAS Carigali Sdn. Bhd.&lt;br&gt;(Alternate Paper in Technical Session 6)</td>
</tr>
</tbody>
</table>
## Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 1300  | 192069  | **Development and Application of Key Equipment of CO₂ Waterless Fracturing**  
| 1330  | 192130  | **Application of Multi-Level and High-Resolution Discrete Fracture Modelling Based on Unstructured Grid in Fractured Reservoir Simulation Study**  
L. Qiuyuan, Z. Dai, Z. Yan, C. Weihua, L. Li and W. Sun, Shen Zhen Branch of CNOOC Ltd.; L. Junchao, Nanjing Tracey Energy Technology Ltd.  
*(Alternate Paper in Technical Session 3)* |
| 1530  | 191882  | **First Hydraulically Fractured Dump Flood Implementation in Kuwait: A Case Study**  
A. Alam, S. Pooniwala and M. Nagarkoti, Baker Hughes, a GE company; W.Z. Cheema, M.R. Al-Othman and E. Anthony, Kuwait Oil Co. |
| 1300  | 191898  | **An Experimental Study of a Novel Parallel Pipe Separator Design for Subsea Oil-Water Bulk Separation**  
H.S. Skjefstad and M.E. Stanko, Norwegian U. of Science and Technology |
| 1330  | 192064  | **Experimental Investigation of Crude Oil Emulsion Stability: Effect of Oil and Brine Compositions, Asphaltene, Wax, Toluene-insolubles, Temperature, Shear-stress, and Water-cut**  
| 1530  | 192117  | **Evaluation of Frac Hit Risks in Aishwarya Barmer-Hill Field Development Utilising GIS Platform**  
S. Pathak, R.J. Tibbles, A. Bohra, S. Tiwari, P. Godiyal and A. Deo, Cairn Oil & Gas, Vedanta Ltd.  
*(Alternate Paper in Technical Session 14)* |
## Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>1300</td>
<td>192050</td>
<td>High-Performance Water-Base System Performs as an Environmentally Friendly Alternative to Oil-base for Drilling Challenging Intervals in North Kuwait</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A. Heikal, Kuwait Drilling Fluids; M. El Banna and G. Manescu, M-I Swaco a Schlumberger Co.; M. Al Mulaifi and I. Mohammed, Kuwait Oil Co.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 2)</em></td>
<td></td>
</tr>
<tr>
<td>1330</td>
<td>191960</td>
<td>Early-Stage Detection of Scales in a Deepwater Field Offshore Ghana via Remote Monitoring of Multiphase Meter</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M. Darab and R. Nygaard, OneSubsea, A Schlumberger Co.; A.P. Singh, Tullow Oil</td>
<td></td>
</tr>
<tr>
<td>1530</td>
<td>192078</td>
<td>Application of Novel Predictive Analytics for Data Allocation of Commingled Production in Smart Fields</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.P. Chia, M. Yakup, M. Tamin, N.A. Surin, K. Mazzian, M. Rinadi and A. Hassan, PETRONAS</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 20)</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1300</td>
<td>191868</td>
<td>Characterising Methane Hydrate Formation in Horizontal Water-Dominated Bubbly Flow</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>W. Fu, B. Sun, W. Zhiyuan and J. Zhang, China U. of Petroleum (East China); J. Wang, The Key Laboratory of Well Stability and Fluid &amp; Rock Mechanics in Oil and Gas Reservoir of Shaanxi</td>
<td></td>
</tr>
<tr>
<td>1330</td>
<td>192092</td>
<td>Numerical Simulation of Well Production Performance Considering Pre-darcy Flow Using Edfm</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>J. Xu and B. Sun, China U. of Petroleum (East China); W. Zhang, The Pennsylvania State U.; H. Cheng, Xinjiang Oilfield Co.; W. Fu, China U. of Petroleum (East China)</td>
<td></td>
</tr>
<tr>
<td>1530</td>
<td>191884</td>
<td>Operationalising MHF Safety Assessments</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L. Jefferies and P. Ooi, Santos</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 5)</em></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Paper #</td>
<td>Presentation</td>
<td>Station</td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| 1300  | 191910  | **Mitigating the Failure of Downhole Pumps due to Gas Interference in Coal Seam Gas Wells**  
| 1330  | 192095  | **Risk Factors Affecting Delays in Upstream Natural Gas Mega-Projects: An Australian Perspective**  
M. Basak, V. Coffey and R.K. Perrons, Queensland U. of Technology  
*(Alternate Paper in Technical Session 6)*                                                                                                           | 9       |
| 1530  | 192024  | **A Review of Current Knowledge with Geomechanical Fault Reactivation Modelling: The Importance of CO₂ Mechano-Chemical Effects for CO₂ Sequestration**  
|       |         |                                                                                                                                                                                                            |         |
| 1300  | 191941  | **Use of Passive ICD and Swellable Packer for Successful Horizontal Well Completion in Unconsolidated Sand Stone Reservoir to Eliminate Sand Breakthrough Problem Having Active Aquifer Drive: A Detailed Case Study in Assam-Arakan Basin**  
P.P. Saikia, U.A. Dutta and P.K. Goswami, Oil India Ltd.  
*(Alternate Paper in Technical Session 9)*                                                                                                           | 10      |
| 1330  | 191906  | **Deep Learning Convolutional Neural Networks to Predict Porous Media Properties**  
N. Alqahtani, R.T. Armstrong and P. Mostaghimi, U. of New South Wales                                                                                   | 10      |
| 1530  | 192075  | **Downhole Packer Equipment Design for High-Temperature Carbonate Formations**  
M.A. AlGhazal and M.J. Aljubran, Saudi Aramco                                                                                                          | 10      |
## Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330</td>
<td>192079</td>
<td><strong>A New Generation of Flat Rheology Water Based Mud to Manage ECD, Prevent Loss Circulation, Temperature and Pressure Independent Rheology, Higher Lubricity and Shale Inhibition</strong>&lt;br&gt; S. Taraghikhah, M. Kalhor Mohammadi and K. Tahmasbi, International Drilling Fluids&lt;br&gt; <em>(Alternate Paper in Technical Session 2)</em></td>
</tr>
</tbody>
</table>
## Knowledge Sharing ePosters

### Wednesday, 24 October

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1300</td>
<td>192018</td>
<td><strong>Analytical and Numerical Solutions for Interpretation of Chemical Compaction in Chalk</strong>&lt;br&gt; P. Andersen and D.S. Berawala, U. of Stavanger&lt;br&gt; <em>(Alternate Paper in Technical Session 11)</em></td>
<td></td>
</tr>
<tr>
<td>1330</td>
<td>191873</td>
<td><strong>Simulation and Optimisation of CO₂ Huff-n-Puff Processes in Tight Oil Reservoir: A Case Study of Chang-7 Tight Oil Reservoirs in Ordos Basin</strong>&lt;br&gt; Z. Lei, S. Wu and T. Yu, Research Inst. of Petroleum Exploration and Development, PetroChina; Y. Ping, Changqing Oilfield Co., PetroChina; H. Qin, China U. of Petroleum (Beijing); J. Yuan, Research Inst. of Petroleum Exploration and Development, PetroChina; Z. Zhu, China U. of Petroleum (Beijing); H. Su, China U. of Geosciences (Beijing)&lt;br&gt; <em>(Alternate Paper in Technical Session 13)</em></td>
<td></td>
</tr>
<tr>
<td>1530</td>
<td>191984</td>
<td><strong>Facility Operations Readiness and Project Start-Up Support and Integration</strong>&lt;br&gt; M. Maher, ConocoPhillips Australia&lt;br&gt; <em>(Alternate Paper in Technical Session 18)</em></td>
<td></td>
</tr>
</tbody>
</table>
## Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>1030</td>
<td>192014</td>
<td>A Model of Gas Transport through Shale Reservoirs Including the Effects of Real Gas, Gas Adsorption and Stress Dependent Permeability&lt;br&gt;N. You and H. Lau, National U. Of Singapore&lt;br&gt;(Alternate Paper in Technical Session 7)</td>
<td>2</td>
</tr>
<tr>
<td>1300</td>
<td>191861</td>
<td>Synthesis and Evaluation of Novel Gas-Wetting Reversal Agent for Shale Gas Reservoir&lt;br&gt;Y. Li, Y. Wang, L. Tang, L. Yuan and C. Zhang, China U. of Petroleum (East China); W. Jia, State Key Laboratory of Shale Oil Gas Enrichment Mechanisms and Effective Development; B. Guo and X. Wang, Drilling Engineering and Technology Co., Shengli Petroleum Engineering Corporation Ltd. of SINOPEC&lt;br&gt;(Alternate Paper in Technical Session 11)</td>
<td>2</td>
</tr>
<tr>
<td>1330</td>
<td>192082</td>
<td>Pore Scale Analysis the Formation Dissolution with Capillary Trapping Loss for CO₂ Injected into Carbonate Reservoir&lt;br&gt;Y. Zhang, Curtin U.; Y. Zhou, U. of Aberdeen; M. Lebedev, Curtin U.; S. Iglauer, Edith Cowan U.&lt;br&gt;(Alternate Paper in Technical Session 13)</td>
<td>2</td>
</tr>
<tr>
<td>1530</td>
<td>191985</td>
<td>Statistical Decline Curve Analysis for Automated Forecasting of Production from Coalbed Methane Wells&lt;br&gt;D. Kuznetsov, G. Fernandes, M. Daly and K. Ma, Arrow Energy&lt;br&gt;(Alternate Paper in Technical Session 16)</td>
<td>2</td>
</tr>
<tr>
<td>1030</td>
<td>192094</td>
<td>Optimising Sand Control Treatments Using Gauge Data&lt;br&gt;S. Jain, P. Wassouf and R. Tibbles, DuneFront&lt;br&gt;(Alternate Paper in Technical Session 9)</td>
<td>3</td>
</tr>
<tr>
<td>1300</td>
<td>192016</td>
<td>Reservoir Architecture Analysis of Delta Front and its Control on Remaining Oil Distribution of S Oilfield in Bohai Bay Basin&lt;br&gt;J. Li, CNOOC Ltd.; X. Liu, PetroChina Research Inst. Petroleum Exploration and Development; Z. Gao, B. Shang and J. Xu, CNOOC Ltd, Tianjin Branch&lt;br&gt;(Alternate Paper in Technical Session 10)</td>
<td>3</td>
</tr>
</tbody>
</table>
# Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station</th>
</tr>
</thead>
</table>
| 1530  | 192077   | **Practical Application of Coalbed Methane Material Balance Technique to Produce Well by Well Production Forecast in Undersaturated Queensland Surat Basin Coals**  
G. Aibassov, Shell Australia  
*(Alternate Paper in Technical Session 19)* |         |
| 1030  | 192015   | **Optimised Alkalinity for EOR Purposes in Sandstone Reservoirs**  
A. Mamonov, M.A. Khan, T. Puntervold and S. Strand, U. of Stavanger  
*(Alternate Paper in Technical Session 8)* |         |
| 1300  | 192059   | **A Review of Recent Advances in Cost-effective Infrastructure System Design of the CO₂ Distribution to CCS Injection Wells**  
*(Alternate Paper in Technical Session 12)* |         |
| 1330  | 192055   | **Optimisation of Engineered Water Injection Technique in Carbonate Reservoirs: A Case Study**  
J.O. Adegbite and E.W. Al-Shalabi, Khalifa U. of Science and Technology  
*(Alternate Paper in Technical Session 17)* |         |
| 1530  | 192061   | **Delivering the First Horizontal Well Under the Harsh Economic Conditions in an Offshore Brownfield in Malaysia**  
*(Alternate Paper in Technical Session 12)* |         |
### Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>1030</td>
<td>192103</td>
<td>Practical Workflow to Estimate Expected Ultimate Recovery in a Fracture Stimulated Multi-Layered Tight Gas Reservoir: A Case Study from Big Lake Field G.E. Guillen Falcon, Santos <em>(Alternate Paper in Technical Session 7)</em></td>
<td>5</td>
</tr>
<tr>
<td>1300</td>
<td>191919</td>
<td>Prediction of In-Situ Stresses and Pore Pressure in a Shale Reservoir Subject to Finite Fault Slip B. Lin, Y. Jin and Y. Xia, China U. of Petroleum <em>(Alternate Paper in Technical Session 10)</em></td>
<td>5</td>
</tr>
<tr>
<td>1530</td>
<td>191950</td>
<td>An Embedded Downhole Conductance Sampling System Based on Adaptive FFT Algorithm Q. Yang, T. Fu, S. Huang, E. Ming and M. Li, Research Inst. of Petroleum Exploration and Development, Petrochina <em>(Alternate Paper in Technical Session 16)</em></td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>1030</td>
<td>191911</td>
<td>Operational Readiness and Operational Safety on FPSO Project V. VijayaRaghavan, Ranj Offshore Engineers <em>(Alternate Paper in Technical Session 5)</em></td>
<td>6</td>
</tr>
</tbody>
</table>
## Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station</th>
</tr>
</thead>
</table>
| 1530  | 191988  | First Mobile CNG: Conversion of Waste Gas for Improving Oil Recovery and for Gas Monetisation  
C. Juljumroensub, P. Sonsayan, A. Thippayawarn, V. Sithichaikasem, P. Sunsap, N. Langkulanont, N. Panichponsakorn and S. Nitayaphan, PTT Exploration and Production Pcl.  
*(Alternate Paper in Technical Session 18)* | 7       |
| 1030  | 192087  | Waterflooding Heavy Oil Reservoirs with Horizontal Wells: Field Examples from Canada  
E. Delamaide, IFP Technologies Canada Inc.  
*(Alternate Paper in Technical Session 18)* | 7       |
| 1300  | 191976  | Re-defining the Potential-Determining-Ions (PDIs) for Low Salinity Effect (LSE) Based on Oil/Brine/Solid Interfacial Behaviors and Oil Water Relative Permeability  
*(Alternate Paper in Technical Session 8)* | 7       |
| 1330  | 191951  | A Smart Software System for Flow Assurance Management  
A. Jain, N.M. Patel, P. Hammonds and S. Pandey, Vedanta Ltd. (Cairn Oil & Gas)  
*(Alternate Paper in Technical Session 12)* | 7       |
| 1530  | 192029  | Relative Permeability Curve Shapes in Coalbed Methane Reservoirs  
A. Salmachi, U. of Adelaide; C. Clarkson, U. of Calgary; S. Zhu, Southwest Petroleum U.; J.A. Barkla, Santos  
*(Alternate Paper in Technical Session 19)* | 7       |
## Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1530</td>
<td>192009</td>
<td><strong>Realising Additional Value from Late Life High Water Loaded Gas Wells through Transient Flow Modelling</strong>&lt;br&gt;J.C. Wong, A. Ghous, J.E. Morgan and Y.M. Hourani, Woodside Energy Ltd.  &lt;br&gt;(Alternate Paper in Technical Session 18)</td>
<td></td>
</tr>
</tbody>
</table>
# Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>1030</td>
<td>191975</td>
<td><strong>Agile Field Development Planning: A Systems Approach</strong></td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>J.R. Ciccarelli, D. McLachlan, H. Singh and R. Thomson, io oil &amp; gas consulting</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 12)</em></td>
<td></td>
</tr>
<tr>
<td>1300</td>
<td>192085</td>
<td><strong>Improved Sand Management Methodology Application in Mature Field</strong></td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 12)</em></td>
<td></td>
</tr>
<tr>
<td>1330</td>
<td>191927</td>
<td><strong>Application of Managed Pressure Drilling on a Semisubmersible Tender-Assisted Rig to Address Drilling Challenges in HPHT Gas Condensate Wells, Offshore Vietnam</strong></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H. Dalgit Singh, B. Ta Quoc and T. Chai Yong, Weatherford Asia Pacific; D. Van Khanh, N. Xuan Cuong and H. Thanh Tung, PV Drilling; T. Hoai Nam, PetroVietnam; N. Huu Hai, D. Anh Tuan, T. Ngoc Bao, T. Nam Hung and N. Pham Huy Cuong, Bien Dong POC</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 15)</em></td>
<td></td>
</tr>
<tr>
<td>1530</td>
<td>192033</td>
<td><strong>Quantifying Gas Content in Coals Using Borehole Magnetic Resonance</strong></td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>T. Hopper, T. Neville and K. O’Neill, Qteq Pty. Ltd.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 19)</em></td>
<td></td>
</tr>
<tr>
<td>1030</td>
<td>192052</td>
<td><strong>First Integrated Sand Prevention Approach: Best Practices and Successful Lessons Learned from Deepwater Vashishta and S1 Gas Fields, East Coast of India</strong></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>K. Bhatia, R. Ray and J. Davis, Halliburton</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 9)</em></td>
<td></td>
</tr>
<tr>
<td>1300</td>
<td>192146</td>
<td><strong>Supramolecular and Oil Displacement Fluid for Hydraulic Fracturing</strong></td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 14)</em></td>
<td></td>
</tr>
<tr>
<td>1330</td>
<td>191901</td>
<td><strong>Fundamentals of Underground Storage: An Overview of the Screening Criteria and Functional Requirements</strong></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S. Basu, Shell India Markets Private Ltd.; P.M. Nilsson, RDG Gmbh &amp; Co KG; E. Kuperus, Nederlandse Aardolie Maatschappij B.V.</td>
<td></td>
</tr>
</tbody>
</table>
# Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>1530</td>
<td>192105</td>
<td><strong>Investigating the Influence of Wettability and Direction on SuperCritical CO$_2$ Trapping for Supercritical CO$_2$ - Brine Imbibition Process at Pore Scale for Bentheimer Sandstone</strong>&lt;br&gt;F. Jahan, Curtin U. of Technology; S. Ahmed, CSIRO Energy Business Unit; M. Hossain, Curtin U. of Technology&lt;br&gt;(Alternate Paper in Technical Session 17)</td>
<td>11</td>
</tr>
<tr>
<td>1030</td>
<td>192139</td>
<td><strong>An Improved Production Data Analysis Method for Shale Gas Wells</strong>&lt;br&gt;P. Wei, Sinopec Research Inst. of Petroleum Engineering&lt;br&gt;(Alternate Paper in Technical Session 7)</td>
<td>11</td>
</tr>
</tbody>
</table>
## Knowledge Sharing ePosters

### Thursday, 25 October

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station 1</th>
</tr>
</thead>
</table>
| 1030   | 191954  | **Pump-Out Stage Tool and Pump-Out Float Collar System Enhances Completion Efficiency in Queensland Coal-Seam Gas Project: A Case Study**  
M.B. Zaman, Santos Ltd.; T.P. Dunn and S. Tickoo, Weatherford  
(*Alternate Paper in Technical Session 21*) |                                                                                               |
| 1300   | 192107  | **Effect of Low Pumping Rate on Mud Displacement Efficiency and Pumping Pressure during Cementing of Oil Wells**  
M. Tcibulskii, Halliburton Intl. GmbH; M.A. Akhmetov, AO Messoyakhaneftegas  
(*Alternate Paper in Technical Session 23*) |                                                                                               |
| 1330   | 192081  | **Effects of Geothermal Gradient on Hydraulic and Rheological Characteristics of Foam in Vertical Wells**  
S. Sinde, International U. of Grand-Bassam  
(*Alternate Paper in Technical Session 27*) |                                                                                               |
| 1030   | 192041  | **Successful Field Application of Pillar Fracturing Technique in Water Injection Well for Creation of Highly Conductive Conduits**  
R. Bhagavatula, V.S. Rajagopalan, S.K. Chellappan and A.J. Al-Ashwak, Kuwait Oil Co.; M. ElMofti, A. Boueshi, W.M. Eid, A. Allam and A. Abdelbaky, Halliburton  
(*Alternate Paper in Technical Session 20*) |                                                                                               |
| 1300   | 191865  | **Sucker Rod Anti-Buckling System to Enable Cost Effective Oil Production**  
C.J. Langbauer, R.K. Fruhwirth, M. Hartl, H. Hofstätter, Montanuniversität Leoben  
(*Alternate Paper in Technical Session 25*) |                                                                                               |
| 1330   | 191894  | **Behavior Analysis of a Wire Rope Replacing Sucker Rods with Finite Element Simulation**  
F. Fazeli Tehrani, C.J. Langbauer and H.M. Hofstaetter, Montanuniversitaet Leoben  
(*Alternate Paper in Technical Session 26*) |                                                                                               |
### Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station</th>
</tr>
</thead>
</table>
| 1030  | 192145   | **Cost Effective Water Shut-Off: Slickline Conveyed High Expansion Ratio through Tubing Bridge Plug**  
  M. Abdulhadi, P.T. Kueh, A. Zamanuri, W.C. Thang, H.V. Chin and S. Jacobs,  
  Halliburton Bayan Petroleum; A.A. Suggust, K.A. Dolah, H. Munandai and Z. Yusop,  
  PETRONAS Carigali Sdn. Bhd.  
  *(Alternate Paper in Technical Session 20)* | 3       |
| 1300  | 192058   | **Maximising Oil Recovery through Gas Cap Perforation in Strong Water Drive Reservoir**  
| 1330  | 191923   | **Alleviating the Solids Issue in Surat Basin CSG Wells**  
  D. Kalinin, D. Choo, A. Watling, H. Liu, L. Teng and G. Soo Hui, Schlumberger  
  *(Alternate Paper in Technical Session 26)* | 4       |
| 1030  | 192036   | **SMARTDRAIN: An Intelligent Workflow for Well-Placement Optimisation by Integrating Streamlines Time-of-Flight and Exhaustive Search Algorithm**  
  P. Ekkawong, W. Huengwattanakul, P. Ruthairung, A. Rittipong, S. Vitoonkiyvanich and K. Itthisawatpan, PTTEP  
  *(Alternate Paper in Technical Session 22)* | 4       |
| 1300  | 192034   | **Lost Time Analysis of Queensland Coal Seam Gas Drilling Data and Where Next for Improvement?**  
  I. Rodger and A. Garnett, The U. of Queensland  
  *(Alternate Paper in Technical Session 23)* | 4       |
| 1330  | 191945   | **The Hybrid Completion and Stimulation Technology Combining Sleeves with Bridge Plugs: A Case History in Ordos Basin, China**  
  Z. Tong, B. Ma, R. Wei, C. Liao, S. Liu, P. Huang, and X. Wang, Research Inst. of Petroleum Exploration and Development (RIPED), PetroChina  
  *(Alternate Paper in Technical Session 28)* | 4       |
## Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1030</td>
<td>192049</td>
<td><strong>An Online Water Cut Measurement System Based on the Conductance Sensor</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Q. Yang, M. Li, Q. Wang, S. Meng and E. Ming, Research Inst. of Petroleum Exploration and Development, Petrochina</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 20)</em></td>
<td></td>
</tr>
<tr>
<td>1300</td>
<td>191935</td>
<td><strong>A Field Application of Successful Installation and Sequential Activation of 15,000-psi Rated Hydro-Mechanical Multi-Stage Completion in Peripheral Deep North Kuwait Jurassic Asset for Improved Completion Efficiency and Well Productivity</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 24)</em></td>
<td></td>
</tr>
<tr>
<td>1330</td>
<td>192028</td>
<td><strong>A Novel Downhole Gas Separator in ESP Systems</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Q. Wang, RIPED, PetroChina; Y. Liu, Southwest Petroleum U.; J. Yang, M. Cui, D. Qi, RIPED, PetroChina</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 26)</em></td>
<td></td>
</tr>
<tr>
<td>1030</td>
<td>192060</td>
<td><strong>Fracture Height Growth Study: Cooper Basin Probability Analysis</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>J.N. Griffiths, Santos Ltd.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 14)</em></td>
<td></td>
</tr>
<tr>
<td>1300</td>
<td>191949</td>
<td><strong>Successful Infill Realised through Prudent Brownfield Oil Rim Reservoir Management, Offshore Malaysia</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 22)</em></td>
<td></td>
</tr>
<tr>
<td>1330</td>
<td>191934</td>
<td><strong>Brittleness Index Prediction via Well Logs and Reservoir Classification Based on Brittleness</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>C. Feng, Faculty of Petroleum, China U. of Petroleum-Beijing at Karamay; X. Deng, PetroChina Research Inst. of Petroleum Exploration and Development; W. Yin, Faculty of Petroleum, China U. of Petroleum-Beijing at Karamay; Z. Wang, Research Inst. of Exploration and Development, PetroChina Xinjiang Oilfield Co.; Z. Mao, China U. of Petroleum-Beijing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 10)</em></td>
<td></td>
</tr>
</tbody>
</table>
# Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>1030</td>
<td>191913</td>
<td><strong>Innovative All-Electric Tubing retrievable Downhole Safety Valve</strong></td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B.E. Scott, J. Chakkungal and I. Penman, Halliburton</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 24)</em></td>
<td></td>
</tr>
<tr>
<td>1300</td>
<td>192031</td>
<td><strong>A Novel Nanosilica-Based Solution for Enhancing Mechanical and Rheological</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Properties of Oil Well Cement</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>R. Qalandari and A. Aghajanpour, Curtin U.; S. Khatibi, U. of North Dakota</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 23)</em></td>
<td></td>
</tr>
<tr>
<td>1330</td>
<td>191888</td>
<td><strong>New Filter-Cake Breaker Technology Maximises Production Rates by Removing</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Near-Wellbore Damage Zone with Delay Mechanism Designed for High Temperature</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reservoirs: Offshore Abu Dhabi</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.M. Nasrallah and M. Vinci, Halliburton</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 28)</em></td>
<td></td>
</tr>
<tr>
<td>1030</td>
<td>191959</td>
<td><strong>Embracing Opportunities and Avoiding Pitfalls of Probabilistic Modelling</strong></td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in Field Development Planning</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 22)</em></td>
<td></td>
</tr>
<tr>
<td>1300</td>
<td>192140</td>
<td><strong>Where the Laterals Go? A Feasible Way for the Trajectory Measurement of Radial</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jet Drilling Wells</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Z. Huang and Z. Huang, China U. of Petroleum; Y. Su, CNPC Drilling Research Inst.; L. Weichang and T. Jiang,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>China U. of Petroleum</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Alternate Paper in Technical Session 23)</em></td>
<td></td>
</tr>
<tr>
<td>1330</td>
<td>191895</td>
<td><strong>Australia’s World Scale Gas Resources, its Markets and Why New Approaches are</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Required</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>B.F. Towler and M. Firouzi, U. of Queensland; R. Wilkinson, Energy Quest</td>
<td></td>
</tr>
</tbody>
</table>
## Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330</td>
<td>192073</td>
<td><strong>Vertical Minihole Creation and Fracturing Technology for Completing Unconventional Wells</strong>&lt;br&gt;J.B. Surjaatmadja and H.H. Abass, Halliburton&lt;br&gt;(Alternate Paper in Technical Session 28)</td>
<td>9</td>
</tr>
<tr>
<td>1030</td>
<td>192004</td>
<td><strong>Efficient Integration Method of Large-Scale Reservoir Compaction and Small-Scale Casing Stability Models for Oilfield Casing Failure Analysis</strong>&lt;br&gt;K. Yamada, ITOCHU Oil Exploration Co. Ltd.; K. Furui, Waseda U.&lt;br&gt;(Alternate Paper in Technical Session 22)</td>
<td>10</td>
</tr>
</tbody>
</table>
## Knowledge Sharing ePosters

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station 11</th>
</tr>
</thead>
</table>
Post-Conference Training Courses

Estimation, Classification and Reporting of Reserves and Resources
(by SPE International)

Instructor: Douglas Peacock, Technical Director, Gaffney, Cline and Associates
Friday, 26 October | 0900 – 1700 hours
Event Space 1, Rydges Fortitude Valley

This course provides an overview of the classification, estimation and reporting of reserves and resources. The focus of the course is on the SPE-PRMS, but other systems such as SEC and COGEH are also mentioned. The course will outline the key definitions of each of the main classes and categories of reserves and resources. The estimation methods which can be used, together with how and when each should be used is also covered. Be one of the first to get insights and sharing of the newly released 2018 PRMS Guideline.

Course Agenda

Session 1: Introduction and Overview
- Definitions of Reserves and Resources
- Why estimate reserves?
- Regulatory requirements
- Concept of a Project
- Boundaries between major classes

Session 2: Risk and Uncertainty
- Difference between risk and uncertainty
- Assessment of risk
- Assessment of uncertainty
- Heuristics and bias

Session 3: Estimation Methods
- Deterministic and Probabilistic Methods
- Use of Analogues
- Project lifecycle
- Use of seismic
- Volumetric methods, In-place estimation
- Decline curves, reservoir simulation, material balance

Session 4: Economics and Reporting
- Contract Types
- Cash flow modelling
- Working interest vs entitlement
- Relationship between oil price and reserves
- Other issues
Post-Conference Training Courses

Geomechanics for Conventional and Unconventional Resources (by SPE Queensland Section)

Instructor: Zachariah John Pallikathakathil, Team Leader - Geomechanics and Acoustics Group, Schlumberger Australia
Friday, 26 October | 0900 – 1700 hours
Event Space 2, Rydges Fortitude Valley

Geomechanics is playing an increasingly important role in developing conventional and unconventional resources (Coal Seam Gas and Shale Gas). This course will help attendees understand the fundamentals of geomechanics and its applications to conventional and unconventional reservoirs (CSG and Shale Gas) which will enable better field development decisions. Attendees will learn the essential data required to construct a 1D MEM (1 Dimensional Mechanical Earth Model), Rock Testing planning for a geomechanics study, calibration of the model and application to drilling, sanding and hydraulic fracturing in conventional and unconventional reservoirs. Attendees will also learn about data requirement and workflow for constructing a 3D MEM and its applications with case studies.

Course Agenda

Session 1: Definitions - Fundamentals of Constructing a Geomechanics Model
Session 2: Core Selection Guidelines and Core Testing (for Isotropic and Anisotropic rocks), including HRA
Session 2: Pore Pressure
Session 3: In-situ Stress and Stress Direction
Session 4: Anisotropic Properties and Acoustics
Session 5: Construction of 1D Mechanical Earth Model with example
Session 6: Construction of 3D Mechanical Earth Model (example demo)
Session 7: Case Studies in Applications of Geomechanics

• Drilling
• Sanding
• Hydraulic Fracturing
• Compaction and Subsidence
## List of Exhibitors

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Booth Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALS</td>
<td>C06</td>
</tr>
<tr>
<td>Apergy Artificial Lift</td>
<td>A05</td>
</tr>
<tr>
<td>Aucerna</td>
<td>C02</td>
</tr>
<tr>
<td>Calsep Asia Pacific Sdn. Bhd</td>
<td>A07</td>
</tr>
<tr>
<td>Contract Resources</td>
<td>P08</td>
</tr>
<tr>
<td>Halliburton</td>
<td>A03</td>
</tr>
<tr>
<td>Impact Selector Limited</td>
<td>C08</td>
</tr>
<tr>
<td>Inflatable Packers International Pty Ltd</td>
<td>A11</td>
</tr>
<tr>
<td>KAPPA Engineering</td>
<td>P02</td>
</tr>
<tr>
<td>Oilfield Data Services, Inc.</td>
<td>P01</td>
</tr>
<tr>
<td>Open Systems International, Inc.</td>
<td>D01</td>
</tr>
<tr>
<td>Panasonic</td>
<td>C01</td>
</tr>
<tr>
<td>Production Tool Solution</td>
<td>P03</td>
</tr>
<tr>
<td>R&amp;D Solutions</td>
<td>C07</td>
</tr>
<tr>
<td>Reservoir Link</td>
<td>D07</td>
</tr>
<tr>
<td>Rock Flow Dynamics</td>
<td>D05</td>
</tr>
<tr>
<td>Safer Together</td>
<td>P04</td>
</tr>
<tr>
<td>SANDVIK</td>
<td>A09</td>
</tr>
<tr>
<td>Sasol Performance Chemicals</td>
<td>C04</td>
</tr>
<tr>
<td>Schneider Electric</td>
<td>P07</td>
</tr>
<tr>
<td>Sigra Pty. Ltd.</td>
<td>P06</td>
</tr>
<tr>
<td>Silverwell Energy</td>
<td>A01</td>
</tr>
<tr>
<td>Stepan Asia Pte Ltd</td>
<td>C05</td>
</tr>
<tr>
<td>University of Adelaide</td>
<td>P05</td>
</tr>
</tbody>
</table>
Exhibitor Profiles

**ALS – Booth C06**
478 Freeman Road Richlands 4077 QLD Australia
T: +61 7 3713 8400
www.alsglobal.com

ALS provides coal seam gas desorption and geological services on-site and in our laboratory at Richlands, Queensland. We also provide vacuum sealing core preservation, cool storage and longer term ambient undercover core storage. ALS can also display core for viewing in addition to a variety of analytical services.

**APERGY ARTIFICIAL LIFT– Booth A05**
Office 3B, 33 Queen Street Brisbane City 4000 QLD Australia
T: +61 7 3727 4000
E: aus.sales@apergy.com
www.apergy.com

Apergy Artificial Lift is the leading authority on Artificial Lift and has a complete portfolio of lift types for all stages of well performance. We employ technical expertise from application thru failure analysis. Our data driven, and consultative approach focuses on customer success; maximizing your production targets while lowering costs.

**AUCERNA – Booth C02**
Level 16, 127 Creek Street Brisbane City 4000 QLD Australia
T: +61 7 3148 6728
E: carlos.garrido@3esi-enersight.com
3esi-enersight.com

Esi.portfolio – Portfolio Optimization & Uncertainty Analysis
Esi.manage – Integrated Business Planning & Petroleum Economics
Enersight – Integrated Field Development Planning
AFE Nav – Integrated Capital Management and Tracking
PetroLook – Corporate Reserves Management System
Val Nav – Integrated Forecasting, Economics, & Reserves Software
PetroVR – Simulation Software for Decision Assurance
Planningspace – Cloud based planning platform for the upstream oil and gas industry

**CALSEP ASIA PACIFIC SDN. BHD – Booth A07**
Suite 19-05, G-Tower, 199 Jalan Tun Razak 50400 Kuala Lumpur Malaysia
T: +60 3 2162 6551
F: +60 3 2162 6553
E: kl@calsep.com
www.calsep.com

Calsep is the developer of industry leading PVT Simulator: ‘PVTsim NOVA’ that allows engineers to combine reliable fluid characterization procedures with robust and efficient regression algorithms to match fluid properties. PVTsim NOVA 4.0 has a capability to perform Automated EOS model development. Calsep also offers Equation of state Modelling and PVT simulation services for conventional and unconventional hydrocarbon fluids.
Exhibitor Profiles

**CONTRACT RESOURCES – Booth P08**
2/37 South Street Lytton 4178 QLD Australia  
**T:** 1 300 66 1191  
**E:** sales@contractresources.com  
**www.contractresources.com**

Contract Resources is an Australian owned and operated company with a proud 29 year history providing specialised Industrial and Mechanical Services to the Oil & Gas, Chemical, Mining and the Renewable Energy Industries. Contract Resources has recently commissioned a Mercury Waste treatment facility to complement our catalyst handling services offered.

**HALLIBURTON – Booth A03**
Level 27, 140 St Georges Tce Perth WA 6000 Australia  
**T:** +61 8 6424 4801  
**E:** Fiaz.babu@halliburton.com  
**www.halliburton.com**

Halliburton is one of the largest oilfield service providers to the energy industry. The Company helps its customers maximize value throughout the reservoir lifecycle – from locating hydrocarbons and managing geological data, to drilling and formation evaluation, well construction and completion, and optimizing production throughout the life of the asset.

**IMPACT SELECTOR LIMITED – Booth C08**
Level 8, 225 St Georges Terrace Perth WA 6000 Australia  
**T:** +61 447 900 727  
**E:** steve.irvine@impactselector.com  
**www.impactselector.com**

Impact Selector’s products and services optimise intervention costs by extending the reliable range of cost effective open hole and cased hole e-line and slickline conveyed interventions and reducing the risk of fishing and lost equipment. Products include slickline jars, mono and multi conductor e-line jars, software modelling, Roller Bogie®, I-Wheel™ and Advanced Kickover tools, safety valve maintenance and other specialist tools.

**INFLATABLE PACKERS INTERNATIONAL PTY LTD – Booth A11**
1 Pitino Court Osborne Park Perth Western Australia 6017, Australia  
**T:** +61 8 9204 2448  
**F:** +61 8 9204 2449  
**E:** info@ipipackers.com  
**www.inflatable-packers.com**

IPI (Inflatable Packers International) Engineers and Manufactures robust “tubeless” inflatable packers and associated equipment in Perth Western Australia. IPI serves the global O&G industry in both conventional and unconventional oil and gas markets. We are a world leader in Custom and OEM products with flexibility in application specific engineered solutions.
KAPPA ENGINEERING – Booth P02
Level 28 AMP Building, 140 St.Georges Tce.
Perth WA 6000 Australia
T: +61 8 9278 2461
E: info@kappaeng.com
www.kappaeng.com

KAPPA is an upstream petroleum engineering software, training and consulting company specialised in the field of Dynamic Data Analysis. KAPPA develops and markets the industry standard Saphir (PTA), Emeraude (PL) software, and we offer integrated workflows for handling PDGs and Unconventional Resources, including CSG reservoirs.

OILFIELD DATA SERVICES, INC. – Booth P01
2107 Brun St Houston TX 77019 USA
T: +1 713 521 4571
E: chris.fair@oilfielddataservices.com
odsi-energy.com

ODSI provides a Real-Time Reservoir and Production Engineering Surveillance Service. The service calculates rates and water cuts, calculates BHPs, then automatically analyzes any PBUs or Drawdowns for skin, perm, and productivity. It also tells you how much oil/gas you have left!

OPEN SYSTEMS INTERNATIONAL, INC. – Booth D01
4101 Arrowhead Drive Minneapolis Minnesota
USA 55340
T: +1 763 551 0559
F: +1 763 551 0750
E: info@osii.com
www.osii.com

Open Systems International provides open, state-of-the-art and high-performance automation solutions to utilities worldwide. These include SCADA systems, NMS, EMS, ADMS, OMS, GMS, Substation Automation, Data Warehousing (Historians) Analytics, DERMS, Situational Awareness Systems, Pipeline Network Management systems, individual software and hardware products and Smart Grid solutions for utility operations.

PANASONIC – Booth C01
1 Innovation Road Macquarie Park NSW 2113
Australia
E: Panasonic.business@au.panasonic.com
www.business.panasonic.com.au

With the enormous investment in the discovery and production of oil and gas, unplanned downtime is simply unacceptable. That’s why many oil and gas companies count on the dependability and durability of Panasonic’s rugged mobile devices to stay connected to systems, applications and communications network.
Exhibitor Profiles

PRODUCTION TOOL SOLUTION – Booth P03
2210 Soledad Canyon Rd Acton CA 93510 USA
T: +1 972 741 5513
E: rhicks@ptsprotects.com
www.ptsprotects.com

Production Tool Solution provides run life improvement tools for downhole pumping systems. With over 3000 of our Pressure Actuated Relief Valves (diverter valves) installed in Queensland, we have improved pump run life while drastically reducing the number of flush-bys.

R&D SOLUTIONS – Booth C07
Suite 3 Level 1 610 Murray Street West Perth WA 6005 Australia
T: +61 4 1547 7692
E: alistair.paterson@randd-solutions.com
www.randd-solutions.com

Representative for:
• Interwell Completions
• Wellvene Completion Products
• Mohawk Energy Expandable Casing & Patches
• Flopetrol Sandaband Abandonment Technology
• Lee Energy Systems – Gator Tools
• KCI – Wellhead Sealant Products
• Delphium Ballistic – TriStim Perforating Systems
• Ardyne Casing Recovery Tools
• Hydrawell – Perforate, Wash, Cement Systems
• Titan – Organic Oil Recovery

RESERVOIR LINK – Booth D07
Unit 29-5, Menara 1MK, No.1 Jalan Kiara, Mont Kiara 50480 Kuala Lumpur Malaysia
T: +60 3 6201 9969
F: +60 3 6201 0969
E: sales@reservoirlink.com
www.reservoirlink.com

IOR chemicals specialized solutions to remediate formation damage problems in order to Enhance the productivity of hydrocarbon producing assests (i.e wells).

Poseidon
POSEIDON®: Pre-emptive Offshore Structural Evaluation and Integrity Decision Network, an autonomous structural health monitoring system that is deployed to detect potential structural defects on a global and local condition level.

ROCK FLOW DYNAMICS – Booth D05
Suite 179, Level 5, 580 Hay Street Perth 6000 WA Australia
T: +61 408 794 666
E: james.mullins@rfdyn.com
www.rfdyn.com

Rock Flow Dynamics (RFD) develops software for the petroleum industry. It offers a wide range of advanced innovative tools for reservoir engineering implemented in tNavigator – the dynamic reservoir simulator developed by the company. RFD is expanding quickly to keep up with a fast growing Oil & Gas service industry.
Exhibitor Profiles

SAFER TOGETHER – Booth P04
PO Box 631 Fortitude Valley Brisbane 4006
Queensland Australia
T: 1300 723 869
E: niels.bendixsen@safertogether.com.au
www.safertogether.com.au

The Queensland, Western Australia and Northern Territory Oil and Gas Exploration & Production Industry Safety Forum (known as Safer Together) is a not-for-profit, member-led organisation of Operating Companies and Contract Partner Companies committed to creating leadership and collaboration needed to build a strong and consistent safety culture in our industry.

SANDVIK – Booth A09
No.8 Jalan TP 5 Taman Peridustrian UEP,
Subang Jaya 47600 Selangor Malaysia
T: +60 16 226 0192
E: kukuh.soerowidjojo@sandvik.com

Sandvik has supplied upstream oil and gas industry to provide materials and engineering solutions in drilling and well completion, subsea infrastructure and well intervention and as a world market leader in umbilical tubing with new encapsulation plant in Malaysia. TenarisHydril is a global alliance to supply CRA OCTG since 2003.

SASOL PERFORMANCE CHEMICALS – Booth C04
Anckelmannsplatz 1 Hamburg 20537 Germany
T: +49 40 63684 1000
F: +49 40 63684 3700
E: info@sasol.com
www.sasol.com

Sasol is an international integrated chemical and energy company that leverages technologies and expertise of about 30,000 people working in 36 countries. Sasol manufactures production chemicals, drilling fluid components, EOR surfactants, well treatments and stimulants, viscosity modifiers, and cleaning chemicals at facilities around the world. Contact us at oilfield@sasol.com for your Oilfield and EOR chemical needs.

SCHNEIDER ELECTRIC – Booth P07
80 Schneider RD Eagle Farm 4009 QLD Australia
T: 137328
E: steve.ledger@se.com

Complete Electrical and Automation solutions for Oil and Gas. Specialising in Wellhead solutions requiring Artificial Lift control, protection and optimization. Leader in applying IIOT and Machine Learning technology for enhanced insights and analytics.
**Exhibitor Profiles**

**SIGRA PTY. LTD. – Booth P06**
93 Colebard St. West, Acacia Ridge Brisbane
QLD 4110 Australia
**T:** +61 7 3216 6344  
**E:** info@sigra.com.au  
**sigra.com.au**

Sigra can supply a total service for exploration and production for coal seam gas. This includes measurement of all field and laboratory parameters relating to gas storage and permeability. Sigra can produce resource and reserve estimates and design suitable production strategies for optimized results.

**SILVERWELL ENERGY – Booth A01**
JLT, Cluster W, JBC 5, Office 2803 Dubai
United Arab Emirates
**T:** +971 4564 7426  
**E:** maha.raya@silverwellenergy.com  
**www.silverwellenergy.com**

Silverwell offers the Digital Intelligent Artificial Lift (DIAL) product range which packages Binary Actuation Technology as electronically actuated, real-time monitored and controlled gas-lift system. DIAL’s Artificial Lift Intelligence overcomes limitations of existing Completion equipment, eliminates well intervention and enables an enhanced approach to gas lift production optimization.

**STEPAN ASIA PTE LTD – Booth C05**
2, International Business Park, #02-15,
The Strategy Singapore 609930
**T:** +65 6379 9599  
**F:** +65 6379 9570  
**E:** liam@stepan.com  
**www.stepan.com/Markets/Oilfield.aspx**

Stepan Oilfield Solutions has developed a wide range of high-performance chemical solutions, offering both components and formulated intermediates into the Upstream sector covering Drilling, Cementing, Completions, Hydraulic Fracturing, Production, and IOR/EOR technologies. Our key product lines include foamers for gas well dewatering and surfactants used in stimulation formulations.

**UNIVERSITY OF ADELAIDE – Booth P05**
North Terrace Adelaide SA 5005 Australia
**T:** +61 8 8313 1448  
**E:** pavel.simcik@adelaide.edu.au  
**www.adelaide.edu.au**

The University of Adelaide is a world-class research and teaching institution. The Institute for Mineral and Energy Resources meets global mineral and energy challenges with multidisciplinary solutions. The Australian School of Petroleum is an industry-sector School, which undertakes teaching and research in three disciplines; petroleum engineering, petroleum geoscience and petroleum management.
Supporting Organisations

Media Supporters
SPE Symposium: Decommissioning and Abandonment
Shaping Asia Pacific’s Decommissioning and Abandonment Future
3–4 December 2018 | Pullman Kuala Lumpur City Centre, Kuala Lumpur, Malaysia

Distinguished Speakers:
- Mazin Ismail
  Senior Vice President, Project Delivery & Technology (PD&T)
  PETRONAS
- Bundit Pattanasak
  Acting Senior Vice President, Technology and Knowledge Management Division
  PTTEP
- Paul R. Krause
  Partner
  Environmental Resources Management
- Mike Bishop
  Project Manager,
  Rev Decommissioning Projects
  Repsol Norway AS

Highlights
Executive plenary and panel sessions by industry leaders
- 200+ participants from 10+ countries
- 50+ industry and technology expert speakers
- 20+ hours of focused technical and Knowledge Sharing ePoster sessions
- 6+ hours of networking breaks
- Technical showcase of cutting-edge services and solutions

SPE/IATMI Asia Pacific Oil & Gas Conference and Exhibition
29–31 October 2019 | Bali, Indonesia

Call for Papers Open:
- Submit your paper proposal online by 30 November 2018

For more information visit go.spe.org/19APOGC