### Monday 14 May

#### CONFERENCE REGISTRATION

**Foyer F, Adelaide Convention Centre**

Join fellow delegates and collect your registration packs prior to attending the Welcome Reception at 6:00pm.

#### PESA DEAL DAY

**PESA Deal Day**  City Rooms 1–4, Upper Level—West

The Petroleum Exploration Society of Australia (PESA) ‘Deal Day’ Seminar is the annual showcase for acreage and farm-in opportunities in Australia and the neighbouring region in a presented papers format.

#### CYCLE TOUR

**Cycle Tour**  Meet at the Main Entrance Plaza, East Building, Adelaide Convention Centre

Qualified cycle guides will escort the group as they ride through the scenic areas of Adelaide, with refreshments provided during a scheduled break in the ride.

#### SITE TOUR

**Site Tour: ‘Innovation and Excellence’**

On this pre-conference site visit, delegates will have the opportunity to explore three very unique facilities in Adelaide. The tour will include the Innovation District at Tonsley, the Onshore Petroleum Centre of Excellence (OPCE), and the South Australia Drill Core Reference Library. The tour will end with afternoon tea and networking at the Drill Core Library before delegates are returned to the Adelaide Convention Centre.

#### WELCOME RECEPTION

**Welcome Reception: ‘You had me at Merlot…’**

**Panorama Ballroom, Upper Level—West**

When it comes to introducing great food and wine regions, South Australia had us at Merlot! Join us for the first official social function of APPEA 2018 as we showcase the best local wines and produce the Festival State has to offer.

Complimentary to full delegates. $95 per person to all other registration categories and additional guests.

Smart casual attire.

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**Program is subject to change.**

*Denotes presenter if not lead author.*
Tuesday 15 May

7:30am–8:20am  **Presenters’ Breakfast**  Foyer A/B, Upper Level—East  |  BY INVITATION ONLY

7:30am–5:00pm  **Conference Registration**  Foyer F, Ground Level—Central

8:00am–6:00pm  **APPEA 2018 Exhibition open**  Exhibition Hall, Ground Level—Central

8:00am–6:00pm  **APPEA 2018 Poster Presentations open**  Exhibition Hall, Ground Level—Central

8:00am–6:00pm  **KPMG Meeting Zone open**  Exhibition Hall, Ground Level—Central

Need to escape the buzz for a meeting? With two private meeting rooms, seating up to eight per room, this complimentary service is available for one-hour periods.

8:30am–10:15am  **PLENARY: Resilient business—success in the new energy market**  Room C/D, Ground Level

**CHAIR:**  Dr Malcolm Roberts, Chief Executive, APPEA

The opening session of APPEA 2018 will deliver addresses from key political and industry figures including the newly elected APPEA Chairman, Mrs Zoe Yujnovich.

**Conference Opening Ceremony**

**South Australia State Government Address**  The Hon Steven Marshall MP, Premier of South Australia

**Australian Government Address**  Senator the Hon Matt Canavan, Minister for Resources and Northern Australia

**Lead Industry Address**  Mr Kevin Gallagher, Managing Director and Chief Executive Officer, Santos

**APPEA Chairman’s Address**  Mrs Zoe Yujnovich, Country Chair, Shell Australia and Executive Vice President, Australia & New Zealand

10:15am–11:00am  **Morning Tea in the Exhibition Hall**  SPONSORED BY aggreko
Tuesday 15 May

11:00am–12:30pm

PLENARY: Energy transformation—the future is now

Room C/D, Ground Level

FACILITATOR: Ms Wendy King, President Australia East, ConocoPhillips Australia

The global energy system is in a period of unprecedented transformation. How does the industry succeed as this transformation occurs, meeting the needs of our own markets in Australia and also the growing energy needs in our region? Speakers will provide perspectives, drawing on their extensive industry experience, to provide a headline session concluding with a truly international panel discussion.

Competing options for energy transformation: implications for Australia
Ms Amy Myers Jaffe, Director, Energy & Climate Change, Council on Foreign Relations

Shaping our shared energy advantage
Mr Nigel Hearne, Managing Director, Chevron Australia

Unlocking Australia’s energy future
Dr Larry Marshall, Chief Executive, Commonwealth Scientific and Industrial Research Organisation (CSIRO)

The next wave of LNG growth
Mr Peter Coleman, Managing Director and Chief Executive Officer, Woodside

12:30pm–2:00pm

NETWORKING LUNCH IN THE EXHIBITION HALL
All delegates are invited to enjoy lunch in the exhibition halls and explore the exhibits, poster presentations, Collaboration Centre and Product Presentation Theatre. See pages 29–34 for more details.

12:30pm–2:00pm

APPEA Members’ Lunch
Panorama Ballroom, Upper Level—West | BY INVITATION ONLY

SPONSORED BY
Tuesday 15 May
2:00pm–3:15pm

TECHNICAL AND BUSINESS PROGRAM SESSIONS 1–4

CONCURRENT SESSION 1: CSG engineering  Room E1, Ground Level

CHAIR: Mr David Bentley, General Manager, Drivetrain

Significant reliability improvements in reciprocating gas compressor packages at Arrow Energy
P Parulekar, R Hudson and H Boyd (Arrow Energy)

Predictions of fracture growth in Walloon coals using a layer fracture model
X Zhang, B Wu, L Connell (CSIRO Energy) and Y Han (Aramco Services Company)

Low permeable coal seam gas productivity enhancement by nitrogen alternating injection technique (an adsorption simulation study)  |  H Nguyen, M Sayyafzadeh and M Haghighi (University of Adelaide)

CONCURRENT SESSION 2: Big picture basins  Room A, Upper Level

CHAIR: Dr Kathryn Amos, Senior Lecturer, University of Adelaide

Australia’s premier shale basin: 5 plays 1,000,000,000 years in the making
A Cote, B Richards, C Altman, E Baruch and D Close (Origin Energy)

Unveiling the Canning Basin: a new comprehensive SEEBASE® study  |  K Comors, C Jorand (Frogtech Geoscience), P Haines, A Zhan (Geological Survey of Western Australia) and L Pryer (Frogtech Geoscience)

Insights into the Great Australian Bight gained through marine geology and benthic ecology studies
A Ross (CSIRO Energy), A Williams (CSIRO Oceans and Atmosphere), A Talukder (CSIRO Energy), J Parr (CSIRO Minerals), C Treby, R Kempton, C Stalvies, R Schinteie (CSIRO Energy), A Ezzy (Chevron Australia), A Kulppez (Chevron North American Exploration and Production), C Schaefer (Chevron Europe, Eurasia and Middle East Exploration & Production) and P Rarey (Chevron Australia)

Cretaceous to present-day tectonic reconstructions of Zealandia  |  H Seebeck, D Strogen, P King (GNS Science), A Nicol (University of Canterbury), B Hines (Victoria University of Wellington) and G O’Brien (GNS Science)

CONCURRENT SESSION 3: Gas markets  Room C&D, Ground Level

CHAIR: Mr Chris Tucker, Senior Managing Director, FTI Consulting

Australia’s LNG wars—an industry under fire  |  S Kavonic (Wood Mackenzie)

South Australia’s power sector: renewables, batteries and the future role of gas
N Browne and B Pokharel (Wood Mackenzie)

Evolution of the East Coast gas market  |  P Byrne (Santos)

East Coast gas market supply and demand dynamics  |  J Stabler (Energy Edge)

CONCURRENT SESSION 4: The future in energy  Room B, Upper Level

CHAIR: Mrs Carrie Trembath, Manager Gas Exploration, Beach Energy

Engineering real success using digital technologies  |  C Phasey and S Ashfield (Nova Systems)

Reimagining the future of gas  |  A Jaffray (Santos)

Smart upstream to LNG  |  R Byfield (Yokogawa)

The role of the human in an age of automation  |  B Farrell (EY)

3:15pm–3:45pm  AFTERNOON TEA IN THE EXHIBITION HALL

3:30pm–6:00pm  Meet the Authors  Poster Presentation Area, Exhibition Hall

This is your opportunity to meet the authors of our poster presentations, ask questions and discuss their work. Make sure to vote for your favorite poster using the conference app. See pages 24–26.
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<td>5</td>
<td>Quality project execution</td>
<td>A</td>
<td>Mr. Jonathon Peacock</td>
<td>A Black* (ExxonMobil Australia) and G Saunders* (Advisian WorleyParsons Group)</td>
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<td>6</td>
<td>Geophysical innovation</td>
<td>B</td>
<td>Dr. Steve Mackie</td>
<td>L Tilbury and A Gerhardt (Woodside Energy)</td>
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<td>7</td>
<td>Stay safe</td>
<td>E1</td>
<td>Ms. Fiona Hicks</td>
<td>R Selleck (Clough)</td>
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<td>8</td>
<td>Energy frontiers</td>
<td>C&amp;D</td>
<td>Mr. Paul Taliangis</td>
<td>D Tyzack (BP Australia), L Sullivan* (UGL Ltd) and presenter only: Tim Norman (BP Australia)</td>
</tr>
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</table>

*Denotes presenter if not lead author
Tuesday 15 May

5:00pm–6:00pm

Happy Hour in the Exhibition Hall

Time to network and debrief on the current topics and key discussions of the day and an opportunity to ‘Meet the Authors’ of posters in the Poster Presentation area.

Complimentary to delegates and exhibitors. Includes drinks and light refreshments. Business attire.

6:00pm onwards

EVENING FREE:

This is the night to host your clients and suppliers in the bustling city of Adelaide that boasts both exceptional food and magnificent wines.
Wednesday 16 May

7:30am–5:00pm  
**Conference Registration**  Foyer F, Ground Level—Central

8:00am–6:00pm  
**APPEA 2018 Exhibition open**  
Exhibition Hall, Ground Level—Central  
SPONSORED BY wood.

8:00am–6:00pm  
**APPEA 2018 Poster Presentations open**  
Exhibition Hall, Ground Level—Central  
Last chance to cast your vote for your favorite poster via the mobile app  
SPONSORED BY bp

8:00am–6:00pm  
**KPMG Meeting Zone open**  
Exhibition Hall, Ground Level—Central  
The KPMG Meeting Zone—an ideal place to meet for an hour, with two private meeting zones, seating up to eight people. Available for bookings in advance and/or onsite.  
SPONSORED BY KPMG

8:30am–10:30am  
**PLENARY: Diversity and inclusion—what is beyond the ‘tick box’?**

Room C/D, Ground Level  
SPONSORED BY BHP

CHAIR: Mr Graham Salmond, General Manager Australia Petroleum, BHP Billiton Petroleum

**This session will consider what diversity and inclusion really means for the industry, present case studies on approaches to diversity and inclusion, consider successes and failures and contemplate what comes next.**

Opening comments by facilitator  
Ms Diane Smith-Gander, Non-Executive Director, Wesfarmers & AGL Energy

Diverse teams create effectiveness and deliver success  
Ms Catherine McGregor AM

Pioneering progress on diversity and inclusion  
Ms Kellie Parker, Managing Director, Pilbara Assets and Development, Rio Tinto

What does success look like for diversity and inclusion in the marketplace?  
Mr Tom Quinn, Chief Executive, Resources, Broadspectrum, A Ferrovial Services company

10:30am–11:15am  
**MORNING TEA IN THE EXHIBITION HALL**  
SPONSORED BY aggreko
Wednesday 16 May

11:15am–12:30pm

TECHNICAL AND BUSINESS PROGRAM SESSIONS 9–12

**CONCURRENT SESSION 9: 2018 Acreage releases**  Room C&D, Ground Level

**CHAIR:** Ms Lisa Schofield, General Manager–Offshore Resources Branch, Resources Division, DIIS

- **The 2018 offshore petroleum exploration acreage release**
  L Schofield (Department of Industry, Innovation and Science)

- **Petroleum geology of the 2018 offshore acreage release areas**
  T Bernecker, G Bernardel, C Orloy and N Rollet (Geoscience Australia)

- **A new compact for communities, government and the resources sector**
  J Purtill (Queensland Department of Natural Resources, Mines and Energy)

- **Australian onshore petroleum acreage and releases 2018**
  E Alexander (South Australian Department of the Premier and Cabinet)

**CONCURRENT SESSION 10: A closer look at the rocks**  Room E1, Ground Level

**CHAIR:** Mr Jonathan Rudd, Reservoir Engineer, Santos

- **Effect of kaolinite content on formation damage due to fines migration: systematic laboratory and modelling study**
  T Russell, L Boechat Chequer, A Badalyan, Z You and P Bedrikovetsky* (University of Adelaide)

- **Rock typing and facies identification using fractal theory and conventional petrophysical logs**
  R Koochak, M Haghighi, M Savyatzadeh and M Bunch (University of Adelaide)

- **The importance of optimal geological zonation and choice of rock parameters in dynamic reservoir simulation: a case study for the Laminaria Field**
  P Behrenbruch (Bear and Brook Consulting), T Hoang* (University of Adelaide), K Bui, M T Do Huu and T Kennaird (Bear and Brook Consulting)

**CONCURRENT SESSION 11: Northern basins—go north young explorer**  Room B, Upper Level

**CHAIR:** Dr Robbert Willink, Non-Executive Director, Metgasco

- **The stratigraphic architecture, distribution and hydrocarbon potential of the organic rich Kyalla and Velkerri shales of the Upper Roper Group (McArthur Basin)**
  M Sheridan, R Johns (Santos), H Johnson (Imperial College London) and S Menpes (Santos)

- **Petroleum systems of the Proterozoic in Northwest Queensland and a description of various play types**
  J Gorton and A Troup (Queensland Department of Natural Resources, Mines and Energy)

- **Exploration of the south-eastern part of the frontier Amadeus Basin, Northern Territory, Australia**
  F Bache, P Walshe, J Gusterhuber, S Menpes, M Sheridan, S Vlasov and L Holmes (Santos)

- **Panel discussion**

**CONCURRENT SESSION 12: Risky business**  Room A, Upper Level

**CHAIR:** Mr Michael Abbott, Senior Vice President Corporate and Legal, Woodside

- **Accelerating oil and gas investment and reserves by design**
  B Goldstein (South Australian Department of the Premier and Cabinet)

- **The prisoner's dilemma: gaming risk in joint venture gas arrangements**
  S McAllister-Smith* and J Spanjaard* (Deloitte)

- **Shining the spotlight on the Petroleum Resource Rent Tax**
  K Wee (Australian Taxation Office)

- **Contracting with small businesses: include unfair terms in your standard form contracts at your peril**
  A Freeman* and presenter only: Tom Griffith* (Piper Alderman)

PROGRAM IS SUBJECT TO CHANGE  |  *DENOTES PRESENTER IF NOT LEAD AUTHOR
**Wednesday 16 May**

**12:30pm–2:00pm**  
**NETWORKING LUNCH IN THE EXHIBITION HALL**  
All delegates are invited to enjoy lunch in the exhibition halls.  
Remember to visit the Product Presentation Theatre to hear exhibitor presentations about their latest technologies, products and innovations.

**2:00pm–3:15pm**  
**TECHNICAL AND BUSINESS PROGRAM SESSIONS 13–16**

### CONCURRENT SESSION 13: PESA—2017 in review  
Room B, Upper Level

**CHAIR:** Ms Bonnie Lowe-Young, PESA SA/NT Vice President

- **Australian exploration review 2017**  
  M Quinn and F Hulbert (IHS Markit)

- **Petroleum production and development across Australia 2017**  
  G Bethune and S Bethune (EnergyQuest)

- **Digital transformation of the oil, gas and energy value chain**  
  P Taliangis (Core Energy)

### CONCURRENT SESSION 14: Innovative engineering  
Room E1, Ground Level

**CHAIR:** Mr Phil Ireland, Project Engineer/Business Development Manager Oil & Gas, Clough

- **Pioneering large li-ion batteries on offshore platform**  
  N Nguyen, L Jacobs* and R Beccarelli (Woodside Energy)

- **Risk-based corrosion assessment and refurbishment of marine structures**  
  S Dickinson*, K Wilson, A Sarandily (AECOM Australia), R Van der Werf*, S Sheen and P Crawley (Woodside Energy)

- **Wellsite serviced power model for the CSG industry**  
  G Harris (CD Power)

### CONCURRENT SESSION 15: Cooper Basin—everything old is new again  
Room C&D, Ground Level

**CHAIR:** Ms Elinor Alexander, Director Geoscience and Exploration, South Australian Department of the Premier and Cabinet

- **Exploiting the Cooper Basin: conventional lessons and appropriate analogues to guide an unconventional future**  
  B Richards and A Cote (Origin Energy)

- **Exploring for stratigraphic traps in the Patchawarra Formation, Cooper Basin: an integrated seismic methodology**  
  A Bennett (Beach Energy)

- **Play based exploration in the southern Cooper Basin: a systematic approach to exploration in a mature basin**  
  DA Lockhart, E Riel, M Sanders, A Walsh, GT Cooper and M Allder (Senex Energy)

- **Panel discussion**

### CONCURRENT SESSION 16: Working on the land  
Room A, Upper Level

**CHAIR:** Mr Eric Streitberg, Executive Chairman, Buru Energy

The Queensland gas industry relies on access to private land and has negotiated thousands of access agreements with private landholders. Ensuring the land access process is positive and professional from the landholder’s perspective is fundamental to the long term success of the industry. While there were some mistakes made in the early days, the industry now has a considerable depth of knowledge and expertise in land access, including how company practices shape landholder experience and how government regulation can help or hinder. Representatives from leading onshore gas producers will present followed by a facilitated panel discussion. Presenters include: Anthea Patch (Arrow Energy), Kelli How (QGC) and Natasha Patterson (Origin Energy).

**3:15pm–3:45pm**  
**AFTERNOON TEA IN THE EXHIBITION HALL**  
SPONSORED BY aggreko
Wednesday 16 May
3:45pm–5:00pm

TECHNICAL AND BUSINESS PROGRAM SESSIONS 17–20

CONCURRENT SESSION 17: Data analytics in engineering  Room E1, Ground Level
CHAIR: Mr Brett Woods, Vice President Eastern Australia, Santos

The effective use of data analytics in an advanced compressor performance and degradation monitoring system
R Lucas* (Origin Energy), A Jones* (Xodus Group), W Ford (Origin Energy) and M Doyle (Xodus Group)

Using technology and innovation to deliver a step change in CSG workover rig services
T Phelan (Easternwell)

Reducing rig personnel requirements with standards-based real-time data streaming
R Philo and J Hollingsworth (Energistics)

Panel discussion

CONCURRENT SESSION 18: Modern field development  Room C&D, Ground Level
CHAIR: Mr Jeffrey Schrull, Group Executive Exploration & Development, Beach Energy Limited

The Halladale–Speculant fields: the first nearshore gas fields to be developed from mainland Australia
A Constantine, G Morgan*, R O’Leary (Lattice Energy) and S Smith (Origin Energy)

Investigating depth structure uncertainty for horizontal well placement, Bauer Field, Cooper-Eromanga Basin
E Shirley (Beach Energy)

Fully integrated dynamic reservoir and well simulation model: Blacktip gas field case study
R Yokote, M Albarzani, Y Suhardiman (Eni Australia), A Tran, E Dharma Putra and N Rodriguez (Schlumberger Australia)

CONCURRENT SESSION 19: Social license  Room A, Upper Level

CHAIR: Mr Ashley Watson, Partner, Piper Alderman

Social media use in the Australian energy and resources sectors
C Styan (University College London)

Earning community trust to operate—Northern Gas Pipeline
J Spink (Jemena)

Bursting bubbles: can experiments and analogues help stakeholders and the public visualise risks?
L Stalker (CSIRO), J Roberts (University of Strathclyde) and L Mabon (Robert Gordon University)

Panel discussion

CONCURRENT SESSION 20: Carbon conscious  Room B, Upper Level
CHAIR: Mr Ernie Delfos, Managing Director, Eni Australia

Radical disruption—renewables, technology and the arrival of ‘peak gas’
G Thompson (Wood Mackenzie)

Zero routine flaring by 2030: a new global industry standard
J Cutler, B Hamso and F Sucre (The World Bank Group)

What comes next: responding to recommendations from the task force on climate-related financial disclosures
S Tyagi (ERM) and E Turley (Origin Energy)

Big oil in 2030: thriving (and driving) in a carbon constrained future
B Cullinane* (Deloitte) and S McGill* (Tawa Clean Energy)
Wednesday 16 May

5:00pm–6:00pm

Happy Hour in the Exhibition Hall
Share ideas over a refreshing drink before you prepare for the Conference Dinner.

Complimentary to delegates and exhibitors. Includes drinks and light refreshments. Business attire.

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Conference Dinner

7:30pm–midnight

Experience the Iconic—Adelaide Oval

‘Experience the Iconic’ at the annual Conference Dinner as you dine at the historic, world-renowned Adelaide Oval—the most famous of South Australian venues.

Take in a tour of the Donald Bradman museum, absorb the atmosphere of the ground, before soaking up an evening of superb food and beverage, while enjoying our feature entertainment. Which icon will it be in 2018?

Cocktail/lounge suit.

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PROGRAM IS SUBJECT TO CHANGE
### Thursday 17 May

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<td>8:30am–10:30am</td>
<td><strong>PLENARY</strong></td>
<td>Room C/D, Ground Level</td>
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<td><strong>CHAIR:</strong> Mr Richard Owen, Chairman, ExxonMobil Affiliates in Australia</td>
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<td><strong>Federal Opposition address</strong></td>
<td>Senior Representative, Federal Opposition</td>
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<td><strong>Technology and innovation—the keys to a resilient business</strong></td>
<td>This session will bring together industry experts to consider in a ‘hands on’ way, the industry’s use of technology to enable it to thrive in the future, combined with a crystal ball of what is the shape of things to come.</td>
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<td><strong>FACILITATOR:</strong> Dr Alex Wonhas, Managing Director, Energy, Resources and Manufacturing, Aurecon</td>
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<td><strong>Delivering innovation—think big, prototype small, scale fast</strong></td>
<td>Mr Shaun Gregory, Senior Vice President and Chief Technology Officer, Woodside</td>
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<td><strong>Automation and robotics in oil and gas—what can we learn from other industries?</strong></td>
<td>Mr Alan Fotheringham, President Strategy and Development Specialist Technical Services, Woodside</td>
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<td><strong>Delivering value from digital in oil and gas</strong></td>
<td>Mr Christiaan Heyning, Founding Partner, McKinsey &amp; Company</td>
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Thursday 17 May

10:30am–11:15am MORNING TEA IN THE EXHIBITION HALL

SPONSORED BY aggreko

TECHNICAL AND BUSINESS PROGRAM SESSIONS 21–24

CONCURRENT SESSION 21: Decommissioning — is it the end? Room A, Upper Level
CHAIR: Mr Andrew Taylor, Associate Director, APPEA

Decommissioning—what’s the fuss about? | P Saraceni and K Liddle (Clifford Chance)
Building a world-class Australian decommissioning industry | K Bills (WA Energy Research Alliance)
Decommissioning: taking control of your committed investment | R Polson (Deloitte)
Case study: successful disconnection of a traditional floating production storage and off-loading unit (FPSO) | S Gajula* (Eni Australia) and B Peuchot* (Technip FMC)
Perspectives on successful CSG well decommissioning | C Huddlestone-Holmes, T Measham, T Jeanneret and J Kear (CSIRO)
Panel discussion

CONCURRENT SESSION 22: A new Australian petroleum province Room C&D
CHAIR: Mr Fred Wehr, Group Executive, Subsurface, Quadrant Energy

Recent exploration results in the Lower Triassic, Bedout Sub-basin—Australia’s next petroleum province? | M Thompson, F Wehr, J Woodward, J Minken, G D’Orazio, F Fernandes, M Kongowoin, L Hansen, D Kuek and R Fabrici (Quadrant Energy)
Tectonostratigraphic framework of the lower Keraudren Formation, Bedout Sub-Basin—interplay of tectonics and sedimentary systems | J Minken, M Thompson, J Woodward, F Fernandes and R Fabrici (Quadrant Energy)
The Lower Triassic Caley member: depositional facies, reservoir quality and seismic expression | J Woodward, J Minken, M Thompson, M Kongowoin, L Hansen and R Fabrici (Quadrant Energy)
Geomechanical insights in the Bedout Sub-basin: exploiting technologies for understanding reservoir settings | D Castillo (Insight GeoMechanics), D Kuek, M Thompson, F Fernandes, J Minken and T Colson (Quadrant Energy)
Panel discussion

CONCURRENT SESSION 23: The edge of environment Room E1, Ground Level
CHAIR: Dr Luke Twomey, CEO, Western Australian Marine Science Institution (WAMSI)

Navigating the Great Australian Bight using systems models | C Bulman, E Fulton (CSIRO Oceans and Atmosphere) and S Goldsworthy (South Australian Research and Development Institute)
Innovation and technology in marine science: AIMS’ north west shoals to shore research program | M Parsons, M Meekan, K Miller, M Thums and J Gilmore (Australian Institute of Marine Science) presenter only: M Dommisse
An overview of the new geological and bioregional assessments program | A Swirepik, A Stacey and R Dann (Department of the Environment and Energy)
Update of the information guidelines to improve scientific information provided to the Independent Expert Scientific Committee on coal seam gas and large coal mining development | G Walker (Member, Independent Expert Scientific Committee), S Taylor, P Baker and M Bouma (Department of the Environment and Energy)
The role of marine science in managing environmental risk offshore | P Hardisty, M Dommisse and K Cooper (Australian Institute of Marine Science)
Panel discussion

PROGRAM IS SUBJECT TO CHANGE | *DENOTES PRESENTER IF NOT LEAD AUTHOR
Thursday 17 May

TECHNICAL AND BUSINESS PROGRAM SESSIONS 21–24 cont.

CONCURRENT SESSION 24: A new way of looking at projects
Room B, Upper Level

CHAIR: Dr Andrew Heap, Chief, Resource Division, Geoscience Australia

LNG as marine fuel—where technology meets logistics
D Raitt (Lloyds Register Asia), and presenter only: J Baker (Lloyds Register Asia)

Leading the WAY: Western Australia’s the key to driving LNG as a marine fuel
W Purio* (LNG Marine Fuel Institute), M Bowen*, A van der Walt (Jackson McDonald) and S Panizza, (LNG Marine Fuel Institute)

A new approach to value creation—stranded gas resource commercialisation via low-cost small-scale floating LNG projects
D Cha (Transborders Energy)

Helium in the Australian liquefied natural gas economy
C Boreham, D Edwards (Geoscience Australia), R Poreda (University of Rochester), T Darrah (Smart Gas Sciences), R Zhu, E Grosjean, P Main, K Waltenberg and P Henson (Geoscience Australia)

Optimising energy sourcing and consumption in the oil and gas sector
D Danilovich (KPMG)

Panel discussion

1:00pm–2.30pm NETWORKING LUNCH IN THE EXHIBITION HALL

Take this last opportunity to meet with the exhibitors from the full supply chain. Visit the Product Presentation Theatre to hear presentations about exhibiting companies latest technologies, products and innovations.

1:00pm–2.30pm Authors’ Lunch
Panorama Ballroom, Upper Level—West | BY INVITATION ONLY
Thursday 17 May

2:30pm–4:15pm

PLENARY: A resilient supply chain

Room C/D, Ground Level

FACILITATOR: Mr Nathan Roost, Partner, EY

What does success look like in the new energy market?
In this session, hear from major producers and contractors, small businesses and start-ups as they discuss how to secure business in the new energy market, how to build enduring relationships and consider what each part of the supply chain is looking for in the other.

Unlocking value in the new energy market
Mr Peter Bennett, Chief Executive Officer and Managing Director, Clough

Beach Energy’s growth in the Australian gas market—leveraging the supply chain
Mr Lee Marshall, Group Executive Corporate Strategy and Commercial, Beach Energy

International perspective: making the supply chain work for you
Mr Andrew Kavanagh, Vice President, NEXT Compression (Canada)

From start up to success
Mr Doug Bester, Managing Director, Sentient Computing

Panel discussion

Award presentations

APPEA Closing Address | Dr Malcolm Roberts, Chief Executive, APPEA

FAREWELL COCKTAILS

4:15pm–6.15pm

Southern Send-Off—Outdoor Terrace, Adelaide Convention Centre
South Australia bids APPEA 2018 delegates farewell on the banks of the River Torrens in the Innova Global Platinum Club. As the sun sets, take up the last opportunity to mix with your fellow colleagues. Enjoy live performances with your favourite drop at this memorable Southern Send-off.

$ Complimentary to full delegates.
$50 per person to all other registration categories and additional guests.

Includes drinks and light refreshments.

Smart casual attire.

Friday 18 May: 2018 Australian Oilfield Golf Tournament

The Australian Oilfield Golf Tournament (AOGT) has been a staple feature that follows the APPEA annual conference and is now in its 52nd year. The tournament is brought to you by a committee of dedicated volunteers from the oil and gas industry and in 2018 aims to raise funds for a nominated SA Charity.

Contact: Mr John Butler | Butler5052@bigpond.com | +61 417 871 265
The APPEA Conference technical and business program incorporates an extensive poster series comprising 37 outstanding papers. Extended abstracts and peer-reviewed papers of these posters will be included in the APPEA Journal (conference proceedings) provided after the conference.

The poster series will be on display within the Exhibition Hall of the Adelaide Convention Centre from 8:00am to 6:00pm Tuesday and Wednesday, and 8:00am to 3:00pm Thursday. Delegates are encouraged to attend the special ‘Meet the Authors Session’ in the poster area on Tuesday 15 May, 3.30pm–6.00pm to meet the authors and discuss their work.

**GEOSCIENCE**

**G01** Petroleum source rocks of Western Australia  
KA Ghori (Department of Mines, Industry Regulations and Safety)

**G02** Drilling data analysis of deep coal seams of the Cooper Basin  
A Salmachi, E Dunlop* and M Rajabi (University of Adelaide)

**G03** Numerical investigation of dynamic and static properties of reservoir rocks  
M Abdolghafurian, B Joodi, S Iglauer and M Sarmadivaleh (Curtin University)

**G04** Using autonomous underwater gliders for geochemical exploration surveys  
L Russell-Cargill, B Craddock, R Dinsdale, J Doran, B Hunt and B Hollings (Blue Ocean Monitoring)  
presenter only: Niall Turnbull (Blue Ocean Monitoring)

**G05** Determining paleo-structural environments through natural fracture and calcite twin analyses: a case study in the Otway Basin, Australia  
H Burgin, K Amrouch, M Rajabi, D Kulikowski and S Holford (University of Adelaide)

**G06** Composition changes of hydrocarbons during secondary petroleum migration  
S Borazjani, D Kulikowski, K Amrouch and P Bedrikovetsky (University of Adelaide)

**G07** The permeability structure of fault zones in sedimentary basins: a case study at the Castle Cove Fault, Otway Basin  
N Debenham, (University of Adelaide), N Farrell (University of Aberdeen), S Holford, R King (University of Adelaide) and D Healy (University of Aberdeen)

**G08** Effects of near surface lithology on velocity modelling and time-depth relationships in the Cooper-Eromanga-Lake Eyre Basin  
A Manka (University of Adelaide), G Buick, R Menpes, L Gardiner (Beach Energy), Cameron Jones and K Amrouch (University of Adelaide)

**G09** An outcrop analogue for deepwater salt withdrawal mini basins: lateral and vertical variations in basin-fill  
B Fernandes, K Amos (University of Adelaide), T Payenberg and S Lang (Chevron Australia)

**G10** Mapping geology beneath volcanics using magnetic data  
I Kivist, S Markham, L Mellion (Archimedes Consulting) and D Boyd (University of Adelaide)

**G11** Full waveform inversion: early start of model building process to resolve the complex near surface model in the Exmouth Basin, North West Shelf Australia  
L Zhang, H Trihutomo, Y Gong (Schlumberger Australia), B J Lim (WesternGeco) and A Karvelas (Schlumberger Australia)  
presenter only: K Mishra (Schlumberger)
ENGINEERING

E01 Impact of injected water salinity on CO₂ storage efficiency in homogenous reservoirs
E Al-Khdheawi, S Vialle, A Barifcani, M Sarmadivaleh and S Iglauer (Curtin University)

E02 Free drainage of foam mixed with proppants in the presence of nanoparticles
Y Fei, M Gonzalez and M Haghighi (University of Adelaide)

E03 Laboratory measurement of Biot constant and pore pressure influence on poroelastic rock behaviour
H Salemi, S Iglauer, A Rezagholilou and M Sarmadivaleh (Curtin University)

E04 Impact of clay type and water composition on low salinity water injection—visualisation approach
T Amirian and M Haghighi (University of Adelaide)

E05 Streamlining ‘environment in design’ decision making—from concept to operations in major development projects
J Barrow (Jacobs Australia)

E06 Why are decisions for oil and gas projects not always made the way they ‘should’ be?
D Newman, S Begg and M Welsh (University of Adelaide)

E07 How to monitor your safety instrumented system performance
A Yam (Yokogawa Australia)

E08 Esso Pipeline Replacement project
D Bapat* and D Standfield

E09 An experimental investigation into surface roughness of a hydraulic fracture
A Movassagh, M Haghighi (University of Adelaide), D Kasperczyk (CSIRO), M Sayyafzadeh (University of Adelaide) and X Zhang (CSIRO)

E10 Well productivity enhancement applying nano-fluids for wettability alteration
S Naik, G Malgaresi, Z You and P Bedrikovetsky (University of Adelaide)

E11 Psyllium husk performance in drilling fluid at elevated temperature and pressure conditions
S Ly, X Yu, X Zhang and A Salmachi* (University of Adelaide)

E12 Effect of casing eccentricity on the cement sheath integrity
E Arjomand and T Bennett (University of Adelaide)

E13 Injectivity formation damage due to fines migration
L Boechat Chequer (University of Adelaide), M Bagheri (CO2CRC), A Zeinijahromi and P Bedrikovetsky (University of Adelaide)

E14 Low-salinity waterflooding in non-polar oil
A Al-Sarihi, A Zeinijahromi and P Bedrikovetsky* (University of Adelaide)

E15 Coreflood planning criteria for relative permeability computation by Welge-JBN method
A Al-Sarihi, Z You (University of Adelaide), A Behr, L Genolet, P Kowollik (Wintershall Holding GmbH), A Zeinijahromi and P Bedrikovetsky* (University of Adelaide)

E16 Study of phase behaviour and ionic effect of green surfactants in microbial enhanced oil recovery (MEOR)
B Haq (King Fahd University of Petroleum and Minerals), J Liu (University of Western Australia), K Liu (China University of Petroleum—East China) and D Al Shehri (King Fahd University of Petroleum and Minerals)

E17 The insensitivity of thermal diffusivity of natural sediments to saturation
A Ezdini, J Griffith, N Lange, S Tehrani (Curtin University), H Roshan (University of New South Wales) and M Sarmadivaleh (Curtin University) and presenter only: M Abdolghafurian (Curtin University)
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<th>BUSINESS</th>
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| **B01** Review and proposed extension of the APPEA method for estimating levels of financial assurance  
D Horn, K Downey (GHD) and A Taylor (APPEA) |
| **B02** The future of OHS inspections using intrinsically safe mobile technology  
N Shibi and K Ahlgren (Techs4biz) |
| **B03** Working together to reduce land transport safety risk in the CSG sector—can we ever do enough?  
M Zaunbrecher, J King* and B Yeon (Arrow Energy) |
| **B04** Using risk connectivity and contagion to add value—how analytics are revolutionising the approach to risk  
C Cobarg-Sugars (KPMG) |
| **B05** Resolving double taxation in a global environment—when might it impact deal value?  
Consideration of the availability of mutual assistance procedure and/or arbitration  
S Blakelock and G Hempenstall (KPMG) |
| **B06** Cost recovery: when reducing costs for an asset can increase costs for an operator  
R Ludwig (KPMG) |
| **B07** The smart money: driving shareholder value through better capital allocation  
S Reid and F Decker (Deloitte) |
| **B08** Empowering Australia in the Global Oil and Gas Standardisation initiative  
M Taylor (NERA), J Fallon, T Fletcher (Woodside Energy) and A Woodhams (TAM Consultants)  
presenter only: M Weustink (Woodside Energy) |
| **B09** A comprehensive approach to safe and successful asset operatorship transition  
S Heinemann and N Clegg* (Upstream Production Solutions) |

The APPEA Journal will be published online three weeks after the conference. Delegates who receive the proceedings as part of their package, will receive a password to access the highly sought after conference material. The journal will contain peer-reviewed papers and extended abstracts of oral and poster presentations, all plenary presentations*, awards, acreage releases*, PESA industry reviews* and a selection of material from the social functions. Abstracts from all available presentations will be accessible to view pre-conference via the APPEA 2018 Mobile App. APPEA is proud to continue to deliver a conference proceedings that is internationally acclaimed and distributed world-wide.

For more information on accessing the 1961–2017 journal articles online for your company*, please contact: Georgia Toirkens, g.toirkens@appea.com.au, t 02 6267 0908

*where consent has been given  ^ please note, this offer is only available to member companies
APPEA 2018 Youth Program

APPEA is delighted to partner with Chevron, Santos, Shell and Woodside to continue support for the next generation of oil and gas professionals as we present the APPEA 2018 Conference Youth Program.

This initiative is aimed at inspiring South Australian secondary school students to follow science, technology, engineering and mathematics (STEM) related study and career paths, including showcasing what a viable and exciting career path the oil and gas industry offers.

Mentor Program

The APPEA 2018 Conference Mentor Program sponsored by BHP aims to encourage, enable and empower undergraduate tertiary students by linking them with successful peer role models. BHP has a strong commitment to the next generation of oil and gas professionals, and BHP's own graduates will be onsite at APPEA 2018 as mentors to selected students for their time at APPEA 2018—sharing their experiences and advice on entering the industry.

Conference Charity

In 2018, APPEA is pleased to announce Backpacks 4 SA Kids as the official conference charity. Backpacks 4 SA Kids is a charity that provides support via essential simple programs for children entering into emergency services who have been displaced from their homes. These children have potentially faced violence, abuse and neglect due to no fault of their own and a simple backpack, Anchor Pack or Homes Starter Pack can help reduce the stress and anxiety these children face following traumatic situations.
New for APPEA 2018 are scheduled ‘hot topics’ and issues in the industry that can be explored at the collaboration centre at pre-arranged times noted below. This will connect delegates interested in the same topics and provide an opportunity to meet and discuss specific industry issues.

Join fellow delegates, APPEA and EY specialists, along with conference speakers for lively discussion and networking.

**Tuesday 15 May**
- 10.25am–11.00am First timers meet and greet
- 12.45pm–1.30pm Oil and gas global outlook
- 3.25pm–3.45pm Public perceptions of the oil and gas industry

**Wednesday 16 May**
- 10.40am – 11.15am Diversity and inclusion
- 12.40pm – 2.00pm Who is building the oil and gas workforce?
- 3.25pm – 3.45pm Land access/social licence to operate

**Thursday 17 May**
- 10.40am – 11.15am Digital supply chain
- 1.15pm – 2.00pm Opportunities in SA

**KPMG Meeting Zone**
Need a place to meet for an hour? Take advantage of the KPMG Meeting Zone in the Exhibition Hall. You can book one-hour meetings for up to eight people.

**The Meeting Zone is open:**
- Tuesday 15 May 8.00am–6.00pm
- Wednesday 16 May 8.00am–6.00pm
- Thursday 17 May 8.00am–3.00pm

Please note as the Meeting Zone is located in the exhibition hall, all meeting participants must be registered attendees or registered guests of APPEA 2018. All meeting room bookings are for 55 minutes. This allows for cleaning and tidying before the next meeting commences on the hour. We request that you respect these timings so the meeting zone can run on time and efficiently for all users. NB: The meeting Zone closes at 3.00pm on Thursday 17 May due to the exhibition ‘bump-out’.

**Product Presentation Theatre**
On the exhibition floor, APPEA presents its Product Presentation Theatre—a 40-seat auditorium including wireless headphones, where companies can showcase new innovations and products in 10 minute interactive presentations to delegates. Each day’s presentation schedule is available on the Conference App and also listed outside the Theatre’s entrance.