

## Update from the AEGC 2018 Conference Organising Committee



At the time of writing there are only three months until the conference (18–21 February) and there still seems to be a lot to do. Extended abstracts have (mostly) been reviewed, booths have (mostly) been sold, workshops are filling, delegates are registering and sponsors are being sought (it is never too late).

Standard registration is open (<http://www.aegc2018.com.au/>), so today is a good day to register if you have not already.

We are proud to announce that our Platinum sponsor is Australia Minerals and that our Sapphire Sponsor is the CSIRO and our Gold Sponsors are Oil Search and RioTinto and our Opal Sponsor is Geoscience Australia. Our Silver Sponsors are Bridgeport Energy, Geosoft, Horizon Oil, Kinetic and Velseis. Wireline Services Group will be our lanyard sponsor, while GBG Australia will sponsor one of our morning teas and First Quantum Minerals are sponsoring the best paper and poster awards. There

are still sponsorship opportunities available if your company is looking for exciting promotion opportunities. Again, please do not hesitate to contact us if you are interested and would like further information.

At the time of writing our team of paper reviewers have almost finished reviewing around 300 extended abstract submissions, with just a few stragglers to complete. We are very impressed with the quality of the abstracts and are very excited by the program (see following pages). We have eight concurrent streams, three covering the Energy stream, three covering the Mineral Geoscience stream and two covering the Near Surface and Groundwater stream. In the Energy stream we cover a diverse range of topics from Basin Symposia (Western Australia, Central Australia and Eastern Australia), through to Non-Conventional, PNG and New Technologies in seismics. The Mineral Geoscience theme covers

such topics as geophysics and geology case histories, airborne geophysics, magnetics and EM theory and Industrial and Strategic. The Near Surface and Groundwater theme has such topics as innovation, case studies and what is new in groundwater investigations. We will have over 80 posters on display for the three days of the conference in the foyer. Poster presenters will have a dedicated poster session after lunch giving delegates ample opportunity to discuss the science with the author.

The exhibition hall is almost full, please visit the website to see who has already secured a spot. If your company would like a booth, please get in contact with us ASAP. The prospectus is available for download on the conference website: (<http://www.aegc2018.com.au/>). The Conference Organising Committee has endeavoured to contact as many companies as possible – if your company hasn't been contacted please let us know ASAP!

We have 12 workshops associated with the conference, ranging from geophysical interpretation to exploration methodologies to basin analysis and prospect determination as well as learning presentation skills. Please book your spot soon as they are filling fast.

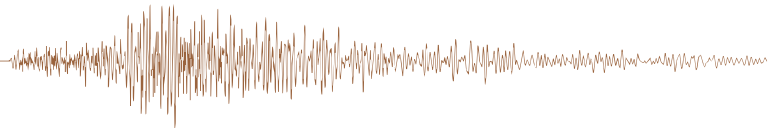
Please stay tuned to the website for any updates to the program.

*Mark Lackie*  
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*Max Williamson*  
Co-Chair Petroleum



*Happy throng at the last ASEG conference in Adelaide – don't miss out this time around!*



| Monday    |                                                                                                                                                    |                                                                                                                                                                                             |                                                                                                                                                                             |                                                                                                                                              |                                                                                                           |                                                                                                                                        |                                                                                                                                                   |                                                                                                                                                                                                 |  |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 0730-0830 | Registration                                                                                                                                       | Morning tea                                                                                                                                                                                 |                                                                                                                                                                             |                                                                                                                                              |                                                                                                           |                                                                                                                                        |                                                                                                                                                   |                                                                                                                                                                                                 |  |
| 0830-0940 | Conference Welcome and Opening                                                                                                                     | CONCURRENT SESSIONS                                                                                                                                                                         |                                                                                                                                                                             |                                                                                                                                              |                                                                                                           |                                                                                                                                        |                                                                                                                                                   |                                                                                                                                                                                                 |  |
| 0940-1010 | Plenary Speaker 1<br>Peter Botten, Managing Director, Oil Search                                                                                   |                                                                                                                                                                                             |                                                                                                                                                                             |                                                                                                                                              |                                                                                                           |                                                                                                                                        |                                                                                                                                                   |                                                                                                                                                                                                 |  |
| 1010-1040 |                                                                                                                                                    |                                                                                                                                                                                             |                                                                                                                                                                             |                                                                                                                                              |                                                                                                           |                                                                                                                                        |                                                                                                                                                   |                                                                                                                                                                                                 |  |
|           | Coal                                                                                                                                               | West Australian Basins Symposium                                                                                                                                                            | East Australian Basins Symposium                                                                                                                                            | Geology Case History                                                                                                                         | IP From EM Surveys                                                                                        | Inversion Modelling Methods                                                                                                            | Regional Tectonic                                                                                                                                 | Geotechnical and Environmental                                                                                                                                                                  |  |
| 1040-1105 | Keynote Presentation                                                                                                                               | Keynote Presentation<br>Continental collision, wrenching and orogenesis in the Banda Arc<br><b>Peter Baile</b>                                                                              | Tectonics and geodynamics of the eastern Tethys and northern Gondwana since the Jurassic<br><b>Sabin Zahirovic</b>                                                          | Keynote Presentation<br><b>Steve Marnosh</b>                                                                                                 | Modelling IP effects in airborne time domain electromagnetics<br><b>Dave Marchant</b>                     | Cooperative inversion: A review<br><b>Brett Harris</b>                                                                                 | Palaeomagnetic test of oroclinal rotation in the Durdas Trough, Tasmania<br><b>Robert Musgrave</b>                                                | Tracking the Diprotodon - micrometre passive seismic profiling as a tool for location of megafauna bone beds<br><b>Michael Astren</b>                                                           |  |
| 1105-1130 | Coal in NSW<br><b>Kevin Ruming</b>                                                                                                                 |                                                                                                                                                                                             | Predicting and detecting carbonate cemented zones within Latrobe Group reservoirs of the Gippsland Basin<br><b>Mark Bunch</b>                                               | Lithogeochemistry of pegmatites at Broken Hill: An exploration vector to mineralisation<br><b>Christopher Torrey</b>                         | A thorough synthetic study on IP effects in AEM data from different systems<br><b>Andrea Viezzoli</b>     | Impact of uncertain geology in constrained geophysical inversion<br><b>Jeremie Giraud</b>                                              | Mapping metamatised mantle passive seismic and geochemical datasets - SE Australia<br><b>Karol Czanota</b>                                        | An integrated analysis of geophysical data for landslide risk assessment<br><b>Koya Suto</b>                                                                                                    |  |
| 1130-1155 | Discovery through the ages - a journey of coal resource discovery in Queensland Bowen Basin from the 1960's and the 2000's<br><b>Darren Walker</b> | Mapping northern Australia's present day stress field: The Carnarvon Basin<br><b>Adam Bailey</b>                                                                                            | Impact of sequence stratigraphy on static and dynamic reservoir models: Examples from the Precipice-Evergreen succession, Surat Basin, Queensland<br><b>Andrew La Croix</b> |                                                                                                                                              | Keynote Presentation<br><b>Jim Macnae</b>                                                                 | Constraining an inversion to follow curving trends in an image<br><b>Andrew King</b>                                                   | Geoscience Australia's contribution to AusArray - Passive seismic imaging of Australia<br><b>Alexei Gorbatov</b>                                  | The application of VSP in the Pilbara<br><b>Ashley Grant</b>                                                                                                                                    |  |
| 1155-1220 | The use of FWI in coal exploration<br><b>Mehdi Asgharzadeh</b>                                                                                     | Regional Jurassic sediment depositional architecture, Browse Basin: Implications for petroleum systems<br><b>Nadège Rollet</b>                                                              | Organic geochemistry and petroleum potential of Permian outcrop and core samples from the southern Sydney Basin<br><b>Simon George</b>                                      | Ore and gangue minerals of the Hera Au-Pb-Zn-Ag deposit, Cobarr Basin, NSW<br><b>Angela Lay</b>                                              | Airborne EM and IP below 10 Hz<br><b>Jim Macnae</b>                                                       | Exploring inversion solution space: A case study over a Cu-Ag deposit in the Kalarah copper belt<br><b>Robert Ellis</b>                | Coordinating and delivering a 1.8 million line kilometre magnetic and radiometric survey - a state government perspective<br><b>Laszlo Katona</b> | Application of the passive seismic Horizontal-to-Vertical Spectral Ratio (HVSr) technique for embankment integrity monitoring<br><b>Regis Neroni</b>                                            |  |
| 1220-1320 |                                                                                                                                                    | Lunch                                                                                                                                                                                       |                                                                                                                                                                             |                                                                                                                                              |                                                                                                           |                                                                                                                                        |                                                                                                                                                   |                                                                                                                                                                                                 |  |
| 1320-1345 |                                                                                                                                                    | Poster Session                                                                                                                                                                              |                                                                                                                                                                             |                                                                                                                                              |                                                                                                           |                                                                                                                                        |                                                                                                                                                   |                                                                                                                                                                                                 |  |
|           | Coal                                                                                                                                               | West Australian Basins Symposium                                                                                                                                                            | East Australian Basins Symposium                                                                                                                                            | Geology Case History                                                                                                                         | EM & Deep Radar                                                                                           | Exploration                                                                                                                            | Regional Tectonic                                                                                                                                 | Geotechnical and Environmental                                                                                                                                                                  |  |
| 1345-1410 | Seismic diffraction imaging for improved coal structure detection in complex geological environments<br><b>Binzhong Zhou</b>                       | Evolution of "Tres Hombres" - a large mid-crustal dome structure within the northern Beagle Sub-basin Western Australia: An integrated geophysical investigation<br><b>Gerry O'Halloran</b> | Targeting core sampling with machine learning: Case study from the Springbok Sandstone, Surat Basin<br><b>Oliver Gaede</b>                                                  | Keynote Presentation<br><b>Richard Hillis</b>                                                                                                | 2.5D vs 1D AEM forward and inversion methods at a survey scale: A case study<br><b>Desmond Fitzgerald</b> | On-demand mineral exploration support systems<br><b>Ben Rippingale</b>                                                                 | Evolving 3D lithospheric resistivity models across southern Australia derived from AusLAMP MT<br><b>Stephan Thiel</b>                             | How to build your own simple, low-cost, seismic system<br><b>Tim Dean</b>                                                                                                                       |  |
| 1410-1435 | Integration of downhole geophysical and lithological data from coal exploration drillholes<br><b>Brett Larkin</b>                                  | Controls on Mesozoic rift-related uplift and syn-extensional sedimentation in the Exmouth Plateau<br><b>Hayley Rohead-O'Brien</b>                                                           | The influence of reverse-reactivated normal faults on porosity and permeability in sandstones: a case study at Castle Cove, Otway Basin<br><b>Natalie Debenham</b>          |                                                                                                                                              | Otze - airborne EM inversion on unstructured model grids<br><b>Carsten Scholl</b>                         | Understanding geology and structure: An essential part of mineral resource estimation<br><b>Bert De Waele</b>                          | Imprints of tectonic processes imaged with magnetotellurics and seismic reflection<br><b>Tom Wise</b>                                             | Feasibility study of near-surface dispersion imaging using passive seismic data<br><b>M. Javad Khoshnavz</b>                                                                                    |  |
| 1435-1500 | Quantifying gas content in coals using borehole magnetic resonance<br><b>Tom Neville</b>                                                           | Shelf-margin architecture and shoreline processes at the shelf-edge: Controls on sediment partitioning and prediction of deep-water deposition style<br><b>Victorien Paumard</b>            | High frequency refraction/reflection full-waveform inversion case study from North West Shelf offshore Australia<br><b>Xiang Li</b>                                         | Pathfinder exploration techniques targeting porphyry and epithermal alteration systems in the Temora copper-gold belt<br><b>Bruce Hooper</b> | Realistic expectations for deep ground penetrating radar performance<br><b>Jan Francke</b>                | Building 3d model of rock quality designation assisted by co-operative inversion of seismic and borehole data<br><b>Duy Thong Kieu</b> | Identifying lithospheric boundaries and their importance for mineral discovery<br><b>Stephan Thiel</b>                                            | Refraction Microtremor method for delineation of layers and lenses, and assessing liquefaction potential within an alluvial setting - Morobe Province, Papua New Guinea<br><b>Aaron Tomkins</b> |  |
| 1500-1530 |                                                                                                                                                    | Afternoon tea                                                                                                                                                                               |                                                                                                                                                                             |                                                                                                                                              |                                                                                                           |                                                                                                                                        |                                                                                                                                                   |                                                                                                                                                                                                 |  |

| CONCURRENT SESSIONS |                                                                                                                              |                                                                                                                                                             |                                                                                                                                             |                                                                                                                      |                                                                                                                                     |                                                                                                                                                                                               |
|---------------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | Coal                                                                                                                         | West Australian Basins Symposium                                                                                                                            | East Australian Basins Symposium                                                                                                            | Geology Case History                                                                                                 | Airborne Gravity                                                                                                                    | Electrical Methods                                                                                                                                                                            |
| 1530-1555           | Cooper Basin deep coal – the new unconventional paradigm: Deepest producing coals in Australia<br><b>Bronwyn Camac</b>       | Influence of Permian and Carboniferous extensional history on the northern Carnarvon basin and its influence on Mesozoic extension<br><b>Amy I'Anson</b>    | Petroleum plays of the Bowen and Surat basins<br><b>Alison Troup</b>                                                                        | Cargo Porphyry Cu-Au deposit – where is the high grade core?<br><b>David Timms</b>                                   | Validating the GedeX HD-AGG™ airborne gravity gradiometer<br><b>David Hatch</b>                                                     | Characterising the subsurface architecture and stratigraphy of the McArthur Group through integrated airborne EM and gravity inversion<br><b>Teagan Blaikie</b>                               |
| 1555-1620           | Predicting structural permeability in the deep coal play, Turrillwarr-Goorarie fields, Cooper Basin<br><b>Cameron Bowker</b> | Interpretation of a Permian conjugate basin margin preserved on the outer northwest shelf of Australia<br><b>Christopher Paschke</b>                        | Borehole gravity in horizontal wells<br><b>Andrew Black</b>                                                                                 | Implicit modelling of the Las Bambas deposits, Peru<br><b>Anthony Reed</b>                                           | Airborne gravimetry takes off in the Western Australia 'Generation 2' reconnaissance gravity mapping project<br><b>David Howard</b> | Self organising maps - a case study of Broken Hill<br><b>Tasman Gilfeather-Clark</b>                                                                                                          |
| 1620-1645           | Towards understanding phosphorus distribution in coal: A case study from the Bowen Basin<br><b>Brooke Davis</b>              | New insights into early Triassic rifting in the NW shelf help explain regional structural styles and associated deposition model<br><b>Malcolm MacNeill</b> | The stratigraphic significance of paralic deposits in the Precipice-Evergreen succession, Surat Basin, Queensland<br><b>Andrew La Croix</b> | What is down plunge of the Dobroyde Hill high-sulphidation epithermal deposit, near June, NSW?<br><b>Glen Diemar</b> | Gravity gradiometer design comparison by three different methods<br><b>James Brewster</b>                                           | The utility of machine learning in identification of key geophysical and geochemical datasets: a case study in lithological mapping in the Central African Copper Belt<br><b>Stephen Kuhn</b> |
| 1645-1710           | Evidence for glacial and polar impacts in the Permian coal measures of the Sydney basin<br><b>Malcolm Bocking</b>            | Modelling reservoir deliverability within the northern Beagle Sub-basin, Western Australia<br><b>Christopher Hurren</b>                                     | Next generation reservoir engineering<br><b>Klaus Regenerauer-Heb</b>                                                                       | The Discovery of the Edna Beryl Deposit - A journey with a destination!<br><b>Rob Bills</b>                          | Terrain correction correction Tasmania – results and implications<br><b>Mark Duffett</b>                                            | An overview of tensors, gradient and invariant products in imaging and qualitative interpretation<br><b>Matthew Zenger</b>                                                                    |
|                     |                                                                                                                              |                                                                                                                                                             |                                                                                                                                             |                                                                                                                      |                                                                                                                                     | Uncertainty analysis of faulting and folding on near surface aquifers<br><b>Titus Murray</b>                                                                                                  |
|                     |                                                                                                                              |                                                                                                                                                             |                                                                                                                                             |                                                                                                                      |                                                                                                                                     | Application of magnetic resonance data for groundwater prospectivity in the Fitzroy Basin, Western Australia<br><b>Kok Ping Tan</b>                                                           |
|                     |                                                                                                                              |                                                                                                                                                             |                                                                                                                                             |                                                                                                                      |                                                                                                                                     | Microgravity surveys on the Nullarbor<br><b>Philip Heath</b>                                                                                                                                  |

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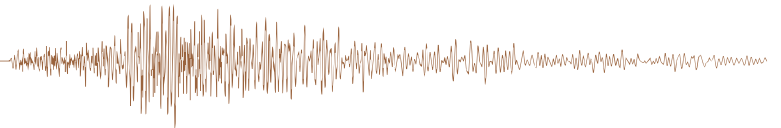
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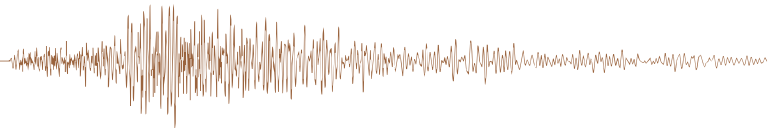


| Tuesday             |                                                                      |                                                                                                                              |                                                                                          |                                                                                 |                                                                        |                                                                                                             |                                                                                                                                                      |                                                                                                                              |  |
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| CONCURRENT SESSIONS |                                                                      |                                                                                                                              |                                                                                          |                                                                                 |                                                                        |                                                                                                             |                                                                                                                                                      |                                                                                                                              |  |
|                     | PNG and NZ                                                           | West Australian Basins Symposium                                                                                             | Non Conventional                                                                         |                                                                                 | Strategic and Industrial                                               | Magnetotellurics                                                                                            | Regional Mapping                                                                                                                                     | Case Studies                                                                                                                 |  |
| 0830-0855           | Keynote Presentation                                                 | Onshore inventory – targeting new basins (Officer, Perth, Canning Basins)                                                    | Integrated Seismic (IS) for shale gas exploration and management                         |                                                                                 | Keynote Presentation                                                   | Particularities of 5-component magnetotelluric soundings application for mineral exploration                | Keynote Presentation                                                                                                                                 | Characterizing the Spiritwood Valley Aquifer, North Dakota, using helicopter time-domain EM                                  |  |
| 0855-0920           | Innovative exploration in Papua New Guinea: past, present and future | Linear trends of paleo-pockmarks and fluid flow pipes in the Jurassic and Triassic sediments of offshore northwest Australia | Using multiazimuth seismic data for anisotropy estimation in an unconventional reservoir |                                                                                 | Strategic & industrial minerals leading the next production revolution | Sferic signals for lightning sourced electromagnetic surveys                                                |                                                                                                                                                      | Reinterpretation of wireline log data in the eastern Galilee Basin, Queensland: stratigraphic and hydrogeologic implications |  |
| 0920-0945           | Kevin Hill                                                           | Tayallen Velayatham                                                                                                          | Surabhi Mishra                                                                           |                                                                                 | Richard Flook                                                          | Lachlan Hennessy                                                                                            | Richard Blewitt                                                                                                                                      | James Hansen                                                                                                                 |  |
| 0945-1010           | John Warburton                                                       | The effect of flexural isostasy on delta architecture: Implications for the Mungaroo Formation                               | Mohammed Kurdi                                                                           |                                                                                 | Iggv Tan                                                               | Keynote Presentation                                                                                        | An integrated approach to mapping crustal geology and structures in the NE Capricorn Orogen, Western Australia: Implications for uranium exploration | Keynote Presentation                                                                                                         |  |
| 1010-1040           | Michelle Spooner                                                     | Sara Morón-polanco                                                                                                           | Muhammad Asad Pirzada                                                                    |                                                                                 | Phil Hellman                                                           | What is new in magnetotellurics?                                                                            | Ashley Laurence Uren                                                                                                                                 | Katarina David                                                                                                               |  |
| Morning tea         |                                                                      |                                                                                                                              |                                                                                          |                                                                                 |                                                                        |                                                                                                             |                                                                                                                                                      |                                                                                                                              |  |
|                     | PNG and NZ                                                           | West Australian Basins Symposium                                                                                             | Non Conventional                                                                         | General Geology                                                                 | Strategic and Industrial                                               | EM Inversion Modelling                                                                                      | Regional Mapping & Thomson Orogen                                                                                                                    | Case Studies                                                                                                                 |  |
| 1040-1105           | Gilles Brocard                                                       | Canning Basin – petroleum systems analysis                                                                                   | Trevor Brooks                                                                            | Keynote Presentation                                                            | David Turvey                                                           | Trans-dimensional Monte Carlo inversion of short period magnetotelluric data for cover thickness estimation | A.Yusen Ley-Cooper                                                                                                                                   | Rate of success for a groundwater drilling program planned from AEM, Gascoyne River, WA                                      |  |
| 1105-1130           | Maria Seton                                                          | David Long                                                                                                                   | Tim Dean                                                                                 | Geophysical detection of the hydrothermal alteration footprints of ore deposits | Ian Pringle                                                            | Ross Brodie                                                                                                 | Rosemary Hegarty                                                                                                                                     | Aaron Davis                                                                                                                  |  |
| 1130-1155           | Kevin Hill                                                           | June Then                                                                                                                    | Raymond Johnson                                                                          | John McGaughey                                                                  | Mineral deposits in the Ontario Cobalt Belt                            | Wolfgang Soyer                                                                                              | James Goodwin                                                                                                                                        | Geophysical investigation to support characterisation of structurally controlled groundwater flow into an open pit mine      |  |
| 1155-1220           | Joanna Tobin                                                         | June Then                                                                                                                    | Raymond Johnson                                                                          | Robert Hough                                                                    | David Crook                                                            | Timothy Munday                                                                                              | Ian Roach                                                                                                                                            | Regis Neroni                                                                                                                 |  |
| 1220-1320           |                                                                      |                                                                                                                              |                                                                                          | Thomas Poulet                                                                   | John Holmes                                                            | Ross Brodie                                                                                                 | Katarina David                                                                                                                                       |                                                                                                                              |  |





## PREVIEW



| Wednesday           |                                                                                                                                            |                                                                                                                                                                                         |                                                                                                                                                                                               |                                                                                                                                    |                                                                                                                                                            |                                                                                                                                                                                               |
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| CONCURRENT SESSIONS |                                                                                                                                            |                                                                                                                                                                                         |                                                                                                                                                                                               |                                                                                                                                    |                                                                                                                                                            |                                                                                                                                                                                               |
|                     | New Technology Seismic                                                                                                                     | New Technology CO <sub>2</sub>                                                                                                                                                          | Central Australian Basins Symposium                                                                                                                                                           | History                                                                                                                            | Geophysical Case History                                                                                                                                   | Hardrock Seismic                                                                                                                                                                              |
| 0830-0855           | Broadband least-squares wave-equation migration<br><b>Andrew Long</b>                                                                      | Rock-physics based time-lapse inversion in Delivery 4D: Synthetic feasibility study for CO <sub>2</sub> CRC Otway Project<br><b>Anton Egorov</b>                                        | Evolving exploration methods in the hydrocarbon play within the Patchawarra Formation on the Western Flank, Cooper Basin<br><b>Johann Soares</b>                                              | Keynote Presentation<br>Ocean and atmosphere chemistry drive cycles of basin-hosted ore deposits through time<br><b>Ross Large</b> | Constrained 3D modelling and geochemical analyses of the Horseshoe Range BIF: tools for evaluating magnetic signatures under cover<br><b>Ben Patterson</b> | Potential of full waveform inversion of vertical seismic profile data in hard rock environment<br><b>Anton Egorov</b>                                                                         |
| 0855-0920           | A new system for efficiently acquiring vertical seismic profile surveys<br><b>Tim Dean</b>                                                 | Application of time-lapse full waveform inversion of vertical seismic profile data for the identification of changes introduced by CO <sub>2</sub> sequestration<br><b>Anton Egorov</b> | Stromatolite construction, biofactors and biomarkers in the Lower Cambrian Hawker Group, Arrowie Basin, South Australia<br><b>Bronwyn Teece</b>                                               |                                                                                                                                    | Comparing responses from different AEM systems and derived models at the Summyside Nickel Project, Botswana<br><b>Andrea Viezzoli</b>                      | Impact of airborne electromagnetic (AEM) surveys in groundwater management in the Lower Plate South natural resources district, Nebraska, USA<br><b>Jared Abraham</b>                         |
| 0920-0945           | Quantitative Interpretation: Use of seismic inversion data to directly estimate hydrocarbon reserves and resources<br><b>James Shadlow</b> | 3D vertical seismic profiling acquired using fibre-optic sensing DAS – results from the CO <sub>2</sub> CRC Otway project<br><b>Julia Correa</b>                                        | Reservoir modelling, structural history and volumetrics of the Jerboa Area, Eyre Sub-Basin<br><b>Jordan McGlew</b>                                                                            | Quest for the Holy Grail: BHP's Geophysical Research Program 1985-2005<br><b>Ken Witherley</b>                                     | The rise of 3D seismic in hardrock mineral exploration<br><b>Frank Bilki</b>                                                                               | Utilization of AEM methods for cost-effective mapping of shallow Neogene intra-plate fault systems in Eastern Australian coal seam gas basins<br><b>Donna Cathro</b>                          |
| 0945-1010           | Solid substitution: Theory versus experiment<br><b>Yongyang Sun</b>                                                                        | Geochemistry of storing CO <sub>2</sub> and NO <sub>x</sub> in the deep Precipice Sandstone<br><b>Julie Pearce</b>                                                                      | Tertiary deep-water coral supports cold seeps in the Ceduna Sub-Basin<br><b>Laurent Langhi</b>                                                                                                | Ten years in the wild: The P223 experiment<br><b>David Annetts</b>                                                                 | Fast-tracking gold exploration below 300m – 3D seismic case history from Darlot gold mine<br><b>Greg Turner</b>                                            | The 'exploring for the future' groundwater programme: a multi-physics, interdisciplinary systems approach for de-risking investment in agriculture in northern Australia<br><b>Ken Lawrie</b> |
| 1010-1040           |                                                                                                                                            |                                                                                                                                                                                         |                                                                                                                                                                                               |                                                                                                                                    |                                                                                                                                                            | An integrated hydrogeophysical approach to exploring for groundwater resources in southern Northern Territory<br><b>Laura Gow</b>                                                             |
| Morning tea         |                                                                                                                                            |                                                                                                                                                                                         |                                                                                                                                                                                               |                                                                                                                                    |                                                                                                                                                            |                                                                                                                                                                                               |
| CONCURRENT SESSIONS |                                                                                                                                            |                                                                                                                                                                                         |                                                                                                                                                                                               |                                                                                                                                    |                                                                                                                                                            |                                                                                                                                                                                               |
|                     | New Technology Seismic                                                                                                                     | New Technology CO <sub>2</sub>                                                                                                                                                          | Central Australian Basins Symposium                                                                                                                                                           | Exploration Strategy                                                                                                               | Geophysical Case History                                                                                                                                   | Petrophysics                                                                                                                                                                                  |
| 1040-1105           | Keynote Presentation<br>Multi-component seismic: Applications and new developments<br><b>Natasha Hendrick</b>                              | Feasibility of Seismic monitoring of CCS in Perth Basin<br><b>Andrej Bona</b>                                                                                                           | Regional migration and trapping frameworks in the frontier Ceduna Sub-Basin: New insights from stratigraphic forward modelling and 'triangle juxtaposition' diagrams<br><b>Laurent Langhi</b> |                                                                                                                                    | Imaging high quality conductors at Golden Grove<br><b>Neil Hughes</b>                                                                                      | The use of airborne EM to investigate coastal carbonate aquifer, seawater intrusions and sustainable borefield yield at Exmouth, Western Australia<br><b>Karen Gilgallon</b>                  |
| 1105-1130           |                                                                                                                                            | A double double-porosity model for wave propagation in patchy-saturated tight sandstone with fabric heterogeneity<br><b>Mengqiu Guo</b>                                                 | Could the Mesoproterozoic Kyalla Formation emerge as a viable gas condensate source rock reservoir play in the Beeraloo Sub-Basin?<br><b>Carl Altmann</b>                                     | Keynote Presentation<br><b>Mike McWilliams</b>                                                                                     | Woodlawn revitalised by DHEM<br><b>Kate Hine</b>                                                                                                           | Comparative evaluation of 1D, 2.5D and 3D inversions for resolving tectonic elements in floodplains and near-surface inverted sedimentary basins<br><b>Ken Lawrie</b>                         |
|                     |                                                                                                                                            |                                                                                                                                                                                         |                                                                                                                                                                                               |                                                                                                                                    |                                                                                                                                                            | Using hydrogeophysical techniques to characterise and map sea water intrusion and preferential flow paths in Howards East Aquifer, Darwin rural area, Northern Territory<br><b>Laura Gow</b>  |

|           |                                                                                                           |                                                                                                                                        |                                                                                                                                                                                                                        |                                                                                                                                |                                                                                                                                                               |                                                                                                                                |                                                                                                                                            |                                                                                                                                                         |
|-----------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1130-1155 | Marine vibrator concepts for modern seismic challenges<br><b>Andrew Long</b>                              | Application of passive seismic in determining overburden thickness: North West Zambia<br><b>Nikhil Prakash</b>                         | Isotope constraints on intra-basin correlation and depositional settings of the mid-Proterozoic carbonates and organic-rich shales in the Greater McArthur Basin, Northern Territory, Australia<br><b>Juraj Farkas</b> | Budget allocation and the stopping problem in mineral exploration<br><b>Andy Green</b>                                         | Mineral exploration in the Mount Lyell region of Tasmania with the Helitem35C@ System<br><b>Adam Smiarowski</b>                                               | Petrophysics and exploration targeting: The value proposition<br><b>Barry Bourne</b>                                           | Focused attributes derived from AEM surveys using the continuous wavelet transform<br><b>Niels Christensen</b>                             | Rapid assessment of groundwater salinity and seawater intrusion hazard in the Keep River floodplain, Northern Territory, Australia<br><b>Ken Lawrie</b> |
| 1155-1220 | Methods for reducing unwanted noise (and increasing signal) in passive seismic surveys<br><b>Tim Dean</b> | Portable XRD for unconventional and conventional petroleum exploration<br><b>Dane Burkett</b>                                          | Ranking DHI attributes for effective prospect risk assessment applied to the Otway Basin, Australia<br><b>Sebastian Nixon</b>                                                                                          | How a systems thinking approach to mineralising geosystems is opening new search spaces for ore discovery<br><b>Tim Craske</b> | Combined gravity and magnetic studies of satellite bodies associated with the giant Coompana reverse magnetic anomaly in South Australia<br><b>Clive Foss</b> | Defining petrophysical properties of ultramafic and mafic rocks in terms of alteration<br><b>Cameron Adams</b>                 | Structural analyses aiding identification of water conductive fracture zones in crystalline rock<br><b>Kevin Morgan</b>                    | VTEM ET: An improved helicopter time-domain EM system for near surface applications<br><b>Jean Legault</b>                                              |
| 1220-1320 |                                                                                                           |                                                                                                                                        |                                                                                                                                                                                                                        | Lunch                                                                                                                          |                                                                                                                                                               |                                                                                                                                |                                                                                                                                            |                                                                                                                                                         |
| 1320-1345 |                                                                                                           |                                                                                                                                        |                                                                                                                                                                                                                        | Poster Session                                                                                                                 |                                                                                                                                                               |                                                                                                                                |                                                                                                                                            |                                                                                                                                                         |
|           |                                                                                                           |                                                                                                                                        |                                                                                                                                                                                                                        | CONCURRENT SESSIONS                                                                                                            |                                                                                                                                                               |                                                                                                                                |                                                                                                                                            |                                                                                                                                                         |
| 1345-1410 | Least square Q-Kirchhoff migration: Implementation and application<br><b>Joe Zhou</b>                     | CA-IDTMS and biostratigraphy: Their impact on exploration<br><b>Tegan Smith</b>                                                        | Mathematical properties and physical meaning of the gravity gradient tensor eigenvalues<br><b>Carlos Cevallos</b>                                                                                                      | Dykes, synclines and geophysical inversion - Is geology important?<br><b>Desmond Fitzgerald</b>                                | An assessment of Geotem, Falcon® and ZTEM surveys over the Nebo Babel deposit, Western Australia<br><b>Ken Witherley</b>                                      | Extending magnetic depths past 1000 m<br><b>Roger Clifton</b>                                                                  | Gaining insight into the TZ*-T2 relationship through complex inversion of surface NMR free-induction decay data<br><b>Denys Grombacher</b> | Novel methods for near-surface hydrogeological feature enhancement from high-resolution airborne magnetic data<br><b>Peter Milligan</b>                 |
| 1410-1435 | Fibre-optic VSPs: Borehole seismic revolution in Australia<br><b>Konstantin Galybin</b>                   | Analysis of time-lapse seismic and production data for systematic reservoir model classification and assessment<br><b>Rafael Souza</b> | Application of frequency domain induction EM soundings with controlled source (FDEM5 method) for precise tracing of boundaries in geoelectrical sections<br><b>Igor Ingerov</b>                                        | Common uncertainty: Research explorer uncertainty estimation in geological 3D modelling<br><b>Evren Pakyuz-Charrier</b>        | Geophysics for sediment hosted copper and gold mineralisation, the role of 3DIP<br><b>Barry Bourne</b>                                                        | Using AMS and palaeomagnetic data to assess tectonic rotation: A case study from Savannah Nickel Mine, WA<br><b>Jim Austin</b> | Magnetotelluric inversion for characterisation of complex aquifer systems<br><b>Ralf Schaa</b>                                             | Recent advancements and applications of logging and surface magnetic resonance for groundwater investigations<br><b>Elliott Grunewald</b>               |
| 1435-1500 | Modelling complex near-surface features to improve shallow seismic exploration<br><b>Shaun Strong</b>     | Integrating geophysical monitoring data into multiphase fluid flow reservoir simulation<br><b>Trevor Irons</b>                         | Enhanced reservoir characterization using machine learning<br><b>Amir Hashempour Charkhi</b>                                                                                                                           | Multidimensional topology transforms<br><b>Mark Jessell</b>                                                                    | Geophysics of the Patterson Lake South Uranium Deposit, northwestern Saskatchewan<br><b>Jean Legault</b>                                                      | Magnetic field surveys of thin sections<br><b>Suzanne McEnroe</b>                                                              | Loupe - a portable EM profiling system<br><b>Gregory Street</b>                                                                            | Improved groundwater system characterization and mapping using hydrogeophysical data and machine-learning workflows<br><b>Michael Friedel</b>           |
| 1500-1530 |                                                                                                           |                                                                                                                                        |                                                                                                                                                                                                                        | Afternoon tea                                                                                                                  |                                                                                                                                                               |                                                                                                                                |                                                                                                                                            |                                                                                                                                                         |
| 1530-1630 |                                                                                                           |                                                                                                                                        |                                                                                                                                                                                                                        | Closing Plenary                                                                                                                |                                                                                                                                                               |                                                                                                                                |                                                                                                                                            |                                                                                                                                                         |

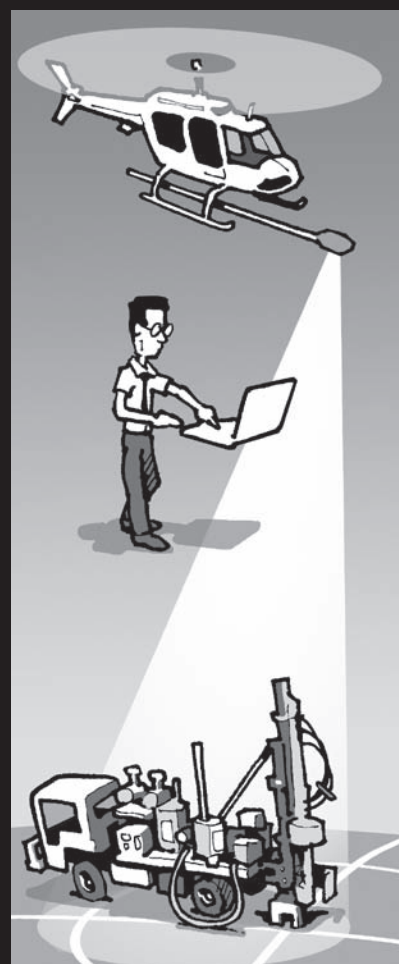
# ModelVision

## Magnetic & Gravity Interpretation System

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