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ASEG-PESA-AIG 2016
25TH GEOPHYSICAL CONFERENCE & EXHIBITION

Interpreting the Past, Discovering the Future

SECTION 1
CONFERENCE PROGRAMME

Australian Society of Exploration Geophysicists

PESA Petroleum Exploration Society of Australia

AUSTRALIAN INSTITUTE OF GEOSCIENTISTS

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MONDAY 22 AUGUST 2016					
0730	**Registration** – Foyer H				
0800–1815	**Trade Exhibition Open**				
0830	Conference Opening & Plenary Address Exploring in the Great Australian Bight – a new basin for Australia? *Claire Fitzpatrick, BP Australia* Hall L				
1010	Morning Tea				
1040–1220	**Concurrent Session 1A – 1E**				
	Petroleum 1.A **Offshore Case Studies** Hall L Chair: Simon Brealey	**Petroleum 1.B** **Gravity & Applications** Room L2 Chair: Terry Crabb	**Minerals 1.C** **Characterising Cover (1) Passive Seismic** Hall M Chair: Philip Heath	**Minerals 1.D** **Distal Footprints (1) Case studies** Hall N Chair: Mike Dentith	**Near Surface/Engineering 1.E** **Hazards and Engineering** **Room L1** **Chair: Adam Davey**
1040	Basement influences on structural styles in the Bremer and Eyre Sub-Basins, southern Australia *Jane Cunneen, Curtin University, Australia*	The Direct Detection of Gravitational Waves: the discoveries so far, prospects for the future and benefits for exploration technology *David Blair, Winthrop Professor Director, Australian International Gravitational Research Centre*	Passive seismic surveying for depth to base of paleochannel mapping at Lake Wells, Western Australia *Matt Owers, Resource Potentials, Australia*	Understanding the 3D structure of the Gilmore fault zone through geophysical modelling: implications for Lachlan tectonic reconstructions *Deepika Venkataramani, University of Newcastle, Australia*	Finding bedrock in uncontrolled clayey fill - success with GPR profiling *Roderick Lawrence, Macquarie University, Australia*
1105	Kraken 3D – acquisition to interpretation on the edge of the Browse *Jarrod Dunne, Karoon Gas Australia, Australia*	Comparison of satellite altimetric gravity and ship-borne gravity – offshore Western Australia *Asbjorn Norlund Christensen, Nordic Geoscience, Australia*	Benchmarking passive seismic cover depth assessments *Sarah Buckerfield, Geoscience Australia, Australia*	2½-D inversion constraints on the palinspastic retro-deformation of Siluro-Devonian structures in the Black Range region, western Victoria – the 'Crab Nebula' untangled *Phil Skladzien, Geological Survey of Victoria, Australia*	An integrated geophysical survey at a landslide-prone area *Koya Suto, Terra Australis Geophysica Pty Ltd, Australia*

1130	Multi-source design and penta source case study from the NWS Australia *Edward Hager, Polarcus, Singapore*	Interpreting the direction of the gravity gradient tensor eigenvectors: The main tidal force and its relation to the curvature parameters of the equipotential surface *Carlos Cevallos, CGG Multi-Physics, Australia*	Effective Mineral Exploration Under Cover: Addressing the Challenge Using Passive Seismic Methodology *Nick Smith, PassiveX Pty. Ltd., Australia*	The discovery of the Artemis polymetallic deposit *Andrew Thompson, Minotaur Exploration, Australia*	3D aeromagnetic imaging of Iwate volcano, northeast Japan *Shigeo Okuma, Geological Survey of Japan, AIST, Japan*
1155	First results of inaugural deployments of the Australian National Ocean Bottom Seismograph Fleet *Alexey Goncharov, Geoscience Australia, Australia*	Full Spectrum Gravity – Improving AGG data quality at both ends of the spectrum *Chris van Galder, CGG, Canada*		Application of vertical electrical sounding method to identify distribution of hot groundwater around the hotsprings in geothermal prospect area *Mariyanto Mariyanto, Institute of Technology Bandung, Indonesia*	Delineation of tunnel valleys across the North Sea coastline, Denmark based on reflection seismic data, boreholes, TEM and Schlumberger soundings *Theis Raaschou Andersen, VIA University College, Denmark*
1220	Lunch				
1320	Poster talks: Exhibition hall				
1345–1500	**Concurrent Session 2A – 2E**				
	Petroleum 2.A **Onshore Case Studies** Hall L Chair: Andrew Long	**Petroleum 2.B** **Exploration Techniques** Room L2 Chair: Selina Wallace	**Minerals 2.C** **Characterising Cover (2)** **Potential Fields** Hall M Chair: Dave Isles	**Minerals 2.D** **Distal Footprints (2) Heat Flow** Hall N Chair: Philip Heath	**Minerals 2.E** **4D Geodynamics (1)** Room L1 Chair: Chris Wijns
1345	New insights into the petroleum potential of the onshore Otway Basin *Lucas McLean-Hodgson, SRK Consulting, Australia*	Exploration chance of success predictions – statistical concepts and realities *Balakrishnan Kunjan, Cue Energy, Australia*	Large Scale Magnetotelluric Sounding at the Periphery of the Songliao Basin, NE China *Weijun Zhao*	Heat flow: The neglected potential field for mineral exploration *Graeme Beardsmore, Data61, Australia*	Next generation resource discovery linking geophysical sensing, modelling and interpretation *Klaus Regenauer-Lieb, UNSW Australia, Australia*
1410	Exploring the sub-salt play in the frontier Amadeus Basin – Insights from regional 2D seismic and potential field data *Emma Hissey, Santos Ltd, Australia*	Improving prediction of Total Organic Carbon in prospective Australian basins by employing machine learning *Irina Emelyanova, CSIRO Energy, Australia*	Revising gravity terrain corrections in Tasmania *Mark Duffett, Mineral Resources Tasmania, Australia*		
1435	Waveform classification as a pseudo for reservoir thickness *Bonnie Lodwick, Santos, Australia*	X-ray computed tomography of structures in opalinus clay from large scale to small scale after mechanical testing *Gerhard Zacher, GE Sensing & Inspection Technologies GmbH, Germany*	Inverse modeling of InSAR and ground leveling data for 3D volumetric strain distribution *Luis Gallardo, CICESE, Mexico*	Numerical modelling of the Sydney Basin using temperature dependent thermal conductivity measurements *Alexandre Lemenager, Macquarie University, Australia*	Microseismic characterization of brittle fracture mechanism in highly stressed surrounding rock mass *Yupeng Jiang, Centre for Geoscience Computing, The University of Queensland, Australia*

1500	Afternoon Tea				
1530–1710	**Concurrent Session 3A – 3E**				
	Petroleum 3.A **Seismic Acquisition** Hall L Chair: Doug Roberts	**Petroleum 3.B** **Alternative Technologies** Room L2 Chair: Terry Crabb	**Minerals 3.C** **Characterising Cover (3)** Hall M Chair: Jonathan Ross	**Minerals 3.D** **Distal Footprints (3) Case studies** Hall N Chair: Tim Keeping	**Near Surface/Engineering 3.E** **New Technologies** **Room L1** **Chair: Kim Francombe**
1530	Making waves – towards a new era of seismic recording equipment *Andy Bull, INOVA Geophysical, United Kingdom*	Black Swan airborne geophysical survey structural interpretation for hydrocarbons targeting in the Perth Basin *Carlos Cevallos, CGG Multi-Physics, Slovakia*	Mapping cover-thickness to UNCOVER basement and deep Earth architecture and processes *Karol Czarnota, Geoscience Australia, Australia*	Mapping the Punt Hill IOCG system using geophysical, geochemical and spectral methods – an integrated approach *Adrian Fabris, Department of State Development, Australia*	Extracting IP information from AEM data to improve the hydrogeological interpretation *Andrea Viezzoli, Aarhus Geophysics ApS, Denmark*
1555		Potential field data guided seismic forward modelling of basement structures: a case study from offshore Nile Delta Basin *Shastri Nimmagadda, Curtin University, Australia*		Looking into a 'Blue Hole' – Resolving magnetization and structure from the complex negative Coompana Anomaly, South Australia *Clive Foss, CSIRO Mineral Resources, Australia*	Transient surface impedance (TranSIM) measurements using discrete lightning for electromagnetic mapping at audio frequencies *Artyom Emelyanenko, Griffith University, Australia*
1620	Low-Fold 3D Seismic: A Key to Unlocking Exploration Potential Cost-Effectively in the Eromanga Basin *Jennifer Clifford, Santos Ltd, Australia*	High resolution magnetic anomaly modelling and its implication for petroleum prospectively on Seram Island, Maluku, Indonesia *Harry Siagian, Center for Geological Survey, Indonesia*	Geological and cover thickness mapping using airborne electromagnetic data in an UNCOVER application *Ian Roach, Geoscience Australia, Australia*	Integrated geological and geophysical interpretation for the Koodaideri Detrital Iron Deposits, Fortescue Valley, Western Australia *James Reid, Mira Geoscience Asia-Pacific Pty Ltd, Australia*	Rapid acquisition of audio frequency magnetotellurics *Barrett Cameron, Rapid Geophysics Pty Ltd, Australia*
1645	Application of Interferometric MASW to a 3D-3C Seismic Survey *Shaun Strong, Velseis, University of Qld, Australia*	Analysis of electromagnetic depth sounding responses over a layered earth: investigating oil & gas seeps in the petroleum provinces *Shastri Nimmagadda, Research Fellow, Australia*	Neotectonic intra-plate fault zone mapping and hydrogeology in floodplain sediments: an inter-disciplinary approach *Ken Lawrie, Geoscience Australia, Australia*	Application of the airborne electromagnetic method for Banded Iron-Formation mapping in the Hamersley Province, Western Australia *Regis Neroni, Fortescue Metals Group, Australia*	Mapping groundwater and soil moisture using multi-depth electrical conductivity data from AgTEM4™ cart *David Allen, Groundwater Imaging Pty Ltd, Australia*
1710	**Close of Sessions**				
1710–1810	**Happy Hour** Room: Hall F & H (Exhibition Hall)				

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TUESDAY 23 AUGUST 2016					
0730	**Registration** – Foyer H				
0800	**Trade Exhibition Open**				
0830–1010	**Concurrent Session 4A – 4E**				
	Petroleum 4.A **Seismic Facies** Hall L Chair: Paul Strong	**Petroleum 4.B** **Rock Physics** Room L2 Chair: Frank Nicholson	**Minerals 4.C** **Characterising Cover (4)** **Electromagnetics** Hall M Chair: Graham Heinson	**Minerals 4.D** **Distal Footprints (4) Airborne** **Geophysics** Hall N Chair: Dave McInnes	**Near Surface/Engineering 4.E** **Acquisition Approaches** **Room L1** **Chair: Jonathan Ross**
0830	Seismic facies mapping-getting more geology into your play *Rob Kirk, Consultant, Australia*	Effects of rock porosity on acoustic wave velocities estimation from sonic logs *Mohsen Farrokhrouz, National Iranian Oil Company, Iran*	Integrated inversion of electromagnetic and geological data for regolith characterisation *Andrew King, CSIRO, Australia*	Results of an Integrated Helicopter ZTEM-Gravity-Magnetic system test survey over the Vredefort Dome Structure, South Africa *Jean Legault, Geotech Ltd., Canada*	The Pareto principle – Something for hydrogeophysical practitioners to remember when employing geophysical data in groundwater resource assessment? *Tim Munday, CSIRO, Australia*
0855		Integrating core and wireline log datasets- a pathway to permeability from AvO seismic? *Lahra Lanigan, Australian School of Petroleum, Australia*	Towards 3D inversion of ground based TEM data *Kristoffer Andersen, Aarhus University, Denmark*	Extending geobandwidth using the multipulse configuration *Tianyou Chen, CGG, Canada*	
0920	Control on Pleistocene shelf drainage by post-Eocene stratigraphy of the Gippsland Basin *Mark Bunch, Australian School of Petroleum, Australia*	Laboratory experiments and numerical simulation on Bitumen Saturated Carbonates: A Rock Physics Study for 4D Seismology *Jason Nycz, University of Alberta, Canada*	An inter-disciplinary approach to airborne electromangetics (AEM) survey design for groundwater exploration using the Australian Geoscience Data Cube and Morphotectonics *Ken Lawrie, Geoscience Australia, Australia*	The Balboa ZTEM Cu-Mo-Au porphyry discovery at Cobre Panama *Jean Legault, Geotech Ltd., Canada*	The emperor's new clothes-opportunities and limitations applying AEM to geotechnical design work *Andi A Pfaffhuber, NGI, Australia*

0945	Spatial mapping of seismic facies variations to mitigate reservoir risk in coal prone fluvial-deltaic settings *Dylan Cremasco, Santos Ltd., Australia*	Ultrasonic measurements on thin samples: numerical modelling *Alexey Yurikov, Curtin University, Australia*	Achieving accurate interpretation results from full-waveform streamed data AEM surveys *Magdel Combrinck, TAU Geophysical Consultants, Canada*	Airborne IP detects only fine-grained minerals when compared to conventional IP *James Macnae, RMIT University, Australia*	
1010	Morning Tea				
1040–1220	**Concurrent Session 5A – 5E**				
	Petroleum 5.A **Seismic Interpretation** Hall L Chair: Rod Lovibond	**Minerals 5.B** **Electromagnetic Inversion (1)** Room L2 Chair: Mike Hatch	**Minerals 5.C** **Characterising Cover (5) AEM and MT methods** Hall M Chair: Stephan Thiel	**Minerals 5.D** **Distal Footprints (5) Potential Field Inversion** Hall N Chair: Terry Crabb	**Near Surface/Engineering 5.E** **Groundwater** **Room L1** **Chair: Dave McInnes**
1040	Structural Interpretation of seismic, geological realism and 3D thinking *Pete Boult, Santos Ltd, Australia*	Fast 3D inversion of 'total field' resistive limit TEM data *Peter Fullagar, Fullagar Geophysics Pty Ltd, Canada*	Magnetotellurics: Imaging basement through deep and conductive cover *Tristan Kemp, Geoscience Australia, Australia*	Applying advanced gravity and magnetic inversion methods to expand the Platreef PGE-Ni-Cu resource in the Bushveld Complex *Nicholas Williams, High Power Exploration, Canada*	The East Kimberley Ord Bonaparte Plains Project: de-risking investment in agriculture and water infrastructure through airborne and ground geophysical investigations *Neil Symington, Geoscience Australia, Australia*
1105		Geologically constrained 2D and 3D airborne EM inversion through cross-gradient regularization and multi-grid efficiency *Shane Mulè, CGG, Australia*	Improved structural mapping and conductive targeting delivered by a new 2.5d AEM inversion solver *Rod Paterson, Intrepid Geophysiccs, Australia*		Uncovering the groundwater resource potential of Murchison Region in Western Australia through targeted application of airborne electromagnetics *Tim Munday, CSIRO, Australia*
1130	The geology and structural style of the Juha Gas Field Papua New Guinea, *Amanda Hanani, Papuan Oil Search, Australia*	Effective and accurate processing and inversion of airborne electromagnetic data *Esben Auken, Aarhus University, Denmark*	Summarising AEM data for mapping applications *David Annetts, CSIRO, Australia*	VK1™ — A Next-Generation Airborne Gravity Gradiometer, Theo Aravanis, Rio Tinto Exploration, Australia	

1155	Fault geometry and deformation history, Northern Carnarvon Basin Chris Elders, Curtin University, Australia		Magnetotelluric monitoring of hydraulic fracture stimulation at the Habanero Enhanced Geothermal System, Cooper Basin, South Australia *Yohannes Didana, University of Adelaide, Australia*	Applicability of standard Euler deconvolution, modeling and amplitude magnetic data inversion in Greenfield programs: The Leite target case study – Carajás Mineral Province – Brazil *João Paulo Souza, Universidade de Brasilia, Brazil*	Frontier groundwater Investigations in the West Kimberly (Fitzroy) Region: preliminary assessment of groundwater resource potential and the salinity hazard to proposed irrigation developments from AEM and drilling data *Alastair Hoare, DoW WA , Australia*
1220	Lunch				
1320	Posters talk: Exhibition hall				
1345–1500	**Concurrent Session 6A – 6E**				
	Petroleum 6.A **VSP** Hall L Chair: Luke Gardiner	**Petroleum 6.B** **Depth Conversion and Interpretation** Room L2 Chair: Rod Lovibond	**Minerals 6.C** **Uncertainty & Big Data (1)** Hall M Chair: Philip Heath	**Minerals 6.D** **Distal Footprints (6) Case studies** Hall N Chair: Tim Keeping	**Minerals 6.E** **4D Geodynamics (2)** Room L1 Chair: David Clark
1345	Mapping of fracture zones and small faults using VSP and Cross Dipole Sonic in Eastern Siberia Carbonate Reservoirs, Yurubchansky Field, Russia *Sergey Shevchenko, SIS Exploration, Australia*	A statistical approach to assessing depth conversion uncertainty on a regional dataset: Cooper-Eromanga Basin, Australia *David Kulikowski, University of Adelaide, Australia*	Taming uncertainty in geophysical inversion *Malcolm Sambridge, Australian National University, Australia*	Preliminary interpretations from the 2015 Coompana aeromagnetic survey *Rian Dutch, Geological Survey of South Australia, Australia*	Geophysical responses from mineral system components in the deep crust and upper mantle *Michael Dentith, University of Western Australia, Australia*
1410	Multi-Azimuthalwalkway VSP for full azimuth seismic calibration *Konstantin Galybin, Schlumberger Australia Pty Ltd, Australia*	North West Shelf 3D Velocity Modeling *Laureline Monteignies, Estimages, Australia*		Magnetotelluric inversion, carbonaceous phyllites and an ore zone: Kevitsa; Finland *Cuong V. A. Le, Curtin University, Australia*	
1435	Application of fullwaveform tomography to VSP walkaway data *Eric Takam Takougang, Petroleum Institute, United Arab Emirates*	New Interpretation and Modelling Results for a Late Triassic Isolated Pinnacle Reef Complex on the Exmouth Plateau, Western Australia *Jarrad Grahame, CGG, Australia*	A Bayesian inference tool for geophysical joint inversions *Graeme Beardsmore, Data 61, Australia*	Interpreting the Eromanga and Georgina Basins from magnetotelluric data *Janelle Simpson, Geological Survey of Queensland, Australia*	Imaging fracture permeability using magnetotellurics *Alison Kirkby, University of Adelaide, Australia*
1500	Afternoon Tea				
1530–1710	**Concurrent Session 7A – 7E**				

	Petroleum 7.A **Acquisition & Processing** Hall L Chair: Doug Roberts	**Petroleum 7.B** **Unconventional** Room L2 Chair: Sandy Menpes	**Minerals 7.C** **Uncertainty & Big Data (2)** Hall M Chair: Alex Ross	**Minerals 7.D** **Distal Footprints (7) Hard Rock Seismics** Hall N Chair: Greg Turner	**Minerals 7.E** **Inversion (2)** Room L1 Chair: Dave McInnes
1530	A robust gradient for long wavelength FWI updates *Andrew Long, PGS, Australia*		Big data techniques for applied geoscience: compute and communicate *Anya Reading, University of Tasmania, Australia*	Introducing 3rd dimension into 2D reflective seismic exploration in the complex hard rock environment *Aleksandar Dzunic, Curtin University, Australia*	Quantitative magnetization vector inversion *Ian MacLeod, Geosoft Inc., Canada*
1555	Advanced reprocessing and imaging: enhancing legacy surveys *Dominic Fell, WesternGeco, Australia*			Interpretation of hard rock seismic data using prestack diffraction imaging *M. Javad Khoshnavaz, Department of Exploration Geophysics at Curtin University, Australia*	AEM cross-gradient constrained inversion of gravity and magnetic data *Adrián Misael León Sánchez , CICESE, Mexico*
1620	Hybridised weighted boot-strap differential semblance *Hamish Wilson, University of Queensland, Australia*	Application of Nuclear Magnetic Resonance (NMR) logs in tight gas sandstone reservoirs pore structure evaluation *Liang Xiao, China University of Geosciences, Beijing, China*	Quantifying the errors in gravity reduction *Philip Heath, Geological Survey of South Australia, Australia*	Olympic Dam seismic revisited: reprocessing of deep crustal seismic data using partially preserved amplitude processing *Tom Wise, Geological Survey of South Australia, Australia*	Inverse and forward modelling using random dipoles – case study *Roger Clifton, NTGS, Australia*
1645	Advanced deblending scheme for independent simultaneous source data *Min Wang, CGG, Singapore*	A new method of evaluating tight sandstone reservoirs pore structure from conventional logs *Liang Xiao, China University of Geosciences, Beijing, China*	Resource management through machine learning *Eldad Haber, University of British Columbia, Canada*	An example of imaging deeper using extended vibroseis cross-correlation *Ross Costelloe, Geoscience Australia, Australia*	The 3D resolution power of the full tensor gravity gradient *José Paúl Calderón-Magallón, CICESE, Mexico*
1710	**Close of Sessions**				
1710–1810	**Happy Hour** Room: Hall F & H (Exhibition Hall)				
1900	**Conference Dinner** *(optional)* Adelaide Oval, Ian McLachlan Room				

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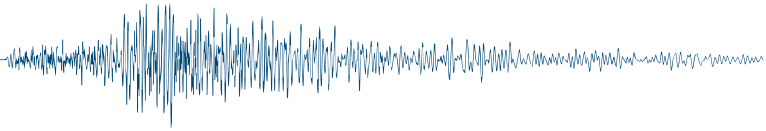
WEDNESDAY 24 AUGUST 2016					
0730	**Registration** – Foyer H				
0800	**Trade Exhibition Open**				
0830–1010	**Concurrent Session 8A – 8E**				
	Petroleum 8.A **Inversion** **Hall L** **Chair:Andrew Long**	**Petroleum 8.B** **Unconventional/Monitoring** **Room L2** **Chair: Josh Sage**	**Minerals 8.C** **Lithospheric Architecture (1)** **Seismology & Potential Fields** Hall M Chair: Stephan Thiel	**Minerals 8.D** **Distal Footprints (8)** **Hard Rock Seismics** Hall N Chair: Greg Turner	**Minerals 8.E** **Uncertainty & Big Data (3)** Room L1 Chair: David Annetts
0830	What's new and exciting in seismic inversion? *Dennis Cooke, ZDAC Geophysical Technology, Australia*	Using fluid-induced seismicity to infer permeability *Andrew King, CSIRO, Australia*	3D imaging of the Earth's lithosphere using noise from ocean waves *Yingjie Yang, Macquarie University, Australia*	Examples of the use of seismic reflection to re-invigorate a mature field: Tennant Creek *Greg Turner, HiSeis, Australia*	Dealing with uncertainty in AEM models (and learning to live with it) *A. Yusen Ley-Cooper, CSIRO, Australia*
0855		Relating electrical resistivity to permeability using resistor networks *Alison Kirkby, University of Adelaide, Australia*		Shoot first, ask questions later: application of seismic reflection to a greenfields zinc exploration project *Darren Hunt, Teck Australia, Australia*	Quantifying the effect of primary field modelling on TEMPEST data – The importance of uncertainty *Anders Vest Christiansen, Hydrogeophysics Group, Aarhus University, Denmark*
0920	Obtaining low frequencies for Full Waveform Inversion by using augmented physics *Eldad Haber, UBC, Canada*	Magnetotelluric monitoring of unconventional energy resource development: Disruptive technology or damp squib? *Graham Heinson, University of Adelaide, Australia*	Passive seismic studies show configuration of Paleoproterozoic subduction zones and their role in craton assembly in Western Australia *Ruth Murdie, GSWA, Australia*	Yathong Trough deep 2D reflection seismic – identifying major structures for the southern Cobar Basin, NSW *Rosemary Hegarty, Geological Survey of New South Wales, Australia*	Gravity gridding in South Australia *Philip Heath, Laslo Katona, Geological Survey of South Australia, Australia*

0945	Estimation of reservoir fluid saturation from 4D seismic data: effects of noise on seismic amplitude and impedance attributes *Rafael Souza, Centre for Energy Geoscience/UWA, Australia*		Potential field studies along the 13GA-EG1 Eucla-Gawler deep crustal seismic reflection line *Ruth Murdie, Geological Survey of WA, Australia*	Development and Implementation of the Sparse Refraction method to exploration for Detrital Fe Deposits *Mike Haederle, Rio Tinto Exploration, Australia*	
1010	Morning Tea				
1040–1220	**Concurrent Session 9A – 9E**				
	Petroleum 9.A **Anisotropy** Hall L Chair: Bonnie Lodwick	**Petroleum 9.B** **Broadband** Room L2 Chair: Danny Burns	**Minerals 9.C** **Lithospheric Architecture (2)** **AusLAMP MT** Hall M Chair: Graham Heinson	**Minerals 9.D** **Distal Footprints (9)** **Constrained modelling** Hall N Chair: Marina Pervukhina	**Minerals 9.E** **Inversion (3)** Room L1 Chair: Philip Heath
1040	P- and PS-wave vector wavefields for anisotropic petrophysics *James Gaiser, GGC, USA*	Back to basics on broadband seismic amplitudes, phase and resolution *Andrew Long, PGS Australia Pty Ltd, Australia*	Insights into lithospheric architecture, fertilisation and fluid pathways from AusLAMP MT *Stephan Thiel, Geological Survey of South Australia, Australia*	Application of petrology & geology to the interpretation of geophysical data in defining economic porphyry-related Cu-Au mineralisation along the Ekuti Range, Morobe Province, PNG *Anthony Coote, APSAR, New Zealand*	Inversion of magnetotelluric data with fuzzy cluster petrophysical and boundary constraints *Duy Thong Kieu, Curtin University, Australia*
1105				Getting the most out of existing exploration data: A new interpretation of the Mt Magnet Gold Camp, Western Australia *Sarah Monoury, SRK Consulting, Australia*	Geological and geophysical integrated interpretation and modelling techniques *Glenn Pears, Mira Geoscience, Australia*
1130	Characterizing heterogeneities in a clastic reservoir using joint/ simultaneous PP/PS inversion, 4D timelapse, Multi Attribute Analysis, and PSDM *Jason Nycz, Synterra Technologies Pty Ltd., Australia*	Improved subsurface imaging and interpretability through broadband reprocessing of legacy seismic data. examples from North West Shelf Australia *Stephen Malajczuk, Geotrace Technologies, Australia*	AusLAMP MT over Victoria: New insight from 3D modelling highlights regions of anomalously conductive mantle and unexpected linear trends in the crust *David Taylor, geological survey of victoria, Australia*	Geophysics for Ni-Cu – Where are we at and where are we going? *W. S. Peters, Southern Geoscience Consultants, Australia*	Geophysical joint inversion using statistical petrophysical constraints and prior information *Jeremie Giraud, Centre for Exploration Targeting, Australia*
1155	Uncovering seismic HTI anisotropy of the Cooper Basin *Stephanie Tyiasning, The University of Adelaide, Australia*	Demultiple for wide-tow broadband acquisition in a shallow water environment: a case study from the NW shelf, Australia *Alex Browne, CGG, Australia*	The Flinders Conductivity Anomal(ies) revisited using AusLAMP Magnetotelluric Data in the Ikara-Flinders Ranges and Curnamona Province *Kate Robertson, University of Adelaide, Australia*		3-D resistivity inversion with electrodes displacements *M.H. Loke, Geotomosoft Solutions, Malaysia*

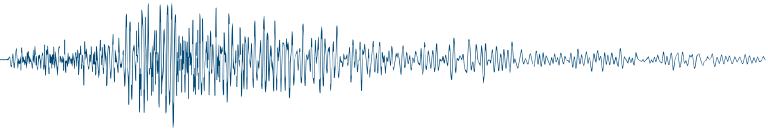
1220	Lunch				
1320	Posters talk: Exhibition hall				
1345–1500	**Concurrent Session 10A – 10E**				
	Petroleum 10.A **Coal** Hall L Chair: Henk van Peridon	**Petroleum 10.B** **Regional** Room L2 Chair: Peter Boult	**Minerals 10.C** **Lithospheric Architecture (3)** **Joint inversion** Hall M Chair: Stephan Thiel	**Minerals 10.D** **Distal Footprints (10)** **Airborne Geophysics** Hall N Chair: Greg Street	**Near Surface/Engineering 10.E** **NMR** **Room L1** **Chair: Mike Hatch**
1345	Enhancing coal quality estimation through multiple geophysical log analysis *Binzhong Zhou, CSIRO Energy, Australia*	Time slicing the Cooper Basin *Witold Seweryn, Department of State Development, Australia*	Multi-observable thermochemical tomography: a new approach to an old problem *Juan Afonso, Macquarie University, Australia*	Towards the resolution of dipping structures in the Capricorn Orogen using AEM *Sasha Banaszczyk, CET UWA, Australia*	Determination of Formation Specific NMR Calibrations for Water Well Evaluation in a Semi-Consolidated Aquifer *Phil Hawke, Wireline Services Group, Australia*
1410	Thickness prediction of tectonically deformed coal using calibrated seismic attributes: A case study *Tongjun Chen, China University of Mining and Technology, China*	Pattern and origin of the present-day tectonic stress in the Australian sedimentary basins *Mojtaba Rajabi, Australian School of Petroleum, the University of Adelaide, Australia*		Airborne IP: Drybones kimberlite VTEM data Cole-Cole inversion *Andrea Viezzoli, Aarhus Geophysics ApS, Denmark*	Designing adiabatic pulses for surface NMR *Denys Grombacher, Aarhus University, Denmark*
1435	Imaging of shallow coal structures using 2D6C Mini-SOSIE *Shaun Strong, Velseis, Australia*	Monitoring of unconventional resources using magnetotellurics *Nigel Rees, The University of Adelaide, Australia*	Integrating gravity, seismic, AEM and MT data to investigate crustal architecture and cover thickness: modelling new geophysical data from the Southern Thomson region *Chris Folkes, Geoscience Australia, Australia*	Identifying potential mineralisation targets through airborne geophysics – The Western Papua New Guinea Case study *Nathan Mosusu, PNG Geological Survey, Papua New Guinea*	Development of rapid scanning surface-NMR for wide area hydrogeologic mapping *Elliot Grunewald, Vista Clara Inc., United States*
1500	Afternoon Tea				
1530	**Conference Awards & Closing Ceremony (Hall L)**				
1630	**Close of Conference**				
1630–1800	**Farewell Drinks** Room: Foyer F				

Posters Hall F (Exhibition Hall)					
Minerals		**Petroleum**		**Near Surface**	
M-1	Estimating cover thickness using seismic refraction in the southern Thomson Orogen – An UNCOVER application James Goodwin, Geoscience Australia, Australia	P-1	Evaluation of empirical relations between static and dynamic elastic modulus Mohsen Farrokhrouz, National Iranian Oil Company, Iran	NS-1	Three-dimensional Inversion of GREATEM Data: Application to GREATEM survey data from Kujukuri beach, Japan Sabry Abd Allah, Hokkaido University, Japan
M-2	Gravity gradient data filtering using translation invariant wavelet Dailei Zhang, Griffith University, Australia	P-2	Magnetotelluric modelling: towards a 4-D inversion Dennis Conway, University of Adelaide, Australia	NS-2	Delineation of fault systems on Langeland, Denmark based on AEM data and boreholes Theis Raaschou Andersen, VIA University College, Denmark
M-3	On the variations of crustal density before the Wenchuan Ms8.0 earthquake Niu Anfu, China Earthquake Networks Center, China	P-3	Mapping sub-surface geology from magnetic data in the hides area, Western Papuan Fold Belt, PNG Irena Kivior, Archimedes Consulting, Australia	NS-3	Magnetic Survey around the Manifestation of Geothermal Prospects in Rabunan Region, Indonesia Mariyanto Mariyanto, Institute of Technology Bandung, Indonesia
M-4	Integrated Interpretation of Magnetotelluric and Potential Field Data: Assessing the Northeast Kimberley Region Mike Dentith, The University of Western Australia, Australia	P-4	Characterising extrusive and intrusive magmatism at the Kipper Field, Gippsland Basin, using 3D seismic data Peter Reynolds, The University of Adelaide, Australia	NS-4	Processing of airborne gamma-ray spectra: extracting photopeaks Eugene Druker, Geophysical Consultant, Australia
M-5	Determination of formation density through RC rods in iron ore environments Duncan Hinton, Weatherford, Australia	P-5	True-Triaxial-cell set up to estimate the stress induced anisotropy: Uniformity study Nazanin Nourifard, Department of exploration geophysics, Curtin University, Australia	NS-5	Processing of airborne gamma-ray spectrometry using inversions Eugene Druker, Geophysical Consultant, Australia
M-6	Toward 3D structural constraints from magnetic models: an example from the Montresor belt, Nunavut, Canada Victoria Tschirhart, Geological Survey of Canada, Canada	P-6	Petrophysical characterization of Gondwana Shales of South Karanpura Coal Field, Jharkhand, India. Piyush Sarkar, Indian Institute of Technology, Bombay, Mumbai, India	NS-6	Magnetotelluric imaging of a carbonatite terrane in the Southeast Mojave Desert, California and Nevada Jared Peacock , U.S. Geological Survey, United States
M-7	Edge detection of potential filed data using correlation coefficients Wei Du, College of Geoexploration Science and Technology, Jilin University, China	P-7	Active tectonic and mechanic interaction between Cusiana and Yopal faults interpreting seismic and terraces geometry Jose Fernando Gomez Martinez, Universidad Industrial de Santander, Australia	NS-7	Performance of Hankel transform filters for marine controlled-source electromagnetic surveys: a comparative study Hangilro Jang, Sejong University, South Korea
M-8	Lithological mapping via random forests: information entropy as a proxy for inaccuracy Steve Kuhn, University of Tasmania/CODES, Australia	P-8	The facies architecture of submarine basaltic volcanoes and their effects on fluid flow Peter Reynolds, University of Adelaide, Australia	NS-8	An analysis on MASW responses for ground subsidence in urban areas Bitnarae Kim, Department of Energy and Mineral Resources Engineering, Sejong University, South Korea
M-9	Characterising cover and exploring under cover with AEM Shane Mulè, CGG, Australia	P-9	Analysis of gravity-driven normal faults using a 3D seismic reflection dataset from the present-day shelf-edge break of the Otway Basin, Australia. Alexander Robson, University of Adelaide, Australia	NS-9	An analysis on changes in resistivity of general reservoir dams based on time-lapse inversion of resistivity monitoring data Seo Young Song, Department of Energy and Mineral Resources Eng., Sejong University, South Korea



M-10	A new source parameters estimation method of airborne gravity gradient tensor data Shuai Zhou, Jilin University, China	P-10	The application of seismic interferometry in oil and gas geological survey on the periphery of Songliao Basin Heng Zhu, Shenyang Geological survey center, Australia	NS-10	Geoscience Australia's Geophysical Network: critical infrastructure and observed and derived data for earth monitoring and community safety. Marina Costelloe, Geoscience Australia, Australia
M-11	Field-dependent susceptibility of rocks and ores – implications for magnetic petrophysics and magnetic modelling David Clark, CSIRO Manufacturing, Superconducting Systems and Devices Group, Australia			NS-11	Aeromagnetic compensation with partial least square regression Dailei Zhang, Griffith University, Australia
M-12	Magnetic susceptibility of Edmund Basin, Capricorn Orogen, WA Heta Lampinen, University of Western Australia, Australia			NS-12	Comparing test line inversion results from different helicopterborne transient instruments with regard to hydrogeological mapping Neil Symington, Geoscience Australia, Australia
M-13	Using remote sensing and potential field data to interpret basin fill compositional variations and structures Ashley Uren, University of Western Australia, Australia			NS-13	Electrokinetic monitoring groundwater flow in fractured rock media Joseph Rugari, Australia
M-14	Lithospheric Thinning by Mantle Plumes Manon Dalaison, The Australian National University, Australia			NS-14	Wireline logging: cost effective methods for new water bore certification and old leaky bore rehabilitation assessment Duncan Cogswell, Borehole Wireline, Australia
M-15	Inverting dynamic elastic moduli of a granular pack to get shear modulus of the grain Zubair Ahmed, Curtin University, Australia				
M-16	The bark without a dog – magnetic anomalies over holes in a volcanic sheet in the McArthur Basin, NT Clive Foss, CSIRO Mineral Resources, Australia				
M-17	Towards an understanding of the effects of alteration on the physical properties of mafic and ultramafic rocks Cameron Adams, University of Western Australia, Australia				
M-18	The electrical resistivity of the Australian lower crust Paul Soeffky, The University of Adelaide, Australia				
M-19	Electric bipole antenna model study of a basin scale fault system Alexander Costall, Curtin Exploration Geophysics, Australia				

	Saturday 20 August	Sunday 21 August	Thursday 25 August
Adelaide Convention Centre			
City Suite 2		Operational sequence stratigraphy-deep water fans **Rob Kirk** 0900–1700	
City Room 2	Exploring with Airborne Gravity Gradiometry **Asbjorn Norlund Christensen** 0900–1700	Advances since 2010 in Airborne Gravity Gradiometry and Airborne Gravity **Mark Dransfield** 0830–1645	
City Room 3	Prospect, Trap and Fault Seal Analysis Key Uncertainties **Titus Murray** 0900–1700		
Room L3	IP processing and QC - from amps in the ground to an Inversion input **Kim Frankcombe** 0900–1700		
Riverbank 5		Geophysics through the Regolith: UNCOVER Australia **Tim Munday** 0900–1700	
Riverbank 6		SEG DISC 2016 - 3C Seismic and VSP: Converted Waves and Vector Wavefield Applications **James Gaiser** 0900–1700	
Riverbank 7		Near surface passive seismic surveying for mineral exploration, environmental and engineering applications **Jayson Meyers and Chris Wijns** 0900–1700	
Riverbank 8		Cooperative and Joint Inversions of Seismic and Magnetotelluric data **Brett Harris** 1330–1700	
Hungry Hippo Café, 196 Hindley Street, Adelaide			
		Young Professionals Network	



Grosvenor Hotel, 125 North Terrace			
Grayson's Room			EAGE Education Tour - Gravity and Magnetic Methods for Oil & Gas and Mineral Exploration and Production **Yaoguo Li** 0900–1700
Glenroy Room			Tectonic and structural controls to gold and copper mineralization in the circum–Pacific region **Steve Garwin** 0900–1230
Glenroy Room			The geological setting, geochemical signature and geophysical expression of porphyry copper-(gold) systems on the district-scale: global examples **Steve Garwin** 1330–1700
Aquinas College, 1 Palmer Place, North Adelaide			
			How to Land that Job and self-development for young professionals
University of Adelaide			
Level 7 Conference Room, Ingkarni Wardli building, Nth Tce Campus			Magnetotellurics from terrane- to camp-scale – insights and case studies **Stephan Thiel** 0900

Sunday 21 August 2016

Welcome Reception

Time: 1730–1830

Venue: Halls F and H (trade exhibition), Adelaide Convention Centre

Dress: Smart Casual

Tickets: Inclusive for full conference delegates

Additional Tickets: $75 per person

This is a great opportunity to catch up with colleagues and enjoy finger food complemented by fine local wines. Afterwards gather with friends and enjoy some of Adelaide's best restaurants.

Monday 22 August 2016

Happy Hour

Time: 1710–1810

Venue: Halls F and H (trade exhibition), Adelaide Convention Centre

Cost: Inclusive for Full Delegates

University Student GeoQuiz Night – Sponsored by EAGE

Time: 1800

Venue: Balcony Bar, Hotel Richmond, 128 Rundle Mall, Adelaide

Ticket: Free for students.

Transfers: Meet at the ASEG-PESA-AIG 2016 registration desk at 1745 sharp to walk to Hotel Richmond

This is a free event for undergraduate and postgraduate students who have registered to attend the ASEG-PESA-AIG 2016 Conference. The event offers an excellent opportunity to network with peers from other universities. Drinks and canapés will be provided. The European Association of Geoscientists and Engineers will host the EAGE GeoQuiz and have kindly donated a fantastic prize for the winning team of two to attend the 79th EAGE Conference & Exhibition in Paris, France, 12–15 June 2017. The prize includes airfares, accommodation and entry to the conference!

Tuesday 23 August 2016

Happy Hour

Time: 1710–1810

Venue: Halls F and H (trade exhibition), Adelaide Convention Centre

Cost: Inclusive for Full Delegates

Conference Dinner - seated function

Time: 1900

Venue: Ian McLachlan Room, Adelaide Oval

Dress: Cocktail

Tickets: an additional cost of $130 per person for all registrants.

The Dinner will be a highlight of the Conference and will be held at the recently renovated Adelaide Oval. Attendees will enjoy spectacular views of the oval, the historic old scoreboard, and the beautiful St Peter's Cathedral. The food, wine and entertainment promise to give you a great night of fun and relaxation – not to be missed.

Tickets are an additional cost of $130 per person for all registrants.

Wednesday 24 August 2016

Closing Drinks

Time: 1630–1800

Venue: Foyer F, Adelaide Convention Centre

Tickets: Inclusive for full conference delegates