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Wednesday 28th August

9.00am - 3.00pm Accompanying persons tour

Plenary 5: Ethics and Compliance. Chairperson: Peter Hancock

9.00am - 9.20am **Geoff Sharrock** President, The AusIMM AusIMM Code of Ethics

9.20am - 9.40am **David Arnott** Golder Associates JORC & Canadian 101 Codes

9.40am - 10.00am **Cam Wylie** RDCL Thoughts on mining engineering practice in New Zealand

Plenary 6: Women in Mining. Chairperson: Geena Kumar

10.00am - 10.20am **Kate Sommerville** WIMnet representative Women: A solution to national competitiveness

10.20am - 10.50am **Morning tea**

Session 5A: Chatham Rise Phosphate Project & Project Financing. Chairperson: Roger Gregg

10.50am - 11.05am **Chris Castle** Chatham Rock Phosphate Limited Financing the development of the Chatham Rock Phosphate project

11.05am - 11.20am **Ray Wood** Chatham Rock Phosphate Company Limited Engineering design and operational plan for environmentally responsible mining

11.20am - 11.35am **Cam McKenzie** Kenex Limited From exploration to extraction: The consequences of resource morphology for mining operations on the Chatham Rise

11.35am - 11.50pm **Paul Kennedy,** Golder Associates (NZ Limited) Limited Coping with uncertainty: New Zealand's first deep water mining EIA

11.50am - 12.05pm **Adrian Fleming** RockWorks The TSX Venture Exchange: First stop for junior company finance

12.05pm - 12.20pm **Steve Gawn** ANZ Commodities Section Finance risk management

12.20pm - 1.20pm **Lunch**

Session 5B: Mineral Deposit Studies & Exploration. Chairperson: Jeff Mauk

Shaun Barker University of Waikato Applications of new technology to answer an old question: Are stable isotopes useful for mineral exploration?

Sabina Strmic Palinkas University of Auckland Ore-fluid evolution at the Pb-Zn skarn deposit Sasa, Republic of Macedonia

Bob Brathwaite GNS Science Geochemistry and ore mineral mineralogy of chromite deposits in the Dun Mountain Ophiolite Belt, East Nelson

Lauren Farmer University of Otago (Student) Characterising tungsten mineralisation using a portable XRF in the Macraes gold mine

David Prior University of Otago Quantitative microstructural analysis using electron backscatter diffraction: Application to mineral deposits

Fraser Cunningham Kenex 3D prospectivity modelling: A new era in exploration targeting

Session 6A: Legal Panel Discussion. Chairperson: Vivienne Bull

1.20pm - 1.30pm **David Buckrell** NZP&M Framework of recent amendments to the Crown Minerals Act 1991

1.30pm - 1.40pm **Brigid McArthur** Greenwood Roche Chisnall Crown Minerals regulatory changes

1.40pm - 1.50pm **Michelle van Kampen** Simpson Grierson Measuring permit compliance: The need for project-based compliance in New Zealand?

1.50pm - 2.00pm **Daniel Minhinick and James Gardner-Hopkins** Russell McVeagh There are many ways to skin a cat... But which one is best? RMA consenting options

2.00pm - 2.10pm **Mark Christensen and Jackie St John** Anderson Lloyd Lawyers Operation Minotaur: Options for legislative reform

2.10pm - 2.50pm **Panel Discussion**

2.50pm - 3.20pm **Afternoon tea**

Plenary 7: Closing Session. Chairperson: Tony Christie

3.20pm - 3.35pm **Peter O'Sullivan** Tai Poutini Polytechnic Re-establishing a New Zealand School of Mines

3.35pm - 3.50pm **Sefton Darby** NZP&M The workings and vision of NZP&M going forward

3.50pm - 4.10pm **Ian Plimmer** The future of mining in a changing climate

4.10pm - 4.20pm **John Taylor** Chairman of Conference Organising Committee Student prizes, invitation to AusIMM 2014 and conference closing.

4.20pm - 5.30pm **Farewell drinks** (all registered conference delegates and accompanying persons are most welcome to attend)

6.00pm - 10.00pm **Farewell dinner excursion to Petite Fleur at Siefreid Estate** (ticket required; bus transport provided)

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Thursday 29th & Friday 30th August

9.00am - 5.00pm Short course SC5 Real Geostatistics: 2 days

9.00am - 5.00pm Short course SC6 Faults, fractures, fluid flow and mineralizing scenarios: Active and ancient, 2 days

7.30am - 6.15pm Field trip FT5 West Coast gold and coal mines: 2 days (overnight Westport)

Posters

RL Brathwaite and AB Christie: Provenance of titanomagnetite in ironsands on the west coast of the North Island of New Zealand

AB Christie, CE Dunn and HM Waldron: Biogeochemical orientation surveys in the Reefton Goldfield

R West, D Trumm, D Nobes and J Pope: Trialling passive remediation systems for treatment of severe AMD: A case study from Bellvue Mine, West Coast, New Zealand Rae West is an AusIMM scholarship recipient

D Knott: Geotechnical aspects of mine infrastructure or stabilisation of underground workings to allow development

M Convery: Overview of Pilot Trials of Brine Management Options for the CSG Industry in Australia

Venues

All Plenary Sessions are held in Maitai Room 1 (Ground floor)

Concurrent "A" Sessions are held in Maitai Room 1. Concurrent "B" Sessions are held in Maitai Room 2 (Ground Floor)

Tea breaks, lunches, posters and exhibits are located in the Waimea /Wairau Rooms on Level Two

CONFERENCE PROGRAMME

**2013 AusIMM
New Zealand Branch
Annual Conference
Nelson**



**25 - 28 AUGUST 2013
RUTHERFORD HOTEL,
NELSON, NEW ZEALAND**

Sunday 25th August	
9.00am - 5.00pm	Short course SC1: Mine leachate problems and cover systems /encapsulation solutions
10.00am - 4.00pm	Short course SC2: Coal resource reporting under JORC 2012
3.30pm - 6.00pm	Venue available for exhibitors to set up booths
4.00pm - 6.00pm	Registration desk open
6.00pm - 8.30pm	Welcome function with finger food followed by light buffet meal (all registered conference delegates and accompanying persons are welcome to attend)

Monday 26th August	
8.00am - 9.00am	Registration desk open
9.30am - 4.00pm	Accompanying persons tour
Plenary 1: Opening – Status of the Industry in New Zealand. <small>Chairperson: John Taylor</small>	
8.50am - 8.55am	John Taylor Chairman, 2013 Conference Organising Committee Welcome and introduction
8.55am - 9.00am	Tony King Chairman, AusIMM NZ Branch Conference opening
9.00am - 9.20am	Geoff Sharrock President, AusIMM Tas McKee Address
9.20am - 9.40am	Tony Haworth Consultant, Campbell MacPherson Ltd & Richard Barker Annual overview of the New Zealand mining industry
9.40am - 10.00am	David Binnie General Manager, New Zealand Petroleum & Minerals The New Zealand Petroleum & Minerals story
10.00am – 10.30am	Morning tea

Plenary 2: Keynote Addresses – Update on the New Zealand Mining Industry. <small>Chairperson: Roger Gregg</small>	
10.30am - 10.50am	Glen Grindlay General Manager Operations, Newmont Waihi Gold Gold mining in trying times
10.50am - 11.10am	Julian Hanna Director, MOD Staying competitive (in Nickel and Gold Mining)
11.10am - 11.30am	Mick Wilkes MD & CEO, Oceana Gold Gold mining in trying times
11.30am - 11.50pm	Geoff Loudon Chairman, L&M Group Making money from mining
11.50pm - 12.10pm	Hamish Bohannan MD & CEO, Bathurst Resources Coal is a people business
12.10pm – 1.10pm	Lunch

Session 1A: Pike River Insights. <small>Chairperson: Les McCracken</small>		Session 1B: Exploration. <small>Chairperson: Bob Brathwaite</small>	
1.10pm - 1.25pm	Nicholas Davidson The heart of the matter: Taking QC Bankside Chambers responsibility	Mark Rattenbury GNS Science	Connecting databases to explore New Zealand's mineral estate
1.25pm - 1.40pm	Rebecca Macfie A very ordinary catastrophe Journalist	Steve Smith Aerial Surveys Ltd	LiDAR Surveys for mining applications
1.40pm - 1.55pm	Kathleen Callaghan Preventing further unnecessary workplace deaths: Identifying 'dogs balls' Senior Human Factors Consultant, Z Energy	Vaughan Stagpoole Inversion and analysis of airborne geophysical survey data from the Taupo Volcanic Zone GNS Science	
1.55pm - 2.10pm	Hillary Bennett They did what? Walk awhile in their steel capped boots to understand why Director, Leading Safety	Adam Martin Geophysics-aided geological interpretation of the Otago Schist, New insights for mineral exploration and geological mapping GNS Science	
2.10pm - 2.25pm	Trevor Watts Emergency management for NZ Mines Rescue Service New Zealand mining operations	Sam Stephens Combining geophysical data with geologic mapping for gold exploration in the Old Man Range, Central Otago University of Otago (student)	
2.25pm - 2.40pm		Gareth Hay Downhole geophysics: Effective integration with your drilling programme RDCL	
2.40pm - 3.10pm	Afternoon tea		

Session 2A: Health & Safety / Social Science. <small>Chairperson: Dave Stewart</small>			Session 2B: Exploration / Placer Gold & Platinum. <small>Chairperson: Kerrin Allwood</small>		
3.10pm – 3.25pm	Kim Connolly-Stone Ministry of Business, Innovation and Employment	MBIE Pike River Implementation Plan: Overview	Julie Rowland University of Auckland	Tectonic controls on the localisation of hydrothermal fluid flow in a laterally migrating rift system, North Island, New Zealand	
3.25pm – 3.40pm	Les McCracken MinEx	Mining Industry safety management post Pike River Royal Commission	James Scott University of Otago	Diamond exploration potential in New Zealand	
3.40pm – 3.55pm	Fritz Drissner EPMU	Employee participation post Pike	Andy Bartle Glass Earth Gold	Placer gold recycling and sedimentary evolution along Dunstan Range front, Central Otago, NZ	
3.55pm – 4.10pm	Terry Byrne Brightwater Engineering	A contractors approach to health & safety in the mining and minerals industry	John Youngson Youngson & Associates	Evolution of an emerging alluvial goldfield: Inferences from Southland and Central Otago, NZ	
4.10pm – 4.25pm	Rob Rose CRL Energy	CRL Energy: Developing understanding in mine hazards	James Stewart University of Otago	Internal structure of placer gold flakes from Garibaldi Diggings, Central Otago, NZ	
4.25pm - 4.40pm	IntanS Saiful Bahri University of Auckland	A review on structural response of residential buildings attributable to blast vibrations	Dave Crow University of Otago	Miocene orogenic and placer gold in Otago and Southland, New Zealand	
4.40pm - 4.55pm	Lucy Hewlett Massey University (Student)	Maintaining a social license to operate: Developing social information management systems in a mining context	Warwick Fortune Placer Investments	Exploration modelling for gold at Tiwai, Southland: A mineral sands analogue	
5.00pm - 6.00pm	AusIMM AGM				
6.00pm - 8.30pm	Student/Industry function with finger food followed by light buffet meal (all registered conference delegates and accompanying persons are most welcome to attend)				

Tuesday 27th August	
9.00am - 4.00pm	Accompanying persons free day

Plenary 3: Keynote Addresses – Minister's Address and Industry Update. <small>Chairperson: John Taylor</small>		
9.00am - 9.20am	Hon. Simon Bridges Minister of Economic Development, Energy and Resources	
9.20am - 9.40am	Mike Lim ANZ's Global Head of Structured Trade Finance	
9.40am - 10.00am	Chris Baker and Bernie Napp Straterra	Operation minotaur: Cutting through the 'legislative labyrinth'

Plenary 4 : Mineral Resources, Environment & Society – Forum		
10.00am - 10.05am	Chairperson introduction, Chris Baker	Chris Baker, Chief Executive Officer, Straterra
10.05am - 10.20am	Speaker 1 presentation topic To Mine or Not Mine	Al Morrison, Director General, Department of Conservation
10.20am - 10.35am	Panel responses	Colin James, Commentator Kevin Hackwell, Advocacy Manager, Forest and Bird Mark Pizey, General Manager, Environment, Solid Energy
10.35am - 10.55am	Audience question and answer time	Chair to close with brief summary
10.55am - 11.25am	Morning tea	
11.25am - 11.30am	Chairperson introduction, Mike Prizey	Mark Pizey, General Manager, Environment, Solid Energy
11.30am - 11.45am	Speaker 2 presentation topic How can we better sustain New Zealand mining together with environmental responsibility and social benefits?	Kerry Prendergast, Chair, Environmental Protection Agency
11.45am - 12.00pm	Panel responses	Guy Salmon, Executive Director, Ecologic Foundation Cindy Baxter, Coal Action Network Aotearoa Chris Baker, Straterra
12.00pm - 12.20am	Audience question and answer time	Chair to close with brief summary
12.20pm - 1.20pm	Lunch	

Session 3A: Rehabilitation, Water Management, Blasting & Decision Making. <small>Chairperson: Sue Bonham-Carter</small>			Session 3B: Orogenic Gold: Exploration, Processing & Environmental. <small>Chairperson: Dave Crow</small>	
1.20pm - 1.35pm	Graham Ussher Tonkin & Taylor	Ecological costs and benefits of Vegetation Direct Transfer as a rehabilitation method	Doug MacKenzie University of Otago	Multi-stage ore formation at the Macraes gold scheelite deposit Otago Schist, NZ
1.35pm - 1.50pm	Keegan How Golder Associates	Designing water management infrastructure for all eventualities: A Toolkit Approach	Marshall Palmer University of Otago (Student)	Timing and conditions of fluid flow within Greenland Group, Westland, New Zealand
1.50pm - 2.05pm	Brett Sinclair Golder Associates	Feasibility stage planning for groundwater management following mine closure: The Escarpment Mine	Tom Ritchie University of Otago (Student)	Greenland Group prospectivity immediately south of the Reefton Goldfield, Westland
2.05pm - 2.20pm	Brian Ayres O'Kane Consulting	Mine Waste Cover Systems: An international perspective and applications for mine closure in New Zealand	Jon Gane OceanaGold	Uncovering the extent of the Birthday Reef and the one million ounce potential of the Blackwater Anticline, West Coast, New Zealand
2.20pm - 2.35pm	Aaron Dutton CRL Energy	The Te Kuha Sector, Buller Coalfield: A revised model	Katrin Wellnitz University of Otago (Student)	Carbonate alteration zones related to Miocene gold deposits and lamprophyre intrusions in New Zealand's Southern Alps
2.35pm - 3.00pm	Richard Mahoney Beca	Dipping a toe in the future: Applying simulation to complex systems for confident decisions	Justin Johns OceanaGold	Geological source and behaviour of antimony under alkaline process condition at OceanaGold Reefton sulphide concentrating plant
3.00pm - 3.15pm	Murali Nagarajan Orica	Through seam blasting: Leighton Wahana experience	Gemma Kerr University of Otago	Experimental mobilisation of antimony and arsenic from Globe-Progress mine ore, Reefton, New Zealand

3.15pm - 3.45pm	Afternoon tea			
Session 4A: Mangatangi Mine & Sams Creek Project. <small>Chairperson: Helen Mongillo</small>			Session 4B: Epithermal Gold. <small>Chairperson: Jeff Mauk</small>	
3.45pm - 4.00pm	Ian K.G. Boothroyd Golder Associates	Coal mining in an agricultural landscape: The proposed Mangatangi mine and the management of ecological character and condition	Mariana De Paula Souza Zuquim University of Auckland (Student)	Structural controls on the localisation of Au-Ag epithermal deposits within the Karangahake-Ohui structural trend, Hauraki Goldfield, New Zealand
4.00pm - 4.15pm	Sue Bonham-Carter Golder Associates	Collaborative mine planning and water management design for the proposed Mangatangi Mine: Integrating model outcomes at the concept design stage	Taylor Knight University of Auckland (Student)	Structural controls on Au-Ag mineralisation in the Trio epithermal deposit, Waihi, New Zealand
4.15pm - 4.30pm	Zeb Etheridge Golder Associates	Water resource impact assessment for the Mangatangi Mine: All models are wrong but some are useful	Erin Skinner University of Auckland (Student)	Coupled vein texture and trace element analysis of the Waihi vein system, New Zealand
4.30pm - 4.45pm	Paul Angus MOD Resources	Update on exploration at Sams Creek project Northwest Nelson New Zealand	Ayrton Hamilton University of Auckland (Student)	Using the Kohuamari Sinter as a vector for epithermal mineralisation and assessing its economic potential
4.45pm - 5.00pm	Mark McCulloch Golder Associates	Gold mineralisation at Sams Creek deposit	Sarah Fyfe University of Auckland (Student)	A quantitative analysis of ore mineralogy in the Waihi Vein System, New Zealand
5.00pm - 5.15pm	Markham Phillips University of Otago (Student)	Geochemical variations in the Sams Creek gold prospect, NW Nelson, NZ	Alicia Newton Presented by Jeff Mauk University of Auckland	Residence of Au in the Simberi deposit, Papua New Guinea: Implications for refractory Au mineralisation in adularia-sericite epithermal deposits
5.15pm - 6.00pm	AusIMM NZ Branch committee meeting			
7.00pm - 7.30pm	Pre-dinner drinks (ticket required for drinks and conference dinner)			
7.30pm - late	Conference dinner			