

## Ground vibrations – Blasting & Seismicity & its effect on ground control

Workshop and Meeting Thursday 29th and Friday 30th October 2009

The Eastern Australia Ground Control Group held another successful workshop and AGM in Launceston. The workshop started with site visits on the 28<sup>th</sup> October to Roseberry, Beaconsfield and Savage River mine sites with around one third of the delegates taking advantage of these visits. Thanks to the mine management and geotechnical engineers from these sites for conducting these informative tours.

The two day workshop saw 67 members discussing their experiences and expert knowledge on blasting and seismicity.

Six excellent keynote addresses were presented:

- Max Lee from AMC started off the proceedings giving a historical overview of seismicity in mines taking all participants back to the early 1900's and working his way through India, USA, South Africa and Australia over the last centenary before going into styles of seismicity.
- Kevin Holley from SRK looked into the effect of blast damage vibration on rock strengths and showed some examples of amending the Hoek Brown failure criteria to take into account blast damage
- Peter Hills from Beaconsfield gave a brief history on the seismicity at Beaconsfield and presented some of the data from instrumentation set up to measure damage from seismicity and blasting.
- Phil Dight from the ACG stated that there are only two things we can measure deformation and noise. He gave a presentation on measuring microseismicity and its effect on deep open pits.
- Gary Gibson a seismologist from Environmental Systems and Services spoke about past earthquakes and utilising this information to assess the probability of earthquakes in specific areas but did state the exact what, where, when cannot be predicted.
- Mike Lovitt from Orica went through a number of case studies looking at ways to use blasting techniques to manage seismicity. He also worked through the learning's from the Beaconsfield rescue with respect to blast vibrations.

There were also 12 shorter presentations, including one student presentation on various aspects of seismicity monitoring and management, blast monitoring and geotechnical design and ground support selection for dynamic conditions. AMC Consultants provided prizes to be awarded for the best presentation from each day. Recipients were:

- Alan Day – Managing the seismic risk at Perilya, Broken Hill: Case Study
- Dane Blair – Vibration and seismicity

Thanks to the sponsors of this event for making the speaker's prizes and dinners possible. Without the ongoing generous support of these companies and our other sponsors we could not maintain the high standard of events for our members.

The AGM for the EAGCG concluded the program. A constitution for the EAGCG was passed and the intention to incorporate the organisation was discussed with the membership. President Ben Roache resigned from his position as president and a new committee was selected with

President: Meredith Goss – Coffey Mining

Secretary: Kate Williams – Lihir Gold Ltd

Treasurer: Anna Gentle – BHP Billiton, Cannington

Jacqui Monk – Xstrata Copper, Mt Isa Mines

Des Vlietstra – Elasto Plastic Concrete

Kevin Holley – SRK

Ben Roache – Mining One

Tony Meyers – Rock Test

Anthony DeVeth – AMC Consultants

Adrian Pilcher - DSI

Claudia Graf – Newmont, Tanami Operations

Ben Jones – Halcrow Pacific

The next meeting will be held in March/April 2010 and we are looking forward to seeing all of our members there.

