



SANIRE

SOUTH AFRICAN NATIONAL INSTITUTE
OF ROCK ENGINEERING

Rockburst Accident Prevention

WORKSHOP

26 JANUARY 2018

Participation

- Senior rock engineers from AU and PGM mines and RE service providers
- Mine seismologists
- Researchers
- Suppliers
- SANIRE Council and CoM

Agenda



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Time	Presenter	Organization	Subject
8h30	Naomi Ayres	SANIRE VP	Introduction
8h40	Shane D		
9h00	Sanjay Si		
9h30	Gerrie van Aswegen		
10h00	Colin Jer		
10h30	Lindsay L		
10h45	Tea & Co		

Time	Presenter	Organization	Subject
11h10	Jacques Lucas	Brentley, Lucas & Associates	Soft issues always neglected
11h40	Lourens Scheepers	AngloGold- Ashanti	Rockburst accidents.
12h40	Lunch		
13h40	Naomi Ayres	SANIRE VP	Summary of Discussions
14h10	Closure		

1. Designs are good, but may not solve all future problems.
2. New concepts required for ultra-deep mining, e.g. pre-con/hydro-fracturing or mechanisation (work force attitude needs to be shaped).
3. Certain innovation projects are under-way.
4. New research may have to address excavation support under seismic conditions.
5. Inherent limitations of current manual barring practice (see SIM140202).
6. Most incidents are related to sub-standard conditions and non-compliance.
7. Information is lacking for CoM to complete comprehensive analyses.
8. Difficult to identify the root causes; fatigue and human behaviour play a role.

1. Blasting and barring practice need to be improved drastically (see SIM140202).
2. Behaviour related issues, especially worker attitude need to be addressed.
3. Increase in effective training is required on higher and lower levels.
4. Compliance levels should be monitored and improved where necessary.
5. Accident cause analysis needs to be improved: Need to exchange lessons learned, truly identify root causes, gather all facts, compile central data base (possibly with SANIRE).
6. Data – industry needs to raise more data and improve on quality.
7. Internal investigations are very detailed, but not all details can be shared.

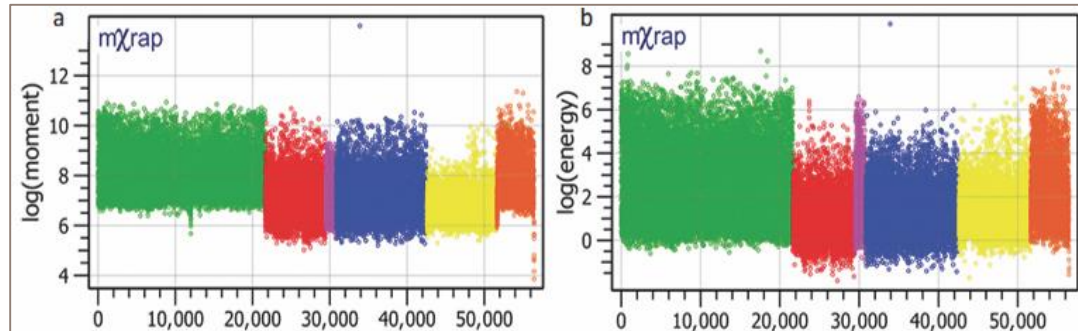
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1. SCO and RE workloads are too high to ensure compliance with designs & standards.
2. Need to conduct more rock mass modelling; lack of rock and support testing facilities.
3. Some software needs upgrades; certain instrumentation/monitoring equipment should be commercialised to be available (e.g. h/wall monitor).
4. Ease of information flow between DMR, MHSC, CoM and industry stakeholders needs to improve for effective exchange.



SEISMIC SYSTEM, DATA, REPORTING, SERVICE

- Data quality issue: Source parameter calculation changes over time preventing the comparison of current events with historic data.





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Thank you!

