QUEENSLAND MINING INDUSTRY HEALTH & SAFETY CONFERENCE 2012

19th - 22nd August 2012

Industry aims at zero harm

safety Boom

Choosy workers

make it harder

HANDBOOK

s in regions battered by this year's wild

Mining

Peak

and Queer

groups

unite to address skills shortage

A New Era in Health and **Safety**

- **New legislation**
 - **Unprecedented growth**
- **Skills shortage**



ELITA 2012

Energy

boom

drives state's economy

HAVE YOUR

SAY ON MODEL WORK HEALTH AND SAFETY LEGISLATION FOR

THE MINING INDUSTRY

Inexperienced workers

Demand for workers to soar to 40.000

Mining injuries A solar to 40.000 with Boom Mark II Bereard to Boom Mark II Querestand's resource set in read 10:00 workers as \$142 billion worth of prosen-tion on line in the next rine years...... Mining injuries **at a loow** Canthe of working hours tool too in the next rine years.... A make of working hours tool too in the next rine years.... A make of working hours tool too in the next rine years.... A make of working hours tool too in the next rine years... A make of working hours tool too in the next rine years... A make of working hours tool too in the next rine years... A make of working hours tool too in the next rine years... A make of working hours tool too in the next rine years... A make of working hours tool too in the next rine years... A make of working hours tool too in the next rine years... A make of working hours tool too in the next rine years... A make of working hours tool too in the next rine years... A make of working hours tool too wor with Boom Mark II at a low

and Jupiters Townsville



This Handbook is Proudly Sponsored by MICOMM

Sponsors

The Queensland Mining Industry Health and Safety Conference Committee wishes to thank the following organisations for their generosity and continuing support of this event.



4cRisk Pty Ltd **ABSC Group ADT Security** Amare Safety Arcadian Nutraceuticals **Attune Workplace Australian Safety & Learning Systems BEAR Data Solutions & NetApp Best Practice OHS Capability Group** Confiance **Corporate Bodies International** Down Under Safety - Paladin **Down Under Training Drake Safety** Dust-A-Side Australia (and vehicle display) Ford Health **Frontline Diagnostics** GCG health safety & hygiene **Gryphon Psychology HELLA Mine lighting**

IQ LINK Javelin Pacific Pty Ltd JobFit Systems International **Joncris Sentinel Services Kinetic Group** KINNECT LifeAid Ptv Ltd Linkforce Engineering LSM Technologies Pty Ltd **McCullough Robertson** MICOMM **Minerals Industry Safety & Health Centre MMS Security Mobile Medical Services Australia** MSA (Aust) Pty Limited Nepean Power – Technology **North Queensland Therapy Services Pinpoint Communications** Point Health Pty Ltd Protective Industrial Products (AUST) Pty Ltd

HES (and vehicle display)

The above Displays were confirmed at the time of printing.

Q-COMP QML Pathology RISKGATE Rivers Carbon Technologies Royal Medical Supplies Safety Equipment Australia Pty Ltd Safestart Sick Pty Ltd Simtars Steelblue St John Ambulance (Qld) Corporate Client Services The Autogenic Training Institute uvex Safety Australia Vericom Computers Inc. Verifact - Health Safety Response

Guest Exhibitors

A Miner's Legacy Mater Foundation Royal Flying Doctor Service

Dear Industry Colleagues

Welcome

As Chairman, it gives me great pleasure on behalf of the Committee of the Queensland Mining Industry Health and Safety Conference to welcome you to this year's event.

Now in its 23rd year, this Conference continues to provide us with a forum for sharing our knowledge with one another, as well as for learning from experts in their field from Australia and overseas.



Our theme this year, 'A New Era in Health and Safety', was chosen so we may focus on what lies ahead and to highlight

the most pressing issues currently facing our industry. For discussion will be such topics as the new legislation, the unprecedented growth in the resources industry, the ongoing skills shortages, and the surge in inexperienced workers.

We are told that over the next decade, Queensland, under a full-growth scenario, will see capital expenditure in the resource sector of about \$142 billion and that the value of production is forecast to increase to around \$141 billion by 2020–21. We are also told that to manage this growth we will need an additional 40,000 workers.

These figures are impressive — but keeping our workforce safe during these extraordinary times will test us all. We are all affected by the rapid growth of our industry and keeping up, let alone ahead, will continue to be our biggest challenge.

To help us prepare, we have invited presenters from overseas and around Australia to paint a picture of what our industry will look like in five to ten years.

A few of the Program highlights will be Keynote presentations by:

- Dr Kathleen Callaghan, reporting on Pike River
- Dr Hugh Grantham, a leading expert in paramedics
- Stephen Dumble, Asset President with the BHP Billiton perspective, and
- Keith Brightman from the Australian Maritime Safety Authority.

They and all other presenters will address a wide range of topics relevant to our industry today and into the future.

Each year the 'Innovations' attract a great deal of interest. The top 10 submissions have been selected and will be presented on Monday afternoon. From these, the winners will be chosen, with the overall winner receiving a trip for up to two to the 2013 NSW Health and Safety Conference.

I also invite you to step outside your comfort zone over the next few days and introduce yourself to a stranger — by doing so, you may find like-minded people with whom to share information and exchange ideas, leading not only to new friendships but to mutually rewarding outcomes in your place of work.

Another clear demonstration of the importance of health and safety are the number of organisations sponsoring the Conference this year. Please take the time to visit their displays and talk to their representatives.

I would also, on behalf of the Committee, like to thank all those organisations who are supporting us this year, many of which have been with us for many years — your support allows us to keep the cost to a reasonable level, allowing more delegates to attend.



My Committee and I look forward to the opportunity of meeting with you over the next few days.

leef Stevel

Stewart Bell Commissioner for Mine Safety and Health, DNRM Chairman Queensland Mining Industry Health and Safety Conference 2012

Conference Committee

Chairman Stewart Bell Mine Safety & Health, DNRM

Secretary Laura Regan Queensland Resources Council

Greg Lane *Queensland Resources Council*

Conference Organiser

Marion Powell and Robert Seaman

ACCLAIM Special Events and Meeting Management

Darren Brady Simtars

Greg Dalliston CFMEU Mining and Energy Division

> Hag Harrison Australian Workers' Union

> > Paul Harrison Simtars

Rob O' Sullivan *Mines Safety & Health, DNRM* Liz Sanderson Anglo American Metallurgical Coal

> **Garry Saunders** Peabody Energy Australia

Ken Singer Mines Safety & Health, DNRM

> **Grant Cook** Safety Balance

Nicola Garland Queensland Resources Council

All correspondence to be addressed to:

ACCLAIM Special Events and Meeting Management 23 Deerhurst Road, Brookfield, Qld 4069 Australia Tel: 61 7 3254 0522 Fax: 61 7 3254 0406 Email: safeconf@acclaimsemm.com.au

Conference Venues

Business Sessions - Sunday to Wednesday

Townsville Entertainment and Convention Centre (TECC).

Concurrent Sessions - Tuesday

TECC and Jupiters Townsville Hotel.

Welcome Function - Sunday

The Banquet Centre and The Brewery in the old Post Office Building, 252 Flinders Mall.

Informal Dinner - Monday

The Grand Marquee at Jupiters Townsville Hotel.

Conference Dinner - Tuesday The Townsville Entertainment and Convention Centre (TECC).

Rescue Station - Sunday to Tuesday The Lobby Bar at Jupiters Townsville Hotel.

Lunches - Monday to Wednesday The Grand Marquee at Jupiters Townsville Hotel.

Townsville Entertainment and Convention Centre FLOOR PLAN



DISPLAYS - FOYER, FORECOURT AND PALM LAWN AT TECC

Of special interest each year are the wide range of new products and services which will be on display for the duration of the Conference. Recognising how difficult it is for you to find the time to source what is available to the industry, this year a record number of organisations have taken up this opportunity to display.

The Displays will be open each morning before sessions commence and then again during all the Morning and Afternoon Breaks and at Lunch time on Monday and Tuesday.

We invite you to visit each display space and discuss your requirements with the representatives who will be only to happy to answer your questions and assist in any way possible.

Conference Information

Registration Information

REGISTRATION DESK

Registration will be in the Foyer of the Townsville Entertainment and Convention Centre (TECC) during the following times:

2.00pm – 6.00pm Sunday 7.30am – 6.00pm Monday and Tuesday 7.30am – 1.30pm Wednesday

Conference Collateral

CONFERENCE HANDBOOK

All delegates will receive a Conference Handbook containing the Full Program including Abstracts of Paper Presentations. Proudly Sponsored by MICCOM

INNOVATION SUBMISSIONS HANDBOOK

This is a compilation of all of the Submissions received for this year's Innovation Awards.

Proudly Sponsored by Mobile Medical Services Australia MMSA

POCKET PROGRAM

For quick reference a pocket sized Program will be supplied to all delegates.

Proudly Sponsored by Corporate Bodies International



CONFERENCE SATCHEL

All registered delegates will receive a Conference Satchel. *Proudly Sponsored by Down Under Training*



NAME BADGE

Name badges will be provided at Registration. It is essential they be worn at all times to allow entry to Conference Sessions and all Social Functions.

Proudly Sponsored by GCG health safety & hygiene



REGISTRATION BROCHURE

The Registration brochure - (distributed in June). *Proudly Sponsored by Ford Health*



Conference Proceedings

The following Proceedings will be available post Conference on the website at www.qldminingsafety.org.au

- · PowerPoint presentations provided by Keynote Presenters
- · PowerPoint presentations provided by Concurrent Session Presenters
- Papers provided by Concurrent Session Presenters
- · PowerPoint presentations from the Innovation Sessions
- Innovation Finalists Submissions

Proudly Sponsored by KINNECT



Dress Code

Conference SessionsSmart casualWelcome Function - Sunday eveningSmart casualInformal Dinner - Monday eveningSmart/Dressy casual (plus warm jackets)Conference Dinner - Tuesday eveningLounge Suits or a Dress Shirt and Trousers for Men and Cocktail Attire for Ladies

Student Host Program

The Program is designed to promote health and safety within the mining industry by giving students who are studying relevant courses exposure to the industry via the medium of the Conference. Students come from the Queensland Resources Council Graduate Program and Minerals Industry Safety and Health Centre.

Proudly Sponsored by Minerals Industry Safety and Health Centre



Coach Transfers – Complimentary

• Airport Transfers

Sunday - The Coach service will meet all main flights into Townsville Airport and transfer delegates to the *Conference Hotels.

Monday - This service will also operate on Monday morning, picking up delegates at the Airport and transferring them to their Hotel and/or to the Townsville Entertainment & Convention Centre.

Wednesday - At the conclusion of the Conference the Coach service will be waiting outside to transfer delegates from the Townsville Entertainment and Convention Centre to the Airport.

Daily Coach Shuttle Service

Business Sessions

Sunday afternoon - This service will collect delegates from designated points close to the *Conference Hotels and take them to the Townsville Entertainment and Convention Centre in time for Registration and the commencement of the Conference.

Monday, Tuesday and Wednesday - This service will operate each morning and Monday and Tuesday afternoons between designated points close to the *Conference Hotels and Townsville Entertainment and Convention Centre.

Social Functions

Sunday evening - Coaches will be waiting outside the Convention Centre at the close of the Opening Session to transfer all delegates to the Welcome Function at the Banquet Centre at The Brewery and return them to their accommodation at the end of the Function.

Monday and Tuesday evenings - At the close of Business Sessions, Coaches will be waiting outside the Convention Centre ready to transfer all delegates to the designated point close to their accommodation.

Coaches will return to the designated points to transfer delegates to the Function venues each evening and then provide a return transfer to their accommodation at the end of the Functions.

* Those Hotels organised through the Conference Organiser

Proudly Sponsored by the CFMEU Mining and Energy Division



Mater Foundation

Charity Auction

In aid of the MATER HEALTHY HEROES

This year's charity auction, which will be held during the Informal Dinner on Monday evening, will support the 'Mater Healthy Heroes' program being undertaken by the Mater Foundation.

The World Health Organisation and the Australian Government recognise the global obesity pandemic as one of the greatest health challenges of the 21st Century. Being overweight or obese increases the likelihood of developing chronic diseases such as heart disease, diabetes and cancer. Based on Mater Foundation's past success collaborating with mining companies to promote health awareness (specifically prostate cancer) and fundraise for medical research, a new initiative is being developed to combat this global problem.

The program is aimed at alerting employees to the dangers of being overweight/obese and the associated increased risk of developing heart disease, diabetes and cancer. Recent statistics released by Diabetes Queensland show that three out of four mine site employees are overweight or obese, making this quickly expanding market segment a key industry to educate on the risks and to teach how to live a healthier life.

Utilising the knowledge of dieticians and metabolic researchers at Mater, the program will help companies to make practical adjustments in the workplace that promote a healthier lifestyle for their workforce and also to empower employees to make better choices.

Funds raised through the implementation of the program will support important research to identify why overweight and obese people have a higher risk for chronic disease and to combat this problem in several ways; by promoting the growth of healthy fat cells, rather than unhealthy fat cells; by promoting the production of key hormones that regulate metabolism; and exploring the benefits of lifestyle interventions and micronutrient supplementation.

Lots of great items for you to bid on – so make sure you are in the mood as there are some great items to be auctioned during the night as well as a few excellent Prizes to win.

Master Auctioneer, Phil Black, with his sharp wit and great ability with the hammer will be doing his best to encourage you to dig deep to raise some much needed funding – the proceeds of which will go to this very important Program.

Please contact the Conference Organiser on arrival if you would like to donate prizes for the live and silent auctions in support of this initiative.

Sunday 19th August

2.00pm – 6.00pm	REGISTRATION – Townsville Entertainment and Convention Centre Foyer
4.30pm	Master of Ceremonies Dan Crowley, Director, Verifact Security
	WELCOME Stewart Bell, Chairman, Queensland Mining Industry Health and Safety Conference 2012
	OFFICIAL OPENING The Honourable Andrew Cripps MP, Minister for Natural Resources and Mines
5.15pm – 6.00pm	KEYNOTE PRESENTATION - Proudly Sponsored by ADT Security Page 14
	Putting the 'H' into OH&S Dr John Tickell, Medical Doctor, International Authority on Health, Stress, Longevity and Life Balance
6.30pm – 10.00pm	WELCOME FUNCTION
	The Banquet Centre and The Brewery - Proudly Sponsored by Peabody Energy
10.00pm to late	THE RESCUE STATION – Lobby Bar Jupiters Townsville Hotel

Monday 20th August

7.30am - 6.00pm	REGISTRATION – Townsville Entertainment and Convention Centre Foyer
8.30am	KEYNOTE PRESENTATIONS - Proudly Sponsored by Anglo American Metallurgical Coal Page 15
8.30am – 9.15am	Pike River: An Accident Waiting to Happen Dr Kathleen Callaghan, Director, Human Factors Group, Faculty of Medical and Health Sciences, University of Auckland
9.15am – 10.00am	Quality and Safety Systems in Health Prof Hugh Grantham, Professor of Paramedics, Flinders University
10.00am - 10.30am	MORNING BREAK AND TRADE DISPLAYS - Proudly Sponsored by Downer EDI Mining
10.30am	KEYNOTE PRESENTATIONS - Proudly Sponsored by Kinetic Group Page 16
10.30am – 11.15am	Working Together Stephen Dumble, Asset President, BHP Billiton Mitsubishi Alliance
11.15am –12.00pm	National Maritime Reforms – Cautious Manoeuvres through Sovereign Turf Keith Brightman, Manager – National Standards, Regulatory Affairs and Reform, Australian Maritime Safety Authority
12.00pm – 12.30pm	A Miner's Legacy Mark Parcell and Rachel Blee, Founders, A Miner's Legacy
12.30pm – 1.30pm	LUNCH AND DISPLAYS - Proudly Sponsored by New Hope Group
1.30pm – 3.00pm	INNOVATION PRESENTATIONS - Proudly Sponsored by Yancoal Australia Page 19
	Measuring and Managing Road Surface Friction Risk RoadSafety Training Services Pty Ltd: David Tulloch
	Brake Disc and Hub Removal Tool Rio Tinto Coal Australia – Hail Creek Mine: Richard Espinoza and Lionel Kennedy
	Reduction of DPM in Underground Coal Environment BMA Gregory Crinum Mine: Andrew Buchanan and Adam Langford
	Starter Motor Jig for Caterpillar 776D Belly Dump Trucks Rio Tinto Alcan Weipa: Graham McInnes
	Caterpillar 24H Motor Grader Rear Window Access System New Hope Coal: Tent Knack and Bruce Collins (New Acland Coal)
3.00pm – 3.30pm	AFTERNOON BREAK AND TRADE DISPLAYS - Proudly Sponsored by Downer EDI Mining

Monday 20th August

3.30pm – 5.00pm	INNOVATION PRESENTATIONS - Proudly Sponsored by Yancoal Australia Page 24
	Longwall 1500 Structure Cassette Oaky Creek Coal – Oaky No. 1: Craig Kimber
	GET Removal Tool MMG - Century Mine: Dale Kathagen and Rod Dugmore
	High – Voltage Electrical Flashover Prevention Downer EDI Mining: Elton Cousins
	Redigrip PSM (Precision Steel Manipulator) Redpath Australia Pty Limited: Andy Leask
	Carbon Fibre Shuttle Car Collars Xstrata Coal Queensland – Newlands Northern Underground: Lesley Philip
5.15pm – 6.45pm	WIMARQ Networking Function - Poolside, Jupiters Townsville
5.15pm – 6.30pm	THE RESCUE STATION – Jupiters Townsville
6.30pm – 7.00pm	PRE DINNER DRINKS – Poolside, Jupiters Townsville
7.00pm	INFORMAL DINNER and CHARITY AUCTION IN AID OF MATER HEALTHY HEROES Proudly Sponsored by uvex Safety Australia Pty Ltd The Grand Marquee, Jupiters Townsville

Tuesday 21st August

7.30am - 6.00pm	REGISTRATION – Townsville Entertainment and Convention Centre Foyer
9.00am	KEYNOTE PRESENTATIONS - Proudly Sponsored by Xstrata Copper Page 31
9.00am – 9.45am	A Legislation Journey Rob O'Sullivan, Chief Inspector of Mines – Metalliferous, Queensland Mines & Energy, DNRM
9.45am – 10.30am	Mine Disaster - The Role of the Royal Commission Stewart Bell, Commissioner for Mine Safety and Health, DNRM
10.30am - 11.00am	MORNING BREAK AND TRADE DISPLAYS - Proudly Sponsored by Joncris Sentinel Sen

11.00am - 12.30pm CONCURRENT PAPERS Page 33

Cannington

Xstrata Coal

11.00 - 11.25am

11.30 - 11.55am

Solutions

Auditorium 1

LEGISLATION

Proudly Sponsored by Peabody Energy

Chair Brett Garland, Chief Operating

A New ERA/Error in Health

Greg Dalliston, Industry Safety and

Health Representative, CFMEU Mining

Officer, Caledon Resources

11.00 - 11.25am

and Safety

and Energy Division

HEALTH

Proudly Sponsored by BHP Billiton

Chair Adam Austin, Manager

Occupational Health & Hygiene,

Diabetes - a New Challenge

for the Mining Industry

Development and Innovation

Manager, Diabetes Queensland

Worker Health and Safety

- Moving Beyond Band-aid

Leanne Rambert, Site Coordinator

and Dr Carla Schlesinger, Program

Working Towards Health

Alison Abbott, Senior Advisor,

Healthy Workers Initiative, Health

Strategy Branch, Workplace Health

Promoting Workplaces

and Safety Queensland

Leader, CompleteScope

12.00 - 12.30pm

Lucille Chalmers, Program

Magnetic Room

Palm Room

UNDERGROUND COAL

Proudly Sponsored by Sick Pty Ltd

Chair Warwick Lidbury, General Manager, Caledon Resources

11.00 - 11.25am

Opportunity for Re-entry into a Coal Mine Immediately **Following an Explosion** Darren Brady, Director - Mine Safety Technology, Simtars

11.30 - 11.55am

Pike River Mine Re-entry and Emergency Mine Re-entry Guidelines Application and Learnings

Geoff Nugent, Operations Manager, **Queensland Mines Rescue Service**

12.00 - 12.30pm

Demonstration of a Prototype Active Explosion Barrier David Humphreys, Principal Consultant, SkillPro Services Pty Ltd and Greg Collecutt, Senior Engineer, BMT WBM

Jupiters Pavilion

MINE VEHICLES

Proudly Sponsored by Simtars

Chair Jim Randell, General Manager New Akland, New Hope Coal

11.00 - 11.25am

Proximity Detection and Operator Guidance -Innovating Mine Vehicle Safety Nicky Guenther, Technical Industry Manager-Surface Mining, Sick Pty Ltd

11.30 - 11.55am

Safety in the Dirt: Measure and Manage Road Friction David Tulloch, Director, RoadSafety Training Services

12.00 - 12.30pm

MDG41, Converting the **Guidelines to Practical** Solutions David Leonard, Advisor - Asset Excellence, Minerals and Metals Group

11.30 - 11.55am **Planes, Trains and Roads - the Interface with Mining Safety** and Health Laws Harold Downes, Partner and Fiona Austin, Special Counsel, Freehills

12.00 - 12.30pm **Managing Contractors Under New and Existing Legislative** Regimes Alan Girle, Special Counsel, Sparke Helmore Lawyers

12.30pm - 1.30pm

LUNCH AND DISPLAYS - Proudly Sponsored by Capability Group

Tuesday 21st August

1.30pm - 3.00pm

CONCURRENT PAPERS Page 47

Magnetic Room

SUBSTANCE & PSYCHOLOGY

Auditorium 1

Proudly Sponsored by Sick Pty Ltd

Chair Steve Kovac, General Manager, **Operations & SSE, Ensham Resources**

1.30 - 1.55pm

Managing Mental Health in the Workplace Naomi Armitage, Director, Gryphon

Psychology, Managing Mental Health in the Workplace

2.00 - 2.25pm

21st Century Drugs and Workers - Drugs, New Drugs and New Loop Holes Dr Carla Schlesinger, Program Leader and Leanne Rambert, Site Coordinator, CompleteScope

2.30 - 3.00pm Alcohol and Other Drugs Issues Cameron Dean, Partner, McCullough

Robertson Lawyers

INVESTIGATION

Proudly Sponsored by MMG

Chair Wes Nichols, General Manager, Exploration, Stanmore Coal

1.30 - 1.55pm The Relationship of the Skills Shortage and Accidents in **Safety Critical Industries** Jo De Landre, Executive General Manager, Safety Wise Solutions

2.00 - 2.25pm

Complex Incident Investigations in the New Era - Tips and Traps Joanne Husband, Senior Associate, Workplace Relations, Employment and Safety, Clayton Utz

2.30 - 3.00pm **Not Enough Incidents** David Pope, Managing Director, POPEHSE Pty Ltd

Palm Room

ERGONOMICS

Proudly Sponsored by Safety Equipment Australia Chair Liz Sanderson, Health Specialist, Anglo American Metalurgical Coal

1.30 - 1.55pm

The Many Benefits of Performing Functional Job **Task Analysis in the Workplace** Anna Isnard, Occupational Therapist, North Queensland Therapy Services

2.00 - 2.25pm

Assessment of Vibration Exposure in the Mining Industry Gary Foster, Occupational Hygienist, **Best Practice OHS**

2.30 - 3.00pm

Perform - An Effective Participatory Ergonomics Program for the Mining Industry Anna Nicholls, Occupational Therapist/Director, North Queensland Therapy Services

Jupiters Pavilion TRAINING

Proudly Sponsored by BEAR Data Solutions & NetApp Chair Amanda Smith, Compliance Manager, Health, Safety, Training and Risk. Xstrata Coal Queensland

1.30 - 1.55pm

Beyond the Cattle Dip: Cleanskin Safety Commitment Peter Cutbush, Managing Director, **Concise Training Solutions**

2.00 - 2.25pm

Is Inducting and Hazard Training of New Employees Enough to Keep Them Safe? Cristian Sylvestre, Managing Director, Safestart

2.30 - 3.00pm

The Move to Professionalism: **OHS Education a Changing** Landscape

Prof Mike Capra, Occupational Health and Safety, School of Biomedical Sciences, The University of Queensland

3.00pm - 3.30pm AFTERNOON BREAK AND DISPLAYS - Proudly Sponsored by Joncris Sentinel Services

3.30pm - 5.30pm

Auditorium 1

SUPERVISION/LEADERSHIP

Proudly Sponsored by Verifact – Health Safety Response Chair Patrick Tyrrell, Geology Manager, New Hope Coal

3.30 - 3.55pm

Visible Leadership Passport Peter Power, Group Manager HSEC Major Projects

4.00 - 4.25pm

Can Operators Pass the Safety Buck to Contractors? Shae McCartney, Partner, Workplace Relations, Employment and Safety,

Clayton Utz

4.30 - 5.00pm

'Zero Accidents' was the Goal... on the Titanic Lincoln Eldridge, Managing Director, SAFEmap Australasia

CONCURRENT PAPERS Page 61 **Magnetic Room**

MEDICAL SERVICES & MINING

Proudly Sponsored by Allianz Global Assistance Chair Daniel Yates, Health & Safety Manager, Anglo American Metalurgical

Coal

3.30 - 3.55pm **Royal Flying Doctor Service:** Working with the Mining **Industry to Provide High Quality Health Care and Emergency Response - Tips** and Tricks Dr Dean Taylor. Principal Medical Officer, Royal Flying Doctor Service, Queensland Section

4.00 - 4.25pm

Telemedicine - Bringing Specialist Care to Remote Areas

Dr Graeme Maw, Staff Specialist in Emergency Medicine. The Townsville Hospital and Director, Axonal **Emergency Solutions**

4.30 - 5.00pm Fly in and Fly out - Getting

Doctors to the Mines Dr Kelly Macgroarty, Director and Dr Peter Pfaender, Director, Mobile Medical Services Australia

Palm Room

RISK ASSESSMENT

Proudly Sponsored by Leighton Contractors, Mining Division Chair Jason Economidis, General Manager, Operations, SSE, Vale Australia

3.30 - 3.55pm

the Horizon" Update of Mining Safety Programs in the United States

4.00 - 4.25pm

Analysis in the Mining Industry Mines Safety & Health, Department of

Assoc. Prof Philipp Kirsch, Project

Jupiters Pavilion

FITNESS FOR DUTY

Proudly Sponsored by The Autogenic Training Institute Chair Steve Rae, Head of HSE, **BMA** Coal

3.30 - 3.55pm

The New Trends in Coping With Fatigue Tammy Farrell, Managing Director, Core Health Consulting Pty Ltd

4.00 - 4.25pm

Stressing an Alternative for a New Era of Health and Safety Helen Gibbons, Chief Psychologist, The Autogenic Training institute

4.30 - 4.55pm

Where Does Health Fit in Fatigue Risk Management? Trudy Tilbury, Advisor-Health, Ergonomics and Human Factors, Mines Safety and Health, Dept of Natural Resources and Mines

5.00 - 5.30pm

"Tired Boss Syndrome": **Decision Making Fatigue in Senior Mining Staff** Dr Toby Ford, Chief Executive Officer,

9

Emerging OHS Issues: "Over

Thomas Mitchell, Principal Consultant. AECOM Australia Pty Ltd

The Case for Quantitative Risk Dr Tilman Rasche, Senior Inspector, Natural Resources and Mines

Medical Director, Ford Health

4.30 - 5.00pm **RISKGATE - Online Solutions** for On Site Safety

Manager: RISKGATE, Mining+Health, Minerals Industry Safety and Health Centre

Tuesday 21st August		
5.00pm – 6.30pm	THE RESCUE STATION – Jupiters Townsville	
6.30pm – 7.30pm	PRE DINNER DRINKS – Townsville Entertainment and Convention Centre Forecourt	
7.30pm	CONFERENCE DINNER AND INNOVATION AWARDS - Proudly Sponsored by Leighton Contractors, Mining Division Townsville Entertainment and Convention Centre Auditorium	

Wednesday 22nd August

7.30am - 1.30pm	REGISTRATION – Townsville Entertainment and Convention Centre Foyer
9.00am - 10.30am	FACILITATED SESSION - Proudly Sponsored by Sparke Helmore Lawyers Page 75
	Sparke Helmore will be facilitating a detailed interactive simulation of the investigation of a serious incident on a mine site and the regulatory investigation and prosecution hearings which follow. The simulation will demonstrate the key components of a quality internal incident investigation and the real world implications of the day to day decisions made by workers, supervisors and managers.
	Facilitator: Matthew Smith, National Practice Group Leader – Workplace, Sparke Helmore Lawyers
	 Panel of Expert Members: Alan Newey, Director, Chat Safety David Scales, OHS Consultant, SRM Consultants Simon Grant, Barrister, Level 19 Inns of Court Alan Girle, Special Counsel, Sparke Helmore Lawyers
10.30am – 11.00am	MORNING BREAK AND DISPLAYS - Proudly Sponsored by The Australian Workers' Union
11.00am – 12.15pm	FACILITATED SESSION CONTINUED - Proudly Sponsored by Sparke Helmore Lawyers
12.15pm – 12.30pm	FORMAL CLOSE OF CONFERENCE Stewart Bell, Chairman, Queensland Mining Industry Health and Safety Conference 2012
12.30pm – 1.30pm	FAREWELL LUNCH - Proudly Sponsored by Ensham Resources

The presenters, topics and times are correct at the time of publishing and in the event of unforeseen circumstances, the Conference Committee reserves the right to alter or delete items from this program.

Award Winner to Speak at Networking Function – Jupiters Townsville Monday 20th August 5.15pm – 6.45pm Poolside



The Queensland Resources Council is proud to host a Women in Mining and Resources Queensland (WIMARQ) networking event on Monday.

Jo Kirby, QRC's Gender Diversity Champion for 2012 is a process engineer with engineering firm Sedgman Limited. She began her engineering studies as a mature student while raising her children. Jo has worked in the Hunter Valley, Papua New Guinea, in Laos and the Bowen Basin and was part of the design team for the Sydney and Gold Coast desalination plants. Outside of work Jo is Chair of Women in Engineering Queensland and she was a founding member of Skirts in Engineering, which promotes social interaction between female engineering students. She also set up Baby Engineers, a group for engineers who are on sabbatical for family or other reasons. "I would like to see increasing opportunities

for women to take on more senior engineering roles, mentoring new engineers and improved pathways for women to take on executive level roles, including board and CEO positions to help give a balanced approach to the development of the resources sector" she said.

The event will be held Poolside at Jupiters from 5.15pm to 6.45pm. The WIMARQ events are well known for providing entertaining networking opportunities for women in the resource sector throughout Queensland. Men are also encouraged to attend.

The event is free. Drinks and finger food will be provided.

To book: Please see the Conference Organisers at the Registration Desk.





www.qldminingsafety.org.au

Social Program

We encourage you to arrive in time and stay on to join in the Social Activities as they offer a rare and invaluable opportunity for networking and for you to catch up with friends and colleagues and make new contacts within the industry.

TICKETS INCLUDED

TICKETS TO ALL LUNCHES AND SOCIAL FUNCTIONS ARE INCLUDED IN THE REGISTRATION PRICE FOR ALL DELEGATES WHO HAVE PURCHASED FULL REGISTRATIONS.

PARTNER AND GUEST TICKETS AVAILABLE.

Additional tickets for partners and quests are available for purchase at the Conference - Just ask at the Registration Desk as soon as you arrive.

SUNDAY 19th August

6.30pm WELCOME FUNCTION - The Banguet Centre and The Brewery

Proudly Sponsored by Peabody Energy Australia Ptv Ltd Peabody

By popular demand we will be returning to The Banquet Centre and The Brewery. Always one of the most important events at this Conference, the Welcome Function sets the tone for the rest of the event. This is where we all gather to kick of the Social part of the Conference. You can be guaranteed a mouth watering menu, a feature of which is the abundance of fresh seafood to compliment the boutique beers which are a hallmark of The Brewery.

COACH TRANSFERS - To The Brewery - At the conclusion of the Business Session, coaches will be waiting outside TECC to transfer delegates to The Banguet Centre and The Brewery.

COACH TRANSFERS - Back to the Hotels - At the end of the Function a Coach shuttle will be available to transfer delegates back to their Hotels.

Partner and Guest Tickets \$80.00 per person

MONDAY 20th August

12.30pm LUNCH - The Grand Marguee, Jupiters Townsville Proudly Sponsored by New Hope Group

Partner and Guest Tickets \$41.00 per person

6.30pm PRE DINNER DRINKS - The Grand Marquee

7.00pm INFORMAL DINNER AND CHARITY AUCTION - The Grand Marquee, Jupiters Townsville

Proudly Sponsored by uvex Safety Australia Pty Ltd

Charity Auction - This year's charity auction will support the 'Mater Healthy Heroes' program being undertaken by the Mater Foundation.

SPECIAL ENTERTAINMENT - Presenting Phil Cass. With over 20 years on stage and over 4000 shows in 56 countries you know that there are few magicians here in Australia and even around the world that can deliver a truly polished and irresistible live ACT - every time! Some people can do magic - but Phil Cass IS MAGIC!

Please contact the Conference Organiser at the Registration Desk on arrival, if you would like to donate a prize for the Live and Silent Auctions in support of this initiative.

Partner and Guest Tickets \$94.00 per person

TUESDAY 21st August

12.30pm LUNCH - The Grand Marquee, Jupiters Townsville Proudly Sponsored by Capability Group

Partner and Guest Tickets \$41.00 per person

PRE DINNER DRINKS - Townsville Entertainment and Convention Centre 6.30pm

7.30pm **CONFERENCE DINNER AND INNOVATION AWARDS – Townsville Entertainment and Convention Centre** Proudly Sponsored by Leighton Contractors, Mining Division

Address by Dan Hunt, Acting Director-General, Department of Natural Resources and Mines

The Conference Dinner provides an excellent opportunity for all delegates to unwind and enjoy the company of industry colleagues while being treated to some excellent entertainment and a specially selected menu with accompanying beverages.

A FEATURE OF THIS EVENING - will be the announcement of the winners of the 2012 Innovation Awards, which will attract a prize of a trip to the 2013 NSW Health and Safety Conference for up to two members of the winning team.

SPECIAL ENTERTAINMENT – Presenting Nikki Bennett

Nikki Bennett has been dubbed "the quintessential showgirl" – (Herald Sun). One of Australia's finest singers and cabaret performers and one of the most popular Australian performers on the international corporate stage – Nikki and her talented dancers will be the feature act at our Conference Dinner. Modern, glitzy and glamorous – a great show for all.

Partner and Guest Tickets \$125.00 per person

WEDNESDAY 22nd August

12.30pm LUNCH – The Grand Marquee, Jupiters Townsville Proudly sponsored by Ensham Resources

Partner and Guest Tickets \$41.00 per person





capability



Master of Ceremonies

Dan Crowley

Dan is a Director of Verifact Risk Mitigation Group and the Verifact Health Safety Response Division. Verifact provide tailored integrated risk solutions including security, emergency response teams, paramedics, nurses, doctors and medical clinics to support numerous mining, gas and other large infrastructure clients in Queensland and NSW.

Dan played for Australia in three World Cups in 1991, 1995 and 1999, which qualifies him for membership of a most unique international rugby club. He was a member of two winning World Cup teams (1991 and 1999), another rare honour for the Brisbane born front-rower and onetime undercover cop. At state level he made 125 appearances for the Reds.

Presenters

Stewart Bell

Stewart holds a Bachelor of Applied Science (Chemistry) and has over 30 years experience and expertise in various aspects of mine safety and health, including extensive mine safety work in China and India. He has performed his current role as Deputy Director-General, Safety and Health for the past five years.

As Commissioner for Mine Safety and Health, he is responsible for the management and strategic direction of the coal and metalliferous mines inspectorates, petroleum and gas inspectorate and the explosives inspectorate. He also has strategic overview responsibility for Simtars, the Queensland Government's Safety in Mines Testing and Research Station.

Stewart is a Chartered Chemist and a Fellow of the Australian Institute of Occupational Hygienists and has extensive experience in the control of coal mine fires and explosions and the application of occupational hygiene principles to the mining industry. He is the Chair of the Queensland Mines Rescue Service Technical Advisory Committee and the Coal and Metalliferous Safety and Health Advisory Councils. He is also the Queensland representative on the Steering Committee of the National Mine Safety Framework. In December 2010, Stewart was appointed a Royal Commissioner to the Royal Commission investigating the Pike River Mine disaster which occurred in New Zealand on 19th November 2010. Stewart received the Public Service Medal in the 2011 Queen's Birthday honours list recognising his services to mine safety and his significant contribution to Queensland having one of the best mine safety records in the world.

Keith Brightman

Keith is the Manager National Standards with the Regulatory Affairs and Reform Division of the Australian Maritime Safety Authority - a strategic role to deliver a single system of marine safety across seven jurisdictions. Eighteen months collective effort has delivered agreement but not without carefully structured plans to facilitate expectations of an industry steeped in tradition.

Keith has been exposed to over 20 years of private sector, public service, political and incarceration behaviours resulting in a chameleon-like persona. He has been a farmer, a state public servant, a commonwealth public servant, the manager of a prison, policy advisor to a commonwealth MP and dabbled in an environmental startup firm.

Completing a Bachelor of Laws (honours) and re entering the public service in 2003, Keith has been drawn to projects requiring empathic communication to overcome values based opposition to change - shifting from major policy development to large scale implementation. A penchant for adrenaline and pushing boundaries – often a little too far – has resulted in a placing in an open bull ride at a rodeo, hitting a tree while barefoot water-skiing, writing-off a light aircraft at Canberra airport, numerous skeletal fractures and loss of over half of his nine lives. He now takes safety seriously.

Dr Kathleen Callaghan

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Kathleen is the Director of the Human Factors Group at The University of Auckland. She is an occupational and environmental physician as well as a specialist in Human Factors, and holds a PhD in both Medicine and Psychology.

Prior to entering academia, Dr Callaghan was the Principal Medical Officer for the Civil Aviation Authority (CAA) of New Zealand and her early career includes service in the RNZAF as the Flying Personnel Medical Officer. Her research focus is on enhancing workplace health, safety and performance. Kathleen has recently served as an expert witness to the Royal Commission on the Pike River Coalmine tragedy.







www.qldminingsafety.org.au

Stephen Dumble

Stephen was appointed to the role of Asset President, BMA, in February 2011 having spent the previous 10 months as the inaugural Asset President of BHP Mitsui Coal. Stephen's current role is to lead BMA through a period that will see significant growth in its business to meet growing production requirements.

Prior to BHP Billiton, Stephen was COO of Linc Energy working to develop and commercialise Underground Coal Gasification technology and, before that, at Rio Tinto in a range of operations, project development, commercial and project leadership roles, including Project Director for the A\$2.25 billion Yarwun 2 Alumina Refinery Project. During his career, Stephen has worked in chemical, alumina, smelting, industrial minerals and mining related operations and

businesses. He has a keen interest in improving, developing and growing businesses and in creating safe but high performing teams and, in turn, creating opportunities for people to grow and develop.

Prof Hugh Grantham

Hugh has been Professor of Paramedics at Flinders University for only one year, having previously spent 20 years in the ambulance industry as the Medical Director of a state ambulance service.

Hugh has extensive experience working with quality and safety systems not only at an organisational level but also, whole of health, at a state level. He has chaired the committee which is implementing standardised handover and recognition and response to the deteriorating patient. He also has experience in providing direct support to clinical care at mine sites in remote areas using remote support systems. In addition, Hugh has a keen interest in medical education providing

senior input into medical education courses in trauma medical emergencies and paediatric emergencies on a national level. He is an active member of the Australian Resuscitation Council and is State Chair of this organisation. Hugh's other interests include disaster and emergency medicine and he filled the role of team leader for the second Australian team into Banda Aceh in the response to the 2004 Boxing Day tsunami.

Rob O'Sullivan

Rob began his mining career in Western Australia as a miner in the gold and nickel mines around Kalgoorlie before studying to become a surveyor. He thought that mining was relatively simple and with the innocence of youth and visions of great wealth, decided to go out on his own to operate a small gold mine with a couple of like minded colleagues.

Following this experience Rob had a 20 year career with Mt. Isa Mines and worked in a number of senior operating and planning roles. He took on mining studies and gained a First Class Mine Managers Certificate of Competency. He was the first Underground Manager at George Fisher mine before moving into the copper stream at the beginning of the Enterprise Mine

Project as Senior Project Engineer, going on to become Underground Manager for the project. Following the completion of this project, he joined the mines inspectorate in 2000. Since then he has held operational roles in Mount Isa and Townsville and is currently the Chief Inspector of Mines - based in Brisbane.

Dr John Tickell

John is an extraordinary Australian business success story and a celebrity advocate for health and wellbeing. As a Medical Doctor, along with his two Medical Doctor children, he has visited over 100 countries to study the habits of the longest living, healthiest people on earth.

The good Doctor is an internationally renowned speaker who presents to numerous industry associations, corporations and professional groups. His books including Laughter, Sex, Vegetables and Fish are international best sellers. Dr Tickell is a medical nonconformist. He refuses to believe that heart disease, cancer and diminished sex drive are part of the normal ageing process.

Facilitator – Wednesday Session

Matthew Smith

Matthew is Sparke Helmore's National Workplace Practice Group Leader, helping clients create safer workplaces in ways that make sense to their business. Matthew regularly advises many of Australia's blue chip private and public sector organisations operating in the mining and resources, construction, manufacturing and retail industries in Australia on regulatory, industrial, compliance and corporate governance matters.

Matthew leads a national team of 8 partners and 45 staff who advise on the strategic and legal management of hundreds of serious safety incidents and a wide range of regulatory prosecutions across the country every year.









Sunday 19th August

2.00pm – 6.00pm	REGISTRATION – Townsville Entertainment and Convention Centre Foyer
4.30pm	Master of Ceremonies Dan Crowley, Director, Verifact Security
	WELCOME Stewart Bell, Chairman, Queensland Mining Industry Health and Safety Conference 2012
	OFFICIAL OPENING The Honourable Andrew Cripps MP, Minister for Natural Resources and Mines
5.15pm – 6.00pm	KEYNOTE PRESENTATION - <i>Proudly Sponsored by ADT Security</i> Putting the 'H' into OH&S Dr John Tickell, Medical Doctor, International Authority on Health, Stress, Longevity and Life Balance
6.30pm – 10.00pm	WELCOME FUNCTION The Banquet Centre and The Brewery - Proudly Sponsored by Peabody Energy
10.00pm to late	THE RESCUE STATION – Lobby Bar Jupiters Townsville Hotel

Putting the 'H' into OH&S

Presenter: Dr John Tickell



Monday 20th August		
7.30am - 6.00pm	REGISTRATION – Townsville Entertainment and Convention Centre Foyer	
8.30am	KEYNOTE PRESENTATIONS - Proudly Sponsored by Anglo American Metallurgical Coal	
8.30am – 9.15am	Pike River: An Accident Waiting to Happen Dr Kathleen Callaghan, Director, Human Factors Group, Faculty of Medical and Health Sciences, University of Auckland	
9.15am – 10.00am	Quality and Safety Systems in Health Prof Hugh Grantham, Professor of Paramedics, Flinders University	
10.00am – 10.30am	MORNING BREAK AND TRADE DISPLAYS - Proudly Sponsored by Downer EDI Mining	

Pike River: An Accident Waiting to Happen

Presenter: Dr Kathleen Callaghan

Quality and Safety Systems in Health

Presenter: Prof Hugh Grantham



Monday 20th August

10.30am	KEYNOTE PRESENTATIONS - Proudly Sponsored by Kinetic Group
10.30am – 11.15am	Working Together Stephen Dumble, Asset President, BHP Billiton Mitsubishi Alliance
11.15am –12.00pm	National Maritime Reforms – Cautious Manoeuvres through Sovereign Turf Keith Brightman, Manager – National Standards, Regulatory Affairs and Reform, Australian Maritime Safety Authority
12.00pm – 12.30pm	A Miner's Legacy Mark Parcell and Rachel Blee, Founders, A Miner's Legacy
12.30pm – 1.30pm	LUNCH AND DISPLAYS - Proudly Sponsored by New Hope Group

Working Together

Presenter: Stephen Dumble

National Maritime Reforms - Cautious Manoeuvres through Sovereign Turf

Presenter: Keith Brightman



A Miner's Legacy

Presenters: Mark Parcell and Rachel Blee

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Innovations



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Innovation Submissions 2012

This year 25 submissions were received for the Innovation Awards.

With a view to providing a wider circulation throughout the Industry, the Conference Committee has printed a separate publication which includes all the Innovations received for the 2012 Awards.

Conference Program – Innovations

Monday 20th August

1.30pm – 3.00pm	INNOVATION PRESENTATIONS - Proudly Sponsored by Yancoal Australia
	Measuring and Managing Road Surface Friction Risk RoadSafety Training Services Pty Ltd: David Tulloch
	Brake Disc and Hub Removal Tool Rio Tinto Coal Australia – Hail Creek Mine: Richard Espinoza and Lionel Kennedy
	Reduction of DPM in Underground Coal Environment BMA Gregory Crinum Mine: Andrew Buchanan and Peter Oxenbridge
	Starter Motor Jig for Caterpillar 776D Belly Dump Trucks Rio Tinto Alcan Weipa: Graham McInnes
	Caterpillar 24H Motor Grader Rear Window Access System New Hope Coal: Tent Knack and Bruce Collins (New Acland Coal)
3.00pm – 3.30pm	AFTERNOON BREAK AND TRADE DISPLAYS - Proudly Sponsored by Downer EDI Mining

Measuring and Managing Road Surface Friction Risk

RoadSafety Training Services Pty Ltd

The Problem or Initiative

Uncontrolled vehicle movements are an ever present mining hazard; be they a result of intermittent rain events or overwatering practices. Vehicle related incidents account for a large proportion of safety related reportable mine events and uncontrolled movements due to deficient surface friction.

Analysis of reported incidents and observations by inspectors during follow-up inspections has shown:

• Most of the incidents (59%) took place on ramps

- Watering or excessive watering was identified as the primary cause of such incidents (46%)
- Wet road conditions due to rain has been a causal factor in (8%) of incidents

The material types used by mines for road construction, including on the road surface to provide for frictional value, require urgent review (S 128 (2), CMSHR).

The challenge confronting surface mining operators is the inherent conflict between managing dust and friction. This difficult situation is exacerbated by demanding and variable geometry combined with water sensitive clay based road materials. Rain events pose an additional intermittent hazard for safe vehicle movement. The *Safe Road System* provides a comprehensive solution to manage this risk.

Traditionally, this risk is managed by reliance on operator experience and judgement. This *Road Safety System* provides scientific and objective friction evaluation that complements current subjective industry experience and knowledge. This is consistent with the hierarchy of control risk management methodology.



Innovations

Brake Disc and Hub Removal Tool

Rio Tinto Coal Australia-Hail Creek Mine

The Problem

Rio Tinto's Hail Creek Mine operates a fleet of Bucyrus MT4400 Electrical trucks, which play an important role in the pre-strip operations throughout the mine.

Regular maintenance to the trucks includes the rebuild of the rear brakes and replacement of wheel motor. These tasks often involve the removal and installation of the brake disc and hub. At approximately 100kg the brake disc and hub could not safely be manually removed by a single person. Due to its awkward positioning and weight, manual removal by two people also created a heightened safety risk.

A safety assessment was conducted during the removal of the brake disc and hub and it identified that the:

- the method was unsafe and a risk to finger, hand, back and wrist injury.
- the location of the brake disc and hub did not allow the attachment of conventional lifting equipment (Crane).
- a tool would have to be designed and developed specifically for this purpose.



Innovations

Reduction of DPM in the Underground Coal Environment

BMA Gregory Crinum

Initiative

The primary objective of this project was to control the exposure of underground coal mine workers to the products of diesel exhausts to levels that are within industry standard and as low as reasonably achievable (ALARA).



Starter Motor Jig for Caterpillar 776D Belly Dump Trucks

Rio Tinto Alcan- Weipa Operations

The Problem

Heavy mining equipment requires substantial maintenance and repair activities to be carried out due to the nature of the working environment. One such task is the removal and replacement of the starter motor in a Cat 776D belly dump haul truck. This labor intensive task requires personnel to position themselves under the truck while reaching up to a height of approximately two metres to access the starter motor. The Cat 776D starter motor weighs over 20 kilograms and requires the use of ropes and come-a-longs to hoist it up and down. High physical workload combined with prolonged awkward positions and the potential for pinch points categories this as a high risk task.



Innovations

Caterpillar 24H Motor Grader Rear Window Access System

New Acland Coal

The Problem (Hazard)

During the end of shift process of cleaning the rear windows of the 24H Caterpillar Motor Grader, it was identified that cleaning of the rear windows presented a slip or fall hazard due to accessibility issues. The practice was to access the windows for cleaning via the tandem housing steps. In turn, this process would see the operator standing in the articulation area while utilising a long handle squeegee mop to access the windows. There was also an ever present risk of over stretching, potentially resulting in muscle tear or strain.

Through the site 'Hazard Reporting' process, this practice was noted as a potential hazard. The 'Hazard report' was forwarded to the relevant Production Supervisor/OCE who in turn followed site protocol by forwarding the report to the NAC Maintenance and Safety Departments for action. A corrective action was issued to the NAC Maintenance Superintendent (responsible for all site Mobile Maintenance) for investigation into alternate methods that would reduce the risk of injury to personal while completing the task and decreasing the individual's exposure to risk.



Conference Program – Innovations

Monday 20th August

3.30pm – 5.00pm	INNOVATION PRESENTATIONS - Proudly Sponsored by Yancoal Australia	
	Longwall 1500 Structure Cassette Oaky Creek Coal – Oaky No. 1: Craig Kimber	
	GET Removal Tool MMG - Century Mine: Dale Kathagen and Rod Dugmore	
	High – Voltage Electrical Flashover Prevention Downer EDI Mining: Elton Cousins	
	Redigrip PSM (Precision Steel Manipulator) Redpath Australia Pty Limited: Andy Leask	
	Carbon Fibre Shuttle Car Collars Xstrata Coal Queensland – Newlands Northern Underground: Lesley Philp	
5.15pm – 6.45pm	WIMARQ Networking Function - Poolside, Jupiters Townsville	
5.15pm – 6.30pm	THE RESCUE STATION – Jupiters Townsville	
6.30pm – 7.00pm	PRE DINNER DRINKS – Poolside, Jupiters Townsville	
7.00pm	OOpm INFORMAL DINNER and CHARITY AUCTION IN AID OF MATER HEALTHY HI Proudly Sponsored by uvex Safety Australia Pty Ltd The Grand Marquee. Jupiters Townsville	

Longwall 1500 Structure Cassette

Xstrata Coal Queensland – Oaky Creek No.1

The Problem or Initiative

a) Identified problem

- Currently laying out Longwall structure during Longwall install has been done the following way:
- Structure gets fixed and bundled up offsite then transported back to site. To minimise volume of the load, the structures get bundled up interlocking each other. The structure bundle is then transported underground on forks to be laid out.
- It requires two men to pull one structure from the bundle at a time due to its heavy weight and the way it's packed.
- This process is quite involved in terms of manual handling and there is potential for serious injuries.

b) How the improvement opportunity was identified

- The process of unloading and laying out structure was not carried out in an efficient manner.
- A large amount of structure gets transported and stored in cut through until such time that it is required to be laid out.
- This meant there was the need to double handle the structure, moving it from the cut through on to the belt road to unstrap and lay out.
- A further problem was created by the above procedure, double handling the structure meant doubling the likelihood of potentially causing an injury due to the additional manual handling required.

c) What health and safety consequences were to be addressed

- The main health and safety consequence to be addressed would be manual handling injuries such as back and hand injuries.
- In the process of separating the structure an underground worker has sustained a crush injury to his thumb.
- This further increased the urgency of completing and finalising the design and manufacture of the structure cassette.



Innovations

GET Removal Tool

MMG - Century Mine

The Problem or Initiative

The change-out of the GET (Ground Engaging Tool) on Liebherr 996 shovels at MMG Century, as at other mine sites, presented a number high safety risks due to the equipment's size and weight.

The first high risk factor was that the current process required tradespeople to manually handle the GET from the bucket. The second high risk factor was that the lugs had to be welded to the GET to enable it to be removed from the Liebherr bucket. While lifting lugs are incorporated into the design of the GET, they detach from wear during operation.

As a lifting tool to assist with the safe change-out of GETs was not available, Century's Mine Maintenance Workshop (MMW) undertook a project to develop such a tool.



High-Voltage Electrical Flashover Prevention

Downer EDI Mining

The Problem or Initiative

Following a series of wet-weather events in 2010, two diesel-electric haul trucks in the Downer EDI Mining (Downer Mining) fleet at one of its Bowen Basin projects experienced high-voltage inverter cabinet flashovers.

The flashover events were the result of arcing across high-voltage terminals and busbarOF1, causing the following damage:

- Insulated gate bipolar transitor IGBT module failures (12 in total);
- Vertical busbar failure;
- Capacitor busbar failure; and
- Switching control fibre optic damage.

In total, six inverter cabinet flashovers occurred in 2010; three per truck. Each failure cost \$100,000-\$150,000 to repair, and the trucks were out of service for an average of 500 hours per truck, causing significant loss of production.



The Redigrip PSM (Precision Steel Manipulator)

Redpath Australia Pty Limited

The Problem or Initiative

Working with suspended loads remains an identified significant risk within the mining industry, which can be compounded by cramped spaces and tight clearances in underground work areas.

During the tender process for the disassembly and re-construction of an overhead workshop gantry crane, at an underground mine, Redpath identified during a pre-project risk assessment, an opportunity to improve the safety of the work by eliminating the need for the slinging of beams and columns during construction, by way of the design and use of a fit for purpose Redigrip PSM (Precision Steel Manipulator).

The use of the Redigrip PSM also reduces the risk from limited headroom above the gantry structure and removed personnel from the hazardous areas adjacent to slinging and carrying of beams.



Carbon Fibre Shuttle Car Collars

Xstrata Coal Queensland – Newlands Northern Underground

The Problem or Initiative

a) Identified problem

- Shuttle car maintenance occurs on a daily basis, and the current process and tools (steel collar) make this task hazardous for the operator.
- It is deemed to be hazardous due to the weight of the steel collar, the difficulty associated with manual handling this item, and the
 excessive time it requires operators to be in a hazardous zone (ie underneath the shuttle car).
- The manual handling issues include awkward postures, excessive reaching and lifting excessive weight. 14kg held at arms length, whilst stooping, exposed the operator to sprain and injury.

b) How the improvement opportunity was identified

- In terms of the current process, fitters reach under the shuttle car and apply a mechanical stop (the current steel collar) to the hydraulic lifting cylinders. If the shuttle car was to lower inadvertently, the shuttle car would come to rest on these collars.
- As part of an overall process improvement and safety review, this particular improvement opportunity was identified through consultation with personnel doing the task and the Engineering department at Newlands Northern Underground.
- It was determined that the risk of injury while conducting this task was unacceptable.

c) What health and safety consequences were to be addressed

- Manual handling injuries (sprain and strain injuries) as a result of awkward postures, excessive reaching and excessive weight.
- The original collars are difficult to apply and place the fitters into a hazardous zone underneath the shuttle car, potentially resulting in crush injury if the hydraulics fail.



Uoting for Peoples Choice

Please cast your vote for the Peoples Choice Award and tear out for collection at the end of the Session.



Queensland Mining Industry Health and Safety Conference

19th - 22nd August 2012 Innovations Peoples Choice Award

	Innovation	Please tick <u>only one</u> box	\checkmark
1.	Measuring and Managing Road Surface Friction Risk RoadSafety Training Services Pty Ltd		
2.	Brake Disc and Hub Removal Tool Rio Tinto Coal Australia – Hail Creek Mine		
3.	Reduction of DPM in Underground Coal Environmen BMA Gregory Crinum Mine	ıt	
4.	Starter Motor Jig for Caterpillar 776D Belly Dump Tru Rio Tinto Alcan Weipa	ıcks	
5.	Caterpillar 24H Motor Grader Rear Window Access Sy New Hope Coal	ystem	
6.	Longwall 1500 Structure Cassette Oaky Creek Coal – Oaky No. 1		
7.	GET Removal Tool MMG - Century Mine		
8.	High – Voltage Electrical Flashover Prevention Downer EDI Mining		
9.	Redigrip PSM (Precision Steel Manipulator) Redpath Australia Pty Limited		
10.	Carbon Fibre Shuttle Car Collars Xstrata Coal Queensland – Newlands Northern Underground		



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Conference Program – Keynote

Tuesday 21st August

7.30am - 6.00pm	REGISTRATION – Townsville Entertainment and Convention Centre Foyer
9.00am	KEYNOTE PRESENTATIONS - Proudly Sponsored by Xstrata Copper
9.00am – 9.45am	A Legislation Journey Rob O'Sullivan, Chief Inspector of Mines – Metalliferous, Queensland Mines & Energy, DNRM
9.45am – 10.30am	Mine Disaster - The Role of the Royal Commission Stewart Bell, Commissioner for Mine Safety and Health, DNRM
10.30am - 11.00am	MORNING BREAK AND TRADE DISPLAYS - Proudly Sponsored by Joncris Sentinel Services

A Legislation Journey

Presenter: Rob O'Sullivan

Mine Disaster - The Role of the Royal Commission

Presenter: Stewart Bell



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Conference Program – Concurrent Sessions

Tuesday 21st August

11.00am – 12.30pm CONCURRENT PAPERS

Auditorium 1

Magnetic Room

LEGISLATION

Proudly Sponsored by Peabody Energy

Chair Brett Garland, Chief Operating Officer, Caledon Resources

11.00 - 11.25am A New ERA/Error in Health

and Safety Greg Dalliston, Industry Safety and Health Representative, CFMEU Mining and Energy Division

11.30 - 11.55am

Planes, Trains and Roads - the Interface with Mining Safety and Health Laws Harold Downes, Partner and Fiona Austin, Special Counsel, Freehills

12.00 - 12.30pm

Managing Contractors Under New and Existing Legislative Regimes Alan Girle, Special Counsel, Sparke Helmore Lawyers

HEALTH

Proudly Sponsored by BHP Billiton Cannington *Chair* Adam Austin, Manager Occupational Health & Hygiene, Xstrata Coal

11.00 - 11.25am Diabetes - a New Challenge for the Mining Industry Lucille Chalmers, Program Development and Innovation Manager, Diabetes Queensland

11.30 - 11.55am

Worker Health and Safety - Moving Beyond Band-aid Solutions Leanne Rambert, Site Coordinator and Dr Carla Schlesinger, Program Leader, CompleteScope

12.00 - 12.30pm

Working Towards Health Promoting Workplaces Alison Abbott, Senior Advisor, Healthy Workers Initiative, Health Strategy Branch, Workplace Health and Safety Queensland

Palm Room

UNDERGROUND COAL

Proudly Sponsored by Sick Pty Ltd

Chair Warwick Lidbury, General Manager, Caledon Resources

11.00 - 11.25am Opportunity for Re-entry into a Coal Mine Immediately Following an Explosion Darren Brady, Director – Mine Safety Technology, Simtars

11.30 - 11.55am

Pike River Mine Re-entry and Emergency Mine Re-entry Guidelines Application and Learnings Geoff Nugent, Operations Manager, Queensland Mines Rescue Service

12.00 - 12.30pm

Demonstration of a Prototype Active Explosion Barrier David Humphreys, Principal Consultant, SkillPro Services Pty Ltd and Greg Collecutt, Senior Engineer, BMT WBM

Jupiters Pavilion

MINE VEHICLES

Proudly Sponsored by Simtars

Chair Jim Randell, General Manager New Akland, New Hope Coal

11.00 - 11.25am

Proximity Detection and Operator Guidance -Innovating Mine Vehicle Safety Nicky Guenther, Technical Industry Manager-Surface Mining, Sick Pty Ltd

11.30 - 11.55am

Safety in the Dirt: Measure and Manage Road Friction David Tulloch, Director, RoadSafety Training Services

12.00 - 12.30pm

MDG41, Converting the Guidelines to Practical Solutions David Leonard, Advisor - Asset Excellence, Minerals and Metals Group

12.30pm - 1.30pm

LUNCH AND DISPLAYS - Proudly Sponsored by Capability Group







Presenter: Greg Dalliston Author: Greg Dalliston

- Legislation
 - The SWA process
 - The NMSF process
 - The Queensland process 1994 2001
- Industry growth in Queensland
 - Proposed v reality
 - Skills shortages
 - Statutory positions
- Nationally harmonised legislation?
 - Will all things be equal
- Where are we now and where are we headed

Proposal is to give a prospective from a coal mine worker who has been involved in the above processes at state and national level on the above points and challenge are we really going to have nationally consistent OHS legislation for mining and will it be world's best practice or simply a trade off to suit some peoples egos and suppositions.





Planes, Trains and Roads – the Interface with Mining Safety and Health Laws

Presenters: Harold Downes and Fiona Austin Authors: Harold Downes and Fiona Austin

Transport infrastructure and systems are essential elements of mining operations. In this space the core mines safety laws interface with rail safety, aviation and road transport legal regimes. The recent changes to the Rail Safety Act 2010 (Queensland) have brought this issue within the key focus of many mining operators.

Operators and contractors must have management systems and commercial contracts which include interface arrangements that practically fulfil both mining and transport law requirements. They have a central role in the development of interface agreements to meet legal requirements. Understanding the laws helps managers avoid over or undercooking their due diligence activities.

Our paper for the 2012 Mining Industry Health and Safety Conference reviews the common transport infrastructure and systems in place in Queensland mining operations and identifies the laws and common contractual arrangements that apply to those activities. We present case studies from railway construction and operation and FIFO travel arrangements to show in a practical sense how the laws interface with mining duties and how due diligence can be demonstrated and where appropriate, risk contractually allocated.



Concurrent Papers

Managing Contractors Under New and Existing Legislative Regimes

Presenters: Alan Girle Authors: Alan Girle and Dianne Hollyoak

"Very often those who engage independent contractors know much less about safety than the independent contractors do."

This observation by Justice Heydon in the recent High Court decision of *Baiada Poultry Pty Ltd v The Queen* illustrates the recognition that principal contractors may need to rely on the expertise and skill of subcontractors to ensure that risk is at an acceptable level.

The reality will be that if harmonisation does not proceed uniformly across all the mining states, national companies in the Queensland mining industry will be left with more than one duty of care test in managing contractors. The Baiada decision, although involving provisions of the *Occupational Health and Safety Act 2004* (Vic), has far-reaching effects for contractor management across Australia, in all industries. As part of this session, we will examine:

- the facts of this case;
- key elements of the High Court's decision; and
- what this decision means for principal contractors and management of subcontractors in the Queensland mining industry.

The High Court has recognised the reliance that principal contractors often place on subcontractors, relying on their specialist skill in all aspects of that operation, including in matters of safety and health. This session will also examine where such reliance on a subcontractor may be justified.






Presenter: Lucille Chalmers Authors: Elizabeth O'Neill and Lucille Chalmers

Type 2 diabetes has serious impacts on the individual, their workplace and their community. We are entering a new era in the fight against type 2 diabetes with the prevalence of the condition growing to epidemic proportions. Every day 60 Queenslanders are diagnosed with type 2 diabetes and mining communities are among the worst hit with rates of type 2 diabetes increasing by as much as 34% in two years.

With 76% of mining employees being overweight or obese, employees in the mining industry are at increased risk of type 2 diabetes. If left undiagnosed or poorly managed, diabetes can affect vision and cause lethargy having direct implications on safety and production. Obesity itself poses significant financial impacts, with productivity losses and premature death estimated to cost Australian workplaces \$6.4 billion in 2008/09.

New and creative solutions are required to prevent type 2 diabetes among mining employees. In 2011, Diabetes Australia -Queensland trialled a social marketing based initiative that utilised new media at two Queensland mine sites. Results of the trial showed that 63.6% of employees had, or intended to, make changes to their lifestyle to prevent type 2 diabetes as a result of the program.



FETY



Worker Health and Safety – Moving Beyond Band-aid Solutions

Presenters: Leanne Rambert and Carla Schlesinger Authors: Leanne Rambert and Carla Schlesinger

There are many approaches to health and safety in the workplace, with different philosophies underpinning these. Despite a number activities attempting to reduce rates of drug use, psychosocial stress and chronic disease (including heart disease, Type II diabetes, cancer and obesity), rates remain steady and in some areas are still rising. This directly impacts productivity and retention.

Companies often base their health efforts on single issue programs. Although these programs offer some positives, they often lack efficiency as they tend to target the same workers and settings. This is because similar conditions and problems have the same risk factors and often cluster in the same groups. Thus, health programs adopted by heavy industry tend to be fragmented and lacking in coherence.

Overall, it is becoming clearer that (i) holistic approaches to worker health and well being (ii) whole of system approaches that target all levels of the company, and (iii) health promotion (preventative) through to treatment strategies are needed to enhance outcomes to worker health. This presentation is intended to inform company planning and action at all levels of the company, as well as provide concrete examples of strategies that do and do not work.



Working Towards Health Promoting Workplaces

Presenter: Alison Abbott Author: Alison Abbott

There is growing recognition of the value and importance of workplace based health and wellbeing programs. With people spending half of their waking hours at work, workplaces have been recognised as ideal settings to influence individual and community health. Increasing evidence around reduced absenteeism, improved productivity and positive return on investment is also slowly but surely leading to an increase in the uptake of workplace wellness initiatives.

The Queensland Workplaces for Wellness Initiative, funded by the National Partnership Agreement on Preventative Health, is a four year initiative that is supporting Queensland workplaces to comprehensively and sustainably implement wellness programs that address the predisposing factors for health and wellbeing in "high risk" workplaces, with a focus on chronic disease.

This presentation will discuss:

- the benefits of implementing workplace health and wellbeing programs
- the importance of integration within workplace health and safety policy frameworks
- key aspects of workplace health promotion creating healthy workplace culture
- availability of Queensland Workplaces for Wellness Initiative resources.

Workplace health promotion, health and safety, injury management and return to work are complementary. Workplace health initiatives have shown to improve productivity, safety performance, staff retention; and worker's physical and mental health.







Opportunity for Re Entry into a Coal Mine Immediately Following an Explosion

Presenter: Darren Brady Author: Darren Brady

Following an explosion in a coal mine commentators within and outside the underground coal mining industry often make comment that the best time to enter the mine is immediately following the initial explosion. These comments often lead to the questioning of the action or lack of; if mines rescue services do not re enter the mine.

This concept that there is a "window of opportunity" to enter a mine immediately following an explosion is based largely on the assumption that the fuel (mainly methane seam gas) required for an explosion has been consumed by the initial explosion and will take time to build up again to an explosive level.

This paper examines the merit of deploying personnel into an underground coal mine following an explosion based on this assumption.





Pike River Mine Re-entry and Emergency Mine Re-entry Guidelines Application and Learning's

Presenter: Geoffrey Nugent Authors: Geoffrey Nugent, Darren Brady, David Cliff and Seamus Devlin

Prior to the Pike River Mine Disaster the Queensland Mines Rescue Service (QMRS) and The NSW Mines Rescue Service (NSWMRS) undertook a project to develop a guideline and a practical prototype software tool to demonstrate how decision makers could be better assisted during a mine emergency which required re-entry to the mine by competent mines rescue trained personnel.

The research and development of the prototype software tool (funded through ACARP grant C19010) coincided with the unfortunate events at Pike River Mine on and after the 19th November 2010.

This paper will discuss the relationship between this project's outcomes and the re-entry strategy and operation at the Pike River Mine, along with learning's the researchers gained from this operation undertaken by the New Zealand Mines Rescue Service and Pike Rive Coal Limited (in receivership).



Palm Room

Demonstration of a Prototype Active Explosion Barrier

Presenters: David Humphreys and Greg Collecutt Authors: David Humphreys and Greg Collecutt

At a previous conference the authors reported on the use of Computational Fluid Dynamics to model the development of a coal dust explosion at the Kloppersbos Explosion Tunnel in South Africa. The resulting model investigated the design characteristics for a prototype coal dust explosion barrier to be trialed at Klopperbos to validate the results of the modeling and demonstrate the use of such a barrier.

The prototype barrier was built and its water dispersal characteristics were successfully confirmed in trials in Australia. The prototype is being shipped to South Africa for explosion trials at Kloppersbos over the next two months. This paper will report on the results of those trials. The system will deliver between 60 and 240 liters of water in less than 250ms to extinguish an explosion in the tunnel. Modeling suggested that as little as 60 liters will prove successful.



Proximity Detection and Operator Guidance - Innovating Mine Vehicle Safety

Presenter: Nicky Guenther Author: Nicky Guenther

There is no doubt that vehicle operators of heavy equipment have to accomplish difficult tasks. The increase in mine productivity has lead to a proportional increase in equipment size. Most vehicles have considerable blind spots, due to scale alone. Combine normal variations in environmental conditions, in-vehicle management systems, navigation systems and radio communications; the most experienced operator can be challenged by multiple distractions. Despite the best efforts of operators, accidents on mine sites remain an industry wide problem. The reasons for accidents are diverse, so too are the collision scenarios.

Building on experience in the development of advanced driver assistance systems including: Adaptive Cruise Control; Automatic Emergency Braking; Pedestrian Protection; Lane Departure Warning; up to complete Autonomous Driving platforms; SICK has introduced a family of turnkey Collision Avoidance Systems. SICK has invested in the adaptation and the combination of different proven technologies in a way to be truly fit for purpose.

Special focus is given to human factors. Developed to be an aid and not an annoyance, the system adopts behaviour recognition, automatic warning zone adjustment and context switching according to different driving manoeuvres. The paper also exemplifies the importance of the end user's dedication to the project and ownership of the technology by means of successful installations.







Safety in the Dirt: Measure and Manage Road Friction

Presenter: David Tulloch Authors: David Tulloch and David Stocker

Uncontrolled vehicle movements are an ever present mining hazard; be they a result of rain events or road watering induced risk. This paper is an examination of that issue and the journey of developing a world first protocol in measuring and managing mine road network wearing surface friction profiles.

Unsealed road friction values for particular road surfaces and large haul trucks is a virtual unknown; add into the mix an unknown quantity of water and we have an unknown; unknown. This makes management of the risk for uncontrolled movements of both light and heavy vehicles on mine road networks an extremely challenging task.

This challenge has been met head-on with a simple low cost yet effective procedure developed to assist mine operators understand how their road networks perform in terms of a competent road surface friction evaluation and ongoing operational monitoring practices.

The road surface performance data gathered over the past year in operational mines will be analysed and explained in layman terms. The application of a safe light vehicle friction test to determine a heavy vehicle friction result provides a ratio trend line that will undoubtedly be of interest for inclusion in future mining publications and road design criteria.





MDG41, Converting the Guidelines to Practical Solutions

Presenter: David Leonard Author: David Leonard

MGD41 is one of those buzz words we hear at every safety meeting and conference in Australia today. Understanding has been one of the greatest obstacles to implementing the guidelines. We need to remember the guidelines were prepared in cooperation with a number of OEM and after market hose and fitting companies. While these companies support mining, they are not integrated into our Mining Business Systems.

This paper will look past the reluctant OEM's that doesn't wish to incur an additional cost without compensation. Past all the Techno babble of After Market vendors and OEM's in there perfect manufacturing plants wanting to up-sell at our expense. It will discuss practical solutions that can be developed and implemented. A program that puts all the controls on site and allows for normal supply by OEM's to site without changing current supply arrangements.

It will discuss an onsite MDG41 manual and work instructions manual. Tracking system that tags a hose and manually or electronically allows tracking as it is issued. It will explain how at replacement time the system can be reversed engineered to update future hose replacement. A system that can be adapted to include direct supply, on-site manufacture, and on-site vendor.



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Conference Program – Concurrent Sessions

CONCURRENT PAPERS

Tuesday 21st August

1.30pm - 3.00pm

Auditorium 1

Magnetic Room

SUBSTANCE & PSYCHOLOGY

Proudly Sponsored by Sick Pty Ltd

Chair Steve Kovac, General Manager, **Operations & SSE, Ensham Resources**

1.30 - 1.55pm

Managing Mental Health in the Workplace

Naomi Armitage, Director, Gryphon Psychology, Managing Mental Health in the Workplace

2.00 - 2.25pm

21st Century Drugs and Workers - Drugs, New Drugs and New Loop Holes Dr Carla Schlesinger, Program Leader and Leanne Rambert, Site Coordinator, CompleteScope

2.30 - 3.00pm

Alcohol and Other Drugs Issues Cameron Dean, Partner, McCullough Robertson Lawyers

INVESTIGATION

Proudly Sponsored by MMG

Chair Wes Nichols, General Manager, Exploration, Stanmore Coal

1.30 - 1.55pm The Relationship of the Skills Shortage and Accidents in

Safety Critical Industries Jo De Landre, Executive General Manager, Safety Wise Solutions

2.00 - 2.25pm

Complex Incident Investigations in the New Era - Tips and Traps Joanne Husband, Senior Associate, Workplace Relations, Employment and Safety, Clayton Utz

2.30 - 3.00pm **Not Enough Incidents** David Pope, Managing Director, POPEHSE Pty Ltd

Palm Room

ERGONOMICS

Proudly Sponsored by Safety Equipment Australia Chair Liz Sanderson, Health Specialist, Anglo American Metalurgical Coal

1.30 - 1.55pm The Many Benefits of

Performing Functional Job Task Analysis in the Workplace Anna Isnard, Occupational Therapist, North Queensland Therapy Services

2.00 - 2.25pm

Assessment of Vibration Exposure in the Mining Industry Gary Foster, Occupational Hygienist, Best Practice OHS

2.30 - 3.00pm

Perform - An Effective Participatory Ergonomics Program for the Mining Industry Anna Nicholls, Occupational Therapist/Director, North Queensland Therapy Services

Jupiters Pavilion

TRAINING

Proudly Sponsored by BEAR Data Solutions & NetApp Chair Amanda Smith, Compliance Manager, Health, Safety, Training and Risk, Xstrata Coal Queensland

1.30 - 1.55pm

Beyond the Cattle Dip: Cleanskin Safety Commitment Peter Cutbush, Managing Director, **Concise Training Solutions**

2.00 - 2.25pm

Is Inducting and Hazard Training of New Employees Enough to Keep Them Safe? Cristian Sylvestre, Managing Director, Safestart

2.30 - 3.00pm

of Queensland

The Move to Professionalism: **OHS Education a Changing** Landscape Prof Mike Capra, Occupational Health and Safety, School of Biomedical Sciences, The University

3.00pm - 3.30pm

AFTERNOON BREAK AND DISPLAYS - Proudly Sponsored by Joncris Sentinel Services





Managing Mental Health in the Workforce

Presenter: Naomi Armitage Author: Naomi Armitage

This presentation will provide an overview of the program and the key issues it seeks to address: These including:

- 1. To outline an organisation wide approach to managing these issues and assist them meet their legislative requirements.
- 2. To increase understanding of mental health and mental health problems and to reduce the stigma associated with these issues.
- 3. To create a supportive workplace culture for individuals with mental health issues.
- 4. To provide information about the most common forms of mental health issues.
- 5. To raise awareness of suicide at all levels within the organisation.
- 6. To provide employees with strategies to promote their own mental health including understanding and managing stress and developing a positive work / life balance.
- 7. To increase the awareness of and willingness to access assistance to address mental health issues.
- 8. To increase the ability and willingness to assist others address mental health issues.

Gryphon Psychology has produced a comprehensive manual setting out all of the above and will provide participants with a complementary copy.





Auditorium 1



21st Century Drugs and Workers – Drugs, New Drugs and New Loop Holes

Presenters: Carla Schlesinger and Leanne Rambert Authors: Carla Schlesinger and Leanne Rambert

Alcohol remains a significant concern for heavy industry, and companies are increasingly developing zero-tolerance principles to alcohol and drug use in the workplace. Unfortunately however, workers often drink and take other drugs (including misuse of prescribed drugs) in their own time in a manner that still affects their performance at work due to issues of withdrawal intoxication.

To compound this issue, more workers are using drug analogues, which have been created (i) by modifying the chemical structure of existing drugs, or (ii) with a different chemical structure that produce similar effects to illegal recreational drugs such as cannabis, anphetamines and opiates. This is a major concern for companies as these drugs are not yet subject to the same legal restraints as common recreational drugs, and are indetectable by routine testing.

These issues pose a significant threat to worker safety, organisational morale and to work performance. In addition, the costs attributable to drinking and drug use can be measured in the expense related to absenteeism, injuries, health insurance claims, as well as loss of productivity, costs of replacing employees, theft and fatalities. This presentation will focus on these issues and how we can make a difference to drug use in heavy industry.



Auditorium 1



Alcohol and Other Drugs Issues

Presenter: Cameron Dean Author: Cameron Dean

Alcohol and other drugs remain an important issue for the resources industry. Management of this issue requires an effective system, as well as ongoing vigilance from supervisors in managing any perceived impairment that might threaten health and safety. While the mining safety legislation sets out a legal framework for managing alcohol and other drugs as a health and safety issue, there are also boundaries around what can lawfully be done.

In this session Cameron Dean, Partner at McCullough Robertson, will examine developments in dealing with alcohol and other drugs in the Queensland resources industry, including:

- a review of the legal framework;
- recent case law that has considered limits on testing for impairment; and
- the challenges faced in managing impairment from new substances such as synthetic cannibinoids that fall outside of the standard testing regimes.





The Relationship of the Skills Shortage and Accidents in Safety Critical Industries

Presenter: Jo De Landre Authors: Jo De Landre and Gerry Gibb

BACKGROUND

Many safety critical industries are faced with the challenge of a skills shortage. In the mining industry, as commodities and metal prices continue to rise, production levels and the number of mining projects are also growing. This in turn requires more and more people for mining and processing operations. Many of these people commence mining employment in a high-risk industrial environment with little or no industry experience. While safety regulations and standards are increasing in the industry, the prevalence of serious / fatal accidents involving inexperienced workers is an increasing concern. This presentation focuses on human factors and system safety initiatives to address the skills shortage challenge and create and maintain a safe and sustainable environment.

METHODS

Accident case study analyses and trends were examined to identify common contributing factors amongst a range of serious / fatal accidents in the mining / resource sectors. In addition, examination of established initiatives to counter the skills shortage were examined.

RESULTS

Examination of the accident case studies revealed a strong correlation between inexperienced workers and serious / fatal accidents. The contributing factors from the accident case studies revealed that despite the presence of many initiatives and defences, inexperienced workers were still committing errors / violations leading to serious / fatal accidents.

CONCLUSIONS

Despite the many safety programs and initiatives to directly address the skills shortage, the data indicates that further initiatives may be needed to overcome the skills shortage.





Complex Incident Investigations in the New Era - Tips and Traps

Presenter: Joanne Husband Authors: Shae McCartney and Joanne Husband

Incidents in a workplace can result in numerous investigations undertaken by the regulator, the mine, the ISHR, the SSHR, the SSE and potentially any contractors which may not be legally privileged.

Multiple investigations can create difficulties in relation to:

- (a) managing stakeholders with different focuses and motivations;
- (b) terms of reference;
- (c) inconsistency of statements / findings;
- (d) differences in processes, including ICAMs, root cause analysis;
- (e) managing employee's expectations and welfare;
- (f) understanding when legal privilege can and cannot be relied upon; and
- (g) meeting statutory reporting and recording requirements.

Failing to manage complex incident investigations, particularly with different obligations and responsibilities in the new era can expose a company to reputational damage, commercial loss, employee dissatisfaction and possibly fines or sanctions.

This session will provide tips and traps to help navigate the competing demands and provide tools to develop a strategic plan to carry out an effective incident investigation, no matter how complex.





Not Enough Incidents

Presenter: David Pope Author: David Pope

Do we think that the reason why people are still getting injured is because we haven't had enough incidents? Or could it be that perhaps we are not asking the right questions when incidents take place?

This paper looks at how we think personal safety incidents are caused and why most of our corrective actions do not address the initiating event that caused the incident in the first place. It proposes an innovative two stage model for incident causation incorporating risk awareness and people paying attention.

The paper also highlights a fundamental question that screams to be asked during incident investigations but hardly ever is, and provides information on how incident investigation processes can be improved to fully understand the root cause and thereby, prevent future incidents.



The Many Benefits of Performing Functional Job Task Analysis in the Workplace

Presenter: Anna Isnard Author: Anna Isnard

Functional job task analyses are a useful tools that when utilised can provide many benefits for individual employees as well as an entire workforce. Task analysis is performed for a wide range of positions in heavy industry, including mining and metallurgic refineries in Queensland with the following benefits observed:

- Understanding the physical requirements of each task and the inherent physical demands of a position can assist with accurate preemployment testing when recruiting new employees,
- identifying and minimising the manual tasks risks involved in a task and thus increasing compliance with safety practices
- and streamlining rehabilitation and return to work by giving health professionals useful information to assist with speedy return to work

It is important to ensure thorough process has been undertaken when performing functional job task analysis and each position is reviewed regularly to incorporate any changes.

Advanced companies have had functional job task analysis for some time, though changes to the process includes objectively measuring the weights of objects lifted, photographic evidence to demonstrate the postures and environments employees work and listing specific suitable duties in areas where an employee may suffer a temporary injury.





Assessment of Vibration Exposure in the Mining Industry

Presenter: Gary Foster Authors: Gary Foster and Marion Burgess

The EU Vibration Directive in 2002 established exposure limits for hand-arm and whole-body vibration in the workplace and this has led have led to legislation and regulations in the EU countries and to an increasing awareness of the hazard and the mitigation measures for whole-body (WBV) and hand-arm vibration (HAV). Currently in Australia there are no limits for vibration exposure and this hazard has not received sufficient attention.

A survey sponsored by Safe Work Australia highlighted that approximately 24% of the overall workforce self reported exposure to vibration and a recommendation from the survey was for a study of the application of the EU exposure limits in Australia with a view to considering adoption in Australian regulations. In view of the nature of the work, a high proportion of workforce in the mining industry is exposed to vibration, in particular WBV, which may exceed these action and exposure limits. This paper will discuss findings from a range of assessments in the Australian mining industry and the implications of adoption of exposure limits in legislation.





Perform – An Effective Participatory Ergonomics Program for the Mining Industry

Presenter: Anna Nicholls Author: Anna Nicholls

Ergonomics has been well documented to be the most effective method for the reduction of musculoskeletal injuries. These injuries make up the majority of injuries in workplaces. Participatory ergonomics is a process which involves all the stakeholders at the workplace including the employees, supervisors, safety advisors and managers in ergonomic education and training, identifying manual task hazards and determining effective control implementation. Participative ergonomics is the internationally recommended approach for reducing musculoskeletal disorders.

Perform is Participative Ergonomics Program for Manual tasks which involves a simplified manual task risk management program based on a participative ergonomics approach. The program has been developed and researched by Workplace Health and Safety Queensland, University of Queensland and Curtin University of Technology.

This presentation will demonstrate the program and with examples of mining video clips and allow participants to trial the program using the worksheets. The benefits of the program will be discussed in this presentation.





Beyond the Cattle Dip: Cleanskin Safety Commitment

Presenter: Peter Cutbush Author: Peter Cutbush

Before commencing work we all do formal safety training .The lines in the sand all need to be made crystal clear. This one-size-fits-all approach focuses on the acquisition of new knowledge required to perform tasks safely.

But what happens then? The next day a 19yr old factory labourer who has never even seen a dragline before could be the spotter in a drop zone under the boom. This scenario is all too increasingly common and cleanskins hurt themselves way more than others.

To really change safety behaviour, to create awareness and ownership, to achieve internal acceptance, we need to provide a dynamic combination of both training and learning. We need to go beyond the classroom and connect our workers with everyday reality by referring to their individual needs and support, at the coalface. If we continue to expect our current training regime to equip workers with all they need to act safely we invite injuries to increase to the levels of the bad old days

There are solutions that can rapidly and seamlessly acclimatise cleanskins to this foreign land. We need to take this critical challenge seriously and make adjustments to the way we bring people on board right now.





Is Inducting and Hazard Training of New Employees Enough to Keep Them Safe?

Presenter: Cristian Sylvestre Author: Cristian Sylvestre

We spend a considerable amount of time, effort and cost inducting new people and training them on hazards before they come to the site. So, is this enough to keep them safe?

Data published recently suggests that inductions and hazard specific training goes part of the way to keeping themselves safe but people still get injured. Inductions and hazard specific training certainly helps people to stay safe that don't know about the mining industry or don't know about the particular hazard the training is about.

However, if the person has worked in mining or knows about the specific hazard, getting them to sit through <u>another</u> training session just contributes to their complacency about the industry or the hazard.

Private research has been completed recently across Australian industries (including mining) indicating that complacency is a factor in over 80% of personal safety incidents people have. The interesting thing is that this is no different for new employees.

This presentation explains why it takes new employees so little time to absorb 'the ways' of the site and shows the results of the research work conducted.





The Move to Professionalism: OHS Education a Changing Landscape

Presenter: Mike Capra Authors: Mike Capra, Margaret Cook and Kelly Johnstone

In April 2012, under the auspices of the Safety Institute of Australia the Occupational Health and Safety Body of Knowledge (BoK) for generalist OHS professionals was released. The BoK was written by a range of OHS professionals and academics and it describes the core knowledge expected of OHS professionals, and provides a basis for accrediting OHS graduate and post-graduate courses.

The Australian Occupational Health and Safety Education Board (AOHSEAB) was also established and charged with the responsibility of accrediting university level OHS programs in Australia. The accreditation process marks a significant change in quality assurance for tertiary OHS education in Australia in which programs will be mapped against the BoK thus ensuring consistency. The accreditation of programs will give employers confidence in the qualifications of those they employ and providing guidance to students in selecting a program of study.

The use of the BoK and the accreditation process will be discussed in relation to development and delivery of a new four year degree program, the Bachelor of Occupational Health and Safety Science (BOHSSc) at the University of Queensland. The BOHSSc has been modeled on professional degrees in Health and Engineering and contains a significant component of industry experience.



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Conference Program – Concurrent Sessions

Tuesday 21st August

3.30pm – 5.30pm

Auditorium 1

SUPERVISION/LEADERSHIP

Proudly Sponsored by Verifact – Health Safety Response *Chair* Patrick Tyrrell, Geology Manager, New Hope Coal

3.30 - 3.55pm Visible Leadership Passport Peter Power, Group Manager HSEC Major Projects

4.00 - 4.25pm

Can Operators Pass the Safety Buck to Contractors? Shae McCartney, Partner, Workplace Relations, Employment and Safety, Clayton Utz

4.30 - 5.00pm

'Zero Accidents' was the Goal... on the Titanic Lincoln Eldridge, Managing Director, SAFEmap Australasia

Magnetic Room

MEDICAL SERVICES & MINING

Proudly Sponsored by Allianz Global Assistance *Chair* Daniel Yates, Health & Safety Manager, Anglo American Metalurgical Coal

3.30 - 3.55pm

CONCURRENT PAPERS

Royal Flying Doctor Service: Working with the Mining Industry to Provide High Quality Health Care and Emergency Response - Tips and Tricks

Dr Dean Taylor, Principal Medical Officer, Royal Flying Doctor Service, Queensland Section

4.00 - 4.25pm Telemedicine - Bringing Specialist Care to Remote Areas

Dr Graeme Maw, Staff Specialist in Emergency Medicine, The Townsville Hospital and Director, Axonal Emergency Solutions

4.30 - 5.00pm

Fly in and Fly out - Getting Doctors to the Mines Dr Kelly Macgroarty, Director and Dr Peter Pfaender, Director, Mobile Medical Services Australia

Palm Room

RISK ASSESSMENT

Proudly Sponsored by Leighton Contractors, Mining Division *Chair* Jason Economidis, General Manager, Operations, SSE, Vale Australia

3.30 - 3.55pm

Emerging OHS Issues: "Over the Horizon" Update of Mining Safety Programs in the United States

Thomas Mitchell, Principal Consultant, AECOM Australia Pty Ltd

4.00 - 4.25pm

The Case for Quantitative Risk Analysis in the Mining Industry Dr Tilman Rasche, Senior Inspector, Mines Safety & Health, Department of Natural Resources and Mines

4.30 - 5.00pm

RISKGATE - Online Solutions for On Site Safety Assoc. Prof Philipp Kirsch, Project Manager: RISKGATE, Mining+Health, Minerals Industry Safety and Health Centre

Jupiters Pavilion

FITNESS FOR DUTY

Proudly Sponsored by The Autogenic Training Institute *Chair* Steve Rae, Head of HSE, BMA Coal

3.30 - 3.55pm

The New Trends in Coping With Fatigue Tammy Farrell, Managing Director,

Core Health Consulting Pty Ltd

4.00 - 4.25pm

Stressing an Alternative for a New Era of Health and Safety Helen Gibbons, Chief Psychologist, The Autogenic Training institute

4.30 - 4.55pm

Where Does Health Fit in Fatigue Risk Management? Trudy Tilbury, Advisor-Health, Ergonomics and Human Factors, Mines Safety and Health, Dept of Natural Resources and Mines

5.00 - 5.30pm

"Tired Boss Syndrome": Decision Making Fatigue in Senior Mining Staff Dr Toby Ford, Chief Executive Officer, Medical Director, Ford Health

5.00pm – 6.30pm	THE RESCUE STATION – Jupiters Townsville
6.30pm – 7.30pm	PRE DINNER DRINKS – Townsville Entertainment and Convention Centre Forecourt
7.30pm	CONFERENCE DINNER AND INNOVATION AWARDS - <i>Proudly Sponsored by Leighton Contractors, Mining Division</i> Townsville Entertainment and Convention Centre Auditorium





Visible Leadership Passport

Presenter: Peter Power Authors: Peter Power and Ian Hooper

One of the significant aspects in the effectiveness of safety performance at the work face is the presence of competent supervision. In fatal and serious incident investigation many parameters are considered when determining the causative factors and supervision is one of those elements that often is shown to have had a bearing on the outcome. There are many pressures today on the modern supervisor to perform and achieve their onerous daily tasks. Not the least of all being time, cost and schedule pressure, while making sure that their crew are safe from harm.

There is at times an unrealistic expectation of the level of performance expected from a supervisor particularly when you consider that they are loaded up with high levels of administrative process requirements in addition to many supervisory tasks. This leads to situations where exposure to risk and the work methodology is less than ideal or acceptable. How does the resource construction industry identify and equip supervisors for this important role?

This paper explores the problems facing the mining construction industry in achieving supervisor competency and advocates some ideas for improving the overall framework and specifically the key competencies that should be sought. It also recognises the work done by the Cooperative Research Centre for Construction Innovation.





Auditorium 1



Can Operators Pass the Safety Buck to Contractors?

Presenter: Shae McCartney Authors: Shae McCartney and Joanne Husband

The engagement and management of contractors is becoming increasing complex. Recent cases in various jurisdictions provide guidance on the challenges for contractors and principals alike in balancing the obligation to ensure risk is minimised against interfering with the contractor relationship.

Learn about the importance of effective contractor management in minimising business exposure to risk in the context of Work Health and Safety including:

- Who has the work health and safety obligations and duties for contract workers?
- To what extent is the principal able to / required to verify the contract workers competency?
- To what extent is the principle able to / required to control or supervise the work?
- To what extent is the principal required to verify, for example, by independent evaluation, that the work has been performed properly?
- How do you establish an effective "paper trail"?
- What are the practical steps principle and contractors can take commencing a project to ensure they do not take on unexpected obligations needs to take?

Harmonisation has again shifted the focus on how to effectively manage contractor relationships.

This session will discuss practical ways of meeting your obligations in the context of contracting arrangements without increasing your risks and obligations from set up to demobilisation.





Auditorium 1



'Zero Accidents' was the Goal ... on the Titanic

Presenter: Lincoln Eldridge Author: Lincoln Eldridge

True leaders take their followers into the unknown and dare them to grow and explore, but if a captain is so confident that his ship is unsinkable, they will perish. Equally, if they are so concerned about the safety of their ship, they will never leave the harbour.

"Safety" means the 'systematic protection' through the use of procedures, controls and boundaries that must be adhered with. This path inevitably clashes with the goals of business – to push boundaries, grow and innovate. Has the safety profession created 'unsinkable ships' that are steaming blindly and confidently into the icebergs?

Next there is a focus on narrow targets for safety and to drive these narrow targets down as low as possible in the organisation. This conveys the illusion that one day there will be a victory in safety, a day when we will achieve zero. Does 'zero' and the goals associated with it inspire people at the sharp end of the business? How can leaders communicate a credible, believable and lasting vision for a new era in health and safety to their workforce?





Magnetic Room



Royal Flying Doctor Service: Working with the Mining Industry to Provide High Quality Health Care and Emergency Response - Tips and Tricks

Presenter: Dean Taylor Authors: Scott Davis, Dean Taylor and John Moylan

The Royal Flying Doctors Service QLD Section (RFDSQ) has been providing health services and emergency medical assistance for more than 84 years to the people who work, live and travel through rural and remote Australia. A significant part of this role has been working with the Mining and Exploration industry, through the provision of 27/7 tele-health support, lifesaving retrieval services, mental health and primary health care services and more recently working with the industry to ensure high quality health systems and services are provided to meet the needs of your growing workforce.

Over the past 84 years, RFDSQ has developed a solid understanding of the environment and challenges that that confronts the Mining and Exploration industry. In the period 2010-11 (June - July), RFDSQ provided 5,089 clinics, flew 7,618,045 km, and provided 44,373 occasions of services to Rural and Remote people.

During this presentation the RFDSQ Principle Medical Officer, Dr Dean Taylor, will share some of the learning that we have accumulated over the past 84 years. In sharing our learnings, it is our intention to provide your industry with some additional skills and tools to address the increasing demands on health services, as a result of the growth within your industry, thus support your efforts to maintain a healthy and productive workforce.





Magnetic Room



Telemedicine – Bringing Specialist Care to Remote Areas

Presenter: Graeme Maw Author: Graeme Maw

In 2006 Queensland Health trialed telemedicine (the remote delivery of healthcare services over the telecommunications infrastructure) for 6 months to aid the assessment and management of patients presenting to Palm Island Hospital. This was done by Emergency Physicians expert in aeromedical retrieval work from Townsville Hospital.

The improvement in patient care and the increasing reliance on junior medical staff working in small peripheral hospitals prompted a statewide rollout of emergency telehealth. Emergency telemedicine is now considered by many as 'best practice' with high rates of satisfaction and improvement in patient care.

The unprecedented growth in employment provided by the mining industry means there is a rapidly expanding workforce working in increasingly isolated, resource poor areas with limited access to experienced medical care.

Emergency Telehealth is a cost effective, potentially lifesaving solution to remote medical care.

We discuss two cases and highlight the beneficial effect upon patient care provided by specialist driven telemedicine.





Magnetic Room



Fly in and Fly Out—Getting Doctors to the Mines

Presenters: Kelly Macgroarty and Peter Pfaender Authors: Kelly Macgroarty and Peter Pfaender

Following the Federal Government's recent parliamentary inquiry of FIFO effects, one of the recurring themes was the delivery of quality health care in Queensland's regional and remote mining towns, both to miners and the broader community. While it is nationally accepted that the general practitioner to patient ratio should be within the 1:1000 range, the Federal Government defines a doctor shortage as when that ratio exceeds 1:1400. In many of Queensland's remote and regional mining areas this ratio has blown out to 1:3000 or worse.

This is having an adverse effect on the health and well being of not only the miners but the wider community and is contributing to the tensions between townspeople and fly in fly out resource sector workers. Adopting a FIFO approach with doctors will bring a cityquality medical care to miners and, where necessary, townspeople.

The provision of prompt medical care by suitably trained doctors needs to be responsive to the projected workforce population growth in regional and remote mining areas. Prompt diagnosis, treatment, expedited specialist care where required, safe return to work and an improvement in the overall well being of miners will deliver sustainable productivity improvements for mining companies.







Presenter: Thomas Mitchell Authors: Thomas Mitchell, Ian Richardson and Peter Horn

Mining safety research in the United States stems from an "umbrella" program, the National Occupational Research Agenda (NORA). It is a partnership program operating since 1996 to stimulate innovative research and improved workplace practices. Industry sectors, such as mining, establish through consultation their own agenda for occupational safety and health research, inclusive of sector research strategic goals/objectives.

Besides broadly examining the US national safety research delivery model, this paper reviews the list of current strategic safety research goals for mining and explores a range of project developments driven through the US National Institute of Occupational Health (NIOSH). This year NORA will renew the 2002 National Mine Safety Framework with the National Mining Agenda, accompanied by a set of new objectives which offer an insight to the Australian Mining Industry about mining safety research priorities and emerging OHS issues in mining.

The paper critically examines Australia's approach to safety research with comparisons made against US and UK models, then drills down to examination of mining sector safety research in terms of strategy, priority-setting, research program support and eventual application of research outputs. While part of this paper does have a high-level focus, the primary intent is to provide practitioners and researchers with some guidance to align and inform their current and near future mine site and mining industry occupational injury and illness prevention strategies.



The Case for Quantitative Risk Analysis in the Mining Industry

Presenter: Tilman Rasche Authors: Tilman Rasche and Peter Knights

The mining industry relies heavily on qualitative risk analysis methods to examine hazards and risks, including those classified as catastrophic risks.

Qualitative methods suffer from a number of limitations, for instance, the use of language to describe hazards and risks creates inherent subjectiveness. Peoples' inexperience, perceptions and assumptions particularly in times of skill shortage and high staff turnover, are also part of the dilemma. The resultant uncertainty combined with the natural or statistical variability within the often scarce data and information that is available further complicate scenario predictions and comparisons, particularly around catastrophic failure events that society so often associates with mining.

While other high risk industries have successfully established a range of databases and firmly incorporated quantitative approaches into their risk management skills repertoire, the mining industry lacks behind in using those tools. Considering the high risk/cost nature of the industry, adopting a more data focussed management approach would benefit many mine management functions.

Given the ongoing mining boom, lingering skill shortages, the growing number of new employees with little or no mining safety experience and knowledge, quantitative risk analysis, modelling and management approaches offer a real alternative for making better and more objective safety and business decisions.

This paper demonstrates how quantitative risk analysis, as an alternative can be successfully used to overcome situations where qualitative methods are no longer valid and shortcomings impact the quality of decisions being made.

It will also provide a vision of a potential 'minerals industry probabilistic database', based on the proven and integrated approach taken by the petrochemical sector that will allow quantitative risk analysis to become a useful and trusted tool for the minerals industry.







RISKGATE – Online Solutions for On Site Safety

Presenter: Philipp Kirsch Authors: Jill Harris, Sarah Goater, David Cliff, Darren Sprott and 65+ mining industry experts

RISKGATE, an initiative of the Australian Coal Association Research Program (ACARP), is an interactive online risk management system under development at the Minerals Industry Safety and Health Centre (MISHC). This system is being designed to assist the Australian coal mining industry in the management of priority unwanted events.

RISKGATE generates substantive and leading edge controls to assist industry stakeholders alike in the design, management and reporting of organisational and regulatory compliance requirements.

In 2011, expert knowledge was assembled using a bow tie approach to six areas of importance: TYRES, FIRES, ISOLATION, STRATA CONTROL – UNDERGROUND, GROUND CONTROL - OPEN CUT, and COLLISIONS.

In 2012, the team are working on EXPLOSIONS, EXPLOSIVES, MANUAL TASKS, and TRIPS/SLIPS/FALLS.

MISHC assembles the expert knowledge-base through action research workshops with industry specialists that is supported by academic and technological resources.

From a broader industry perspective, RISKGATE provides an environment for knowledge capture and knowledge exchange to drive innovation and best practice in risk identification, assessment and management in the coal industry. This digital platform will offer utility for assembly and delivery of risk management know-how across many sectors of the minerals industry.

This presentation will introduce the RISKGATE system and demonstrate the utility for application on site.





The New Trends in Coping With Fatigue

Presenter: Tammy Farrell Author: Tammy Farrell

Fatigue, every year this topic remains to be in the spotlight within our mining community due to high work demands, an increase in new starters to the industry and life as a shift worker.

Too often shift workers are tricked into believing the gimmicks and the idea we can fool our bodies with chemical stimulants to remain alert and awake, this may not necessarily mean productive or safe.

During this presentation Tammy discusses the impact and dangers of the highly marketed energy drinks on an individual's health and within our work force. In the last 2 to 3 years we are seeing the effect these types of drinks are having on our people. The need for awareness on this issue is paramount, with people's lives in danger due to consuming drinks they know very little about.

Tammy will also focus on ways people can improve their coping strategies when it comes to working both long hours and rotating rosters through methods that are realistic, sustainable, and most importantly that work!





Stressing an Alternative for a New Era of Health and Safety

Presenter: Helen Gibbons Author: Helen Gibbons

There is misunderstanding about the role that stress plays in the health and safety of workers even though it is acknowledged that stress leads to fatigue, human error, substance abuse, low morale, absenteeism, presenteeism, staff turnover and stress claims. Whilst the true dynamics of stress remain poorly understood, the real cost of stress will remain hidden with under-reporting and biased statistical gathering.

Organisations, whilst focusing on trying to mitigate the work stressors associated with job content, organisational factors and environmental issues, know that it is impossible to eliminate all work stressors. For a new era of health and safety an additional risk factor must be acknowledged. This risk factor is the 'psychological and physiological inner mechanisms' of workers that lead to some workers reacting negatively to work stressors and others not.

The human condition is not fixed and research shows that workers can be taught to switch on and off at will these internal psychophysiological mechanisms, making them more resilient to work stressors. In this era of change we can improve risk management by implementing programmes that teach workers to manage their stress response BEFORE stress manifests as a problem, unlike EAP which is an intervention after the problem has manifested.





Jupiters Pavilion

Where Does Health Fit in Fatigue Risk Management?

Presenter: Trudy Tilbury Author: Trudy Tilbury

More and more evidence is showing that shiftwork, restricted sleep, and sleep disturbances can have both short and longer term effects on health. Currently the approach to fatigue risk management is focused on the short term safety implications. The updated Queensland Mining Guidance Note for Fatigue Risk Management has a focus on the known risk factors that have an impact on fatigue, but also incorporates the learnings from comprehensive audits in the Metalliferous sector in Queensland.

The paper will discuss:

- Research findings from scientific journals showing the likely effects of restricted sleep, shiftwork and sleep disturbances (including medical conditions) on health
- What works in managing extended shifts and shiftwork over time
- The important role of health personnel in supporting the fatigue risk management systems
- How fatigue risk management needs to be integrated into the site health aspects of the safety and health management system





"Tired Boss Syndrome": Decision Making Fatigue in Senior Mining Staff

Presenter: Toby Ford Authors: Toby Ford, Carla Dee and Justin Smith

Fatigue in extraction industry operating staff using machinery or attending onsite production activities is well documented. With various levels of safety, fatigue management and risk identification processes now implemented and broadly adopted across the industry, the progressive reductions in recorded LTIs is expected to continue.

However, decision making fatigue in senior site staff is not well documented or researched. As such this unique group often works unregulated hours, travels as much, if not more to "make ends meet" at both offsite meetings, like head office as well as straddling shifts to ensure operating staff see a visual presence on the lease at all times.

The collection of data sets around general health and wellbeing when correlated with fatigue and personal productivity performance statements from senior staff would suggest that most are aware of the impact wellbeing can have on decision making fatigue, but they have varying degrees of capacity to ensure they do something about it.

Resilient and hardy senior site mangers have self selected to continue these roles, whilst an increasing number try out for a while and seek alternate employment conditions to prevent marriage, family, personal health breakdowns.

Skills shortages and inexperience are real, as the industry expands. What do managers do to cope with these pressures. How does the industry support those who must straddle the divide between living where you work versus DIDO, FIFO arrangements and reduce potential key decision making errors due to manger fatigue not operator fatigue.



Conference Program – Facilitated Session

Wednesday 22nd August

7.30am - 1.30pm	REGISTRATION – Townsville Entertainment and Convention Centre Foyer	
9.00am – 10.30am	FACILITATED SESSION - Proudly Sponsored by Sparke Helmore Lawyers	
	Sparke Helmore will be facilitating a detailed interactive simulation of the investigation of a serious incident on a mine site and the regulatory investigation and prosecution hearings which follow. The simulation will demonstrate the key components of a quality internal incident investigation and the real world implications of the day to day decisions made by workers, supervisors and managers.	
	Facilitator: Matthew Smith, National Practice Group Leader – Workplace, Sparke Helmore Lawyers	
	 Panel of Expert Members: Alan Newey, Director, Chat Safety David Scales, OHS Consultant, SRM Consultants Simon Grant, Barrister, Level 19 Inns of Court Alan Girle, Special Counsel, Sparke Helmore Lawyers 	
10.30am – 11.00am	MORNING BREAK AND DISPLAYS - Proudly Sponsored by The Australian Workers' Union	
11.00am – 12.15pm	FACILITATED SESSION CONTINUED - Proudly Sponsored by Sparke Helmore Lawyers	
12.15pm – 12.30pm	FORMAL CLOSE OF CONFERENCE Stewart Bell, Chairman, Queensland Mining Industry Health and Safety Conference 2012	

12.30pm – 1.30pm FAREWELL LUNCH – *Proudly Sponsored by Ensham Resources*



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For Further Information Contact:

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