

Bulga Complex News

Bulga Complex
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News from the open cut

Last year Bulga Coal mined nine million tonnes of coal and is planning to mine similar tonnes in 2010. There will be a significant boost in the capital investment of our fleet as we focus on operating more efficiently and reducing noise, dust and fuel consumption. Water storage remains a key production issue with large volumes of water stored within the confines of the operation. The construction of a 3,000,000,000 litre dam during 2010 is designed to alleviate our current issues and help reduce future supply requirement from the Hunter River. Bulga Coal will continue to focus on improving our rehabilitation particularly in regards to reducing our exposed areas.

Rehabilitation

Rehabilitation activities at Bulga Coal are progressing close to mining operations. In 2009, 65 hectares of waste dumps were rehabilitated using pasture species. Rehabilitated areas from 2008 are progressing well with some promising results, helped by the winter and spring rainfall.

A total of 40 hectares of rehabilitation is planned for this year as well as some projects aimed at reducing the visual impact of our operation.

Sometimes temporary cover crops are used to reduce dust prior to construction of the final landform.



Three year old rehabilitation – native pasture and tree seed.



Temporary rehabilitation using cover crop to minimise dust.

Noise management

The community has expressed concern about an increase in noise coming from the Bulga Mine Complex. In response to these concerns, Bulga Coal is reviewing all aspects of noise management. Mine noise is generated from operation of mining equipment (dragline, excavators, shovels, haul trucks and dozers), blasting, conveyors and the Washery. The levels of noise that can be generated from the mine complex are strictly controlled by the Development Consent. Monitoring and reporting of performance against these conditions is also included in the Development Consent.

The major components of the noise investigations included:

- Supplementary continuous noise monitoring at eight locations in the community during July to September. This information will provide us with a better understanding of the mines' noise footprint in the community.
- Measurement of the noise levels for all mobile mining equipment.
- Review of the Development Consent conditions and its applicability to the community and mine.
- Computer noise modelling.

The results of the investigations identified that there has been an overall increase in noise generated by the mine over the past two years. The increase in noise from the mine has predominantly been caused by an increase in the number of haul trucks on site. The increased number of trucks has been required because of an increase in the mine overburden to coal ratio. Unfortunately the additional equipment brought to site has not been noise attenuated because of the lack of availability.

Bulga Coal has developed a detailed action plan to improve noise management including:

- Standing down 12 X 270 tonne haul trucks
- Purchase of 30 new noise attenuated haul trucks and ancillary machines to replace the existing un-attenuated equipment. Two of the new trucks were commissioned in December with a third scheduled for January. The supply of all of this equipment is scheduled to be complete by mid 2011.
- Installation of four real time noise monitors which will be located around the community. The real time noise monitors will provide instantaneous feedback to the mine so that the operations can be

reviewed and modified depending on the noise levels.

- Construction of 4.5m high bunds of exposed haul roads to reduce the propagation of mine noise into the community.
- Incorporation of day time and night time dumping strategies with the aim of reducing mine noise when it is most quiet in the community.
- Modification of the Development Consent noise criteria to include all of the activities in the Bulga Mine Complex, real time noise monitoring, more contemporary noise limits and the scheduled replacement of the existing un-attenuated mining fleet.
- Purchase of a hand held noise meter to assist with monitoring of our operation and responding to community complaints.

Real time noise monitors

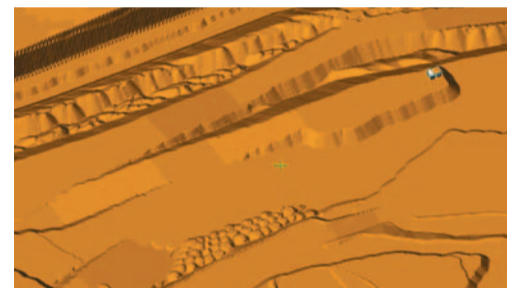


Real time noise monitor.

Four real time noise monitors will be located strategically around the community at locations that will be discussed with NSW Department of Planning. The monitors have a microphone with the signal being transmitted back to a server via a wireless communication system. The data accessible by the mine operators includes noise levels and sound files which can be listened to, to help determine the source of the noise. If the noise levels are going to exceed an allowable level, the mines' activities will be modified until the noise generated is within the limits. The noise monitors are powered by batteries charged by solar panels. Two hire units have already been commissioned: one near Putty Road and the other in Fordwich as an interim measure prior to installation of the permanent units.

Day/night time dumping

During the day the heat generated by the land surface substantially reduces the horizontal distances noise can be propagated. During the evening and night when the ground is cool



Conceptual day time dump.



Conceptual night time dump behind the protective covering of the day time dump.

and the air is often more still, noise is more easily propagated. The mine is establishing a day/night time dumping strategy. Dumps will be established where practical to provide shielded night time dumping options. Additional night dumping options include dumping at locations lower in the pit, or further from the community.

Noise attenuated haul trucks

Haul trucks are very large and generate noise from several different sources that include; the exhaust, engine, radiator fan, wheel motors and gear boxes. Noise attenuation on the trucks that Bulga Coal is purchasing include a CAT "Super Muffler", engine attenuation package (includes treatment to rocker covers, block and sump) engine bay enclosure, engine bay lining and a variable speed engine cooling fan.

A noise attenuated truck is in the order of eight to nine decibels quieter than a standard truck. A six decibel reduction equates to a quarter of original noise emissions, a substantial reduction in noise.



One of two new noise attenuated Caterpillar 793 commissioned in December 2009.

News from Beltana Underground

Beltana has continued longwall mining the Whybrow seam while the Blakefield South mining operation is being developed. Mining of the Whybrow seam is scheduled to be completed in the second half of this year. After this the Blakefield seam will be mined using the new 400m wide longwall. An application for a development consent modification to allow power generation from the captured methane and Ventilation

Air Methane abatement has recently been submitted to the Department of Planning for approval. It is hoped that the application will be approved early this year with construction scheduled to commence soon after. The final repairs to Charlton Road undertaken by the Mine Subsidence Board were completed before Christmas. These repairs are the last associated with the Whybrow seam.

Broke Fair survey results



On behalf of the Broke Fair Committee, Beltana organised a survey of fair patrons to gain valuable marketing information to help plan for future fairs. The results revealed interesting statistics such as 57% of surveyed patrons were return attendees.

Results

How did you hear about the Fair?

Friends 26%, Live locally 12%, Car club 15%, Newspaper 12%, Radio 9%, Just know it's on 7%, Other (word of mouth, school, web, TV, flyer, signage) 19%

Geographic regions that attendees are from:

Cessnock 18%, Maitland 14%, Upper Hunter 13%, Central Coast 10%, Lake Macquarie 10%, Newcastle 10%, Singleton 9%, Sydney 5%, Other (Nelson Bay, Forster, Canberra, Vic, Qld, Overseas) 11%

This information will aid the Fair Committee with their strategic marketing planning and help to improve the fair in the future.

Supporting our community

Beltana has supported the following community organisations and events from June to December 2009:

- Branxton Campdraft – Novice and Junior categories
- Broke Fair and Vintage Car Display
- Canoe Classic – medical research into bone marrow
- Broke Fordwich Tourism Association – Spirit of the Vines
- Singleton Disability Respite Services – laptop and printer
- Broke P&C – School Disco
- Singleton Scouts
- Broke School – swimming lessons and bus transport for school children
- Movember

Broke School children's underground experience

Mines Rescue in Singleton provides rescue training including the use of virtual reality simulation. Wearing 3D glasses, mine workers become familiar with rescue situations in simulated hazardous scenarios. Employees at Beltana have used Mines Rescue to train in self-escape, spontaneous combustion and hazard identification.

Beltana used the same facility to give the school children of Broke an insight into the working conditions underground in September last year. The children were bussed through the Blakefield South operation where they were told about the coal mining industry, shown underground equipment and the new longwall which is currently on the surface. As much as the school children enjoyed the brief tour of the mine, there was no mistaking their joy of the virtual reality underground experience. Beltana staff also enjoyed spending the day with 53 enthusiastic, smiling school children.



About to enter the Virtual Reality theatre with their 3D glasses.



Underground environment in the Virtual Reality theatre.

Broke History morning tea

Members of the community were invited to share their stories at a morning tea to discuss the History of Broke project. Beltana has engaged historian Rosemary Melville to research and document the history of the Broke area. Using research and oral interviews with the older families in the area, Beltana aims to produce an enjoyable, high quality printed document which will include stories and experiences of the local people.

Developing underground roadways



Shuttle car loading coal from the continuous miner.

Development mining at our Blakefield South operation is well underway in preparation for longwall mining in the second half of the year. As the first process of underground coal mining, development mining is where coal is cut to form roadways for longwall mining. A continuous miner is used to cut the coal which is controlled remotely by an operator. Direction into the coal seam is provided by an alignment laser and markings to ensure precision. Once the coal is cut, the roof is supported by 2.1 metre bolts and meshing.

Development crews are currently advancing 700 metres per week with the equivalent of 25 kilometres advanced in 2009. At every 100 metres advanced into the roadways, water, air and waste services and clearance conveyors are installed. Once the roadways are established and services installed, the new 400 metre wide longwall will be transported down the roadways piece by piece, ready for installation and mining in mid 2010.

171 employees work in development mining at our Blakefield South operation. The crews operate 24 hours a day, seven days a week.

Equipment

- Five continuous miners – worth approximately \$5 million. Remote controlled, tracked and electronically powered
- Six shuttle cars – carry coal from the miner to the conveyor
- PJB & Drift runners – transports employees underground
- LHD's – left hand drive tractors used to transport all equipment and supplies underground

Quick Facts of Blakefield South:

- Longest roadway is 3.4km
- Deepest point is 450 metres

Employee profile

Steve Allen

Position: Mine Surveyor at Beltana

Lives: Pokolbin

Describe your job: I am responsible for marking out, measuring and maintaining direction of all the underground workings on our site, along with any associated surface works.

Years in mining: I started with Newcastle Wallsend Coal Company at Pelton Colliery as a trainee surveyor 35 years ago using slide rulers.

Pit Ponies: At Pelton, the pit horses were used to carry the props and supplies underground. We would often hear a shout coming from the handler who had received a nasty bite on the backside. They were also very cheeky and prone to stealing sandwiches out of pockets whenever they had the opportunity. The horses were underground from Sunday through to Friday, so come 3pm on Fridays when the whistle blew, you made sure you were out of their way!

Interesting experiences: reopening an old panel mined in 1924 to conduct a survey to allow mining to start. We found newspapers, brass door handles, tobacco tins and dolly carts, all in good condition.



Rehabilitation of the Northern Drainage Line

Rehabilitation around a drainage line to the north of the mine has been completed. The northern drainage line, a tributary of Wollombi Brook, was highly eroded. A riparian zone of native tubestock was planted along the edges of the channel. These zones are important for controlling erosion and will encourage the return of wildlife by creating new habitat.

The areas surrounding the drainage line have also been seeded to create woodland forest. A combination of three large timber windrows and pasture seed were also planted to prevent further erosion and sediment runoff.



Northern Drainage Line – before and after rehabilitation.



History morning tea – John Tulloch, Ian Russell and Keith Lambkin.

For further information contact:

Ralph Northey – Bulga Complex
Environment & Community Manager
T (02) 6570 4354
E rnorthey@xstratacoal.com.au

Ned Stephenson – Beltana
Environment & Community Coordinator
T (02) 6570 4366
E nstephenson@xstratacoal.com.au

Mel Hawthorne – Bulga Coal
Environmental & Community Superintendent
T (02) 6570 2409
E mhawthorne@xstratacoal.com.au

Stephen Shoemith – Bulga Coal
Environmental & Community Officer
T (02) 6570 2529
E sshoemith@xstratacoal.com.au

Xstrata's commitment to Sustainable Development

We are committed to the goal of sustainable development. We balance social, environmental and economic considerations in how we manage our business. We believe that operating to leading standards of health, safety and environmental management, contributing to the development of sustainable communities, and engaging with our stakeholders in two-way, open dialogue, regardless of our location, enhances our corporate reputation and is a source of competitive advantage. This enables us to gain access to new resources, maintain a licence to operate, attract and retain the best people, access diverse and low-cost sources of capital, identify and act upon business opportunities, and optimise our management of risks.