



## WELCOME

The Bulga Coal Complex managed by Xstrata Coal includes Bulga Coal Open Cut Mine, Beltana Underground Mine and the Coal Handling and Preparation Plant.

Our commitment to greenhouse gas reduction and energy conservation has seen a change in the way we do business, from infrastructure design and equipment purchasing to water recycling and gas drainage.

## NEWS FROM THE OPEN CUT

Bulga Coal Open Cut mines approximately 8 million tonnes of thermal and semi-soft coking coal a year using dragline, shovel, excavators, loaders and trucks. The majority of coal for the complex is exported to Japan, but also China, India and Noumea as thermal, coking and high ash coal for electricity generation.

- The Southern Extension emplacement area will be completely rehabilitated by the end of 2008.
- Additional mine water storage dams will be completed early next year, allowing for water to be recycled throughout the Complex.



## SUPPORTING THE LOCAL COMMUNITY

Bulga Coal donated prize money for the inaugural Broke Fair Woodchop Competition and gave away 1,000 native trees on the day.

We also supported the following projects:

- Railway Blues Music Festival: 21 Nov – raising money and awareness for Iris Foundation – Prevention of Suicide
- Broke Primary School P & C Wine Sale fundraiser
- Art in the Vines
- Purchase of a trampoline for the Special Needs Unit at Singleton Public School.



Would you like support for your local community or charity project?

Call our Environment and Community team on 6570 2409 to discuss your requirements. Bulga Coal can support projects that meet our sponsorship guidelines.

## REHABILITATION USING BIOSOLIDS

90 hectares of land will be rehabilitated in 2008. A program planting tree seed into 20 hectares of biosolids in the overburden has been very successful. Biosolids are enriched organic matter (waste product from water treatment plants) and helped give the seed a great start in overburden with limited water.



Before planting tree seed



Three years after planting in biosolids

## CAT 793 TRUCK PROFILE

Value: \$4 million each  
 Fuel Capacity: 4,700L  
 Top speed: 55km/hour fully loaded  
 Maximum Capacity: 230 tonnes  
 16 cylinder, 2000 horsepower



## VISUAL SCREENING

1,500 local endemic shrubs and trees were planted along Broke Road in October to reduce the visual impact of our operations.

## WATER MANAGEMENT SYSTEM

The Bulga Coal Complex is recovering and recycling its water supply to reduce its reliance on the Hunter River.

The Complex currently has in excess of 5,000 ML of mine water on site, largely due to the June 2007 floods. Mine water is recycled throughout the complex with the aim of creating a self sufficient operation and reducing our need for Hunter River water.

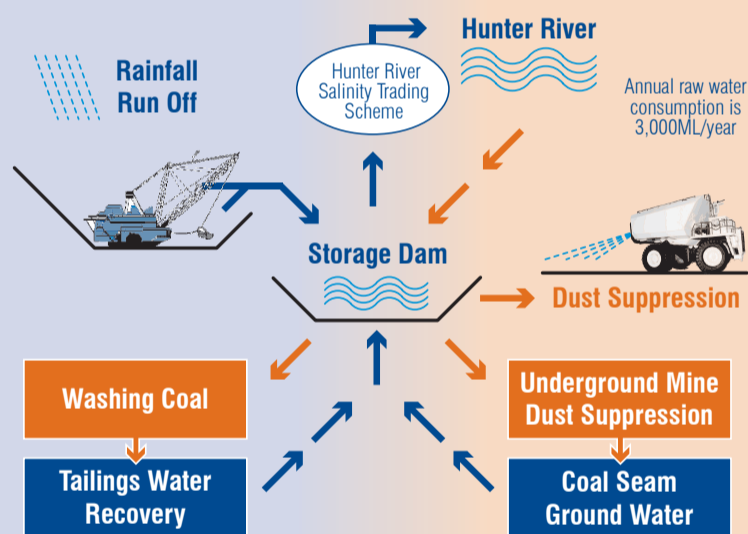
Excess water not being used is discharged back to the Hunter River through careful management and in accordance with the Hunter River Salinity Trading Scheme.

The Mine Complex Surface Water System is designed to minimise the interception of clean runoff. The runoff is diverted back into downstream catchments.

Since 2007, drinking and showering water has been supplied from the Broke Potable Water Supply system.

An additional 3,000 ML storage dam will be built in two stages to supply the Coal Handling and Preparation Plant.

### Bulga Coal Complex – Water Supply and Consumption



### Recycled water from tailings

A chemical called flocculant is added to the tailings which separates water from coal fines. This allows for water to be recycled from the tailings dam back to the Coal Handling & Preparation Plant where it is re-used for coal washing as well as dust suppression.

## EMPLOYEE PROFILE: LIZ WATTS

Mining Manager, Bulga Open Cut

**Describe your role:** I oversee mining activities at Bulga to ensure the safe and environmentally responsible production of coal

**Strengths:** I'm practical, perhaps from growing up on a farm

**Lives:** in Singleton

**In my spare time:** I enjoy the outdoors – camping, bushwalking, gardening

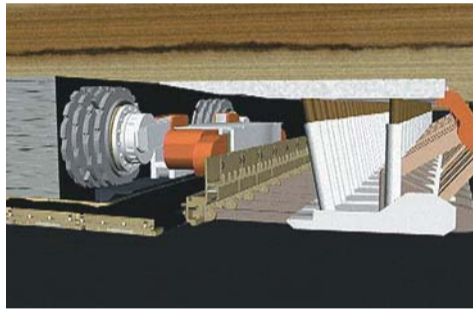
**My colleagues don't know this but:** I've competed in Singleton's Wife Carrying Competition. And no, I didn't win!

**How long have you worked in mining industry?** 8 years



## NEWS FROM THE UNDERGROUND

Beltana is a highly productive underground longwall mine, producing 7 million tonnes of thermal coal per annum. Currently, we are mining the Whybrow coal seam longwall panel 11, out of 14 planned panels. Beltana will start longwall mining in Blakefield South in 2010.



Longwall mining system showing coal pillars between adjacent longwall panels



## ABORIGINAL ARTEFACT SALVAGE

Members of 20 local Aboriginal groups will salvage artefacts from an archaeological site in November.

Stone artefacts like flints will be removed from the site followed by a sub-surface excavation, prior to mining. The artefacts will be catalogued and help us understand more about local aboriginal culture and history.

## CHARLTON ROAD

The Mine Subsidence Board (MSB) repairs to Charlton Road for Longwall 4-7 have been completed. Beltana will work closely with MSB to undertake repairs for Longwall 8 - 10. Longwall 11 - 14 will not mine under the road.

## ENERGY SAVINGS ACTION PLAN

Beltana is committed to energy conservation throughout its operations.

In 2008, eight projects that will substantially reduce energy consumption were implemented. The projects range from using different conveyor motors depending on the coal load to installing a power metering system. 13 more projects are scheduled for 2009.



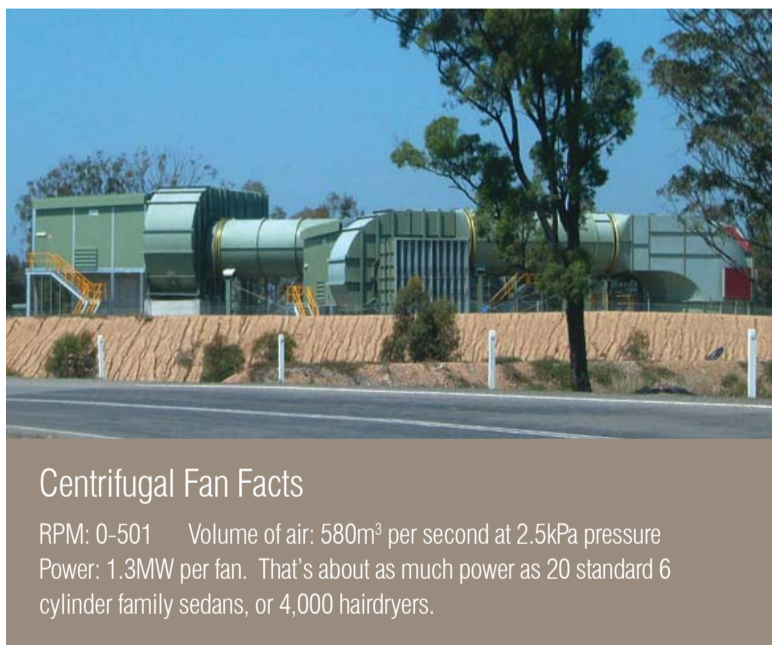
## SUPPORTING THE LOCAL COMMUNITY

- Beltana was the major sponsor of the Broke Village Fair and gave away 1,000 helium balloons on the day.
- As part of our ongoing commitment to consultation, our neighbours were invited to our first Community BBQ where the forum allowed for open discussion on current and future mining operations. Another BBQ is scheduled for November.
- 50 new school shirts were purchased by Beltana for Broke Primary School students
- Beltana has engaged Hunter History Consultants to research and write the history of the Broke Fordwich area. This project will be done in consultation with the community.

## BLAKEFIELD SOUTH VENTILATION FAN

The purpose of ventilation in underground mines is to supply fresh air to workers; dilute and control gases naturally released by the coal and rock strata; remove heat and dust and control humidity.

The ventilation fans for the Blakefield South workings have taken 2 years to design and construct and are part of a force exhaust system, the only kind in operation in a coal mine in Australia. The fans are energy efficient due to their variable speed.



### Centrifugal Fan Facts

RPM: 0-501 Volume of air: 580m<sup>3</sup> per second at 2.5kPa pressure  
Power: 1.3MW per fan. That's about as much power as 20 standard 6 cylinder family sedans, or 4,000 hairdryers.

## GAS DRAINAGE PROJECT

Creating a safe work environment and reducing our carbon footprint are the key reasons for pre-draining gas from coal prior to mining. Gas that isn't drained can cause a safety hazard for underground employees and cause delays in production.

Once the methane is drained and captured, the gas is burnt at a flaring facility, reducing our CO<sub>2</sub> footprint by 21 times compared to free venting.

Two gas utilisation options being considered by Xstrata Coal include piping of excess gas to be used for electricity and an on-site power generation plant.

Gas Drainage trials in the northern mining area have already begun and further work will continue throughout 2009.

## VISUAL SCREENING

Beltana is trialling various screening options to reduce the visual impact of pre-drainage gas wells. Once the gas wells are operational, each site is re-vegetated with native tree stock.

Colorbond walls shielding gas well



Painted Colorbond walls



Photographic decals on a SIS (Surface to In-Seam) well



SIS (Surface-In-Seam) well - no visual screening

## EMPLOYEE PROFILE: KEITH GREY

**Mechanical Maintenance Supervisor, Development Team**

**Describe your role:** To assist with breakdowns on continuous miners, shuttle cars and breaker feeder

**Strengths:** Good communication skills to make sure the guys understand what is required, and my mechanical knowledge

**Family:** Married with 2 grown children. I live in Whittingham on a couple of acres.

**My colleagues don't know this but:** There isn't much we don't know about each other, we are a close bunch

**How long have you worked in mining industry?** 35 years



## MANAGING HEALTH AND FITNESS: SUSTAINING PEOPLE PROGRAM

An aging workforce, skills shortage and plateau of injury reduction has highlighted the importance of managing our employee's health and fitness.

People maintenance, one of eight key areas identified by Beltana in the Sustaining People program, includes voluntary health assessments, access to gym facilities, education sessions & tracking fitness through follow-up assessments. Injury management is also crucial and includes a stress management program and subsidising proactive treatments such as massage & osteopathic therapy.



Core stability training as part of physical education, Sustaining People Program

To assist us improve how we communicate information about our mining activities, please take a moment to fill in the reply paid feedback form enclosed with this newsletter.