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**Speech to the
NSW Minerals Seminar
held in Beijing on 6 November 2006**

Distinguished guests – the Honourable Minister Zhao, Minister for Mine Safety, the Honourable Mr Ian Macdonald MLC, NSW Minister for Mineral Resources, the Deputy Head of the Australian Embassy in Beijing, Mr Graham Fletcher, distinguished guests, ladies and gentlemen.

This is indeed a privilege for me to present to you a profile of the New South Wales mining industry and describe some of the considerable opportunities and benefits in building a long term business partnership with our State.

New South Wales has a long and proud mining history that goes back more than 200 years. The valuable knowledge and contribution of early Chinese settlers to the development of gold mining, in particular in New South Wales, is well documented in our history texts. From humble beginnings to the present, the New South Wales mining sector has grown into a highly efficient, technologically advanced industry worth more than \$11 billion dollars a year. The mining sector today accounts for 20 per cent of the State's total exports - more than our entire agricultural sector, including wool, crops and livestock.

New South Wales is the oldest mining state in Australia and is a competitively priced supplier of coal, gold, base metals, mineral sands and gemstones to world markets. The total value of NSW coal production on 2005-06 was over \$8 billion dollars, while other minerals including gold, silver, lead and zinc is valued at about \$3 billion dollars.

New South Wales has markets in over 30 countries and currently produces more than 160 million tonnes of raw coal and exports more than 90 million tonnes of both coking and thermal coal. Coal supplies more than 90% of our State's domestic electricity needs and more than 75% of total Australian power demand, driving very strong economic growth.

New South Wales has vast reserves of both thermal and metallurgical coal to the north, south and west of Sydney. Overall, Australia is the world's largest exporter of black coal, exporting around 233 million tonnes annually. Australia is the fourth largest coal producer behind China, the United States and India. There are currently 58 operational coal mines and 30 proposed new coal mines being considered for approval by the New South Wales Government, mostly located in the Hunter, Illawarra and Sydney basins. Further north lies the Gunnedah basin, a new frontier estimated to hold up to 40 per cent of the State's total coal reserves and destined to become our next major coal mining area. Chinese companies are also active in the New South Wales coal industry. China's largest listed coal company, Yanzhou Coal, has invested \$250 million dollars redeveloping an underground mine near the regional town of Cessnock in the Hunter Valley, re-named Astar Coal Mine.

The Hunter Valley Coal Chain is the world's largest and most complex coal export operation, involving 30 coal mines, 80 different brands of coal, 23 load points, two rail operators, two loading terminals, 1000 vessels per year and 34 end buyers across 12 countries. A total of 16 independent organisations are required to move each tonne of Hunter coal. This is achieved through a Logistics Team which centrally co-ordinates each step of the journey. The Logistics Team has increased Hunter coal exports from 69 to 84 million tonnes a year without significant capital investment.

There is considerable scope to expand our coal export capacity. About 108 million tonnes per annum of thermal coal capacity has been identified in the Hunter, Gunnedah and Western regions up to the year 2020. In the same period, about 17 million tonnes per annum of coking coal capacity has been identified within the Southern, Hunter and Newcastle areas.

After Western Australia, New South Wales is Australia's second largest gold producer, representing over 10 per cent of the country's gold production. Forecasts show that gold will have the fastest growth rate of all minerals commodities in New South Wales, having increased by about 180 per cent in the past 10 years.

In 2004-05, New South Wales produced 29,000 kilograms of gold valued at about \$525 million dollars. This is nearly double the quantity of gold produced in 2001-02, and about 6.5 per cent more than the previous year. The Ridgeway mine in the Central West of the State accounted for most of this increased production.

Our major gold mines are located in the west of New South Wales, all part of what is known as the Lachlan Fold Belt. Cadia Hill and Ridgeway mines are located near the regional town of Orange.

Further west is the brand new Cowal Gold Mine, operated by Barrick Gold, with reserves of 2.5 million ounces and a lifespan of at least 10 years. Nearby are Mineral Hill and Broula King gold mines and further north west near the township of Cobar are two more gold mines – Canbelego and The Peak. Exploration ventures have identified a number of promising potential sites through the Lachlan and New England Fold Belts.

New South Wales is one of the lowest cost copper producers in the world and is Australia's third largest copper-producing State. Our substantial recent growth has been partly due to the development of the very rich Cadia Valley site near Orange, operated by Newcrest Mining Limited.

There is also significant copper production at Rio Tinto's Northparkes mine in the central west, where the block-caving mining method makes it one of the most efficient mines in the world in terms of output per person. Northparkes plans to expand its production of copper, gold and silver. The CSA mine near Cobar is another sizable copper producer, with projections of at least another 10 years at current production rates. The Tritton copper mine near the regional town of Nyngan in the Central West, opened in April 2005. Tritton is expected to produce more than 30,000 tonnes of copper when at full production by the end of this year.

In 2004 -05, New South Wales produced 172,000 tonnes of copper worth more than \$722 million dollars. Copper has increased in value by more than 340 per cent since 1991-92 – the most significant value growth rate of any mineral in our industry.

Lead, zinc and silver are mined in the far west of New South Wales in two key locations. The Endeavour mine is near the township of Cobar, and further west, the famous region of Broken Hill, which is still an active mining centre. While production of these minerals has fallen in recent years, mostly due to a decline in reserves at Broken Hill, significant tonnages continue to be produced.

The Australian mining company, Broken Hill Propriety Limited, had its origins here, where mining began back in the 1880's. The company has of course since evolved into the world's largest diversified resources company, BHP Billiton. Through new technology, the life of the reserves continues, with most of the zinc now mined at Broken Hill going to China and Japan for galvanizing iron and for the car industry. There are also new projects around Broken Hill such as minerals sands mining.

The table here shows the total dollar value for our zinc, lead and silver over the 4 years to 2004-05. The total amount of zinc produced in 2004-05 was 205,000 tonnes valued at \$320 million dollars. Total lead produced in 2004-05 was 103,000 tonnes valued at \$132 million dollars. For silver, 96 thousand kilograms (96 tonnes) were produced in 2004-05 worth \$29 million dollars.

Minerals exploration in New South Wales has skyrocketed over the past two years. This table shows that private investment more than doubled from \$51 million in 2003-04 to \$114 million dollars in 2005-06. Increased exploration has occurred mostly for coal, copper, gold and zinc. Investment in coal exploration alone has more than doubled in the past 12 months from \$28 million to \$58 million dollars. Copper exploration has also more than doubled from \$8.4 million to \$19.5 million with new reserves found near Nyngan in the north west of the State. A new gold mine will open at Hillgrove in northern New South Wales and a new gold discovery has been made at Moorilda near Blayney, west of Sydney. The New South Wales Government supports exploration efforts by providing valuable geological and other information on mineral potential.

Our export capacity is well developed and there is considerable scope for growth. The port of Newcastle remains the world's largest coal export port, with more than 80 million tonnes exported annually to markets including China, Japan, Taiwan, South Korea, Mexico and India. Newcastle port is open for business 24 hours a day and 7 days a week.

Significant expansion and upgrade projects are planned or underway which will raise Newcastle Port capacity from 89 million tonnes to more than 160 million tonnes by 2012 at a capital cost about \$1000 million dollars. In addition, about \$600 million dollars in rail upgrades will increase rail capacity to Newcastle port - delivering up to 195 million tonnes of coal.

Port Kembla, near Wollongong, is also an important export port, with nearly 11 million tonnes of coal shipped out in 2005-06. At Port Kembla, there is capacity to export up to 18 million tonnes within the existing facility. Plans are in place to increase its capacity to 25 million tonnes of exports by 2020.

The New South Wales mining industry has more to offer than just its mineral deposits - a major growth area is the export of our mining technology and services. Advances in technology which support all aspects of mining - from exploration to mineral processing - have led to greater output and reduced production costs over the past 20 years, as this table shows. Productivity has also been improved through strategic alliances, professional development of employees and exchange of industry information.

Some examples of our innovations include a hazard management system which predicts methane gas in coal seams for effective gas control and development of advanced automated underground mine vehicles. New South Wales has also pioneered a new virtual reality safety training system that allows mine workers to practice in a simulated mine environment.

The mining and technology services sector contributes around \$3 billion dollars to Australia's GDP. This sector grew about 13% in 2005-06. Current Australian exports of mining technology and services are valued at about \$2.4 billion dollars – our markets include China, India, South America, Africa and South East Asia.

Safety for mine workers is very important to the Australian community and is one of the highest priorities for our industry. Australia boasts the best mine safety record in the world. Our goal is to achieve zero harm in every work site through continuous improvement, intensive training of our workers and managers, introducing advanced work practices and new technology. Some recent areas of reform in New South Wales include hours of work, fatigue management, hazard exposure, monitoring, hazard reporting and workforce participation in the development of safety management systems.

This table shows the steady improvement in New South Wales over the past 20 years to achieve its goal to completely eliminate fatalities in the mining workforce. The 2005-2006 financial year was the first year that New South Wales recorded no fatalities at all. Our concerted efforts are reaping rewards. The 5-year average fatal injury frequency rate per million hours worked (FIFR) to 2005-06 was 0.04 – down an impressive 78 per cent on the previous five year period when the fatal injury frequency rate was 0.18. We would like to share our successful strategies and expertise with other mining nations.

The New South Wales coal and power industries have made a determined commitment to address the growing impact of climate change, which we now know is caused in part by coal-fired power generation. Australian experts believe that “clean coal” technology which reduces CO₂ emissions from coal-fired power stations is not only achievable but it is essential to our future. The Australian coal industry has initiated a special program called “Coal 21” – which is a partnership between the coal and electricity industries in Australia and overseas, with governments, trade unions and researchers - to explore solutions and test new technology. The Australian coal industry will invest \$300 million dollars over the next 5 years in Coal 21, to demonstrate technologies that may reduce CO₂ emissions.

Coal 21 will concentrate its research and development on some of the following emerging technologies:

1. coal gasification
2. CO₂ capture through oxy firing and post combustion capture
3. CO₂ storage
4. energy efficiency technologies
5. synergies with other energy systems, such as renewable energy sources

More than \$1 billion has been committed in total so far by Australian governments and industry on projects aimed at reducing greenhouse gas emissions. It is vital to the future of all people across the world that we pursue global warming solutions in partnership and a spirit of co-operation with other major coal-using countries such as China. We invite further discussion with you on this topic.

Thank you again for the opportunity to present to you today on behalf of the New South Wales mining industry. My colleagues and I look forward to making new friendships during this visit and to lay the foundations for fruitful collaborations in future with you.