POLICY IN ACTION – CASE STUDIES

The following case studies present examples of HSEC issues, initiatives, projects and programs across the Group and highlight some of the sustainability challenges faced by our operations.

HEALTH

SAFETY

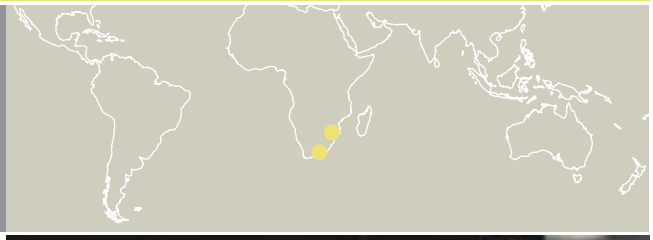
ENVIRONMENT

COMMUNITY

SOCIO-ECONOMIC

HEALTH 1

SEEKING WAYS TO HELP MANAGE THE IMPACT OF HIV/AIDS ON A BROADER SCALE



HIV/AIDS is a significant issue for our businesses in South Africa and Mozambique. The Company for many years has promoted a proactive environment in our workplaces with respect to management of the disease. This has included conducting education programs, ensuring employees and dependants have appropriate access to medical care, and reducing hostel-type accommodation for employees, which is known to be a risk factor for the disease. We have also made significant inroads in terms of supporting community facilities that assist in managing the disease and its consequences. We are now seeking ways to support initiatives that will help manage the disease in the wider population.

► *Caring for HIV/AIDS patients is a major issue*

In the communities where our operations are located in South Africa and Mozambique, the incidence of HIV/AIDS is among the highest in the world. We have a responsibility to manage the impact of the disease in order to care for our employees, protect the viability of our operations and support the well-being and development of our host communities.

In managing the disease within our workforce, there has been a strong emphasis on prevention through on-site education. This has included promoting healthy lifestyles and supporting awareness programs, including industrial theatre presentations in which the issues are conveyed in a manner that overcomes many of the language and cultural barriers.

As our worksites do not have medical facilities for providing extensive medical care, our approach to ensuring employees and dependants have appropriate access to medical care is to provide universal health insurance to all our employees in South Africa and Mozambique. This insurance has the capacity to provide the necessary treatment for all phases of HIV-related illness. In association with this initiative, many of our operations are developing links with external providers who will ensure that those registered for HIV management with their health insurer receive timely coordinated care, optimising the benefits available through the insurance scheme.

A large number of our operations, in collaboration with trade unions, have performed anonymous saliva-based workforce screening to determine the level of HIV existent throughout the workforce. The results in general have shown that our directly employed workforce has an HIV prevalence that is lower than that in the surrounding community, and this has stabilised over recent years. However, our contractor workforce has shown an HIV rate that is significantly higher and more reflective of that in the local community.

Seeking effective new treatment methods

While much has been done within the BHP Billiton network to assist in managing the HIV/AIDS issue in our workforce and surrounding community, we believe that as a global organisation we can support initiatives to confront this disease more widely. As a consequence, we have been working with a selected health organisation in seeking opportunities to develop treatment methods that will extend the influence of our efforts beyond our employees, their families and communities and into the broader populations that have been affected by this disease.

We have recently initiated discussions with the selected health organisation in an attempt to collaborate in a significant research project to further advance HIV/AIDS treatment.

HEALTH 2

MEDICINES FOR MALARIA VENTURE AIMS TO DEVELOP EFFECTIVE, AFFORDABLE ANTI-MALARIAL DRUGS

► *Early diagnosis is emphasised in malaria control programs*

Along with tuberculosis and HIV/AIDS, malaria is one of the major infectious diseases responsible for significant illness and mortality around the world. Malaria is a public health problem today in more than 90 countries inhabited by a total of 2400 million people – 40 per cent of the world's population. Worldwide prevalence of the disease is estimated to be in the order of 300 to 500 million clinical cases each year. For some years, we have been involved in malaria control programs through our operations in Africa and Brazil, two areas where the disease has a devastating impact. We are now also supporting the Medicines for Malaria Venture, which has been established through the World Health Organisation with the aim of developing affordable anti-malarial drugs for people in the disease-endemic countries.

Malaria, which has reached epidemic proportions in many regions of the world, continues to spread unchecked. Although it is a curable disease if promptly diagnosed and properly treated, malaria still kills more than one million people every year and causes developmental problems in many more. In absolute numbers, malaria kills 3000 children under five years of age per day. One child dies from malaria every 30 seconds.

The tragic effect of malaria in Africa

In Africa today, there are more cases of malaria than at any time in recorded history. Fighting the disease accounts for about 40 per cent of public health spending and is one of the main factors retarding the continent's economic growth; it costs more than US$12 billion in lost GDP every year. The morbidity and mortality associated with malaria make it difficult for people to overcome poverty. Malaria-related expenses claim up to 30 per cent of the entire household expenditure among the very poor.

African children under five years of age are chronic victims of malaria, suffering an average of six bouts a year. If untreated, malaria can kill children within 24 hours after symptoms develop. In those children who survive, malaria also drains vital nutrients, impairing their physical and intellectual development. Malarial sickness is one of the principal reasons for poor school attendance.

A threat to sustainable development

For the Company, malaria is a significant health issue in southern Mozambique and northern Brazil where our operations are located. The disease can impact on the ability of these regions to provide sustainable workforces. The health of employees can also affect productivity and safety.

To maintain an adequate and healthy workforce for our operations, and to assist in the development and general well-being of our host communities, we have a strong history of involvement in malaria control programs. Not the least of these is our collaboration in the extensive spraying program conducted throughout Mozambique, Swaziland and South Africa, which has helped to dramatically reduce the local incidence of malaria.

The biggest challenge facing malaria control is widespread drug resistance. The cheap, widely available drugs such as chloroquine and sulfadoxine-pyrimethamine are now ineffective. While the malaria parasite was making a quiet comeback beginning in the late 1970s, funds for malaria research and development dried up. During the past 30 years, only three anti-malarial drugs have been developed, and they are all prophylactics designed for the military and wealthy travellers, not the rural poor.

There is an urgent need for the development of new anti-malarial drugs that are effective against the growing tide of resistant malaria and are also cost-effective to produce in numbers sufficient to service underprivileged communities.

Medicines for Malaria Venture

The Medicines for Malaria Venture (MMV) is an organisation set up in 1999 to develop safe, effective and affordable drugs to treat malaria and reduce the burden of the disease. A non-profit organisation linked to the World Health Organisation, MMV is currently managing the largest-ever portfolio of anti-malarial drug research. The rapid progress of its projects can be attributed to MMV's pioneering collaborations with nearly 40 public and private institutions around the world. Pharmaceutical, biotech and research institute partners contribute their know-how, staff and facilities to individual projects, while MMV's Expert Scientific Advisory Committee helps the MMV staff to manage the portfolio as a whole. Thanks to this pooling of knowledge, talent and resources, the costs of developing new malaria treatments are being significantly reduced. MMV is bringing the goal of effective and affordable treatments for all one step closer to becoming a reality.

Commenting on our partnership program, Dr Chris Hentschel, Chief Executive Officer of MMV, said, 'BHP Billiton is already making a significant difference in the communities they operate in by supporting malaria control programs. Now with their support for MMV to develop new anti-malarial drugs, they are in fact making a major investment in the future. Without a continuous stream of new drugs, we will have no hope of controlling malaria'.

At an MMV stakeholders meeting in May 2004, His Excellency Joaquim Chissano, President of Mozambique, stated, 'I am pleased to know that BHP Billiton will become a partner and financier of MMV. BHPB is the biggest economic partner of Mozambique. They are already very active in supporting programs such as the Lubombo Spatial Development Initiative (LSDI), which was established to control malaria infections in local communities of Mozambique, South Africa and Swaziland. In many areas of LSDI, malaria infections have already been reduced by 50 per cent . . . One day our children will be born free from malaria. With our determination and perseverance, that future is attainable'.

We are among the first small group of global transnational companies invited to become corporate supporters of the Medicines for Malaria Venture. Our plan to provide financial support to this worthwhile initiative over the next three years further extends our involvement in the fight against malaria on a global scale.

HEALTH 3

EKATI LAUNCHES SCREENING PROGRAM TO LIMIT DEVELOPMENT OF TB IN THE LOCAL INUIT POPULATION

Tuberculosis (TB), along with malaria and HIV/AIDS, is one of the major infectious diseases that has a wide-ranging impact on mortality and morbidity. Globally, TB is the leading cause of death associated with infectious diseases. The incidence of TB is expected to increase substantially worldwide during the next ten years because of the interaction between the TB and HIV epidemics. In the Northwest Territories of Canada, TB is a significant issue among the Inuit population, which as a consequence has an impact on our EKATI Diamond Mine operation. In an effort to limit development of the disease, we have embarked on a screening program to detect latent TB infection in our workforce and the local community.

The following statistics demonstrate the tragic impact of TB.

- TB is the leading killer of women, outranking all causes of maternal mortality.
- TB creates more orphans than any other infectious disease.
- TB is the leading cause of death among HIV-positive individuals.
- As many as eight million people become infected with TB every year.
- Someone is newly infected with TB every second of the day.
- One third of the world's population is infected with TB, and 5 to 10 per cent of these people will develop the disease.
- TB accounts for more than one quarter of all preventable adult deaths in the developing world.

Screening program implementation

The initiative at EKATI is an attempt to limit the development of the disease in our employees and their dependants and in the local Inuit population generally. The screening program, which is aimed at detecting latent TB infection, will begin in the workforce and then be taken into the community.

By detecting the infection in a person before it becomes active, it is possible that a course of treatment will reduce the chances of active TB developing and infection occurring to others. This will have the benefit over time of reducing the incidence of TB in the community.

The screening program has the potential to set a precedent for the management of high levels of TB within communities. It may also be applicable in communities where TB/HIV co-infection occurs and where active TB is the first sign of deteriorating HIV status. The early treatment of latent TB in this group would be a significant factor in preserving good health in patients while they are in an immuno-compromised state.

In the past, screening for latent TB has been difficult, as there have not been tests available that offer a clear indication of those who are infected as distinct from those who have been vaccinated against the disease. The availability of a new test that is able to separate these two categories of individuals, and thus allow potential treatment of those who are truly infected, has made this program possible.

The screening program at EKATI is being set up in collaboration with Canadian Public Health authorities and will be overseen by local specialists in TB. We will be the first company to sponsor such a program involving this new form of testing to assist in the eradication of TB from a community.

HEALTH 4

DIESEL EMISSION PROJECT AT ILLAWARRA COAL AIMS TO LIMIT EMPLOYEE EXPOSURE TO DIESEL PARTICULATES

Our Illawarra Coal operation is located near Wollongong in New South Wales, Australia, about 80 kilometres south of Sydney. The operation comprises four underground coal mines – Appin, Dendrobium, Elouera and West Cliff – together with two coal preparation plants and logistical services. Diesel vehicles are used in the operation of the coal mines. Since it became known that exposure to diesel exhaust particulate has the potential to cause serious health effects, we have been undertaking extensive research and have developed a strategy to effectively manage diesel particulate levels within our mines.

► *Raw exhaust analyser at Elouera Colliery*

In 1988, the United States National Institute for Occupational Safety & Health (NIOSH) released a Current Intelligence Bulletin on diesel particulate, which proposed that occupational exposure to this contaminant could lead to lung cancer. At that time, Illawarra Coal was in the process of changing to rubber-tyred diesel vehicles for mining operations. Workforce concern about the increased use of diesel equipment was high. The NIOSH findings posed a potential threat to the future use of diesel vehicles at Illawarra Coal operations and at other mines within our Carbon Steel Materials division.

Initial research

A research project commenced in May 1990 and was originally based at Tower Colliery, which was part of the Illawarra Coal operation until it closed in 2002. Tower was chosen as it had the largest proportion of rubber-tyred diesel vehicles within the division. A project committee was formed, consisting of mine management, workforce representatives, engineering personnel and external specialists in aerosol sampling, fuel quality and occupational hygiene.

As its first task, the committee conducted a workplace monitoring exercise to establish the level of worker exposure to diesel particulate and so quantify the extent of the problem. Between August 1990 and February 1993, some 204 personal diesel aerosol particulate samples were collected at Tower Colliery, covering all job descriptions associated with diesel activity. These results indicated lower exposures than those reported in US coal mines, but they were still considered significant.

Funding was obtained from the Australian Coal Association Research Program to extend the sampling program to eight collieries in New South Wales to establish whether the levels of worker exposure were consistent across the underground coal mining industry. At the same time, a range of control technologies had been identified and evaluation commenced. The control technologies evaluated included fuel quality, ventilation, engine design, disposable exhaust filters, engine decoking and water conditioner cleanliness. In total, over the period from 1993 to 1997, a total of 558 diesel particulate samples were collected in the evaluation of various control techniques for operational use.

Improving control techniques

In the period from 1997 to the present, work has continued on improving those control techniques that have been found to be suitable, resulting in reduced operating costs and an improved work environment. More recently, maintenance practices have been targeted, using raw exhaust diesel particulate monitoring techniques developed by the research group. The exhausts of 66 engines within the diesel fleet of the four Illawarra Coal mines were analysed, with seven engines found to be abnormal. Subsequent investigation found issues with exhaust systems and fuel injectors. Testing after repairs indicated significant reductions in raw exhaust diesel particulate levels.

Implementing a diesel particulate management strategy

As a result of this project, Illawarra Coal has developed a strategy to effectively manage diesel particulate levels within its operations. This strategy is based on the following conclusions;

- There is no one simple solution to the problem.
- A multi-faceted approach is necessary, with the focus being on restricting particulate release to the working environment. This includes the use of good-quality fuel, the use of raw exhaust monitoring to highlight maintenance issues and the use of disposable exhaust filters.
- Limitation of vehicle numbers in mine production panels reduces exposure and does not affect production if appropriately managed.
- The use of underground diesel test stations to monitor gaseous emissions provides a means of identifying engines requiring maintenance and improves employee confidence.
- There is a need to continue to liaise with original equipment manufacturers (OEMs) to supply low-emission engines in the future (albeit that it is anticipated that particulate filters will still be required for some time to come).

The strategy has been effective in controlling employee exposure to diesel particulates. Monitoring over a 12-month period at Elouera Colliery, using the approach outlined above, indicated that employee exposures averaged less than half the recommended exposure standard proposed by a committee convened by the NSW Minerals Council. The tripartite committee comprised representatives from government, trade unions and mine operators.

(Continued over)

HEALTH 4

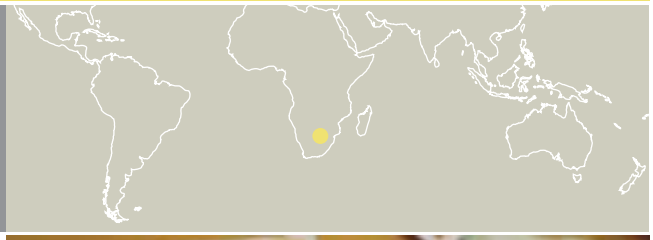
DIESEL EMISSION PROJECT AT ILLAWARRA COAL continued

Operators at Elouera Colliery, particularly those involved in long-distance driving, have recently commented that 'fume taste doesn't appear to exist'; 'convoy travel is not a problem like it used to be'; 'the sore eyes and throats don't pop up as often'; and 'blue haze doesn't appear as much in panels'. Summing up, Victor Borg, mechanical services leading hand at Elouera, says, 'It was not uncommon for operators to regularly complain about excessive diesel fumes. As we have gradually introduced new technologies into Elouera, it seems that complaints are rare. I'm sure that if we reverted back to standard street fuel and removed the exhaust canisters that our problems would reoccur'.

The procedures developed for our four underground mines at Illawarra Coal have applications at other mining operations; however, experience has demonstrated that an appropriate solution must be identified for each organisation and there must be substantial management input and commitment to the improvement process.

HEALTH 5

KHUTALA COLLIERY SUPPORTS DEVELOPMENT OF MEDICAL CLINIC TO PROVIDE HEALTH SERVICES TO SURROUNDING COMMUNITIES



► *HIV/AIDS blood testing at the Phola clinic*

Our Khutala Colliery is situated approximately 60 kilometres west of Witbank in the Mpumalanga Province of South Africa. Khutala, which is one of the biggest underground coal mines in the world, has been operating since 1986. A large portion of its workforce live in the residential area of Phola, which lies about 38 kilometres from central Witbank and eight kilometres from Ogies. In the past, neither Phola, nor Ogies had a clinic to render health care services to its residents. The Department of Health, becoming concerned about the high level of ill health in the area, planned to build a clinic in Phola but adequate funding was not available. Once aware of the situation, Khutala management quickly stepped in and offered a helping hand.

Khutala provided the funding and sponsored the equipment necessary for the construction of the Phola clinic. With this support, what was planned to be a one-room clinic in Phola has been revamped into a facility big enough to support the various health needs of the community. Currently more than 3400 patients per month receive treatment at the clinic.

The clinic is now playing a significant role in offering primary healthcare, GP consultations, rehabilitation, maternity, diagnostic and curative services to support and enhance the health and well-being of people in and around the colliery. Many residents from both Ogies and Phola are provided with free healthcare. In addition, the clinic has the facilities to offer home-based care, with links to Direct Observation and Treatment (DOT) for TB patients, and also to cater for terminally ill patients in the area, including those infected by HIV/AIDS.

The clinic is managed and operated by the Department of Health, but Khutala continues to take a keen interest in the services it provides to the community and offers further support where appropriate.

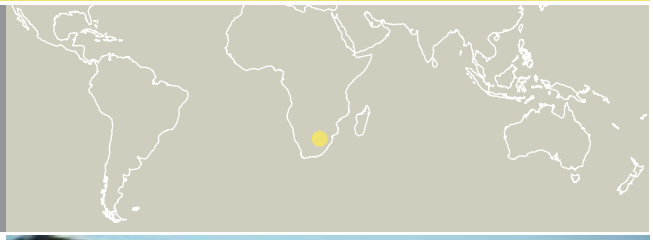
For example, in February 2004, the Department of Health and Khutala again joined forces to organise a series of community education presentations in Phola to raise awareness about HIV/AIDS and other sexually transmitted diseases. Phola has been identified by the Department as having one of the highest rates of sexually transmitted disease infections in the Mpumalanga region. With free entertainment to attract people to the presentations, audiences were provided with pamphlets, information brochures and condoms.

► *Community health education program*

By supporting initiatives such as development of the Phola clinic and community health education programs, Khutala Colliery is helping to limit the devastating impact of HIV/AIDS on our workforce and others in the local community.

HEALTH 6

METALLOYS CONVERTS DISUSED EMPLOYEE HOSTEL TO A CENTRE OFFERING CARE TO AN HIV/AIDS AFFECTED COMMUNITY



Samancor Manganese's Metalloys plant is located at Meyerton in the Gauteng Province of South Africa, a region where the HIV/AIDS infection rate in the community is as high as 30 per cent. When the plant's accommodation hostel was vacated in 2000, an opportunity arose to transform the complex into a facility to serve the community, particularly those who are infected and affected by the HIV/AIDS epidemic. Following extensive consultation and planning with a broad cross-section of the community, the Kotulong Community Centre was developed and opened in January 2004.

► *Kotulong Community Centre*

Sub-Saharan Africa is the region of the world that is most affected by HIV/AIDS. The human toll and suffering due to the disease is enormous. It is now by far the leading cause of death in the region, claiming over 2.4 million lives in 2002 alone. According to World Health Organisation and UNAIDS figures, approximately 3.5 million new infections occurred in the region in 2002, bringing to 29.4 million the number of people presently living with HIV/AIDS. Ten million young people aged 15 to 24 and 2.8 million children under 15 are infected. An estimated 7 million children have been orphaned by the disease in Sub-Saharan Africa.

Background to the concept

Over the last decade, the practice of recruiting migrant labourers and housing them in single-sex, mine-style hostel accommodation became increasingly unacceptable. At the peak of this practice, Metalloys housed more than 600 employees in its hostel facility. Metalloys also moved away from this concept, with the result that the hostel became vacant.

An idea grew within Metalloys management that the hostel facility could be converted to a centre that served the community. To discuss the concept and determine the best use for the complex, a community meeting was held in March 2001. It was attended by community leaders and representatives from community-based organisations, non-profit organisations, service clubs, government departments, trade unions and religious organisations.

The meeting wholeheartedly endorsed a proposal that a family care centre be created to help relieve the health, social and economic impact of HIV/AIDS on the local Sedibeng District, home to approximately 850 000 people. The facility would operate as a non-profit organisation, caring for sick and terminally ill community members as well as orphaned children. It was also determined that the centre should be environmentally sound, socially just and economically viable.

Realising the vision

After numerous planning meetings, in August 2001 a board of directors, comprising community members and Metalloys representatives, was appointed to manage the centre. Kotulong, meaning 'place of harvest', was chosen as a name for the centre, with the vision of it being a place of 'harvest' that brings help to the people of Sedibeng whose lives have been affected by HIV/AIDS.

To ensure that the centre would meet the needs of the community, 40 volunteers were trained to visit 1500 homes in the region and obtain information on which decisions about facilities and services could be based.

In December 2002, the BHP Billiton Development Trust approved funding of US$600 000 to convert the hostel to a community centre. Architects were selected, with a brief that included a requirement for the conversion to be environmentally responsible, including recycling existing building materials, using local materials and labour and choosing solar energy for heating.

(Continued over)

HEALTH 6

METALLOYS CONVERTS DISUSED EMPLOYEE HOSTEL continued

► *World Aids Day at the centre*

► *Skills development programs are among the community services provided at Kotulong*

Answering the need

The Kotulong Community Centre gradually became a reality and opened in January 2004 with a range of much-needed facilities including:

- a 15-bed hospice unit (that will expand to 18 beds)
- seven foster care units providing accommodation for 42 orphans aged from 1 to 13 years (with potential capacity for 70 children)
- an after-care centre with library and toy centre
- workrooms for sewing, beadwork and seminars
- accommodation for 60 young people for sports and youth training weekends
- administration offices
- a kitchen and community hall
- laundry and storage facilities
- permaculture gardens
- a floodlit soccer field (with an all-purpose sports court to come).

The centre also conducts a program for training designated caregivers to support home-based care initiatives. Additional facilities planned for the future include a paediatric ward, a testing facility and laboratory, and counselling rooms for patients and their families.

In addition to offering this extensive range of facilities and services, the centre provides permanent employment for 60 people and is actively involved in delivering skills development programs.

Overcoming challenges

While the community benefits associated with the centre are widely acknowledged, the process of converting a concept into reality presented many challenges. These included:

- building the trust and involvement of the local community
- securing the support of local and provincial governments
- gaining acceptance from local NGOs
- converting a hostel complex to a functional hospice and community centre
- applying environmentally responsible standards to the construction
- appointing a community-based board of directors to manage the project
- staffing and operating the centre.

The vision and drive of the Metalloys management team, in particular the successive human resources and HSEC managers, contributed to the realisation of the project.

The Kotulong Community Centre has been embraced by the community and operates with the support of local and provincial authorities, local NGOs and UNAIDS. It is seen as an important contributor to the government's Integrated Development Plan for the region and a model for participative involvement of community stakeholders in regional development initiatives.

► *Garden project at the centre*

SAFETY 7

IMPLEMENTATION OF FATAL RISK CONTROL PROTOCOLS UNDER WAY AT ALL OUR OPERATIONS

Fatal Risk Control Protocols were developed by the Company and introduced in April 2003 as a response to a review of fatalities and significant incidents over the last ten years. The review identified nine key fatal risks, which required the development of sound practices to eliminate fatalities and also accidents that, in slightly different circumstances, could have caused fatalities. Workgroups, made up of individuals from across the Company with extensive experience in operations, developed the Protocols, which establish minimum performance expectations for managing fatal risks at a level that is leading practice. It is planned that full compliance with the requirements of the Protocols will be achieved throughout the Group by the end of June 2005.

Introduction of the Fatal Risk Control Protocols is in line with our Charter, which states that we value safety and the environment through an overriding commitment to health, safety, environmental responsibility and sustainable development. Application of the Protocols supports our HSEC Policy, which requires that we develop, implement and maintain management systems for health, safety, environment and community development that are consistent with internationally recognised standards. The HSEC Policy also states that we commit to continual improvement in our performance, efficient use of natural resources and aspiration to Zero Harm to people.

Current Fatal Risk Control Protocols

There are nine current Protocols, which set requirements for:

- Light vehicles
- Surface mobile equipment
- Underground mobile equipment
- Underground ground control
- Hazardous materials management
- Molten materials management
- Equipment safeguarding
- Isolation
- Working at heights.

The requirements for each Protocol are structured to cover three areas in which controls are to be in place to comprehensively manage the risks. These areas are:

- Plant and equipment requirements
- Procedural requirements
- People requirements.

▸ *Fatal Risk Control Protocols*

Additional Protocol to cover lifting loads with cranes

An additional Fatal Risk Control Protocol is due to be implemented early in the new financial year. This Protocol covers lifting activities with cranes and was developed following further analysis of the fatal risks. While lifting activities are covered in the current Protocols, they relate to fixed plant and equipment and mobile machinery. It was decided that the potential risks associated with the lifting, suspending or lowering of a load with a crane merited a separate Protocol.

Tracking implementation of the Protocols

During the year, a self-assessment toolkit was made available to the operating sites. Virtually all the sites have conducted self-assessments on their compliance with the requirements of the Fatal Risk Control Protocols and the adequacy of their controls. Integral to the auditing of these sites is the verification of actions arising from previous audits.

It is our mission to ensure that any learning points arising from audits, inspections or investigations are actioned and shared throughout the organisation. This will maximise learning and avoid reinventing possible solutions to existing problems.

Workshops review implementation process

Since implementation of the Protocols commenced, there have been queries and interpretation issues from the operations. To address these and to reflect on the results of the audits, a series of Fatal Risk Control Protocols workshops were run in Australia (March 16–18), South Africa (May 3–7) and Chile (June 15–18).

These workshops were attended by Company representatives from the continents where we operate and addressed issues such as what had gone well with the implementation process, what aspects of the Protocols needed clarification or resolution, and any barriers or threats to meeting the full implementation target of June 2005.

Some of the salient points arising from the workshops were the need for common definitions of certain jargon, coupled with requests that the Protocols be translated into local languages for simpler presentation and understanding.

(Continued over)

SAFETY 7

IMPLEMENTATION OF FATAL RISK CONTROL PROTOCOLS continued

Achieving Zero Harm requires unwavering commitment

Progress with implementation of the Protocols has brought some benefits already. There are documented instances of people surviving accidents due to the insistence on minimum standards for light vehicles, such as roll-over protection for driver and passengers.

Despite this, there have been 17 fatalities at Company operations this financial year. This has led to further analysis and new learnings from these tragic events. The frustration of knowing that we have been introducing excellent systems but not achieving Zero Harm needs to be tempered with the knowledge that there is a period of lag between system implementation and tangible results.

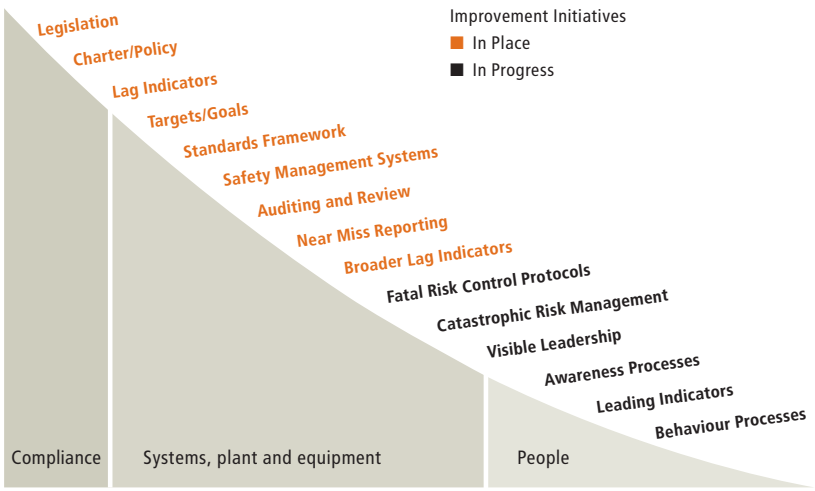
To assist our operations in determining where the potential for significant incidents might be manifested, a mix of lagging indicators and new leading indicators are being highlighted to enable management to identify and mitigate the potential hazards.

Lagging indicators include historical data on accidents and incidents, HSEC Standards audit results and Fatal Risk Control Protocol audit results. Some of the leading indicators being considered as triggers to alert operations to heightened potential risks are safety behaviour observation results and trends, newly approved greenfield and brownfield projects and labour turnover rates.

It is inevitable that an increase in production activities at an operation has a concomitant increase in potential exposure to risks. The evolution of new leading indicators is designed to act as a precursor to heightened awareness and focused attention at those operations fitting the criteria for such increased risk.

In terms of our commitment to Zero Harm, the Fatal Risk Control Protocols are an important additional tool in our HSEC armoury to ensure that our operations have the best chance of continuing to grow and share prosperity in their communities, without people being injured in the process.

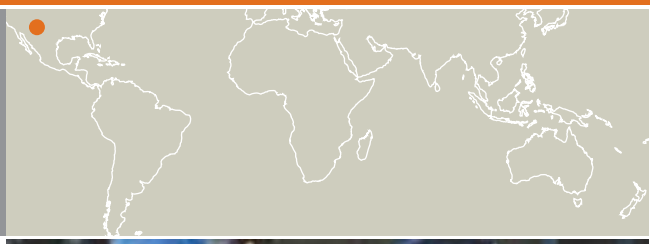
▸ ***Safety Improvement Road Map***



The Fatal Risk Control Protocols are a key part of our journey to Zero Harm

SAFETY 8

BEHAVIOURAL-BASED SAFETY LEADERSHIP TRAINING PROGRAM IMPLEMENTED AT NEW MEXICO COAL



▸ *New Mexico Coal employees use one-to-one coaching as a Safe Production tool to foster teamwork and to look out and care for one another*

New Mexico Coal has been operated by BHP Billiton and its predecessor companies for over 40 years. Located in San Juan County in northern New Mexico, the business operates one underground and three surface coal operations that supply fuel to two mine-mouth power plants. In the early years, four fatalities occurred at one of the mines, Navajo Mine, but after intense efforts, the safety record improved. All mines have been recognised in the state and nationally for good safety performance. Over time, other operations in the US and abroad caught up with and passed the level of performance achieved at New Mexico Coal. Deciding that improvement was required, the management team assembled a cross-sectional group to determine the distinctive behaviours required to bring about a steep change in safety performance.

The cross-sectional group at New Mexico Coal, comprising approximately 60 employees and an external consultant, identified and defined the following five distinctive behaviours that can drive improvement in safety performance:

Walk the talk – This applies to everyone. Every employee must be a leader in safety, not just management.

Work as a team – All work groups must be good listeners, seek mutual understanding on all undertakings and care about one another by coaching everyone to do the safe and right thing all of the time. This attitude is embodied in the safety leadership logo shown.

Plan all work – An informal planning process called SLAM (Stop, Look, Assess the risk and Manage the risk) has been taught to all employees, and all are issued pocket cards to assist the process. Job safety analyses, work procedures and risk management plans are developed and utilised for more complex tasks.

Accept accountabilities – All employees are expected to follow accepted practices of safe work. They will be coached if unsafe practices are observed. Counselling and then disciplinary action follows if work outside the accepted practices continues after a reasonable amount of coaching is done. If cardinal rules (which if broken could lead to fatal or other severe results) are violated, disciplinary action including termination could result.

Active involvement – A Zero Harm environment requires the active participation of every employee. This includes following accepted practices of safe work, active participation in safety meetings, coaching other employees who may slip outside the boundaries and full use of all of the safety tools all of the time.

These five behaviours formed the basis of a new safety leadership training program. To gain commitment of the 928 employees to a more intense program, a video was produced in which volunteer employees related their experiences, and those of their families, with accidents including fatalities. With the assistance of a consultant who had previously worked with DuPont, which is widely recognised as a leader in safety management, a program of instruction for all employees was developed.

In the second year of this safety leadership program, refresher instruction was presented to every employee. As well as the five distinctive behaviours, the program focused on Safe Production, Zero Harm, Zero Tolerance and Felt Leadership.

Important in the delivery of the instruction were two methods. Firstly, the supervisor and one-up supervisor of each work group delivered the training. No formal instructors were utilised. This allowed every supervisor to master the material by having to teach it and to show commitment by having to directly discuss the principles with his or her team. Secondly, learning was through active participation. During the training, students worked in table groups of usually three to six to complete tasks designed for them to understand the concept being taught. For instance, in a task to develop good listening skills, they undertook an exercise in relating back not only verbal content but also feelings.

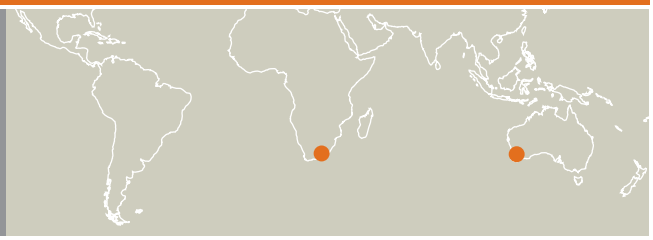
Commenting on the importance of implementing the five behaviours in the safety leadership program, Nick Chavez, Shift Foreman at San Juan Underground Mine, said, 'It has been a big change for me from my previous job. Prior to coming here [New Mexico Coal], it was all about coming out with numbers and that's all that mattered. Now, we've got to believe it's the right way to do things'.

The safety leadership program has been introduced at a time when the number of employees has increased to support ramped-up production at San Juan Underground Mine. The injury numbers at New Mexico Coal are still above zero, but some crews and departments are consistently achieving zero accidents.

With the continuance of an attitude of caring about one another, we believe that Zero Harm for all employees every day can be achieved.

SAFETY 9

INITIATIVES AT HILLSIDE AND WORSLEY AIM TO IMPROVE CONTRACTOR SAFETY PERFORMANCE



The historically poor safety performance of contractors at some of our operations has led the Company to focus on developing specific safety management programs for contractor companies. Two such programs have been implemented at the Hillside aluminium smelter in South Africa and the Worsley alumina refinery in Western Australia. The early results are striking, with a twenty-fold improvement in the Classified Injury Frequency Rate (CIFR) at Hillside.

Among the values expressed in our Charter is an overriding commitment to safety. Supporting this value is our HSEC Policy, which provides the framework for achieving our aspirational goal of Zero Harm. A further guide to safety excellence is our Safety Improvement Road Map, a vital step of which was the introduction of Fatal Risk Control Protocols that are now being implemented throughout the Company. However, as well as having the most stringent systems in place, behavioural change is ultimately the key to improved safety performance.

In a message to all employees during this year, our Chief Executive Officer, Chip Goodyear, stated, 'Despite our major focus on safety we continue to experience a number of significant incidents. In the last year, a number of these incidents have had catastrophic outcomes. We know the activities that injure and kill people and we have procedures to deal with these risks'. He went on, 'Our contractors, who represent most of our fatalities this year, do not, in some cases, seem to have implemented our safety initiatives to the same extent that we have done. They too are critical members of our family and we must bring them along'.

Each of our operations must now implement an effective Contractor Management Procedure that ensures the following is in place for all relevant contractor work where there is a risk of serious injury:

- The contract work is to be assigned a BHP Billiton manager or supervisor as the single point of accountability.
- BHP Billiton line management is to allocate adequate time and resources to manage the day-to-day activities of the contract.
- Line management is to sign off on the work standards and how they are to be carried out and shall ensure via timely workplace inspections that the work is being carried out according to the agreed standards.
- Line management is to ensure that BHP Billiton's expectations are clearly and effectively communicated to all contractors and the leadership of their respective organisations.
- Line management is to ensure that each contractor's on-site manager is introduced to the responsible BHP Billiton supervisor who has single point accountability and that effective systems of communication are in place.

This focus on contractor safety performance is illustrated in these reports from our Hillside aluminium smelter in South Africa and the Worsley alumina refinery in Western Australia.

The safety challenge at Hillside

The Hillside aluminium smelter is located in Richards Bay, South Africa, about 150 kilometres north of Durban. The smelter came on stream in 1995. Hillside has 1171 employees and uses 115 main contractor companies that employ over 1100 contractors.

In March 2002, a contractor at Hillside was fatally injured when he fell from scaffolding. This led to an analysis of contractor safety, which revealed a Classified Injury Frequency Rate (CIFR) of 9.5. This was very poor compared with the CIFR for employees, which was below 1.0, indicating our need to focus more on contractor safety. In response, a contractor safety task team was established, comprising superintendents from different plant areas and disciplines to analyse the contractor safety situation.

Safety management program developed

A contractor safety management program was developed, and implementation commenced in July 2002. Key components of the safety program are summarised in the diagram on the next page.

A licensing and accreditation system for contractors has been introduced, and each approved contractor company is now mentored and coached by a Hillside superintendent. Specific contractor safety inductions were introduced. The permit procedure was simplified, and risk assessments became part of the permit system. Both Hillside employees and contractors were trained in the new permit procedure and risk assessments.

As part of the incident review process, the Hillside general manager meets each injured contract worker. Monthly contractor meetings have been reintroduced, together with more informal meetings in the form of monthly safety breakfasts. Awards for 'contractor of the month' have been introduced in recognition of good safety performance. At the same time, contractors who commit serious breaches of safety are suspended. Those who commit less-serious breaches of safety are named as 'lemon of the month'. Those who receive three 'lemon' nominations are suspended.

Since the contractor safety management program was introduced, a significant improvement in contractor safety performance is evident. From July 2002 to June 2004, the CIFR fell from 9.5 to 0.42, a twenty-fold improvement.

Commenting on the improvement, Tienie Fereira from Zululand Safety Specialists, itself a contractor company to Hillside, says, 'In 2002, the contractor CI rate was a very high 9.5, and between the contractors and Hillside management it was decided to do something drastic to turn this situation around. After all the changes and a lot of hard work from everyone concerned, the CI rate for the contractors came down to a mere 0.42, a major achievement in my books'.

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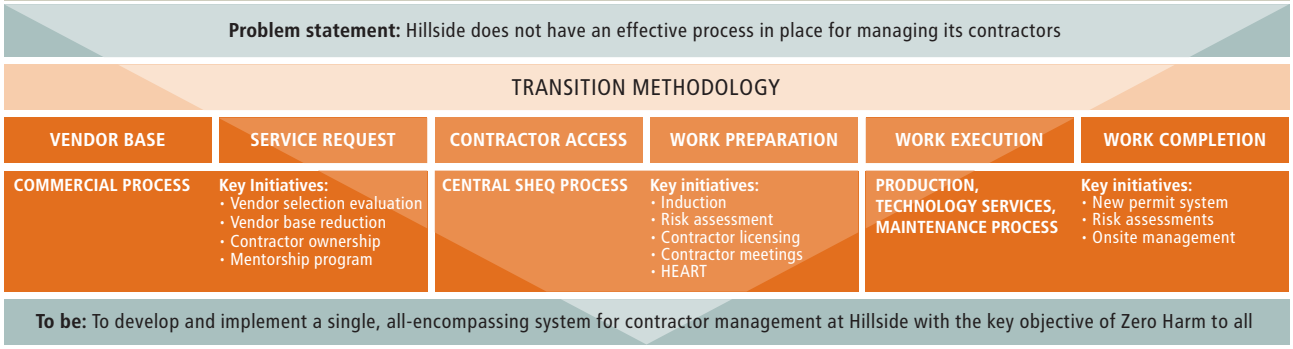
SAFETY 9

INITIATIVES AT HILLSIDE AND WORSLEY continued



Future initiatives

Major future initiatives aimed at further improving safety performance include the implementation of the BHP Billiton Fatal Risk Control Protocols. Specialised programs such as defensive driving training are being introduced, and contractors are also becoming involved in Hillside's HEART program, which is an acronym for Hillsiders Eliminating Accidents and Risks Together.

The program, which was implemented for Hillside employees in January 2000, has helped achieve a step change in safety improvement. A behavioural-based safety system, it involves peer-on-peer observations and a 'no name, no blame' approach. All risks and unsafe behaviours are analysed and action plans are drawn up by the HEART steering committee at meetings attended by operations and maintenance personnel and a management sponsor.

The safety challenge at Worsley

The Worsley alumina refinery is located near Collie in the south-west corner of Western Australia. Construction of the mine site and refinery began in 1980, and the first alumina was produced in April 1984. More than 1100 people are employed at the mine site and refinery. Worsley uses around 20 main contractor companies that employ over 300 contractors. The company is commencing a major development program that could see this number increase by about 500 contractors.

Effectively managing such a large and diverse group of people requires a strict management regime that includes measuring safety performance against a set of specific key performance indicators. This means that the performance of each contractor can be objectively assessed and appropriate corrective action taken for those not complying with the requirements. It is believed that managing safety 'lead' activities will prevent incidents, and this has formed the major focus of the implemented performance measurement process.

Safety processes put in place

In the past, contractor companies basically did what they were told and had little or no ownership of their own safety programs. Many did not have the required culture, expertise, people skills and focus to undertake effective safety management. For example, some companies had apparently excellent safety management systems or plans, but there was little evidence of these being fully utilised. This highlighted a major risk that needed to be managed. The solution was to develop and implement a simple process for measuring the safety performance of all contractor companies.

To many contractors, the processes required to effectively manage safety are confusing and unclear. To overcome this, Worsley has selected a set of lead and lag indicators that it considers will have the maximum impact on effective safety management.

The *lead* indicators are:

- safety visits
- workshop and field safety inspections (quantitative – the number performed)
- workshop and field safety inspections (qualitative – the quality of what was found)
- training matrix of competencies against a predefined list of skills required (to be in place and current at all times)
- safety tool box meetings
- contractor monthly safety meetings
- principal/manager attends the monthly contractor meetings
- monthly safety reports (copy to be sent on the first working day of the month).

The *lag* indicators are:

- number of classified injuries
- number of environmental incidents.

(Continued over)

SAFETY 9

INITIATIVES AT HILLSIDE AND WORSLEY continued

The importance of compliance with the leading indicators in terms of preventing injury cannot be overstated. Rigorous adherence is therefore fundamental to Worsley's success in contractor safety.

Each of these indicators is given a weighting as to their importance in determining the overall performance rating. Contractor compliance with these key performance measures is reviewed monthly and action taken when any non-compliance is identified. Positive reinforcement is also provided to contractors who are performing well.

Mike went on to say that in the early days Bunbury's aim was to simply conform to Worsley's requirements, but then certain incidents and pressures from other clients caused him to reassess the situation. He now realises good safety management is good business and if they don't manage it well they won't be around for the long term. Mike has embraced the concept of setting and measuring key performance indicators for safety management and is in the process of extending it into all facets of the business. Early indications are that his management team is very receptive to this approach.

Contractor XYZ Performance Score – Month 2004
HSEC (100%)

	Weighting	Actual Performance	Rating	Score	Comments
Safety Visits	15%	90%	Stretch	105	9 out of 10 completed
Workshop & Field Inspections – Quantitative	5%	80%	Stretch	105	4 out of 5 completed
Workshop & Field Inspections – Qualitative	10%	90%	Stretch	105	Score: 40 out of 44
Safety/Tool Box Meetings	10%	80%	BAU	100	4 out of 5 completed
Training Matrix	15%	90%	Outstanding	110	90 out of 100 units completed
Classified Injuries	15%	1	Fail	90	1 Classified Injury this month
Environmental Incidents	15%	0	BAU	100	0 Environmental Incidents this month
Monthly Safety Report	5%	1	BAU	100	Monthly Report submitted
Contractor Monthly Safety Meeting	5%	0	Fail	90	Did not attend
Contractor Principal Monthly Safety Meeting	5%	1	BAU	100	Meeting attended
Subtotal	**100%**			**101.0**	
				BAU	

Score	90	95	100	105	110
	Fail	Poor	BAU	Stretch	Outstanding

BAU = Business As Usual

A rating system has been established to assist contractors in reporting where their performance sits against Worsley's expectations.

All contractors use the same monthly report layout, which is a combination of tables, graphs and text. Compliance against the agreed key performance indicators is colour coded and graphically represented. This allows management to easily see where improvement actions need to be initiated.

An example of how the report layout is used is shown above.

The initial reaction to this initiative from most contractors is summed up by Mike Hogan, Manager of Bunbury Industrial Controls. Mike says, 'When we were first informed of what we had to do, I thought it would be a pain in the neck. I thought it would be cost restrictive, productivity inhibitive and would mean additional demands will be imposed on our management resources that we can ill afford'.

A benchmark contractor safety management system

Many companies may be familiar with the above leading and lagging indicators but do not put them into a structure that can help them manage the risks associated with using contractors. The process has several strengths. It can be easily applied to all contractors; it is simple to implement and manage; reporting is graphical and easy to understand; non-compliance can be quickly identified; and any necessary corrective action can be put in place.

This process has strengthened the relationship between Worsley and its contractors. Compliance is seen as a major driver of improved safety performance. Principals and managers of contractor companies are beginning to take responsibility for managing the safety of their employees, who in turn are getting into the habit of performing their safety activities. As a result, Worsley is heading towards a joint culture of Zero Harm.

Worsley now has a direct way to measure contractor safety performance that can be reviewed and fed back to the contractor for appropriate action. The process has been in place for over six months, with positive results in performance, culture and cooperation.

SAFETY 10

IMPROVEMENTS TO LIFTING AND SLINGING PRACTICES BY OUR PETROLEUM DRILLING TEAM

In June 2003, a tragic incident occurred at our Rhourde Oulad Djemma (ROD) oil and gas development site in Algeria, resulting in one fatality and two injuries. The incident occurred during the assembly of an onshore drilling rig. A large section of the rig was being lifted when a lifting chain failed. The BHP Billiton team investigating the incident subsequently made a number of recommendations to improve lifting and slinging practices in our petroleum drilling operations and Company-wide.

The basic cause of the incident was the use of an underrated chain sling combined with incorrect slinging and lifting techniques. The crane hook was positioned off-centre, resulting in the load path being out of alignment. Combined with a hinged load, this prevented the sling from equalising on all chain legs when raised. Consequently, the entire load of 23.1 tonnes was placed on one chain leg that had a breaking load of 18.9 tonnes, resulting in failure of the chain.

Investigation team recommendations

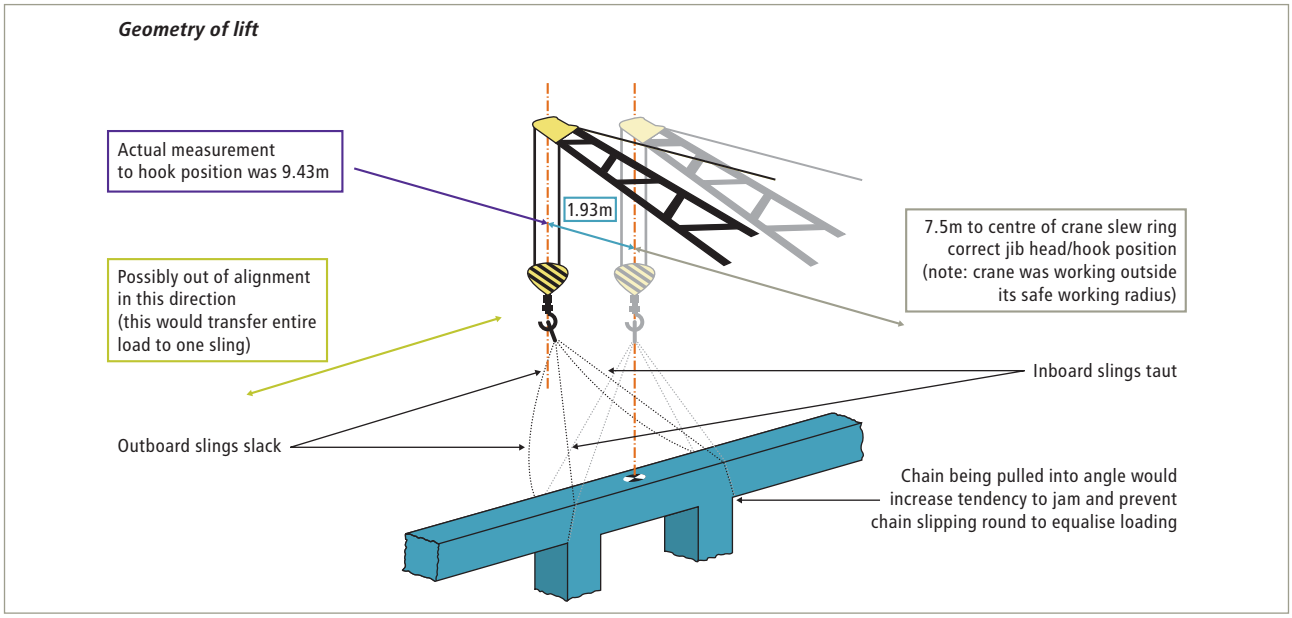
Following the investigation, the team made the following recommendations specific to the ROD Site, BHP Billiton Petroleum and the Company generally.

Improvements at the ROD site

As part of the improvements at the ROD site, the drilling contractor identified the following measures, which have improved the safety and efficiency of the site and removed a number of hazards. These initiatives are referred to as 'positive' and 'negative' lifting techniques.

Positive lifting:

- improves the time for lifting operations
- simplifies lifting pad eyes access for inspection
- increases safety during installation of lifting gear
- minimises risk of objects falling
- increases productivity and safety of drilling-associated operations.



▸ *Sketch of out-of-alignment load path during lift, resulting in lifting chain failure*

(Continued over)

SAFETY 10

IMPROVEMENTS TO LIFTING AND SLINGING PRACTICES continued

Negative lifting:
- increases the associated hazards and risks of working at heights
- increases the downtime for rig move operations
- increases the risk of personnel and objects falling
- increases the risk of failure of lifting gear material.

Improvements Petroleum-wide

The Petroleum drilling team appointed a specialist contractor, North Sea Lifting (NSL) to undertake a review of its lifting and slinging practices worldwide. NSL's scope of work was aimed at achieving improvements in lifting and slinging practices by drilling contractors, including:
- contracted drilling rig activities both onshore and offshore
- supply chain activities on land operations and on supply vessels in the offshore environment
- activities at the supply and logistics bases.

Examples of improvements identified by NSL included raising the awareness of supply-base crew through training in lifting and slinging practices.

Another area addressed concerned the competency and training of supply-boat crews. The measures taken here included:
- adoption of the United Kingdom Lifting Operations and Lifting Equipment Regulations (LOLER) as best practice for all lifting operations
- use of dedicated rigging and slinging crews on the supply boats
- training of deck crews in loading of cargo to improve safety of handling offshore
- development of a bridging document between our worldwide drilling team and the supply vessel operators
- adoption of the International Maritime Organisation (IMO) rules for the handling, storage and transportation of any dangerous goods offshore (IMO rules are seen as best practice worldwide and are accepted by all signatories to the UN Charter)
- adoption of the Australian requirements for containers throughout the world, which are also seen as best practice.

Improvements Company-wide

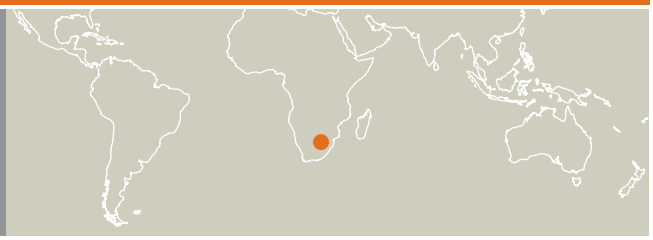
A new Fatal Risk Control Protocol for lifting activities and dropped objects has been developed for implementation throughout the Company.

These initiatives have already resulted in a number of positive comments from contractors and have heightened the awareness of the hazards and risks associated with lifting and slinging operations.

Pasquale Calcagne is Operations Manager with drilling contractor Saipem in Algeria. He says, 'Raising the standard of HSE in the work place has been a high priority with both Saipem and BHP Billiton. By working together, improvements have been achieved across many areas of the operation. The serious incident that occurred at the drill site reminded us all that we must always be improving. The improvement in the safety standards associated with lifting and slinging have also resulted in improvements in our operational performance, in particular a reduction in the time it now takes us to move a drilling rig. This is an excellent example of improvements in safety resulting in increased efficiency'.

SAFETY 11

SAMANCOR CHROME SHUTS DOWN OPERATIONS TO IMPLEMENT INTENSIVE SAFETY PROGRAM IN RESPONSE TO WORKPLACE FATALITIES



Tragically, six people died at work in separate incidents at our Samancor Chrome operations during the year in review. These individual tragedies are a grave cause for concern for everyone in the organisation. A comprehensive action plan has been put into place to address safety issues and drive a safe production culture throughout the chrome operations. The first step included shutting down five sites in the business in order to review the root causes of the deaths and provide all employees with intensive training in safe working and hazard awareness.

Samancor Chrome in South Africa, is one of the two independent operating divisions of Samancor, which is an incorporated joint venture between BHP Billiton (60 per cent) and Anglo American (40 per cent). Samancor Chrome produces three grades of ferrochrome for use in different areas of the stainless steel smelting process. The company has five business units:

- Western Chrome Mines, located in Rustenburg, North West Province
- Eastern Chrome Mines and Tubatse Ferrochrome Smelter, located in Steelport, Mpumalanga Province
- Ferrometals, located in Witbank, Mpumalanga Province
- Middelburg Ferrochrome and Middelburg Technochrome located in Middelburg, Mpumalanga Province.

The six fatalities occurred at Eastern Chrome Mines (2), Tubatse Ferrochrome, Ferrometals, Middelburg Ferrochrome and Middelburg Technochrome.

We have been pursuing a carefully planned restructuring of HSE plans, systems and engagement with people at Samancor Chrome, introducing BHP Billiton's HSEC values, standards and systems. Over the last two years, the key step in this process has been active engagement with DuPont, a world leader in safety systems and management, to implement a safety improvement strategy. The core elements of the strategy are founded on ensuring that safe behaviours in the workplace are the norm and that safety risks are recognised and managed appropriately.

Initiatives based on the safety improvement strategy have been reflected in the Total Injury Frequency Rate (Classified Injuries plus Medical Treatment cases), which has reduced from 35.7 in 2001 to 16.1 in 2004, but unfortunately not in the fatal injury incidence rate, which has remained at an average of three per year. In 2004, there was some deterioration in the severity of classified injuries, which rose during the year. A reducing injury rate does not mean a reduction in fatality risk, and such a situation is at odds with our commitment to employees and families and to safe working.

In order to accelerate engagement of all levels of the workforce, we implemented actions that may be unprecedented in the South African mining industry. The sites at Eastern Chrome Mines, Tubatse Ferrochrome, Middelburg Technochrome, Middelburg Ferrochrome and Ferrometals were shut down entirely for periods of between two days and three weeks, so that safety issues could be identified and addressed without any pressure from production activities.

The shutdowns drove home the message of 'Zero Harm or Zero Production'. A number of immediate actions were implemented at the sites, the most significant of which included:

- communicating the message of 'Zero Harm through Safe Production' to all personnel at every site (this has since also been reiterated more broadly across the entire BHP Billiton organisation)
- introducing red stop (safety risk identification) cards and refreshing the pre-job check list (four steps to safety)
- regularly reinforcing the safety theme
- ensuring all contractors have a single point of accountability
- ensuring each person on site reports to a supervisor every shift
- minimising non-essential work
- ensuring immediate communications are in a form understandable at all levels
- limiting organisational changes to build stability
- increasing the visibility of management at the plant.

While these immediate actions were occurring, an investigation team reviewed a wide range of aspects throughout the sites including:

- task/environmental conditions
- hardware and design
- training
- organisation
- communication
- incompatible goals
- procedures
- maintenance and project management
- risk management
- contractor management
- management of change
- reinforcement of the change process.

Following the review, further sets of actions are being implemented at all sites with the aim of embedding the Zero Harm culture throughout the organisation. Key among these are initiatives to improve hazard awareness and safe behaviour observation skills. Early indications over the four months since February 2004 suggest that the strategy is successfully changing attitudes throughout the workforce.

An independent review of the Samancor Chrome HSEC strategy found it to be sound and valid. The key gap identified relates to a need for faster implementation, particularly at the front line supervisor and shop floor employee level. This is being addressed in the action plan.

The employee safety training that took place during the shutdowns will continue to be reinforced and reviewed in order to assess whether fundamental values in the workplace are changing.

The dedication of all managers, supervisors, employees, contractors and unions to make and sustain a radical improvement in safety performance is evidence of the great importance each and every one places on the attainment of a workplace that is safe for all.

SAFETY 12

ALLIANCE WITH CATERPILLAR AIMS TO IMPROVE HSEC ASPECTS OF EARTHMOVING EQUIPMENT WHILE REDUCING COSTS

Following the BHP Billiton merger in mid 2001, significant business opportunities were identified, one of which was to reduce the total cost of ownership of the earthmoving equipment (EME) fleet at our operations around the world. Following an intensive process that investigated all major international EME suppliers, Caterpillar was selected as the primary supplier to meet our needs for the global sourcing of earthmoving equipment and related parts and services. In early 2003, BHP Billiton and Caterpillar committed to an initial five-year strategic alliance, which aims not only to save costs but also to reduce HSEC risks associated with the operation of earthmoving equipment.

► *Caterpillar 797 truck operating at the Escondida copper mine, Chile*

In developing a long-term alliance with Caterpillar and their dealers, our common aim is to work together to deliver increased value by reducing the total cost of ownership of our earthmoving equipment fleet through continuous improvement process projects. These will also lead to mechanical and operational enhancements that comply with the BHP Billiton Fatal Risk Control Protocols, decrease HSEC risks associated with the earthmoving equipment and help us achieve our goal of Zero Harm.

We aspire to deliver breakthrough HSEC performance and lower operating costs through more effective capital expenditure, improved parts pricing and product support. This will be achieved by utilising the resources of both alliance partners in a collaborative drive to facilitate achievement of our cost reduction, productivity and HSEC enhancement objectives.

HSEC and sustainable development benefits arising from the alliance

With the support of the Company's HSEC and asset management teams, focus areas were identified that enabled the implementation of projects and initiatives. These include:

- developing and evaluating vehicle collision avoidance systems, which generically include the use of closed circuit television cameras and radar detectors mounted on the equipment; in addition the use of radio frequency tagging of equipment using the haul roads is under review
- reducing and monitoring operator fatigue
- improving ergonomic issues such as whole body vibration, visibility, comfort and noise affecting both operators and those nearby
- improving the access systems on the machines, including the ability to maintain three-point contact and the development of powered access systems
- reducing fuel burn, lubricant consumption and engine emissions
- developing equipment lockout systems, improving fire prevention systems and improving operator visibility on the machines.

Specific enhancements to ensure compliance with the BHP Billiton Fatal Risk Control Protocols include:

- the use of tie-off points on the equipment for maintenance crews when working at height
- provision of high intensity discharge lighting to improve visibility during hours of darkness
- improvement in access systems such as angled stairways and fenders over the wheels to reduce the risk of slippery surfaces
- heated rear-view mirrors in arctic conditions to prevent the build up of snow and ice
- the use of training simulators to develop operator skills without risking the health and safety of operators.

The use of three-point seat belts for additional operator restraint and neck support is also currently on trial.

These initiatives and others aim to reduce risk to the Company and our employees, and improve the environment, relative to earthmoving equipment, in which we work.

Project example – reducing whole body vibration

Working at our Goonyella Riverside open-cut coal mine in the Bowen Basin of central Queensland, Australia, a team comprising representatives from the mine, Caterpillar and Hastings Deering (a Caterpillar dealer) has commenced a pilot project – the D11R Whole Body Vibration Project – looking at reducing vibrations on a Caterpillar D11R track dozer.

An early outcome of this project is the trialling of two new semi-active suspension seats developed to reduce vertical vibrations experienced by the operator. These seats have been designed to vary their damping characteristics according to changing ground conditions. The team is also looking for other sources of vibration to reduce the total vibration exposure of the operator. Measured vibration levels on site have demonstrated some clear gains can be made.

Phil Kelliher, Caterpillar's Global Manager for the BHP Billiton Alliance, believes that the close working relationship formed through the alliance will benefit all participants. He says, 'The Whole Body Vibration project is a good example of cross-functional teamwork, empowered by the Operational Excellence process, delivering solutions to some of BHP Billiton's major EME challenges while at the same time helping Caterpillar and our dealers design and maintain a safer product offering'.

ENVIRONMENT 13

COAL BED METHANE OFFERS A FUEL SOURCE WITH THE POTENTIAL TO DELIVER ZERO GREENHOUSE GAS EMISSION POWER

Coal bed methane (CBM) is natural gas extracted from coal seams. Innovative drilling methods have been successfully developed to the extent that CBM is now a proven and reliable source of competitively priced natural gas for power generation or for supply to industrial and residential markets. Where the CBM is used for electricity generation, the carbon dioxide (CO_2) produced by the combustion of the gas may be captured and sequestered into the same coal seams from which the CBM was extracted. Theoretically, coal seams can absorb more than twice as much CO_2 (by volume) as the methane extracted from them, offering a unique way of reducing greenhouse gas emissions from electricity production.

We are investigating the prospects for CBM-fired power generation to become a significant low greenhouse gas emissions energy source, with potential application in Australia, the United States, Europe and China.

Power is generated from CBM in much the same way it is from natural gas. When the methane is combusted in the power plant, CO_2 and water are produced. The unique concept we are proposing uses a process known as sequestration, which means reinjecting the CO_2 back into the seam from which the methane was extracted initially – thereby essentially having a form of power generation with zero greenhouse gas emissions.

The potential application of CBM-fired power generation has several dimensions:

- The development of new techniques for drilling methane-rich coal seams, in which BHP Billiton has played a leading role, has meant that CBM has become a competitive alternative to conventional natural gas in North America and Australia.
- In these countries, existing electricity transmission infrastructure extends into the coalfields where a number of existing coal-fired power stations are located. The same infrastructure could service new power stations situated on top of CBM fields and fuelled by CBM.
- The CO_2 from CBM-fired power stations could be 'captured' and sequestered into the same coal seams from which the CBM was extracted.

In Australia, CBM is expected to supply 15 per cent of eastern Australia's expected gas demand in 2005, a significant proportion of which will go into power generation. The potential recoverable CBM from eastern Australian coal basins has been estimated to be 100 trillion cubic feet, representing 200 years of current gas demand in Australia.

BHP Billiton is a part owner of a major CBM project called the Moranbah Gas Project that will supply gas for use in a high-efficiency power station in Townsville, Australia, by 2005. The power station will produce up to 1.5 million megawatt-hours annually, equivalent to the energy needs of a town of 200 000 people

Research has been undertaken to find suitable locations for carbon dioxide sequestration. In Australia, the research[1] suggests that the CO_2 storage potential of major coal basins – including the Bowen and Galilee Basins in Queensland, the Cooper Basin in South Australia, and the Sydney, Gunnedah and Clarence-Moreton Basins in New South Wales – is equivalent to 45 years of current CO_2 emissions from electricity generation. Importantly for the permanence of sequestration, the study focused on coal seams that are too deep or too high in ash content to be economic for coal mining. It is estimated that coal basins in North America and China also have a significant sequestration potential.

The injection of CO_2 into coal seams is being trialled, both as a means of enhancing the recovery of CBM and for permanent CO_2 storage. Research suggests that CO_2 injected into coal seam reservoirs can displace the methane embedded in the coal and thereby enhance its extraction, theoretically allowing recovery of all of the methane in place. Early results from the first multi-well pilot test in the San Juan basin of New Mexico indicate that such CO_2-enhanced CBM recovery is technically feasible.

In another project, permanent underground CO_2 storage is being trialled by Consol Energy, a large US coal mining company with significant coal seam gas operations. In conjunction with the US Department of Energy, Consol embarked in 2002 on a seven-year project to demonstrate drilling techniques to permanently sequester CO_2 into unminable coal seams. US$9.2 million is being invested in the project.

While the technology exists to sequester CO_2 in coal seams, there are major technical issues to be addressed. First, the ability of the coal to adsorb the CO_2 without swelling and becoming impermeable needs to be demonstrated in the field with injection tests; permeability is important to enable the CO_2 adsorption potential of the coal seam to be fully realised.

Second, the long-term integrity of the sequestration process needs to be demonstrated; that is, that the same geological mechanisms that trapped the methane in the coal seams will ensure permanent sequestration of the injected CO_2.

These issues could be addressed within two years (with monitoring over a longer period), and a full-size demonstration project of a CBM-fuelled power station with sequestration of the captured CO_2 could be operational within five years.

The economic outlook for CBM-related sequestration also seems positive. Research[2] suggests that this technology has the scope to deliver sequestration at a cost of less than US$8 per tonne of CO_2. This compares with an average price per tonne of CO_2 of US$10 for carbon credits traded in Europe over the six months to May 2004. The difference suggests that it makes business sense to pursue CO_2 sequestration options.

For further information, the Company's Position Statement on Climate Change is available on our website at www.bhpbilliton.com/bb/sustainableDevelopment/environment.jsp.

[1] Australian Petroleum CRC's GEODISC research paper entitled Carbon Dioxide Sequestration Potential of Australia's Coal Basins (Sept 2000).

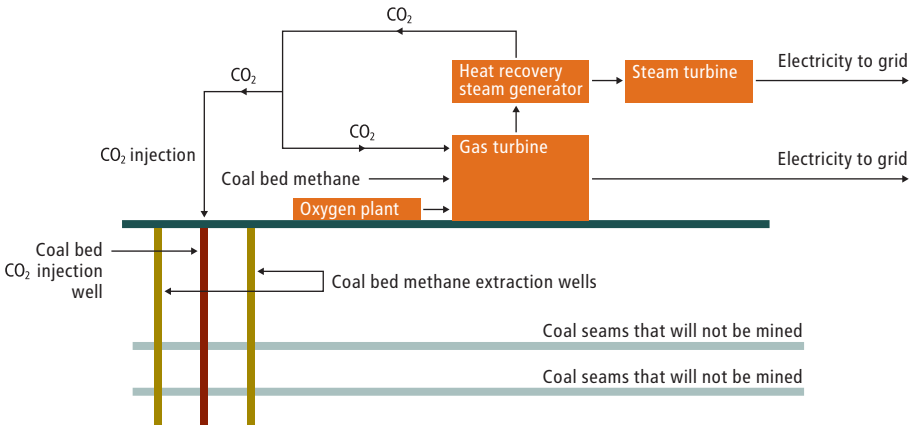
[2] CO_2 Injection for Enhanced Coal bed Methane Recovery: Project Screening and Design by Scott H. Stevens, Advanced Resources International. Presented at the International Coal Bed Methane Symposium, University of Alabama, Tuscaloosa, May 3–7, 1999.

(Continued over)

ENVIRONMENT 13

COAL BED METHANE continued

Coal bed methane and zero carbon power



With coal bed methane mixed with oxygen as fuel for the gas turbine, the flue gas becomes pure carbon dioxide (plus water and NO_x)

ENVIRONMENT 14

CLOSURE PROGRAM AT SAN MANUEL COPPER MINE ADDRESSES ENVIRONMENTAL ISSUES

► *Aerial view of the San Manuel mine site*

Following closure of our San Manuel copper operation in Arizona, USA, reclamation of the mine sites has commenced. All mining ceased in August 1999, following which the operations were managed on a care and maintenance basis until the mine site was closed in January 2002 and the plant site in October 2003. Decommissioning and reclamation of the sites will be completed over the next five to seven years. A significant environmental challenge will be management of the future pit lake that will form at the mine site, due to acidity from spent process solutions that remain in the former open pit mine. Reclamation strategies include a number of options to reduce the residual risk. Our commitment to protection of the environment will be central to the reclamation process.

The San Manuel mine and plant operation is located in the arid south-west of Arizona, approximately 48 kilometres north-west of Tucson. The ore body is one of several large copper deposits that were discovered in the area in the early 1900s. Mining commenced in 1948, and in 1952 Magma Copper Company constructed an underground mine, plant and railroads and started developing the community of San Manuel. Development of open pit mining operations on top of the subsidence area of the underground mine began in 1985. BHP Billiton acquired the property through the purchase of Magma Copper Company in 1996.

The mine site included the underground block cave mine that supplied sulphide ore via a dedicated railway to the mill located at the plant site, as well as the open pit mine operation that extracted and processed the copper contained in the oxide cap over the block cave mine. There was also an in situ leach operation within the open pit area. The mine site covers approximately 2000 hectares, of which approximately 1200 hectares have been disturbed by mining.

The plant site is located about 11 kilometres miles south of the mine. Operations there included a concentrator, smelter and refining facilities as well as a tailings dam that covers approximately 1450 hectares. The plant site is bordered by the town of San Manuel to the west and the San Pedro River to the east.

Planning for the future pit lake

A significant environmental challenge associated with the reclamation of San Manuel is the management of the future pit lake at the mine site.

When the mine was placed under care and maintenance in 1999, groundwater continued to be pumped from the underground mine to sustain operations until closure was announced. Upon closure, the pumping ceased, allowing groundwater to begin flowing into the underground mine. In approximately ten years the groundwater will reach up into the open pit and a lake will begin to form. A network of groundwater monitoring wells is in place and groundwater level readings and samples have been collected over time, from which baseline measurements have been developed.

Our reclamation project team has applied the Company's HSEC management standards as well as Enterprise-Wide Risk Management standards to identify and manage environmental issues. By applying this decision-making methodology, it was determined that well-timed implementation of closure activities can provide significant cost savings over time. Therefore, the project schedule is driven by a desire to realistically compress the reclamation program while adequately addressing the environmental challenges associated with formation of the pit lake.

The water quality of the future lake is expected to be affected by spent process solutions that remain in the former open pit mine as a result of in situ mining on the benches. Acidity in the spent process solutions and pit slopes will be partially offset by acid neutralisation due to rock composition in the former underground mine; however, the pit lake pH is expected to approach 5.0, and dissolved metals will still be present in the water. Planning contingencies include treatment of the pit lake water to adjust the pH to approximately 7.0, which will ensure that migratory birds and groundwater will be further protected from impacted pit lake water quality.

Computer models of groundwater movement and pit lake formation suggest that that groundwater will move very slowly through the rock and soil, and any remaining solutions will naturally degrade over time; however, evaporation from the pit lake surface will be insufficient for the lake area to passively contain all the groundwater that will rise into the lake over time.

Exploring options for managing residual risk of the pit lake

A number of proactive management options to reduce the residual risk of the pit lake have been identified. These include:

- segregating affected and non-affected groundwater inflow for potential treatment or beneficial use off site, such as for drinking water, agricultural use or industrial purposes
- water treatment methods that involve in-situ or pre-emptive measures to improve water quality in the pit lake

(Continued over)

ENVIRONMENT 14

CLOSURE PROGRAM AT SAN MANUEL COPPER MINE continued

- promoting neutralisation of acidity in the spent process solutions in the former underground mine by treating them with acid-neutralising materials such as from the San Manuel Formation, which contains a considerable amount of carbonate that neutralises acid and precipitates metals out of the water.

Various technical studies and regulatory assessments will be carried out during the next three to five years of groundwater recovery. At the same time, it is anticipated that public awareness of the value of the water resources at the mine site will increase. The processes we have put in place to identify issues and manage residual risk recognise the importance of the closure and reclamation process to the community and the local environment.

ENVIRONMENT 15

SELBAIE MINE DEVELOPS ENVIRONMENTAL PROGRAM TO CONTAIN ACIDIC WATERS DURING THE SNOW-MELTING SEASON

The Selbaie base metals mine, located about 140 kilometres north of La Sarre in Quebec, northern Canada, operated from 1981 to January 2004. The mine site consists of 575 hectares of disturbed area, which includes environmental control systems to manage water impacted by the 33 million tonnes of mineralised waste rock that was created during operations. Concurrent rehabilitation of the waste rock pile and the mine site has been progressing since 2000. In 2003, in an area east of the waste rock pile, water containing dissolved zinc, iron and copper was discovered escaping to a fresh water diversion and to the environment. An action plan has been put in place to fully contain all seepage from the waste rock pile.

▸ *Waste rock pile at Selbaie Mine with acid collection pond in the foreground. The area of release from ditches is in the top right corner.*

Background

Acid water seepage resulted in the release of poor-quality water outside the containment system. This seepage condition went undetected until a characterisation study of the area was carried out for the reclamation planning. Verbal and written reports were then filed with the Quebec government. The Ministry of Environment issued two notices of infractions: failure to report the spill without delay; and the release of contaminants to the environment. The two notices have not as yet resulted in the laying of formal complaints.

The escape of acid water is believed to have occurred over a number of years during spring snowmelt, when the release was not visible under the snow and ice, and in heavy rainstorms. During the latter years of the operation, there was no monitoring in the area as the ditching systems for the acid waters were considered adequate. Once the site was sampled, the delay in reporting resulted from a lack of understanding of the significance of the data for what was considered a minor stream.

The action plan for prevention

The area east of the waste rock pile is a flat, 60-hectare tract of peat bog. The objective was to design a system to prevent the further escape of acid water and metals, to clean up the affected area and to provide treatment for acidity that could not be contained.

An action plan was presented to the government and included construction of an expanded acid water collection pond; peat and ice excavation in an affected area to the south; improved pumping and acid water collection; and in situ treatment of the drainage ditch to increase the pH and precipitate metals before the water leaves the mine site.

Implementation of the plan

The acid spill containment program was successfully completed over winter and in time for the spring melt from March to April. The collection and pumping systems will be able to handle normal flows. A major concern was the ability to contain high flows that will arise during the ten-week warming period and retain solids in the treated water. Additional steps were taken that included in situ treatment of the drainage stream using sodium hydroxide, addition of ferric sulphate to improve settling of fine particles, and hay bales used as baffles to improve settling of solids. These measures will continue for as long as necessary, even after the permanent collection facilities have been installed.

Monitoring the recovery

Environmental effects monitoring is needed to understand the effects of the acid release and the recovery of the system. Sampling carried out in July and August on and off site will evaluate the biological effects and recovery of the situation on the land and water surrounding the mine site. Soils, water quality, sediments, fish and macroinvertebrates have been sampled.

The objectives throughout the clean-up project are to maintain good communication and transparency with the government, to take all reasonable measures to contain or treat acidity in the stream and, finally, to study the effects and recovery in the environment.

New collection system

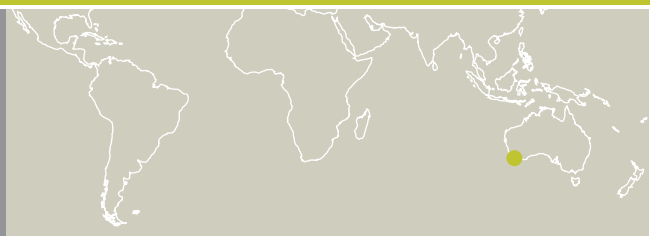
As part of the long-term site reclamation program, a new acid water collection system is being constructed that will fully contain all seepage from the mine waste pile and replace those measures installed over winter. However, allowance has been made to maintain the current facilities for up to five years as a backup measure.

Action following site-wide review

As a result of discovering the seepage from the waste rock pile, a site-wide monitoring program to check other areas of the plant site was performed. Sampling in April 2004 identified a new area of concern in the west sector. Acid seepage escaped the west sector containment ditch, resulting in environmental effects beyond the Selbaie boundary, which are currently being investigated. An action program similar to that for the waste rock pile containment system is being established.

ENVIRONMENT 16

CONSERVING BIODIVERSITY AT THE RAVENSTHORPE NICKEL PROJECT



In March this year, the Company approved the Ravensthorpe Nickel Project in Western Australia. One of the challenges facing the project is to construct and operate a significant nickel laterite processing plant and open-cut mining operation while minimising disturbance in an environmentally sensitive area. Detailed environmental planning and research as part of mine planning and design has been undertaken, and programs are being implemented to conserve biodiversity in the area.

The Ravensthorpe Nickel Project (RNP) is located 155 kilometres west of Esperance along the South Coast Highway, approximately 35 kilometres east of the town of Ravensthorpe. The project is within an agricultural region with an established network of small towns.

The project consists of three nickel laterite deposits with an expected mine life of 25 years. Open-cut mining operations will produce ore for a hydro-metallurgical atmospheric and pressure acid leach process to produce an intermediate nickel-cobalt hydroxide.

The main project area includes the ore deposits, plant site, accommodation village, tailings storage and evaporation pond facilities.

Environmental management

The RNP is located within the Bandalup Corridor, a band of remnant vegetation in an agricultural region adjacent to the Fitzgerald River National Park, and falls within the buffer zone of the Fitzgerald River Biosphere, a world-renowned biodiversity area. The Western Australian Department of Conservation and Land Management (CALM) manages both the National Park and the Biosphere. One of the allowable activities within the buffer zone of a Biosphere is mining, subject to responsible environmental management.

The project's ore deposits are located in areas covered by remnant vegetation. The clearing of this vegetation associated with project development has two main impacts on biodiversity, including loss of habitat for fauna and, to a lesser extent, direct fauna impact from road traffic. The loss of fauna habitat has been compensated through the purchase of an adjacent 650-hectare 'bush block' as a conservation offset, together with the revegetation of approximately 600 hectares of existing cleared farmland to allow its incorporation back into the Bandalup Corridor.

At the completion of these revegetation activities and subsequent mine rehabilitation, the width of the Bandalup Corridor will actually be increased. Significantly, Ravensthorpe Nickel Operations (RNO), the management company 100 per cent owned by BHP Billiton, believes that the effective area for fauna habitat post mine closure will be greater than currently exists.

Additional research and conservation initiatives

The project team has also sponsored a PhD research project studying the environment preferences and life cycle of the heath mouse, *Pseudomys shortridgei*, an Australian Commonwealth endangered species that is principally resident in the Fitzgerald River National Park. The outcomes of this research project will assist CALM in developing a recovery plan for the heath mouse to hopefully allow its removal from the endangered species list.

During the feasibility study, detailed ecological survey work has identified over 700 individual flora species within the project leases, a number of which are endemic to the project leases and in some cases have been identified for the first time.

The project team has focused on reducing clearing of remnant vegetation by locating as much infrastructure as practicable on adjacent historically cleared land. Where clearing is unavoidable, progressive rehabilitation including backfilling of mined areas has been included in the mine development schedule.

Additionally, four mining exclusion zones have been established to preserve restricted species. Results from large-scale rehabilitation trials, translocation trials for priority species, genetic studies and seed propagation studies led to the development of rehabilitation and priority species management plans. These plans were subsequently approved by CALM, allowing construction to commence this year.

RNO believes extensive rehabilitation programs will effectively reverse any potential loss of biodiversity associated with land clearing.

▸ *View from Bandalup Hill, Ravensthorpe*

▸ *Heath mouse in the Ravensthorpe area*

▸ *Local wildflower species* Kunzea similis

Heath mouse photograph by Jiri Lockman

ENVIRONMENT 17

ENGINEERING A SUSTAINABLE FUTURE AT YABULU REFINERY

BHP Billiton subsidiary QNI operates a nickel refinery at Yabulu, 25 kilometres north of Townsville in Queensland, Australia. Three projects, part of an all-encompassing Yabulu Optimisation Initiative, have specifically targeted energy and water use efficiencies, with significant results.

QNI refines over 3.5 million wet tonnes of imported nickel laterite ores each year, using a complex hydrometallurgical process to produce high-quality nickel and cobalt products for sale into world markets.

Celebrating 30 years of operation on the north Queensland coast this year, QNI's Yabulu Refinery has been working for many years on improving the efficiency of its operations. The impetus is a major expansion project now approved and being readied for commencement in 2005.

Yabulu Optimisation Initiative

The strategy to improve efficiencies, known as the Yabulu Optimisation Initiative, provides the operation with a sustainable future through increased cobalt and nickel recoveries, increased throughput and decreased unit costs. The optimisation projects commenced with employee workshops aimed at identifying viable projects. Some 550 projects were proposed, with further study reducing this number to 33.

QNI undertook a step-by-step process to identify and prioritise projects that offer potential environmental and economic benefits. Three projects from this initiative, specifically aimed at energy and water reuse with the added benefit of increased cobalt recovery, were effectively commissioned in 2003. Many more are on the way.

The three projects are:
- the Boiler Feed Water Preheat Project
- the Green Water Re-Use Project
- the Cobalt Plant Water Re-Use Project.

Positive results from these projects, including water and energy usage efficiencies together with greenhouse gas reductions per tonne of product, have so far justified the extensive efforts expended. The initiatives also represent a breakthrough in engineering design and implementation and an outstanding achievement in the refinery's quest for a more sustainable minerals processing operation.

The projects are already contributing efficiencies in direct water and coal savings and increased product sales, with a total value of over AUD$3.8 million per year.

The Boiler Feed Water Preheat Project has resulted in a new boiler feedwater system that utilises heat energy available from distillation columns in the area to preheat water prior to it being fed to the powerhouse turbines. Utilising the available heat energy reduces the requirement to consume steam in the powerhouse to preheat the water. The significant benefits from this project are energy savings and increased production.

The Green Water Re-Use Project recovers water, nickel and heat energy from 85˚C basic nickel carbonate slurry. The old process resulted in a loss of nickel and valuable hot water to the tailings dam. The reuse of water from this project has a direct impact on the quantity of new water used in the plant. Approximately one million litres of water per day is saved as a result of this process, together with increased nickel recoveries.

► *Efficiency initiatives at Yabulu Refinery have specifically targeted energy and water use*

The Cobalt Plant Water Re-Use Project recovers heat and water, saving over 350 000 litres of new water every day together with energy savings.

► *Environmental technician John Weatherly monitors water resources at Yabulu Refinery*

In combination, these projects have reduced the quantity of new water used in the production process from 206 kilolitres per tonne of final product to 185.7 kilolitres per tonne of final product, a saving of 20.3 kilolitres per tonne. The quantity of energy used per tonne of final product has been reduced from 583 gigajoules per tonne to 567 gigajoules per tonne. Greenhouse gas emissions from the plant have been reduced from 46.5 tonnes of carbon dioxide per tonne of final product to 45.5 tonnes.

Specifically, these projects have reduced materials and energy intensity in two ways. Firstly, by increasing cobalt recovery, they have increased the quantity of product produced per tonne of ore processed in the plant. One of the projects also reduces the amount of nickel lost to tailings, thereby increasing the amount of nickel product obtained from the ore. Secondly, the projects have reduced the amount of new water and energy (coal) used to produce the final products.

These successes at Yabulu Refinery confirm, once again, that projects that benefit the environment can also return a sound economic benefit.

ENVIRONMENT 18

WASTE MANAGEMENT PRACTICES AT CANNINGTON ARE DELIVERING BENEFITS FOR THE OPERATION AND OTHER STAKEHOLDERS

From the commencement of our Cannington silver-lead-zinc operation in northwest Queensland, Australia, in the late 1990s, the leadership team has worked hard at developing a workplace culture where every individual strives for excellence. In pursuing this goal, and in line with BHP Billiton's overriding commitment to environmental responsibility and sustainable development, a key focus at Cannington is waste management. The strategies developed are producing significant benefits, for the operation and the broader community.

▸ *An old 20-litre plastic container of drilling mud*

▸ *The new cardboard box and 20-litre plastic bladder*

In the early stages of the Cannington operation, caring for the environment presented many challenges, not the least of which was apprehension by some of the local pastoral community that their heritage values, water supply and income might be threatened by the mining operation. Compliance with environmental protection laws alone was not enough to allay their concerns; initiatives needed to be visible and measurable and show that stewardship of the environment would be in good hands. A further challenge was that management strategies needed to cope with the remoteness of the area and the lack of waste management services and disposal facilities.

Waste management strategies

As far back as 1992, Cannington began to develop strategies that would enable responsible waste management. As well as being innovative, these strategies have been simple and achievable and directed towards:

- avoiding, where practical, products that could not be reused or recycled
- reducing the volume of waste
- ensuring disposal was an option only if no other treatment was available.

From those early days, products have been purchased in bulk to minimise packaging. Waste oils, batteries, scrap metal, construction scrap and marketable recyclables have been stockpiled until quantities are sufficient for transport to Mt Isa or Townsville. Colour-coded waste segregation has been introduced to ensure that recyclable and general waste products are not contaminated by lead and zinc. Specifically coloured wheelie bins are used for the separate collection of general waste, recyclables, hydrocarbon and lead and zinc contaminated products.

Lola Sexton from Eurest Support Services, who is crib room and laundry coordinator at Cannington, says, 'Properly separating everything is the key to successful waste management with my job. Encouraging people to do the right thing with the waste being thrown out in the crib room increases the amount we recycle. I also try to repair and recycle as much as I can as it comes through the laundry; this not only helps the environment it also helps to reduce our costs'.

In addition, cardboard and aluminium cans are compacted prior to transport offsite, village kitchen vegetable scraps are broken down by a large worm farm, combustible hydrocarbon products such as oily rags and filters are eliminated in a high-temperature incinerator, and rubber and leather gloves are washed and dried in the site laundry and redistributed.

Recycling initiatives and minimisation processes have extended the life of the mine landfill facility from one year to three years. Reduced landfill development and management costs have resulted in savings of around AUD$200 000 every three years. Impacts on the environmental values within the mining leases have been reduced through less disturbance and fewer landfill sites.

Employee education and involvement has improved the overall understanding of environmental stewardship, resulting in fewer environmental incidents and helping to fulfil the drive towards sustainable development.

'We're in a remote location,' states Cannington process plant operator Martin Belsey. 'When we finally leave here it has to be as close as possible to the state it was in when we arrived. We recycle our gloves, including leather and rubber; we sort our waste and send it off site for responsible disposal. We always have a mind to minimise the impact we have here. That's the way it is, as it should be'.

Extending the benefits

Beyond the operation, recent initiatives have included encouraging the on-site drilling contractor to negotiate with their supplier to change the container in which drilling mud is supplied. Instead of a hard plastic 20-litre container, which is difficult to recycle because of its bulk, they have agreed to use a 20-litre plastic bladder encased in a cardboard box with a reusable spout (like a big wine cask). Storing the flat pack cardboard boxes and plastic bladders saves the supplier space, the driller receives more products per pallet, and the new pack is easily recycled – a win-win situation for all.

Phil Lonie, Project Manager at Major Pontil Contractors, agrees. He has reported that 'the new containers have reduced our waste by 95 per cent, enabled us to transport 50 per cent more product per pallet and made manual handling easier'.

(Continued over)

ENVIRONMENT 18

WASTE MANAGEMENT PRACTICES AT CANNINGTON continued

Pialba State School at Hervey Bay in Queensland has emulated Cannington's waste management strategies in its School Environmental Management Plan. The school was chosen as the 2002 national winner of the Minerals Council of Australia's EnviroSmart Award, an annual event for schools.

The children at Pialba have implemented a program to rehabilitate their school grounds and gardens and reduce power and water consumption. They have also involved the wider community by seeking facilities from their local government authority for the recycling of plastics, aluminium and paper from classrooms and eating areas and, in school newsletters, promoting a reduction in plastic wrappings for school lunches.

▸ *Pialba State School representatives with Queensland Premier Peter Beattie*

Today at Cannington, waste management is considered to be a fundamental part of the mining operation. With the ongoing influence that its own employees have when they take home their learnings from the workplace, and through examples such as the changed drilling mud packaging and Pialba State School's EnviroSmart initiatives, Cannington is also helping the community to adopt sustainable practices.

ENVIRONMENT 19

INNOVATIVE APPROACH TO RECLAMATION AT LA PLATA MINE IS PRODUCING POSITIVE RESULTS

Our La Plata Mine in New Mexico, USA, began producing coal in 1986. The coal was hauled to the San Juan Mine, where it was stockpiled for supply to the San Juan Generating Station. Coal production ceased in December 2002 and the coal haul was completed three months later, enabling full-time reclamation of the site to commence. In 2001, it had been determined that the reclamation program faced challenges that required more than the conventional practices. An innovative approach was initiated, involving the computer-generation of topographical designs that simulate natural landforms and create a landscape similar to that which naturally would have formed over time. Reclamation using these principles is now well under way, with positive results.

▸ *Reclaimed southern slope of the McDermott Dump located at the east end of La Plata Mine. The dump was reclaimed in 2001 using fluvial geomorphic principles to design the size, shape and features of the watershed.*

The main reason for initiating a more comprehensive approach to reclamation at La Plata is that the terrain is steeply sloping and highly erosional. The landscape is dominated by mesas with their steep rock walls topped by flat sandstone caps. Some of these caps, which control headcutting from moving upstream, were removed when the mine was constructed. Without them, the terrain will erode upstream and eventually create a landform quite different to the pre-mine landscape.

There were other challenges. For example, the conventional approach is to develop terraced slopes with rock chutes for draining water down the slopes. If this approach were used as part of the reclamation process, long-term maintenance would be required. Terraces would not provide the desired topographic diversity, and minimal precipitation and high evaporation rates would limit the amount of available water.

Additionally, during mining, the overburden rock was broken. As the broken overburden occupies a greater volume than the unmined rock, it all could not fit in the mined-out pit. The excess had to be reclaimed as a permanent out-of-pit spoil dump, which was developed with approval from the State of New Mexico authorities. Existence of the dump provided another challenge to the reclamation program.

It was considered essential that, as well as reclaiming the landscape, the final landforms must harmonise with the surrounding natural terrain and provide habitat for wildlife, in particular the deer that are abundant in the area.

This is extremely important for the people who live in La Plata and for those who use the La Plata valley for recreation such as hunting and hiking.

Fluvial geomorphic principles

Fluvial geomorphic principles involve recontouring of reclaimed surfaces and simulating natural stream configurations to create a landscape similar to that which naturally would have formed over time. Landform shaping and grading plans are based on computer-generated topographical designs. In addition, the principles are used to provide slopes and drainage channels that are stable over the long term.

Application of the principles takes into account the creation of landforms together with the processes by which those landforms would be created naturally over time. Soil, slope and weather are all considered. The objective is to create functional landforms that blend with the surrounding natural terrain and are stable, ensuring long-term, maintenance-free reclamation.

To shape the land according to the computer-generated topographical designs, global positioning system (GPS) technologies are utilised in the earthmoving equipment. The GPS units provide real-time data, allowing the bulldozer operators to monitor their work in the field. This improves productivity and efficiency in materials handling and helps accomplish the required surface configuration designs.

▸ *Reclaimed northern slope of the McDermott Dump (background) with partially filled Younger Pit and topsoil stockpile in the foreground*

The application of fluvial geomorphic principles in reclamation at La Plata Mine has many long-term benefits. During reclamation, topdressing to varying depths and using multiple seed mixes provides topographic diversity and also promotes plant community diversity. Wildlife habitats are improved by the grading of slopes to re-create natural landforms, which establishes windbreaks and security areas. The resulting landscape is in harmony with the natural surrounding terrain.

(Continued over)

ENVIRONMENT 19

INNOVATIVE APPROACH TO RECLAMATION AT LA PLATA MINE continued

▸ *Active reclamation of the Northgate watershed awaiting topsoil placement and seeding. The rocks have been stacked for future placement in the watershed ridges and drainages.*

Positive results

Around 100 people from the La Plata Mine team and San Juan Coal Company environmental department are involved in the reclamation phase, which is expected to continue until 2007 when major earthwork should be completed and the land returned to wildlife habitat.

A target had been set to regrade 142 hectares by June 2004. At the time of reporting, 255 hectares have been regraded, including 31 hectares that were completed in the calendar year 2003. A total of 34 hectares have so far been reclaimed through regrading, topdressing and seeding.

Based on research involving on-site inspections undertaken in 2001, 2002 and 2003 after periods of significant rainfall, all of the constructed drainage channels are stable, with minor scouring and deposition as predicted. No repair work has been necessary. The test area has stood up well to erosion. It is much more visually appealing and, as vegetation takes hold, is blending well with the natural terrain.

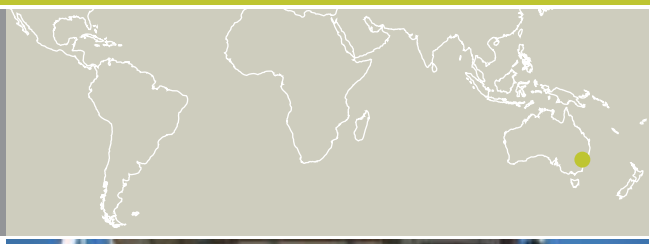
For the innovative approach to reclamation work, La Plata Mine was recognised in 2001 for achieving 'Excellence in Reclamation' by the New Mexico Energy, Minerals and Natural Resource Department, Mining and Minerals Division.

Mr Willis L. Gainer, Director of the Albuquerque Field Office of the Department of Interior, Office of Surface Mining, stated in a letter to San Juan Coal Company, 'Everyone was extremely impressed by your success at geomorphic restoration of the reclaimed topography. In my view, the innovative backfilling, grading, and drainage restoration work that you . . . have implemented at your mines has set a new standard for reclamation technology'.

The La Plata Mine project has demonstrated that reclamation grading using fluvial geomorphic principles can be successfully implemented in conjunction with surface mining and truck-and-shovel open-pit operations.

ENVIRONMENT 20

MT ARTHUR COAL TRUCKS AND EXCAVATORS DESIGNED TO MEET STRINGENT NOISE LIMITS



At our Mt Arthur Coal open-cut operation in the Hunter Valley in New South Wales, Australia, adherence to stringent environmental noise limits is essential. The mine is located close to residential areas of the nearby town of Muswellbrook. With the operation needing to increase production levels in response to customer demand, the noise limits could only be met with significant reductions in the operating noise of mining equipment. Mt Arthur Coal has collaborated with equipment manufacturer Liebherr to achieve the lower noise levels. New excavators and haul trucks – claimed to be the quietest of their type in the world – are now being delivered.

▸ *One of the new quiet Liebherr T282 ultra class haul trucks at Mt Arthur Coal*

To meet its obligations to the Muswellbrook community, Mt Arthur Coal developed a noise specification that prescribes the maximum noise limits that can be emitted from mining equipment under a range of test conditions. This required excavators and haul trucks to become up to 15 dB(A) quieter in their noise emissions. At maximum attenuation, this equates to a 32-fold reduction in noise output from the machine. The ability of equipment to meet the requirements of the noise specification is a critical factor in the selection process.

Mt Arthur Coal formed a team to work closely with equipment supplier Liebherr to achieve the required noise level reductions. The project team utilised expertise from the production engineering departments of the manufacturer's truck factory in Newport News, Virginia, USA, and their excavator factory in Colmar, France. The team also took advantage of Liebherr's experience in the manufacture of noise suppression packages for smaller equipment designed to operate in inner-city areas of Europe.

The new excavators and haul trucks being supplied by Liebherr are designed to meet Mt Arthur Coal's stringent noise standards. Importantly, they do so in a manner that minimises negative operational or performance effects. This has established a new benchmark for mining equipment noise levels, with the excavator and truck models being the quietest in their respective equipment classes.

Mt Arthur Coal has designed and constructed a noise test facility, the first of its kind in the world, to test equipment noise levels on a regular basis. The facility tests the majority of the operation's mining equipment under a range of operating conditions in accordance with the site noise specification. All excavators and trucks are subject to a noise management program that is designed to ensure both new and existing equipment stays within accepted noise limits.

Testing is incorporated into equipment maintenance programs to ensure new equipment is complying with noise limits and that existing modified equipment is performing to design during the entire life of the machinery.

Meeting specified noise limits

Mt Arthur Coal's noise limits are some of the most stringent of any operating mine in Australia. These limits are set by government and based on noise levels considered acceptable in the surrounding community. From noise modelling (prediction of impacts), Mt Arthur Coal has determined the maximum noise levels allowable from each type of equipment to achieve compliance against these limits. These equipment limits are specified in the site noise specification and relate to both stationary and dynamic test conditions that simulate the equipment working.

The specification was recently reviewed to reflect new learnings and achievements gained from the equipment attenuation process to date. This review resulted in lower noise limits being specified for new equipment and the introduction of a new 'drive-by' test as part of compliance acceptance. Ongoing compliance with the noise specification remains the primary responsibility of the equipment supplier.

The noise emission target for excavators was required by Mt Arthur Coal, under both stationary and operational test conditions, to simulate all phases of the digging cycle. Liebherr achieved 113 dB(A) under stationary conditions and 115 dB(A) when measured at one metre from the source under operational conditions, both of which are below the specification.

Each Liebherr haul truck was tested against the noise specification for overall sound power and frequency targets; while stationary, loaded, driven up a ramp under full power; and unloaded and driven down a 10 per cent ramp under retard. The overall sound power achieved the target of 113 dB(A) and complied with limits across all frequency ranges. The operator noise exposure was less than the target level of 75 dB(A).

Tim Haig, Mt Arthur Coal Open Cut Examiner, says, 'The Liebherr trucks are so quiet that when I'm inspecting a shovel dig (operating) on shift, the first I hear is the Liebherr braking as it pulls right up to the shovel. With the Liebherrs, you can certainly see them long before hearing them'.

(Continued over)

ENVIRONMENT 20

MT ARTHUR COAL TRUCKS AND EXCAVATORS DESIGNED TO MEET STRINGENT NOISE LIMITS continued

Bruce Folpp, the operation's Mobile Equipment Maintenance Superintendent, agrees. 'These trucks are so quiet, you can hardly hear one come into the workshop. This result has been achieved by factory involvement as opposed to retrofitting sound components to standard equipment'.

Technical details – excavators

The new R996 Liebherr Litronic excavators are fitted with sound suppression packages, designed as a series of suppression modules that work together to reduce the overall sound power of each machine. The sound attenuating devices include sound absorbing panels throughout the engine bay, under the deck area and inside the counterweight. Substantial enclosures, lined with further sound absorbing panels are placed around the power packs and the hydraulic cooler house. Access to these areas is available via modified catwalks and ladders.

Noise reduction from the engine fans is achieved by using multiple hydrostatically controlled units instead of a single belt-driven fan. The engine fans are also electronically speed controlled to provide cooling only when required, reducing noise emissions further. Exhaust system noise emission reduction is achieved using primary and secondary mufflers tuned to reduce engine output noise.

Technical details – haul trucks

The new T282 ultra class diesel electric haul trucks are assembled at Mt Arthur Coal with comprehensive sound suppression packages. The noise reduction features include an aerodynamically designed fan coupled with a larger capacity radiator, ensuring ample cooling capacity at lower fan speeds. Fan noise is further muted by a specially baffled grille, while still maintaining a similar profile to a conventional truck. Both the access stairway and the grille have been engineered to allow easy maintenance access. To reduce noise associated with retarding, a high-volume, low-noise radial fan delivers the cooling air to stainless steel 'quiet' grids. This reduces both grid blower noise and the electrical humming often associated with retard resistors.

The truck's engine area is enclosed by a variety of baffles and enclosures. Fire-resistant blankets have also been installed for their acoustical properties and durability. Access to the engine area is provided through doors on each side of the engine bay and from below through double-opening belly pans. A reduction in exhaust noise is achieved by utilising specially designed mufflers. Chain mesh mud-flaps have also been installed, which absorb noise rather than reflecting it to the side of the trucks, helping meet the directionality requirements of the noise specification.

ENVIRONMENT 21

DOCUMENTARY FILM SERIES HIGHLIGHTS THE ENVIRONMENTAL RICHNESS AND FRAGILITY OF THE SAHARA

In the southern Sahara in Algeria, we are involved in the Ohanet and Rhourde Oulad Djemma (ROD) hydrocarbon developments. The Sahara is one of the world's most important and fragile ecosystems, comparable in importance to Antarctica and the world's tropical rainforests. Over the last two decades, the Sahara's natural resources have been subjected to increasing pressure from commercial exploitation, including tourism, population growth, climatic variability and the unfortunate looting of cultural resources. To contribute to its conservation, we have supported the production of a series of documentary films highlighting the cultural heritage of the Sahara.

► *Dr Jeremy Keenan (3rd from right) and documentary film crew on location*

We have been working in the Sahara for some 15 years. In 2003, together with our joint venture partners and SONATRACH, the Algerian state-owned oil and gas production company, we commissioned the Ohanet development. Standing in the typical landscape of the southern Sahara – a barren, flat and stony desert surrounded by the steep rock walls of flat-topped mesas – the Ohanet central processing facility (CPF) is capable of processing 20 million standard cubic metres of gas per day through its two processing trains. The CPF is fed by a gas-gathering system comprising 150 kilometres of flowlines that will connect the 47 wells required to develop the reserves.

We are also involved in the Rhourde Oulad Djemma (ROD) integrated oil development in the southern Sahara. The project involves the development of six oil fields and comprises 34 development wells and a CPF capable of processing 80 000 barrels of oil per day and reinjecting gas back into the underground reservoirs.

Throughout the development phase of both these projects, careful consideration was given to minimising the impacts of our operations on the environment, improving opportunities for local indigenous peoples and protecting and enhancing the safety and well-being of our large workforce.

It seemed appropriate for us to look at how we could contribute to the conservation of the Sahara by raising awareness in a range of stakeholders, both within Algeria and across the global community.

Capturing the Sahara's attributes on film

Through collaboration with Dr Jeremy Keenan, an acknowledged expert in Saharan social anthropology and development studies, we agreed to fund a series of three documentary films that focus on the cultural heritage of Sahara, its archaeology, ethnology and ecology. The area is, for instance, famous for its rock art sites. The major aim of this initiative is to highlight the Sahara as a World Heritage site, increasing global awareness of its rich heritage, attracting investment, enhancing research and assisting environmental conservation.

A challenge is to make such an initiative as this sustainable. To this end we have arranged for the proceeds from the sale of the three documentaries to go to the Centre for Saharan Studies in the UK. This money will be used to fund training in areas such as environmental conservation and resource management; collaboration with local communities, Algerian academic and government institutions; specific field projects and research; and, perhaps most importantly, to provide for scholarships to cover Algerian students attending higher degree programs at the Centre for Saharan Studies in the UK.

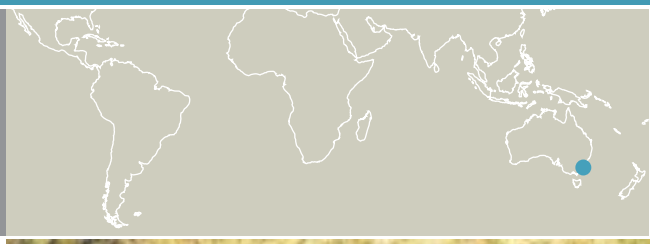
The documentary films are now complete, and marketing of the programs to broadcasters around the globe has commenced. Dr Keenan has stated, 'These documentary programs are a "first for the Sahara". They will make a major contribution to raising awareness about sustainable development issues in the Sahara, both locally and globally. Raising awareness of the Sahara's unique but threatened environmental and cultural heritage in this way is a major step towards its long-term conservation'.

► *Growth in the desert*

► *Rock art site*

COMMUNITY 22

ILLAWARRA COAL DEVELOPS PROCESS TO ADDRESS COMMUNITY ISSUES AND IMPROVE COMMUNICATION WITH STAKEHOLDERS



► *Marhnyes Waterhole on the Georges River*

Our Illawarra Coal operations in New South Wales, Australia, are located within areas that contain a diverse range of land uses, including residential areas, and major infrastructure features. Greater environmental awareness in the region, together with increasing stakeholder expectations and a more demanding legislative framework pose significant challenges for Illawarra Coal. To address these complex issues, the Company has developed an Integrated Mine Planning Process, which facilitates communication with all stakeholders about the planning of sustainable mining in the region.

The Illawarra region where our underground coal mines are located includes residential areas (large suburban areas, towns and villages), water supply and other catchment areas, bushland, agriculture, recreational land and industrial centres. There are also infrastructure features such as gas pipelines, powerlines, highways, railways, roads, bridges and water supply facilities.

While coal mining has been a feature of the region for more than 150 years, the profile of the population and the expectations of the local communities and regulators have altered dramatically in recent times. People are more aware of environmental issues and have a greater interest and role in their outcomes. At the same time, the legislative framework is more demanding in relation to the impacts of underground coal mining.

The Integrated Mine Planning Process

Illawarra Coal recognises the importance of working closely with government and communities to address stakeholder issues in the planning and management of mining activities. To facilitate this, the Integrated Mine Planning Process (IMPP) has been developed.

The IMPP is designed to integrate stakeholder engagement and environmental impact assessment into the mine planning process. This will enable future mine plans to be developed on the balanced consideration of all relevant factors, including the expectations of stakeholders, the impact on the environment, geology, the use of the resources, operational constraints and economics.

Development of the IMPP has been in train for some years. Since 1998, to assess attitudes towards mining, extensive stakeholder consultation programs have been undertaken, including individual interviews, surveys and community working groups.

Key findings of these consultative programs have included the need for:

- greater consultation and participation
- comprehensive environmental impact assessment
- the Company to build community trust in its ability to address issues
- sensitive planning in relation to mining under natural features
- improved monitoring and management of river subsidence impacts
- improved consultation in relation to subsidence impacts on private property and the process for impact mitigation.

Workshops have been conducted within the Company to discuss stakeholder issues and to develop strategies to address them. These workshops identified the development and implementation of an IMPP as a key strategy to address stakeholder issues. The views of people both within and outside the Company were gathered in order to develop a process in which all stakeholders have some ownership.

The key elements of the IMPP include:

- continuing stakeholder consultation and participation
- comprehensive baseline environmental assessment
- consideration of environmental impacts and mitigation measures during the assessment of alternate mine plan options
- consideration of monitoring results from past mining activities
- monitoring and stakeholder reporting programs.

The benefits of consultation

There are important logistical reasons why an effective consultation process can be of benefit to all stakeholders. Mining of coal by underground longwall methods involves considerable expenditure and lead-time of up to three years before mining can commence. It is difficult, and potentially not economically feasible, to make significant changes to longwall mining plans at short notice after the mining of a panel has commenced.

This is highlighted by issues that arose around mining under Georges River and particularly Marhnyes Waterhole, which is of cultural and historical significance to the local Illawarra community. Following several years of planning, mining commenced in September 2002. As reported in our 2003 HSEC Report, the location could not have been modified without significant risk to the viability of Illawarra Coal's West Cliff mine.

(Continued over)

COMMUNITY 22

ILLAWARRA COAL DEVELOPS PROCESS TO ADDRESS COMMUNITY ISSUES continued

Underground mining can cause subsidence, which can cause cracking in the base of sandstone-bedded rivers and streams, redirecting water flow from the surface to the substrate. At Marhnyes Waterhole, a strain-relieving slot was drilled ahead of mining to reduce cracking of the rock bar that creates the waterhole. This was successful in limiting fracturing to the rock bar. However, some cracking did occur, with surface water redirected to the shallow substrata. Environmental flows were provided to supplement the river during the period of mining effects and to provide water for aquatic life.

Since the completion of mining, remediation has been undertaken, including filling any surface fractures and grouting of the strain-relieving slot and riverbed to reinstate the integrity of the pools. Response from the community to the remediation work has been positive.

Some of the areas proposed for future mining also intersect rivers and creeks across the Illawarra region, and there are lingering concerns in parts of the community about possible impacts to homes and property from cracking. The IMPP now in place involves an overall approach to the development of a 'sensitive mine plan' for the total minable resource area. This approach ensures a greater level of awareness of issues, an ability to plan mitigating strategies, and also minimises business risks associated with potential changes to mine plans.

The IMPP is divided into five sequential steps as follows:

1. Preliminary sensitivity assessment
This step is the initial assessment of options for mine planning. It includes a review of geological information, mine layout, development requirements and access to the coal resource. It also includes the preliminary assessment of the sensitivity of the surface features to underground mining.

2. Preliminary mine planning assessment
This step involves the preliminary evaluation of alternative mine plans to determine the preferred plan/s. The alternative plans utilise proven mitigation or remediation of subsidence impacts on sensitive features and/or avoid undermining sensitive surface features identified in Step 1. The evaluation involves a balanced consideration of economic, environmental and social issues.

3. Detailed sensitivity assessment
This step involves a detailed sensitivity assessment of surface features and mining constraints. It includes the collection of baseline data on surface features, subsidence impacts and mitigation measures and seeks to identify any mine planning constraints. Baseline assessment is undertaken in consultation with relevant stakeholders, leading to a revision of the sensitivity assessment from Step 1.

4. Detailed mine planning
This step involves a detailed re-evaluation of alternative mine plans based on the results of Step 3. It involves a balanced consideration of economic, environmental and social issues. It results in the selection of a final preferred mine plan and associated mitigation measures.

5. Preparation of mining approval application
This step involves the preparation of a Subsidence Management Plan (SMP) to support the subsequent longwall mining approval application. The SMP will include impact assessments and proposed mitigation measures for natural features; Infrastructure Management Plans (IMPs) for major infrastructure; and Property Subsidence Management Plans (PSMPs) for private properties.

With regard to subsidence effects on infrastructure and private property, the Mine Subsidence Board (MSB), an independent government organisation, is responsible for the management of subsidence impacts on man-made structures under the Mine Subsidence Compensation Act (1961).

Consultation with the MSB will be conducted where necessary during the development of IMPs. For private properties, owners will be consulted on the role of the MSB in managing subsidence effects. For non-residential properties, PSMPs will address the management of subsidence effects that are not the responsibility of the MSB, such as impacts on agricultural productivity or business use of the property.

Step 5 will be repeated for each longwall mining application required over the life of each mining operation.

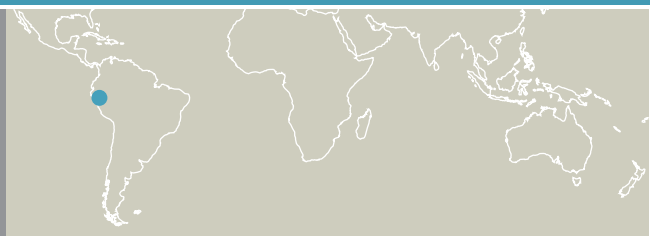
Implementing the IMPP

The IMPP is consistent with the key requirements of the Government's process for longwall mining approvals. The new subsidence management plan process administered by the Department of Mineral Resources has been in place since early 2004 and involves rigorous environmental impact assessment and comprehensive community consultation requirements.

Responses to date indicate that our stakeholders feel the IMPP needs to be thoroughly tested before they express their final judgment on its validity as a consultation process. To implement the IMPP, a centralised mine planning team has been assembled, incorporating expertise from exploration, operational, environmental, community and mine planning areas. The team will ensure consistency of approach in implementing the IMPP across Illawarra Coal's operations.

COMMUNITY 23

ANTAMINA'S SUPPORT OF ENVIRONMENTAL COMMITTEES PROVIDES KEY LESSONS ABOUT THE COMMUNITY CONSULTATION PROCESS



The Antamina copper and zinc operation operated by Compañía Minera Antamina (CMA) in Peru has from the beginning faced community challenges emanating from the country's mining history, which is marred by environmental liabilities associated with past land use. Such issues have been a source of ongoing concern for local communities. While CMA implemented stringent environmental standards and policies, appropriate channels did not exist for communicating this to communities. In turn, communities had no avenues for airing their concerns and grievances. A solution has been to establish local environmental committees for building consensus and resolving conflicts.

Antamina is located in the district of San Marcos, Department of Ancash, in the central Andes of Peru. The mine lies 270 kilometres directly north of Lima (473 kilometres by road) and 45 kilometres north-west of Huánuco at an elevation of between 4200 and 4800 metres above sea level. The operation includes an employee housing complex in Huaraz, the capital of Ancash, and a 302-kilometre pipeline that runs from the mine site to the port of Punta Lobitos in the municipality of Huarmey.

Mining projects in Peru, as elsewhere in the world, are typically in remote areas, and surrounding communities are characterised by extreme poverty and limited services. Many historic environmental liabilities, mostly associated with land and water contamination, have been left unattended. There is a lingering perception among communities that mining projects have significant impacts upon people's health and their surrounding environment.

In the 1990s, the introduction by government of the Code on the Environment and Natural Resources and the Private Investment Growth Law, together with mandatory Environmental Impact Assessments for every new mining project, created the conditions to attract reputable mining companies to the country. New mining projects have included stringent environmental policies and standards intended to have the least possible negative impact on the environment.

The challenge for Antamina

Since the beginning of the Antamina operation in 2001, CMA's range of stakeholders have included employees and contractors; the Peruvian government and its relevant authorities; municipalities; agrarian communities; private landholders; local environmental committees; community associations; non-government organisations (NGOs); groups entrusted with developing environmental management proposals and policies for the region; the National Agreement to Fight Poverty, which includes an environmental consensus-building sub group; and the media.

CMA recognised that stakeholders should be kept informed of project development and also have avenues for the communication and resolution of grievances. There also needed to be ongoing interaction with government authorities. There were, however, no mechanisms in place to facilitate interaction with stakeholders. CMA saw the establishment of such mechanisms as an opportunity to generate synergies among its stakeholders and earn the confidence of its host communities on a sustained basis.

The solution – environmental committees

CMA has promoted and supported the formation of environmental committees as consensus-building and conflict resolution mechanisms. The following organisations have been created to date.

San Marcos Environmental Conservation Committee

This committee was the first group formed, in 1999, with the objective of being an official intermediary in environmental issues between Antamina and the community. Its aim was to strengthen the mechanisms of conflict resolution through initiatives such as joint environmental monitoring, public presentations and monthly information sharing meetings.

Over time, the committee has become more involved in internal environmental issues and forestry development, participating in different worktables and regional groups in Ancash. The committee also manages the Environmental Committees Network in Ancash, which includes the environmental committees of Huallanca, Huarmey and Jangas.

San Marcos Environmental Association – Huari

The association was established in June 2001 with a mission to 'help preserve the environment by leading the concerted effort of the different stakeholders involved to achieve the harmonious and sustainable development of San Marcos'.

Félix Chávez, President of the association, says it was formed because 'a real concern exists about the social and environmental impact of Antamina's mining operations'. The association's main function is to monitor the environmental impacts of CMA. Its strategic objectives include preventing environmental damage and facilitating the handling of conflicts; helping create environmental sensitivity and awareness among the population; and seeking the conservation of the region's environment and natural resources.

Environmental Protection Association in and for the Ayash Watershed

The association was established in 2001 to represent the communities located within the watershed area where CMA's tailings dam is located. Its role is to oversee CMA's environmental monitoring program and to report to CMA any concerns about environmental issues.

The association was created to give a voice to the watershed communities and to gain their confidence. It operates as a workgroup where people can learn about issues and express their concerns and is being legally incorporated as part of the community's organisational system.

(Continued over)

COMMUNITY 23

ANTAMINA'S SUPPORT OF ENVIRONMENTAL COMMITTEES continued

Environmental Management Committee of Huallanca
The committee was established in August 2001 in response to the community's concern about environmental liabilities and environmental impacts created by neighbouring mines. It was legally incorporated in early 2003.

Huallanca is located in the province of Bolognesi, which neighbours the CMA mine site. It serves as a dormitory town for people travelling from Huánuco to the coast or to Huaraz and is impacted by commercial and mining activities. The committee focuses its efforts on environmental training and improving basic health conditions, with a view to raising the standard of living of the Huallanca people.

Environmental Monitoring, Surveillance and Audit Committee in and for Huarmey
The committee commenced in April 2002 with the power to:
- manage the multi-sector process for building consensus on local environmental issues
- facilitate people's access to environmental information
- act as a channel of communication between the community, the authorities and CMA
- participate in environmental monitoring, surveillance and audit programs and involve the community and local institutions in these programs
- facilitate the resolution of conflicts that are exclusively related to the environment
- enforce compliance with the commitments assumed by public and private institutions in relation to environmental responsibilities in the Huarmey area.

Martín Farromeque is President of the committee. He says, 'We are working on this committee to take better care of our environment and, through the members of the different institutions that make up this committee, propose alternatives to better resolve the environmental problems. We will keep a watchful eye on the activities carried out by Antamina and the fishing industries located at Puerto Huarmey, as well as other industries that could damage the environment in the province of Huarmey'.

▸ *Martín Farromeque (second from left) at a signing ceremony with the Mayor of Huarmey, Alcalde Carlos Pajuelo (centre)*

Public consultation process and communication channels

The consultation process carried out by these environmental committees is based on an open-door policy and on the people's right to gain access to environmental information.

Consultation processes are being carried out through:
- public meetings to discuss environmental issues
- distribution of quarterly reports on CMA´s environmental monitoring program
- delivery of the Environmental Impact Assessment (EIA) and the Sustainability Report
- joint monitoring work with the participation of the community, local entities, government authorities, NGOs and other stakeholders
- resolution of environmental grievances and claims
- guided visits by stakeholders to CMA´s operations
- involvement by CMA in regional environmental work groups, sponsoring the participation of the environmental committees and assisting in the development of local environmental policies.

Lessons from the consultative process

As in any participative process, many lessons have been learned by CMA, as summarised below.

Standards are not enough – Having high environmental, health and safety standards is not enough to prove that environmental impacts generated by the operation are being managed responsibly. The application of environmental standards does not in itself help CMA earn the confidence of the communities.

Consider cultural diversity – Not all projects can apply the same strategy in order to be accepted by and earn the confidence of local communities. It is important to understand each community's views of the world, their organisational structure, their internal relations, and their perceptions about the project in order to design an appropriate consultative strategy.

Transparency is essential – Acknowledging that communities have an intrinsic right to learn about the operations to be carried out within their regions, it is essential to be transparent and provide stakeholders with adequate environmental information. It is also important to define the Company's position on community relations and sustainable development.

Earning people's confidence – Holding regular discussions and promoting community awareness through the environmental committees is one of the foundations of a process of earning people's trust and confidence.

Making information available – Based on CMA's experience, it is essential to use simple language to communicate environmental information and to provide easy access to the information. The challenge consists in developing an information disclosure culture where environmental information is delivered to the community on an open and timely basis.

(Continued over)

COMMUNITY 23

ANTAMINA'S SUPPORT OF ENVIRONMENTAL COMMITTEES continued

Establishing appropriate mechanisms – It is important to develop consultative mechanisms collaboratively in order to earn the people's confidence and strengthen the channels of communication through the environmental committees. A collaborative approach also facilitates the undertaking of joint monitoring work, organising public meetings and resolving environmental conflicts and claims to the benefit of all parties.

Consultation – Consultation should be encouraged from the moment a project is conceived. After identifying the stakeholders, consultation can help to effectively provide information about the Company and its environmental management and sustainable development programs. Consultation also facilitates gaining the necessary community input to improve environmental management programs.

Going forward

Through the creation of the environmental committees, CMA has found a valid and transparent mechanism to earn the people's confidence and deliver environmental information. This is supported by a constant feedback process that can further improve collaboration with the communities. In turn, the government has a mechanism to disclose information, strengthen its role as managing entity, and receive the people's input on its environmental policies related to the mining sector.

The environmental committees have become a formal channel of communication between CMA, the government and the community. However, additional mechanisms are required to formalise, institutionalise and strengthen the committees' right of representation and legitimacy in order to foster a culture of environmental awareness and sustainable development. The mining industry, government and communities need to work together on this task, with the understanding that it is a long-term, step-by-step process.

COMMUNITY 24

PNG SUSTAINABLE DEVELOPMENT PROGRAM LTD COMPLETES FIRST FULL YEAR OF OPERATION

At the end of December 2003, PNG Sustainable Development Program (PNGSDP) Ltd completed the first full year of operation. As previously reported, PNGSDP Ltd was established in February 2002 following the transfer to that company of our entire 52 per cent equity in Ok Tedi Mining Limited in Papua New Guinea. All of the dividends from Ok Tedi Mining Limited that would have gone to BHP Billiton now go to PNGSDP Ltd. Through the year, PNGSDP Ltd made solid progress in each of its areas of responsibility.

► *The Board of Directors of PNGSDP Ltd. Back row L to R: Dr Jakob Weiss, Mr Jim Carlton, Mr Lim How Teck, Mr Donald Manoa. Front row L to R: Sir Ebia Olewale, Dr Ross Garnaut (Chairman), Ms Tricia Caswell.*

The central function of PNGSDP Ltd is to promote sustainable development in Western Province and Papua New Guinea more generally. PNGSDP Ltd has formed the view that it can make its most valuable contribution through support for sustainable income-generating activities in Western Province and in rural Papua New Guinea. Sustainability is understood to have governance, management, financial, environmental and social dimensions. Projects in agriculture, agro-forestry, economic infrastructure (including sustainable power generation) and micro-finance are at an advanced stage of preparation.

Decisions on the allocation of development funds among income-generating activities will be guided by the number of sustainable minimum family income units that are generated for each thousand kina spent. A common model for income-generating projects will be the 'nucleus estate – outgrower model', where an established business with appropriate experience manages a commercial enterprise and receives payments from PNGSDP Ltd development funds for delivering services for associated rural communities.

Funds activities

At 31 December 2003, the three funds of PNGSDP Ltd – the Long Term Fund, the Development Fund and the General Fund – totalled US$64.4 million. The Long Term Fund represents two-thirds of the income received from Ok Tedi Mining Limited and the Development Fund represents one-third of the income received from Ok Tedi Mining Limited (after deducting operating expenses and all other legal contractual obligations). The General Fund allows for an allocation to fund the administration costs of PNGSDP Ltd.

A main function of PNGSDP Ltd is to manage the Long Term Fund so that it can support a high level of development expenditure in Western Province in particular and Papua New Guinea in general for at least 40 years after the closure of the mine. Through 2003, the Long Term Fund generated an average return of 8.06 per cent and increased from US$3.6 million to US$42.1 million, including additions to the corpus from dividends. Part of the Long Term Fund will be invested in Papua New Guinea, where low-risk investments with satisfactory expected returns are identified. Evaluation of low-risk investments in companies that are operating commercial 'nucleus estates' and also supplying development services will be given priority.

Significant work has been devoted to several strategic initiatives that could be supported by PNGSDP Ltd under the Development Fund (which totalled US$20.9 million at 31 December 2003) and where they fulfill the 'low-risk' investment criteria of the Long Term Fund. A Sustainable Community Development Program Fund has been established to support the delivery of a wide range of services, not necessarily related to income growth, through community organisations. PNGSDP Ltd will work through specialised service delivery entities rather than develop its own delivery capacity. To this end, PNGSDP Ltd is establishing cooperative relations with a range of commercial and development organisations with service delivery capacity or with experience that can assist in the identification of suitable partners. The World Bank and its associate, the International Finance Corporation, have shown positive interest in working with PNGSDP Ltd on several substantial projects.

Under a Sustainable Community Development Program Fund, PNGSDP Ltd will provide a minimum of 50 000 kina and maximum of 250 000 kina per project in partnership with community organisations and development partners to support community-level development initiatives. It has committed 15 million kina over five years, consisting of one million kina a year for Western Province and two million kina a year for the rest of Papua New Guinea. PNGSDP Ltd also undertook feasibility studies of the expansion of the Western Province Micro-Finance Scheme into other parts of the province and nationally.

For Western Province programs, 11 million kina has been committed towards a rubber project in the Lake Murray area of the province. Agreement has been reached with a potential partner to undertake a feasibility study of a possible estate and village rubber project, which will cover the Lower Middle and South Fly areas of the province. A field study was conducted of the communications infrastructure in the province as the basis for a proposed rural communications system, preferably under a partnership agreement.

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COMMUNITY 24

PNG SUSTAINABLE DEVELOPMENT PROGRAM LTD continued

For national programs, PNGSDP Ltd has investigated possible support for village and smallholder oil palm expansions under partnership arrangements. A study of the Highlands Highway Rehabilitation Project was completed, which identified a section for possible co-financing with other development partners.

Further discussions with the Government will take place before progress can be made.

Annual Report Meeting

PNGSDP Ltd convened its first Annual Report Meeting with stakeholders in Port Moresby on 12 June 2003. Representatives of the Government of Papua New Guinea, the Western Provincial Government, Ok Tedi Mining Limited, international development partners and communities attended. A seminar on palm oil industry opportunities was held in conjunction with the meeting. The PNGSDP Ltd Advisory Council was appointed, consisting of seven Papua New Guineans with extensive experience in government, church and community organisations. The Council held its first meeting on 28 October 2003.

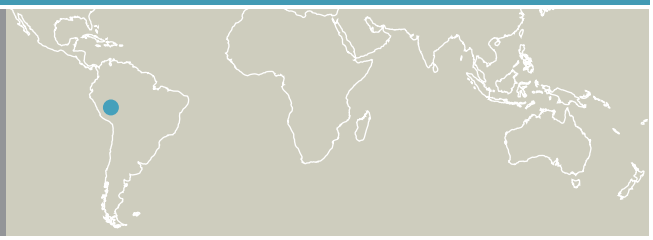
Looking ahead

PNGSDP Ltd's first sustainable development projects are expected to begin before the end of 2004. Substantial progress should also be made in finalising the scope of development projects in rubber, palm oil, power, micro-finance, road infrastructure rehabilitation and communications within Western Province and other parts of Papua New Guinea. PNGSDP Ltd will further strengthen relationships with stakeholders in Papua New Guinea and partnerships established with key international development and business partners.

PNGSDP Ltd is ready to take its place as a substantial participant in Papua New Guinea development, especially Western Province development.

COMMUNITY 25

DIALOGUE TABLE MEETINGS PROVIDE A FORUM FOR RESOLVING COMMUNITY ISSUES AT TINTAYA



In our 2003 HSEC Report, we reported on the development of the Dialogue Table as a formal process for reviewing and resolving social and environmental issues associated with the operation of the Tintaya copper mine, located in the Espinar province of Peru. This case study provides additional background to the issues and the consultative process and subsequent development of a Framework Agreement that specifies the Company's environmental and social commitments in the region.

Peru has a population of nearly 28 million inhabitants. The country is divided into three natural regions: coast, highlands and jungle. The Department of Cuzco includes the provinces of Acomayo, Anta, Calca, Canas, Canchis, La Convención, Cuzco, Chumbivilcas, Espinar, Paruro and Paucartambo.

Espinar province is located 260 kilometres from the cities of Cuzco and Arequipa. It is one of the country's poorest provinces, with 84 per cent of the population living under the poverty line. Almost 60 per cent of the inhabitants reside in rural areas and 80 per cent of them are native people who speak Quechua, one of the original languages spoken by indigenous people in Peru.

Tintaya mine

Tintaya was established in 1980 when the Peruvian government expropriated 2368 hectares of land from the local communities to develop the Tintaya copper mine in the Yauri district of Espinar. The mine began operating as a government corporation in 1985.

In November 1994, under the privatisation process being carried out in the country, the American firm Magma Copper Company acquired the Company. The mine was purchased by BHP Billiton in January 1996.

Local communities

Within the scope of influence of Tintaya's operations are the peasant communities of Tintaya Marquiri, Alto Huancané, Huano Huano, Alto Huarca and Bajo Huancané.

In 1982, 2368 hectares were expropriated from the Tintaya Marquiri community by the Peruvian government. In 1996, Tintaya purchased 1263 additional hectares from the community for expansion purposes, together with 246 hectares from the Alto Huancané peasant community and 400 hectares from the Huano Huano community. In 2001, the Alto Huarca community sold 477 hectares of their property to the Company.

Lingering issues

Over the years, there have been ongoing concerns amongst some community members who felt they were being affected by the mine's operations and policies. Since 2000, latent grievances from previous years have been brought to the surface as a result of the support the communities have received from local community groups and domestic and international NGOs.

Some of the complaints are as follows:

- The purchases and expropriations of the land were conducted under unfair conditions for the communities, since previous information was lacking and the monetary compensation was not adequate.
- Some women have complained of being forcefully and violently evicted by the mine's security staff.
- People and cattle in the area have suffered ailments due to alleged contamination of waters and air by the mine and the Alto Huancané tailings dam.
- There is a lack of job opportunities at the mine for some community members.
- Local community members have lost their traditional lifestyle.

The Dialogue Table

In February 2002, as the result of a meeting facilitated by the Ombudsman from Oxfam Community Aid Abroad of Australia, the parties involved in the disputes agreed to establish a Dialogue Table for the purpose of dealing with issues raised by the communities. The Dialogue Table was defined as follows:

> *'A voluntary cooperative process, of dialogue and free participation, opened by diverse stakeholders, to find solutions to the existing problems and development opportunities in the area of influence of BHP Billiton Tintaya's operations, i.e., the Espinar province.'*

Four joint working commissions were instituted to identify the key issues and review possible solutions:

Land Commission – to discuss, analyse and propose issues related to land holdings and previous purchase/sale agreements.

Human Rights Commission – to deal with alleged violations of human rights.

Sustainable Development Commission – to discuss, analyse and submit proposals related to community development.

Environment Commission – to discuss, analyse and propose issues related to pollution, its prevention and control.

The work done by the commissions formed by the Dialogue Table made it possible to get results that have favoured community members. The Land Commission reviewed the expropriation processes and the subsequent land purchase negotiations, and it was jointly decided to relocate those families who were affected during the expropriation and purchase process undertaken by administrations prior to the current company. The Company has acquired three plots of land, one of 1000 hectares, one of 1200 hectares and, most recently, another of 1800 hectares, on which to relocate those community members who had lost their land.

The Human Rights Commission carried out a joint study with the Instituto de Defensa Legal (IDL) to investigate the claims submitted by community members. IDL worked jointly with Sicuani's Vicariate of Solidarity to investigate the facts and to verify results. The commission, with the Vicariate acting as an advisor, assumed responsibility for seeking specific alternatives

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COMMUNITY 25

DIALOGUE TABLE MEETINGS continued

for each of the cases. IDL considered that violations had occurred in three cases when the mine was owned by the Peruvian government and in one case, in 1996, after its acquisition by BHP Billiton. All four cases have been satisfactorily resolved with the participation of the members of the Dialogue Table. In one of the cases, the solution is currently being implemented. The other cases, in which no responsibility on the part of BHP Billiton Tintaya was found, are being discussed to provide support mechanisms and adequate guidance.

The Sustainable Development Commission has worked on developing a process of community training through workshops to promote sustainable development of the communities. A report has been prepared on the concerns of community members about pollution and its effect on local cattle grazing. With NGO assistance, the communities have prepared strategic development plans, on the basis of which sustainable development programs are currently being developed.

The Environment Commission has conducted a joint monitoring program with communities that are mostly affected by mining activities. The program has focused on measuring the quality of water, soils, flora, fauna and air. Prior training was provided for community members so that they could participate in the program, and the results have been presented to the people.

Currently, in collaboration with community officials, a plan of action is being prepared for each community in order to expedite the implementation of solutions resulting from the dialogue process.

Concerns regarding the new tailings dam

During 2003, community groups were formed to oppose the opening of the new Huinipampa tailings dam in the Río Cañipía area, mainly because of concerns about possible contamination of local grazing lands and cattle. After numerous meetings with community officials, at which details of the dam design, construction and operation were discussed, additional controls were proposed to ensure there would be no negative impact on community agricultural and cattle-grazing activities. The controls include a permanent communal surveillance system, the collection and pumping back of seepage under the dam, an additional program of underground water monitoring, and relocation of the community's water intake system. These proposals were accepted, and were a start to the process of working collaboratively with these communities.

Additionally, the communities and FREDERMICE, the most representative group in this area, participated in the execution of a Framework Agreement. Specific cooperation agreements have been signed for two projects: improvement of the water intake system at the Cañipía river and development of a potable water system for the local communities.

The Framework Agreement

All the provincial organisations of Espinar, represented by the Provincial Mayor, wished to establish dialogue with BHP Billiton Tintaya in order to formalise the Company's commitment to help develop the province. This led to the creation of the Coordination Committee of Espinar, which was formed to review community issues and needs and suggest how best to channel the support of the Company, which is also a member of the Committee. Through this collaborative approach, a Framework Agreement between the Company and Espinar's people was approved. This included an undertaking by the Company to contribute 3 per cent of its profits before taxes to the sustainable development of Espinar province. Further, the Company indicated that, following the re-opening of operations, this support would result in a guaranteed yearly sum equivalent to US$1.5 million in support of sustainable projects and infrastructure in Espinar.

In September 2003, the Framework Agreement was executed in the presence of provincial authorities, a representative of the Ministry of Energy and Mines, members of the Peruvian Congress and the NGO Oxfam America, who were acting as guarantors of the agreement. This event marked an important precedent in the process of consolidating the social responsibility of companies towards the communities in which their operations are located.

The Coordination Committee operates through an Administrative Committee, responsible for evaluating sustainable development projects submitted by provincial organisations. Currently, there are 22 approved projects ready for implementation within the communities and districts of Espinar.

Conclusions

- Sustainable development projects implemented with the Company's participation will be self-managed by communities, because they are within the framework of ethical, efficient and sustainable models and a self-development approach.
- The cost of dealing with the social, environmental and economic problems and concerns of neighbouring communities has a qualitative value in the sense that this formal process can enhance the Company's reputation for social and environmental performance, issues that have special relevance within the country and at a global level.
- These dialogue processes allow each solution or innovation developed with the participation of the community members to have, implicitly, the satisfaction or consent of all involved. This ensures that, going forward, the Company will not have to get into new processes of discussion and rehashing of problems of the past.
- The dialogue processes engender good relations, with integrity on the part of the participants, with actions of mutual benefit and outcomes validated by all the participants. This affords Tintaya a good corporate image in Peru and globally.

(Continued over)

COMMUNITY 25

DIALOGUE TABLE MEETINGS continued

▸ *Dr Javier Aroca of Oxfam America addresses a Dialogue Table meeting*

Dr Javier Aroca is Regional Advocacy Officer of Oxfam America, based in Lima, Peru. Having reviewed the Dialogue Table process and participated in the execution of the Framework Agreement, he reported, 'I believe that it would be useful to reflect on possible improvements to the dialogue processes in Tintaya. Although the processes have been notable and demonstrate the Company's commitment to execute the best corporate practices, I think we can find ways to improve the dialogue. Dialogue and direct contact are very important to establish and maintain efficient communications between people, responding to differing viewpoints and sometimes even to differing positions and interests. I believe that it would be useful to review, in the case of the Tintaya Dialogue Table, the intensity of the work of the four commissions (land, human rights, sustainable development and environment); not to increase it but to rationalise it. In the last few months there is a noticeable level of tiredness on the part of the participants due to the number of meetings without arriving at something more concrete and tangible; in this sense, the signing of an agreement will be seen as an important achievement of the process.

'Another aspect to consider has to do with the methodology, the type and the frequency of the meetings. It is very difficult to change the format under which we have been working in the Dialogue Table. I believe, however, that we need to consider that the search for consensus needs additional time and resources so that the protagonists of the dialogue have the opportunity to consult with their bases, in this case the representatives of the communities, to explain the new ideas and come back to the Dialogue Table with updated information about the interests and positions of the group.

'I believe that formalising the agreement between the Company and the five communities of the Dialogue Table, in order to proceed with implementing it operationally, will be of enormous benefit to all. This would help to consolidate the dialogue processes in Tintaya.

'I congratulate you for this effort to present the advances in the dialogue process in which BHP Billiton Tintaya is involved'.

COMMUNITY 26

CORPORATE COMMUNITY LEADERSHIP PROGRAM AIMS TO FURTHER OUR UNDERSTANDING OF SOCIAL ISSUES

Many of the Company's future projects will be located in developing regions of the world, given that these areas are believed to contain the most promising prospects and undiscovered resources. This provides significant operational challenges and also raises questions about the Company's role and responsibility in community development, social upliftment and the introduction or expansion of cash economies. Our participation in Oxfam Community Aid Abroad's Corporate Community Leadership Program (CCLP) is helping to enhance our understanding of these issues and improve our community performance generally.

► *Gaston Moya (seated left) and other CCLP participants meet with a tribal forest community in Orissa*

Community development is a complex task. It requires time, expertise and consideration of human rights issues that rarely have clear-cut answers. For example, is it right to introduce a cash economy to a tribal community that has survived for generations without it? How do you balance quality of life, including improved health and education, with the loss of traditional cultures?

CCLP participants visit Orissa, India

In 2004, the third year of the CCLP, ten BHP Billiton employees from eight different countries and representing all Customer Sector Groups participated in the program. They joined the Oxfam Community Aid Abroad team and representatives from their partner agencies in India to have open and frank discussions about such matters.

To add richness to the discussion, participants were exposed to a wide range of experiences in the eastern state of Orissa, India. The group viewed best practice examples of development work, were educated about the characteristics of effective community development methodologies, saw the negative impact that poorly managed minerals operations can have on impoverished communities, and were given the opportunity to improve their community dialogue technique with community groups.

2004 CCLP participant Gaston Moya, Human Resources and Communication Manager, Cerro Colorado, Chile said, 'For me, the most important learning was about direct dialogue with the people of the community. Dialogue is not the same as talk; dialogue provides a deeper understanding of the values, passions, beliefs and paradigms that are at the core of a culture. It is the most important aspect of working with communities. Effective community projects are the consequence of honest and direct dialogue'.

Oxfam recommended Orissa on the basis of their long-standing experience in working with organisations and communities affected by large-scale infrastructure projects. BHP Billiton does not have operations in India at present; however, it is a very important country for the Company, both as a customer for our products and as a possible source of materials for export. We also have potential development opportunities in the country.

Program has wide-ranging benefits

The diversity of BHP Billiton people participating in the CCLP will help to ensure that the value of the program is transferred to all corners of the Company. Although every person on the program had specific community responsibilities either at a corporate policy level or directly at a site level, individuals came from very different areas including business development, corporate social responsibility, exploration, external affairs and community relations.

While the learnings for each individual varied, the whole group achieved a greater appreciation of a number of aspects of the community development process. These included:

- the importance of earning respect and building relationships with community members to allow robust dialogue to occur prior to implementation of programs
- the need to understand local issues from the local source rather than through a third party's interpretation of those issues
- the time it takes for a community to reach consensus about a preferred community development strategy
- the need to involve experienced people with expertise in development techniques and methodologies if the community program is to be sustainable.

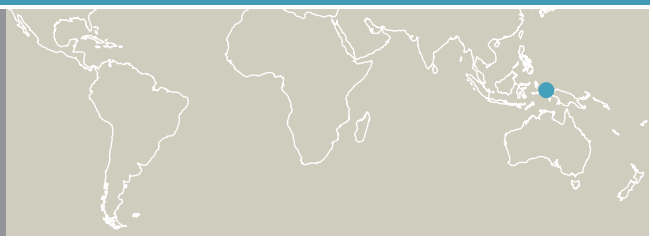
The inherent value of the program to the Company is that there is now a group of more than 40 CCLP graduates in positions where they can directly influence the Company's practices and improve our community performance. It is also hoped that the CCLP will enhance our contribution to the longer-term development of social capacities and improve the well-being of individual people in communities where we operate.

Commenting on our involvement in the CCLP, James Ensor, Director of Public Policy at Oxfam Community Aid Abroad, says, 'This cutting-edge exposure program provides a unique opportunity for BHP Billiton staff to further their understanding of community development and of the impacts of large-scale infrastructure projects on communities. The challenge for BHP Billiton is to apply these learnings to Company-wide policy and practice'.

For Oxfam Community Aid Abroad, the program is designed to influence the corporate sector to adopt policies and practices that enhance the rights and livelihoods of the poorest and most marginalised men and women in the developing world. Now that the program has been operating for three years, Oxfam Community Aid Abroad is planning a formal independent evaluation of the program to ensure it is also meeting their objectives.

COMMUNITY 27

OPERATIONS REMAIN SUSPENDED ON GAG ISLAND NICKEL PROJECT



Gag Island is situated in the Raja Ampat archipelago in the province of West Irian Jaya in Indonesia. PT Gag Nikel, an Indonesian company, was formed in 1996 following the signing of a joint venture agreement between BHP Billiton (75 per cent) and Indonesia's state-owned mining company, PT Aneka Tambang (25 per cent). A Contract of Work was awarded in February 1998, and a program of exploration and preliminary evaluation was conducted. In late 1999, the Indonesian Government enacted forestry law (Law 41/1999) prohibiting open cast mining in 'Protection Forest' areas. The forest on Gag Island was subsequently reclassified as 'Protection Forest', rendering any mineral deposits on the island unmineable. Subsequent to these events, the Contract of Work for Gag Island was suspended. No exploration work on the island has been undertaken since late 1999.

Gag Island lies 2400 kilometres east of Jakarta, Indonesia, and 150 kilometres west of Sorong, Papua. Since 2002, nine local people have continued routine environmental monitoring and maintained the small exploration camp. In March 2004, the Indonesian Government published a Decree (Perpu) intended to reinstate the rights of holders of Contracts of Work and, in May 2004, the Implementing Regulation (Keppres) was passed by the Parliament. During the year, it was also reported that the Raja Ampat archipelago, possibly including Gag Island, was under consideration for classification as a World Heritage site.

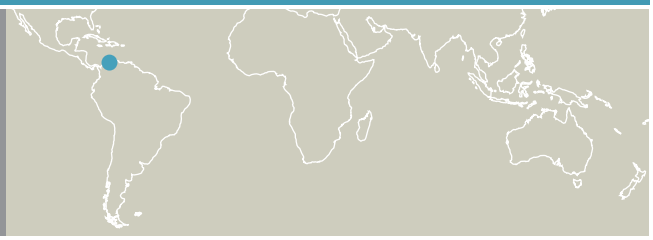
PT Gag Nickel is seeking clarification of the situation under the new regulations, and exploration activity remains suspended. We have also publicly stated that BHP Billiton would not seek to progress the project if it is classified as a World Heritage site.

Prior to the suspension of the Contract of Work, conceptual mining studies considered three possible alternatives for disposal of tailings from an eventual mining operation, including deep sea tailings placement (DSTP), as well as land-based options. BHP Billiton has subsequently ruled out DSTP as a potential tailings disposal option for Gag Island. BHP Billiton has recently issued a general policy statement which states 'BHP Billiton has decided not to pursue DSTP as a potential tailing disposal option for any of its current prospects. The Company also believes that given the very specific circumstances where DSTP could be considered appropriate, it is unlikely that the technology will be pursued in any of our future developments.'

The Gag Island community consists of approximately 450 people living at Gambier Bay, which is adjacent to PT Gag Nickel's former exploration camp. The community was established in the early 1960s by people moving to the island in the hope of finding work with nickel exploration ventures at that time. As reported last year, the years of suspended operations and the diminishing prospect of employment have been a major disappointment for the community.

COMMUNITY 28

PROCESS OF RESOLVING TABACO LAND ACQUISITION ISSUES CONTINUES



BHP Billiton and its joint venture partners, Anglo American and Glencore, are the equal owners of the Cerrejon Coal Company in La Guajira department, Colombia. Cerrejon was formed in 2002 when the operations of the Cerrejon Zona Norte (CZN) and Carbones del Cerrejon coal mines were combined. This followed the acquisition by the joint venturers of International Colombia Resources Corporation (Intercor) from ExxonMobil. Intercor was operator and 50 per cent shareholder of CZN. Situated within the mining lease in the municipal area of Hatonuevo was the village of Tabaco. In 1997, Intercor began the process, in accordance with Colombian law, for acquiring Tabaco to enable future expansion of the mine's operations.

In our 2003 HSEC Report, a case study presented details of issues with landholders that had arisen following commencement of the acquisition process. This article provides an update on the situation, which is moving closer to resolution.

Background

When Intercor began the acquisition process in 1997, a survey was conducted to determine whether the people of Tabaco wanted to sell their possession rights or be relocated. The survey established that there were 213 possession rights (175 possessors), of which 8 were municipal public properties, 151 were unoccupied lands or empty houses and 54 were occupied houses.

Acquisition of the eight public properties was negotiated with Hatonuevo. Of the other possessors, 95 per cent did not agree to a resettlement option and said they wanted to sell their possession rights individually through direct negotiations with the company. Subsequently, the company acquired 192 possessions through agreement and three others were acquired through the legal 'mining right of way' process.

In August 2001, the remaining 18 possession rights (14 possessors) were expropriated in accordance with the Mining Law. The settlement sums were determined by two independent valuers, one appointed by the court and the other by the Colombian institute in charge of assessing land value. They have visited Cerrejon, discussed the negotiations and viewed documents and photographs of the village. The valuers have also spoken at length with Tabaco property owners. The 14 former possessors have since tried to reverse the expropriation process, using different administrative and legal instruments. Government ministries and the courts have consistently ruled against all the actions filed, however the dispute is continuing.

Assistance with education and housing

In 2001, Cerrejon approached the former possessors of Tabaco and offered to contribute to the schooling expenses of the 22 children involved. Funding has been allocated to schools in La Guajira department and the children have received support in the form of tuition grants, schoolbooks and other educational materials. Four of the children have been awarded Cerrejon scholarships to study at public schools in the La Guajira town of Albania, while another four have received assistance to study in the coastal city of Barranquilla.

In May 2002, the Colombian Supreme Court ordered that the municipality of Hatonuevo provide primary education and housing for the children of the 14 former possessors.

In response to the housing order, Hatonuevo has designed a social housing plan and is in the process of obtaining co-financing from the national government for its construction. To assist this process, Cerrejon has donated three parcels of land totalling approximately 10 hectares to Hatonuevo. The land, which had originally been acquired by Cerrejon for an employee housing project, contains 300 new residences and services infrastructure. The land is within the municipality's public services area and is therefore suitable for residential purposes. It is hoped this housing will be of benefit to the affected Tabaco families.

Moving forward

According to a recent survey, the living conditions of Tabaco's former possessors have improved and, in 95 per cent of cases, they have adapted to their new places of residence. All the children are attending school, either in La Guajira department or the city of Barranquilla. In addition, through the Cerrejon Foundation, the company has provided former possessors with training and advice on investment alternatives and the creation of small businesses. Support will be provided to selected small businesses through the provision of start-up capital.

'Sarahita' occupation

A separate incident has arisen that has been the subject of significant misinformation. In March of this year, a group of approximately 40 squatters occupied an area of land near the Cerrejon operation and constructed 31 simple shelters in the area known as 'Sarahita'. It was later reported that members of the 'Sarahita community' had been forcibly evicted and their homes bulldozed to allow expansion of the mine.

(Continued over)

COMMUNITY 28

PROCESS OF RESOLVING TABACO LAND ACQUISITION ISSUES continued

Reference to the 'Sarahita community' implies a long-established community with legitimate land-ownership rights. In fact, the squatters had illegally entered the area and constructed simple shelters from bush materials on land that has been owned by the mine for 12 years. There have been no legitimate settlements in the area during this time. The land is located between a permanent overburden storage area and open pits and would not be safe for residential use.

Cerrejon immediately sought a meeting with the squatters and asked them to leave, noting that the mining-related uses of the site placed people in an unsafe situation. This and subsequent requests to leave were ignored, making legal action inevitable. The Chief of Police of Barancas decreed an official protection order over Cerrejon's ownership rights and ordered the dismantling of the shelters. Expert evidence was recorded that the structures had been erected within the previous 20 days and each would have been built in a matter of hours.

The squatters left the site peacefully and voluntarily, but some returned in the succeeding days. The Chief of Police and the representative of the Public Defender visited the site but were unable to persuade the group to leave. In accordance with the law, the police requested the assistance of the National Police, which has officers trained in public order issues. When the operation was carried out, five of the occupiers were present and three structures were dismantled. The Public Defender's representative was present to monitor proper observance of human rights. There was no opposition from the occupiers and they left the area calmly.

In summary, the 'Sarahita community' was not a genuine settlement but a recent illegal occupation of land from which people were removed without violence. Extensive video footage shows the people were treated with respect at all times and moved from the area peacefully.

Best practice guidelines on resettlement, security and human rights

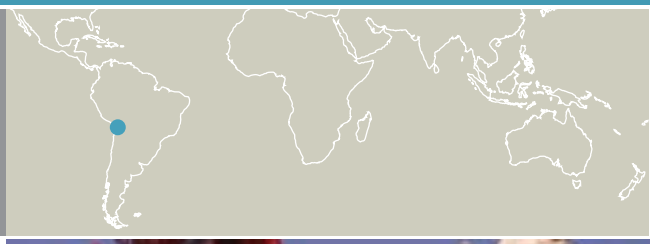
To guide its interactions with communities, Cerrejon has developed a Resettlement Policy that reflects World Bank Involuntary Resettlement Guidelines. These call for the consideration of organisational responsibilities, community participation and integration with host populations, socio-economic surveys, the legal framework, valuation and compensation for assets, land tenure, acquisition and transfer points.

The US-UK Voluntary Principles on Security and Human Rights have also been adopted. Cerrejon's security policy is based on those principles, which cover respect for communities, for human rights, for the Constitution and for the law. They also require rigorous control over security expenditure to assure that it is only allocated to the defence and protection of the company's people and infrastructure.

Cerrejon employees, contractors and the military have been made aware of this policy. Contracts with private security contractors include specific clauses relating to human rights and appropriate use of force. This year, security staff are to receive training in human rights from the International Red Cross.

COMMUNITY 29

CERRO COLORADO INCORPORATES COMMUNITY PARTICIPATION AND CONSULTATION INTO PROJECT PLANNING



The Cerro Colorado copper project is located in an extensive arid zone in the First Region of northern Chile, 120 kilometres east of the port of Iquique and 2600 meters above sea level. The operation began its productive life a decade ago in an area populated by an urban centre and small rural villages. We are aiming to establish a long-term, focused relationship with these communities, oriented towards developing the skills of the people. It is within this context that we implemented a community consultation and participation process to review investment projects that may have an impact upon our neighbouring communities and to identify and address concerns and issues.

► *Sikuris performing on pan flutes at the Andean carnival in Cancosa*

The model for the consultation and participation process incorporates community relations' considerations into all stages of investment projects, including design, approval, execution and commissioning. This process allows for the identification of any risks for nearby communities, or any impact upon them at all, and allows for appropriate control measures to be taken. Further, it promotes the direct participation of communities in any Company actions or decisions that involve them.

Coverage

The community consultation and participation process applies to the ten townships existing within Cerro Colorado's area of influence and participating in our Community Relations Plan (CRP), which was implemented in May 2002.

These are all rural villages established in the high Andean plateaus and gullies, inhabited mainly by families of Aymara and Quechua origin who retain their original traditions and dialects. They are llama and alpaca herdsmen and practise small-scale agriculture, moving frequently among their villages of origin and urban centres.

Pozo Almonte is the communal capital where almost two-thirds of the inhabitants of the area of influence live. This township and the village of La Tirana are our only two neighbouring urban centres. They are located on an extensive plain, known as 'pampa', and their economies revolve around commerce and mining.

Methodology

The following are the three questions that our team must answer when they begin to plan an investment project. What are the changes we intend to bring about with this project? Whom may the changes impact? And how may they impact them? These questions are applied to all stages of an investment project, from design to commissioning. Our community relations team and engineering and project management offices, or the function acting as project leader, participate jointly in this questioning process.

Should there be a potential for impact on one or more communities, this factor is incorporated into the project's general planning. A working plan to communicate and collaborate with the townships identified for participation and consultation is then prepared.

Given the geographic, social and cultural characteristics of these townships, the methodology the team uses is based mainly on engaging with the people through collective and individual meetings and interviews. During group gatherings, we encourage direct dialogue among all parties.

This process is supported by the collaboration that exists between the Company and our neighbours through the CRP. Every three months, Dialogue Table meetings are conducted, attended by the elected representatives of each township together with our community relations team. During those CRP meetings, the community representatives submit proposals to promote local development from a sustainable perspective, in order for them to be evaluated and funded.

Sigisfredo Moscoso is from the community of Cancosa and is in charge of a project to cultivate quinua (an Andean cereal crop), which the Company is supporting. He says, 'This relationship with Cerro Colorado is good. It has allowed us to make some of our dreams real, which we could not have been able to do by ourselves. For example, (being provided with) a motor tractor to increase the quinua cultivation. I appreciate the transparency of the meetings; we evaluate each other, we see how we have advanced in our projects and how we have managed the resources. The consulting is good. On our side, people are now familiar with this type of collaboration'.

Significantly, each township defines and formulates its proposals through internal meetings with social organisations such as native communities, neighbourhood associations and sporting clubs. This approach facilitates the consultation and participation process.

Whenever risk factors are identified in a proposed investment project, these are incorporated into its design stage and prevention and control measures are defined. As part of the same work procedure, the stakeholder group is informed of these measures. If necessary, the measures are modified until community support is attained. Once approved by the community, they are incorporated into the project.

As the investment project's design and execution proceed, the participation and consultation process requires us to maintain periodic communication with our stakeholder group in order to receive their feedback and, if applicable, to respond to any new concerns.

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COMMUNITY 29

CERRO COLORADO PLANNING continued

The overall objective of the consultation and participation process is that project development is based on collaborative engagement between the Company and our neighbouring communities, with a view to securing the sustainability of the Cerro Colorado operation and the communities.

Application

The largest Cerro Colorado investment project in recent years is an example of how the participation and consultation model is being applied. The project is a financing agreement with the Chilean Public Works Ministry's regional administration for road improvements along the Duplijza slope. The investment is estimated at US$4.2 million.

The slope connects not only the mining site to the region's main road, but also to the townships of Mamiña, Parca, Iquiuca and Quipisca, all located on the neighbouring gullies. The safety standard of the existing slope was poor, due mainly to its narrow unpaved layout, short-radius curves and unstable hillsides. For this reason, we decided to fund the road improvement project, to be carried out between April and December 2004.

During the first stage, the community relations and engineering and projects teams identified that the four townships would be the groups directly impacted by the works. Meetings were held with each of them, with the support of their respective representatives.

A number of concerns and petitions were gathered, such as for the protection of nearby rock carvings and a community mud oven, the environmental control of earth movement and blasting, the fitting out of an alternative road, and the authorised removal of two animitas (small religious altars) that are commonly erected on the roadside in memory of victims of traffic accidents. Further, through the Regional Tourism Administration, we were requested to evaluate the possibility of building two lookouts at the slope in order to promote tourism in the area, which has periodic influxes of visitors mainly attracted by Mamiña's thermal waters and mud baths.

► *Community meeting in Mamiña about the Duplijza road project*

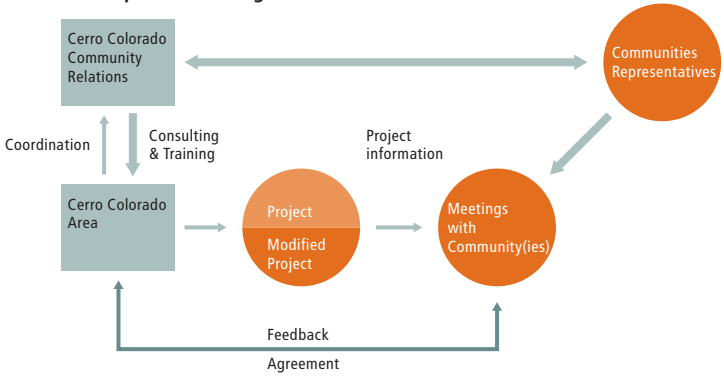
These requests were evaluated, approved and incorporated into the project's design and the Environmental Impact Statement submitted to the relevant government authority.

The project subsequently obtained government authorisation and the support of the participating communities.

Since the beginning of the works, our community relations team has held meetings with representatives of the affected communities and Pozo Almonte. All other stakeholder communities are also being kept informed, through the quarterly Dialogue Table meetings. Additionally, information has been forwarded to the local authorities and tourism, transport and hospitality companies about vehicle transit restrictions during the work, and public announcements have been made in the local media.

Commenting on the Duplijza road improvement project, Patricio Zapata, Regional Intendent with the local government, says, 'This is an outstanding agreement protocol, which we have been promoting as a government in relation to how we can make the contribution from a private company compatible with the needs of the community in which it is immersed, in terms of production and the creation of jobs. It is a good initiative, which we support completely. From the point of view of the number of communities involved, and their participation, it is innovative and provides a good model for other similar companies to apply'.

Consultation procedures diagram



SOCIO-ECONOMIC 30

EKATI AGREEMENTS AIM TO PROVIDE SUSTAINABLE EMPLOYMENT, TRAINING AND BUSINESS OPPORTUNITIES FOR INDIGENOUS COMMUNITIES

The EKATI Diamond Mine is situated in the Lac de Gras region of Canada's Northwest Territories, 300 kilometres north-east of Yellowknife and 200 kilometres south of the Arctic Circle. It is in one of the harshest climates in the world, ranging from 30° Celsius in summer with 24 hours of sunlight to minus 60° Celsius in winter and almost total darkness. To operate effectively and efficiently in this environment, and to ensure a sustainable future for the business, we need to work in collaboration with the indigenous Aboriginal people, various government departments, our suppliers and our workforce.

In establishing the EKATI operation, one of our first steps was to conclude our Socio-Economic Agreement (SEA) with the government of the Northwest Territories (NWT). The SEA outlines responsibilities for both the Government of the NWT and BHP Billiton Diamonds Inc. These include targets for hiring (both Northern and Northern Aboriginal people) and business spend (Northern businesses). Then we concluded mutual Impact and Benefit Agreements (IBAs) with four different indigenous First Nations, utilising the SEA as a basis to conclude those Agreements. Each of the IBAs is voluntary and confidential and establishes a mechanism for priority hiring, employee training and preferential business opportunities. In addition, cash payments and scholarships are provided to the impacted Aboriginal groups.

Akaitcho Treaty 8

In November 1996, BHP Billiton Diamonds Inc and the leadership of the local Akaitcho people signed an IBA known as Akaitcho Treaty 8. The IBA is a partnership agreement that covers employment, training, business and social programs that would benefit the Akaitcho Treaty 8 IBA benefactors through the life of the mine.

We were mindful that when people are involved in a new and different work environment, such as setting up a business to supply a major diamond mine in a remote area, there is a process of learning that can present significant challenges. These include ensuring the business will survive in the longer term, setting times for starting and stopping work, utilising proper safety equipment, living away from home in a remote camp, leaving the family and coping with the social impact.

In the business world, the smallest change can have a big impact on indigenous people's personal lives and their way of life at home and in the community. It is our commitment to respect and help protect their cultural heritage while offering opportunities to enrich their lives.

Meeting the challenge

When we started discussing business opportunities under the IBA, there was neither infrastructure nor existing goods or services businesses within the Akaitcho Treaty 8 group to support the potentially vast business opportunities associated with diamond mining. They wanted to know how they could help us become successful in order for them to become successful through training, employment and business opportunities. Collectively, we rose to the challenge to make our commitments become a reality.

In line with the IBA, we established a local procurement office and conducted seminars and workshops about our procurement guidelines. Our purchasing strategy was based on assisting Aboriginal suppliers to attain joint ventures and business partnerships, to tender IBA suppliers first where practical, and to provide opportunities for local suppliers to deliver goods and services that have only been available from the south.

Wherever practicable, contracts were unbundled into smaller work packages. Our training programs focused on helping emerging IBA enterprises to become skilled and competitive. We also encouraged our contractor companies to identify opportunities for IBA suppliers and to provide training. This was facilitated through the compilation of a directory of local businesses specifying the types of goods and services they can provide to EKATI.

The range of projects identified for IBA suppliers included air support, ore haulage, construction, mining support services, maintenance of the winter road, catering and accommodation services.

We commenced slowly with small service contracts such as supplying labour to fish out lakes and conducting traditional knowledge study programs in order to initiate some business volume, earn the trust and respect of each other and to set up companies for the future. This led to other opportunities, such as making stakes for use in our surveying activities. First Nations people from an outlying community now supply these stakes. The contract provides jobs and training for those people who do not want to leave their communities to work, while allowing them to maintain their cultural activities day to day.

Charlie DeLuca, Asset Supply Manager at EKATI says, 'It generally took three years to slowly build capacity among local suppliers and set the successful direction for the future. Infrastructure, trained personnel, equipment, computer operating systems, cultural barriers, communicating, and understanding what we wanted, are all challenges we've faced to various degrees with our suppliers'.

Focusing on sustainability

Through 1999 and 2000, EKATI promoted the idea of having all four IBA groups form a single company to supply services to the operation. This would mean that all business and employment opportunities could be directed through one company rather than to each the four IBA partners separately, ensuring the interests of all parties were considered. It was also thought that a single company would have a greater possibility of being sustainable into the future. Such a ground-breaking arrangement presented a major challenge, not only for the four First Nations but for us as well; however, it had the potential to provide benefits for all involved.

(Continued over)

SOCIO-ECONOMIC 30

EKATI AGREEMENTS continued

▸ *Kete Whii tractor trailer unit with water tankers for dust suppression on roads in front of main facility entrance*

▸ *Kete Whii grader clearing a snow-covered road for safe travel*

The vision of a single company has already been partly realised. Understanding the concept offered numerous advantages, representatives of the two largest First Nations – Yellowknives Dene and Lutsel K'e Dogrib Treaty 11 – met, concluded business and formed a company, Kete Whii Ltd (KWL).

▸ *Kete Whii ore haulers side dumping*

An ongoing on-site project at EKATI is the haulage of ore from one of the surface mines to the processing plant. This was identified as an appropriate contract of work for KWL, which would provide for numerous jobs, equipment and infrastructure. Associated training would lead to employees gaining certification for operating Class 1 highway equipment. This would allow them to also operate on-highway semi-trailers during their two weeks off. While the company was responsible for hauling ore for us, it made sense that KWL also maintained the haul road on which their trucks were operating. This expanded their role on our site to operating graders and water trucks.

Training for KWL employees commenced, both off site and on site. We also assisted the company in meeting with their financial institutions to fast-track the project, as equipment had to be brought in via the ice road, which is mainly built on top of frozen lakes and ponds and is open for just 78 days each year.

KWL has since been presented with other opportunities – through the introduction of our underground mining operations – and has risen to the challenge. To gain the required expertise, they arranged a joint venture with an experienced Canadian underground mining company. The joint venture has set targets to hire Aboriginal people, conduct training programs and ensure their cultural heritage is maintained. The company mines with state-of-the-art underground equipment, utilising remote control devices, and maintains the equipment. Many training opportunities exist through this joint venture arrangement.

The business corporation of the Yellowknives Dene First Nation, Deton'Cho Corporation (DCC), is charged with managing Kete Whii Ltd on behalf of the Aboriginal partners. The Chief Executive Officer of DCC, Neil McFadden, states, 'Our relationship with BHP Billiton concerning KWL has been both progressive and rewarding. Working together, we have overcome the trials and tribulations of bringing a concept to reality. KWL is all about building . . . human resources, assets, capacity'.

Meeting spending commitments

As the chart below shows, in 2003 BHP Billiton Diamonds spent US$318 million to support operations at EKATI. Of this, 85.4 per cent went to Northern businesses and 29.7 per cent to Northern Aboriginal businesses. The total cumulative spending through Northern and Northern Aboriginal businesses, from the beginning of construction, exceeds US$1.37 billion.

Total business history spend 1999 to 2003 – US$

Category	1999	2000	2001	2002	2003
Northern Aboriginal	$39m	$51m	$81m	$93m	$94m
Overall Northern	$213m	$198m	$250m	$271m	$272m
Other	$58m	$42m	$44m	$45m	$46m
Total	$271m	$240m	$294m	$316m	$318m

Charlie DeLuca says, 'These are win-win relationships that manage risk, develop people, assist communities and respect traditional rights. Are we valued in the communities? Yes we are, we've been named one of the 100 best employers in Canada in each of the last three years (Mediacorp Canada Inc survey). Can we do better? Of course, that is what continuous improvement is all about'.

SOCIO-ECONOMIC 31

BLACK ECONOMIC EMPOWERMENT SUPPLY UNIT ESTABLISHED TO PROMOTE BEE SUPPLY INITIATIVES IN THE SOUTHERN AFRICAN REGION

Black Economic Empowerment (BEE) legislation has been introduced in South Africa to address inequalities created by past history, particularly the exclusion of black people from participating in the country's economy. The legislation attempts to address this imbalance by increasing the participation of previously disadvantaged groups. The BEE Supply Unit we have established will work closely with and support supply initiatives by the Company and our individual operations such as Samancor Chrome, Samancor Manganese, Ingwe Coal and BHP Billiton Aluminium.

► *L to R: Nick Saunders, BEE Supply Manager; Celiwe Mosoane, Business Development Centre Manager, Witbank; M'ampho Sumbulu, BEE Supply Specialist*

In early 2003, the Company implemented a Black Economic Empowerment Procurement Policy for the southern African region, which confers preferential status on BEE suppliers and has the explicit purpose of increasing procurement spending with legitimate BEE suppliers. The full BHP Billiton Black Economic Empowerment Procurement Policy is available on our website at bhpbilliton.com/bb/sustainableDevelopment/policiesAndKeyDocuments.jsp.

Our objectives are to provide access by black suppliers to the Company's procurement activities, with a resultant greater participation in resource-related industries, and to ensure that all buying organisations within the Group have the support to successfully achieve legislated procurement targets. In addition, the Policy ensures that a standard set of BEE definitions and classifications are applied in the region and details how BEE spending will be calculated.

The BHP Billiton BEE supply approach

The Company promotes BEE spend principally in three ways:

Supplier transformation – We initiate forums with existing suppliers in order to make them aware of the imperatives of the BHP Billiton BEE Procurement Policy and gauge their plans for transformation to BEE supplier status.

Targeting of existing and new BEE suppliers – We identify specific opportunities for the entry of BEE suppliers, and where necessary and appropriate assist and develop these suppliers through our capacity building program outlined below.

Building capacity – To promote BEE spend with a local flavour, we have become directly involved in establishing Business Development Centres close to our mining and smelting operations. These centres seek to promote local supply opportunities to small and medium enterprises and to provide enterprise development support to emerging and aspirant BEE suppliers.

The developmental assistance may encompass, among other things:

- provision of mentoring and training on the BHP Billiton tendering process
- assistance with negotiating financing arrangements with financial institutions
- providing early payment and assistance in acquiring materials
- splitting contracts into smaller components in order to provide opportunities for black suppliers.

Two Business Development Centres have begun operating. The Steelpoort centre was established on 1 July 2003, and the Witbank centre (a joint initiative between Samancor Chrome and Ingwe) was established on 1 November 2003.

Establishment of the centres will be the primary driver behind capacity development as:

- they enhance the likelihood of identifying and promoting local BEEs and small and medium enterprises and create linkages to purchase opportunities
- their focus on local economic development will enhance our commitment to the local community
- they provide a vehicle to assist and develop local emerging entrepreneurs.

Key enablers

A standardised report will be used by all the Company's CSGs for reporting BEE spend. All definitions used will be as per our latest BEE policy document.

Given the need for access to accredited BEEs, we are collaborating with other mining companies to maintain an online BEE supplier database and to accredit potential BEE companies. This is facilitated through our membership of the South African Mining Preferential Procurement Forum. In order to be conferred BEE supplier status, the supplier must go through a rigorous accreditation process. To ensure the process is impartial and independent, accreditation is carried out by a third party. This, in turn, ensures that we achieve BEE reporting credibility.

Recognition of the BEE database as the accepted vehicle from which the major mining houses will source supply, coupled with the benefit of independent and aligned BEE accreditation, should encourage the transformation of suppliers in our industry sector. Initiatives by the Forum to identify and advise those key common vendors currently not satisfying assessment criteria are expected to further stimulate transformation.

(Continued over)

SOCIO-ECONOMIC 31

BLACK ECONOMIC EMPOWERMENT SUPPLY UNIT continued

▸ *Maduka Construction employee working on stonedust barrier*

▸ *Mashidi employees loading broken ingots into front-end loaders*

Maduka Construction

Robert Maduka is a former employee of Ingwe Coal's Khutala Colliery in Mpumalanga Province. After four years of employment at the mine, Robert seized the opportunity to start his own business servicing the mine and formed Maduka Construction.

Currently, Maduka Construction's responsibilities at Khutala include:

- moving of stonedust barriers in nine sections
- stonedust sampling on two seams
- underground concrete work such as building of workshops, ventilation walls, dams and pump station dams
- supervising general cleaning of the on-surface shaft area and cleaning of the stores and workshops.

To support the stonedust sampling work undertaken by Robert and his team, Khutala Colliery donated a computer to Maduka Construction to assist in generating reports for the mine management.

Mashidi Metal Picking and Cleaning Services

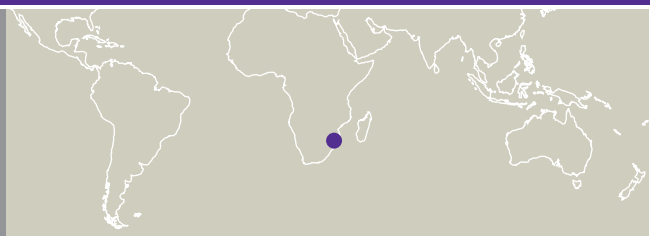
For more than 30 years, Phineas Mashidi was an employee of Ferrometals, a chrome ore smelter for Samancor Chrome in Mpumalanga Province. In 2001, Phineas chose to accept a retrenchment package and start his own company, Mashidi Metal Picking and Cleaning Services. The company now has 52 employees.

At the smelter, molten chrome ore is poured onto casting floors and allowed to cool. It is then mechanically broken and metal is separated from slag. Mashidi Metal Picking is contracted to load the broken chrome ingots into front-end loaders for further crushing and stockpiling.

As some safety issues have been identified with this work, namely back and finger injuries, Ferrometals is looking into mechanising part of the process and training Mashidi staff with new skills.

SOCIO-ECONOMIC 32

MOZAL ASSISTS GROWTH AND DEVELOPMENT OF LOCAL SUPPLIERS THROUGH COLLABORATION AND CAPACITY-BUILDING PROGRAMS



Located in Maputo in southern Mozambique, our Mozal aluminium operation, which commenced production in 2000, was the first major development in the country in the past 30 years. The operation now accounts for more than 50 per cent of Mozambique's exports, over 45 per cent of imports and 7 per cent of gross domestic product[1]. After two decades of unrest in the country, there were few local businesses that could provide the smelter with essential goods and services; development of a local supply chain has been an imperative. Commencing with a commitment to award as much work as possible to local suppliers, the focus of development support programs has moved to helping them improve their skills and capacity, with a view to building a local base of strong, competitive and sustainable supplier companies.

During the start-up of Mozal, the operation faced a number of logistical and planning challenges. A 17-year civil war had devastated Mozambique and its economic infrastructure. There were few local suppliers, which meant that a substantial inventory of operational goods and maintenance spares had to be held on site. Maintaining production therefore required a substantial investment of working capital.

The harbour estuary was regarded as difficult to navigate for the shipping of sea-bound raw materials and the road to the plant from Komatipoort on the South African border was in a bad state of repair. As the 80-kilometre journey took up to five hours, many trucking companies refused to transport loads to the site. A new road was opened in 2000, reducing the travel time to around one and a half hours.

A vibrant mix of African and Portuguese people largely populates the country. The official language is Portuguese and a large number of people had been trained in former Soviet bloc countries such as Russia, Hungary, East Germany and Bulgaria. In the early stages of start-up, virtually no English was spoken in the area around the Mozal site. This posed a number of challenges in the ordering of materials from English-speaking suppliers and in the interpretation of the description of materials required for production and plant maintenance.

As Mozal has developed, these issues have generally been overcome. The last four years have seen remarkable changes in the geographic infrastructure of the region of Maputo and Matola and in the abilities of Mozambican people to adapt to the requirements of Mozal's high-performance, results-driven business culture.

Implementing a program to develop local supplier companies

From the beginning of the Mozal start-up, there has been a drive to identify and develop local companies and make them competitive in a completely new business environment, that of aluminium production.

A program was developed to educate and train the newly formed small and medium enterprises (SMEs) on a world-class tendering package, allowing them to compete with foreign companies. Work packages were exclusively allocated to local companies so as to enhance their development. This was done without compromising the principles of competitive pricing, compliance to specifications, timely delivery and safety.

The materials and services identified to be procured exclusively from local companies are stationery; transport labour; vehicle rental; signage; labour rate agreements; minor civil work; equipment surveys; manufacturing; small tool repairs; lifting services; hardware and software services; vehicle service and maintenance; laboratory consumables; and hand tools. The process followed was to begin with services that could be undertaken with low risk to the operation and then expand the range as local capabilities developed.

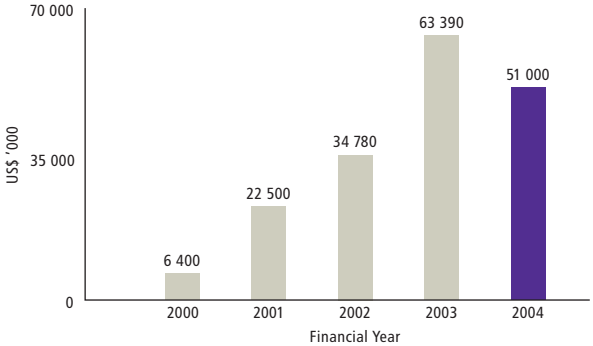
Local enterprises were included on lists of companies tendering for work, from which followed the progressive awarding of contracts for site works and materials supply. The drive was then to undertake HSE assessments and audits with all on-site suppliers, so as to develop and enhance the interactivity between Mozal and the suppliers.

Each company is required to have HSE management plans and processes in place. Those without adequate plans are provided with coaching or training to help them meet the requirements. There has also always been strong emphasis on business conduct at Mozal and workshops are conducted to introduce SMEs to the BHP Billiton Guide to Business Conduct. The goal is to sustain the local enterprises by achieving a high level of business ethics and HSE performance in their maintenance, operations and management practices.

Since the beginning of operations at Mozal, the number of packages awarded to local companies has progressively grown. A significant number of companies have been exposed to the new working environment of aluminium production, highly sophisticated plant operations and maintenance, and very high demands in materials supply.

This strategy has shown positive results, with around US$4 million on average per month being spent with Mozambican registered companies. The graph below shows the history of the spend with local companies over the last four years.

Total Mozambican spend (excluding water and electricity) per financial year [2]



[2] Note: Substantial increase in FY '03 due to the Mozal expansion project phase II

[1] 2002 figures

(Continued over)

SOCIO-ECONOMIC 32

MOZAL ASSISTS GROWTH AND DEVELOPMENT OF LOCAL SUPPLIERS continued

Mozlink – focusing on building quantity and capacity

To further build on the successes, it was considered important to shift the focus from dollar spend towards real growth in terms of the quantity and capacity of companies dealing with Mozal. This meant that some leeway on the competitive pricing principle was required.

The Mozlink program has been set up and, as part of the program, an SME Development Centre has been established. Through the program, Mozal builds SME capacity, shortens the supply chain, minimises cross-border complexities and reduces lead times, which in turn leads to lower stock levels.

The Mozlink process is to:

- identify, introduce and develop suitable suppliers
- create a Mozambican supplier database
- identify materials and services to be procured exclusively from Mozambican companies
- implement training and development programs for SMEs
- build cooperative relationships.

One-day workshops are held with each of the SMEs to formulate a development program that will guide them through training and coaching to improve on the baseline. The baselines are designed to enable the companies to establish benchmarks in their own areas of business and learn from each other. It further enables the Mozlink steering committee to develop training in the areas most required. The companies can follow their progress by using the graph.

Tendering training has been given to 12 companies and an additional 13 have been included in the program. An assessment has been undertaken to establish baselines in the areas of safety, maintenance and operations, quality, and management practices such as human resources and finance.

Among other services provided, major packages, in terms of spend per year and criticality to the operations, have been awarded to these Mozambican companies:

- Agro-Alfa – pot superstructure removal and replacement
- Zulmet Projectos – basement cleaning, pot de-lining and pot preparation
- Dickinson Mozambique – pot re-lining, pot sealing and ladle workshop repairs
- Tubex – small tools repairs
- Duys Engineers – potshell repairs.

The Mozlink program is in line with the Mozambique Government's focus on industry growth. While there is no legislation to enforce expenditure, supporting the government's plans will reinforce relationships and enhance the standing of the Company as a good corporate citizen in Mozambique.

The program has been developed in collaboration with the government's Centre for Promotion of Investment (CPI) and the World Bank, specifically the Africa Project Development Facility (APDF) of the International Finance Corporation and Projecto Para O Desenvolvimento Empresarial (PoDE).

► *A local company, Flor Real, has been established to maintain green areas*

Mr Issufo Caba, Business Development Advisor at the Maputo Office of the APDF, has stated, 'In Maputo, Mozal is a live example of how a Corporate can work with SMEs. This is a win-win-win situation that we started developing in Mozambique, where Mozal, the SMEs and the community benefit from the business linkage model. Mozal has consistently demonstrated its commitment towards developing local supply chains and is closely working with APDF and other local partners in the implementation of SME empowerment programs, which enables and strengthens local SMEs to be Mozal suppliers'.

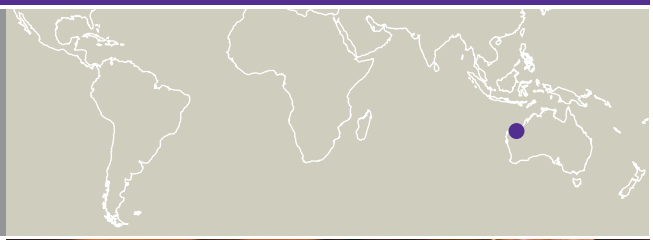
Mr Caba also pointed out, 'The first program – SME Empowerment and Linkages Program (SMEELP), which was designed and implemented for the construction phase of the expansion of the Mozal smelter – linked 14 local SMEs that successfully delivered contracts to Mozal. The current program, Mozlink, is now linking 25 local SMEs'.

The key change to the materials management strategy is a shift from quantity to quality, with a focus on safety and safety systems, lead-time and reliability, aimed at developing sustained growth and excellence. Underpinning the approach is greater collaboration with suppliers and the sharing of benefits and risks.

This provides SMEs with opportunities for information sharing that can extend their marketplace, facilitate access to useful data, accelerate growth, introduce best practice information systems and bring demand and supply together.

SOCIO-ECONOMIC 33

BHP BILLITON IRON ORE INITIATIVES PROVIDE EDUCATIONAL AND EMPLOYMENT OPPORTUNITIES FOR OUR INDIGENOUS STAKEHOLDERS IN THE PILBARA



Our BHP Billiton Iron Ore operation in the Pilbara region of Western Australia recognises that, for the business to be sustainable, local communities must share in and benefit from the Company's success. We also acknowledge that addressing deep-seated problems such as the under-representation of indigenous people in the workforce is a complex matter requiring partnership and engagement with a range of stakeholders.

► *Port Hedland employees Ryan Cassidy (front) and Jesse Oxenham*

Developing relationships with our host indigenous communities and other partners has been slow but steady. Commencing in 1992, a dedicated Aboriginal Affairs Department was established at BHP Billiton Iron Ore.

'Investment in Aboriginal Relationships' program

In 2000, we instigated the 'Investment in Aboriginal Relationships' program, a key initiative driven by the Aboriginal Affairs Department to ensure a spread of benefits to the indigenous people of the Pilbara and further improve and develop relationships with them.

This is a long-term program aimed at benefiting the Company, indigenous people and the community through activities focusing on increasing opportunities for education, training and employment as well as assisting with indigenous enterprise and community development and cultural heritage management.

Many aspects of the program, such as those concerned with increasing indigenous employment, are long-term projects and, in order to be successful and sustainable, need Corporate endorsement and support. In this case, the opportunity was realised when BHP Billiton signed the Corporate Leaders for Indigenous Employment statement in October 1999 and later when BHP Billiton Iron Ore signed a Memorandum of Understanding with the then Commonwealth Department of Employment, Workplace Relations and Small Business.

We also decided as part of the launch of the 'Investment in Aboriginal Relationships' program to publicly commit the business to a target of achieving 12 per cent indigenous employment within our Pilbara operations by 2010, reflecting the proportion of indigenous people in the region.

Recognising that there is no easy solution to the challenge of increasing indigenous employment, the program's strategies and actions are diverse and the scope all-encompassing. The program takes in all operational areas: mining, port, railway and Boodarie Iron. It includes a raft of associated initiatives in the areas of education and direct and indirect (contractor-based) employment. Contractors represent around 50 per cent of our workforce and the biggest opportunity for increasing indigenous employment is at the entry-level skill area. Other initiatives focus on developing indigenous businesses and improving their contracting opportunities with us.

We also recognised that for any of these actions and initiatives to get off the ground and be successful, they would require a significant cultural change in the business. Dealing with this was part and parcel of the overall program.

Employment programs

While realising that long-term strategies would be needed if success was to be sustainable, we also looked at opportunities where we could gain some positive outcomes quickly. For example, when the program was rolled out in 2000 it was estimated that just one Aboriginal apprentice and one Aboriginal trainee were employed across the entire business. Today, BHP Billiton Iron Ore employs 55 Aboriginal and Torres Strait Islander apprentices in engineering, mechanical and electrical trades and trainees in clerical and mine production roles.

David Stock, Nyiyaparli Elder and Native Title Claimant, says 'I like our young fellas getting jobs and going to school and learn this and that. [For] Aboriginal people, that will be much better. Well, you know, work together with them. We like to see that happening, our young fellas getting jobs and going to school and learning stuff and that will be much better'.

Prior to the program, Aboriginal and Torres Strait Islanders appeared not to be applying for apprenticeships and traineeships. The Company made the incorrect assumption that local indigenous people were either not interested in applying for positions or thought they would not be able to pass the initial selection process.

That assumption was turned on its head in the first year of the program as a number of local indigenous applicants were successful in gaining apprenticeships in their own right, without recourse to the support designed as part of the program. The support, if required, enables those apprenticeship applicants who don't quite make the grade to be taken on for one-year pre-apprentice traineeships. The aim during this tenure is to help them develop their ability to be successful in the following year's intake.

Educational programs

The importance of education initiatives to the overall success of the program cannot be underestimated. BHP Billiton Iron Ore is now the primary sponsor of two education programs that we

(Continued over)

SOCIO-ECONOMIC 33

BHP BILLITON IRON ORE INITIATIVES continued

conduct in partnership with the Western Australian Department of Education & Training, the Commonwealth Department of Employment & Workplace Relations, the Commonwealth Department of Education, Science & Training, the local indigenous community and the Graham (Polly) Farmer Foundation. One of the programs is at Port Hedland and another recently commenced at Newman.

The Port Hedland Partnership program is now into its third year. Through mentoring, homework supervision and work experience, the program aims to assist indigenous children to achieve their full potential. Students attending school in Years 8 to12 can apply to be selected. A compact is established with the selected students, their families and the partners, which includes a commitment to work towards set educational and personal growth goals. A dedicated coordinator is jointly funded by the partners. In addition, we have provided a building that is available for student use after school. It contains computer equipment and facilities for tutoring, homework, recreation and dining. A bus is available for student pick up and drop off as well as for excursion activities.

► *Students participating in the Port Hedland Partnership program*

Applying for positions in the partnership program is highly competitive; for example, in 2003 there were 32 applicants for the five vacant positions. The students selected are those who show promise, are committed to their education and have family support and encouragement. Overall, there has been a noted improvement in grades and school attendance by the participating students and they are becoming role models among their colleagues, family and the broader community.

Supporting local businesses

Our commitment to developing and supporting local indigenous businesses has seen some real success. An example is the support provided to Ngarda Civil and Mining, a partnership between mining contractor Henry Walker Eltin, Indigenous Business Australia and the Ngarda Ngarli Yarndu Foundation, which represents all indigenous groups in the ATSIC Ngarda Ngarli Yarndu Regional Council region. The partnership agreement stipulated that Ngarda had to employ local people for local jobs but that it also had to be commercially successful.

► *Ngarda machine operators Tamara Jose and Jason Aubrey at Boodarie Iron*

After initially providing a number of small miscellaneous housing maintenance contracts to Ngarda, in 2003 BHP Billiton Iron Ore awarded two significant and long-term 'open book' contracts at the Boodarie Iron mine and on Finucane Island, with a collective worth of over AUD$10 million per year.

The aim of this support is to enable Ngarda to develop and demonstrate efficiencies over the duration and become competitive in the mainstream marketplace. All contracts awarded to Ngarda have a minimum requirement for 85 per cent indigenous employment. Ngarda's performance has been remarkable; for example, at Finucane Island where it has a mobile plant and equipment contract, the business continues to achieve very satisfactory loading rates and demonstrate a high level of compliance with occupational health and safety standards and has received a BHP Billiton Iron Ore Audit Safety Award and a 2003 Industrial Foundation for Accident Prevention Award for six months without a lost time injury.

Ngarda manager Brian Hughey says retention rates are good and unexplained absenteeism is low. 'In a work environment, indigenous people are a lot more comfortable when they are in the majority', Mr Hughey said. 'In organisations that are predominantly non-indigenous, people don't tend to get the support they need and often last only six months then move on. Where we employ them in big numbers and they are the majority, they tend to support each other and keep each other going'. According to Mr Hughey, Ngarda has work contracts worth AUD$60 million on its books and in 2003/04 would pay AUD$4.8 million in wages to its 86 Aboriginal employees in the district.

We have been working hard to bring our contractors in line with our vision and goals for increased indigenous employment, and, as a result, all major mining contracts, as they come up for renewal, have minimum percentages for indigenous employment. For example, the mining contract at Area C when awarded in 2003 had a minimum first year requirement of 6 per cent with a 1 per cent per annum increase up to its conclusion in 2006.

(Continued over)

SOCIO-ECONOMIC 33

BHP BILLITON IRON ORE INITIATIVES
continued

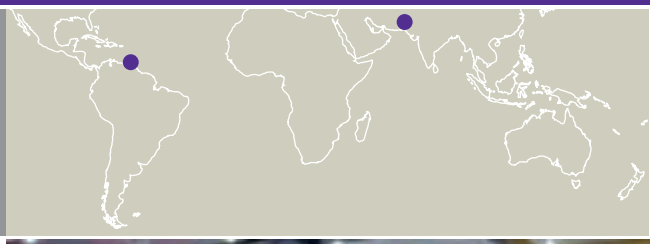
The company that was awarded the Area C contract, HWE, has exceeded this and their indigenous employment level is currently at 9 per cent. Service contracts awarded by BHP Billiton Iron Ore also have provisions for minimum percentages of indigenous employment.

Partnerships have been crucial in achieving higher levels of indigenous employment. One of the most significant has been a partnership that developed out of the Memorandum of Understanding with the Department of Workplace Relations. In 2003, we signed a Structure Training and Employment Program contract with the provision of AUD$1.2 million for subsidising our indigenous employment programs.

The subsidies have enabled us to invest in further indigenous employment, training and education initiatives, the overall success of which led to BHP Billiton Iron Ore being a finalist in the 2003 Corporate Leaders For Indigenous Employment awards.

SOCIO-ECONOMIC 34

PETROLEUM PROJECTS IN TRINIDAD AND TOBAGO AND PAKISTAN AIM TO MAXIMISE THE EMPLOYMENT OF LOCAL PEOPLE AND ENTERPRISES IN OUR OPERATIONS



Our licence to operate and grow as a company depends on the responsible operation of all aspects of our business, which includes our ability to work effectively with the communities in which we work. Our businesses interact with communities on a number of levels. For example, we initiate programs that help to build the capabilities of local people and enterprises so that they can benefit from our operations, through direct employment or as suppliers to the Company. The effectiveness of this approach is illustrated by the engagement of local communities in our Petroleum operations in Trinidad and Tobago and Pakistan.

▸ *Company-sponsored workshop for teachers at Mayaro*

Angostura integrated oil and gas development, Trinidad and Tobago

The Angostura integrated oil and gas development commenced production this year. The Greater Angostura Field is located due south from Tobago and due east from the Toco District in north-eastern Trinidad. The oil will be transported via pipeline to onshore storage and marine loading facilities near Guayaguayare Bay in south-east Trinidad, for export to market.

Based on our analysis of local needs, undertaken with feedback from the community, our community programs focus on three 'E's – education, the environment and entrepreneurship. We are committed to maximising local involvement in development of the Greater Angostura Field, encouraging the establishment of partnerships and other collaborations between international suppliers and resident organisations to support infrastructure development, and enhancing opportunities for local Trinidad and Tobago enterprises. The following are examples of projects aimed at building local capacity.

Capacity building projects in Mayaro and Guayaguayare

The Mayaro/Guayaguayare region where our onshore terminal site is located has an unemployment rate of 24 per cent, the highest in the land. Programs have been initiated to ease unemployment and build capabilities in the local communities. Fortnightly community meetings have been held to hear the concerns of the communities, keep them abreast of our plans and find ways for them to meaningfully participate in the benefits of the project.

By working with some of our contractors, we have been able to ensure that local residents are not only employed but trained in sustainable skills such as welding, fabrication, mechanics and plumbing – and are given the chance to practise those skills. Just recently we reached a significant milestone when wages earned by local residents passed TT$1 million, and we expect that this figure will triple by the end of the project.

In addition, one of our major contractors, Carillion, has announced a new program to draw more people from the community into the workforce and provide them with industry-recognised trade qualifications.

The Company is also supporting agricultural projects that can provide sustainable benefits for the community. For example, 25 local farmers are each being provided with nearly half a hectare of land to cultivate cassava, a root crop that yields nutritious starch, the source of tapioca. The Company is assisting the project by funding the land preparation, fertilisers and training for the farmers. The aim is for the farmers to become self-sufficient in producing and marketing their own local brand of cassava. Another program supported by the Company is the livestock farming of goats and sheep, also in Double Bridge Village.

Gregory Galera, head of the Guaya Branch of the Mayaro/ Guayaguayare Unemployed Organisation says, 'BHP Billiton came in March 2003 and hasn't looked back; this is the first company to come down and meet so regularly with the people. They are doing yeoman service for the future of our entire community'.

Fabrication of the Kairi 1 platform

In planning for development of the Angostura project, invitations to tender for the well protector platforms, jackets and decks were sent to fabrication firms including four from Trinidad and Tobago. The contract to fabricate the Kairi 1 offshore platform was awarded to local company Damus Ltd in a joint venture with the US-based Gulf Island.

At six storeys high and weighing 550 tonnes, the massive structure is the largest platform fabricated in Trinidad and Tobago and the first at the La Brea Industrial Development

▸ *The Kairi 1 offshore platform constructed by local company Damus Ltd*

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PETROLEUM PROJECTS IN TRINIDAD AND TOBAGO AND PAKISTAN continued

Company industrial estate, which has a fabrication yard for the construction of large offshore structures. The contract also called for the transfer of technology and Damus engineers have travelled to Gulf Island's facility in the US to be trained in specific areas of platform management.

Additionally, we have made a significant investment in new welding equipment and in the training of Damus welders in flux-core welding techniques. This is the first utilisation of semi-automatic welding in Trinidad and Tobago. The acquisition of these skills will make local welders more productive and can be transferred outside the oil and gas industry.

All told, this contract translated into 110 000 work-hours for Damus and a peak workforce of 104, including project management. Most importantly, we hope that the success of this venture will pave the way for other operators to build similar topsides in Trinidad and Tobago.

The re-introduction of design engineering into the energy industry in Trinidad and Tobago

We recognised in 2002 that the re-introduction of design engineering within Trinidad and Tobago's petroleum industry was a worthy goal. Engineering capability can attract fabrication capability, and engineering skills can potentially be transferred to other parts of the economy. This industry had been absent from the economy for decades.

At the same time, based on the availability of capable engineers within Trinidad and Tobago's petroleum sector, the Company decided that invitations to tender for design engineering should dictate that such work must be done locally. We received four bids for this work. Worley International provided the lowest-cost solution that also included the best approach to building local capability, and won the contract. Subsequently, the design for the Aripo deck and jacket was added to their scope of work.

Since this contract was awarded more than a year ago, 31 Trinidad and Tobago engineers and technical staff have been employed in the design effort, expending more than 50 000 work-hours in the process. This has provided an unusually rich learning experience, since the engineers have designed an offshore structure, an onshore terminal, a marine loading system and associated pipelines. Furthermore, they have learned to work with engineering support systems installed by Worley and have been exposed to Safety Case and quantitative risk assessment technology. Perhaps most importantly, it has demonstrated that upstream design engineering work can be undertaken in Trinidad and Tobago.

Zamzama Gas Project, Pakistan

Our Zamzama gas project in Pakistan is located in the district of Dadu, approximately 500 kilometres north of Karachi in Sindh Province. During the construction phase for the extended well test at Zamzama, labour and materials-related contracts totalling US$5.6 million were placed with Pakistani companies including Descon Engineering Ltd, Associated Constructors Ltd, Allied Engineering, NESPAK, Alstom Pakistan and Siemens Pakistan.

► *Community school supported by Zamzama*

The engagement of local people and enterprises was also a priority in the execution of the full field development, which was completed in mid 2003. Some 3275 workers were employed at Zamzama during the peak of construction activities, with about 40 per cent being from the local area. This provided a major employment opportunity for the communities living around the plant site. On average, about 2000 local workers were employed over the total construction period of 14 months. A significant proportion of the major plant equipment was also built in local fabrication yards. It is estimated that the total Pakistani content stands at about 34 per cent of the budget for the gas processing plant and associated facilities, probably the highest ever achieved for such a development in the country.

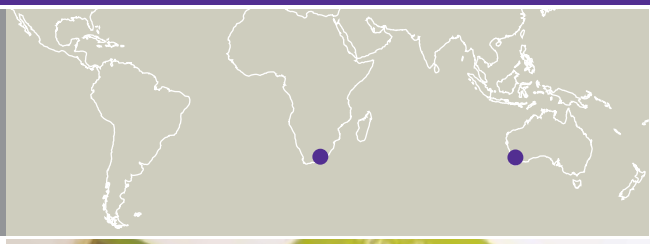
Now that it is in the operation phase, the facility requires relatively few workers. However, at present, some 65 per cent of staff at the plant are either Dadu or Sindh residents. These people are employed in a variety of roles, from the installation manager, who is a Sindhi, to other vital roles such as operations staff (40 per cent are from Sindh), community relations officers, land officers, drivers, maintenance staff and security guards. Looking to the future, we are supporting five of our local trainee technicians in their education at the Dadu college.

► *Local health clinic supported by Zamzama*

Furthermore, more than 100 local people are employed through community development projects that we sponsor. Of these, nearly one third are fulfilling the vital role of being teachers at local schools. There are also doctors, health workers, instructors and support staff, all working in programs that are bringing real benefits to the people of the area.

SOCIO-ECONOMIC 35

IMPLEMENTING THE GUIDE TO BUSINESS CONDUCT AT WORSLEY AND HILLSIDE



► *Guide to Business Conduct and roll-out materials*

The BHP Billiton Guide to Business Conduct is founded on our Charter; it establishes a set of principles to assist employees in making decisions that are consistent with the Company's corporate values and represent good business practice. Post merger, the roll-out of the Guide (published in eight languages) commenced in 2001. This case study outlines how effectively the Guide has been implemented at two sites – Worsley alumina refinery in Western Australia and Hillside aluminium smelter in South Africa. The information is based on an independent review carried out by the consulting firm Deloitte Touche Tohmatsu at the request of BHP Billiton Aluminium.

Our Charter requires a high standard of business conduct, honesty and integrity. Why is such behaviour important? The Company cares not only about delivering good results but also how those results are obtained, because:

- employees value companies where they are confident that they can trust the integrity of their colleagues and employer
- communities value companies who value them
- shareholders value companies that set and live up to high standards
- suppliers value customers who honour commitments
- customers value honesty and integrity.

Our HSEC Management Standards require all Company sites to implement the Guide to Business Conduct. It is the responsibility of site management to decide how best to implement the Guide at their operation. To assist them, extensive roll-out materials (including posters, power point presentations, case studies, wallet-sized cards and a Guide summary) have been developed at the Corporate level and are readily available. The materials most relevant to the site can be chosen and the presentation material can be adapted to cover the issues most relevant to the operation and region.

Free-call numbers for the Business Conduct helpline service are made available in all countries where the Company has major operations, including South Africa and Australia. Employees can call these numbers to seek help with dilemmas that they may face or issues that they may wish to raise. In all cases, confidentiality for 'whistle-blowers' will be maintained to the highest degree possible.

Claudia Kruse is a Senior Analyst, Governance and Socially Responsible Investment, with ISIS Asset Management. Claudia says, 'As a global company, BHP Billiton faces a real challenge, not just in terms of delivering the message about whistle-blowing to over 50 000 staff (employees and contractors), but also to get it "culturally" right with such a diverse workforce. In order to assess how well the system works, it is important not only to monitor the frequency and nature of reports, but also to track the professional development of employees who have reported incidents over the long term. Guaranteeing adequate protection is essential in order for whistle-blowing to become an accepted and valued feature of corporate culture'. (ISIS Asset Management is a UK-based institutional investment manager with approximately US$112 billion under management. ISIS believes that the management of social, environmental and ethical risks as well as good governance is key to long-term business success. Note: From October 2004, ISIS will be renamed F&C.)

BHP Billiton commits to ensuring that employees or contractors who raise genuine concerns will not be subject to retribution or disciplinary action.

To assess how effectively the Guide is being implemented at their sites, in November 2003 BHP Billiton Aluminium commissioned Deloitte Touche Tohmatsu (Deloitte) to undertake a review at Worsley and Hillside. The results of the audit provide a benchmark of good implementation practice. It is important to note that sites are not required or encouraged to initiate such external audits, as BHP Billiton has an audit system in place to test whether and how the Guide is being rolled out.

Worsley alumina refinery: background and key findings

Our Worsley alumina refinery is located in the south-west of Western Australia, near the town of Collie. Construction of the mine site (located at Boddington) and refinery began in 1980 and the first alumina was produced in 1984. A significant expansion of the operation was completed in 2000 and a project to further expand capacity received approval this year. Over 1100 people are employed at the mine site and refinery together with more than 300 contractors.

The Deloitte review found that before the BHP Billiton merger in June 2001, no written code of ethics existed at Worsley. When the Guide to Business Conduct was examined by the site, it reflected the broad ethical framework within which Worsley had been operating. The review found that the Guide is viewed positively, providing clarity, a detailed reference point and enhanced transparency.

There were several other key findings. Major existing and new contracts for both people and services include compliance with the Guide as a key condition. All employees have attended roll-out presentations and information about the Guide and its importance is included in induction procedures for new staff. The employee training program, which is also used for contractor

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IMPLEMENTING THE GUIDE TO BUSINESS CONDUCT continued

training, includes presentations on the Guide and has been recorded in the business-wide system used for tracking training.

Further evidence of effective implementation of the Guide to Business Conduct, and the principles it espouses, is that ethical behaviour has been integrated into the core values in Worsley's 2004 strategic plan.

Hillside aluminium smelter: background and key findings

Our Hillside aluminium smelter is located in Richards Bay, South Africa, about 150 kilometres north of Durban. The smelter came on stream in 1995. Plans to significantly expand capacity are well advanced. Approximately 1200 people are employed at Hillside, together with about 1000 contractors.

Hillside had in place a code of ethics that was replaced by the Guide to Business Conduct.

Deloitte found that Hillside demonstrated a well-organised process of roll-out of the Guide to Business Conduct, and that implementation has been supported by senior management. The Guide has been adopted at the highest level and has been included as part of the leadership agenda; the Chief Operating Officer met with the general manager, agreed a process for implementation and established a team to carry it out.

Conditions of employment at Hillside now include agreement to adhere to the content of the Guide. All employees have attended presentations to introduce the Guide, which included opportunities to discuss the content. Every employee has also had the opportunity to discuss the Guide with their line manager to confirm they understand the contents, including signing a declaration of understanding and compliance with the Guide, which is placed on their personnel file.

Hillside also has a declaration system regarding the giving and receiving of gifts (which must never be of sufficient value to influence a business decision); all gifts must be recorded and agreed by the line manager.

As a result of the Guide being introduced, several changes have been made to procurement policies and processes at Hillside. The Guide is enshrined in supplier terms and conditions. All suppliers are issued with the Guide and must endorse that they are in agreement with its policies and standards as a condition of entering into a contract or business agreement.

Review conclusions and recommendations

Deloitte found that both Worsley and Hillside demonstrated a well-organised process of roll-out of the Guide to Business Conduct, and that implementation has been supported by senior management. Neither site considered it necessary to offer rewards for compliance with the principles in the Guide. It was felt this would send the wrong message, as the Guide establishes principles for 'doing business as usual'.

It was recommended that sites should ensure that awareness of the Guide is maintained over time; this may include regular self-certification regarding employees agreeing with and working to the principles of the Guide. Specialist ethics training should be considered for employees in 'high-risk' functions such as Finance, Human Resources, Marketing and the Commercial Department.

The Deloitte review concluded that the Guide to Business Conduct, rather than being considered a compliance document, should be seen as a living document and a starting point for making values-based decisions. This is very much the spirit with which the Guide was first established and accords with the desire for high ethical standards and excellence in business performance.

SOCIO-ECONOMIC 36

MINING CERTIFICATION EVALUATION PROJECT ADOPTS DRAFT CRITERIA FOR CERTIFICATION AND PROTOCOL FOR MINE AUDITS

As reported in last year's HSEC Report, we are actively involved in the Mining Certification Evaluation Project (MCEP), which aims to evaluate whether independent third-party certification of performance can be applied to the mining sector. The research and development exercise is led by the World Wide Fund for Nature with participation from a Working Group comprising representatives of mining companies, NGOs, trade unions, government agencies, financial and accounting organisations and research institutions. During the year, the project took further steps towards achieving its objective.

► *The MCEP ultimately hopes to enable differentiation of minerals operations on the basis of environmental and social performance*

Independent third-party certification of environmental and social performance is proposed as a mechanism to enable mining companies to operate to an agreed level of on-ground environmental and social performance and to be able to credibly demonstrate this to stakeholders.

The project is facilitating:

- structured and focused debate among the participants on issues of environmental and social performance
- publication of a series of reports detailing the views of the participants on the issues and identifying points of agreement and conflict and any options identified for a certification system
- an assessment as to whether a system with broad stakeholder support for the independent certification of the on-ground performance of individual mining companies may be feasible.

The project Working Group initially developed a paper that introduced the MCEP, discussed some background concepts and proposed draft working principles and criteria for mine site certification. This paper was presented in November 2003 for stakeholder comment. Planning then commenced for a series of fields trials to test the MCEP concepts, with an emphasis on research and learning.

The Working Group met again in May 2004 to finalise the principles and criteria, taking into account some of the stakeholder suggestions received. These principles and criteria will form the basis of an audit protocol to be developed by an independent auditor to guide the judgement of performance against the MCEP criteria. Preparation of the protocol is currently under way.

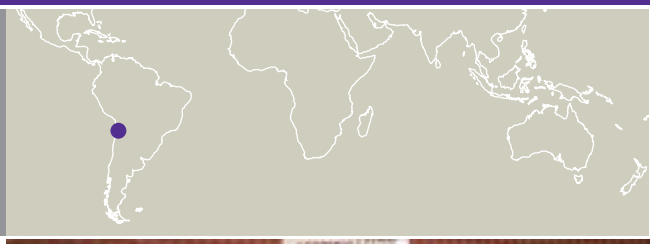
Field trials at five mine sites around Australia commenced in July 2004. The trials are focusing on evaluating the applicability and relevance of the principles and criteria and on identifying any gaps. They are also evaluating methods for assessment of the principles and criteria and processes for local stakeholder engagement. The trials will be conducted through to December 2004.

Should this initial evaluation project succeed in developing a model that has the broad support of the Working Group participants, it is hoped that the project's scope will be broadened to include a wider debate with other members of the Australian and international community.

If successful, the broader international consensus could lead to the development of a global system for the independent certification of the on-ground environmental and social performance of individual mining companies. This would allow mining companies to credibly demonstrate their performance, thereby attaining the competitive advantage available to those able to prove their commitment to sustainable development.

SOCIO-ECONOMIC 37

ESCONDIDA LAUNCHES PROGRAM TO HELP ITS GOODS AND SERVICES SUPPLIERS RAISE THEIR HSEC STANDARDS



▸ *ISO 14001 certification presentation. L to R: Gabriel Gallegillos, General Manager, G&A; Pablo Daud, Deputy Director, National Environment Commission; Jorge Molina, Governor, Second Region of Chile; Andrés Jensen, General Manager, Jensen Ingeniería Ltda; Bruce Turner, former President, Minera Escondida Ltda; Patricio Mora,General Manager, SALFA Arrendadora de Vehiculos Ltda; Oscar Pina, General Manager, AMFFAL Ltda; Cristian Figueroa, Regional Director, CORFO; Rodolfo Kunstmann, General Manager, Vulco*

Minera Escondida Limitada (MEL) in northern Chile is the world's largest supplier of copper. BHP Billiton is the major shareholder and operator of the mine, which is located in the remote Atacama Desert in the Second Region, 170 kilometres south-east of the coastal city of Antofagasta. Copper concentrate is carried by a slurry pipeline to a company-built port at Coloso, 14 kilometres south of Antofagasta. MEL has recognised that its ability to operate is, in part, dependent on its health, safety, environment and community (HSEC) performance, as managed through highly demanding international standards, the scope of which covers goods and service suppliers. Since 2003, MEL has been promoting the organisation and participation of these companies in a Supplier Development Program aimed at helping them gain ISO 14001 certification.

Having achieved ISO 14001 certification for the environmental management systems at all its operations, during 2003 MEL collaborated in a Supplier Development Program to support the certification of five of its service provider companies. As a result, the companies have developed and implemented their own environmental management systems, enhanced their productivity and improved control of associated environmental risks.

Following certification, Patricio Mora, General Manager of SALFA Arrendadora de Vehiculos Ltda, a supplier to MEL, said his company participated in the initiative because, 'We want to be leading actors rather than simple spectators in environmental issues'. Andrés Jensen, General Manager of Jensen Ingeniería Ltda, agreed, stating, 'If we can avoid harming the environment we ought to do it'. Noting that the benefits of the certification process extended to employee behaviour, Patricio Mora added, 'This enterprise has changed since certification; we are not the same any more. People are relating in a different way'.

Supplier Development Program with an HSEC focus

Following the success of the initial collaboration, MEL has extended the initiative to its other supplier companies, through a second Supplier Development Program focusing on HSEC issues. The program, which is being supported and administered by the Chilean Production Development Corporation (CORFO) for the Second Region, encourages the companies to foster a Zero Harm culture, which is a priority for MEL. For that purpose, MEL, among other activities, is providing the participating companies with training to develop internal audit procedures, HSEC risk evaluation methodologies, instruction manuals and processes for coordinating with relevant government entities.

Currently, 36 of MEL's supplier companies are taking part in the Supplier Development Program with the objective of implementing a comprehensive HSEC management system based on the 15 BHP Billiton HSEC Management Standards. These cover areas such as Leadership and Accountability; Risk and Change Management; Planning, Goals and Targets; and Product Stewardship. Of the 36 companies, ten are small and medium-size companies and the remainder are large enterprises. Implementation of an HSEC management system will help these companies to prepare for ISO 14001/OHSAS 18001 certification during 2004.

The Supplier Development Program, developed through the joint efforts of CORFO, Corporación de Desarrollo Productivo de Antofagasta (Second Region – Chile) and MEL, is aimed at significantly improving HSEC risk control at the participating companies, which in turn will provide benefits for the local community and for MEL, particularly in helping to minimise HSEC incidents and liabilities.

SOCIO-ECONOMIC 38

WE SUPPORT ESTABLISHMENT OF FIRST CENTRE FOR SUSTAINABILITY IN MINING AND INDUSTRY IN AFRICA

A Centre for Sustainability in Mining and Industry has been established at the University of Witwatersrand (Wits) in Johannesburg, South Africa. Founded through a partnership between the university's School of Mining Engineering, BHP Billiton and two other mining companies, Lonmin and Anglogold, the Centre began operating on 1 April 2004. The Centre focuses on providing education and training in the fields of health, safety, environment and community (HSEC) in mining and related industries.

► *Great Hall, Witwatersrand University, Johannesburg, South Africa*

The concept of establishing the Centre arose from the recommendations of the Global Mining Initiative and the international Mining, Minerals and Sustainable Development (MMSD) project, both of which stressed the importance of sustainable development in the mining industry. The recommendations were reaffirmed at the 2002 World Summit for Sustainable Development held in Johannesburg.

The director of the Centre, Dr Daniel Limpitlaw, says the facility aspires to gain recognition as a global leader in providing education and training in the fields of health, safety, environment and community matters.

The Centre is located on the Wits campus and offers a range of courses conducted by academics at the university and other South African institutions, together with other respected academics and practitioners from around the world. The courses are enriched by incorporating experience from a variety of disciplines such as social sciences, medicine and natural science. The Centre will also access areas of excellence within South African industry. While the primary focus is on teaching, the scope of services at the Centre is expected to include relevant research.

The Centre can play a key role in the sustainability of the mining industry, because excellence in the area of HSEC is primarily achieved by investing in the competency development of management and the workforce. The courses offered fill a gap in this development process. There are no local university degrees in safety science or HSEC management and, until recently, business schools did not offer courses in health management or the management of HIV/AIDS.

The Department of Minerals and Energy Chief Inspector of Mines, May Hermanus, says the Centre will no doubt contribute to improvements in practice, policy, legislation and compliance as well as to the development of local expertise in dealing with sustainability issues in the mining industry.

Of the initial funding of about US$140 000 a year for five years, BHP Billiton is contributing US$120 000. André van der Bergh, our Communities Adviser in South Africa, is chairman of the Centre's steering committee. He points out that the BHP Billiton Charter commits the Company to adopt good practice standards wherever we operate and the Centre plays an important role for stakeholders to share, learn and disseminate these lessons.

An industry journal, *Mining Mirror*, concurs, describing the establishment of the Centre as an environmental and safety management initiative that is unparalleled in the history of the local mining industry, in that, for the first time, competitors have joined hands in reconfiguring the mining landscape for the benefit of all stakeholders.