



**bhpbilliton**  
resourcing the future



Sustainability Supplementary Information 2009



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## Our approach to sustainability reporting

BHP Billiton's Sustainable Development Policy states that we are committed to 'regularly review our performance and publicly report our progress'. We do this as:

- a demonstration of accountability and transparency
- a central element of effective stakeholder engagement
- a management tool, providing a collation of performance data and statement of key issues and related management approaches.

BHP Billiton provides information about sustainability in:

- our Annual Report
- our Sustainability Summary Report
- our Sustainability Framework
- this Supplementary Information document, which is designed as an adjunct to the Sustainability Summary Report.

The Annual Report and Sustainability Summary Report are available in hard copy or electronically from [www.bhpbilliton.com](http://www.bhpbilliton.com).

Our sustainability reporting is prepared in accordance with the Global Reporting Initiative (GRI) reporting framework.

BHP Billiton, as a member of the International Council on Mining and Metals (ICMM) has committed to the ICMM Sustainable Development Framework. Our membership requires that we align our management standards and practices with the Framework and associated principles and position statements. We have made very good progress in this regard; however, there are a small number of aspects where the elements of the ICMM Framework are intended to be achieved through membership of the ICMM rather than the individual member companies' direct actions. These aspects include elements relating to biodiversity, product stewardship, aspects of the Extractive Industries Transparency Initiative, mineral resources and economic development. We also progress some aspects, such as product stewardship, through our membership of various commodity associations or our fundamental business strategy (e.g. BHP Billiton is not involved in producing mercury).

There are two elements of the ICMM Sustainable Development Framework that are not currently covered in our Group Policies, Standards and Procedures or by our participation in industry or commodity associations. These relate to a requirement to have a formal Group program in place to help all injured or ill employees return to work as soon as possible. While we have site-based programs in place to ensure this is done, we do not currently have this element embedded in our Group-wide Policies, Standards and Procedures. The second element relates to a requirement to specifically report mercury emissions. We will implement programs to address both these issues prior to the next reporting period.

BHP Billiton has included the ICMM assurance requirements within the scope of our external assurance engagement to provide independent assurance that the ICMM commitments are met. For more information about the nature of our external assurance, please see the Limited Assurance Statements in this document provided by our auditors Ernst & Young and KPMG.

If you have any queries or comments, please contact:

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# Report boundary

## Indicative data boundaries for Health, Safety, Environment and Community data in our 2009 Sustainability Report\*

	Corporate Offices	Exploration	Project Development <sup>(1) (2)</sup>	Projects in Execution	Operation	Closed Sites <sup>(2)</sup>
Health	Not included	Partially included	Partially included	Included	Included	Partially included
Safety	Included	Included	Included	Included	Included	Included
Environment	Not included	Partially included	Partially included	Partially included	Included	Partially included
Community <sup>(3)</sup>	Included	Included	Included	Included	Included	Included

<sup>(1)</sup> Projects in selection and definition phases.

<sup>(2)</sup> Some projects and closed sites that we do not require to report health and environmental aspects have provided data and this has been included.

<sup>(3)</sup> Our community investment figures are based on equity share.

\* Indicative data boundaries are determined based on BHP Billiton's reporting requirements and commitments, materiality, maturity of data collection systems and data availability.

The data and text in this report cover sites wholly owned and operated by BHP Billiton or operated by BHP Billiton in a joint venture operation (i.e. controlled sites) during the 12-month period to 30 June 2009. Data are reported on a 100 per cent basis for sites operated by BHP Billiton irrespective of our equity share, unless otherwise stated. Joint ventures, where we are not the operator, are excluded; some of our case studies, however, feature initiatives from non-operated joint venture operations. The only exception to the above is our community investment expenditure, which is reported on an equity share basis for both operated and non-operated joint venture operations. Where BHP Billiton does not have operational responsibility but has an equity share, our internal health, safety, environment and community Standards are made available to the operator so that comparable standards may be applied. All monetary amounts in this document are in US dollars unless otherwise stated.

BHP Billiton measures greenhouse gas emissions using the World Resources Institute/World Business Council for Sustainable Development (WRI/WBCSD) Greenhouse Gas Protocol. Quantification of energy consumption and greenhouse gas emissions involves the use of calculations where direct measurement is not always practical. The emissions and energy content factors and formulae used in these calculations are sourced from relevant industry protocols and national and international standards (for example, the WRI/WBCSD Greenhouse Gas Protocol, Australia's National Greenhouse and Energy Reporting rules and the Intergovernmental Panel on Climate Change (IPCC)) so as to enable consistent treatment of the uncertainties associated with energy and greenhouse gas reporting, in accordance with industry standards. Global warming potential factors are consistent with the IPCC Second Assessment Report (1996).

We are continuously improving our reporting systems and endeavour to present useful and accurate information. However, as the data is derived from our many operations around the world, in some cases grouped data is not strictly comparable. In addition, as we seek to improve our data collection processes, data may not be strictly comparable year on year. Anyone seeking to use information in our Sustainability Summary Report, Supplementary Information document or Sustainability Framework document, or seeking to draw conclusions from the data presented, should contact BHP Billiton for verification and assistance.

### Acquisitions and divestments

On 13 November 2008 BHP Billiton announced an end to the agreement with PT Antam Tbk to develop Gag Island, a nickel development in Eastern Indonesia. Data from this project until January 2009 are included in FY2009 data. On 21 January 2009, we announced the decision to indefinitely suspend the Ravensthorpe Nickel Operation in Western Australia. The asset was operated during the reporting year and a full set of data is included.

# Materiality

Since we released our Sustainability Reports in September 2008 (summary version and full version) we have revised and formalised our process for the selection of the material issues for inclusion in our sustainability reporting for FY2009. Our revised process assists us to identify and assess issues that have significance to our stakeholders and are potentially material to BHP Billiton. The process is based on three steps:

## Step 1 Identify issues

A review process has been undertaken based on AccountAbility's five-part materiality test, which includes areas such as policy, peer based norms, stakeholder concerns, societal norms and direct short-term financial impacts. (AccountAbility are a not-for-profit partnership that promotes accountability innovation.) In this reporting year, we have also tested the process with members of our Forum on Corporate Responsibility. The process involves consideration of issues arising from our:

- Corporate policies review
- Peer report review
- NGO campaigns review
- Media review
- Regulatory review
- Risk register review

## Step 2 Prioritise issues

To identify both a core set of long-term global sustainability issues, as well as important one-off local issues for reporting, we rate the significance of the issue to our stakeholders and the potential impact on our business. Each issue is rated and prioritised as low, medium or high.

## Step 3 Review issues

The third step is a common sense check of the process outcomes. It is our aim to limit the size of the report as far as possible without impacting on the provision of disclosures around our material issues. We have also tested the initial outcomes with members of our Forum on Corporate Responsibility.

As per previous years our material issues include topics around governance, our employees, safety and health, environment and social responsibility.

In compiling this report we have also used the International Council on Mining and Metals (ICMM) Sustainable Development Framework and have taken guidance from the GRI Guidelines (G3). Material 'core' and 'sector supplement' indicators have been addressed and 'additional' indicators have been prioritised where we consider they are material to our business or of particular interest to our stakeholders.

We have endeavoured to ensure that our report coverage is sufficient so that stakeholders can confidently assess our sustainability performance during the reporting period. We have included both positive and negative aspects of our performance to enable a balanced assessment of overall performance. To highlight trends and enable comparability we strive to report on core elements of our approach and performance in a way that is comparable year-on-year.

We aim to report accurately on our performance and each year we seek third party assurance so that stakeholders can access an independent view of our reporting and we can obtain feedback to assist us with continual improvement. (See the limited assurance statements from Ernst & Young and KPMG in this document.) As part of the BHP Billiton Annual Reporting suite our report is produced on an annual, financial year basis.

Given the size and nature of our organisation, we recognise that it is not possible for the Group's sustainability reporting to comprehensively meet the information needs of all our stakeholders, particularly at the local and regional level. Our operations separately produce their own reports to provide a review of health, safety, environment and community issues and performance specific to their site and stakeholder circumstances.

# Our public commitments, successes and challenges

## Our public commitments

We recognise and have adopted initiatives from:

International Council on Mining and Metals

United Nations Global Compact

Global Reporting Initiative

World Business Council for Sustainable Development

Carbon Disclosure Project

World Bank Operational Directive on Involuntary Settlement

The Voluntary Principles on Security and Human Rights

ISO 14001 Management Systems

## Our successes and challenges

Successes	Challenges
<ul style="list-style-type: none"> <li>• The depth and breadth of the entries in our HSEC Awards Program, reflecting the engagement and focus of our people in developing ways to make our operations healthier and safer.</li> <li>• Achieving an improvement of 26 per cent in overall safety performance in the last five years as measured by Classified Injury Frequency (Fatalities, Lost Time Injuries and Restricted Work Cases per million hours worked).</li> <li>• Recording 51 fewer cases of occupational disease compared with FY2007.</li> <li>• Enhancing the systems in place to implement our policy commitments to sustainable development, including the roll-out of our new Code of Business Conduct.</li> <li>• Extending the paid leave component of our parental leave scheme to a global minimum of 18 weeks for the primary caregiver.</li> <li>• Continuing to support our host communities through our investment of one per cent of pre-tax profits (based on an average of the previous three years' pre-tax profit) in community-based projects.</li> <li>• Employees and the Group contributing \$6.1 million to a variety of organisations chosen by employees under our matched giving scheme.</li> <li>• Revising our existing HSEC Management Standards and managing the transition to the new HSEC Standards and Procedures.</li> <li>• Strengthening our biodiversity commitments related to protected areas and threatened species.</li> </ul>	<ul style="list-style-type: none"> <li>• The loss of seven work colleagues due to work-related accidents.</li> <li>• Eliminating fatalities and delivering a workplace that is healthy and injury-free.</li> <li>• The downturn in the global economy leading to a decline in demand for some resources and necessitating adjustments to some operations and, regrettably, some job losses and associated flow-on impacts on communities.</li> <li>• Working with governments and other stakeholders in the design of effective climate change policies to achieve stabilisation of carbon dioxide concentrations in the atmosphere so that we avoid the worst impacts of global warming.</li> <li>• Complying with significantly increased emerging energy and greenhouse gas reporting requirements intended to underpin the proposed Australian Carbon Pollution Reduction Scheme.</li> <li>• Reducing our consumption of high-quality water.</li> <li>• Working with stakeholders to positively influence aspects of product life cycles that we do not control.</li> <li>• Ensuring that stakeholder requirements, as well as legislated obligations, form an important input into the life of our assets, from development, through operations, and closure.</li> </ul>

## Our stakeholders

### Identifying and engaging stakeholders

BHP Billiton defines key stakeholders as those who are adversely or positively impacted by our operations, those who have an interest in what we do or those who have an influence over what we do.

All BHP Billiton sites are required to identify their key stakeholders and consider their expectations and concerns for all operational activities, across the life cycle of operations. Sites are also required to specifically consider any minority groups (such as Indigenous groups) and any social and cultural factors that may be critical to stakeholder engagement. A regular review process is also a central requirement of stakeholder identification, to ensure that all appropriate groups and individuals are effectively identified and suitably engaged.

Our methods of engagement with the Group's key stakeholders are outlined below.

#### Business partners

Our business partners include those organisations with which we have joint venture arrangements.

Key interests and concerns	Engagement methods
That suitable governance mechanisms are in place to ensure financial returns are delivered and that non-financial risks are sufficiently mitigated.	<ul style="list-style-type: none"> <li>Joint venture boards and operating committees.</li> <li>Publishing of annual financial and sustainability reports.</li> <li>Joint venture partner participation in HSEC audit programs.</li> </ul>

#### Customers

Our customers are typically other large organisations.

Key interests and concerns	Engagement methods
<ul style="list-style-type: none"> <li>Reliability and supply.</li> <li>Product quality, cost and delivery.</li> <li>The full life cycle impacts of our products and the downstream products made using BHP Billiton materials.</li> <li>Materials and resource efficiency and the management of final waste materials.</li> </ul>	<ul style="list-style-type: none"> <li>Regular communications with BHP Billiton's Marketing group.</li> <li>Technical support to assist with product utilisation, either in terms of process efficiency or product handling.</li> <li>Product information, including material safety data sheets.</li> <li>Visits to operating sites.</li> <li>Technology exchanges with operating sites.</li> <li>Participation in a range of stewardship initiatives such as the Council for Responsible Jewellery Practices, the Green Lead™ Project and the World Nuclear Association Uranium Stewardship Working Group.</li> </ul>

#### Employees and contractors

Our workforce is large and diverse, with employees and contractors in more than 25 countries.

Key interests and concerns	Engagement methods
<ul style="list-style-type: none"> <li>Health and safety of themselves and their fellow workers.</li> <li>Working conditions.</li> <li>Career development opportunities.</li> <li>Those living in towns near operations may also have broader concerns aligned with those of neighbouring communities, including local employment, business creation and social infrastructure, schooling and health care. In many remote communities, quality of housing is an aspect key to employee attraction and retention.</li> </ul>	<ul style="list-style-type: none"> <li>Regular performance reviews and employee perception surveys.</li> <li>Direct communication with employees through immediate supervisors and management.</li> <li>Site-based and corporate newsletters and general communications.</li> <li>BHP Billiton intranet.</li> <li>Site-based and corporate sustainability reports.</li> <li>Business Conduct Advisory Service.</li> <li>Participation in site HSEC performance improvement initiatives.</li> </ul>

## Our stakeholders continued

### Government (including regulators)

We engage with governments across local, regional, national and international levels.

Key interests and concerns	Engagement methods
<p>National, regional or local legislative and regulatory policy frameworks for the natural resources sector through the full project life cycle.</p> <p>Market access, product stewardship, environmental performance, social policy and fiscal regimes applicable to the resources sector.</p>	<p>We respect the authority of governments. Our operations are required to work within relevant legislative frameworks at the local, regional, national and international levels.</p> <p>BHP Billiton will express its views to governments on subjects that affect the Group's interests and operations. This must be done in a manner that adheres to high standards of ethics and complies with the letter and spirit of the law.</p> <p>We will not make political contributions in cash or in-kind anywhere in the world and will not participate directly in the activities of political parties.</p> <p>Group representatives attend selected events such as political party conventions for the purpose of better understanding the implications of public policy development on business operations.</p> <p>Employees may participate in political processes as individuals, provided it is made clear that in doing so they are not representing BHP Billiton.</p>

### Industry associations

Industry associations include commodity-specific associations as well as sector-specific associations at national and international levels.

Key interests and concerns	Engagement methods
<p>A diverse range of issues relating to the sector or a specific commodity. For example: environmental legislation, safety standards and promotion of leading practice.</p>	<p>BHP Billiton representation on specific committees and engagement through specific projects with industry associations both nationally and internationally, such as the Minerals Council of Australia and the International Council on Mining and Metals.</p>

### Investment community

These stakeholders include mainstream financial analysts, Socially Responsible Investment (SRI) analysts who advise existing and potential shareholders on our performance, and Corporate Governance analysts who work for or advise existing and potential shareholders. These analysts are located globally.

Key interests and concerns	Engagement methods
<p>Closely aligned to shareholder interests, including good financial returns and strong Group performance and governance.</p> <p>Increasingly, non-financial performance such as better governance mechanisms and non-financial risks and mitigation.</p>	<p>Regular communications from Investor Relations &amp; Communications group to mainstream investment organisations.</p> <p>Regular communications from our Sustainable Development group to SRI analysts.</p> <p>Regular communications from our Company Secretariat group to Corporate Governance analysts.</p> <p>Analyst briefings of key issues (subject to applicable laws), including briefings for SRI and mainstream analysts with a particular interest in the environmental and social performance of the Company, and dialogue on key sustainability issues with a range of stakeholders, including the SRI and mainstream investment community.</p> <p>Printed reports (e.g. the Sustainability Summary Report).</p> <p>BHP Billiton participation in external benchmarking initiatives by the SRI and Corporate Governance sectors.</p>

## Our stakeholders continued

### Local and Indigenous communities

Most of our operations are located in rural and remote areas. We, therefore, have a broad spectrum of local and Indigenous community interests and concerns of which we need to be mindful.

Key interests and concerns	Engagement methods
<p>Potential environmental and social impacts associated with our operations.</p> <p>Ensuring opportunities presented by our operations are optimised (for example maintaining sustainable community development opportunities post mine closure).</p> <p>Results from stakeholder perception surveys regularly conducted by operations rate local employment and business creation, support for social infrastructure and programs, a desire for improved community engagement mechanisms and improved environmental performance as one of local communities' most important interests and concerns.</p>	<p>Community consultation and engagement groups.</p> <p>Participation in BHP Billiton activities.</p> <p>Newsletters and targeted communications.</p> <p>Community perception surveys.</p> <p>Support through local foundations (Chile, Peru, South Africa, Colombia and Mozambique).</p> <p>Other site-specific engagement developed as part of site community relations plans.</p> <p>In conjunction with the development of community relations plans, sites are required to develop suitable engagement mechanisms with their host communities.</p>

### Media

The media include representatives of print, radio, online and television media.

Key interests and concerns	Engagement methods
Broad range of issues reflecting all stakeholder interests.	Media releases, briefings, presentations, and interviews.

### Non-government organisations

Non-government organisations with which we typically engage include environmental, social and human rights organisations at local, national and international levels.

Key interests and concerns	Engagement methods
<p>Social and environmental performance of existing operations, proposed operations or closed operations.</p> <p>Increasingly, non-financial performance such as better governance mechanisms and non-financial risks and mitigation.</p>	<p>Each of our operations is required to identify relevant local non-government organisations and include mechanisms for engagement with them within the site's community relations plan.</p> <p>At the corporate level, we regularly engage with relevant national and international organisations.</p> <p>A number of major international non-government organisations are represented on our Forum on Corporate Responsibility.</p>

### Shareholders

Our shareholder base is diverse, with significant holdings in Australia, Europe, South Africa and North America.

Key interests and concerns	Engagement methods
<p>The creation of shareholder value through a combination of consistent financial returns and a high level of governance.</p> <p>Increasingly, a desire to better understand governance mechanisms and the non-financial risks and mitigation measures of the organisation.</p>	<p>Annual General Meetings.</p> <p>Regular printed and electronic communications.</p> <p>All presentations to the investment community are accessible to all shareholders by accessing <a href="http://www.bhpbilliton.com">www.bhpbilliton.com</a>.</p>

### Suppliers

Our suppliers include businesses local to our operations as well as large international suppliers.

Key interests and concerns	Engagement methods
<p>Supply agreements and payment processes.</p> <p>Required supplier standards.</p>	<p>We perform a supplier segmentation based on a Corporate Social Responsibility risk assessment. Based on this segmentation, we define the appropriate engagement throughout the supplier life cycle.</p> <p>We require suppliers to identify potential HSEC risks associated with their operations and minimise any adverse consequences of these risks.</p> <p>We seek to utilise local suppliers and support these suppliers in enhancing community development opportunities.</p>

## Our stakeholders continued

### Unions

Labour unions are present at many of our operating sites and are represented at local, national and international levels.

Key interests and concerns	Engagement methods
Workers' rights and interests. Collective bargaining, health and safety, remuneration, work hours and fly-in/fly-out arrangements.	Direct communication with unions as required. We respect the right of all employees to freely choose to join labour unions. We have a mix of collective and individual work arrangements at our sites. Prospective employees are made aware of employment arrangements prior to joining the Group.

# Governance

At BHP Billiton, we believe there is a link between high-quality governance and business performance. The diagram below illustrates our organisational structure as it relates to sustainable development. This structure provides the mechanism for employees and contractors to provide feedback and proposals to our highest governance body, the BHP Billiton Board.

## BHP Billiton Sustainable Development Governance



\* Authority to manage the business is delegated to the CEO. The CEO on-delegates authority to committees, including the Office of the Chief Executive and the Executive Committee, and individuals.

Our approach to governance and risk management processes sets out to ensure a precautionary approach is taken to achieving business outcomes. A broader discussion of our risk management approach is provided in section 5.6 of our Annual Report 2009.

Our approach to sustainable development governance comprises:

- a dedicated organisational structure and responsibilities
- a clear hierarchy of systems and documents
- a number of key management processes, central to integrating sustainability into our decision-making
- clear links between remuneration and HSEC performance.

It is characterised by the following key features:

The Group’s peak sustainable development governance body is the Sustainability Committee, a subcommittee of the Board.

- The role and focus of the Sustainability Committee is discussed in section 5.5.4 of our Annual Report 2009. It meets as frequently as required, but not less than three times a year. In addition to the core membership, attendees to the Sustainability Committee meetings include the CEO, Group Executives with direct accountability for our Customer Sector Groups’ (CSG) operations and the Vice President Health, Safety, Environment and Community.

The HSEC function provides advice and guidance directly to management, as well as through a series of networks across the business.

- A critical component of the HSEC governance function provided by Corporate is the HSEC audit program. This is specifically designed to assure management that all operations within the Group work within the requirements of our Charter, Sustainable Development Policy and HSEC Standards.
- The HSEC Leadership Team is the peak functional group and includes corporate representatives and HSEC functional heads from each CSG. The Team is chaired by the Vice President Health, Safety, Environment and Community and sets the direction for the HSEC function, identifies priority issues, measures HSEC performance and provides input to the HSEC Functional Business Plans.

Business line management has responsibility and accountability for HSEC performance.

While not a governance body, we use our Forum on Corporate Responsibility to seek input and insight from external experts.

- The Forum brings together representatives of our senior management team, the leaders of several key non-government organisations and community opinion leaders to discuss and debate social and environmental matters relevant to the Group.
- Forum members have an opportunity to provide advice and to challenge the views of our senior management on broad sustainable development issues of mutual interest. The Group is not bound by the advice of the Forum, and the Forum does not necessarily endorse the Group’s decisions. The Forum provides a means for direct and open dialogue about issues of interest to the wider community.
- The Forum meets twice a year and is chaired by BHP Billiton’s Chief Executive Officer.

### For more information

Our overall approach to sustainable development can be found at [www.bhpbilliton.com](http://www.bhpbilliton.com). The terms of reference for the Sustainability Committee can be found under About Us > Leadership > Governance. Our Code of Business Conduct can be found under About Us > Leadership > Governance > Code of Business Conduct.

The role, structure, composition and controls of the Board are detailed in section 5.3 of our Annual Report 2009. The Board represents the Group’s shareholders and is accountable to them for creating and delivering value. To assist in ensuring alignment, BHP Billiton encourages shareholders to make their views known to the Board (see section 5.2 of our Annual Report 2009 for further details).

The roles and functions of other governance measures, notably our Risk and Audit Committee and Executive Management, are discussed in sections 5.5.1, 5.7 and 5.8 of our Annual Report 2009.

In addition to our governance mechanisms, BHP Billiton operates a remuneration policy that includes the application of demanding key performance indicators for both financial and non-financial measures of performance. This latter category includes performance measures aligned to health, safety, environment and community factors. The remuneration and incentive scheme for our Group executives are detailed in section 6.3 of our Annual Report 2009.

## Governance continued

The following table sets out the BHP Billiton HSEC consequence severity outcomes. This must be used by reporting entities to determine whether an incident should be reported as a significant incident.

HSEC consequence severity table				
Low	Minor	Moderate	Major	Critical
Level 1	Level 2	Level 3	Level 4	Level 5
<b>Injury and Illness</b>				
Low level short-term subjective inconvenience or symptoms. No measurable physical effects. No medical treatment.	Objective but reversible disability/impairment and/or medical treatment injuries requiring hospitalisation.	Moderate irreversible disability or impairment (<30%) to one or more persons.	Single fatality and/or severe irreversible disability or impairment (>30%) to one or more persons.	Short or long term health effects leading to multiple fatalities, or significant irreversible human health effects to >50 persons.
<b>Environmental effects</b>				
No lasting effect. Low-level impacts on biological or physical environment. Limited damage to minimal area of low significance.	Minor effects on biological or physical environment. Minor short-medium term damage to small area of limited significance.	Moderate effects on biological or physical environment but not affecting ecosystem function. Moderate short-medium term widespread impacts (e.g. oil spill causing impacts on shoreline).	Serious environmental effects with some impairment of ecosystem function (e.g. displacement of a species). Relatively widespread medium-long term impacts.	Very serious environmental effects with impairment of ecosystem function. Long term, widespread effects on significant environment (eg. unique habitat, National Park).
<b>Social/cultural heritage</b>				
Low-level social or cultural impacts. Low-level repairable damage to commonplace structures.	Minor medium-term social impacts on local population. Minor damage to structures/items of some significance. Minor infringement of cultural heritage. Mostly repairable.	Ongoing social issues. Permanent damage to structures/items of cultural significance, or significant infringement of cultural heritage/sacred locations.	Ongoing serious social issues. Significant damage to structures/items of cultural significance, or significant infringement and disregard of cultural heritage.	Very serious widespread social impacts. Irreparable damage to highly valued structures/items/locations of cultural significance. Highly offensive infringements of cultural heritage.
<b>Community/government/media/reputation</b>				
Public concern restricted to local complaints. Ongoing scrutiny/attention from regulator.	Minor, adverse local public or media attention and complaints. Significant hardship from regulator. Reputation is adversely affected with a small number of site focused people.	Attention from media and/or heightened concern by local community. Criticism by NGOs. Significant difficulties in gaining approvals. Environment credentials moderately affected.	Significant adverse national media/public/NGO attention. May lose licence to operate or not gain approval. Environment/management credentials are significantly tarnished.	Serious public or media outcry (international coverage). Damaging NGO campaign. Licence to operate threatened. Reputation severely tarnished. Share price may be affected.

In most cases, the potential severity of an incident will be higher than its actual severity. Hence the categorisation of an incident as significant or not will usually be driven by its potential severity.

## Other management processes

### New project development

#### Investment

Our five-stage phased approval process – Identification, Selection, Definition, Execution and Operation – is designed to ensure that investments, mergers, acquisitions and divestments meet certain requirements before progressing to the next phase of development. HSEC requirements are defined for each stage to reflect the Sustainable Development Policy and HSEC Standards and Procedures. For example, HSEC risk assessment, baseline studies, impact assessment and closure planning are required in the early stages of project development, while control measures and management systems must be embedded prior to operation.

BHP Billiton's policy Standards and Procedures apply to all phases of the life cycle of its operations. As part of our internal project approvals process, significant new developments are subject to Independent Peer Reviews (IPRs) as they progress from identification through to detailed definition studies. The IPR teams are made up of specialists from within BHP Billiton but outside the business promoting the project. The role of the IPR team is to review the validity of project assumptions and check that performance requirements embodied in the Group's Standards and Procedures have been incorporated in the design and management plans.

#### Project planning

Significant projects are governed by the requirements outlined in the Project Quality, Execution and HSEC Management Procedure. This includes a formal process for documenting stakeholder requirements, which is a mandated part of the development of each Project Quality Management Plan.

Each new project must also have a Project HSEC Management Plan to ensure that all material HSEC considerations are addressed.

The Plan must document how the following requirements will be met:

- the requirements of the BHP Billiton Charter, Code of Business Conduct, Sustainable Development Policy, HSEC Standards and Procedures
- the requirements of the project Environmental and Social Impact Assessment.

The Plan must also include:

- legal and risk identification, assessment and mitigation requirements relating to HSEC
- the approach to managing HSEC, including safety, during each project phase
- the project HSEC organisation structure
- the health, safety and environment strategy for contractors, including how contractors' HSE management plans will be integrated into the overall Plan (at project definition stage)
- a Regulatory Approvals Plan (at project definition stage).

Note: For more about working with the local communities, customary rights and land, please see the Social Responsibility – Community Section.

### Olympic Dam

The Draft Environmental Impact Statement (EIS) for the proposed expansion of the Olympic Dam copper and uranium mine was released for public review and comment during the year. Development of the Draft EIS incorporated extensive consultation over a period of several years. By close of the public review process in the order of 4,000 submissions had been received. BHP Billiton will be responding to all issues raised through a supplementary submission that will be publicly released once completed.

Key issues raised through the consultation process to date include:

- water use, predominantly in respect of primary water supply from the sea water desalination plant, in particular brine discharge
- greenhouse gas emissions associated with the expanded operation
- the location of the proposed landing facility and impacts relating to traffic on roads
- mining activity, particularly in relation to tailings and operational impacts such as dust and exposure to radiation
- content and operation of the Schedule to the Roxby Downs (Indenture Ratification) Act 1982 (as amended).

### Security, emergency response and business continuity

In line with our HSEC Standards and Procedures our businesses and sites are required to have systems in place to effectively respond to crises and emergencies and re-establish full functioning operations as swiftly and smoothly as possible.

Requirements include:

- identifying potential emergency situations and their impacts
- defining response plans, roles and responsibilities
- identifying, maintaining and testing resources to ensure their availability
- training employees, contractors, visitors and external stakeholders
- identifying, documenting, sharing and following-up on learnings from emergency response drills.

A crisis or emergency may be an extreme climatic event, disease outbreak, security issue or any other event that poses a significant threat to the safety or health of employees, contractors, customers or the public, or that can cause significant damage to the environment or our reputation.

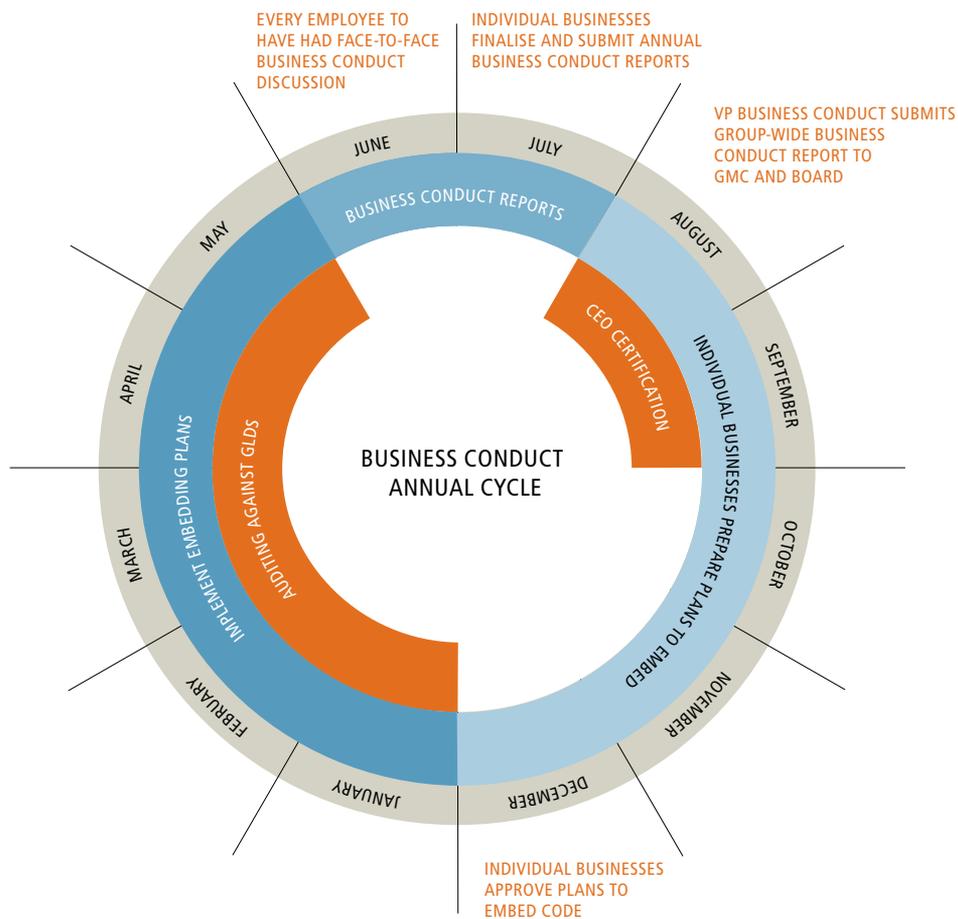
# Business conduct

In July 2008, the Group Management Committee approved a revised conduct document called *Working with integrity: The Code of Business Conduct* (the Code). It is founded on the BHP Billiton Charter and supported by mandatory Group-level Policies, Standards and Procedures. These include several new standards, including those covering conflict of interest, gifts and hospitality and anti-bribery, which directly relate to identified business conduct risks. The revision followed consultation with internal and external stakeholders.

The Code applies to our entire workforce regardless of specific job or location and provides employees and contractors with an outline of requirements and advice about general workplace behaviour, conducting business and interacting with governments, communities and other stakeholders.

A new Business Conduct Procedure was also developed to set out the mandatory requirements for how the Code is to be embedded in BHP Billiton and how to respond to, refer and investigate actual or potential breaches of the Code. The Business Conduct Procedure specifies mandatory requirements for a systematic approach to communication and training on the Code which is based on an annual cycle that has three phases – planning, implementation and reporting (outlined in the figure below).

## Annual Business Conduct Cycle in FY2009



## Business conduct continued

### Business Conduct Advisory Service

The operation of the Business Conduct Advisory Service (BCAS) was restructured during FY2009 to be consistent with the Group's operating model and to improve service quality. The initial call intake facility was outsourced to provide global coverage for the Group to ensure calls are answered in person 24/7 in the local language. The Fraud Hotline was also integrated into the Service. An online system was also introduced to allow issues to be raised via a secure portal accessible via the internet.

As part of the system improvement, an online case management system was introduced to facilitate more effective management of alleged breaches of the Code and reporting on the outcomes.

All issues raised via BCAS are forwarded to Group Business Conduct, who answer straightforward queries and refer other issues to the CSGs, Marketing, Minerals Exploration and Group Functions. The case management system allows tracking of progress on cases and a monthly report to the Chief People Officer has been established to monitor the management of cases.

### Global Ethics Panel

A Global Ethics Panel provides advice to the Group Management Committee on the Group's culture and ethics. The Panel's responsibilities include reviewing the rationale, structure and content of the Code. Panel members include internal and external representatives selected to achieve a mix of knowledge and experience of the Group's operations and contemporary aspects of ethics and culture that are relevant to the Group.

The Global Ethics Panel held three meetings during the 2009 financial year and activities included reviewing issues raised via the Business Conduct Advisory Service and monitoring a project to review our approach to Business Conduct.

### Bribery and corruption

BHP Billiton's CSGs, Marketing, Minerals Exploration and Group functions are required to assess business conduct risks relevant to their business activities, including bribery and corruption, on a biennial basis. A risk register must be established and used in designing annual training and communication plans.

The Bribery and Corruption section of the Code of Business Conduct requires that appropriate due diligence be applied in selecting and engaging third parties and that our anti-bribery requirements be communicated via a formal contract with monitoring and auditing over the life of the contract. We require that businesses anticipate and plan in advance for potential circumstances where bribery or corruption may arise.

Immediate reporting is required of any indication of an improper payment or a concern regarding the legitimacy of a payment. If employees raise an issue with management and are dissatisfied with the outcome of that discussion, they are encouraged to raise the matter with a more senior manager, a Group legal representative or to contact the Business Conduct Advisory Service.

# People

In FY2009, BHP Billiton had an average of 40,990 employees. This includes permanent full-time and part-time employees measured on a full-time equivalent basis and our share of proportionally consolidated entities and operations. 58,000 contractors were engaged at BHP Billiton owned and operated assets.

Turnover in FY2009 was 15.5 per cent, compared with 14 per cent in the previous year. The age group with the highest turnover is 30 to 39 years old, which is a similar trend to FY2008. During FY2009, the male turnover was 14 per cent and the female turnover was 22 per cent.

In May 2009, BHP Billiton announced a change to its parental leave policy, increasing the paid parental leave component to a global minimum of 18 weeks. These enhancements to parental leave represent a positive step forward for the Group as they will not only improve equity across the regions in relation to these benefits, but should also enhance our profile as an employer of choice and assist us to reach our goal of greater diversity.

It is common in our labour agreements to cover organisational change and the process by which such change is communicated and then effected. We seek to comply with local legislation and liaise and consult with employees regarding organisational changes. In FY2009, we had no strikes or other industrial action exceeding one week's duration.

In FY2009, the average hours spent on training per annum per employee was 58 hours for full-time and 20 hours for part-time employees.

In line with our commitment to foster a company culture through building our core leadership attributes and behaviours, during the year more than 1,800 employees participated in leadership development programs and 501 graduates attended our Foundations for Graduates Program. This is a significant increase from previous years as BHP Billiton continues to identify, encourage and reward a culture of leadership.

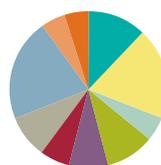
In FY2009, 78 per cent of our employees participated in a formal performance review process. Eligible employees, who started with BHP Billiton less than 12 months ago, will undergo a performance review in the next fiscal year. All employees are entitled to balanced and realistic feedback coupled with the identification of development and training needs to help maximise their performance and realise their full potential.

On average in FY2009, 15 per cent of BHP Billiton's workforce was made up of females. Approximately eight per cent of management positions are held by females.

The overall employee breakdown by age group showed that employees aged between 30 and 39 continue to be the largest employee age group, followed by the 40 to 49 age bracket.

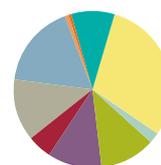
BHP Billiton employee remuneration packages should be based on merit, aligned to our business requirements and sufficiently attractive to recruit and retain the best people. The Group's remuneration policy does not differentiate on the basis of gender.

**Employees by CSG FY2009**



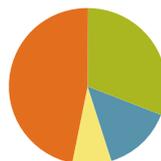
- Petroleum 5%
- Aluminium 12%
- Base Metals 19%
- Diamonds and Specialty Products 5%
- Stainless Steel Materials 10%
- Iron Ore 8%
- Manganese 6%
- Metallurgical Coal 9%
- Energy Coal 21%
- Group and unallocated 5%

**Contractors Engaged at our Owned and Operated Assets by Region FY2009**



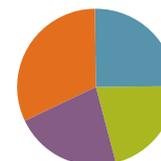
- Petroleum <1%
- Aluminium 9%
- Base Metals 30%
- Diamonds and Specialty Products 2%
- Stainless Steel Materials 11.5%
- Iron Ore 11%
- Manganese 5%
- Metallurgical Coal 13%
- Energy Coal 17%
- Group and unallocated <1%

**Average Employee Turnover by Regions FY2009**



- Australasia and Asia 47%
- Africa, Middle East and Europe 31%
- South America 14%
- North America 8%

**Average Employee Turnover by Age Group FY2009**



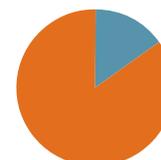
- Under 30 22%
- 30-39 32%
- 40-49 25%
- Over 50 21%

**Employees by Age Group FY2009**



- Under 30 17%
- 30-39 33%
- 40-49 29%
- Over 50 21%

**Employees by Gender FY2009**



- Male 85%
- Female 15%

Note: Average employee numbers included in the graphs include executive Directors and 100 per cent of employees of all BHP Billiton operated sites. Part-time employees are included on a full-time equivalent basis. Employees of businesses acquired or disposed of during the year are included for the period of ownership. People employed by contractors are not included.

# Safety

## Our approach

Our HSEC management system is applicable to all our operations and, wherever we work in the world, we apply the same standards to our management of safety. The systems are consistent with Articles 6-12 of ILO Convention 176 – Safety and Health in Mines.

Our risk management processes follow the same hierarchy of controls described in Article 6 of ILO Convention 176 and our Fatal Risk Control Standards were developed to improve control of specific areas of risk based on our fatal accident history. We focus on improving our workplaces and work practices to minimise the need for personal protective equipment (PPE), which is provided free to all employees where appropriate.

We require all our sites to have behavioural-based safety programs and actively encourage workers to stop the work or leave an area if they have safety concerns.

BHP Billiton's Incident Causation and Analysis Methodology (ICAM) for incident investigations is highly regarded and has been adopted by many companies, both within and outside the resources sector.

## Catastrophic risk management

Catastrophic risk management seeks to identify, assess and manage potential risks that could result in multiple fatalities and/or serious damage to the environment, our facilities, or the community in which we operate. In November 2008, we completed development of our methodology for catastrophic risk management and began full implementation.

## Incident reporting

We actively encourage the reporting of a variety of non-injury safety metrics, including behaviour based safety observations, potential hazards and near misses. All safety incidents are required to be reported. Our Significant Incident reporting provides us with a filter to ensure we prioritise our efforts on those incidents which have a potential for fatalities or serious environmental/community impacts.

In FY2009, we consolidated the reporting of Significant Incidents into a single Group database. Prior to this being completed, there was a period during which some Significant Incident data from some sites was not recorded at a Group level.

All data was retained by the respective sites, which remained accountable for any actions arising, and the gaps in the systems for Group reporting have since been closed. However, as we do not have fully consolidated Significant Incident records for this period, we will not be reporting a summary of this data for FY2009.

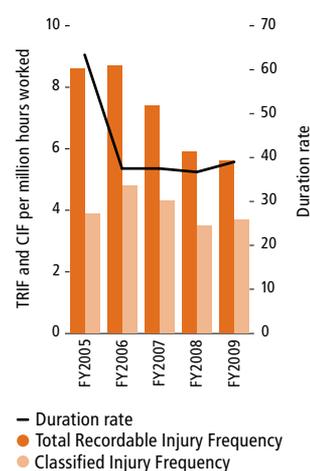
Despite these gaps, we were able to undertake a detailed analysis from a sample of over 900 Significant Incidents for the period April 2008 to March 2009, the findings from which are being assessed and will be incorporated into our safety strategies going forward.

Note: A Significant Incident is defined as any occurrence that has actually resulted in, or had the potential to result in, a level 4 or above injury or occupational illness event; or level 3 or above other incident type. Level 3 and level 4 incident types are defined in the HSEC consequence severity table on page 10.

## Total Recordable Injury Frequency and Classified Injury Frequency compared to Duration Rate

The graph below shows our Total Recordable Injury Frequency<sup>(1)</sup> and Classified Injury Frequency<sup>(2)</sup> per million hours worked, compared to Duration Rate<sup>(3)</sup>.

**Total Recordable Injury Frequency and Classified Injury Frequency compared to Duration Rate FY2009**



<sup>(1)</sup> Total Recordable Injury Frequency = Fatalities + Lost Time Cases + Restricted Work Cases + Medical Treatment Cases per million hours worked.  
<sup>(2)</sup> Classified Injury Frequency = Fatalities + Lost Time Cases + Restricted Work Cases per million hours worked.  
<sup>(3)</sup> Duration rate = the average number of days of restricted work (including days lost) per classified injury.

## Safety continued

### Incident statistics

We were deeply saddened and disappointed by the loss of seven colleagues due to work-related accidents in FY2009:

CSG	Location	Date	Nature of incident
Iron Ore	Western Australia	29 Jul 2008	Performing maintenance tasks on a fixed position scissor lift – employee
Energy Coal	South Africa	29 Jul 2008	A drill rig was moving position and fell approximately 10 metres over a highwall – contractor
Iron Ore	Western Australia	25 Aug 2008	Assisting with the assembly of a CAT789 haul truck tyre – contractor
Iron Ore	Western Australia	4 Sep 2008	Collision between a light vehicle and a haul truck – contractor
Metallurgical Coal	Queensland	20 Feb 2009	Light vehicle ran into the back of an equipment trailer – contractor
Iron Ore	Western Australia	24 Feb 2009	Struck by a train during rail track maintenance – employee
Iron Ore	Western Australia	19 Mar 2009	Fall from height – contractor

### Safety fines/citations

Location	Number of fines/citations (US\$)				Total Amount
	\$1 – \$1,000	\$1,001 – \$5,000	\$5,001 – \$10,000	\$10,001 – \$50,000	
Hotazel Mine, South Africa	1	0	0	0	\$1,000
Navajo Mine, USA	53	19	4	3	\$176,845
San Juan Mine, USA <sup>(1)</sup>	103	26	2	1	\$144,182
Pinto Valley, USA	46	1	0	0	\$7,108

<sup>(1)</sup> Includes a single fine of \$50,000 following a fatality at the site in FY2008.

# Health

BHP Billiton has increased its focus on controlling the source of potential exposures that may result in long-term harm (in the absence of measures taken to mitigate any potentially adverse impacts). The Group's new Health and Hygiene Standard requires all sites to integrate exposure control into new projects and processes. Sites must implement exposure control plans to control, at source, any existing potential exposures that would, but for the use of personal protective equipment (PPE), exceed 50 per cent of the occupational exposure limit (OEL) or, for noise, 80 dB(A). Additionally, the Standard requires that health surveillance programs must be implemented for these workers.

The results of health surveillance and exposure assessment must be reported to employees and contractors so that the health significance of any potential effects is understood.

## Occupational exposures

The exposure assessments discussed here do not take into account the protection afforded by the use of PPE, which is mandatory for all employees potentially exposed in excess of OELs.

In FY2009 there was a reduction of 10 per cent in the proportion of employees reported as potentially exposed in excess of OELs. This comprises a 30 per cent reduction in the proportion of employees potentially exposed to airborne substances and a three per cent reduction in the proportion of employees exposed

to noise. Further work is being undertaken in one CSG to verify the overall noise exposure for a specific group of 153 personnel where limited noise monitoring data provided inconsistent results close to the OEL, potentially impacting the reporting reductions in noise exposure. The table below shows the main exposure risks by CSG, taking into account the number of employees potentially exposed and the potential health effect of exposure.

**Table 1 Exposure risks in CSGs**

By CSG	Key potential exposure				
	Risk 1	Risk 2	Risk 3	Risk 4	Risk 5
Aluminium	Noise	Fluorides	Coal tar pitch volatiles	Welding fumes	Calcium oxide
Base Metals	Noise	Silica (quartz)	Sulphuric acid mist	Lead	Diesel exhaust particulate
Iron Ore	Noise	Welding fumes			
Metallurgical Coal	Noise	Respirable coal dust	Silica (quartz)	Diesel exhaust particulate	
Manganese	Manganese	Noise	Coal tar pitch volatiles	Silica (quartz)	
Diamonds and Specialty Products	Noise				
Energy Coal	Noise	Respirable coal dust	Silica (quartz)	Manganese	
Stainless Steel Materials	Noise	Nickel	Diesel exhaust particulate	Cobalt	Silica (quartz)
Petroleum	Noise				
Corporate and other	Noise	Silica (quartz)	Nickel		

## Employee health

There were 215 new cases of occupational disease reported in FY2009, a rate of 60 cases per 10,000 employees. There were 183 cases of noise-induced hearing loss, which is 33 cases more than in FY2008. Other disease includes four cases of dermatitis and one case of skin cancer related to sun exposure.

## Potential exposure to physical agents

All our operating sites are required to finalise a baseline health exposure assessment for physical agents by June 2010. To date, 51 per cent of sites report the assessment is complete and the remaining sites are on target to complete by 2010.

Physical agents includes hand-arm and whole body vibration, magnetic and electric fields, various forms of radiation and thermal stress.

## Disease control

We have global programs to provide workers and their families with information on serious disease.

Disease outbreaks are monitored through our Emergency and Crisis Centre and information is provided to operations in any affected region. Where a more general response is required, Group-wide strategies may be developed. An example of this is the response to the H1N1 2009 influenza virus.

Travellers are required to obtain disease risk and vaccination information about their country of destination prior to travelling. An international service provider is contracted to provide this information. All employees have continuous access to this information.

## Health continued

Diseases trends are monitored and reported. Information and alerts may be issued in response to identified issues. An example is a malaria fact sheet issued to all customer sector groups in November 2008.

Regionally, our businesses address disease issues with local relevance. Malaria programs were initiated in the Philippines and Guinea associated with projects operating in those regions. Both projects sought to create a self sustaining program to control malaria in their localities.

In sub-Saharan Africa, our Energy Coal, Aluminium and Manganese operations have a coordinated response to managing HIV/AIDS, TB and malaria. The program includes voluntary testing, information and awareness.

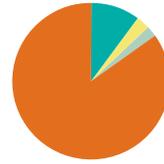
### HIV/AIDS

In some communities where our operations are located (for example, in South Africa and Mozambique), the incidence of HIV/AIDS is among the highest in the world. We accept a responsibility to help manage the impact of the disease in order to care for our employees, support the wellbeing and development of our host communities and protect the viability of our operations.

For many years, we have adopted a proactive approach to managing the disease within our workplaces that draws upon the International Labour Organization (ILO) Code of Practice on HIV/AIDS. This includes:

- conducting education programs
- offering voluntary testing and counselling programs under the strictest confidentiality
- seeking to achieve appropriate access to medical care for employees and their dependants
- reducing hostel-type accommodation for employees, known to be a risk factor for the disease.

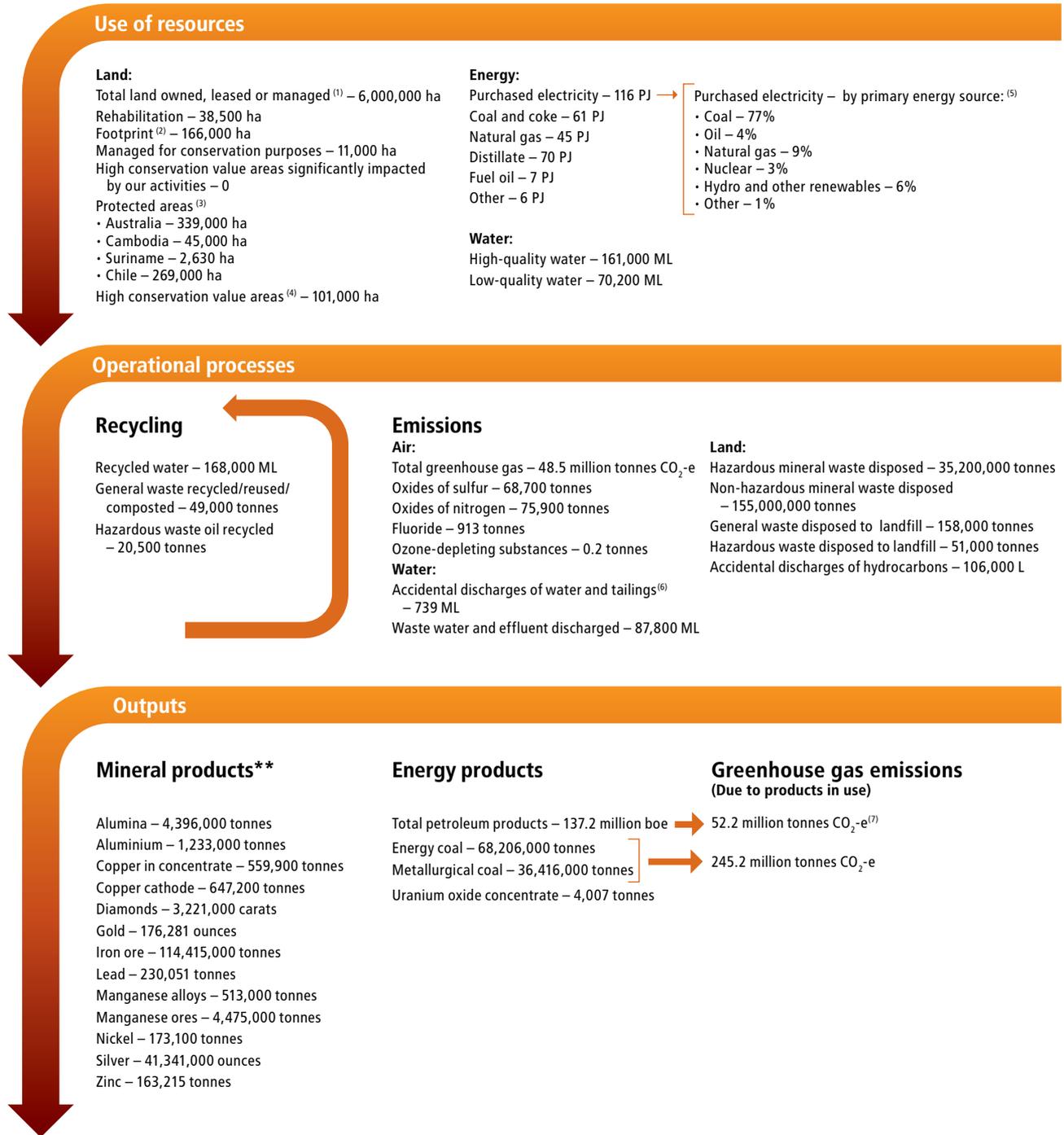
New Disease by Type FY2009



- Noise-induced hearing loss 85%
- All respiratory disease 10%
- Repetitive trauma (excluding noise) 3%
- Other illnesses 2%

# Environment: BHP Billiton Inputs/Outputs\*

The diagram below provides a presentation of BHP Billiton inputs and outputs aligned to key Global Reporting Initiative Indicators for FY2009. Please refer to our Sustainability Summary Report or Sustainability Framework for more information.



<sup>(1)</sup> Excluding exploration and development projects.

<sup>(2)</sup> Total area of land that has been disturbed (includes areas rehabilitated).

<sup>(3)</sup> Size of land owned, leased, managed in designated protected areas.

<sup>(4)</sup> Size of land owned, leased, managed outside protected areas that is of high conservation value.

<sup>(5)</sup> Data estimated from publicly available primary energy source data for electricity suppliers.

<sup>(6)</sup> Refer to our *Sustainability Summary Report* for information on our potential significant environmental incidents.

<sup>(7)</sup> For petroleum in use, crude oil is assumed to be used as diesel fuel and liquified petroleum gas (LPG) is assumed to be used for non-transportation purposes.

\* All environmental data are on 100 per cent BHP Billiton Operated sites basis.

\*\* Production figures are not directly comparable with environmental data as they are based on BHP Billiton attributable production (equity basis).

## Social responsibility – community

### Stakeholder engagement

To assist in the ongoing management of our engagement activities, all sites are required to have community relations plans that include a community consultation and engagement strategy and program.

These programs comprise a range of engagement activities, from regular meetings of community consultative committees and special interest groups to one-off site visits and open public meetings. Community engagement activities are required to be inclusive of minorities and marginalised groups.

Examples of formal consultative groups that are operated by our businesses include:

Business	Country	Consultation	Frequency of meeting
Cannington Mine	Australia	Cannington Community Engagement Group	6-monthly
Nickel West	Australia	Northern Goldfields Indigenous Community Action Group	Quarterly
Worsley	Australia	Mine Community Liaison Committee	Every 2 months
Cerro Colorado	Chile	Local Development Table meeting (Mamiña, Parca, Quipisca, Cancosa, Lirima, Coyacagua, Pozo Almonte, La tirana)	Monthly
Hotazel Manganese Mine	South Africa	Moshaweng Municipality	Quarterly
Navajo Coal Company	USA	Northern Navajo Agency Council Delegates Caucus	Annual
Mozal	Mozambique	Administrative Office Chief and Community Leaders	Quarterly

The range of topics discussed during these stakeholder consultation processes covers areas of sustainable development including health, safety, environment, employment and training, and community issues.

During the reporting period, 35 operations undertook general stakeholder perception surveys to better understand their performance from their stakeholders' perspective, and 26 operations undertook employee satisfaction surveys.

During FY2009, our sites received 377 complaints. The single largest type of community complaint was noise-related, with 165 or (44 per cent) of the total number of complaints registered being on this issue.

### Community investment

Our voluntary community investment during FY2009 totalled \$197.8 million comprising cash contributions, in-kind support and administration costs. This amount includes the BHP Billiton component of our voluntary contribution to community programs at joint venture operations, but does not include payments to communities that form part of mandatory licensing agreements. It equates to one per cent of pre-tax profits based on the average of the previous three years' pre-tax profit publicly reported in each of those years. This compares with contributions of \$141.0 million in our previous reporting period.

Our businesses administer their local community programs in different ways – some manage the programs directly through the asset's community relations department and others have established corporate community foundations. The major foundations our businesses support are Fundación Minera Escondida (Chile), the Antamina Mining Fund (Peru), San Isidro Foundation (Colombia) and Mozal Community Development Trust (Mozambique). BHP Billiton contributed in the order of \$43 million to these foundations in FY2009. In addition, in FY2009 we established a new UK-based charitable company (BHP Billiton Sustainable Communities) to help us manage our one per cent spend. We contributed \$60 million to the charitable company in the reporting period.

The cash component of our community investment comprises:

- direct investment in community programs made from BHP Billiton companies on an equity share basis
- contributions to the Group's charitable foundations, including a \$60 million contribution to BHP Billiton Sustainable Communities
- the Enterprise Development (ED) and Socio-economic Development (SED) components of our Black Economic Empowerment programs in South Africa.

## Social responsibility – community continued

### Local communities and customary rights

At a very early stage in a project, before any substantive work is carried out on the ground, we seek to identify any land owners, occupiers and users that may be affected by the project's activities.

Where land may be used for customary purposes and there may be no formal titles issued, this information will be sought from relevant government authorities with responsibilities for customary land uses and any Indigenous peoples representative organisations, such as land and tribal councils. Further enquiries may also be made directly with the people in the area.

Once a project moves beyond the exploration stage, specific surveys may be commissioned to identify the customary owners and how the land is being used. Depending on circumstances, this may occur at the exploration stage.

Knowing who owns and uses the land is critical to an effective community consultation and engagement program. It helps to ensure that affected people are fully aware of the project and that they have an opportunity to express their concerns and aspirations. Arising from this engagement, the work plan may be amended to minimise potential impacts on land owners and users.

There were no significant incidents involving cultural heritage sites during the reporting period.

### Land compensation

Our approach to land compensation is undertaken on a case-by-case basis.

Consideration is first given to what land we need; our possible impacts on that land, both short-term and long-term; the present and past use of the land; and the effects that our use may have on existing land owners and occupiers. Land owners and occupiers generally include peoples with recognised legal interests in land as well as those that do not have formal title.

For example, Indigenous peoples may not have a recognised legal interest, but nonetheless may be connected to the land by tradition and custom as well as by using the land for traditional purposes. These peoples may also be leading a traditional lifestyle and be dependent, to a greater or lesser extent, on the land for their existence.

Our approach also aims to take into account relevant legislative requirements, industry practices, standards or norms that may exist within a country or region and any special circumstances that may apply.

In some countries and regions, legislation prescribes who is to be paid land compensation, the amount, what it is for and how it is to be calculated. In other places, compensation may be by negotiation with the affected parties; for example, in Australia, where Native Title rights and interests may be impacted by a resource project. In this example, legislation also provides mediation and arbitration processes to achieve an outcome if it is required by any party.

Consideration is finally given to the views of land owners and occupiers as to the form that compensation may take; for example, whether cash, in-kind or a mix of both.

Our preference is to have a substantial portion of any compensation payments dedicated to sustainable socio-economic projects or programs that will leave tangible and long-term benefits for the community or peoples receiving the compensation.

We endeavour to ensure that benefits are provided to as many people as possible who may be entitled to them. Where substantial sums of money are involved, we work to put in place appropriate governance structures so that these monies are managed in a responsible, transparent and accountable manner.

### Resettlement

There were no reported community resettlements in FY2009. BHP Billiton requires any involuntary resettlement to be undertaken in accordance with the World Bank Operational Directive on Involuntary Resettlement.

The objectives of the World Bank's directive are the following:

- Involuntary resettlement should be avoided where feasible, or minimised, exploring all viable alternative project designs.
- Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in the project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.
- Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living, or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

### UN Declaration on the Rights of Indigenous Peoples

In September 2007, 143 countries voted in support of the UN Declaration on the Rights of Indigenous Peoples. This is a non-binding declaration primarily directed at governments, not the private sector. It covers a wide range of issues of importance to Indigenous peoples and is designed to ensure that countries respect and protect their rights. Where countries have enacted laws to give effect to the Declaration and have provided the framework for its implementation, BHP Billiton will, of course, commit to abide by them. Where countries have not enacted such laws, our Policies and Standards are designed to ensure that we nonetheless work with Indigenous peoples to try to understand their interests and aspirations, respect their rights and seek broad-based support for our operations.

## Social responsibility – product stewardship

### Stewardship

We describe stewardship as: 'All players in a commodity life cycle working together to maximise the value to society from the mining, processing, manufacture, consumption and end of life management of that commodity – without harming people and the environment.'

As BHP Billiton's primary activities are in the extraction (and in some cases processing) stages of a product's life cycle, we recognise that the majority of the life cycle of the products we provide occurs after the point of our immediate activity. We also recognise there is a strong business merit for implementing product stewardship programs in collaboration with other players in the life cycles of each of our products.

BHP Billiton's Sustainable Development Policy states that the Company will develop, implement and maintain management systems for sustainable development that drive continual improvement. We also seek to work with those involved in all the sectors of the life cycles of our products and by-products to enhance performance along the supply chain and promote the responsible use and management of those products in order to minimise harm to people and the environment.

Mandatory Standards and Procedures form the basis of the Company's HSEC management systems and cover the life cycle of our operations, including exploration, project development, operation, decommissioning and closure.

The Company's Stewardship principles are also outlined for employees in the *Code of Business Conduct*.

As a member of the International Council on Mining and Metals (ICMM) we have also committed to implementing the ICMM Sustainable Development Framework, which requires that we facilitate and encourage responsible product design, re-use, recycling and disposal of our products.

We are involved in the development of stewardship programs for our key commodities, not only within our operations but also with other players in the life cycles of our commodities.

All BHP Billiton products are required to have a Materials Safety Data Sheet (MSDS) prepared for that product. These MSDSs outline the relevant health, safety and environment aspects of the product and are provided to both the relevant customer and the transporter delivering our products to our customers. All MSDSs are transitioning to the new Global Harmonising System format.

### Customers

We generally sell to industrial customers with whom we generally engage directly rather than through brokers and agents.

Assessment of customer satisfaction is monitored via direct operational and management interaction with customers.

Approval processes are in place to support our adherence to laws, standards and voluntary codes related to marketing communications, such as advertising, promotion and sponsorship. With the exception of diamonds, our product advertising is limited to industrial uses.

During the reporting period, there were no known incidences of non-compliance with regulations and voluntary codes concerning:

- health and safety impacts of products and services during their life cycle
- product and service information and labelling
- marketing communications, including advertising, promotion, and sponsorship.

During the reporting period there were no known incidences of:

- substantiated complaints regarding breaches of customer privacy and losses of customer data.

### Our performance

To confirm the importance of a collaborative approach to stewardship and to complement the various regulatory frameworks existing in our operating regions, we have taken a leadership role in the development of stewardship initiatives within several of our product life cycles including:

#### *Lead*

We have continued to assist in the development of the BHP Billiton-conceived Green Lead™ initiative, which has recently seen working groups started in both China and Central America.

#### *Diamonds and gold*

Through our active Board and Committees membership of the Responsible Jewellery Council (RJC), of which BHP Billiton was a founding member, we have provided direction in the near finalisation of the RJC System, which is designed to provide consumer and stakeholder confidence throughout the gold and diamond jewellery life cycle. It is anticipated that the first RJC members will be certified in early 2010. Membership of the RJC has grown by 40 per cent this calendar year – which reflects the interest and support for this program, even in tough financial times.

#### *Uranium*

Through the Uranium Stewardship Working Groups that have been established (and that BHP Billiton chairs) at both the Australian Uranium Association and the World Nuclear Association, we have worked with players in the other sectors of the uranium life cycle to finalise uranium stewardship principles and practices as well as helped develop the first tools for uranium stewardship (e.g. exploration guidelines, best practice uranium mining and processing, container terminal handling procedures for uranium).

#### *Iron ore, coal and manganese*

We have partnered with others in the establishment of a Steel Stewardship Forum, initially based on the Australian steel life cycle, but which will ultimately be expanded to a global forum.

#### *Other products*

We are looking at ways to develop formal stewardship programs for our other key commodities through the relevant commodity associations.

## Socio-economic – supply

BHP Billiton recognises that our supply chain can make a significant contribution to our sustainability and that our supply relationships can add to or detract from our reputation.

### Governance

BHP Billiton's approach to managing sustainability in its relationships with suppliers is set out in its Supply Management Standard. This Standard clearly describes the minimum performance requirements for sourcing and contract management applying to all employees, contractors, consultants and agents. It is designed to ensure integrity and standardisation in the management of BHP Billiton's supply relationships across the globe.

### Supplier corporate social responsibility management

It is mandated that supplier corporate responsibility management must be consistent with BHP Billiton's Code of Business Conduct and Health Safety, Environment and Community (HSEC) Management Standards.

BHP Billiton segments its supplier sustainability requirements into global and local categories based on their risk. The Group's globally defined zero tolerance requirements cover:

- *Child labour*: children must not be hired to work before completing their compulsory education. The minimum age for entry into employment must not be younger than 15 years of age
- *Forced or compulsory labour*: the supplier must ensure there is no forced, bonded or involuntary labour.
- *Inhumane treatment of employees*: the supplier must create and maintain an environment that treats all employees with dignity and respect with no threats of violence, sexual exploitation or abuse, verbal or psychological harassment or abuse.
- *Living wage*: wages and benefits must, as a minimum, meet whichever is higher: national legal standards or local industry benchmarks. Where no minimum wage legislation exists, the supplier must seek to establish a wage that ensures an adequate standard of living for all of its employees and their dependants.

BHP Billiton's globally defined minimum sustainability requirements cover:

- the provision of a safe and healthy workplace and adherence to all relevant legislation, regulations and directives in the country of operation
- respect for freedom of association
- adherence to the highest standard of moral and ethical conduct
- compliance with laws
- non-discrimination.

Categories that may be interpreted locally and may not be applicable in all countries include Indigenous rights, environmental areas, community, public policy, anti-competitive behaviour, diversity and equal opportunity, training and education and security practices. All contracted suppliers are segmented based on their sustainability risk and a procedure to engage with each supplier is developed appropriate to this risk.

### Supply management at the local level

#### China

The operation of BHP Billiton's Shanghai-based China Procurement Hub, which is focused on ensuring that the Group's procurement practices in China are responsible, illustrates how the Group's global Sustainable Development Policy and HSEC Management Standards are implemented locally.

The team works with potential suppliers to complete a Health, Safety, Environment and Community assessment based on the Standards, including in the areas of improvement systems, personal protective equipment, plant and equipment, workplace conditions, environmental considerations and human rights.

The team engages only suppliers that demonstrate suitable standards, then continues to support their further improvement through ongoing audits and regular interactions. Where an assessed supplier does not meet the necessary HSEC standards or where the effort required by BHP Billiton to assist the supplier to reach acceptable standards is too great, then the supplier is excluded from consideration.

## Socio-economic – supply continued

### South Africa

The Black Economic Empowerment (BEE) program was introduced in South Africa to address inequality. BHP Billiton responded to the legislation with the implementation of the BEE Procurement Policy, introduced in 2003. This Policy ensures that a standard set of BEE definitions and classifications are applied in the region, and details how BEE spending will be calculated.

BHP Billiton's approach to reporting on BEE vendor status is now aligned to the South African Department of Trade and Industry's Codes of Good Practice. The Codes determine the empowerment status of a supplier through an accreditation process that takes into account factors such as ownership, management control, employment equity, skills and socio-economic development. A supplier's performance against this determines the contribution level and the associated BEE procurement recognition level that BHP Billiton realises when procuring from them. Only procurement spend to suppliers with valid third party accreditation will be registered as BEE procurement. The level of a supplier is annually determined and certified by an independent accreditation agency.

BHP Billiton is still working to get its South African BEE scorecard to its desired level. Transformation targets and implementation plans, driven at the highest level of regional leadership, are in place and are monitored on a monthly basis. We are committed to working towards full voluntary compliance with the Codes.

### Supply and human rights

In addition to incorporating human rights issues in its procedures and policies relating to supplier management, BHP Billiton is committed to the UN Universal Declaration of Human Rights. Our Company Charter, Code of Business Conduct and Sustainable Development Policy support this commitment.

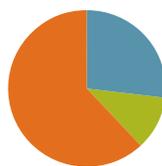
BHP Billiton believes it has not violated the rights outlined in the UN Universal Declaration of Human Rights during the reporting period.

### Supply spend

Total Group spend, from operated assets, on goods and services excluding intra-company spend, non-operated joint venture spend to joint venture partners and tax and regulatory spend, was in the order of \$22 billion in the FY2009 reporting period.

Distribution by our businesses of our total spend on goods and services occurs at a local, national and international level. Local spend refers to spend within the communities in which we operate and the regions, such as states and provinces, where our operations are located. National spend refers to spend within the home country of operations, excluding local spend. International spend refers to spend external to the home country. Our approach is to source locally if a product or service that meets our requirements is available locally. In FY2009, 27 per cent of spend was with local suppliers.

Distribution of Supply Spend FY2009



● National (excluding local) 62%  
 ● Local 27%  
 ● External to home country 11%

## Socio-economic – economic

### Economic performance

The economic contribution we make to society is much more than the financial profits we derive. Our contribution includes the value that flows from the broader contributions of our operations, such as payments to our employees and suppliers and disbursements to governments, including taxes and royalties.

### Our financial performance

Selected financial information is presented in section 1.4.1 of our Annual Report 2009. The information presented in this section reflects the operations of the BHP Billiton Group, and should be read in conjunction with the FY2009 financial statements presented in the Annual Report, together with the accompanying notes.

We operate Customer Sector Groups aligned with the commodities that we extract and market. A summary of the Customer Sector Group revenues and results for FY2009 and the two prior corresponding periods is presented in section 3.6.2 of our Annual Report 2009.

As a diversified natural resources company, we extract and process minerals, oil and gas from our production operations, located primarily in Australia, the Americas and southern Africa. We sell our products globally, with sales and marketing taking place through our principal hubs of The Hague and Singapore. Section 3.1 of our Annual Report 2009 presents our revenue by location of our customers across the globe.

### Extractive Industries Transparency Initiative

Through its membership of the International Council on Mining and Metals, BHP Billiton supports the Extractive Industries Transparency Initiative (EITI).

EITI is a global initiative to improve governance in resource-rich countries through the verification and full publication of company payments to government and government revenues from oil, gas and mining. The Initiative works to build multi-stakeholder partnerships in developing countries in order to increase the accountability of governments.

Approximately 30 countries have now committed to the EITI principles and criteria, and made progress towards implementation. We are committed to supporting and cooperating in the implementation of Country-level EITI Work Plans as our host countries progress the initiative. In the interim, our payments to governments are disclosed on a regional basis.

### Economic value generated and distributed

Economic value generated and distributed, as defined in the Global Reporting Initiative (G3 guidelines), provides an economic profile or context for the reporting organisation and a useful picture of direct monetary value added to regional economies.

The measure includes revenues, operating costs, employee compensation, donations and other community investments, retained earnings and payments to capital providers and to governments. The breakdown of this amount by category is presented below and shows expenditure by region to help to quantify the regional economic contributions of the Group.

Region	Economic value generated US\$M		Economic value distributed US\$M					Economic value retained <sup>(1)</sup> US\$M
	Revenues <sup>(2)</sup>	Operating costs <sup>(2)(3)</sup>	Employee wages and benefits	Payments to providers of capital		Payments to government	Community investments	
	Revenue and other income	Payments to suppliers, contractors, etc.	Wages and benefits to employees	Shareholder dividends	Interest payments <sup>(4)</sup>	Gross taxes and royalties	Voluntary contributions of funds in the broader community	
Africa	5,961	3,220	513	354	44	796	19	1,015
Australia and Asia	30,989	13,379	2,503	2,723	24	5,086	50	7,224
Europe	3,305	2,041	197	1,480	111	382	60*	(966)
North America	3,408	1,620	530	6	314	251	4	683
South America	7,099	3,617	602	<1	96	1,425	65	1,294
Rest of the world				<1				
Total	50,762	23,877	4,345	4,563	589	7,940	198	9,250

\* Includes \$60 million contribution to BHP Billiton Sustainable Communities.

<sup>(1)</sup> Calculated as economic value generated less economic value distributed.

<sup>(2)</sup> Amounts include revenues and costs and are consistent with the Company's financial reporting of elements comprising underlying EBITDA. Underlying EBITDA is earnings before net finance costs and taxation, any exceptional items, and depreciation, impairments and amortisation. The amounts are determined on an accruals basis and extracted from the audited financial statements.

<sup>(3)</sup> Operating costs relate to expenses recognised in the financial statements. They include expenditure paid to suppliers and contractors for materials and services, and exclude community investment, employee wages and benefits, payments to governments, depreciation, amortisation and impairments.

<sup>(4)</sup> This is interest expense on debt for BHP Billiton, determined on an accruals basis.

In some instances, the taxation framework within which we operate reflects particular challenges faced by industry. We are not, however, aware of any of our businesses receiving direct financial support from governments.

## Socio-economic – economic continued

### Risk factors

We believe that, because of the international scope of our operations and the industries in which we are engaged, there are numerous factors that may have an effect on our results and operations. Section 1.5 of our Annual Report 2009 describes the material risks that could affect the BHP Billiton Group.

### Socio-economic impact assessment

We actively seek to understand our socio-economic impact on local communities and host regions through our participation in the International Council on Mining and Metal's multi-stakeholder Resource Endowment Initiative (REI). Launched in 2004 in partnership with the United Nations Conference on Trade and Development (UNCTAD) and the World Bank, the Initiative aims to enhance industry's socio-economic contribution to the countries and communities where companies such as BHP Billiton operate by better understanding the factors that either inhibit or promote social and economic development linked to large-scale mining projects.

### Superannuation and pension plans

#### Defined benefit pension scheme

The BHP Billiton Group has closed all defined benefit schemes to new entrants. Existing defined benefit pension schemes remain operating in Australia, the Americas, Europe and South Africa. Full actuarial valuations are prepared and updated annually to 30 June by local actuaries for all schemes. The Projected Unit Credit valuation method is used. The Group operates final salary schemes that provide final salary benefits only, non-salary related schemes that provide flat dollar benefits and mixed benefit schemes that consist of a final salary defined benefit portion and a defined contribution portion. The following sets out details in respect of the Group's defined benefit pension schemes.

	Australia US\$M	Americas US\$M	Europe US\$M	South Africa US\$M	Total US\$M
<b>Year ended 30 June 2009</b>					
Present value of funded defined benefit obligation	409	699	341	217	1,666
Present value of unfunded defined benefit obligation	7	63	–	–	70
(Fair value of defined benefit scheme assets)	(311)	(624)	(289)	(231)	(1,455)
(Surplus)/deficit	105	138	52	(14)	281
Unrecognised surplus	–	48	23	7	78
Adjustment for employer contributions tax	17	–	–	–	17
Net liability recognised in the balance sheet	122	186	75	(7)	376
<b>Amounts in the balance sheet as at 30 June 2009</b>					
Assets	–	–	(13)	(7)	(20)
Liabilities	122	186	88	–	396
Net liability recognised in the balance sheet	122	186	75	(7)	376
<b>Year ended 30 June 2008</b>					
Present value of funded defined benefit obligation	503	703	397	219	1,822
Present value of unfunded defined benefit obligation	6	61	–	–	67
(Fair value of defined benefit scheme assets)	(457)	(695)	(341)	(275)	(1,768)
(Surplus)/deficit	52	69	56	(56)	121
Unrecognised surplus	–	61	6	32	99
Adjustment for employer contributions tax	8	–	–	–	8
Net liability recognised in the balance sheet	60	130	62	(24)	228
<b>Amounts in the balance sheet as at 30 June 2008</b>					
Assets	(22)	–	–	(24)	(46)
Liabilities	82	130	62	–	274
Net liability recognised in the balance sheet	60	130	62	(24)	228

## Socio-economic – economic continued

### Defined benefit post-retirement medical schemes

The BHP Billiton Group operates a number of post-retirement medical schemes in the Americas and South Africa. Full actuarial valuations are prepared by local actuaries for all schemes. All of the post-retirement medical schemes in the Group are unfunded. The following sets out details in respect of the Group's post-retirement medical schemes. The amounts recognised in the 2009 balance sheet are as follows:

	Americas US\$M	South Africa US\$M	Total US\$M
<b>Year ended 30 June 2009</b>			
Present value of unfunded defined benefit obligation	165	145	310
Unrecognised past service credits	5	–	5
Net liability recognised in the balance sheet	170	145	315
Represented by:			
Assets	–	–	–
Liabilities	170	145	315
<b>Year ended 30 June 2008</b>			
Present value of unfunded defined benefit obligation	192	136	328
Unrecognised past service credits	–	–	–
Net liability recognised in the balance sheet	192	136	328
Represented by:			
Assets	–	–	–
Liabilities	192	136	328

# Detecting water leaks to help prevent furnace failure

## Australia

The Tasmanian Electro Metallurgical Company Pty Ltd (TEMCO), Australia's only manganese ferroalloy plant, began production in February 1962. Part of BHP Billiton Manganese the TEMCO plant is some 50 kilometres north of Launceston, Tasmania's second largest city and seven kilometres south of George Town at Bell Bay.

From four furnaces TEMCO produces some 250,000 tonnes of manganese alloy annually. Australian and international steelmakers use TEMCO alloys as essential additives in the production of steel.

### The challenge

As with similar arc furnaces, the four furnaces at TEMCO contain several elements that are cooled by water to protect them from extreme heat within the furnace. Water-cooled equipment within the TEMCO furnaces includes top components, the filler section, electrode clamps, copper flexibles and supply and return pipes.

Failure of a water-cooled component can result in water leaking into the furnace. Often such a leak can go undetected for some time, leading to a build-up of gases that can result in a catastrophic furnace explosion as the wet charge collapses into the molten metal and slag within the furnace. Such explosions have killed and injured workers at other sites, as well as severely damaging furnaces and surrounding plant.

Traditional approaches used to detect water leaks include flow meters fitted to cooling water systems, measuring hydrogen in the furnace off gas and observing trends in furnace operating parameters. Flow meters have limited application due to the high cost, low sensitivity and limited practicality within an operating industrial plant. Other traditional measurement systems are secondary indications and do not provide consistent or reliable indications of water leaks.

### The project

The TEMCO project team explored the potential for a highly sensitive and immediate method of detecting the presence of additional water from a failed component within an arc furnace. The method centred on accurately determining the level of water vapour in furnace off gases, with any variation above 'normal' levels providing a relatively fast indication that additional water was entering the furnace through a leak.

Over two years the team undertook research, including reviewing scientific literature, to identify a suitable method for detecting water vapour in the harsh environment of an arc furnace. Elements of the challenging detection environment included high dust load; high tar, carbon and other carbon volatiles; a temperature range from 300°C to 700°C; a pressure range of plus to minus 20 kilopascals; variable dust and fine size and density; large gas volumes and the presence of moisture and hazardous and highly combustible gases.

The selected measurement system needed to operate within this harsh detection environment and provide a reliable, repeatable, accurate, independent and precise measurement with high selectivity. The system also needed to have a maintenance interval at least equal to that of the gas scrubbers attached to the furnace off gas system.

The measurement system favoured by the project team is known as wavelength modulation spectroscopy, where the wavelength variations of light determine the presence and volume of a particular gas, to accurately measure water vapour levels in furnace off gases. All arc furnace off gases contain some water vapour, it is the sudden increases in vapour levels that indicate potentially dangerous water leaks.

After several trials and technology modifications, the final design was commissioned in February 2008.

### Achievements

Since commissioning the system has achieved a 100 per cent success rate in detecting eight out of eight water leaks in furnace top components. The system has provided early detection – within 30 minutes – of a water leak and has operated for eight months without the need for maintenance.

The system also provides a quantitative view of water vapour levels in the off gasses giving process engineers another valuable indicator in understanding and controlling the production process within a furnace.

Between June and October 2008 the system was fitted on the other three arc furnaces at TEMCO. The system will prevent injuries and save lives while reducing down time and having a positive impact on production through early intervention in regard to water leaks within a furnace.

# Using technology to engineer out workplace risk

## South Africa

BHP Billiton Energy Coal South Africa Ltd, owns and operates five coal mines in the Mpumalanga Province of South Africa. The Middelburg Mine, some 20 kilometres south of Middelburg, is the largest producer in the Energy Coal group. A joint venture between BHP Billiton (84 per cent) and Xstrata (16 per cent) the mine is managed by BHP Billiton.

An open-cut operation, the mine uses six large draglines to produce up to 17 million tonnes of coal per year from its number 2 and 4 seams. Power-station grade coal goes to Eskom's nearby Duvha power station, while higher quality export-grade products go to seaborne steam-coal markets. The mine employs some 1,800 people.

### The challenge

Condition monitoring and preventive maintenance are critical in ensuring availability of the mine's earth moving equipment. Condition monitoring inspections provide early warning of the potential for damage to equipment, or for failure of critical parts in the field.

The mine's off highway rear dumper haul trucks require routine inspection for wear on their rear axle support (king ball) and stabiliser bearings and pins. Inspections have to be undertaken while the truck is in motion. One of a two-person inspection team would need to sit in the cab, release the park brakes and move the dumper back and forth while the other team member would need to stand under the dumper between its tyres to observe the wear on the bearings and pins at the support and stabiliser while in operation.

Job safety analysis identified positioning a person under the truck during the inspection procedure presented a high level of risk. A lapse in concentration by the driver could result in the person between the tyres being driven over and killed.

### The project

In response to the job safety analysis, the work team covering the inspection process looked at ways to reduce risk to personnel when conducting condition monitoring on the 785 Rear Dumpers. Three other inspection methods were considered. One alternative, involving a hydraulic jack under the dumper, did not provide accurate findings. Another involved relocating the inspection position to above the area being inspected but under the raised dump tray – also presenting unacceptable levels of risk to the person observing the moving parts.

The team then explored a fourth inspection option that involved using technology to do away with the need for a second member of the inspection team to observe a dumper in operation – reducing any risk to personnel during a inspection.

The innovative approach involved using a portable video camera to record the moving parts and so eliminating the need for direct observation. The plan was to hold the camera and power supply in position under the machine using a strong magnetic base attached to the inspection equipment. Magnetic mounts would allow great flexibility in positioning the camera.

The inspection images would be sent by wireless transmission to a laptop computer within the truck cab. A Technical Analysis Technician within the cab could then easily and simply review the wear on the bearings and pins at the support and stabiliser while in operation.

Initial challenges in implementing the remote-camera inspection system centred on obtaining sufficiently strong magnets to hold the camera and battery pack in place, establishing the wireless connection, and achieving sufficient capacity in the battery pack to run the system for the duration of an inspection. The project team was able to overcome each of these challenges to produce a robust, flexible and simple-to-operate inspection tool. The camera and battery pack cost around US\$1,000.

This system means that only one person is required to do the inspection while the machine is in motion. The area that needs to be inspected while the machine is in motion is recorded on the laptop and analysed when inspection is completed and the machine stopped.

The portable video camera has removed the need to position a person underneath the haul truck for rear axle support testing.

### Achievements

The new system's benefits include:

- reducing any risk to personnel while they are undertaking inspections in line with BHP Billiton's principle of Zero Harm
- providing a permanent and accurate record of the inspection that can be forwarded to those responsible for equipment maintenance
- making the inspection process a one-person operation.

Use of the camera has become a standardised work method within the Technical Analysis Section at the Middelburg Mine.

A further system benefit is the ability to apply this inspection method to other potentially dangerous situations, including checking for oil leaks and inspecting fan bearings.

# An agreement between Cerrejón Coal and the Tabaco Relocation Committee

## Colombia

Located on the Guajira peninsula in northeast Colombia, South America, Cerréjón Coal produces high-grade thermal coal. Cerrejón has had long-standing community issues related to the acquisition of land from the community of Tabaco between 1997 and 2001. A number of community members refused the compensation package and sought alternative compensation arrangements.

### The challenge

In our 2008 sustainability report, we profiled Cerrejón's Independent Review of Social Performance. In 2007, a review was jointly commissioned by Cerrejón's shareholders and management with an objective of working with all community stakeholders to identify priorities, assess current programs and highlight areas of good performance or areas of concern, including outstanding resettlement issues.

One of the recommendations of the review was to address the current situation of all former residents of the Tabaco community through a consultative, participatory process.

### The project

The 2007 review panel was chaired by Dr John Harker, President of Cape Breton University in Canada. It consulted a wide range of stakeholders and produced a balanced set of generally favourable observations.

From August until December 2008, in response to the recommendations of the Independent Review, John Harker acted as independent facilitator for meetings between the Cerrejón team, led by Manager of Social Responsibility Julian Gonzalez, and the Tabaco Relocation Committee (TRC).

The meetings sought to reach a settlement with the TRC, widen the range of compensation beneficiaries and reunite those Tabaco former residents who wished to live in a new place where the town could be rebuilt.

### Achievements

As a result of the consultation process, an agreement was signed with the TRC, terminating completely and definitively all the disputes that arose in relation to the Tabaco case, in which Cerrejón committed to:

- pay additional compensation, under the custody of a financial entity, to families who had negotiated with the company and received compensation in the past or who had lived in Tabaco between 1997 and 2001, based on the criteria agreed upon by the TRC and Cerrejón
- pay compensation to individuals who had not reached agreements with the company or who had possessed lots of land in Tabaco
- buy a plot of land to be given to the municipality of Hatonuevo, which is legally responsible for reconstructing Tabaco
- build a community centre and deliver the initial engineering works necessary for the community to eventually build the new village

Under the agreement, contributions to payments of compensation total US\$1.8 million and another US\$1.3 million will be used for the acquisition of the plot, related infrastructure works and the construction of the community centre.

Following international standards, Cerrejón directly paid the legal expenses accrued by TRC representatives and also paid any taxes generated by the agreement.

Even though only a few former Tabaco residents may choose to live in a reconstructed village, we hope the new land remains their symbolic home. Cerrejón welcomes this reconciliation process and looks forward to a harmonious development of the community.

In May 2009, at the request of the TRC, Cerrejón participated in meetings in Boston and London with a broad range of interested parties and organisations. Cerrejón believes that these meetings contributed significantly to its goal of increasing transparency and building trust with its community stakeholders and the international institutions that work with them.

Cerrejón will actively continue to monitor the progress of all its public and internal commitments, always with the goal of being clearly perceived by the communities in La Guajira as both a good partner and a good neighbour. The company will continue to strive for the long-term sustainability of La Guajira; a sustainability that goes beyond that of coal mining.

# Creative thinking to remove potential health and safety risks

## Chile

In Chile's Atacama Desert, 170 kilometres southeast of Antofagasta, Minera Escondida produces copper from two open-cut mines – Escondida and Escondida Norte (five kilometres from Escondida).

The Company recently built a sea water desalination plant that supplies part of Minera Escondida's water requirements.

### The challenge

A run of six pairs of filters at the desalination plant need regular recharging with filtrate bed material. A creative approach to loading the filters was required to avoid the risks involved in the use of a mobile crane or working at heights or personnel having to enter, and work in, a confined space.

### The project

The task was to develop a procedure for recharging the filters that:

- eliminated working with a suspended load
- eliminated the need for personnel to manually level material within the confined space of a filter chamber
- eliminated the release of dust from the new filter material as it was handled
- reduced the need to work at heights and the associated risks
- reduced the number of personnel and time the task required.

The project team devised an alternative loading system that uses water to carry the pumice stone into the filter chamber and to automatically level the material as it is deposited inside the chamber.

The proposed system involved using an open tank, with a capacity of one cubic metre, mounted on large castor-style wheels and incorporating a submersible pump. The pumice and water mix in the open tank would be pumped, via a flexible hose, up into the filter chamber where the water would assist in distributing the material within the chamber. Only two people would be required to operate the system.

The team completed a design for the loading equipment, specifying all dimensions and characteristics. The design was then presented to management and approved. The last stage was to construct, install and test the equipment.

Controlling the flow and loading speed, presented a challenge, which was achieved through a frequency controller for the submersible pump.

### Achievements

The new loading system met the project aims of eliminating the need for a mobile crane or to work with suspended loads, in confined spaces or at heights. The new system also reduced dust and the number of personnel and time required for the task.

The system developed at the Antofagasta filter plant could be used to load a variety of filtrate bed material with low density and small grain size. The system could be used at similar facilities or where similar filter material needs to be loaded into filter chambers.

# Creating a safe work environment for the expansion of our gas plant in Pakistan

## Pakistan

When BHP Billiton Petroleum began a major expansion of its Zamzama gas plant in Pakistan to accelerate commercialisation of unallocated reserves, it faced the challenge of having a workforce with limited or no experience of construction sites or of effective occupational health and safety processes. At the end of the two-and-a-half-year project, besides achieving outstanding safety results, BHP Billiton was successful in transferring safe work processes to its contractor and the contractor's workforce.

The Zamzama gas plant, operated by BHP Billiton Petroleum, is located in Pakistan's Sindh Province, near the regional centre of Dadu and some 250 kilometres north of the capital, Karachi. Discovered in 1998, the Zamzama Gas Field was brought into production in mid-2003 with completion of the Phase 1 production facilities. The construction period of the second development phase was complete by 2007.

### The challenge

BHP Billiton faced major challenges: to develop awareness and acceptance of the need for workplace health and safety by its contractor's workforce, and to entrench Company health and safety standards within that workforce.

Specific challenges included:

- implementing workable and robust processes to address specific construction challenges
- achieving buy-in and accountability for effective occupational health and safety performance by the contractor's management team and by the workforce
- ensuring quick and effective implementation and maintenance of occupational health and safety processes
- training a large local workforce
- ensuring use of proper equipment and assisting local suppliers to provide highly complex equipment.

### The project

Contract documentation provided well-defined health, safety, environment and community requirements for specific construction activities. The BHP Billiton construction management team engaged the principal construction contractor, Descon, at an early stage by way of interactive pre-mobilisation hazard workshops.

The team worked tirelessly to promote system ownership by the contractor, which was responsible for developing, managing and maintaining health and safety processes. The team's intensive and at times, exhaustive, front-end actions – particularly during the early stages – included:

- maintaining a risk-based approach to management controls and implementation
- establishing systems for identifying hazards, evaluating risks, monitoring control effectiveness and closing out actions
- maintaining continuous front-line presence with the workforce
- establishing site-based information systems to provide rapid information retrieval and transfer by the contractor and BHP Billiton – eliminating, where possible, paper-file management of health, safety, environment and community areas on the project.

### Achievements

Despite a challenging environment that included a poorly developed local safety culture, the Zamzama Phase 2 Project was consistently among BHP Billiton's five best-performing sites for safety during its two-and-a-half year construction period.

With a site workforce approaching 1,200 at its peak, and more than four million hours worked, the project recorded no lost time injuries. The three injuries recorded during the two-and-a-half year construction period were a sprained ankle, a case of heat exhaustion and a cut finger requiring stitches. The remarkable safety results show what BHP Billiton's leadership, supported by the commitment of the contractor Descon and its workforce was able to achieve with focus and commitment.

The BHP Billiton team also promoted the transfer of health and safety learnings to projects beyond the Company's Pakistan operations to the contractor's wider activities across Pakistan. Workers, in turn, have taken safety concepts to their villages, communities and families – providing ongoing, sustainable benefits to those involved.

**'It has been great working at Zamzama knowing that I will be able to go home safely to my family when the job is finished.'**

Ghulam Murtaza Lashari  
*Rigging Supervisor, Descon Engineering Limited*

**'BHP was really a site that has made me responsible and careful in my home life as well as at work. The things I learnt at BHP site I am doing now – including wearing gloves, using harness, using certified rigging, doing JSA's and talking about [the] job with my supervisor before starting.'**

Muhammad Khan  
*Rigger, Descon Engineering Works*

**'All of us safety inspectors that have worked on Zamzama Phase 2 have had no trouble getting a job on another project – other companies in Pakistan know how safe it was at Zamzama and want us to show them how to do the same on their projects...'**

Mohammad Afzal Jamil  
*Safety Inspector, Descon Engineering Limited*

# Exploration under way at the Carroona Coal Project

## Australia

In 2006, BHP Billiton was granted an exploration licence to enable it to conduct exploration activities to determine the extent of a coal resource, undertake environmental and social impact assessment studies and potentially develop a mine proposal in the Gunnedah Basin of New South Wales, Australia. The exploration licence is located in an area that contains ridge country for grazing and forestry, fertile cropping land and deep alluvial irrigation aquifers that together form a rich agricultural resource. Working with local landholders, BHP Billiton has completed over 150 slimcore exploration bore holes and established numerous groundwater and environmental monitoring stations within the exploration area.

### The challenge

Some landholders in the area have actively voiced concerns relating to the effects of both exploration and a potential mine on the farming country and deep alluvial aquifers, and there has been substantial media interest in the project. Over the past year, a group of local residents has established a blockade to prevent BHP Billiton from accessing an exploration site on one of the landholder's properties.

Earlier in calendar year 2009, some landholders undertook legal proceedings against BHP Billiton in the NSW Mining Wardens Court with the aim of, among other things, preventing BHP Billiton from exercising its right under its exploration licence to access their properties to undertake exploration activity. The legal action was unsuccessful and BHP Billiton was granted access to the properties to conduct exploration drilling. The landholders have appealed this decision to the NSW Supreme Court. Also, an action group formed by local residents has commenced proceedings in the NSW Land & Environment Court against the NSW Minister for Mineral Resources and BHP Billiton challenging the validity of the grant of the exploration licence by the Minister.

### The project

BHP Billiton has been working with the local community throughout the Carroona Coal Project area to better understand and address concerns being raised about the potential effects of exploration and mining.

### Achievements

BHP Billiton undertook a review of its exploration and development plans and provided the New South Wales Government with recommendations to help address community concerns. The Government has announced amendments to the Special Conditions of BHP Billiton's Exploration Licence (EL6505) that will formalise BHP Billiton's commitment not to undertake any of the following activities in the area covered by the Exploration Licence:

- longwall mining underneath the deep alluvial irrigation aquifers
- longwall mining underneath the floodplain
- open-cut mining.

We will continue to work hard to engage with the local community to ensure their concerns are fully understood and addressed. This work is expected to take several years.

# Improving health and safety by recovering acid mist

## Chile

BHP Billiton's Minera Spence open-cut copper mine in Chile has implemented an initiative to improve health and safety factors associated with the electrowinning process.

The Minera Spence open-cut copper mine is in the Atacama Desert, 150 kilometres northeast of Antofagasta.

### The challenge

#### *Electrowinning*

Heap leaching crushed copper ore results in a copper-rich acid solution. Electrowinning is used to extract copper from that solution (electrolyte), which is poured into 'cells' within an electrowinning cell-house. Each cell also contains an anode and cathode. Electricity is passed from the anode through the electrolyte and deposits copper metal in layers on the cathode. The process produces acid mist over the cells.

Traditionally, personnel working in an electrowinning cell-house are protected by a combination of processes to capture the acid mist and ventilate the cell-house, and by using personal protection equipment.

The challenge at Minera Spence was to reduce the level of acid mist in the cell-house to protect the health of our personnel while automating and improving process efficiency.

### The project

#### *Acid mist control and recovery – Minera Spence*

The project involved installing hoods over the cells to capture acid mist vapour, direct it through piping to cleaning chambers where water sprinklers cool the vapour. Electrolyte in the acid mist is then recovered and clean air discharged into the environment. Each of six independent circuits would extract mist from 63 electrowinning cells.

Project team members visited four sites operating this type of acid mist recovery system as part of determining the feasibility of its implementation at Minera Spence.

Drawing on observations during the site visits, the project team established a baseline for technical analysis, and suggested a series of system enhancements to the system designers:

- optimising system performance by back-flushing the inside of the hoods with water to keep collection passages clean and free from sulphation and crystallisation of salts
- improving the design of the hood supports
- improving the automatic wash cycle
- creating pilot operating tests for the enhanced system.

In requesting modifications the project team was looking to enhance system reliability.

An important element of the Spence Project was total automation of internal aspects of the electrowinning process, which would reduce the exposure of our personnel.

Automation was incorporated into the collection, recovery and cleaning system design. Crane bridges that harvest the cathodes were adapted to the acid mist control system, so that the bridge automatically draws back the hood over the cell when it executes the harvesting cycle, and then the bridge repositions the hood over the cell so that it is once again sealed and controlling the mist.

### Achievements

#### *Acid mist control and recovery – Minera Spence*

The project reduced the exposure to acid mist of our personnel by reducing both emissions and the frequency of exposure.

The project has also led to improved operational performance and reduced costs by:

- recovering sulphuric acid and copper contained in the mist and returning it to the process
- reducing the amount of fuel needed to maintain electrolyte temperature
- providing a low-mist environment that allows operations within the cell-house to be automated
- reducing corrosion of equipment and structures in the cell-house as a result of exposure to acid mist and so reducing projected maintenance and protection costs.

The project used several technological improvements to achieve its objective of improved occupational health and safety. The project has also delivered a significant economic benefit.

# Water conservation and water recycling at EKATI

## Canada

Operating from mid-1998, the EKATI Diamond Mine (80 per cent owned by BHP Billiton Limited) is approximately 310 kilometres northeast of Yellowknife and 200 kilometres south of the Arctic Circle in Canada's Northwest Territories. The open-cut and underground operations are in a region of continuous permafrost with access only by air, other than for some 10 weeks each year when an ice road can be used. Annual sales from EKATI represent approximately 2.7 per cent of world rough diamond supply by weight and 5.3 per cent by value.

### The challenge

In order for the mine to be built, BHP Billiton had to first obtain government approval that the proposed project would not have a significant adverse effect on the surrounding environment and local communities. An Environmental Impact Statement was prepared by the Company to address those concerns.

As a sign of commitment to sustainable development and of environmental care, all operations at EKATI from grassroots exploration, to mining and processing ore, and running a remote camp are subject to a water management plan.

Effective water management at EKATI rests on intensive monitoring of water use and quality across the site, continually seeking improvements, and involving internal departments and external stakeholders.

### The projects

#### *Thickeners in the process plant*

An early example of resourcefulness at EKATI was installing specialised thickeners in the process plant. Extracting diamonds from ore is a mechanical rather than chemical process, which demands a large volume of water. Meeting this water demand is accomplished using recycled water from two streams: water recycled from the tailings containment facility (25 per cent of water demand) and water recycled through the thickeners within the process plant (75 per cent of water demand). Process plant control estimates that water is recycled between seven and 10 times through the thickeners before being discharged through the tailings line to the tailings containment facility.

#### *Rerouting of chloride-rich groundwater to the process plant*

The diamond-containing ore is rich in clay, making processing a challenge as the particles are very difficult to settle out in the thickeners. Calcium chloride is very effective in enhancing the settling process. But, rather than adding up to one tonne of the chemical into the processing plant each day, saline underground water, already rich in naturally occurring chloride, is directed to the process plant. As a result, no additional calcium chloride is needed.

A water line was also constructed to recycle saline water from the tailings containment facility to the process plant, as further insurance against the need to manually add calcium chloride.

#### *Dirty water system in the underground mines*

Ground water that flows into the underground mines naturally is pumped through a series of dual decant sumps – each consisting of a dirty and a clean water sump separated by up to three bore holes. Water flows into the dirty water sump where large particles begin to settle out, then the partially clarified water flows, under gravity, through the boreholes to the clean water sump where the smaller particles have time to settle out. Water from the clean water sumps is pumped to the main dual decant sumps on the 2300 level ready for distribution throughout the mine as service water.

### Achievements

Water conservation and recycling programs at the mine have reduced surface freshwater demand to less than two per cent of the total volume that would be required without these programs. Annual surface freshwater consumption for all EKATI operations is approximately 120,000 cubic metres. Demand would increase significantly if even one component of the water-recycling program was eliminated. For example, not recycling water from the tailings containment area for use in the process plant would increase annual water consumption to approximately five million cubic metres.

Using less water also reduces the volume of effluent discharged to the receiving environment and shortens the time over which that discharge occurs.

Water conservation and recycling are particularly important to those assets located in countries with limited water supplies.

# Addressing safety performance with a range of measures

## Australia

Sadly in FY2009, BHP Billiton Iron Ore in Western Australia lost five colleagues due to work related accidents across its Pilbara operations. Three contractors and two employees were killed in separate and unrelated incidents from July 2008 to March 2009.

### The challenge

The impact on the business and its people has been profound, with the President of BHP Billiton Iron Ore, Ian Ashby, apologising to all those affected and calling the business' safety performance 'unacceptable'.

BHP Billiton Iron Ore has conducted extensive reviews of its operations following its recent safety performance in Western Australia. In addition to this work, an independent expert investigation of safety systems at all its Western Australian Iron Ore operations has now been completed. The independent review was conducted under Section 45 of the Mines Safety and Inspection Act. The review commenced in October 2008 and was presented to the State Mining Engineer in April 2009. Similar actions were recommended by the independent review and the Company's internal reviews.

### The project

BHP Billiton Iron Ore is working hard to address safety performance at its Western Australian operations and has introduced a range of measures to strengthen its existing systems and processes with the aim of ensuring that the causes of previous incidents are understood and all necessary action to prevent further tragedies can be taken.

Such actions include the introduction of the BHP Billiton Catastrophic Risk Management process across BHP Billiton Iron Ore. Catastrophic Risk Management enables the business to identify catastrophic risks (i.e. potential single or multiple fatality events) and the critical controls that mitigate such risks and seeks to ensure the adequacy of those critical controls.

### Achievements

Examples of where these critical controls have been strengthened include:

- improving control of site access by electronically linking it to monitoring of individual worked hours to enhance the management of potential risks arising from worker fatigue
- enhancing site traffic management standards to reduce or eliminate where practicable the interaction of light and heavy vehicles in active mining areas through the redesign and introduction of physical barriers.

BHP Billiton recognises that good safety performance is an integral part of delivering good business performance and while the last 12 months have been challenging for us, we remain committed to eradicating workplace injuries at our sites.

# Classifying shale to prevent spontaneous combustion and explosions

## Australia

Mount Whaleback is part of BHP Billiton's Iron Ore operations in the Pilbara, in northwestern Western Australia. Production began at the open-cut Mount Whaleback in 1969 and continues today. BHP Billiton is the operator and holds an 85 per cent interest in the Mount Newman joint venture, with the other 15 per cent held by Mitsui ITOCHU Iron.

### The challenge

Pyritic shale, commonly known as black shale, found within the waste rock covering, and between layers of, ore-bearing rock at Mount Whaleback provides significant safety and environmental challenges.

Black shale exposed after blasting is subject to spontaneous combustion in the open-cut mine and in waste dumps, posing a fire and safety hazard.

There is also the potential for the black shale to react with ammonium nitrate fuel oil – which is used as an explosive at the mine – to detonate prematurely.

Emitting sulphur dioxide, the shale also presents environmental challenges. Acid rock drainage – resulting from rainwater oxidising the pyrite and subsequent forming of sulphuric acid – can lead to potentially severe environment damage and long-term financial liability.

### The project

The project aim was to explore the fundamental science associated with the black shale and to devise practical control techniques. The project was a collaborative effort between BHP Billiton Iron Ore and university research teams (initially from Curtin University of Technology and more recently from the University of Western Australia). Laboratory based scientific research was complemented by implementation support from Mount Whaleback Mine personnel.

Implementation involved an enormous effort by Professor Dong-ke Zhang – initially while at Curtin University and then the University of Western Australia – in undertaking education workshops and discussions with site personnel to transfer knowledge developed from his research to operation and management procedures.

#### *Spontaneous combustion*

A significant number of hot spots were identified and recorded in six major areas of the Mount Whaleback Mine, with their characteristics classified and grouped to provide vital input to waste storage and management plans. The 'hot spot' recording was complemented by research action including gas detection and analysis, temperature profile recording, detailed analysis of the process of spontaneous combustion and the important role of moisture in reducing the process – research that has led to effective in-field strategies to eliminate spontaneous combustion. Prior to implementation spontaneous combustion incidents were not uncommon at the Whaleback Mine, requiring the implementation of the Mine's Spontaneous Combustion safety protocols which include the use of personal protective equipment and exclusion zones around the affected area. Since implementation, spontaneous combustion incidents at the mine have fallen dramatically with only one event recorded during FY2008.

#### *Spontaneous explosion*

Again, extensive research led to the key in identifying which shale had the potential to combine with the ammonium nitrate fuel oil explosive used at the mine and lead to premature detonation. The identifier is the rock's pH level. Further research established a pH of 5.5 as the level below which ammonium nitrate fuel oil explosive should be replaced with an inhibited explosive.

### Achievements

The six year project has delivered multiple benefits. Using pH to determine shale reactivity to ammonium nitrate fuel oil has reduced the use of more expensive inhibited explosives, saving approximately A\$1 million annually, as well as reducing labour and improving productivity.

Completely eliminating spontaneous combustion in the waste rock dumps has improved safety by eliminating the risk of exposure to personnel and equipment from high temperatures, sulphur dioxide emissions and dump instability. It has also reduced the closure environmental liability and ongoing maintenance costs.

Shale and waste materials containing pyrite that is potentially acid forming needs more attention in relation to closure actions than inert shale and waste. Without the ability to accurately identify waste material that may result in acid rock drainage a further estimated 370 million tonnes of waste rock at Mount Whaleback would need to be treated as potentially acid forming and require encapsulation. Being able to accurately identify waste material that is potentially acid forming and that could lead to acid rock drainage issues has potentially reduced the estimate of material requiring encapsulation to less than 150 million tonnes. This has the potential to save the Company approximately A\$60 million.

The international scientific community has recognised the science behind this project through publication of *A mechanistic study into the reactions of ammonium nitrate with pyrite* within Chemical Engineering Science Journal 61 (2006).

Some of the project knowledge has already been applied to other iron ore operations including Yarrie, Orebody 23, Orebody 25 and approval documents for new iron ore operations as well as at BHP Billiton Stainless Steel Materials' (Nickel West) Mount Keith Operations.

# Developing a biological monitoring program to monitor the impact of acid mist

## Chile

At BHP Billiton's Cerro Colorado mine in Chile, a biological monitoring program has been undertaken to improve the understanding of health risks associated with the electrowinning processes.

Cerro Colorado is an open-cut copper mine in the community of Pozo Almonte, 12 kilometres from Mamiña and 120 kilometres east from Iquique in Chile's Region I.

### The challenge

Heap leaching crushed copper ore results in a copper-rich acid solution. Electrowinning is used to extract copper from that solution (electrolyte), which is poured into 'cells' within an electrowinning cell-house. Each cell also contains an anode and cathode. Electricity is passed from the anode through the electrolyte and deposits copper metal in layers on the cathode. The process produces acid mist over the cells.

Traditionally, personnel working in an electrowinning cell-house are protected by a combination of processes to capture the acid mist and ventilate the cell-house, and by using personal protection equipment. Exposure to acid mist is considered a potential cause of cancer of the larynx.

The health team at Cerro Colorado have taken up the challenge of developing a biological monitoring program to measure and evaluate the occupational health risk of workers exposed to acid mist, detecting the development of occupational diseases such as Laryngeal Cancer and, minimising risks through preventive measures.

### The project

The challenge was to produce a biological monitoring program that was efficient, cost-effective and produced reliable results.

With no Chilean Government occupational health strategy or regulations for such a biological sampling program or precedent within BHP Billiton, the Cerro Colorado health team set out to develop such a program from the beginning.

The team's innovative approach involved monitoring impact on the larynx from exposure to acid mist by videotaping each worker's airways, including their larynx. The resulting fibre-optic rhinolaryngoscopy would provide a digital database of original videos. Each person taking part in the program would receive a personalised report, while management would receive a statistical report.

Videotape monitoring of a participant's airways would be repeated at two year intervals.

The program can also help to identify potential for cancer of the larynx from its main causes of smoking, alcohol abuse and gastro-esophageal reflux.

A major challenge was gaining acceptance by personnel of a new and unknown examination. The solution involved explaining the program and its benefits, along with how the examination would be performed, to give personnel confidence in the program actions that gained their acceptance of the program.

### Achievements

Program achievements include:

- establishing a biological monitoring program where none existed and for which there was no government regulation
- providing a baseline for comparing the results of future examinations
- recognising a health concern by site personnel
- demonstrating that out of 100 per cent of all workers evaluated, none evidenced any alteration attributable to a tumour-like or neoplastic lesion of the upper respiratory system, which includes mouth, pharynx and larynx
- identifying six per cent of participants with signs of gastro-esophageal reflux.

The biological monitoring program developed by the Cerro Colorado Health team is cost effective and could be replicated.

# Designing a practical and ergonomically friendly meals area for underground miners

## Australia

BHP Billiton Mitsubishi Alliance (BHP Billiton interest being 50 per cent) owns and operates seven coal mines in Queensland's Bowen Basin, including the Gregory Crinum mine, 60 kilometres northeast of the rural centre of Emerald and 375 kilometres northwest of Gladstone. Gregory Crinum comprises the Gregory open-cut and Crinum underground mines. Operations at Gregory began in 1979, with the first shipment in 1980.

### The challenge

Miners in the Crinum underground mine work 12-hour shifts while wearing protective headgear and a belt with a total weight of some eight kilograms. Being able to remove this equipment, relax and recover during breaks is an important health and safety issue. The main opportunity for such recovery is in underground crib (meal) areas near their work areas.

Underground crib areas at Crinum Mine consisted of tables and metal benches mounted on an open skid base. The tables were directly under the mine roof. With no roof or ceiling above them, miners on a break were required to continue to wear their protective headgear and belts. The crib rooms did not have storage areas for food or equipment, or a food heating facility. Seating was vertically backed metal benches with limited access.

### The project

In replacing the crib areas, the project team faced the challenge of finding a design that would support maximum recovery for personnel. Elements the team identified as essential included:

- seating that supported good posture with minimal lower back stress to allow personnel, who perform quite heavy manual work over 12-hour shifts, to recover
- capacity to seat eight usually, with room for an additional three or four personnel for meetings
- a roof to allow personnel within the crib room to remove their protective headgear
- easy access to seating with space for belts to be undone and laid down to take weight off a person's hips to further aid recovery
- lighting to encourage correct posture, with less spinal stress, while eating or reading
- adequate clearances and dimensions for those using the crib room
- safe entry and exit through a low floor height
- reasonably slip resistance flooring
- the ability to relocate the crib easily.

The project team could not find a commercially available crib room design that met its ergonomic and health requirements.

Rather than compromising and selecting a commercial facility that did not meet its design requirements, the team set about finding a satisfactory solution. In pursuing its goals, the team involved miners who would use the new crib rooms, as well as staff from engineering and purchasing and representatives of the manufacturer.

### Achievements

An initial design, which continued the need for two modules to meet the required seating capacity, was discarded in favour of one for a single module. The team persevered through further design revisions and changes of supplier to achieve a crib room design that met its design brief.

The final design features several innovations driven by the project team including:

- providing adequate seating in one module rather than the pairs of seating used previously
- ensuring appropriate table height and clearance between backrest and table to minimise the tendency to lean forward while seated
- optimising the seat lumbar profile to reduce low back stress by 40 to 50 per cent when compared to upright profiles
- creating a meeting place and possible training environment
- providing protected storage for emergency equipment
- providing food warming facilities suitable for use in an underground coal mine.

The crib room can be moved into position using an underground loader fitted with a fork attachment. The crib room roof is then raised from its 'transport' position and locked into place. Once the unit has electricity connected it is ready for use.

The crib room design is suitable for use in many underground mines, and could be adapted into a fully enclosed trailer for use at surface mines.

# Emissions reductions and safety improvements result from a new startup procedure

## Mozambique

BHP Billiton operates the Mozal aluminium smelter (47.1 per cent interest) in the Boane district of southern Mozambique. The smelter is 17 kilometres from the capital of Maputo and exports through its dedicated berth and terminal facilities at Maputo's port city of Matola. Opened in September 2000 and expanded in 2003, the smelter uses AP35 technology to produce standard aluminium ingots and has an annual production capacity of approximately 576,000 tonnes.

### The challenge

Aluminium is smelted in carbon-lined pots. The pot lining acts as a cathode to complete an electrical circuit from the anodes, through the cryolite bath and to the metal being smelted.

Electricity flows from anode to cathode, generating temperatures averaging 963 degrees Celsius, to dissolve and reduce alumina (aluminium oxide) into liquid aluminium metal. The carbon-lining cathode, which also protects the pot walls and base from these high temperatures, gradually erodes during its 2,000-day\* service life. When cathode erosion reaches a critical level the pot is taken out of service and the cathode is relined completely before the pot is 'started up' again.

The smelting technology supplier at Mozal provided a defined pot startup procedure that included an 'anode effect', which emits perfluorocarbons with a greenhouse gas impact. One kilogram of perfluorocarbons corresponds to between 6,500 and 9,200 kilograms of carbon dioxide.

The challenge at Mozal was to devise a startup procedure that reduced those perfluorocarbon emissions.

### The project

The project team evaluated technical papers on 'anode effect'-free startup procedures, benchmarking smaller smelters using the technique and brainstorming ideas from physical measurement and trials during traditional startups. The result was a proposed startup technique that challenged their supplier's established methods.

The new startup method involves tapping liquid bath from neighbour pots and adding it to the pre-heated pot that is being started. At the same time that liquid bath is added to the pot, the anodes are pulled up, increasing the distance between anodes and cathode, in order to generate enough heat to achieve a steady state before normal operation.

The new startup method increases the anode-cathode distance in a controlled way in an effort to avoid a pot voltage of above 8.0 volts, which would cause the 'anode effect' and emit perfluorocarbon gases.

The procedure proved successful in eliminating the 'anode effect', thus reducing overall perfluorocarbon emissions. Fine-tuning on subsequent startups helped to perfect the procedure before it was handed to the operational teams, together with new written operating procedures and training.

Although the new method challenges traditional thinking, plant operators adopted it quickly as its benefits and improved work conditions became apparent.

### Achievements

The new system is safer, with fewer emissions and much less heat dissipation from the pot. Manual processes have been eliminated, which has helped create a safer work environment.

Specific environmental, health and safety benefits include:

- a 20 per cent reduction in perfluorocarbon gas emissions, corresponding to a three per cent reduction in total carbon dioxide equivalent emissions in the potlines, not including emissions associated with electricity generation
- a 0.4 per cent reduction in anode assembly use with further reductions in carbon dioxide emissions
- a reduction in fluorinated emissions during anode recycling
- eliminating the need to manually charge a pot with 800 kilograms of alumina in 15 kilogram bags to kill the anode effect (a task that has led to back-strain injuries and with the potential for bath-splash injuries)
- eliminating the need to manually charge a pot with 500 kilograms of soda ash in 25 kilogram bags (again, also eliminating potential injuries)
- eliminating the need to insert several green tree poles as part of actions to mitigate the anode effect (again, also eliminating potential injuries)
- enabling safer feeder installation, while a pot is much cooler and with no significant gaseous emissions
- achieving full anode cover five days sooner, and further reducing fluorinated gas emissions and anode oxidation
- reducing exposure of startup personnel to fluoride emissions and dust.

There are also cost related benefits such as lower energy use and anode costs, eliminating the need to purchase and repair special startup hoods with holes and the use of tree poles during startup, eliminating alumina bagging costs and soda ash costs, and possible gains in pot service life. All of these benefits have been achieved by a project that had no implementation costs.

\*Pot service life of 2,000 days is approximate.

# Mine Closure – treating acid rock drainage using an in-lake biological treatment process

## Canada

The Island Copper Mine, on the northern coast of Vancouver Island in the Canadian province of British Columbia, operated from 1971 to 1995. The open-cut mine produced copper, gold, silver molybdenum and rhenium.

After 27 years of ore extraction, implementation of the site closure plan began in 1996, with the objective of reclaiming the disturbed lands to habitat suitable for wildlife.

### The challenge

The ability to develop and implement successful mine closure plans plays a pivotal role in BHP Billiton's ability to maintain its social licence to operate. A major element of the Island Copper Mine closure plan was flooding of the open-pit with some 240 million cubic metres of sea water and capping that sea water with a layer of freshwater from a nearby river. The use of salt water with an overlay of freshwater created conditions for meromixis – this is where the water in a lake remains in separate layers and those layers do not mix. Both the lower layers and the top layer receive acid rock drainage requiring treatment. The water in these layers is treated using an in-lake biological treatment process.

The challenges that the site are successfully managing include the large volume of water to be treated (with annual runoff of some nine million cubic metres), the sensitive nature of the marine receiving environment, and the site's relatively remote location.

To improve the ability to manage mine drainage, site reclamation efforts have included recontouring waste rock piles, capping them with soil and planting more than half a million trees. The older planted sites are beginning to reflect the natural diversity of plants within the area and wildlife is returning.

The site is subject to permit conditions that mandate low metal levels in the capping layer of the pit lake into which millions of cubic metres of mine drainage flow annually. The site has met its discharge limits during operation and throughout closure.

The ongoing challenge is to manage metals from the acid rock drainage that occurs when rainwater drains off waste rock dumps around the pit lake. The runoff is directed to the pit lake.

### The project

The site closure plan is based on using the pit lake for water management and water treatment. It involves growing phytoplankton cells as part of a biological treatment system for metals in the fresh water layer. The cells are tiny plants that are too small to see individually without magnification, but together appear as a green discolouration in the water. As the phytoplankton bloom in the freshwater layer, metals stick to the surface of these cells. The cells then sink through the sea water layer to the lake bed, taking the 'stuck' metals out of the top layer.

A boat is used to add liquid fertiliser to the lake surface year-round to promote continuous operation of the treatment engine (the phytoplankton bloom). The annual cost of the liquid fertiliser used at Island Copper is US\$60,000, an inexpensive approach compared to an alternative, such as a lime neutralisation system, that would cost approximately US\$5 million to establish and more than US\$800,000 per annum to operate. The low cost, semi-passive, biological treatment using fertiliser is extremely effective in maintaining the concentration of dissolved metals within the limits imposed by the mine's permit.

In 2007, we undertook a small scale field test to gauge the effectiveness of automating fertiliser delivery to the pit lake and have planned a larger scale test to further prove the concept. If successful, we will implement automation and remove the risk to personnel of having to use a boat to fertilise the lake. We see this as a step on the path to Zero Harm.

In 2004, a risk-based closure plan addendum identified an emerging issue. The border between the underlying sea water and the capping freshwater was rising, jeopardising water quality compliance for the lake. We commissioned studies to examine mitigation options and trialled water management options. Pilot tests confirmed that a viable and practical option was to manage the internal distribution of water within the lake, effectively manipulating the physical structure of the water column. This new system was designed to improve the existing in-lake biological treatment without requiring external power. The system, coined the Middle Layer Lifting system because it lifts water from the middle layer into the top layer, was successfully commissioned during 2005.

Detailed monitoring confirms that the pit lake biological treatment and Middle Layer Lifting system are performing as intended.

Acid rock drainage is a serious and complicated environmental issue for metal mines, and its successful treatment at Island Copper using an engineered pit lake has not only significantly reduced the cost of treatment, it has also provided a highly effective way to meet the site's permit requirements. The success in managing these issues at Island Copper has allowed BHP Billiton to maintain its social licence to operate, particularly in the communities associated with this former mine.

The Island Copper pit lake is at the forefront of pit lake design and monitoring, and is being emulated in other mine closures. Experience at Island Copper has led to the development of pit lake designs and research plans to predict the performance of future pit lakes associated with other mine closure plans.

# Managing excess water to provide a community asset

## South Africa

Underground coal mining at South Witbank dates from around 1890. During the life of this mine, an area of just under 1,700 hectares was mined using the board and pillar methods at depths of between 30 and 90 metres. Underground mining ceased in August 1969. An open-cut mine, covering some 10 hectares, operated between 1989 and 1991.

BHP Billiton Energy Coal South Africa (BECSA) also operates the open-cut Middelburg Mines, 35 kilometres southeast of eMalahleni, which produces energy coal. Anglo Coal operates several mines in the area. The mines form part of the Highveld Coalfield.

### The challenge

Water has been percolating into the underground workings at South Witbank since mining ended during 1969. By 1997, all the underground workings that could be flooded were, and water started decanting from the mine. This water is highly saline; with calcium and magnesium sulphate salts; and is acidic with high concentrations of iron, aluminium and manganese and so needs to be managed.

A pre-feasibility study, completed during 2004–05, investigated the excess water problems faced by mining companies in the Highveld Coalfield. The study included a dynamic underground water model, developed by the Institute of Groundwater Studies of South Africa's University of the Free State. The model, which could be continuously updated and verified with changing mining environments, was able to determine the volume of stored water and of excess water production.

The study showed a clear need to manage excess water through joint efforts between mining companies in the area, and also identified an opportunity to supply drinking-quality (potable) water to local municipalities.

### The project

In 2002, BECSA and Anglo Operations Limited, acting through its Anglo Coal division (Anglo Coal) signed a joint initiative agreement to work together to find a solution to manage water across the Highveld Coalfield.

A product of that agreement, the eMalahleni Water Reclamation Project is a pioneering private/public partnership that includes the eMalahleni (previously Witbank) Local Municipality. The project aim was to remove water from the underground workings of four mines, the closed BECSA South Witbank mine and three operating Anglo Coal mines, and to desalinate it to provide a potable water supply to the municipality's water-stressed reservoirs.

Anglo Coal and BECSA provided equal contributions to fund a feasibility study to examine the project's technical, institutional, regulatory, financial and stakeholder engagement aspects. An important management role was to convince municipalities to accept treated mine water to help meet their growing water shortages.

The project partners were also required to secure the buy-in of several government departments and to coordinate and consult frequently with bodies including the Department of Water Affairs and Forestry, the Department of Minerals and Energy, and the Mpumalanga Department of Agriculture and Land Affairs.

An environmental impact assessment completed in early 2005, public participation, and a positive Record of Decision granted by the Mpumalanga Department of Agriculture and Land Affairs in November 2005 enabled construction to begin.

Our earlier case study on the eMalahleni Water Reclamation Project, in 2006, outlined pre-construction progress on the project, which was jointly managed by Anglo Coal and BECSA. Anglo Coal provided capital funding to construct the water reclamation plant including pumping stations, a treatment plant, storage dam and water distribution pipeline to the municipal reservoirs.

The plant treats and converts acidic mine water to a quality suitable for drinking. The researchers, engineering teams and decision-makers involved in the project drew on extensive research to deliver a unique plant design that recovers 99 per cent potable water from surface and underground mine water.

The project began supplying potable water to the eMalahleni Local Municipality on 1 October 2007. Officially opened on 21 November 2007, the plant has achieved design capacity of 14 million litres per day, increasing to 20 million litres per day by January 2009. It is able to supply 20 per cent of the local community's daily water requirements.

### Achievements

The project addresses the environmental challenges associated with water discharge from operating and closed mines while benefiting the local community by supplementing its currently low domestic water supply and helping to meet its growing, commercial and industrial water needs. For BECSA this project provides a long-term, sustainable solution to managing highly saline and acid water decanting from the now closed South Witbank Colliery.

The project has set a benchmark for treating mine water, with a similar project being investigated in South America. The project may also be a model for managing excess mine water at BECSA's Middelburg Mines and Douglas Colliery.

# Contributing to poverty relief in rural Peru

## Peru

Antamina produces copper and zinc concentrates from an open-cut mine in the Andes Mountains in the Huari province, Ancash, some 270 kilometres north of the Peruvian capital, Lima. Antamina is owned by Compania Minera Antamina SA, in which BHP Billiton holds a 33.75 per cent interest. Antamina is the operator of the mine.

Antamina signed an individual agreement with the Peruvian Government to contribute 3.75 per cent of the company's after-tax profits to the Antamina Mining Fund. Established in December 2006 – by the government and the mining industry – the independent Fund is a five-year general contribution program to enhance corporate support for social programs in the poorest areas of Peru that host mining operations.

In our 2008 Sustainability Report we presented a case study on the Fund's first ten months of operation to December 2007. During that period the Fund approved 178 projects – worth a total of US\$42.7 million – in four fields; health and nutrition, education, developing productive skills and strengthening institutions.

The Fund's Economic Development Program aims to link micro, small and medium-size entrepreneurs and farmers to:

- Markets – be they local, regional, national or international
- Training – in technical and managerial areas
- Financing – developing a credit culture while strengthening the financial sector.

### The challenge

Many economic development programs in Peru have concentrated on technical training without sufficient regard to markets, managerial training and formal financing. An example is a small-scale trout farmer whose fish farm was funded by a non-government organisation that left the area before linking him to a market. Poverty Relief and Alleviation personnel determined that his water source was polluted and so his product could not meet national or international buyer standards, requiring him to reconstruct his farm using a clean water source, a change that wasted several years of his hard work.

In this case study, we are reporting on one project – Poverty Relief and Alleviation – an economic development program that connects small producers to national and international markets.

Established in May 2007, the Poverty Relief and Alleviation project involves 18 agriculture and tourism products. With a budget of \$531,699 the project aim was – in its initial 16-month phase to September 2008 – to achieve \$1.2 million in sales and create 1,000 jobs.

### The project

To jump-start the Poverty Relief and Alleviation project, the Antamina Mining Fund sought partners with proven expertise to assist with implementation. Project partners include the United States Agency for International Aid (USAID), the Peruvian Government and Chemonics International. The project involves five steps:

1. Building trust with a national or international buyer that leads, through negotiation, to a sales contract.
2. Finding local farmers or businesses willing to improve their products or services to enable them to fulfil the sales contract.
3. Providing the farmer or business with skills training that will enable them to meet the buyer's needs.
4. Encouraging financing and investment from the buyer, microfinance institutions, municipalities and non-government organisations.
5. Recording the resulting sales growth and job creation among poor, previously unlinked farmers, business owners and workers – helping to graduate the farm or business to sustainability.

By starting with a contract for a product, the local producer undertaking to supply the product can be more confident of a market and of the price they will receive for their crop or product. Such certainty enables producers to plan both their production and their use of the funds they will receive. The local producers are not growing crops or producing products, with only the hope of sales and not knowing what they will earn, until a sale is made.

The project also encourages the growing of native Andean species for environmental, cultural and economic reasons. An example is farming the tara tree. The tree requires little water, withstands high altitudes, can be harvested in four years and is economically viable for 25 years. Part of the tree's roots are harvested and processed to provide natural leather dyes that are highly favoured by European buyers.

Another example is farming kiwicha, a native grain that is more nutrient-rich than imported grains such as wheat. Recognition of the advantages associated with kiwicha also helps to build self-esteem among local people.

Other products include farmed fish, sheep and cow skins, wool, paprika, jalapeños and avocados.

### Achievement

In its successful first phase, the Poverty Relief and Alleviation project generated sales of US\$3 million and created 1,187 jobs in the 16 months from May 2007 to September 2008. The project has more than met the sales targets set back in 2007. Against budget, the project has achieved greater than a five to one return. The project offers an easily and readily replicable and cost-effective model that can be introduced to other communities in need of poverty relief.

# Retirement as a productive stage of life

## Colombia

BHP Billiton's 99.9 per cent owned Cerro Matoso SA is an integrated nickel mining and smelting operation located near the town of Montelíbano, in the northern Colombia province of Córdoba. Commercial production began in 1982. Some 950 employees and 1,000 contractors work at Cerro Matoso.

### The challenge

While employees may approach retirement with a sense of joy and freedom, they can also feel sad, fearful, uncertain, lonely or abandoned. For many, work helps to organise their life, offering structure and opportunities to socialise. Work-based friendships can be so significant that they add to difficulties and sense of loss associated at retirement. Work can also be a refuge from other life problems and pressures.

Those approaching retirement can feel anxious about moving from wages to a pension, being less physically active and staying healthy, becoming unproductive, losing social networks and spending much more time at home.

### The program

In 1998, under its Employee Assistance Program, Cerro Matoso designed a special preparation program for workers who are within five years of retiring. The Retirement as a Productive and Creative Stage of Life program offers those workers, their spouses and children guidance and training to help them face this new stage of life.

#### Program stages

##### Stage one

The vital first stage of the program involves psychosocial interviews with the participating pre-retirees, their families and supervisors. The process involves formal interviews, informal conversations and home visits to produce an individual profile of the pre-retiree and their family's expectations and needs.

##### Stage two

The second stage of the program helps participants to address five key areas through questionnaires, interviews and workshops:

1. Understanding and managing change – particularly in relation to free time, and changing spouse and family relationships and finances.
2. Medical aspects – diet and being active and health conscious.
3. Proper use of time – such as participating in physical and mental activities.
4. Managing finances and family resources – budgeting and identifying income sources.
5. Legal aspects – retired worker status, and social security and pension access.

##### Stage three

The third stage of the program involved evaluation and feedback.

##### Stage four

The fourth stage of the program offered closure through the 'ritual' of a retirement ceremony.

##### Stage five

Final report.

##### Stage six

Four to five months after the program there is a follow-up with the retirees and their families as well as group activities.

The main program involves 136 hours of activity over two months. The program cost is less than US\$500 per participating retiree.

### Achievements

Programs have been run in 1998, 2000, 2005 and 2007, with a total of 238 workers participating. Some initial resistance to take part was overcome in later programs by involving most workers' families.

The program provides opportunities for those approaching retirement to talk freely about their attitudes, fears and needs associated with retirement. Group discussions enable participants to appreciate they are not alone and provide opportunities to learn from each other and to express their feelings.

Participants are also provided with professional and personal support to help them understand the changes ahead, identify their strengths and where assistance is needed, help them manage their work, social and family lives into retirement. The program addresses the grieving process as linked to retirement – such as identifying and validating any losses.

Hearing active retirees outline their family and recreational activities, projects, and how they use their knowledge and experience as volunteers or to support social campaigns helps to dispel retirement as a period of boredom or inactivity.

Equally important is involving spouses and families to help them appreciate the profound change involved. Such involvement is critically important in formulating life plans – or evaluating and strengthening existing plans.

The program helps those approaching retirement to realise that, with preparation, retirement can be a dignified, productive and creative stage of life. In a reflection of the program's popularity, participants have suggested that it be open to all workers during their career.

As a formal, structured, program Retirement as a Productive and Creative Stage of Life could be implemented at any worksite with people close to retirement. With modification, the program could also prove valuable in association with dismissals, layoffs or restructuring.

# GRI Navigator

## Net Balance Global Reporting Initiative (GRI) G3 Assessment for BHP Billiton



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### 1. Strategy and Analysis

Profile Disclosure	Description	Reference	Report Status
1.1	Statement from the most senior decision-maker of the organisation.	Annual Report – Section 1: Chairman’s Review; Chief Executive Officer’s Report Sustainability Framework: Foreword (p. B)	●
1.2	Description of key impacts, risks, and opportunities.	Annual Report – Section 1: Key Information Supplementary Information: Our Stakeholders (pp. 5–8) Summary Report: Sustainability at BHP Billiton (pp. 4–5)	●

### 2. Organisational Profile

Profile Disclosure	Description	Reference	Report Status
2.1	Name of the organisation.	Annual Report – Section 1: 1.4 Selected key measures	●
2.2	Primary brands, products, and/or services.	Annual Report – Section 1: 1.4.2 Operational information	●
2.3	Operational structure of the organisation, including main divisions, operating companies, subsidiaries, and joint ventures.	Annual Report – Section 1: 1.1 Our business	●
2.4	Location of organisation’s headquarters.	Supplementary Information: Our Approach to Sustainability Reporting (p. 1)	●
2.5	Number of countries where the organisation operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	Summary Report: BHP Billiton locations (p. B, C)	●
2.6	Nature of ownership and legal form.	Annual Report – Section 1: 1.1 Our business Annual Report – Section 5: 5.1 Governance at BHP Billiton and 5.2 Shareholder engagement	●
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	Supplementary Information: Social Responsibility: Product Stewardship – Customers (p. 24) Summary Report BHP Billiton locations (p. B, C)	●
2.8	Scale of the reporting organisation, including: number of employees; net sales; total capitalisation broken down by debt and equity; and quantity of products or services provided.	Annual Report – Section 1: 1.1 Our business, 1.4.1 Financial information, 1.4.2 Operational information Summary Report: Sustainability Performance Data Summary (p. 20,21)	●
2.9	Significant changes during the reporting period regarding size, structure, or ownership including: number of employees; net sales; total capitalisation broken down in terms of debt equity; and quantity of products and services provided.	Supplementary Information – Report Boundary (p. 2) Annual Report – Section 1: 1.4.1 Financial information	●
2.10	Awards received in the reporting period.	Summary Report: Back Cover (p. 21)	●

Annual Report = BHP Billiton Annual Report 2009  
 Summary Report = Sustainability Summary Report 2009  
 Sustainability Framework = Our Sustainability Framework 2009  
 Supplementary Information = Sustainability Supplementary Information 2009

● Conformance      ● Partial Conformance      ◀ Not Reported      ■ Not Applicable

# GRI Navigator *continued*

## Net Balance Global Reporting Initiative (GRI) G3 Assessment for BHP Billiton

### STANDARD DISCLOSURES PART I: Profile Disclosures – continued

3. Report Parameters			
Profile Disclosure	Description	Reference	Report Status
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	Supplementary Information: Report Boundary (p. 2)	●
3.2	Date of most recent previous report (if any).	Supplementary Information: Materiality (p. 3)	●
3.3	Reporting cycle (annual, biennial, etc.)	Supplementary Information: Materiality (p. 3)	●
3.4	Contact point for questions regarding the report or its contents.	Supplementary Information: Our Approach to Sustainability Reporting (p. 1)	●
3.5	Process for defining report content.	Supplementary Information: Report Boundary (p. 2), Materiality (p. 3)	●
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	Supplementary Information: Report Boundary (p. 2), Materiality (p. 3)	●
3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	Supplementary Information: Report Boundary (p. 2), Materiality (p. 3)	●
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organisations.	Supplementary Information: Report Boundary (p. 2)	●
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	Supplementary Information: Report Boundary (p. 2)	●
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g. mergers/acquisitions, change of base years/ periods, nature of business, measurement methods).	Annual Report – Section 1: 1.4.1 Financial information	●
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	Summary Report: Report scope and data (p. D) Compared with the 2008 report, there were no material changes to the reported scope, boundary or measurement methods applied in the report	●
3.12	Table identifying the location of the Standard Disclosures in the report.	GRI Navigator	●
3.13	Policy and current practice with regard to seeking external assurance for the report.	Summary Report: About this report (p. D) Supplementary Information: Assurance Statements	●

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 Supplementary Information = Sustainability Supplementary Information 2009

● Conformance

● Partial Conformance

◀ Not Reported

■ Not Applicable

# GRI Navigator *continued*

## Net Balance Global Reporting Initiative (GRI) G3 Assessment for BHP Billiton

### STANDARD DISCLOSURES PART I: Profile Disclosures – continued

4. Governance, Commitments, and Engagement			
Profile Disclosure	Description	Reference	Report Status
4.1	Governance structure of the organisation, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organisational oversight.	Annual Report – Section 5: BHP Billiton Governance Assurance Diagram, 5.5 Board Committees	●
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	Annual Report – Section 5: 5.3.4 Chairman	●
4.3	For organisations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	Annual Report – Section 5: 5.3.2 Membership	●
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	Annual Report – Section 5: 5.1 Governance at BHP Billiton, 5.2 Shareholder engagement	●
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organisation's performance (including social and environmental performance).	Annual Report – Section 5: 5.3.8 Induction and training and 5.3.10 Remuneration Supplementary Information: Sustainable development governance (p. 9)	●
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	Annual Report – Section 5: 5.3.5 Independence	●
4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organisation's strategy on economic, environmental, and social topics.	Annual Report – Section 5: 5.3.1 Role and responsibilities, 5.5.3 Nomination Committee Report, 5.5.4 Sustainability Committee Report	●
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	Annual Report – Section 5: 5.7 Management Supplementary Information: Governance (pp. 9–10)	●
4.9	Procedures of the highest governance body for overseeing the organisation's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	Annual Report – Section 5: 5.7 Management Supplementary Information: Governance (pp. 9–10)	●
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	Annual Report – Section 5: 5.3.1 Role and responsibilities, 5.5.4 Sustainability Committee Report	●
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organisation.	Supplementary Information: Governance (pp. 9–10)	●
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organisation subscribes or endorses.	Supplementary Information: Our public commitments (p. 4)	●
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organisations in which the organisation: Has positions in governance bodies; Participates in projects or committees; Provides substantive funding beyond routine membership dues; or Views membership as strategic.	Supplementary Information: Our public commitments (p. 4), Our Stakeholders (pp. 5–8)	●
4.14	List of stakeholder groups engaged by the organisation.	Supplementary Information: Our Stakeholders (pp. 5–8)	●
4.15	Basis for identification and selection of stakeholders with whom to engage.	Supplementary Information: Our Stakeholders (pp. 5–8)	●
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Supplementary Information: Our Stakeholders (pp. 5–8)	●
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting.	Supplementary Information: Our Stakeholders (pp. 5–8)	●

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Summary Report = Sustainability Summary Report 2009

Sustainability Framework = Our Sustainability Framework 2009

Supplementary Information = Sustainability Supplementary Information 2009

● Conformance      ● Partial Conformance      ◀ Not Reported      ■ Not Applicable

# GRI Navigator continued

## Net Balance Global Reporting Initiative (GRI) G3 Assessment for BHP Billiton

### STANDARD DISCLOSURES PART II: Disclosures on Management Approach (DMAs)

G3			
DMA	Description	Reference	Report Status
DMA EC	Disclosure on Management Approach EC – Economic performance, market Presence, indirect economic impacts, Key successes and shortcomings, major organisational risks and opportunities, major changes in the reporting period to improve performance and key strategies for implementing policies or achieving performance.	Annual Report – Section 1: 1.3 Chief Executive Officer's Report, 1.4.1 Financial information, Risk Factors Supplementary Information: Our successes and challenges (p. 4), Governance (pp. 9–10)	●
DMA EN	Disclosure on Management Approach EN – Management approach around the key environmental aspects, goals and performance, and policy.	Annual Report – Section 1: 1.2 Chairman's Review Annual Report – Section 5: 5.3.1 Role and responsibilities, 5.5.4 Sustainability Committee Report Supplementary Information: Our successes and challenges (p. 4), Governance (pp. 9–10), Sustainability Framework: Environment (pp. 8,11) Summary Report: Environment (p. 13)	●
DMA LA	Disclosure on Management Approach LA – goals and performance, policy, organisational responsibility, training and awareness, procedures related to monitoring and corrective and preventative actions.	Annual Report – Section 1: 1.2 Chairman's Review Annual Report – Section 5: 5.3.1 Role and responsibilities, 5.5.4 Sustainability Committee Report Supplementary Information: Our successes and challenges (p. 4), Sustainable Development Governance (pp. 9–10), Safety (p. 15) Summary Report: Safety (pp. 10,11) Sustainability Framework: Health and Safety (p. 5), targets (p. 11)	●
DMA HR	Disclosure on Management Approach HR – goals and performance, policy, organisational responsibility, training and awareness, monitoring and follow-up, key successes and shortcomings, major organisational risks and opportunities, major changes in the reporting period to systems and structures to improve performance, key strategies and procedures for implementing policies or achieving goals.	Annual Report – Section 1: 1.2 Chairman's Review Annual Report – Section 5: 5.3.1 Role and responsibilities, 5.5.4 Sustainability Committee Report Supplementary Information: Our successes and challenges (p. 4), Governance (pp. 9–10), Social Responsibility – Community (pp. 20–21) Summary Report: Social Responsibility – Human Rights (pp. 18,19) Sustainability Framework: Community relations (p. 9), Human rights (p. 10)	●
DMA SO	Disclosure on Management Approach SO – goals and performance, policy, organisational responsibility, training and awareness, monitoring and follow-up, key successes and shortcomings, major organisational risks and opportunities, major changes in the reporting period to systems or structures to improve performance.	Annual Report – Section 1: 1.2 Chairman's Review Annual Report – Section 5: 5.3.1 Role and responsibilities, 5.5.4 Sustainability Committee Report Supplementary Information: Our successes and challenges (p. 4), Governance (pp. 9–10), Security, Emergency Response and Business Continuity (p. 11) Summary Report: Social Responsibility (pp. 18,19) Sustainability Framework: Community relations (p. 9), Human rights (p. 10)  BHP Billiton does not mine alluvial gold or alluvial diamonds and has no significant interaction with artisanal miners.	●
DMA PR	Disclosure on Management Approach PR – goals and performance, policy, organisational responsibility, training and awareness, monitoring and follow-up, key successes and shortcomings, major organisational risks and opportunities, major changes in the reporting period to systems or structures to improve performance, key strategies and procedures for implementing policies or achieving goals.	Annual Report – Section 1: 1.2 Chairman's Review Annual Report – Section 5: 5.3.1 Role and responsibilities, 5.5.4 Sustainability Committee Report Supplementary Information: Product Stewardship (p. 22)	●

Annual Report = BHP Billiton Annual Report 2009  
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 Supplementary Information = Sustainability Supplementary Information 2009

● Conformance      ● Partial Conformance      ◀ Not Reported      ■ Not Applicable

# GRI Navigator *continued*

## Net Balance Global Reporting Initiative (GRI) G3 Assessment for BHP Billiton

### STANDARD DISCLOSURES PART III: Performance Indicators

Economic			
Performance Indicator	Description	Reference	Report Status
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	Supplementary Information: Our financial performance (p. 25), Economic value generated and distributed (p. 25), Social responsibility – community (p. 20) Annual Report – Section 1: 1.4.1 Financial information Summary Report: Sustainability Performance Data Summary (p. 20) BHP Billiton will work to provide information on land use payments next year	●
EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change.	Supplementary Information: Our successes and challenges (p. 4) Annual Report – Section 1: 1.5 Risk factors, 1.2 Chairman's review	●
EC3	Coverage of the organisation's defined benefit plan obligations.	Supplementary Information: Defined benefit pension scheme (p. 26)	●
EC4	Significant financial assistance received from government.	Supplementary Information: Socio-economic – Economic performance (p. 25)	●
EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.	Supplementary Information: Socio-economic – Supply (p. 24). This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	●
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	Supplementary Information: Socio-economic Supply Spend (p. 24)	●
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	BHP Billiton cannot currently provide information on the proportion of senior management hired from the local community at significant locations of operations but will work to provide it next year	◀
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	Supplementary Information: Our Stakeholders (pp. 5–8)	●
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	Supplementary Information: Economic value generated and distributed (p. 25)	●

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 Sustainability Framework = Our Sustainability Framework 2009  
 Supplementary Information = Sustainability Supplementary Information 2009

● Conformance      ● Partial Conformance      ◀ Not Reported      ■ Not Applicable

# GRI Navigator *continued*

## Net Balance Global Reporting Initiative (GRI) G3 Assessment for BHP Billiton

### STANDARD DISCLOSURES PART III: Performance Indicators – continued

Environmental			
Performance Indicator	Description	Reference	Report Status
EN1	Materials used by weight or volume.	Summary Report: BHP Billiton Locations (pp. B, C) Sustainability Performance Data Summary (p. 20) Supplementary Information: Inputs/Outputs diagram (p. 19)	●
EN2	Percentage of materials used that are recycled input materials.	Summary Report: Sustainability Performance Data Summary (p. 20) Supplementary Information: Inputs/Outputs diagram (p. 19)	●
EN3	Direct energy consumption by primary energy source.	Summary Report: Environmental Responsibility – Energy Use by Type FY2009 (p. 13) Supplementary Information: Inputs/Outputs diagram (p. 19)	●
EN4	Indirect energy consumption by primary source.	Summary Report: Environmental Responsibility – Energy Use by Type FY2009 (p. 13) Supplementary Information: Inputs/Outputs diagram (p. 19)	●
EN5	Energy saved due to conservation and efficiency improvements.	Summary Report: Environmental Responsibility (p. 13). This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	●
EN6	Initiatives to provide energy efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Some relevant information is available in the Summary Report: Governance – Sustainability systems (p. 6), Sustainability Framework: Environment (p. 8). This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	◀
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	Summary Report: Environmental Responsibility (p. 13) Sustainability Framework: Climate Change (p. 7). This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	●
EN8	Total water withdrawal by source.	Summary Report: Governance – Environment (p. 15)	●
EN9	Water sources significantly affected by withdrawal of water.	Supplementary Information: EKATI Canada (p. 39). This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	●
EN10	Percentage and total volume of water recycled and reused.	Summary Report: Governance – Environment (pp. 14, 15)	●
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	Summary Report: Environment – Biodiversity (p. 14) Supplementary Information: Inputs/Outputs diagram (p. 19)	●
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	Summary Report: Environment – Biodiversity (p. 14)	●
EN13	Habitats protected or restored.	Summary Report: Environment – Biodiversity (p. 14). This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	●
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	Sustainability Framework: Environment (p. 8)	●
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	Summary Report: Environment – Biodiversity (p. 14)	●
EN16	Total direct and indirect greenhouse gas emissions by weight.	Summary Report: Environmental Responsibility (p. 13)	●
EN17	Other relevant indirect greenhouse gas emissions by weight.	Summary Report: Environmental Responsibility (p. 13), Sustainability Performance Data Summary (p. 20)	●
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	Summary Report: Health, Safety, Environment and Community Targets Scorecard (p. 5), Environmental Responsibility (p. 13) Sustainability Framework – Environment (p. 8)	●

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 Supplementary Information = Sustainability Supplementary Information 2009

● Conformance      ● Partial Conformance      ◀ Not Reported      ■ Not Applicable

# GRI Navigator *continued*

## Net Balance Global Reporting Initiative (GRI) G3 Assessment for BHP Billiton

### STANDARD DISCLOSURES PART III: Performance Indicators – continued

Environmental – continued			
Performance Indicator	Description	Reference	Report Status
EN19	Emissions of ozone-depleting substances by weight.	Summary Report: Health, Safety, Environment and Community Targets Scorecard (p. 5) Environment – Climate Change (p. 13) Supplementary Information: Inputs/Outputs diagram (p. 19)	●
EN20	NO <sub>x</sub> , SO <sub>x</sub> , and other significant air emissions by type and weight.	Summary Report: Sustainability Performance Data Summary (p. 20)	●
EN21	Total water discharge by quality and destination.	Summary Report: Environment – Water (p. 14), Sustainability Performance Data Summary (p. 20) Supplementary Information: Inputs/Outputs diagram (p. 19)	●
EN22	Total weight of waste by type and disposal method.	Summary Report: Environment – Waste (p. 14), Sustainability Performance Data Summary (p. 20) Supplementary Information: Inputs/Outputs diagram (p. 19)	●
EN23	Total number and volume of significant spills.	GRI Navigator Supplementary Information: Inputs/Outputs diagram (p. 19)	●
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	Some relevant information is available in: Summary Report: Environment – Waste (p. 14), Sustainability Performance Data Summary (p. 20). This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	◀
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organisation's discharges of water and runoff.	Summary Report: Employees support biodiversity protection through CReefs (p. 19). This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	●
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	Sustainability Framework: Environment (p. 8), Climate Change and Energy (pp. 6, 7) Summary Report: Scorecard (p. 5) Environment – Water (p. 14) Sustainability Performance Data Summary (p. 20) Supplementary Information: Inputs/Outputs diagram (p. 19)	●
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	The majority of BHPB's product tonnage is sold in bulk form and therefore has little or no packaging	◀
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	GRI Navigator. BHP Billiton did not receive any significant environmental fines during FY2009	●
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organisation's operations, and transporting members of the workforce.	This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	◀
EN30	Total environmental protection expenditures and investments by type.	This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	◀
MM1	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated.	Summary Report: Environment – Biodiversity and land management (p. 14)	●
MM2	The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place.	Sustainability Framework – Environment (p. 8). Percentage of sites cannot currently be provided. BHP Billiton will work to provide this data next year through its audit assessment process	●
MM3	Total amounts of overburden, rock, tailings, and sludges presenting potential hazards.	Summary Report: Environment – Land Rehabilitation Index FY2009 (p. 15) Supplementary Information: Inputs/Outputs diagram (p. 19)	●

Annual Report = BHP Billiton Annual Report 2009

Summary Report = Sustainability Summary Report 2009

Sustainability Framework = Our Sustainability Framework 2009

Supplementary Information = Sustainability Supplementary Information 2009

● Conformance

● Partial Conformance

◀ Not Reported

■ Not Applicable

# GRI Navigator *continued*

## Net Balance Global Reporting Initiative (GRI) G3 Assessment for BHP Billiton

### STANDARD DISCLOSURES PART III: Performance Indicators – continued

Social: Labour Practices and Decent Work			
Performance Indicator	Description	Reference	Report Status
LA1	Total workforce by employment type, employment contract, and region.	Summary Report: People (p. 8)	●
LA2	Total number and rate of employee turnover by age group, gender, and region.	Supplementary Information: People (p. 14)	●
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	Supplementary Information: Superannuation and Pension Plans (p. 26) Annual Report – Section 1: 1.3 Parental leave. This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	●
LA4	Percentage of employees covered by collective bargaining agreements.	Summary Report: People (p. 8)	●
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	Supplementary Information: People (p. 14)	●
LA6	Percentage of total workforce represented in formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programs.	This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	◀
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	Summary Report: Sustainability Performance Data Summary (p. 20) Supplementary Information: Safety (pp. 15–16). As per communication with BHPB, 'The individual businesses in each of our CSGs manage and track absenteeism in a way that suits their purposes; absenteeism is not collated and reported centrally'	●
LA8	Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	Summary Report: Social Responsibility – Preventing malaria in children (p. 16), The Ravensthorpe Nickel Operation (p. 17) Supplementary Information: Health (pp. 17–18)	●
LA9	Health and safety topics covered in formal agreements with trade unions.	Supplementary Information: Our Stakeholders (p. 8). This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	●
LA10	Average hours of training per year per employee by employee category.	Supplementary Information: People (p. 14)	●
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	Supplementary Information: People (p. 14) Summary Report: Social Responsibility – Human Rights (p. 18). This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level	●
LA12	Percentage of employees receiving regular performance and career development reviews.	Supplementary Information: People (p. 14)	●
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.	Supplementary Information: People (p. 14)	●
LA14	Ratio of basic salary of men to women by employee category.	Supplementary Information: People (p. 14). BHP Billiton remuneration packages should be based on merit, aligned to our business requirements and sufficiently attractive to recruit and retain the best people. The Group's remuneration policy does not differentiate on the basis of gender	◀
MM4	Number of strikes and lock-outs exceeding one week's duration, by country	Supplementary Information: People (p. 14)	●

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Summary Report = Sustainability Summary Report 2009

Sustainability Framework = Our Sustainability Framework 2009

Supplementary Information = Sustainability Supplementary Information 2009

● Conformance

● Partial Conformance

◀ Not Reported

■ Not Applicable

# GRI Navigator *continued*

## Net Balance Global Reporting Initiative (GRI) G3 Assessment for BHP Billiton

### STANDARD DISCLOSURES PART III: Performance Indicators – continued

Social: Human Rights			
Performance Indicator	Description	Reference	Report Status
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	Supplementary Information: Socio-economic – Supply (p. 24) Summary Report: Social Responsibility – Human Rights (p. 18)	●
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	Summary Report: Social Responsibility – Human Rights (p. 18), Sustainability Performance Data Summary (p. 21) Supplementary Information: Socio-economic – Supply (p. 24)	●
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	Summary Report: Social Responsibility – Human Rights (p. 18), Sustainability Performance Data Summary (p. 21). This is an additional indicator and therefore full compliance is not required to achieve a GRI G3 A+ level.	●
HR4	Total number of incidents of discrimination and actions taken.	Summary Report: Social Responsibility – Human Rights (p. 18)	●
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	Supplementary Information: Socio-economic – Supply (p. 23) Summary Report: People (p. 8)	●
HR6	Operations identified as having significant risk for incidents of child labour, and measures taken to contribute to the elimination of child labour.	Supplementary Information: Socio-economic – Supply (p. 23) Summary Report: People (p. 8)	●
HR7	Operations identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of forced or compulsory labour.	Supplementary Information: Socio-economic – Supply (p. 23) Summary Report: People (p. 8)	●
HR8	Percentage of security personnel trained in the organisation's policies or procedures concerning aspects of human rights that are relevant to operations.	Summary Report: Social Responsibility – Human Rights (p. 18)	●
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	Summary Report: Social Responsibility – Human Rights (p. 18)	●
MM5	Total number of operations taking place in or adjacent to Indigenous Peoples' territories, and number and percentage of operations or sites where there are formal agreements with Indigenous Peoples' communities.	Summary Report: Social Responsibility (p. 16). BHP Billiton will work to provide this information next year	●

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 Sustainability Framework = Our Sustainability Framework 2009  
 Supplementary Information = Sustainability Supplementary Information 2009

● Conformance

● Partial Conformance

◀ Not Reported

■ Not Applicable

# GRI Navigator *continued*

## Net Balance Global Reporting Initiative (GRI) G3 Assessment for BHP Billiton

### STANDARD DISCLOSURES PART III: Performance Indicators – continued

Social: Society			
Performance Indicator	Description	Reference	Report Status
SO1	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.	Supplementary Information: Social Responsibility – Community (p. 21) Summary Report: Social Responsibility (pp. 18,19)	●
SO2	Percentage and total number of business units analysed for risks related to corruption.	Supplementary Information: Business Conduct (pp. 12–13)	●
SO3	Percentage of employees trained in organisation's anti-corruption policies and procedures.	Supplementary Information: Business Conduct (pp. 12–13)	●
SO4	Actions taken in response to incidents of corruption.	Supplementary Information: Business Conduct (pp. 12–13)	●
SO5	Public policy positions and participation in public policy development and lobbying.	Supplementary Information: Business Conduct (pp. 12–13)	●
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	Supplementary Information: Our Stakeholders (p. 6)	●
SO7	Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes.	Supplementary Information: Business Conduct (pp. 12–13)	●
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	Supplementary Information: Social Responsibility – Product Stewardship (p. 22)	●
MM6A	Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous peoples.	Summary Report: Social Responsibility (p. 16)	●
MM6B	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and Indigenous peoples, and the outcomes.	Summary Report: Social Responsibility (p. 16) Sustainability Framework: Human Rights Key Standard Performance requirements (p. 10)	●
MM7	Number (and percentage) of company operating sites with artisanal and small-scale mining (ASM) taking place on, or adjacent to, the site; describe the associated risks and the actions taken to manage and mitigate these risks.	BHP Billiton does not mine alluvial gold or alluvial diamonds and has no significant interaction with artisanal miners	◀
MM8	List sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process.	Summary Report: Social Responsibility – Human Rights (p. 18)	●
MM9	Number and percentage of operations with closure plans.	Summary Report: Social Responsibility – Human Rights (p. 18) Summary Governance (p. 6)	●
MM10	Significant incidents involving communities in which grievance mechanisms have been invoked to address them, together with their outcomes.	Summary Report: Social Responsibility – Human Rights (p. 18)	●
MM11	Number and description of incidents affecting employees, communities, or the environment in which emergency preparedness procedures were activated.	Supplementary Information: Local communities and customary rights (p. 21) Summary Report: Environment (p. 14), Employees (p. 18)	●

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 Supplementary Information = Sustainability Supplementary Information 2009

● Conformance

● Partial Conformance

◀ Not Reported

■ Not Applicable

# GRI Navigator *continued*

## Net Balance Global Reporting Initiative (GRI) G3 Assessment for BHP Billiton

### STANDARD DISCLOSURES PART III: Performance Indicators – continued

Social: Product Responsibility			
Performance Indicator	Description	Reference	Report Status
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	Supplementary Information: Social Responsibility – Product Stewardship (p. 22) Summary Report: Governance – Life of Asset planning (p. 6)	●
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	Supplementary Information: Social Responsibility – Product Stewardship (p. 22)	●
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	Supplementary Information: Social responsibility – Product Stewardship (p. 22)	●
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes.	Supplementary Information: Social Responsibility – Product Stewardship (p. 22)	●
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	Supplementary Information: Social Responsibility – Product Stewardship (p. 22) Our Stakeholders (p. 5)	●
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	Supplementary Information: Social Responsibility – Product Stewardship (p. 22)	●
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	Supplementary Information: Social Responsibility – Product Stewardship (p. 22)	●
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	Supplementary Information: Social Responsibility – Product Stewardship (p. 22)	●
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	Supplementary Information: Social Responsibility – Product Stewardship (p. 22)	●
MM12	Programs and progress relating to materials stewardship.	Supplementary Information: Our Stakeholders (p. 5)	●

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 Supplementary Information = Sustainability Supplementary Information 2009

● Conformance      ● Partial Conformance      ◀ Not Reported      ■ Not Applicable

# UN Global Compact Navigator

## HUMAN RIGHTS

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights		
BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name – Section Heading
Sustainable Development Policy	<b>Human Rights Framework</b>	Sustainability Framework – Human Rights
BHP Billiton Charter	<b>Human Rights</b>	
Code of Business Conduct	In addition to incorporating human rights issues in its procedures and policies relating to supplier management, BHP Billiton is committed to the UN Universal Declaration of Human Rights. Our Company Charter, Code of Business Conduct and Sustainable Development Policy support our commitment. BHP Billiton believes it has not violated the rights outlined in UN Universal Declaration of Human Rights during the reporting period.	Supplementary Information – Socio-economic Supply – Supply and Human Rights
HSEC Management Standard		
Commitment to UN Universal Declaration of Human Rights	New operations or projects must have broad-based community support before proceeding with development. Free Prior and Informed Consent is only required where it is mandated by law. All our operations are required to have a risk-based human rights assessment undertaken by a qualified, independent specialist to identify and document key potential human rights exposures. In regions where risks exist, the operations are also required to have a management plan in place and to ensure that employees and contractors receive training to facilitate compliance with BHP Billiton’s human rights commitments.	Summary Report – Social Responsibility, Human Rights
Commitment to the ICMM Sustainable Development Framework		
Health and Hygiene Standard	During FY2009, 32 sites reported that they had undertaken human rights training. The training was delivered to 11,226, or 27 per cent, of employees and 15,523, or 27 per cent, of contractors. In addition, 49 sites currently have cultural awareness programs in place. Thirty-nine of our sites reported having employed security forces, and 32 of these sites advised that these forces have undertaken human rights training.	
Voluntary Principles on Security and Human Rights	In instances where resettlement is unavoidable, a resettlement plan, timetable and budget, consistent with the requirements of the World Bank Operational Directive on Involuntary Resettlement must be developed and implemented in consultation with the relevant government and displaced people.	
World Bank Operational Directive on Involuntary Resettlement	No significant human rights-related issues were identified in this reporting period. There were no reported community resettlements.	
Life of Asset Planning	<b>Supply and Human Rights</b> BHP Billiton segments its supplier sustainability requirements into global and local categories based on their risk. The Company’s globally defined zero tolerance requirements cover child labour, forced and compulsory labour, inhumane treatment of employees and living wage.	Supplementary Information – Socio-economic Supply – Supplier corporate social responsibility management
	<b>Product Stewardship and Human Rights</b> We describe stewardship as: ‘All players in a commodity life cycle working together to maximise the value to society from the mining, processing, manufacture, consumption and end of life management of that commodity – without harming people and the environment.’ Whilst BHP Billiton’s primary activities are in the extraction (and in some cases processing) stages of a product’s life cycle, we recognise that the majority of the life cycle of the products we provide, occurs after the point of our immediate activity. We also recognise there is a strong business merit for implementing product stewardship programs in collaboration with other players in the life cycles of each of our products. During the reporting period there were no known incidences of non-compliance with regulations and voluntary codes concerning: • health and safety impacts of products and services during their life cycle • product and service • information and labelling • marketing communications, including advertising, promotion, and sponsorship by type of outcomes. During the reporting period there were no known incidences of: • substantiated complaints regarding breaches of customer privacy and losses of customer data.	Supplementary Information – Social Responsibility – Product Stewardship

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# UN Global Compact Navigator continued

## HUMAN RIGHTS – continued

### Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights – continued

BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name – Section Heading
	<p><b>Health and Safety</b></p> <p>We do not compromise our safety values, and seek ways to promote and improve the health of our workforce and the community.</p> <p>The health and safety of our people are values which will not be compromised. We seek to create a mind-set and environment where people believe it is possible to work illness and injury free – regardless of where they are in the world, what role they undertake or in which business they work.</p> <p>We recognise and promote the importance of our employees being both fit for work and fit for life. We work with the communities in which we operate to support programs focused on significant community health and safety issues that may also impact our workforce and their dependants.</p> <p>BHP Billiton has increased its focus on controlling exposures that may result in long-term harm at source. The Company's new Health and Hygiene Standard requires all sites to integrate exposure control into new projects and processes and to implement exposure control plans to control, at source, existing exposures which exceed 50 per cent of the occupational exposure limit or, for noise, 80 dB(A). Additionally, the standard requires that health surveillance programs must be implemented for these workers.</p>	<p>Sustainability Framework – Health and Safety</p> <p>Supplementary Information – Health</p>
	<p><b>Community Relations Framework</b></p>	<p>Sustainability Framework – Community Relations</p>
	<p><b>Social Responsibility – Community</b></p> <p>While our businesses tailor their community relations programs to suit the local context, our Community Standard provides the mandatory requirements to be implemented by all our operations. For example, our sites are required to have community relations plans that aim to contribute to sustainable communities. The plans must be formulated using baseline social assessments, developed in consultation with key stakeholders, and reviewed and updated annually in collaboration with stakeholders as part of the business planning process.</p> <p>As part of the community planning process, all key stakeholders, including local and Indigenous communities, must be identified and an analysis undertaken to understand their interests and relationship with the business.</p> <p>We require all our sites to record and track the management of community concerns. During the reporting period, our sites received 377 complaints.</p> <p>During FY2009 we established a new requirement that all businesses are to have dispute resolution processes to enable individuals or groups impacted by the Group's activities to openly raise concerns and to facilitate resolution of any grievances.</p>	<p>Summary Report – Social Responsibility</p>
	<p><b>People</b></p> <p>We encourage a diverse workforce and provide a work environment in which everyone is treated fairly, with respect and can realise their full potential.</p> <p>On average in FY2009, 15 per cent of BHP Billiton's workforce was made up of females. Approximately eight per cent of management positions are held by females. The overall employee breakdown by age group showed that employees aged between 30–39 continue to be the largest employee age group, followed by 40–49 age bracket.</p> <p>BHP Billiton employee remuneration packages must be based on merit, aligned to our business requirements and sufficiently attractive to recruit and retain the best people. The Company's remuneration policy and practices do not differentiate based on gender.</p> <p>Workers unions are present at many of our operating sites and are represented at local, national and international levels.</p> <p>A significant portion of our workforce is contractor-based. We work closely with our contracting companies to encourage that employee relations as governed by those companies are consistent with those of BHP Billiton, and that they too comply with our Charter and Code of Business Conduct.</p> <p>The diverse nature of our business means we have a mix of collective and individually regulated employment arrangements. Whatever the nature of those arrangements, we recognise the right of our employees to freely associate and join trade unions. In FY2009, around 48 per cent of our global workforce was covered by collective agreements.</p>	<p>Sustainability Framework – Community Relations</p> <p>Supplementary Information – People</p> <p>Supplementary Information – Our Stakeholders</p> <p>Summary Report – People – Employee Relations</p>

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# UN Global Compact Navigator continued

## HUMAN RIGHTS – continued

### Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights – continued

BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name – Section Heading
	<p><b>Business Conduct</b></p> <p>In July 2008 the Group Management Committee approved a revised conduct guide called Working with integrity: The Code of Business Conduct (the Code). It is founded on the BHP Billiton Charter and supported by mandatory Group-level Policies, Standards and Procedures. These include several new standards, including those covering conflict of interest, gifts and hospitality and anti-bribery, which directly relate to identified business conduct risks. The revision followed consultation with internal and external stakeholders. The Code applies to our entire workforce regardless of specific job or location and provides employees and contractors with an outline of requirements and advice about general workplace behaviour, conducting business and interacting with governments, communities and other stakeholders.</p>	Supplementary Information – Business Conduct
	<p><b>Life of Asset Planning</b></p> <p>From development projects, through operations and finally closure, our assets integrate our vision for sustainable development. Significant projects are governed by the performance requirements of our Project Quality, Execution and HSEC Management Procedure. The plans to manage quality, execution and HSEC risk are included in the overall Project Execution Plan. Stakeholder requirements, as well as legislated obligations, form an important input to the planning and execution process.</p>	Summary Report – Life of Asset Planning

### Principle 2: Businesses should make sure their own corporations are not complicit in human rights abuses

BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
Sustainable Development Policy	<p><b>Human Rights Framework</b></p>	Sustainability Framework – Human Rights
BHP Billiton Charter	<p><b>Human Rights</b></p> <p>In addition to incorporating human rights issues in its procedures and policies relating to supplier management, BHP Billiton is committed to the UN Universal Declaration of Human Rights. Our Company Charter, Code of Business Conduct and Sustainable Development Policy support our commitment. BHP Billiton believes it has not violated the rights outlined in UN Universal Declaration of Human Rights during the reporting period.</p>	Supplementary Information – Socio-economic Supply – Supply and Human Rights
Code of Business Conduct	<p>New operations or projects must have broad-based community support before proceeding with development. Free Prior and Informed Consent is only required where it is mandated by law. All our operations are required to have a risk-based human rights assessment undertaken by a qualified, independent specialist to identify and document key potential human rights exposures. In regions where risks exist, the operations are also required to have a management plan in place and to ensure that employees and contractors receive training to facilitate compliance with BHP Billiton’s human rights commitments.</p>	Summary Report – Social Responsibility, Human Rights
HSEC Management Standard	<p>During FY2009, 32 sites reported that they had undertaken human rights training. The training was delivered to 11,226, or 27 per cent, of employees and 15,523, or 27 per cent, of contractors. In addition, 49 sites currently have cultural awareness programs in place. Thirty-nine of our sites reported having employed security forces, and 32 of these sites advised that these forces have undertaken human rights training.</p>	
Human Resources Management Standards	<p>In instances where resettlement is unavoidable, a resettlement plan, timetable and budget, consistent with the requirements of the World Bank Operational Directive on Involuntary Resettlement must be developed and implemented in consultation with the relevant government and displaced people. No significant human rights-related issues were identified in this reporting period. There were no reported community resettlements.</p>	
Human Resources Policy	<p>No significant human rights-related issues were identified in this reporting period. There were no reported community resettlements.</p>	
Commitment to UN Universal Declaration of Human Rights	<p><b>Supply and Human Rights</b></p>	
Commitment to the ICMM Sustainable Development Framework	<p>BHP Billiton segments its supplier sustainability requirements into global and local categories based on their risk. The Company’s globally defined zero tolerance requirements cover child labour, forced and compulsory labour, inhumane treatment of employees and living wage.</p>	Supplementary Information – Socio-economic Supply – Supplier Corporate Social Responsibility Management
Voluntary Principles on Security and Human Rights		
World Bank Operational Directive on Involuntary Resettlement		

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 Supplementary Information = Sustainability Supplementary Information 2009

# UN Global Compact Navigator continued

## HUMAN RIGHTS – continued

### Principle 2: Businesses should make sure their own corporations are not complicit in human rights abuses – continued

BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
	<p><b>Product Stewardship and Human Rights</b></p> <p>We describe stewardship as: ‘All players in a commodity life cycle working together to maximise the value to society from the mining, processing, manufacture, consumption and end of life management of that commodity – without harming people and the environment.’</p> <p>Whilst BHP Billiton’s primary activities are in the extraction (and in some cases processing) stages of a product’s life cycle, we recognise that the majority of the life cycle of the products we provide, occurs after the point of our immediate activity. We also recognise there is a strong business merit for implementing product stewardship programs in collaboration with other players in the life cycles of each of our products.</p> <p>During the reporting period there were no known incidences of non-compliance with regulations and voluntary codes concerning:</p> <ul style="list-style-type: none"> <li>• health and safety impacts of products and services during their life cycle</li> <li>• product and service</li> <li>• information and labelling</li> <li>• marketing communications, including advertising, promotion, and sponsorship by type of outcomes.</li> </ul> <p>During the reporting period there were no known incidences of:</p> <ul style="list-style-type: none"> <li>• substantiated complaints regarding breaches of customer privacy and losses of customer data.</li> </ul>	Supplementary Information – Social Responsibility – Product Stewardship
	<p><b>Health and Safety Framework</b></p>	Sustainability Framework – Health and Safety
	<p><b>Health and Safety</b></p> <p>We do not compromise our safety values, and seek ways to promote and improve the health of our workforce and the community.</p> <p>The health and safety of our people are values which will not be compromised. We seek to create a mind-set and environment where people believe it is possible to work illness and injury free – regardless of where they are in the world, what role they undertake or in which business they work.</p> <p>We recognise and promote the importance of our employees being both fit for work and fit for life. We work with the communities in which we operate to support programs focused on significant community health and safety issues that may also impact our workforce and their dependants.</p> <p>BHP Billiton has increased its focus on controlling exposures that may result in long-term harm at source. The Company’s new Health and Hygiene Standard requires all sites to integrate exposure control into new projects and processes and to implement exposure control plans to control, at source, existing exposures which exceed 50 per cent of the occupational exposure limit or, for noise, 80 dB(A). Additionally, the standard requires that health surveillance programs must be implemented for these workers.</p>	Supplementary Information – Health
	<p><b>Community Relations Framework</b></p>	Sustainability Framework – Community Relations
	<p><b>Social Responsibility – Community</b></p> <p>While our businesses tailor their community relations programs to suit the local context, our Community Standard provides the mandatory requirements to be implemented by all our operations. For example, our sites are required to have community relations plans that aim to contribute to sustainable communities. The plans must be formulated using baseline social assessments, developed in consultation with key stakeholders, and reviewed and updated annually in collaboration with stakeholders as part of the business planning process.</p> <p>As part of the community planning process, all key stakeholders, including local and Indigenous communities, must be identified and an analysis undertaken to understand their interests and relationship with the business.</p> <p>We require all our sites to record and track the management of community concerns. During the reporting period, our sites received 377 complaints.</p> <p>During FY2009 we established a new requirement that all businesses are to have dispute resolution processes to enable individuals or groups impacted by the Group’s activities to openly raise concerns and to facilitate resolution of any grievances.</p>	Summary Report – Social Responsibility

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Supplementary Information = Sustainability Supplementary Information 2009

# UN Global Compact Navigator continued

## HUMAN RIGHTS – continued

### Principle 2: Businesses should make sure their own corporations are not complicit in human rights abuses – continued

BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
	<p><b>People</b></p> <p>We encourage a diverse workforce and provide a work environment in which everyone is treated fairly, with respect and can realise their full potential.</p> <p>On average in FY2009, 15 per cent of BHP Billiton's workforce was made up of females. Approximately eight per cent of management positions are held by females. The overall employee breakdown by age group showed that employees aged between 30–39 continue to be the largest employee age group, followed by 40–49 age bracket.</p> <p>BHP Billiton employee remuneration packages must be based on merit, aligned to our business requirements and sufficiently attractive to recruit and retain the best people. The Company's remuneration policy and practices do not differentiate based on gender.</p> <p>Workers unions are present at many of our operating sites and are represented at local, national and international levels.</p> <p>A significant portion of our workforce is contractor-based. We work closely with our contracting companies to encourage that employee relations as governed by those companies are consistent with those of BHP Billiton, and that they too comply with our Charter and Code of Business Conduct.</p> <p>The diverse nature of our business means we have a mix of collective and individually regulated employment arrangements. Whatever the nature of those arrangements, we recognise the right of our employees to freely associate and join trade unions. In FY2009, around 48 per cent of our global workforce was covered by collective agreements.</p>	<p>Sustainability Framework – Community Relations</p> <p>Supplementary Information – People</p> <p>Supplementary Information – Our Stakeholders</p> <p>Summary Report – People – Employee Relations</p>
	<p><b>Business Conduct</b></p> <p>In July 2008 the Group Management Committee approved a revised conduct guide called Working with Integrity: The Code of Business Conduct (the Code). It is founded on the BHP Billiton Charter and supported by mandatory Group-level Policies, Standards and Procedures. These include several new Standards, including those covering conflict of interest, gifts and hospitality and anti-bribery, which directly relate to identified business conduct risks. The revision followed consultation with internal and external stakeholders. The Code applies to our entire workforce regardless of specific job or location and provides employees and contractors with an outline of requirements and advice about general workplace behaviour, conducting business and interacting with governments, communities and other stakeholders.</p>	<p>Supplementary Information – Business Conduct</p>
	<p><b>Life of Asset Planning</b></p> <p>From development projects, through operations and finally closure, our assets integrate our vision for sustainable development. Significant projects are governed by the performance requirements of our Project Quality, Execution and HSEC Management Procedure. The plans to manage quality, execution and HSEC risk are included in the overall Project Execution Plan. Stakeholder requirements, as well as legislated obligations, form an important input to the planning and execution process.</p>	<p>Summary Report – Life of Asset Planning</p>

Annual Report = BHP Billiton Annual Report 2009  
 Summary Report = Sustainability Summary Report 2009  
 Sustainability Framework = Our Sustainability Framework 2009  
 Supplementary Information = Sustainability Supplementary Information 2009

# UN Global Compact Navigator continued

## LABOUR STANDARDS

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining		
BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
Sustainable Development Policy Human Resources Strategy and Standards Human Resources Policy Code of Business Conduct	<p><b>Human Rights Framework</b></p>	Sustainability Framework – Human Rights
	<p><b>Employee relations</b></p> <p>Our approach also aims to take into account relevant legislative requirements, industry practices, standards or norms that may exist within a country or region and special circumstances that may apply.</p> <p>It is common in our labour agreements to cover organisational change and the process by which such change is socialised and then effected. We seek to comply with local legislation and liaise and consult with employees when practical regarding organisational changes.</p>	Supplementary Information – Social Responsibility – Community Supplementary Information – People
	<p><b>Freedom of Association</b></p> <p>A significant portion of our workforce is contractor-based. We work closely with our contracting companies to encourage that employee relations as governed by those companies are consistent with those of BHP Billiton, and that they too comply with our Charter and Code of Business Conduct.</p> <p>The diverse nature of our business means we have a mix of collective and individually regulated employment arrangements.</p> <p>Whatever the nature of those arrangements, we recognise the right of our employees to freely associate and join trade unions.</p> <p>In FY2009, around 48 per cent of our global workforce was covered by collective agreements.</p> <p>We respect the right of all employees to freely choose to join labour unions. We have a mix of collective and individual work arrangements at our sites. Prospective employees are made aware of employment arrangements prior to joining the Company. Whatever the nature of those arrangements, we recognise the right of our employees to freely associate and join trade unions.</p>	Sustainability Summary Report – People-Employee relations Supplementary Information – Our Stakeholders
	<p><b>Remuneration</b></p> <p>Employment is offered and provided based on merit. All employees and applicants for employment will be treated and evaluated according to their job-related skills, qualifications, abilities and aptitudes only. Employment decisions based on attributes other than a person’s qualification to perform a job – for example, race, colour, gender, religion, personal associations, national origin, age, disability, political beliefs, HIV status, marital status, pregnancy, sexual orientation or family responsibilities are prohibited. We recognise, however, that affirmative action may be required to address historical imbalances and past discrimination, through programs such as Indigenous employment and training and black empowerment.</p> <p>Wages and benefits must, as a minimum, meet whichever is higher – national legal standards or local industry benchmarks. Where no minimum wage legislation exists, the supplier must seek to establish a wage that ensures an adequate standard of living for all of its employees and their dependants.</p>	Sustainability Framework – Human Rights Supplementary Information – Socio-economic Supply – Suppliers Corporate Responsibility Management

Annual Report = BHP Billiton Annual Report 2009  
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 Sustainability Framework = Our Sustainability Framework 2009  
 Supplementary Information = Sustainability Supplementary Information 2009

# UN Global Compact Navigator continued

## LABOUR STANDARDS – continued

Principle 4: Businesses should uphold the elimination of all forms of forced and compulsory labour		
BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
Sustainable Development Policy	<b>Human Rights Framework</b>	Sustainability Framework – Human Rights
Code of Business Conduct	<b>New Operations</b>	Summary Report – Social Responsibility
Commitment to UN Universal Declaration of Human Rights	New operations or projects must have broad-based community support before proceeding with development. Free Prior and Informed Consent is only required where it is mandated by law. All our operations are required to have a risk-based human rights assessment undertaken by a qualified, independent specialist to identify and document key potential human rights exposures. In regions where risks exist, the operations are also required to have a management plan in place and to ensure that employees and contractors receive training to facilitate compliance with BHP Billiton's human rights commitments.	
	<b>Child and Forced Labour</b>	Summary Report – People
	It is mandated that supplier corporate responsibility management must be consistent with BHP Billiton's Code to Business Conduct and Health Safety, Environment and Community (HSEC) Management Standard. BHP Billiton segments its supplier sustainability requirements into global and local categories based on their risk. The Company's globally defined zero tolerance requirements cover: <ul style="list-style-type: none"> <li>• Child labour: children must not be hired to work before completing their compulsory education. The minimum age for entry into employment must not be younger than 15 years of age.</li> <li>• Forced or compulsory labour: the supplier must ensure there is no forced, bonded or involuntary labour.</li> <li>• Inhumane treatment of employees: the supplier must create and maintain an environment that treats all employees with dignity and respect with no threats of violence, sexual exploitation or abuse, verbal or psychological harassment or abuse.</li> </ul>	
	<b>Remuneration</b>	Supplementary Information – Socio-economic Supply – Supplier Corporate Social Responsibility Management
	Living wage: wages and benefits must, as a minimum, meet whichever is higher – national legal standards or local industry benchmarks. Where no minimum wage legislation exists, the supplier must seek to establish a wage that ensures an adequate standard of living for all of its employees and their dependants.	

Annual Report = BHP Billiton Annual Report 2009  
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 Supplementary Information = Sustainability Supplementary Information 2009

# UN Global Compact Navigator continued

## LABOUR STANDARDS – continued

**Principle 5: Businesses should uphold the effective abolition of child labour**

BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
Sustainable Development Policy	<b>Human Rights Framework</b>	Sustainability Framework – Human Rights
Code of Business Conduct	<b>New Operations</b>	Summary Report – Social Responsibility
Commitment to UN Universal Declaration of Human Rights	<p>New operations or projects must have broad-based community support before proceeding with development. Free Prior and Informed Consent is only required where it is mandated by law. All our operations are required to have a risk-based human rights assessment undertaken by a qualified, independent specialist to identify and document key potential human rights exposures. In regions where risks exist, the operations are also required to have a management plan in place and to ensure that employees and contractors receive training to facilitate compliance with BHP Billiton’s human rights commitments.</p> <p><b>Child and Forced Labour</b></p> <p>In line with our commitment to the UN Universal Declaration of Human Rights, we prohibit the use of child labour or forced labour at our operations</p> <p>It is mandated that supplier corporate responsibility management must be consistent with BHP Billiton’s Code to Business Conduct and Health Safety, Environment and Community (HSEC) Management Standard. BHP Billiton segments its supplier sustainability requirements into global and local categories based on their risk. The Company’s globally defined zero tolerance requirements cover:</p> <ul style="list-style-type: none"> <li>• Child labour: children must not be hired to work before completing their compulsory education. The minimum age for entry into employment must not be younger than 15 years of age.</li> <li>• Forced or compulsory labour: the supplier must ensure there is no forced, bonded or involuntary labour.</li> <li>• Inhumane treatment of employees: the supplier must create and maintain an environment that treats all employees with dignity and respect with no threats of violence, sexual exploitation or abuse, verbal or psychological harassment or abuse.</li> </ul>	<p>Summary Report – People</p> <p>Supplementary Information – Socio-economic – Supply</p>

**Principle 6: Businesses should uphold the elimination of discrimination in respect of employment and occupation**

BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
Sustainable Development Policy	<b>Human Rights Framework</b>	Sustainability Framework – Human Rights
Employee Principles	<b>Diversity</b>	Sustainability Framework – Human Rights
Employee Relations Standard	<p>We encourage a diverse workforce and provide a work environment in which everyone is treated fairly, with respect and can realise their full potential.</p> <p>BHP Billiton is committed to developing a diverse workforce and providing a work environment in which every employee is treated fairly and with respect and has the opportunity to contribute to business success and realise their potential. In real terms this means harnessing the unique skills, experience and perspectives that each individual brings, recognising that these differences are important to our success as a company.</p> <p>On average in FY2009, 15 per cent of BHP Billiton’s workforce was made up of females. Approximately eight per cent of management positions are held by females.</p> <p>The overall employee breakdown by age group showed that employees aged between 30–39 continue to be the largest employee age group, followed by 40–49 age bracket.</p> <p>BHP Billiton employee remuneration packages must be based on merit, aligned to our business requirements and sufficiently attractive to recruit and retain the best people. The Company’s remuneration policy and practices do not differentiate based on gender.</p>	Supplementary Information – People
Code of Business Conduct		
Commitment to UN Universal Declaration of Human Rights		

Annual Report = BHP Billiton Annual Report 2009  
 Summary Report = Sustainability Summary Report 2009  
 Sustainability Framework = Our Sustainability Framework 2009  
 Supplementary Information = Sustainability Supplementary Information 2009

# UN Global Compact Navigator continued

## LABOUR STANDARDS – continued

### Principle 6: Businesses should uphold the elimination of discrimination in respect of employment and occupation – continued

BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
	<p><b>Remuneration</b></p> <p>BHP Billiton employee remuneration packages must be based on merit, aligned to our business requirements and sufficiently attractive to recruit and retain the best people. The Company's remuneration policy and practices do not differentiate based on gender.</p>	Supplementary Information – People
	<p><b>Employment equity</b></p> <p>Employment is offered and provided based on merit. All employees and applicants for employment will be treated and evaluated according to their job-related skills, qualifications, abilities and aptitudes only. Employment decisions based on attributes other than a person's qualification to perform a job – for example, race, colour, gender, religion, personal associations, national origin, age, disability, political beliefs, HIV status, marital status, pregnancy, sexual orientation or family responsibilities are prohibited. We recognise, however, that affirmative action may be required to address historical imbalances and past discrimination, through programs such as Indigenous employment and training and black empowerment.</p>	Sustainability Framework – Human Rights

## ENVIRONMENT

### Principle 7: Businesses should support a precautionary approach to environmental challenges

BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
Sustainable Development Policy	<b>Environment Framework</b>	Sustainability Framework – Climate Change and Energy
HSEC Management Standard	<b>Climate Change and Energy Framework</b>	Sustainability Framework – Climate Change and Energy
Risk Management Policy	<b>BHP Billiton – Inputs/Outputs Diagram</b>	Supplementary Information – Environment BHP Billiton – Inputs/Outputs Diagram
	<b>Summary of Environmental Performance Data</b>	Summary Report – Sustainability Performance Data Summary – Environment
	<p><b>Sustainable Development Policy</b></p> <p>We identify, assess and manage risks to employees, contractors, the environment and our host communities.</p> <p>The effective identification, assessment, management and communication of risk is the basis of our management approach to sustainable development. We aim to manage and control identified risks to a level that is as low as reasonably practicable. Embedding risk management processes into all our critical business systems allows us to adopt a precautionary approach to business management that is based on valid data and sound science. This includes ensuring thorough assessments of the potential impacts of our presence and activities are undertaken and factored into project options and decisions for all major investments.</p>	Sustainability Framework – Management

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 Sustainability Framework = Our Sustainability Framework 2009  
 Supplementary Information = Sustainability Supplementary Information 2009

# UN Global Compact Navigator continued

## ENVIRONMENT – continued

### Principle 7: Businesses should support a precautionary approach to environmental challenges – continued

BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
	<p><b>The Sustainability Committee</b></p> <p>The Sustainability Committee met seven times during the year.</p> <p>The role of the Sustainability Committee is to assist the Board in its oversight of:</p> <ul style="list-style-type: none"> <li>• the effectiveness of the Group's policies and systems associated with health, safety, environment and community (HSEC) matters</li> <li>• our compliance with applicable legal and regulatory requirements associated with HSEC matters</li> <li>• our performance in relation to HSEC matters</li> <li>• the performance and leadership of the HSEC and the Sustainable Development functions</li> <li>• HSEC risks</li> <li>• our Annual Sustainability Summary Report</li> <li>• communication to shareholders regarding the work of the Committee on behalf of the Board.</li> </ul>	Annual Report – Corporate Governance Statement – Sustainability Committee Report
	<p><b>Greenhouse gases</b></p> <p>We develop and maintain inventories of greenhouse gas emissions that include all sources of Scope 1 (direct) and Scope 2 (purchased electricity and steam) emissions as defined by The Greenhouse Gas Protocol.</p> <p>If a controlled activity has total Scope 1 and Scope 2 greenhouse gas emissions greater than 50,000 tonnes CO<sub>2</sub>-e per annum, a Greenhouse Gas Management Plan is developed and maintained. That plan includes the identification and evaluation of greenhouse gas emissions reduction initiatives, including use of non-carbon and renewable energy sources, and an implementation schedule for emissions reduction projects.</p> <p>If a controlled activity uses greater than 0.25 petajoules of energy per annum, an Energy Management Plan is developed and maintained. That plan includes identification and evaluation of energy use reduction initiatives, and an implementation schedule for energy use reduction projects</p>	Sustainability Framework – Climate Change and Energy
	<p><b>Measurement of greenhouse gas and energy use</b></p> <p>We have set efficiency targets for our greenhouse gas emissions and energy use to assist in improving our performance.</p>	Summary Report – Environment – Measurement of Greenhouse Gas and Energy Use – Data Measurement and Reporting
	<p><b>Water</b></p> <p>Access to high-quality water is an issue of growing international importance and a key challenge for sustainable development. We use water in mining, smelting, refining and petroleum processes. Our activities are often located in remote, arid environments where access to high-quality water is limited. We continue to identify business risks and opportunities for water access, reuse or recycling, efficient use and responsible waste water disposal. We have set a five-year target of 10 per cent improvement in the ratio of water recycled to high-quality water consumed by 30 June 2012.</p>	Summary Report – Environment – Water

Annual Report = BHP Billiton Annual Report 2009

Summary Report = Sustainability Summary Report 2009

Sustainability Framework = Our Sustainability Framework 2009

Supplementary Information = Sustainability Supplementary Information 2009

# UN Global Compact Navigator continued

## ENVIRONMENT – continued

Principle 8: Businesses should undertake initiatives to promote greater environmental responsibility		
BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
Sustainable Development Policy HSEC Management Standard Life of Asset Procedure	<b>Environment Framework</b>	Sustainability Framework – Environment
	<b>Climate Change and Energy Framework</b>	Sustainability Framework – Climate Change and Energy
	<b>BHP Billiton – Inputs/Outputs Diagram</b>	Supplementary Information – Environment BHP Billiton – Inputs/Outputs Diagram
	<b>Summary of Environmental Performance Data</b>	Summary Report – Performance Data Summary – Environment
	<b>HSEC Scorecard</b> <ul style="list-style-type: none"> <li>Greenhouse gas intensity index is currently tracking at three per cent above our FY2006 base year.</li> <li>Energy intensity index is currently tracking at eight per cent above our FY2006 base year.</li> <li>Water use index is currently tracking at eight per cent above our FY2007 base year.</li> <li>Land rehabilitation index is currently tracking at the same level as our FY2007 base year.</li> </ul>	Supplementary Information – HSEC Scorecard
	<b>The Sustainability Committee</b> <p>The Sustainability Committee met seven times during the year.</p> <p>The role of the Sustainability Committee is to assist the Board in its oversight of:</p> <ul style="list-style-type: none"> <li>the effectiveness of the Group's policies and systems associated with health, safety, environment and community (HSEC) matters</li> <li>our compliance with applicable legal and regulatory requirements associated with HSEC matters</li> <li>our performance in relation to HSEC matters</li> <li>the performance and leadership of the HSEC and the Sustainable Development functions</li> <li>HSEC risks</li> <li>our Annual Sustainability Summary Report</li> <li>communication to shareholders regarding the work of the Committee on behalf of the Board.</li> </ul>	Annual Report – Corporate Governance Statement – Sustainability Committee Report
	<b>Case Study – Emissions reductions and safety improvements result from a new startup procedure at our Mozal aluminium smelter</b> <p>A project team at BHP Billiton Mozal aluminium smelter in southern Mozambique was challenged to devise a startup procedure designed to improve the smelting process and reduce perfluorocarbon (powerful greenhouse gas) emissions.</p>	Summary Report – Environmental Responsibility
<b>Water</b> <p>Access to high-quality water is an issue of growing international importance and a key challenge for sustainable development. We use water in mining, smelting, refining and petroleum processes. Our activities are often located in remote, arid environments where access to high-quality water is limited.</p> <p>We continue to identify business risks and opportunities for water access, reuse or recycling, efficient use and responsible waste water disposal. We have set a five-year target of 10 per cent improvement in the ratio of water recycled to high-quality water consumed by 30 June 2012. This is our water use index. Our water use index is currently tracking at eight per cent above our FY2007 base year. This was largely due to production changes driving an increase in recycled water usage at Escondida and Pinto Valley.</p>	Summary Report – Sustainability Performance Data Summary	

Annual Report = BHP Billiton Annual Report 2009

Summary Report = Sustainability Summary Report 2009

Sustainability Framework = Our Sustainability Framework 2009

Supplementary Information = Sustainability Supplementary Information 2009

# UN Global Compact Navigator continued

## ENVIRONMENT – continued

**Principle 8: Businesses should undertake initiatives to promote greater environmental responsibility – continued**

BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
	<p><b>Biodiversity and land management</b></p> <p>We own, manage or lease approximately six million hectares of land (excluding exploration and development projects). As a result of our mining, processing, smelting and petroleum activities, we have disturbed 166,000 hectares of land of which 38,500 hectares have been rehabilitated. We also manage 11,000 hectares of land for biodiversity conservation purposes. We have a five-year target of a 10 per cent improvement in our land rehabilitation index by 30 June 2012. This index is based on a ratio of land rehabilitated compared to our land footprint. In FY2009, the index decreased by three per cent due to the development of new operations in Australia and Chile. We have strengthened our biodiversity commitments related to protected areas and threatened species. This includes, firstly, the commitment not to explore or mine within International Union for the Conservation of Nature (IUCN) Protected Area Categories I to IV unless an action plan designed to deliver measurable benefits to biodiversity has been developed that is commensurate with the level of biodiversity impacts. Secondly, we will not proceed with activities where the direct impacts would result in extinction of IUCN threatened species.</p> <p>We own, manage or lease approximately six million hectares of land (excluding exploration and development projects). As a result of our mining, processing, smelting and petroleum activities, we have disturbed 166,000 hectares of land of which 38,500 hectares have been rehabilitated. We also manage 11,000 hectares of land for biodiversity conservation purposes.</p>	<p>Summary Report – Environment – Biodiversity and Land Management</p>
	<p><b>Biodiversity Case Study – Employees support biodiversity protection through Creefs</b></p> <p>BHP Billiton employees are participating in the study of marine life and helping achieve the Group’s aim to actively enhance its contribution to biodiversity protection through the BHP Billiton CReefs partnership program.</p>	<p>Summary Report – Social Responsibility</p>
	<p><b>Climate Change</b></p> <p>The issues associated with climate change continue to be a challenge for governments, communities and industry around the world. The urgency and complexity of these issues require responses from all of us. BHP Billiton shares the view that the rational choice is to accept that the mainstream science is right in pointing to high risks from unmitigated climate change. From our perspective, the key principles for an effective international response include:</p> <ul style="list-style-type: none"> <li>• a global regime that prices carbon to allow enough certainty for investment in new technology and abatement opportunities to occur while still promoting economic growth</li> <li>• strong measures to help avoid deforestation and fund reforestation (large landholders like BHP Billiton have a role to play here)</li> <li>• support for the poorest countries in adapting to the physical impacts of climate change and pursuing low carbon pathways to development through energy efficiency or the adoption of alternative energy technologies.</li> <li>• business leadership and ingenuity is critical to achieving low carbon growth and, as a major resources company, we are committed to playing our part.</li> </ul> <p>In addressing this and other issues affecting all of us, we appreciate that governments have to consider the needs of industry and communities as well as the global implications.</p>	<p>Sustainability Framework – Climate Change and Energy</p>

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 Sustainability Framework = Our Sustainability Framework 2009  
 Supplementary Information = Sustainability Supplementary Information 2009

# UN Global Compact Navigator continued

## ENVIRONMENT – continued

**Principle 8: Businesses should undertake initiatives to promote greater environmental responsibility – continued**

BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
	<p><b>Greenhouse gases</b></p> <p>We develop and maintain inventories of greenhouse gas emissions that include all sources of Scope 1 (direct) and Scope 2 (purchased electricity and steam) emissions as defined by The Greenhouse Gas Protocol.</p> <p>If a controlled activity has total Scope 1 and Scope 2 greenhouse gas emissions greater than 50,000 tonnes CO<sub>2</sub>-e per annum, a Greenhouse Gas Management Plan is developed and maintained. That plan includes the identification and evaluation of greenhouse gas emissions reduction initiatives, including use of non-carbon and renewable energy sources, and an implementation schedule for emissions reduction projects.</p> <p>If a controlled activity uses greater than 0.25 petajoules of energy per annum, an Energy Management Plan is developed and maintained. That plan includes identification and evaluation of energy use reduction initiatives, and an implementation schedule for energy use reduction projects.</p>	Summary Report – Environment – Climate Change
	<p><b>Measurement of greenhouse gas and energy use</b></p> <p>We have set efficiency targets for our greenhouse gas emissions and energy use to assist in improving our performance.</p> <p>Greenhouse Gas emissions (bar graph)</p> <p>Sources of Greenhouse gas emission FY2009 (pie chart)</p>	Summary Report – Environment (p. 13)
	<p><b>Waste</b></p> <p>Our mining operations produce large quantities of mineral waste such as waste rock, tailings and slag. Generally, this mineral waste is managed on-site in disposal facilities designed and operated to well-established engineering standards. We produced a total of 190 million tonnes of mineral waste during the reporting period.</p> <p>Non-mineral waste is categorised as either hazardous or non-hazardous. Hazardous non-mineral waste includes oil, materials contaminated with hydrocarbons, chemical waste and spent pot linings. These hazardous wastes are recycled or disposed of in approved facilities. This reporting period we produced 51,000 tonnes of hazardous non-mineral waste that was disposed of to landfill.</p>	Summary Report – Environment – Waste
	<p><b>Life Cycle</b></p> <p>We describe stewardship as: ‘All players in a commodity life cycle working together to maximise the value to society from the mining, processing, manufacture, consumption and end of life management of that commodity – without harming people and the environment.’</p> <p>Whilst BHP Billiton’s primary activities are in the extraction (and in some cases processing) stages of a product’s life cycle, we recognise that the majority of the life cycle of the products we provide, occurs after the point of our immediate activity. We also recognise there is a strong business merit for implementing product stewardship programs in collaboration with other players in the life cycles of each of our products.</p> <p>BHP Billiton’s Sustainable Development Policy states that the Company will develop, implement and maintain management systems for sustainable development that drive continual improvement. We will also ensure that we work with those involved in all the sectors of the life cycles of our products and by-products to enhance performance along the supply chain and promote the responsible use and management of those products in order to minimise harm to people and the environment.</p>	Supplementary Information – Social Responsibility – Product Stewardship
	<p><b>Life of Asset planning</b></p> <p>From development projects, through operations and finally closure, our assets integrate our vision for sustainable development. Significant projects are governed by the performance requirements of our Project Quality, Execution and HSEC Management Procedure. The plans to manage quality, execution and HSEC risk are included in the overall Project Execution Plan. All BHP Billiton sites are required to have a closure plan. Our Internal Audit group is responsible for auditing Life of Asset plans, including the financial provisioning for closure.</p>	Summary Report – Governance – Life of Asset Planning

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 Supplementary Information = Sustainability Supplementary Information 2009

# UN Global Compact Navigator continued

## ENVIRONMENT – continued

Principle 9: Businesses should encourage the development and diffusion of environmentally friendly technologies		
BHP Billiton Policies, Systems and Commitments	BHP Billiton actions and performance as referenced in 2009 sustainability reporting	Report Name
Sustainable Development Policy HSEC Management Standard	<p><b>Climate Change and Energy Framework</b></p> <p>We will work collaboratively with customers, communities and employees to reduce emissions and support internal emissions reduction projects.</p> <p>We will spend US\$300 million over the period 2008 to 2012 to:</p> <ul style="list-style-type: none"> <li>• support industry research, development and demonstration of low emissions technologies including collaborative research dedicated to accelerating the commercial uptake of technologies such as carbon capture and geosequestration</li> <li>• provide capital funding for internal energy projects with a greenhouse gas emissions reduction component that might not otherwise be competitive within our normal capital allocation processes</li> <li>• support the efforts of our employees and our local communities to reduce their emissions.</li> </ul>	Sustainability Framework – Climate Change and Energy
	<b>BHP Billiton – Inputs/Outputs Diagram</b>	Supplementary Information – Environment BHP Billiton – Inputs/Outputs Diagram
	<b>Summary of Environmental Performance Data</b>	Summary Report – Sustainability Performance Data Summary – Environment
	<p><b>HSEC Scorecard</b></p> <ul style="list-style-type: none"> <li>• Greenhouse gas intensity index is currently tracking at three per cent above our FY2006 base year.</li> <li>• Energy intensity index is currently tracking at eight per cent above our FY2006 base year.</li> <li>• Water use index is currently tracking at eight per cent above our FY2007 base year.</li> <li>• Land rehabilitation index is currently tracking at the same level as our FY2007 base year.</li> </ul>	Summary Report – HSEC Scorecard
	<p><b>Case Study – Emissions reductions and safety improvements result from a new startup procedure at our Mozal aluminium smelter</b></p> <p>A project team at BHP Billiton Mozal aluminium smelter in southern Mozambique was challenged to devise a startup procedure designed to improve the smelting process and reduce perfluorocarbon (powerful greenhouse gas) emissions.</p>	Summary Report – Environmental Responsibility
	<p><b>Water</b></p> <p>We continue to identify business risks and opportunities for water access, reuse or recycling, efficient use and responsible waste water disposal.</p>	Summary Report – Environment – Water

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 Sustainability Framework = Our Sustainability Framework 2009  
 Supplementary Information = Sustainability Supplementary Information 2009



## GRI APPLICATION LEVEL STATEMENT



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BHP Billiton Limited (BHPB) commissioned Net Balance Management Group Pty Ltd (Net Balance) to undertake a third-party application level check of its 2008-2009 Sustainability Report ('the Report') against the requirements of the Global Reporting Initiative (GRI) G3 Guidelines. Specifically, adherence of the Report's content to the Standard Disclosures (Profile, Management Approach and Performance Indicators) was examined. For each Standard Disclosure, BHPB's adherence to the GRI requirements was classified as C-Compliant, PC-Partially Compliant or NR-Not Reported.

When the conformance levels were compared to the GRI G3 Standard Disclosure Criteria Table for determining an Application Level, the following observations were made:

- For the G3 Profile Disclosures, BHPB reported on all GRI items required for Application Level A.
- For the G3 Management Approach Disclosures, BHPB was found to have reported the management approach for each indicator category.
- For the G3 Performance Indicator & Sector Supplement Performance Indicators, BHPB reported on all core performance indicators or explained the reason for their omission.
- BHPB's report was externally assured.

According to the above observations, BHPB's Application Level has been classified by Net Balance as A+. An Application Level of A+ demonstrates sustainability reporting leadership and sophisticated reporting systems based on the GRI Reporting Framework.

On behalf of the Net Balance team  
28 August 2009  
Melbourne, Australia

A handwritten signature in black ink, appearing to read "Terence Jeyaretnam".

Terence Jeyaretnam  
Director, Net Balance & Lead CSAP (IRCA UK)



### **Independent limited assurance report regarding Greenhouse Gas information to the management and directors of BHP Billiton**

For the purpose of this report, "BHP Billiton" is taken as a reference to both BHP Billiton Limited and BHP Billiton PLC.

We have been engaged by the Board of Directors of BHP Billiton to provide limited assurance in relation to:

- The sections entitled "Climate change", "Measurement of greenhouse gas and energy use", and "Data measurement and reporting" set out on pages 13 and 14 of the "Sustainability Summary Report 2009";
- The section entitled "Climate Change and Energy" set out on pages 6 and 7 of "Our Sustainability Framework"; and
- The "Total greenhouse gas" amount included in the Operational processes section, and the "Greenhouse gas emissions" amounts attributable to "Total petroleum products" and "Energy coal and Metallurgical coal" included in the "Outputs" section, both on page 19 of the "Sustainability Supplementary Information 2009"

for the year ended 30 June 2009 (the Greenhouse Gas (GHG) Information).

#### *Management's and Directors' responsibility for the Green House Gas (GHG) Information*

The management and directors of BHP Billiton are responsible for the preparation of the GHG Information in accordance with the criteria set out on pages 1 to 3 of the Supplementary Information document (the Basis of Preparation). This responsibility includes establishing and maintaining internal controls relevant to the preparation of GHG Information that is free from material misstatement whether due to fraud or error.

#### *Our responsibility*

Our responsibility is to express a conclusion to the management and directors on the preparation of the GHG information in accordance with the Basis of Preparation. Our scope of work did not include management's forward looking statements.

We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements ISAE 3000 *Assurance Engagements other than audits or reviews of historical financial information* (ISAE 3000), issued by the International Auditing and Assurance Standards Board. That standard requires that we plan and perform our engagement in order to state whether anything has come to our attention that causes us to believe that the GHG information, has not, in all material respects, been prepared in accordance with the Basis of Preparation for the year ended 30 June 2009. We are also required to comply with the professional and ethical requirements of the Australian Accounting Professional and Ethical Standards Board.

A limited assurance engagement on GHG information consists of making enquiries, primarily of persons responsible for management and monitoring of GHG emissions and the accurate compilation of the associated GHG information and applying analytical and other limited assurance procedures. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement or an audit conducted in accordance with International Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit or a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance or audit opinion.

This report has been prepared for the management and directors of BHP Billiton in accordance with the terms of our engagement, and we do not accept or assume responsibility for any other purpose or to any other person or organisation other than the management and directors of BHP Billiton. Any reliance placed on the GHG Information by a third party is entirely at its own risk.

KPMG, an Australian partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International, a Swiss cooperative.



*Independence*

In conducting our limited assurance procedures we have complied with all applicable independence requirements.

*Conclusion*

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the GHG Information has not, in all material respects, been prepared in accordance with the Basis of Preparation.

*KPMG*

KPMG  
Melbourne  
18 September 2009



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## Independent Limited Assurance Statement to the Management and Directors of BHP Billiton Limited

### Scope of Our Engagement

We have carried out a limited assurance engagement in relation to BHP Billiton's 2009 Sustainability Report including the Summary Report and the appendices to the report entitled 'Our Sustainability Framework' and 'Supplementary Information' located at BHP Billiton.com ('the Report'), in order to state whether anything has come to our attention to suggest that the subject matter detailed below has not been reported in accordance with the criteria listed below. The scope of our limited assurance engagement is based on the subject matter over which we provide assurance and the criteria used to evaluate or measure the subject matter.

At the request of BHP Billiton, our limited assurance engagement specifically excluded any reported information related to greenhouse gas emissions and climate change (identified as a material sustainability priority) in the Report. Assurance in respect to greenhouse gas emissions and climate change is subject to a separate engagement by another assurance provider.

### Subject Matter

BHP Billiton is a member of the International Council on Mining and Metals ('ICMM') and is therefore committed to obtaining assurance over specified subject matter in its Report in line with ICMM's Sustainable Development Framework: Assurance Procedure ('the Framework'). We have used the Framework to identify the subject matter and criteria for this limited assurance engagement.

The subject matter for our limited assurance engagement included:

1. BHP Billiton's reported alignment of its policies (and other standards) with ICMM principles and mandatory requirements of ICMM's position statements.
2. BHP Billiton's reporting of its material sustainability risks and opportunities for the reporting period (1 July 2008 to 30 June 2009) based on its own view of the business and the views and expectations of its stakeholders.
3. BHP Billiton's description of the existence of systems and approaches it used to manage each specific sustainability priority (refer below), and where relevant the current status of implementation of each of these systems and approaches.
4. BHP Billiton's reported performance data and claims relating to these specific sustainability priorities (refer below).

BHP Billiton engaged us to select five specific sustainability priorities (excluding greenhouse gas emissions and climate change) as the focus of our limited assurance procedures. These were selected based on our materiality assessment of BHP Billiton's key issues. The materiality assessment involved an assessment of BHP Billiton's own process for determining its key issues (as described on page 3 of the Supplementary Information section of the Report), undertaking a survey of media for the reporting period, interviewing key personnel, checking Annual General Meeting (AGM) transcripts and corporate targets and an assessment of our findings from our work undertaken in previous years.

The five specific sustainability priorities selected included:

- ▶ Safety - significant incidents
- ▶ Employee occupational health
- ▶ Community investment
- ▶ Management of health, safety, environment and community (HSEC) issues relating to development projects
- ▶ Site closure - local communities

For all subject matter we considered the boundaries as defined on page 2 of the Supplementary Information section of the Report.

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### Criteria

BHP Billiton has reported performance indicators, statements and claims related to the specific sustainability priorities described above in accordance with the subject matter and in accordance with the principles of Materiality, Completeness and Accuracy as defined in the Global Reporting Initiative's Sustainability Reporting Guidelines Version 3.0 ("GRI G3"). In addition, the following criteria have been applied in relation to the specific subject matter detailed above:

1. ICMM principles and any mandatory requirements set out in ICMM Position Statements
2. The GRI G3 definition for materiality, completeness, stakeholder engagement (standard disclosures 4.14 to 4.17) and the process for defining report content (standard disclosure 3.5 to 3.9)
3. BHP Billiton's description of its systems and approaches used to manage the five specific sustainability priorities, as described throughout the Report.
4. BHP Billiton's own reported criteria for:
  - ▶ Significant safety incidents as defined on page 15 of the Supplementary Information
  - ▶ Potential employee exposures over the occupational exposure limit as defined on page 11 of the Summary Report
  - ▶ Baseline exposure assessments as defined on page 11 of the Summary Report
  - ▶ New occupational illnesses as defined on page 11 of the Summary Report
  - ▶ Community contribution as defined on page 18 of the Summary Report
  - ▶ Employee matched giving as defined on page 19 of the Summary Report
  - ▶ HSEC and sustainability governance requirements over development projects as described on page 17 of the Summary Report and page 33 of the Supplementary Information
  - ▶ Site closure requirements as they relate to local communities as described on page 17 of the Summary Report

### BHP Billiton Management Responsibilities

The Report has been prepared by the management of BHP Billiton ('Management'). Management is responsible for the collection and presentation of information within it and for maintaining adequate records and internal controls that are designed to support the sustainability reporting process. There are currently no prescribed requirements relating to the preparation, publication and assurance of sustainability reports.

### Ernst & Young Responsibilities

Our responsibility, in accordance with Management's request, was to carry out a limited assurance engagement in relation to a selection of disclosures in the Report and to express a conclusion about the subject matter information.

Our responsibility in performing our limited assurance activities is to the Management and Directors of BHP Billiton only and in accordance with the terms of reference for this engagement as agreed with them. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organisation. Any reliance any such third party may place on the Report is entirely at its own risk.

Our assurance procedures have been planned and performed in accordance with the International Federation of Accountants' International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information ('ISAE 3000') and ICMM's Sustainable Development Framework Assurance Procedure.

### Level of Assurance

Our procedures were designed to obtain a limited level of assurance on which to base our conclusions. The procedures conducted do not provide all the evidence that would be required in a reasonable assurance engagement and, accordingly we do not express a reasonable level of assurance. While we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our limited assurance engagement was not designed to provide assurance on internal controls.

### Work Performed

In order for us to provide a conclusion in relation to the above scope of work, we have sought to answer the following questions.

#### Materiality

1. Did the performance indicators, statements and claims reported reflect BHP Billiton's significant economic, environmental and social impacts?
2. Were internal and external factors considered in determining the performance indicators, statements and claims included in the report?
3. Does reporting include information on performance?

#### Completeness

1. Has BHP Billiton fairly presented performance information concerning the five specific sustainability priorities with respect to the boundaries and time period defined in the Report?
2. Has BHP Billiton included sustainability performance information from all material entities in its defined boundary for its reporting of the five specific sustainability priorities?
3. Has BHP Billiton accurately collated corporate data relating to the five specific sustainability priorities from operations-level data (where relevant)?

#### Accuracy

1. Are the operations-level data for the five specific sustainability priorities (where relevant) from the sites tested sufficiently accurate and detailed for stakeholders to assess BHP Billiton's performance?

Consistent with ICMM, our assurance procedures included, but were not limited to:

- ▶ Interviewing a selection of BHP Billiton executives responsible for health, safety, environment, community and governance to confirm the material issues for the business.
- ▶ Selecting the five specific sustainability priorities based on an assessment of BHP Billiton's process for determining its key issues to report and our own materiality assessment.
- ▶ Visiting 6 operational sites from approximately 100 BHP Billiton sites around the world which represented significant contributors to these five specific sustainability priorities.
- ▶ Checking the alignment of BHP Billiton's policies (and standards) with ICMM's principles and the mandatory requirements of ICMM's Position Statements.
- ▶ Checking a selection of BHP Billiton documentation and publicly available information relating to sustainability management and performance.
- ▶ Sample testing the existence and status of implementation of systems and approaches used to manage the five specific sustainability priorities.
- ▶ Sample testing the data collection, aggregation and disclosure processes for the five specific sustainability priorities.
- ▶ Checking the Report to determine whether material risks and opportunities and performance issues identified during our procedures on the five specific sustainability priorities had been adequately disclosed.
- ▶ Sample testing reported data, performance statements, claims and case studies relating to the five specific sustainability priorities against supporting source information and BHP Billiton's reported boundary.

### Limitations of Our Work Performed

Our scope of work did not include:

- ▶ Assessing the accuracy, fairness or balance of data sets, statements, information, systems or approaches relating to areas other than the five specific sustainability priorities, and any site-specific information relating to sites we did not visit.
- ▶ Management's forward looking statements.
- ▶ Any comparisons made against historical data, with the exception of specific sustainability priorities which overlap with our 2007 and 2008 limited assurance engagements.
- ▶ Assessing whether BHP Billiton's reporting meets the requirements of its application level of the GRI G3 Sustainability Reporting Guidelines.
- ▶ Any reported information related to greenhouse gas emissions and climate change.
- ▶ Assessing the effectiveness of any management systems or approaches.

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#### Our Independence and Assurance Team

The Australian firm and all professional personnel involved in this engagement have met the independence requirements of Australian professional ethical requirements. Ernst & Young has provided a range of services to BHP Billiton including but not limited to the provision of certain internal audit services. We believe the provision of these services has not impaired our independence with respect to this work.

Our assurance team includes specialists from our Climate Change and Sustainability Services network, which undertakes similar engagements with a number of Australian and international businesses. Our team has the required competencies and experience to undertake this engagement.

#### Conclusion

On the basis of our procedures and criteria for this limited assurance engagement nothing has come to our attention that causes us believe that the selected disclosures in relation to the subject matter are not reported in accordance with the ICMM Framework and the principles of Materiality, Completeness and Accuracy as set out in GRI G3.

In addition to providing our conclusions, we have listed certain observations which do not limit the conclusions.

#### Selected Observations

This is the third year that Ernst & Young has been engaged by BHP Billiton to conduct limited assurance over selected disclosures in its Sustainability Report. We noted the following observations:

- ▶ We noted an increased visibility of non-executive director involvement in the Sustainability Report planning, preparation and reporting process, and higher level of engagement from more senior members of the HSEC management team in our assurance process.
- ▶ During the period BHP Billiton revised its Group Level Documents ('GLDs') in order to streamline requirements and operational processes. As BHP Billiton has described in the Report, these GLDs have also incorporated the majority of the relevant ICMM requirements and Position statements. During our limited site visits, we noted that selected sites were actively performing gap analyses in order to assess their compliance with the new requirements. This is an ongoing process, and there are opportunities to further improve certain GLDs to enhance the consistency of information being reported and to improve the implementation of GLDs at such sites.
- ▶ The level of review over selected health, safety and community data reported by certain sites could be improved. We noted several instances where internal processes had not highlighted deficiencies in data prior to our site visits or the 12 month data checks undertaken by us. It should be noted that in all identified instances material to the data included in the Report, appropriate corrective action was undertaken.
- ▶ BHP Billiton has reported limited information relating to significant safety incidents due to gaps identified in its processes in the prior year. A new process to improve data consistency commenced implementation during the current year. While we noted improvements in the process for the aggregation of data, inconsistencies were noted in what is identified, classified and reported as significant safety incidents. Corrective actions are being progressed to improve the current process.
- ▶ BHP Billiton contributes a significant amount of its community investment contributions via a range of related trusts and foundations. As the proportion contributed to such trusts and foundations increases, so will the need for greater transparency of that spend.



Ernst & Young  
Sydney, Australia  
18 September 2009

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