



## Minera Escondida BHP Billiton Pampa Norte

MINERA ESCONDIDA LTD.  
OCEPI PRO PECT  
ANTOFAGASTA, CHILE  
DEPT. ANTOFAGASTA, REGION II, CHILE  
SOUTH AMERICA, 170 KM SOUTH EAST  
OF THE CITY OF ANTOFAGASTA



Letter from the President	1
Our Charter	2
A global company	3
Operations in Chile	3
Our focus on sustainability	4
Material Risks	5
Our sustainability performance	6
Operational model	8
Partnerships	9
Code of Business Conduct	10
Compliance Program	11

## **Performance** 12

Operations results in Chile	15
Business strategy	15
Exploration	15
Added value	17
Acknowledgments	19

## **People** 20

Safety	22
Training and development	22
Working at geographical altitude	24
Reduction of carcinogenic exposure	24
Life at the Mine	24
Labour Relations	26
Safeguarding compliance of Our Charter of Values	27

## **The Environment** 28

Water	30
Energy and climate change	30
Environments where we operate	32
Air	34
Waste	34
Closure Plans	34

## **Society** 36

Relationships with our host communities	38
Responding to our stakeholders	38
Respect for Human Rights defines how we work	38
Relationship with indigenous peoples	39
Quality of life	40
Local and regional contribution	40
Generating local capacities	40
Culture	40
Contribution to education through our foundations	42
Supporting our workers who contribute to the community	44

## **Appendices** 46

Stakeholders	47
Figures - Performance	48
Figures - People	51
Figures - Environment	54

### **Report Presentation**

For the first time, this tenth Sustainability Report of BHP Billiton in Chile reports on the annual management of both Minera Escondida and Pampa Norte (which includes the operations of Compañía Minera Cerro Colorado and Spence). In this manner, through this publication, we report on the economic, environmental and social performance of the company for the period comprised between January 1 and December 31 of 2015.

This report is aligned with the sustainable development framework of the International Council on Mining and Metals (ICMM) and is prepared under the essential conformity level option of the Global Reporting Initiative (GRI).

The data published in this document has been verified externally by KPMG. However, this report is not intended to examine all of the stakeholders' issues; only the most significant themes are addressed, along with their potential impact. The selection of the contents of this report was carried out by means of a materiality process in three steps: identification, prioritisation, and consultation.

Materiality, in the sustainability context, refers to the issues and activities that are considered –by our internal and external stakeholders- to be the most significant and relevant for our industry, for the company, and for our operations.

## Letter from the President

### We seek to implement more efficient, engaged and collaborative work dynamics.



I am pleased to present the 2015 Sustainability Report of BHP Billiton Chile, which compiles information regarding our operations in the country, and summarises the main aspects of the distinctive way we in which conduct our businesses.

Globally, BHP Billiton is carrying out a transformation process which basically aims for a more simple, agile and lower cost structure. Our goal is to reduce complexity in the way we operate in order to achieve the full potential of our operations. In this way we are laying the foundation for the company for the future.

In this context, we seek to implement more efficient, engaged and collaborative work dynamics, that will enable us to share and replicate the best practices within BHP Billiton, and also to learn from other experiences in the industry. Through this new high-performance culture we want to encourage continuous improvement and boost the productivity initiatives that we are implementing in each of our operations.

A milestone for Chile in 2015 was the launch of the new concentrator plant at Escondida (OGP1). This plant, the world's largest single-line mill, required an investment of US\$4.2 billion and saw 9,200 workers on site at the peak of construction, with good safety indicators.

With the entry into operations of OGP1 and the second desalination plant, known as EWS, and the potential extension of the life of the Los Colorados concentrator plant, Escondida will be able to operate three concentrators, which will help offset the decline in ore grade, and restore production levels.

The EWS project continued to develop on schedule, and is due for completion during 2017. With an investment of US\$3.4 billion and a capacity of 2,500 l/s, this will be one of the world's largest sea water desalination plants. The objective is to assure supply, and to significantly reduce the use of aquifers, such that Escondida remains a sustainable operation.

Moreover, in Pampa Norte we obtained the environmental qualification resolution that will allow us to extend the operation of Cerro Colorado until 2023, and we submitted for evaluation the studies corresponding to the Spence Primary Ore Project, also known as SGO- which includes the construction of a concentrator plant and a sea water desalination plant, that has the potential to extend the life of the operation by 50 years.

For BHP Billiton it is a privilege to be part of the mining industry in Chile. We are well aware that our operations are key to the economy of the country and regions where we operate, which is a huge responsibility for us. Guided by the values of Our Charter, we strive to constantly improve our management, applying strict operating standards for safety, the environment, and community. Apart from this, there is an ongoing effort to build, at the entire organization level, a sense of purpose and achievement in everything we do.

To find out more details of our management style and the 2015 results, I invite you to read this report.

A handwritten signature in black ink, appearing to read 'Daniel Malchuk', with a stylized flourish at the end.

**Daniel Malchuk**  
President BHP Billiton  
Minerals Americas

# Our Charter

**We are BHP Billiton, a leading natural resources company worldwide.**

Our aim is to create shareholder value in the long term through the discovery, acquisition, development and commercialization of natural resources.

Our strategy is to own and operate large, long-life, lowcost primary process assets with the potential for growth, diversified by product, geography and market.

## **Our Values:**

### **Sustainability**

To place health and safety in first place, to be environmentally responsible, and to support our communities.

### **Integrity**

To do the right thing and keep our word.

### **Respect**

To value transparency, trust, teamwork, diversity and mutually beneficial relationships.

### **Performance**

To achieve high results for the business, making full use of our capacities.

### **Simplicity**

To concentrate our efforts on that which is most important.

### **Accountability**

To define and accept accountability, and meet our commitments.

## **We are successful when:**

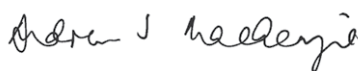
Our employees start each day with a sense of purpose and end it with a sense of achievement.

Our communities, clients, and suppliers value their relationship with us.

Our assets portfolio is world-class and is developed in a sustainable manner.

Our operational discipline and our economic strength allow us to create future growth.

Our shareholders receive the highest return on their investment.



**Andrew Mackenzie**  
Chief Executive Officer

May 2015

## Corporate Information

### A global company

Present in 13 countries, BHP Billiton is a global mining company, whose origin was the merger of Australia's Broken Hill Proprietary (BHP) and UK's Billiton, in 2001. The objective is to create long term shareholder value through the discovery, acquisition, development and commercialisation of natural resources. The headquarters is located in Melbourne, Australia.

In May 2015, BHP Billiton completed a restructuring plan of its assets, which involved the division of the company and the creation of a new global and independent company ("South32") from a selection of aluminium, coal, manganese, nickel and silver operations, in order to focus on a simpler portfolio, consisting of four main business units: Oil and Potassium, Copper, Iron Ore, and Coal.

In March 2016, it took a new step in the simplification process, regrouping these four business units into three new areas: Minerals Americas, Minerals Australia, and Petroleum, thus implementing a structure focused on geographical operational areas supported by global services.

Those BHP Billiton operations in Chile that were previously part of the Copper unit, today are part of Minerals Americas, which also includes the operations of New Mexico Coal, the non-operated joint ventures of Antamina (Peru) and Cerrejón (Colombia), and the Resolution project (USA).

The company arrived in Chile in 1984, when BHP acquired Utah Corporation, which was the main partner of Minera Escondida at that time. Later, in the year 2000, Billiton acquired Rio Algom, which had Spence and Cerro Colorado among its assets.

Since May 2013, the CEO of BHP Billiton is Andrew Mackenzie, and Chilean Daniel Malchuk, who previously served as President of Copper, is currently the President of Minerals Americas.

### Operations in Chile

In Chile, BHP Billiton operates Minera Escondida and BHP Billiton Pampa Norte, which produced 1,402,619 tons of fine copper in 2015. This volume represents 24.3% of the country's entire copper production, and positions the company as the leading private player in the national mining industry, with a leading role in the regions of Tarapacá and Antofagasta.

Minera Escondida is the largest asset of the company in Chile. It is located 170 km southeast of the city of Antofagasta, at an altitude of 3,100 meters above sea level. It produces copper concentrate and cathodes through the operation of two open pits (Escondida and Escondida Norte).

The current infrastructure at the site consists of ore crushing and conveying systems, three concentrator plants, two leaching heaps, two solvent extraction

plants and one electro-winning plant, as well as two mineducts that transport the concentrate to our facilities in Puerto Coloso, south of Antofagasta, where it is filtered and shipped to the clients. A seawater desalination plant also operates there, producing water for industrial use, which is pumped back to the mine through a 166 km water pipeline.

Copper concentrate is obtained by means of the sulphide ore flotation process, and copper cathodes by means of oxide ore leaching, low grade sulphide bioleaching, solvent extraction, and electro-winning.

The corporate offices of Minera Escondida are located in the city of Antofagasta. Its ownership structure is as follows: BHP Billiton, the operator company, 57.5%; Río Tinto, 30%; JECO Corporation, 10%; and JECO 2 LTD, 2.5%.

In relation to the BHP Billiton Pampa Norte business unit, this consists of two open pit operations: Compañía Minera Cerro Colorado Limitada (Cerro Colorado) and Minera Spence S.A. (Spence). Both sites produce high quality cathodes by processing copper oxides and sulphides through leaching, solvent extraction, and electrowinning.

Cerro Colorado is located in the Pozo Almonte district, inland from Iquique, in the Tarapacá region, at an altitude of 2,600 meters above sea level. It commenced the production phase in 1994, and had an expected useful life until 2016. In September 2015, the Environmental Assessment Commission of the Tarapacá region approved the environmental permit of the Operational Continuity project, allowing it to extend its operation until 2023.

Spence is located in the Sierra Gorda district, Antofagasta region, at 1,750 meters above sea level. This site began production in December 2006, and it has an expected useful life until 2024.

In July 2015, the company submitted two studies to the environmental authorities for approval, having the potential to extend its life span: the Primary Ore Project (known as SGO), that contemplates the development of a concentrator plant with an average processing capacity of 95,000 tpd to produce copper and molybdenum concentrate; and the construction of a sea water desalination plant to supply water to the concentrator.

Both Cerro Colorado and Spence have certification in the most stringent quality standards for the production of cathodes and also for environmental management.

BHP Billiton owns 100% of BHP Billiton Pampa Norte.

The company's Marketing area is tasked with commercialising the copper produced by Minera Escondida and BHP Billiton Pampa Norte.

# Our Sustainability Approach

## Sustainability is a value embedded in all the areas of our company

### It guides the way we work

Sustainability is a fundamental value in BHP Billiton's global strategy, and it is embedded in all levels of the organization.

In this area, our approach is based on Our Charter, which defines the purpose of the company and the values to which it adheres, as well as how we measure success; and also on our Code of Business Conduct, which describes how we work, and guides and helps us to implement in practice the values set forth in Our Charter.

According to this corporate framework, our priority is the health and safety of people, a context in which we take care to identify and manage the material risks in all operations, ensuring that our people, contractors, suppliers and the communities in which we operate remain safe and healthy.

We are also committed to the responsible management of the natural resources we use in the operations, striving to avoid and minimize as much as possible impact on the environment. We also strive to be part of the communities in which we operate, fostering trusting and long term relationships that respect the local cultures and that create lasting benefits.

Open, ongoing, and transparent engagement with our stakeholders helps us identify, understand and prioritise the sustainability issues, which are fundamental to our business and to our stakeholders.

Also, our Code of Business Conduct represents the commitment of the company to maintaining and meeting ethical business practices, and is applicable to all employees, regardless of their location or position.

Both corporate documents set forth our commitment to maintaining management that safeguards high ethical standards, the development of businesses with integrity, and respect for people.

As a mining company, we operate in an industry where many of our activities are highly regulated by laws governing health, safety, the environment and relations with indigenous communities. In this sense, we not only take care to comply with those laws and regulations, but where possible, we exceed the legal requirements and of any other nature that are less stringent than our own.

Through this sustainability approach we seek to ensure that our business will remain feasible and that it contributes long term benefits to society. Functional areas such as HSE and External Affairs, among others, lead the integral management of the company's sustainability and at the same time support the operational areas in this matter.

### 2015 Timeline

<b>2015</b>	· Commencement of operation of the OGP1 project in Escondida. The extension of Cerro Colorado's useful life from 2016 to 2023 is approved.
<b>2014</b>	· Inauguration of the new BHP Billiton corporate offices in Santiago · Beginning of construction of the Kelar plant / Hilmar Rode takes on the role of President of Minera Escondida / Kevin O'Kane takes on the role of President of Pampa Norte · Commencement of the OLAP project operations
<b>2013</b>	· Base Metals becomes Copper, and Explorations and Olympic Dam (operation in Australia) are incorporated into this business unit · BHP Billiton asigna contrato para construcción de Central Kelar · Construction announcement of Escondida's second desalination plant
<b>2012</b>	· Commencement of Escondida Ore Access Production · Construction announcement of the OGP1 and OLAP Projects
<b>2010</b>	· New business unit: BHP Billiton Pampa Norte (Cerro Colorado and Spence) · Inauguration of the Fundación Minera Escondida building
<b>2008</b>	· Pampa Escondida is discovered
<b>2006</b>	· Spence produces its first copper cathode
<b>2005</b>	· The Escondida Norte pit is inaugurated, as well as Sulphide Leach in Escondida
<b>2004</b>	· BHP Billiton Base Metals' corporate centre moves to Santiago
<b>2002</b>	· Start-up of Escondida's Phase 4 expansion
<b>2001</b>	· Merger of BHP and Billiton
<b>2000</b>	· Billiton acquires Río Algom, owner of the Spence ore deposit and of Compañía Minera Cerro Colorado
<b>1999</b>	· The Fundación Educacional Escondida (Ceim) is inaugurated
<b>1998</b>	· Start-up of the Phase 3.5 expansion and Oxide Leach in Escondida
<b>1997</b>	· Inauguración Fundación Minera Escondida
<b>1996</b>	· Start-up of of Escondida's Phase 3 expansion
<b>1994</b>	· Start-up of Escondida's Phase 2 expansion
<b>1993</b>	· Start-up of Escondida's Phase 1 expansion
<b>1991</b>	· Official inauguration of Minera Escondida
<b>1984</b>	· BHP acquires Utah, the main partner of Escondida
<b>1981</b>	· The Escondida ore deposit is discovered





### Material Risks

Material risks are those that could potentially cause a serious impact on health, safety, the environmental or the community, or could negatively affect the reputation, legal or financial areas of the company.

These are identified according to a matrix that describes the possibility of occurrence, and the degree of damage, injury or loss, which in turn allows assessing the severity thereof.

We ensure that they are properly managed through verification of critical controls based on key performance indicators. We promote the identification of best practices within the framework of a continuous improvement process.

Our risk management system is consistent with the hierarchy of controls described in Article 6 of Convention 176 – Agreement on Safety and Health in Mines, 1995, by the International Labour Organization (ILO).

In all our operations we have identified risks that have the potential to cause fatal or serious accidents (material risks) associated with working at height, lifting manoeuvres, isolation and lock out, entanglement, and work in confined spaces, among others. We have also implemented the relevant critical controls, and we make sure that they are managed through a verification process in the field.

The process of verification on the line (supervisors and executives) is crucial for the proper operation of the critical controls, and to this end we have designed a set of questions that assess their effectiveness. The results of the checks are collected online and allow us to easily identify the areas that require attention and focus by management. In this way we seek to solve problems proactively, before an accident occurs.

The critical control verification process developed by BHP Billiton in Chile has been considered a good practice in the company and in the industry. It stands out as a simple procedure, and can be performed on-site using smart phone and tablet applications.

## Our Performance in Sustainability

### FY 2015 Results (\*)

In the following table we report the performance of each of the goals that the company has defined for health, safety, the environment and community, and that reflect our commitment to progressively lead the management in these areas. Progress is monitored annually by internal auditors.

● Not Achieved    ● Achieved    ○ In progress

Goal	Performance	Result	Term
<b>Safety</b>			
Zero fatalities in the controlled operations.	No fatalities were recorded in Minera Escondida nor Pampa Norte. The safety of our workers is a priority in every aspect of the business; fatality risk management through verifying critical controls has been a key, as has simplifying the processes and improving the quality of investigations.	●	Annual
Improve our total recordable injury frequency (TRIF), every year.	Minera Escondida's TRIF was 1.57, which is a reduction of 6% with respect to the previous FY (1.67). BHP Billiton Pampa Norte recorded a TRIF of 1.31, with 38% reduction compared to 2.11 recorded for the previous FY. Visible field safety leadership, self-care, and the commitment of all the workers, have been critical measures to achieve a sustained decrease of this indicator.	●	Annual
Annual alignment reviews regarding the Voluntary Principles on Security and Human Rights (VPs), and implementation of plans to close the gaps.	We conduct annual reviews to ensure alignment with the Voluntary Principles on Security and Human Rights, and we implement improvement plans when required.	●	Annual
<b>Health</b>			
Potential occupational exposure to airborne carcinogens and contaminants will be reduced by 10%.	In each operation, control plans and mitigation of exposure to harmful agents that can cause occupational diseases in the long term such as noise, acid mist and silica, were implemented. These plans were managed by the Health area and were compared with our baseline exposures and the occupational exposure levels.  In this period, both Minera Escondida and BHP Billiton Pampa Norte met their goals. In the case of Minera Escondida, it ended the year with 809 exposed workers, a figure that is lower than the preset target of 889 cases.  Pampa Norte ended the year with 151 exposed workers, versus 203 cases set as a goal. Along with the successful implementation of the projects, meeting these goals is also related to the termination of activities by some contractor companies and the leaving of our own workers.	●	June 30, 2017
<b>The Environment</b>			
No significant environmental incident in our controlled operations	No significant incidents were recorded in our operations in Chile, in consideration of our own internal procedure.  This is the result of our management plans and the relevant controls implemented for identifying, assessing, preventing and mitigating these impacts.	●	Annual
As a global company, maintain total greenhouse gas emissions below the levels of FY 2006.	To limit the release of these gases, we have implemented improvements in the productive processes, energy efficiency projects and other initiatives such as the transformation of the Kelar power station from coal-fired to natural gas-fired.	○	June 30, 2017
All the operations must develop management plans, including controls to prevent, minimize, recover and offset the impacts related to biodiversity and ecosystems.	We implement biodiversity and land management plans that are updated annually.	○	Annual



Meta	Desempeño	Resultado	Plazo
We will finance the conservation and management of areas of great biodiversity and ecosystem value of national or international relevance.	We continue contributing to the generation of lasting environmental benefits, where a highlight is the agreement with The Nature Conservancy (TNC) for the permanent conservation of the Valdivia Coastal Reserve, recognized globally as a priority site due to its biodiversity.	○	Annual
All the operations with material risks regarding water will set goals and implement projects to reduce the extraction of this resource.	To ensure our water supply in a sustainable manner, we have a process whose objective is to identify opportunities aimed at reducing water consumption. With the identification of these opportunities, projects with established goals are implemented, and are regularly monitored.	○	June 30, 2017
<b>Community</b>			
No significant community incidents <sup>(1)</sup> .	BHP Billiton operations in Chile did not record significant community incidents during this period. We maintain management plans as well as processes and controls to identify, assess and mitigate incidents that could potentially impact the communities in our area of influence.	●	Annual
1% of the pre-tax profits (averaged over the last three years) is invested in community programs.	During the 2015 calendar year, BHP Billiton operations in Chile made a social investment of US\$33 million.  We work with communities, with the public and private sectors, and other relevant stakeholders of society to contribute to their economic and social development. To do this, we identify those areas where we can make a significant contribution, and we design and implement relevant social investment plans, after completion of consultation and participation processes.	●	Annual
All the operations must have local procurement plans with set goals.	During the 2015 calendar year, a total of US\$ 4,992 million was contracted with local suppliers and services. Our focus is to improve the capacity and opportunity for the participation of local businesses and entrepreneurs in our businesses. In this context, we continue developing the World Class Supplier Development Program.	●	Annual

(\*) 1 July 2014 to 30 June 2015.

(1) A significant incident, resulting from a BHP Billiton controlled operation, is that with a classification of 4 or higher, according to our severity scale (1 to 7) and aligned with our risk management corporate documents.



## Operating with integrity

### We are committed to doing the right thing

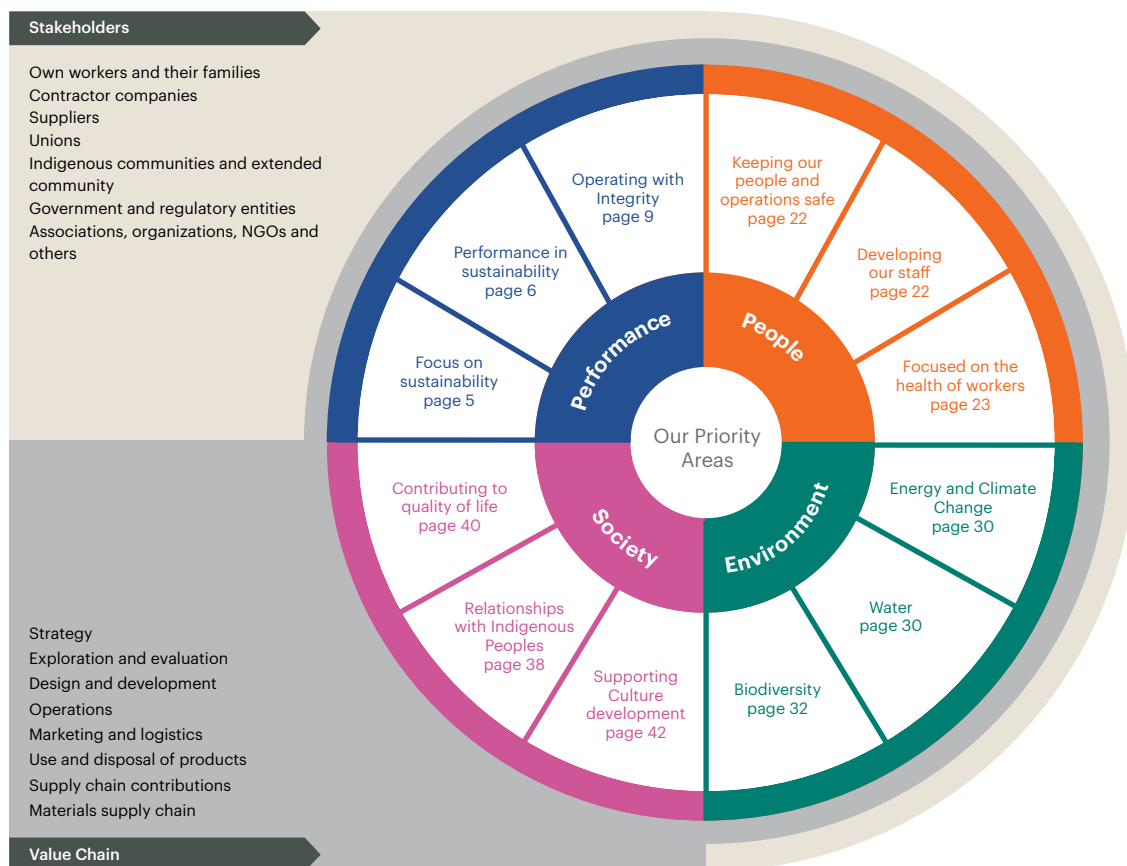
#### Operating Model

The management of BHP Billiton is frameworked in the principles of an Operating Model that is specially designed to have a simple and flexible organization, which defines how we work, how we organize ourselves and how we measure performance. It standardizes processes and functions easily while detailing how responsibilities are divided. In addition, the company provides sufficient flexibility to adapt to market cycles and adequately face growth opportunities.

One of the key factors of this management approach is setting goals and regularly measuring our performance in relation to corporate guidelines, key steps for continuous improvement, the efficient use of resources, and maintaining the focus of our efforts on the most relevant topics.

Having common principles of organizational design, systems and processes, as well as a set of performance requirements, provides an environment of planned, controlled and safe work for our workers, where all risks are managed on an ongoing basis.

The Leadership Team of Minerals Americas, headed by its President, is responsible for implementing the strategy of the company in Chile, and is responsible for taking the most important decisions regarding the operation of each of the assets, and supervising the operational performance management.



### Aliances

BHP Billiton forms parte of the principal international organizations linked to sustainability issues, among which are the following:

- International Council on Mining and Metals, ICMM, of which the company is a founding member. This membership demands aligning our management standards and practices with ICMM's sustainability framework, associated principles and position statements.
- United Nations Global Compact. BHP Billiton signed the United Nations Global Compact in 2003, committing to respect the 10 universal principles related to human rights, labour standards, the environment and anti-corruption.
- World Business Council for Sustainable Development, (WBCSD), world association of more than 200 companies that exclusively work to promote sustainable development. BHP Billiton forms part of it since the year 2000.

In Chile, the company is a member of the Mining Council A.G., which includes the largest companies in the country that produce copper, gold, silver and molybdenum; and of the National Mining Society, a trade association that represents large, medium and small scale mining activity companies –metals and nonmetals- among others.

At the local level, we participate in the Regional Mining Work Groups in Iquique and Antofagasta; we are also part of the Antofagasta and Iquique Association of Industrials, and of the Antofagasta and Tarapacá Mining Safety Regional Councils.





## Governance

It isn't just achieving our goals that matters, but also the manner in which we achieve them

### Code of Business Conduct

The Code of Business Conduct is based on the values of Our Charter, and represents the commitment of BHP Billiton to maintaining and complying with ethical commercial practices, and meeting or exceeding the applicable legal requirements. Consistent and appropriate commercial conduct creates loyalty and trust in stakeholders and in the people that make up the organization. The guidelines of this Code encourage a culture of respect, of doing the right thing, and honouring our promises.

All employees, directors, managers, contractors and suppliers (in the case of those that must follow specific contractual obligations), as well as controlled entities, must adhere to the Code, regardless of their location or function.

Each leader is responsible for ensuring compliance within the company. Also, all employees receive training on this Code during the induction process, and each year our people must review its content. Acting in accordance with it is a basic condition for working at the company.

Our ability to work with high standards of integrity must never be compromised by commercial objectives. This Code clearly defines our obligations to deal with any cases where people who are part of the organization could be exposed to situations that jeopardize compliance.

In order to deal with any complaints or concerns that our internal and external stakeholders might express, we have a number of reporting mechanisms, among which is Ethics Point. This is a service that provides a confidential means for reporting concerns about conduct that might be contrary to our values and standards of ethical business. It is a multilingual hotline managed by an independent third party, is available 24 hours a day and has an online case management system.

Our Code of Business Conduct also ensures that we fulfil our commitments. These include support for the objectives and principles of the International Council on Mining and Metals, the United Nations Global Compact, the Voluntary Principles on Security and Human Rights and the Transparency Initiative of the Extractive Industries.

### Compliance program

The current Compliance Program of BHP Billiton lays the foundation for guiding the business in identifying risks associated with corruption, acts against free competition, money laundering, financing of terrorism, and transactions with prohibited parties (individuals and / or institutions sanctioned for crimes of this type), among others. The program also includes design, implementation and monitoring of the respective controls.

It applies to the entire organization and is part of the comprehensive and robust crime prevention model implemented by the company, which seeks to cover specific aspects of the Chilean law.

In recent years, our Compliance Program has been strengthened and consolidated in the various areas of the company. This is done through analysing material risks, implementing and applying the framework of pre-approval for contributions to third parties, among them the communities surrounding our areas of influence; monitoring transactions of contributions, and regularly training our workers in these matters.

# Performance Simplifying our way of doing things

At the global level, BHP Billiton is carrying out a transformation process, which at its core is intended to provide a simpler, more agile structure at a lower cost. We believe that, by reducing complexity in our operations, our business will achieve its full potential.

Thus, we are looking to increase the synergies throughout our business, to avoid duplication of tasks, and to implement more efficient, participative, and collaborative work dynamics, so that best practices will be shared and replicated. This will also allow people to be more connected and committed to producing results.

In order to achieve our business objectives and goals, we need a culture that will support high performance and foster ongoing improvement.

In 2015 we began to implement our Leading Step Up program in our operations and job functions, intended to provide our leaders with the tools, abilities, and skills required to drive that culture change, and to commit and develop our teams in order to improve our overall performance. In brief, through a new focus we strive to achieve operational excellence.





# 1,402,619 tons of fine copper

were produced by BHP Billiton's operations in Chile, which amounts to 24.3% of the national production.

# US\$ 3,400 million

are being invested by BHP Billiton in the construction of a second seawater desalination facility at Puerto Coloso.





## Performance

### Contributing value through the way in which we manage our businesses

#### Global Figures

2015					
Operational Data	Metric	Pampa Norte		Minera Escondida	Total BHP Billiton Chile <sup>(1)</sup>
		Cerro Colorado	Spence		
Total Fine Copper Produced	tmf	74.482	175.627	1.152.510	1.402.619
Share of Chilean copper production	%	1,3	3,0	20,0	24,3
Share of world-wide copper production <sup>(2)</sup>	%	0,4	0,9	6,5	7,8
Sales <sup>(6)</sup>	US\$ (millions)	1.673		6.575	8.248
Direct employees	People	822	1.033	3.798	6.416
Contractors <sup>(5)</sup>	FTE <sup>(3)</sup>	3.574		5.846	17.549
Community investment	US\$ (millions)	6		27	33
Number of local suppliers <sup>(4)</sup>	Suppliers	1.050		1.328	2.778
Percentage of local suppliers	%	96		91	90

(1) The Grand Total includes data from our offices in Iquique and Santiago.

(2) The share of BHP Billiton Operations in Chile with regard to the world copper production was obtained from data accrued from January-September, 2015.

(3) This acronym stands for Full Time Equivalent.

(4) "Local" means Chilean suppliers.

(5) The amount for the contractors reported by our Santiago office is 8,129.

(6) The sales value of Pampa Norte include sales of Spence and Cerro Colorado.

### Results from our operations in Chile

In 2015, BHP Billiton produced 1,402,619 tons of fine copper in Chile, including its 3 operations located in the Regions of Antofagasta and Tarapacá.

In the case of Escondida, the production volume was of 1,152,510 tons, of which 826,220 tons were copper contained in concentrate and 326,290 tons were in copper cathodes. There was a 1.6% decrease in volume in comparison to the 1,171,648 metric tons produced in 2014. Such reduction can be explained mainly due to a decrease in the ore grade.

In turn, the total production from Pampa Norte amounted to 250,109 tons of high grade copper cathodes, i.e., there was a 2.2% decrease in comparison to the 255,638 tons produced in the previous fiscal year. The production from Compañía Minera Cerro Colorado was 74,482 tons, while Minera Spence produced 175,627 tons.

### Our business strategy

Our vision is to create one of the simplest and most profitable portfolios in the world through the safe, efficient, and sustainable management of our assets.

In Chile, BHP Billiton operates Minera Escondida Limitada, Minera Spence S.A., and Compañía Minera Cerro Colorado Limitada. Its main focus is:

- Ongoing protection of the health and safety of our employees and of the communities where we operate, through the management of material risks.
- Strict observance of the best environmental and community relations practices.
- Operation of sites at full capacity.
- Continuous and sustainable improvement in productivity, and
- Growth projects that are attractive and efficient in the use of capital.

Along with safety, one of our top priorities in 2015 was to identify and develop continuous improvements in productivity, which allowed to offset a natural drop in the copper grade and the industry's costs pressures. These focused mainly in 3 areas: an increased productivity of employees and contractors; savings in purchases of services and products; and a maximization in the use of the equipment and plants.

Among the initiatives developed by Minera Escondida during this period we can highlight a maximization in the capacity of the concentrator plants, the optimisation of water consumption, an increased production of cathodes in the Oxide Leach Area Project (OLAP), and an increased recovery in the sulphide leaching process.

The new OGP1 concentrator plant at Minera Escondida is expected to commence operation at full capacity during 2016, while construction of EWS, the second desalination plant, should be completed by 2017. Within the framework of our long term strategy, it is foreseen that Escondida will be able to operate using 3 concentrator plants in the future.

On the other hand, BHP Billiton Pampa Norte maintained its production levels as a result of record levels of ore processing at Spence, as well as the improvements that were implemented in the use of mining equipment at Cerro Colorado.

In the case of Spence, an increased recovery in the leaching processes is expected in 2016 as a result from infrastructure improvements. Additionally, in 2015 the Environmental Impact Assessments for the Project of Primaries Ores (also known as SGO) were submitted for assessment. This project foresees the processing of hypogene minerals and contemplates the construction of a concentrator plant and a desalination plant.

In the case of Compañía Minera Cerro Colorado, with the activation of the Environmental Qualification Resolution for its Operational Continuity project, the mine's life has been extended up to the year 2023 at the current production level.

Another great challenge faced by the entire industry is that of energy. In order to address this challenge, by the end of 2013 BHP Billiton awarded a long term energy contract to develop the Kelar project. This is a gas-fired power plant at Mejillones that will be connected to the Great North Power Grid (SING), whose construction began in 2014.

### Explorations

In 2015, our exploration activities were focused on a search for large porphyry copper deposits in Chile, Peru, and the United States.

In Chile, three main programs are underway: Inti (Tarapacá Region), Chile norte (Antofagasta Region), and Chile central (central area, and the Atacama and Coquimbo Regions). In that period of time, the Exploration department drilled more than 35,000 meters in Chile. Meanwhile, in Peru and the United States work was focused on identifying and testing of targets in exploration properties with drilling over 5,000 meters.

In order to generate projects, our geologists are proactively looking for new opportunities, both within the properties owned by BHP Billiton and properties owned by third parties around the world, which allows us to have a long term, diversified, and quality portfolio.



## CASE STUDY

### Investing for the long term



#### **Escondida completed construction of its third concentrator plant, and is continuing with the development of its second desalination plant.**

In 2015, Minera Escondida's third concentrator plant -OGP1- commenced operation. That plant required the investment of USD\$ 4.2 billion. A Safety Risk School was implemented during construction. This initiative was highlighted as a best practice, and has been adopted as an industry standard.

In addition, progress was made in the development of a second seawater desalination plant located in Puerto Coloso, south of Antofagasta, which will allow Minera Escondida to meet its growing water requirements and to minimize the use of aquifers. With a capacity of 2,500 litres per second, this unit will be an addition to the unit that has already been operating at that location since 2006, with a capacity of 525 l/sec. The investment amounts to US\$ 3.4 billion, and is expected that it will commence operating in 2017.

In order to desalinate and pump water to the site, a huge amount of energy will be required. This challenge has been addressed by BHP Billiton through the Kelar project, a natural gas-fired power plant (517MW) at Mejillones, which startup is scheduled for 2016.

## Value added

Copper is a mineral resource that contributes to the development of societies and to improving the quality of life of people around the world.

Chile contributes 30% of the global copper production, while within the country the industry accounts for 41% of the domestic GDP. In the Northern regions of Tarapacá and Antofagasta (where mining activities are concentrated), this sector is the prime mover behind economic growth, with 48.6% and 58.2% shares in the regional GDP, respectively. The above data are from 2014.

BHP Billiton is one of the main world copper suppliers, while Minera Escondida is the main privately owned mining company in Chile. In 2015, our operations in the country produced the equivalent of 1,402,619 tons of fine copper, accounting for 24.3% of the total domestic production.

Our contribution to the Chilean society is more accurately reflected in the distribution of added value, which in 2015 added up to USD 6,415 million. This contributed to the achievement of our corporate goal of creating sustainable value for shareholders, employees, communities, clients, and suppliers.

On the other hand, aggregate payments to our domestic suppliers added up to USD 4,992 million, while for our international suppliers the figure added up to USD 394 million in the same period.

*(Sources: Central Bank, Chilean Copper Commission, National Customs Service, National Statistics Institute).*

### Our contribution to Fundación Chile

Since 2005, BHP Billiton and the Chilean Government have financially supported Fundación Chile, a non-profit corporation that has maintained its leadership role in the introduction of high impact innovations and human capital development for more than 3 decades. Thanks to its technological innovation model and knowledge networks, Fundación Chile has contributed to increasing competitiveness and globalisation of several economy sectors, among them, the mining industry.

By virtue of this strategic alliance, BHP Billiton -through Minera Escondida- became a partner and now has a seat on the Board of Directors. BHP Billiton participates proactively in this instance through 6 regular representatives, which allows us to contribute to defining the strategic guidelines of the institution.

### World Class Suppliers (Cluster)

The World Class Suppliers Program, created in 2008 by BHP Billiton Chile, is an initiative designed to promote innovation through a collaborative model between mining companies and suppliers, in order to develop high impact technological solutions that allow addressing some of the key challenges faced by the mining industry.

In January 2010, we signed an agreement with Codelco to carry out a coordinated effort and achieve an increasingly wide impact on the domestic production base.

With the collaboration of the Ministry of Mining and Corfo, and the participation of other mining companies, the large scale mining industry in Chile will be able to consolidate a sustainable growth model beyond the operation period of the current deposits, as well as to speed up development of the technological abilities that would allow it to better address the competitiveness and productivity challenges.

The starting point for all the projects in this Program is an internal assessment completed by each of our operations, in order to identify and prioritise those problems for which there is no satisfactory solution in the market, and which have a quantifiable financial profit potential or a potential positive impact on health, safety, environment, and community issues.

Thus, this initiative on the one hand contributes to solve our own operational challenges and, on the other, it allows us to take advantage of a large productive mining base in order to drive the strengthening of a technology and service industry for the global mining business.

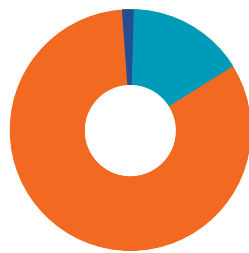
Since 2008 to date, 52 companies of all sizes have participated in our program. Also, throughout its life more than 80 innovation projects have been promoted, and some suppliers have begun to export solutions generated within the framework of this initiative.

In calendar year 2015, nine projects were developed at BHP Billiton Pampa Norte, and thirteen at Minera Escondida.

The program has been recognized as one of the industry's best practices at the global level. Since 2015, it has been included in the roadmap of the National High Grade Mining Program supported by Corfo and the Ministry of Mining. The goal is to reach 250 world class suppliers by 2035.

## Value added continued

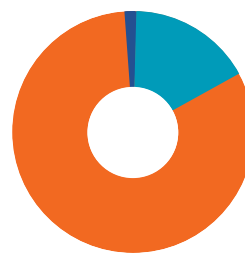
### Expenditure on Domestic Suppliers (US\$, Millions)



2014

- Pampa Norte 14%
- Minera Escondida 85%
- BHP Billiton Santiago 1%

Total: 5,381



2015

- Pampa Norte 15%
- Minera Escondida 84%
- BHP Billiton Santiago 1%

Total: 4,992

### Number of Domestic Suppliers



2014

- Pampa Norte 35%
- Minera Escondida 49%
- BHP Billiton Santiago 15%

Total: 2,799

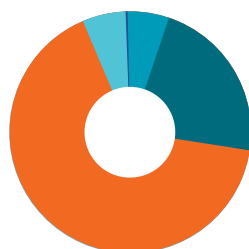


2015

- Pampa Norte 38%
- Minera Escondida 48%
- BHP Billiton Santiago 14%

Total: 2,778

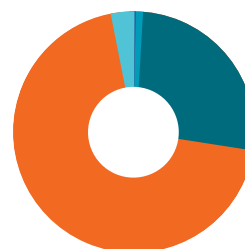
### Distribution of BHP Billiton Chile Local Suppliers



2015 / Quantity by Region

- Arica y Parinacota 0.3%
- Tarapacá 5.2%
- Antofagasta 22.1%
- Metropolitan 66.8%
- Other regions 5.6%

Total: 2,778

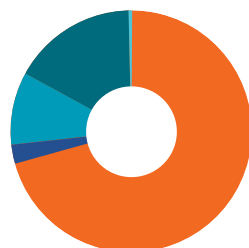


2015 / Expenditure by Region

- Arica y Parinacota 0.1%
- Tarapacá 0.9%
- Antofagasta 14.9%
- Metropolitan 81.0%
- Other regions 3.2%

Total: 4,992

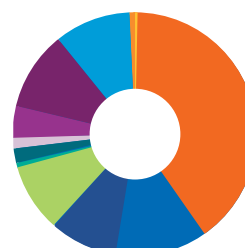
### Sales Destinations (Concentrate & Cathodes) 2015



By Continent

- Asia 70.9%
- Europe 2.5%
- North America 9.5%
- South America 16.6%
- Africa 0.4%

Total: 1,374,686 t



By Country

- China 40.09%
- Chile 12.53%
- South Korea 9.03%
- USA 9.51%
- Holland 0.64%
- Italy 1.81%
- Taiwan 1.39%
- Brazil 4.08%
- India 10.42%
- Japan 10.00%
- Egypt 0.42%
- Great Britain 0.07%

Total: 1,374,686 t



## Awards

- **BHP Billiton was recognized as a Leading Company in Sustainability, by ALAS2020 in 2015.**  
This award highlights our excellence in sharing information on best practices in sustainable development, corporate governance, and relationships with investors. Our company obtained second place in the Sustainability category. ALAS2020 is a programmatic agenda intended to boost sustainable development in Latin America based on business management and investment choices, as an effective way to achieve a world that is more sustainable, equitable, and inclusive.

- **BHP Billiton, among the most admired companies in Chile.**  
BHP Billiton was once again included in the "Admired Companies in Chile" ranking, in the 2015 edition, compiled by PwC Chile and the Diario Financiero newspaper. Our company took fifth place, and attained the highest score in the "Financial Robustness" category. This survey gathers the perceptions of local executive managers in various industries regarding the companies that they most admire, and their main attributes.

## CASE STUDY

### Prospects for the future of Pampa Norte



## Working to reach our maximum potential.

2015 was a year in which significant milestones were reached for the operations of BHP Billiton Pampa Norte.

Spence submitted the studies corresponding to its Primary Ore project (also known as SGO) for environmental assessment, contemplating the construction of a concentrator plant to process hypogene ore, as well as a seawater desalination plant. The project could extend the life of the operation by 50 years.

In addition, Cerro Colorado was awarded an Environmental Assessment Resolution that will allow it to operate through to 2023, while maintaining its production level.

Both operations maintain their focus on safety and on continuous improvement of productivity in order to achieve sustainable development.

# People

## Our number one asset

For BHP Billiton, the health, safety and well-being of our people come first. We know that the environment in which we operate may be hazardous, and thus the identification and management of material risks is a critical item in our business approach. Consequently, we consistently strive to create a work environment that is free from any occupational damages, regardless of where our people are located or what type of work they carry out.

Also, we promote an organizational culture where our employees feel highly motivated and valued for their contributions. Throughout the company, we strive to build a sense of purpose and achievement in the work we accomplish.

We also try to enrich our company through diversity. We believe that a diverse workforce and an inclusive work environment, where each person's unique abilities, experience, and perspective are accepted, are crucial for the success of our business.

BHP Billiton's commitment to its employees is to provide a harmonious work environment, where everyone is treated with respect and where they have an opportunity to develop and maximize their potential.

**137,233**  
**hours of**  
**training**  
for employees during 2015







## People

**We try to offer a work environment where everyone can maximize their potential**

### Safety

Our priority is the safety of our people, and this is reflected in a corporate commitment that focuses on "everyone goes home safe and sound."

In Chile we apply the same safety standards as all other BHP Billiton operations around the world, with a view to keeping our workplaces safe and free from fatalities and serious injuries.

Based on this commitment, at each of our various job sites we have identified the material risks, which are defined as those risks that could have serious or fatal consequences. We have also implemented the corresponding "critical controls" and a robust process to verify their effectiveness in the field.

Also, we maintain a culture of accident reporting, improving the investigation processes and sharing the key lessons learned. Through those measures and visible leadership in the field, in 2015 we achieved a significant 61% reduction in high potential accidents.

In spite of the improvements that have been implemented, in June 2015 a bus carrying employees from a subcontracting company from Calera to the Minera Escondida OGP1 site crashed into a truck on the Pan-American Highway, 950km south of Antofagasta. Regrettably, the bus attendant was seriously injured, and despite undergoing surgery, he died later at the Coquimbo Hospital.

### Training and development

We value in-house advancement, and strive to build a high performance organization that has a model that provides fair compensation and acknowledgement for our employees. We strengthen the skills and abilities of our work force through regular performance reviews, combined with work training and growth programs.

These programs are designed and implemented according to our employees' development requirements and our business requirements, and include ongoing training in occupational safety and health.

In addition, as part of the required induction process, all employees and contractors must demonstrate that they have received training in health and safety, as well as on the Company Charter, the Code of Business Conduct, and our anti-corruption guidelines.

In 2015, our company provided 137,233 hours of training to employees at BHP Billiton Santiago, Minera Escondida, and BHP Billiton Pampa Norte.

#### CASE STUDY

## The “5 Star Vehicle” safety standard



### Exceeding our own requirements on road safety.

With the objective of continuing to reinforcing road safety, in 2015 we implemented a new safety standard for our light vehicle fleet.

Through an integrated effort involving key stakeholders, such as vehicle manufacturers and leasing companies, we were able to implement the 5-Star Vehicle standard of the New Car Assessment Program (NCAP) by re-engineering our requirements and RFPs.

As a result of this exercise, we currently have safer vehicles available for our employees, while we reduced the size of our fleet and increased its efficiency.

The initiative was supplemented by a review of the design of our internal roads, and improvement of the controls we use to detect and prevent fatigue in our drivers.

## People continued

### **Work at geographic altitude: the new regulations and their implications**

In November 2013, new regulations from the Ministry of Health became effective on work at Great Geographic Altitude (above 3,000 meters above sea level). The regulations set forth that any employees working under such conditions must be fit to carry out their jobs, as determined by a medical assessment completed by a mutual insurance organization. Among other items, the regulations list 33 counter-indications for high altitude work.

Located at 3100 masl, Minera Escondida is consequently subject to those regulations. Therefore, it has developed an integral strategy in order to meet the legal requirement and protect the life and health of its employees. Thus, a prevention and healthy lifestyle promotion program was implemented, including healthy food and ongoing physical activity. Additionally, a crossfunctional team was created for assessing, tracking, and monitoring the health of the applicable employees.

Approximately 10% of the work force were deemed as unfit and, of those, a great majority were deemed as temporarily unfit. At the same time, the camps' infrastructure and standards were improved, and an awareness campaign in this regard was launched.

### **Reducing exposure to carcinogens**

We are aware that silica and sulphuric acid mist are potential carcinogenic agents, and therefore we have implemented plans to manage the exposure of our employees and contractors.

Year after year, we have been able to decrease the number of people that are exposed to those agents at our operations, through projects that include newly available technologies for those purposes.

In 2015, we incorporated the Golden West additive to the crushers at Minera Escondida. This additive is a polymer that keeps the mined material damp between the crushers and the stockpile, thus reducing the generation of dust in those areas.

We also implemented second-generation SAME campaigns for the collection of acid mist at the electrowinning buildings, as well as the use of Jupiter hard hats, which protect the whole face area using positive air pressure, thus creating a pure fresh air micro-environment for the operator.

It should be noted that all employees exposed to silica and sulphuric acid mist have preventive medical surveillance programs available, in order to ensure that their health is not affected by this cause.

### **Living at the mine**

With the goal that our employees can do their work in a harmonious and safe environment, we provide the best possible conditions in terms of infrastructure and comfort in the living areas at our operations.

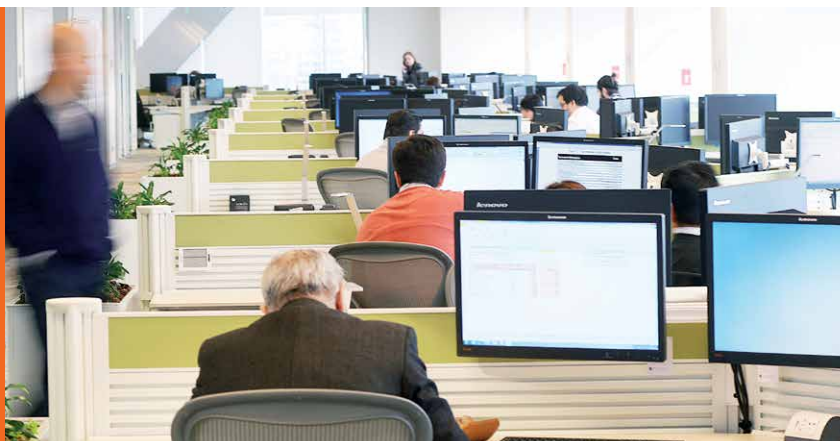
At the camps for Minera Escondida and Pampa Norte, healthy food plans with low-calorie alternatives have been implemented in the food service provided to the employees. This is supplemented by programs promoting physical activity.

Additionally, the employees have access to recreational facilities, areas for playing sports in their free time, as well as religious venues and facilities, all of which are intended to promote a healthy lifestyle and integration as a human group.



## CASE STUDY

# Mental Health Programs



## Addressing the workers' psycho-social risks.

In Chile and the world at large, the incidence and prevalence of mental illnesses in the labour force has increased noticeably. In order to begin addressing this emerging challenge, which is a priority for our company, we have defined 3 baseline initiatives.

The first initiative is the implementation of employee assistance programs at each of our operations in Chile. Through those programs, our employees and their families can anonymously access available consultations with trained professionals in order to address any psychological problems that may be affecting them. The service is managed by specialized independent companies, and provided under strict confidentiality.

In addition, we have commenced implementation of the legal requirement from the Ministry of Health, regarding the Psycho-Social Risk Protocol, by means of a survey developed by that authority. This will allow us to set a psycho-social status baseline for the company's work environment.

Also, we have in place an awareness plan on the issue of mental health for our employees. By the end of 2015, these two activities were in the process of being implemented.

### Labour Relations

Our company maintains mutually cooperation labour relations with all its employees, either individually or through their representatives, always ensuring full respect for their rights and collective instruments. At BHP Billiton we are committed to a joint search for the best agreements that would allow balancing the legitimate claims of the employees and the required sustainability of our processes, while addressing industry challenges.

As at December 2015, 2 collective agreements are in force at Minera Escondida. The first agreement was signed with Workers Union No. 1 from Minera Escondida Limitada in representation of the operators and maintenance personnel, while the second agreement was signed with Workers Union No. 2 from Empresa Minera Escondida, in representation of the managers and staff. In the first case, the agreement is valid through to January 2017; the second, until December 2017.

The complex macroeconomic scenario that the industry began to experience in 2015 prompted the company to develop strong optimisation initiatives that will ensure long term safety, productivity, and sustainability for our business. Thus "Escondida 3.0" was created, an instance for which the Company established an open door policy in order to answer questions from employees and their representatives, which resulted in bipartite meetings that allowed successful closure to be reached for the overall process.

Throughout 2015, both unions independently maintained ongoing dialogs with the Company, allowing progress in issues of mutual interest, as well as in dealing with the challenges being faced by the industry.

In December 2015, within the framework of a regulated process, the Operators Union of Minera Spence and the company signed a collective contract valid for 36 months (until November 2018). That agreement serves both the employees' interests and the requirements of the operations, and it includes incentives and clauses that are in line with our productivity goals. In addition, the collective agreement signed between the Company and the Supervisors Union of Spence has been in effect since March 2015, and will be valid until June 2018.

With regard to the Operators Union of Cerro Colorado, the regulated collective bargaining process began in November 2015 and concluded in January 2016, after a 4-day legal strike, with the signing of a contract that is valid for 32 months (until August 2018).

Within the framework of the Company's streamlining plan at the global level, in October 2015 Pampa Norte confirmed the downsizing of its headquarters in Iquique. This measure is intended to consolidate positions and to enable the operation of shared service centres, with the objective of achieving performance and productivity improvements. The plan included a proposal to relocate some of the employees from the Iquique office, while special termination conditions were available for those employees who left the company.

In relation to our collaborating companies, BHP Billiton promotes mutually beneficial relationships between those companies and their employees. BHP Billiton promotes compliance with the corporate guidelines and procedures, as well as the development of ongoing improvements. The support provided by collaborating companies in all aspects of our business is crucial.

Management at the contractor companies and their labour relations with their employees are their sole responsibility. However, our operations maintain an ongoing relationship with those companies through each of the Human Resources Labour Relations areas.

Employees from our collaborating companies are aware of and abide by our Charter, Code of Business Conduct, and corporate anti-corruption documents, among others, while the corporate Health, Safety, Environment, and Community documents are an integral part of the business contracts signed with BHP Billiton.



#### Overseeing compliance with Our Charter of Values

As detailed in our Code of Business Conduct, as a Company we have undertaken a commitment to the Universal Declaration of Human Rights from the United Nations and to the principles in the United Nations Global Compact (which was signed by BHP Billiton in 2003). Also, we adhere to the principles of the ICMM and the International Labour Organization (ILO).

Among the mechanisms set by BHP Billiton to ensure compliance with the principles adhered to, a highlight is yearly re-training regarding the contents of our Code of Business Conduct, an activity that is mandatory for all employees. This is additionally ensured through the Key Performance Indicators that the Company and its various operations have with regard to compliance with the diversity plan, affirmative action on nondiscrimination in work matters, and others.

Within this context, anyone may file a complaint upon noticing any deviations regarding these principles. Complaints are investigated according to strict procedures, and if the reported facts are proven, disciplinary measures will be taken in accordance with the seriousness of the violation. The above notwithstanding, Chilean labour laws contain procedures intended to appropriately channel any complaints from employees resulting from actions that undermine human rights.



# The Environment

## Effective and transparent management of natural resources

In line with our corporate values, we are committed to the responsible stewardship of natural resources.

We acknowledge that, due to its nature, the mining industry has the potential to cause significant environmental impact. Therefore, we are evaluating, planning, and managing such impacts on an ongoing basis at all stages of our activities -from exploration to development, operation, and closure of sites-, and we transparently report on our environmental performance.

As part of our continuous improvement focus, every year we set demanding goals for ourselves in relation to the efficient use of water, and we also acknowledge the need to care for the ecosystems and biodiversity in those regions where we operate.

Likewise, we are aware that sustainable growth requires an effective response to climate change. As a significant energy producer and consumer, we are committed to reducing Greenhouse Gas (GHGs) emissions, even during the design of our projects. To that end, we have stepped up our efforts to boost our energy efficiency throughout our organization.



**643 l/s Water  
consumption  
reduced**

at the three operations  
in Chile.

**US\$11 million  
contributed by  
BHP Billiton**

in 2015 for protection of the  
Valdivia Coastal Reserve.





## Strategic resources

### We focus on conducting efficient and responsible management

#### Water

The sustainability of our operations is based on our capacity to obtain water of the appropriate quality and amount, to use it responsibly, and to manage it appropriately.

In order to address this challenge, we continue to make large investments aimed at prioritising those sources that have the lowest impact on the environment, while minimizing the use of aquifers, and optimising the consumption of water.

Along those lines, since 2013 we have been building a second desalination plant at Puerto Coloso (the Escondida Water Supply, or EWS Project), with the capacity to produce 2,500 l/s of industrial grade water through seawater pre-treatment, filtration, and processing by means of reverse osmosis.

Water will be pumped up to the mine through more than 170km of aqueducts, where it will be stored in a reservoir with an capacity of approximately 500,000 m<sup>3</sup>. This project requires a total investment of approx. US\$ 3.4 billion, and will start operating in 2017.

In addition, water consumption optimisation projects are being implemented at all three operations of BHP Billiton in Chile. In 2015, those projects allowed a total reduction of 643 l/s in water consumption. Among those projects highlights are the implementation of tailings spigots every 500 meters in the Laguna Seca Tailings Dam at Escondida; the implementation of thermofilm covers at the Spence leaching stockpiles; and the application of a particulate material suppressor agent as a replacement for watering the roads of Compañía Minera Cerro Colorado.

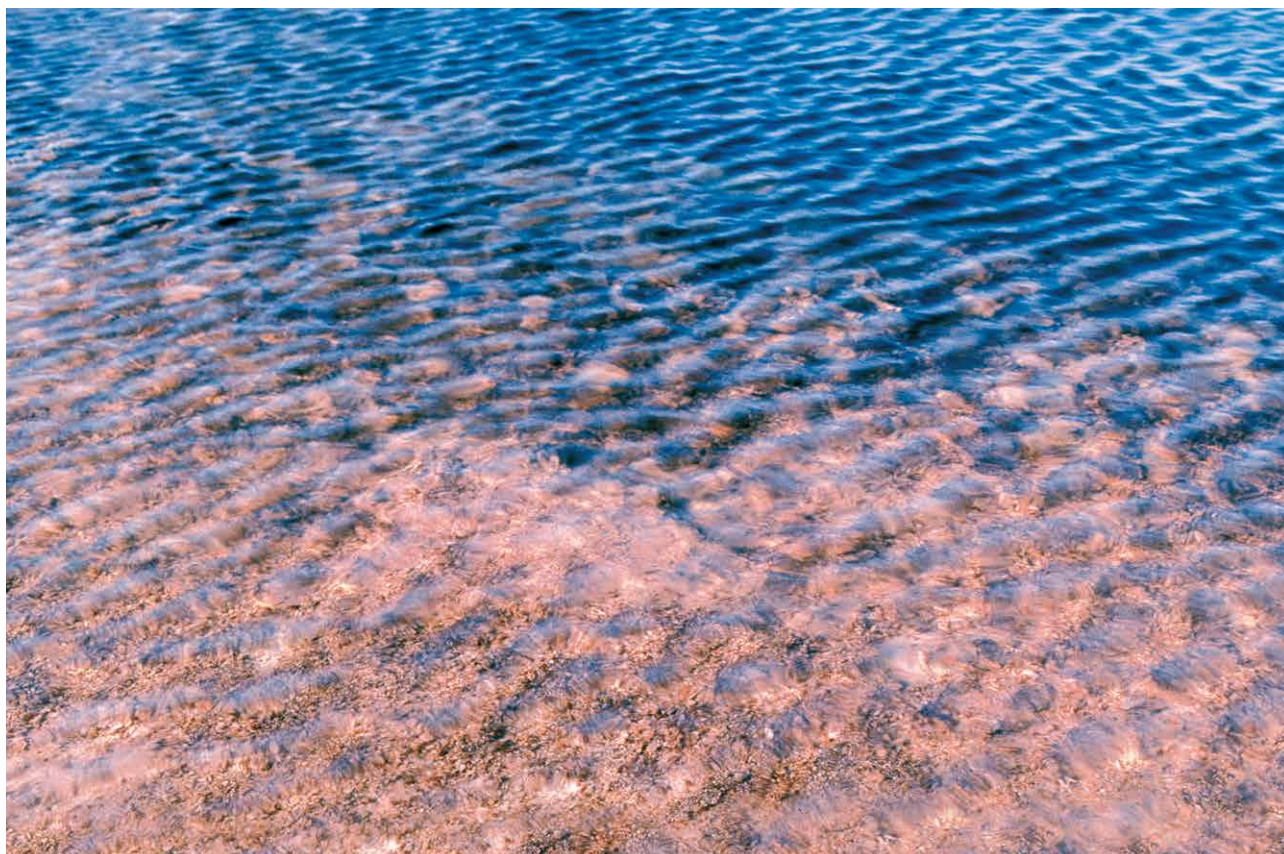
#### Energy and climate change

Our Company agrees with the assessment of the Intergovernmental Panel on Climate Change (IPCC), reporting that global warming is unequivocal, that human causation is clear, and that physical impacts are unavoidable. As a major consumer of fossil fuels we acknowledge our responsibility in taking steps to address this challenge, by focusing on reducing emissions, increasing our preparation, and working with others, including the mining industry and the government, to improve the overall response to climate change.

In line with the Paris Agreement for the mitigation of climate change (COP21 Summit, December 2015), in Chile we are undertaking several actions aimed at, on the one hand mitigating, and on the other developing resilience to the effects of this global phenomenon in our operations.

In this regard, we highlight the implementation of energy efficiency projects such as the use of high efficiency membranes at the Minera Escondida's desalination plant. In addition, in August 2015 we held a planning workshop in Santiago, called "Resilience to Climate Change", with the participation of representatives from the environmental area of the Company. We also held a workshop in Antofagasta for the identification of initiatives, called "Climate Change: Changing How We Operate."





In those workshops, action plans ("pathways") were identified for our adaptation to climate change. BHP Billiton's operations in Chile will work on the implementation of those pathways for a period of 5 years.

In our effort to contribute to an economy of reduced emissions, in 2015 we continued the construction of a combined cycle natural gas plant at Mejillones, which will supply 517 MW to the Great North Power Grid (SING), thus contributing to diversify the SING's generation matrix. The startup of our Kelar plant is foreseen for the second half 2016 and it should generate a reduction of up to 1.5 million tons of carbon emissions per annum.

Additionally, through the Mining Council, BHP Billiton adheres to the cooperation agreement signed with the Chilean Ministry of Energy, intended to boost the efficient use of energy resources. In turn, Minera Escondida strengthened its alliance with the Center for Energy Development from the Universidad de Antofagasta, by signing a contract for the free-use of a solar plant for research purposes. This project, called *Granja Piloto 1 MW*, includes the design,

construction, and operation of a photovoltaic plant for the purpose of supplying electricity to Escondida's power distribution system, specifically for the process of pumping desalinated water.

The project is located in an area of about 4 hectares, and operates with 4,320 PV panels. It is expected that the region will be strengthened as an in-country reference in the use of non-conventional renewable energies, generating specialized know-how tailored to the local needs.



## Biodiversity

### Committed to the Protection of Biodiversity and the Earth

#### The environments where we operate

The operations of Minera Escondida are carried out in two types of environments: the high Andean ecosystem, characterized by the salt flats, and the marine ecosystem.

Since the beginning of its activities, the Company has conducted extensive monitoring programs in both systems, and intends to comply with the legal commitments resulting from the environmental assessment resolutions, in addition to voluntary studies for better and greater understanding of our environment.

The results from those activities are reported annually to the communities of Peine and Coloso, respectively, as part of the measures considered in the environmental work groups that we have established in recent years.

Also, since the beginning of our operations we have supported research activities by making financial contributions to the High Andean Flamingo Conservation Group for the monitoring of the salt flats that are relevant for the breeding of this species in Bolivia, Argentina, Peru, and Chile, as well as others led by our Company such as the "Study of Migratory Routes of the Andean Flamingo", "Incubation and Artificial Feeding of Flamingo Chicks", "Home Environments of the Andean Culpeo Fox and Vicuñas", and the current "Study on Regional Salt Flats", to mention just a few.

In relation to flamingos, an emblematic bird from the plateau wetlands, this species can be found in the proximities of our operations, in the Punta Negra and Atacama salt flats. For the past few summer seasons flamingos have been observed at the Laguna Seca tailings dam, which has been reported to the environmental authorities. In agreement with the commitments made and supported by specialized companies, Minera Escondida has implemented repelling measures such as using sound systems and physical measures.

By means of environmental research, outreach, and education activities, we also support and promote the creation of protected wild lands, such as the Llullaillaco National Park and the La Portada Natural Monument, both located in the Antofagasta Region. Within the scope of the above, two books, "*Flora y Fauna del Parque Nacional Llullaillaco*" (Flora and Fauna of the Llullaillaco National Park) and "*Mamíferos de la región de Antofagasta*" (Mammals of the Antofagasta Region), were published.

As for the coastal environment, it should be noted the development of saline stress bio-indicators, a testing procedure that is being applied jointly with local universities. We are currently optimising our marine monitoring program, which in addition to providing data with added scientific value also compiles environmental concerns from the community of Coloso resulting from the engagement work conducted, and includes those measurement parameters that are of interest to said community.



Regarding Pampa Norte, Cerro Colorado collects water from the Lagunillas basin. The collection is made from an underground aquifer located 70 km East of the site.

With the approval of the Environmental Impact Assessment (EIA) for the Cerro Colorado Operational Continuity Project, the site will remain in operation until 2023. Within this framework, and since the Project foresees to continue using water from Lagunillas, mitigation measures have been proposed related to a decrease in consumption by this operation, as well as initiatives such as the protection

of the aquifer through the studies required, and a return of the water rights when the Project has been closed.

This without prejudice of the execution of the Management Plan at the Lagunillas lake system, which we have been implementing since 2006 as a result of what was set forth by the environmental authorities in RE 67/2011 COREMA.

#### CASE STUDY

### Protecting the Valdivia Coastal Reserve



**Committed to the preservation of highly valuable areas for the ecosystem at the global level.**

Located in the Los Ríos Region, in Southern Chile, the Valdivia Coastal Reserve is one of 34 critical biodiversity focal points in the world due to its high biodiversity value.

In alliance with The Nature Conservancy (TNC), the owner of the property, BHP Billiton committed a US\$ 20M contribution for the development of a project that would manage and protect the site on an ongoing basis.

Within the framework of this agreement, an endowment was created in 2015 with starting capital amounting to US\$ 11M.

The endowment will be managed by JP Morgan and supervised by the Conservation International (CI) Foundation NGO, together with a 5- member committee in representation of various sectors, for the purpose of ensuring transparency in the management and financing of this initiative.

In turn, TNC will be in charge of reporting the project's key performance indicators, among others.

## Biodiversity continued

### Air

We manage particulate material emissions using an Air Quality Management Plan through which a series of mitigation measures are implemented at each of our operations, such as the treatment and damping of mine roads, reduction of emissions during the crushing process, and an Air Quality Monitoring System.

At Spence, along with maintaining and continuously valuating the controls designed to mitigate the impacts that have been identified and assessed, we have also created monitoring programs to verify the effectiveness of those controls.

Spence sits on the Air Quality Work Group from the Sierra Gorda municipality, a public-private entity formed by the regional environmental authority and formalized through a cooperation agreement signed by the Company at the end of 2014. In addition to Spence and the Environment Seremi of the Region of Antofagasta, other participants in this initiative are the Municipality of Sierra Gorda and the mining companies Centinela and Sierra Gorda SCM.

The work group is aimed at identifying and evaluating the contribution of private and public players to the Particulate Material (PM) emissions at Sierra Gorda, and then identifying initiatives targeted to improve the quality of air in the municipal area, and implementing those initiatives through general consensus.

Among the activities included in the agreement are a "Study on the Quality of Air at Sierra Gorda", entrusted to the Centro Mario Molina Chile, an entity having a recognized prestige in the field of environmental and energy R&D. Started in December 2015, the study includes the collection of data from several monitoring stations around Sierra Gorda, field trips to the town facilitated by the companies involved in the initiative, and an assessment of the measures for reducing the PM emissions that were to be implemented by the companies.

### Waste

We have waste management plans at all our operations, with the objective of managing the risk of adverse impacts on the environment.

The storage, treatment, transportation, and disposal of domestic, non-dangerous and dangerous industrial waste are regulated and audited in-house in terms of their compliance with the applicable regulations. Each operation has authorized and specially prepared sites for storage and disposal.

The largest volume of waste generated from our operations consists of what is called massive (solid) mining waste, mainly gangue material, gravel, and tailings. Specific controls are in place for each of those deposits, allowing us to ensure their stability, thus preserving the environment.

In particular, for the Laguna Seca Tailings Dam at Escondida (TLS), the following controls are in place:

- Weekly monitoring of the water table level and flow control from the TLS wells;
- Weekly testing of the tailings discharge and the lagoon area formed therein;
- Monthly topographical plotting in order to verify a safe distance between the level of the clear water lagoon and the top of the dam's retaining wall;
- Custom instrumentation for geo-technical monitoring, that is carried out every 2 weeks and reported monthly under normal conditions. When any abnormalities are detected, those are immediately reported to Sernageomin; and
- In the event of an earthquake or extreme climate events, special revisions and inspections are carried out.

In accordance with the above parameters, recent monitoring shows that the conditions of the tailings deposit are stable.

With regard to the gravel deposit at Spence, a geotechnical inspection is carried out weekly, and daily when the deposited material becomes wet. Cerro Colorado's gravel dumps are inspected daily, specifically at the discharge platforms, in order to check their stability. Dampness is routinely checked once per day.

All the above controls allow us to regularly carry out discharges under optimum stability conditions, in addition to verifying the maximum humidity level in order to avoid any infiltration of the solutions contained in the material.

### Closure plans

As stated in our sustainability framework and in the performance requirements for Health, Safety, the Environment and Community, encompassing the entire life of the projects, Minera Escondida has a closure plan that was updated and approved by the Chilean Geology and Mining Service (Sernageomin) in June 2015. This program is being revised on an ongoing basis, in accordance with BHP Billiton's corporate standards.

This approval, which is now regulated by a new law for the first time that controls the Closure of Mining Sites and Facilities (Act 20,551/2011), prompted the contribution of monetary guarantees to the Government of Chile on the part of Minera Escondida, as a safeguard against the obligations inherent to the exploitation of the deposit, thus reflecting the Company's commitment to the environment.

In the case of the operations of Compañía Minera Cerro Colorado and Minera Spence, the new regulatory framework on the closure of sites has also been complied with, and their respective plans were approved under the transitional arrangement set forth in Law 20,551, while the process of contributing guarantees to the Government has been started.



## CASE STUDY

### Promoting the Development of Solar Power in the Great North



**The Ayllu Solar project ("Solar Community" in the Aymara language) is intended to create knowhow and to make the benefits of this resource available to the community.**

The great north of Chile is one of the few regions in the world that has a privileged solar resource. In order to leverage this natural advantage, it is crucial to have qualified human resources allowing operation and development of an effective and socially relevant solar power system.

With that purpose, in May 2015 the BHP Billiton Foundation and the Solar Energy Research Center (SERC) launched the project: "Solar Energy for the Sustainable Development of the Region of Arica and Parinacota".

Within the framework of that agreement, SERC-Chile will conduct programs for knowledge transfer as well as human resources training programs in the region, while BHP Billiton will contribute US\$ 13.9 million over a 5-year timeframe.

By the end of that timeframe, solar based energy solutions that are costeffective, replicable, and scalable should be in place in key areas for the development of the communities, along with the human resources that have the abilities to effectively use and develop those solutions, and an institutional, social, and business framework that provides sustainability for the solar energy system.

SERC-Chile is a Fondap-Conicyt centre of excellence established in 2012 with the objective of becoming a world leader in scientific research on solar energy, with a special emphasis on developing the potential of the Atacama desert. It is composed by the Universities of Chile, Tarapacá, Antofagasta, Técnica Federico Santa María, Adolfo Ibáñez and Concepción, in addition to Fundación Chile.

# Society

## We contribute to the sustainable development of the society in which we work

As a company, our vision transcends the sole scope of mining, since we understand that, in order to be successful, we must support the advancement of the society of which we are a part by contributing value in the locations, regions, and countries where we operate.

We strive to build long-lasting relationships based on open, respectful, and trusting communications, which allow us to better understand our impact and ensure a significant contribution to economic and social development.

We implement long term community development plans that focus on the improvement of the quality of life, and supply the resources required for it through our corporate commitment of investing 1% of our pre-tax earnings (averaged over the previous 3 years).

The new Social Investment Framework that we created in 2015 provides a consistent focus for our local, regional, and national community development plans for the next 5 years.



# More than 72,000 hours of Training

Were provided to the community of Antofagasta by the Center for Industrial and Mining Training (CEIM) of the Minera Escondida Educational Foundation.

# 26 Schools and Kindergartens

in San Pedro de Atacama and Mejillones were supported by Minera Escondida Foundation through training provided to their teachers and principals.

# 700 thousand people

participated in the various activities of BHP Billiton's country-wide cultural program.







## Significant relationships with the community

### We relate to the communities that live in the locations where we operate

#### Relating to our host communities

We have an inclusive and proactive focus on the relationships with our groups of stakeholders. We seek to build alliances with the community right from the start of the life cycle of our projects, in order to maintain open and ongoing communications with them, and to operate transparently with regard to our development and performance plans. With the aim to be effective and to reach as many people as possible, we ensure that those instances of participation are socially and culturally inclusive. These relationships help us to develop a better understanding of our social and economic environment, including the potential impacts and opportunities.

In order to measure the effectiveness of our participation and community development activities, every 3 years a perceptions survey must be conducted by our operations. Such surveys provide a very valuable external insight on the quality of our relationship, and help us to verify whether we are appropriately addressing the concerns of our counterparts.

#### Responding to our stakeholder groups

Our stakeholder groups can let us know their concerns or questions through various channels, and maintain fluent communication with our teams, who respond to their inquiries on a daily basis. All of our operations in Chile must implement and maintain the channels required to log the complaints and claims received, and to address them in an effectively and timely manner. In 2015, our operations locally registered a total of 6 cases of community, Human Rights, and environmental issues, among others.

#### Respect for Human Rights defines how we work

Given the nature and complexity of our operations, we ensure that our procedures respect Human Rights both at the work site and in our relationships with the communities and/or indigenous peoples living near our operations. We operate pursuant to the United Nations (UN) Declaration on Human Rights and the principles of the UN Global Compact. We also adhere to the Guiding Principles on Human Rights and Business, which require that the companies respect human rights through the incorporation of those commitments into their systems and processes.





### Relationships with Indigenous Peoples

In 2015, in Chile we began to implement the Policy on Indigenous Peoples of BHP Billiton, with the aim of contributing to the cultural and economic empowerment of those communities, as well as to provide our employees and collaborators with an increased knowledge about original inhabitants and their current descendants.

Indigenous people are a key stakeholder group for BHP Billiton's operations around the world, since many of them are located on or near territories that have traditionally been either owned or commonly used by them.

In our Company, we acknowledge the rights and traditional values of the indigenous peoples, we respect their cultural heritage and the significance of their lands, and we provide opportunities for their integration and development.

Our approach is based on the Policy Declaration on Indigenous Peoples, that was developed and approved by BHP Billiton's Steering Committee in fiscal year 2015. Through the enforcement of this policy we intend to strengthen the relationship with those communities and to become a valued partner in their economic, social, and cultural empowering process.

That Policy is consistent with the ICMM (International Council on Mining and Metals) 2013 Position Statement on Mining and Indigenous Peoples. The commitment includes:

- Conducting participative and inclusive assessments of the social and environmental impacts,
- Looking for, agreeing on, and documenting participation and consultation plans with potentially impacted indigenous peoples, and
- Working in order to obtain the free consent of the indigenous peoples with regard to the activities of BHP Billiton. This work should be aligned with the ICMM Position Statement.

In turn, the Cultural Awareness Program of BHP Billiton in Chile is intended to provide our employees and collaborators with increased knowledge about the indigenous peoples and their current descendants. Thus we hope to strengthen the dialog and to avoid any potential impacts that our activities might cause to the material or immaterial expressions of those cultures. This training was developed in consultation with representatives from the communities in the area of influence.

This is a transversal, in-house Company program, including on-site face-to-face training for those employees that, due to the nature of their jobs, come into direct contact with the native communities.

In the case of Cerro Colorado, 55 staff employees and 841 contractors participated in the training workshops and inductions held in 2015. In turn, at Minera Escondida 13 staff employees and 20 collaborators participated in the community inductions carried out within the framework of this program.

# Our contribution

## We want to make a positive contribution to economic and social growth

We are successful as a business when we are acknowledged as a choice partner and when our host communities, regions, and countries value their relationship with us.

Our objective is to work collaboratively in order to contribute long-lasting benefits for the country, as well as diversified and resilient economies beyond the lifespan of the operations.

### Quality of life

In line with our Charter of Values, we hope to contribute to the development of the communities and societies that are hosting us, through our voluntary commitment to social investment. We support those projects that would have a positive, long term impact on improving the quality of life of people in Chile.

Within the framework of our social investment plan we address the local, regional, and national areas, and carry out an integral plan of activities that includes income and employment issues, upgrade of urban environment and infrastructure, health, education, sports, and culture, among others.

### Local and regional contributions

Within the framework of its Community Development Plan, since 2013 Minera Escondida, together with its neighbours from Caleta Coloso, has been conducting a "Joint Commitment to Education" program, which has contributed to improving the educational level of the children and young people from that area, as well as facilitating access to higher education through scholarships, access to educational aid, and conducting sports and cultural activities.

With regard to entrepreneurship, through competitive funds Escondida supports the training of entrepreneurs and the co-financing of their projects.

Additionally, Escondida works with the Atacameño communities located near the operation. One of the key focuses in 2015 was an ophthalmology program organized by the Lions Club Antofagasta in coordination with the authorities from the communities of Peine, Socaire, Camar, Talabre, Toconao, and Río Grande. The initiative helped provide eye care for 480 people, who received glasses in accordance with their eye condition.

Also, in collaboration with the Municipality of San Pedro de Atacama, the infrastructure of the San Pedro Public Library and the Socaire Emergency Room was improved, which had been affected by summer rains.

Pampa Norte, in turn, focuses its social investment on 5 areas: Education and Employability, Livelihood Improvement, Social Inclusion, Institutional Strengthening, and Biodiversity and Conservation. Some of their highlights include initiatives such as an agricultural program, the improvement of community infrastructure, support programs for local development, facilitation of employment opportunities, and a scholarship program, among others.

In the Region of Antofagasta, Minera Spence works mainly with the Sierra Gorda and Baquedano communities; while in the Region of Tarapacá, Compañía Minera Cerro Colorado works with the communities of Mamiña, Quipisca, Parca, Iquiuca, Macaya, and Apo, in the valleys and pre-Andean gullies in Pozo Almonte, as well as with the Lirima, Collacagua, and Cancosa communities in the high plateau of the Pica district, the town of Pozo Almonte (Pampa del Tamarugal), and the Iquique and Alto Hospicio districts.

In 2015, Pampa Norte also supported several cultural initiatives, including Expo Mamiña, Tambo Andino, and Raíces Andinas in Tarapacá, as well as the "My Community, My Heritage" program in the Region of Antofagasta.

### Generating local capacities

We acknowledge that providing a sustainable and long term contribution means supporting the generation of local capacity.

In this regard, BHP Billiton Pampa Norte tries to strengthen the human resources of the communities through improving transverse skills for the students at the primary and secondary school levels, as well as of those who are looking for better employment opportunities.

In 2015, work was carried out with the primary schools of the Sierra Gorda municipality through an assessment of the syllabuses and a monitoring program for the improvement processes targeted at supporting the Municipality's Educational Plan, the school integration programs, and in general, the methodologies for educational assessment. Also, the implementation of more effective processes for institutional and pedagogic management on the part of supporters, managerial teams, teachers, students, and parents was supported in the municipality of Pozo Almonte.

## CASE STUDY

# The CREO Antofagasta Plan



## Improving the quality of life in the city.

CREO Antofagasta is a joint public-private initiative intended to address the challenge of linking the mining business with the growth being experienced by the city, based on a strong sense of improvement in the quality of life. To this end, a Master Plan was designed that proposes a development process for the city of Antofagasta and a vision for the year 2035.

This initiative started in 2011 from a public-private council that represented the diversity of the city and has an executive committee chaired by the Intendent of the Region and the city mayor. BHP Billiton supported the launch by financing some specific projects, mainly a world-class executive Secretariat.

Since the design stage, the Master Plan has been validated and legitimated by the community through civic participation initiatives, allowing several players to join the initiative, facilitating an increased complementation between public and private investments, and enabling other privately owned companies to channel their contributions to the community through CREO Antofagasta.

In 2015, CREO Antofagasta shared with the community 330 proposals associated with the Master Plan through 5 civic forums. Based on the input received, 35 projects were prioritised for the 2015-2021 period, with investments totalling US\$ 160 million.

The projects included the construction of the first neighbourhood public areas in the program "A Clean and Connected Antofagasta"; the design of an innovative wastewater reuse system for watering green areas, and the third version of the social entrepreneurship competition "AntofaEmprende."

The Antofagasta on a Bike (AEB) program, commenced in 2015 With the opening of the Antofagasta CicloRecreoVía and the beginning of work on more than 30k of bicycle lanes. The program saw the incorporation of new public and private resources into the plan.

Also in 2015, the CREO Antofagasta Plan started working with Fundación Chile to define its institutional mechanisms, and to strengthen its organizational structure and long term projection.

## Our contribution continued

Also, 314 students from primary and secondary schools from the Region of Tarapacá and the municipality of Sierra Gorda were granted scholarships.

In the area of productive development, the Local Development Support Program from Spence funded 22 investment projects for social organizations, small and medium businesses, and entrepreneurs from the towns of Sierra Gorda and Baquedano. Also, through the Facilitation of Employment Opportunities program, 40 people became qualified through Civil Works Administration and Occupations courses. On the other hand, 2015 saw the 8th anniversary of the Agricultural Program, intended to instil business skills in the farmers of the communities of Mamiña, Quipisca, and Iquiuca, as well as to rescue their traditional agricultural practices.

Additionally, in alliance with social organizations, BHP Billiton is promoting the incorporation to the labour market of differently abled people. Since 2014 we are participating in the "Antofagasta Inclusive Company" program from the Descúbreme Foundation, aimed at facilitating the access of disabled people to standardized employment. In 2015, approx. 60 cognitively impaired people participated in job training workshops, practices, pre-contracts and contracts.

Meanwhile, through the School Reinsertion Program from Hogar de Cristo, 30 children and teens with a significant educational delay and in a condition of social vulnerability were assisted, with the purpose of supporting the continuity of their educational trajectory.

### Culture

Our *Cultura en Chile* program is based on a joint publicprivate, sustainable long term management model. This has enabled us to establish alliances and develop successful initiatives with several players from the world of arts, literature, and patrimony, thus supplementing public policies in this area. This work has positioned us as the leading private company that supports cultural development in Chile. Most of the projects are carried out with support from the National Council on Culture and the Arts through a Cultural Donations Law. As we always do, once again in 2015, together with Fundación Teatro a Mil we offered the largest scenic arts festival in the country, "Santiago a Mil", and its regional versions, "Iquique a Mil" and "Antofagasta a Mil". With a 16-day schedule, the festival reached an audience of over 500,000 people. This festival has been supported by Minera Escondida since 1999.

In a concrete effort to contribute to the decentralization of culture in the country, since 2014 we have been hosting through Minera Escondida, together with the Fundación Puerto de Ideas, a Science Festival in Antofagasta. This is a scientific dissemination event targeted to the general public and students that in its last version reached about 10 thousand people.

Another flagship activity in our annual cultural program is the cycle of talks "*Pensamiento Propio*", that has been providing a free and open space for reflection and knowledge since 2002.

Likewise, during this fiscal year we again supported execution of the 15th version of the literary competition "*Santiago en 100 Palabras*", organized by Fundación Plagio, as well as its local versions in Iquique, Antofagasta, and Concepción. Approximately 50,000 stories were sent in response to the various invitations to this competition.

Since 2001 we have maintained an alliance with the Chilean Museum of Pre-Columbian Art, with a commitment to recover, preserve, and disseminate the culture of the native peoples from Chile.

The streamlining and extension of the Museum facilities, including its new "Chile before Chile" hall, is one of the milestones in the collaborative work between both institutions, as well as having become one of the most significant cultural infrastructure projects in the country in the past years.

In 2015 we supported 3 significant projects: the new Isluga Textile Room at the Iquique Regional Museum, where a collection of Aymara textiles is shown; the temporary exhibition "Desert Hats" at the Museum of Antofagasta, and the "Paracas Funerary Cloaks: Offerings for Life" exhibition at the Chilean Museum of Pre-Columbian Art in Santiago.

Complementary to this, the Art Room and the Auditorium of the Fundación Minera Escondida community buildings in Antofagasta and San Pedro de Atacama host varied activities of a cultural nature throughout the year.



#### CASE STUDY

### Celebrating the art and culture of indigenous peoples



**We value and respect indigenous peoples. We work collaboratively to support the dissemination of their culture and traditions.**

Many of our operations around the world are located in lands that have traditionally belonged to the indigenous peoples and their descendants.

A slow steady approach has allowed us to build with them long term relationships based on respect, trust, and mutual benefit, which has helped us to understand and value their deep connection to nature and to their traditions.

From that basis, we have tried to contribute to their economic, social, and cultural empowering through various programs and initiatives. Along those lines and for more than a decade, we have been working in the promotion of their vernacular art and culture as a way to contribute to the sustainability of those peoples.

We should highlight our alliance with the Chilean Museum of Pre-Columbian Art, a context in which we have remodelled and expanded its premises, that reopened in 2014. The new Isluga Textile Room at the Iquique Regional Museum was also created within the framework of this agreement. We highlight our alliance with the Chilean Art Museum.

Notable among the activities in 2015 is the exhibition "Atacama Desert Hats", which we hosted at the Antofagasta Regional Museum, which displayed representative pieces from the cultures of the various indigenous peoples that have inhabited the North of Chile for more than 3,000 years.

Also, in November the exhibition "Paracas Funerary Cloaks: Offerings for Life", opened in Santiago: This is a selection of 52 archaeological pieces belonging to the Ministry of Culture of Peru and the Peruvian Museum of Archaeology, Anthropology, and History. The exhibition showed for the first time to the Chilean public the technical, stylistic, and chromatic wealth in the ancient Paracas fabrics, among which a highlight is the extraordinary embroidered funerary cloaks.

## Our contribution continued



### Our contribution to education through our Foundations

In the Region of Antofagasta, the social contributions from Minera Escondida are supplemented by its two Foundations: *Fundación Minera Escondida* (FME), and the Center for Industrial and Mining Training (*Centro de Entrenamiento Industrial y Minero*, or CEIM).

We try to contribute through both foundations to improvement in the education at the pre-primary and primary levels, and in the technician-professional area for mining, as well as fostering entrepreneurship programs in the communities.

The FME, established in 1996, contributes to the generation of local capacities in the region. Currently, the axis of its work is education during early childhood along with social participation, with a focus on young people.

Its work has been focused in the development of oral and written communication skills in children of 0-8 years of age at 26 educational facilities, including kindergartens and schools from the municipalities of San Pedro de Atacama and Mejillones. Within a period of 4 years, the Foundation intends to contribute to improvement in the quality of education in those municipalities, through a methodology involving managers, teachers, community, students, and families.

At the same time, the FME supports social leaders and entrepreneurs, so that they can autonomously generate initiatives that would contribute to the development of the Region.

In addition, CEIM offers nine specialization programs to the regional and national community, through theoretical and practical classes. In 2015 CEIM offered 72,387 hours of training, more than 90% of which was for people who do not work at either Minera Escondida or BHP Billiton.

### Supporting those employees who contribute to their communities

Through the Matched Giving program, BHP Billiton supports the commitment of its employees to their communities, by providing additional resources to those contributed by the employees to non-profit organizations, and doubling the amount of money donated by the employees (1 + 2).

This program has been in place in Chile since 2007, and in 2015 contributions by the Company to social organizations amounted to CLP 115,256,346 (Chilean pesos). Additionally, an on-line platform was implemented in 2015, in both English and Spanish, in order to facilitate use by employees.

#### CASE STUDY

## Science Festival in Antofagasta



**Our alliance with *Puerto de Ideas* reflects our commitment to the cultural decentralization of Chile, and contributes to empowering Antofagasta as the scientific capital of Chile.**

In 2015 the 2nd version of the Science Festival in Antofagasta was held, hosted by Fundación Puerto de Ideas and our company. This event reached more than 10,000 people in 32 activities carried out at several locations, both in the historic quarter and other venues around the city.

This festival is a 3-day multidisciplinary event mainly dedicated to presenting science, technology, and culture to a diverse audience of all ages, thus promoting knowledge, discussion, and reflection.

This 2nd version saw participation by international lecturers, such as Italian neuro-immunologist Gianvito Martino; Israeli Nobel Prize in Chemistry winner Ada Yonath; photographer Rob Kessler, biologists Diego Golombek and Gilles Boeuf, and writer Jerome Ferrari, who shared their insights and transmitted their passion to the audience. They were joined by local guests,

such as National History Prize winner Lautaro Núñez, together with a group of archaeologists and anthropologists from several universities.

Other highlights from the 2015 Science Festival in Antofagasta were the interactive exhibitions "*Comunica- T*" from the Mirador Interactive Museum (*Museo Interactivo Mirador*, or MIM), and "*Dendros: A Journey through the Brain*" from the Biomedical Neuroscience Institute of the Universidad de Chile, that were attended by around 1,500 children in a single weekend.



# Appendices

Stakeholder groups	47
Performance figures	48-50
People figures	51-53
Environmental figures	54-58
Independent Professionals Report	59

## Stakeholder groups

Who are they?	Method of engagement
<b>Own workers and their families</b>	
Workers and their respective families; social, sport, and union organizations.	Extended quarterly meetings for each shift led by the general manager of the operation. / Operational supervision meetings. / Corporate magazine and newsletter. / Motivational communications campaigns for specific topics. / Annual Survey of communication (labour climate, leadership and corporate values). / Meetings between Unions and Human Resources. / Training lectures, recreational activities, social, cultural, and recognition ceremonies for years of service; Miner's Day celebration, sports games. / Coordination meetings with the various internal organizations. / Performance evaluations.
<b>Contractor companies</b>	
Workers of contractor companies	Contract administrators (channel information and coordination support). / Regular meetings with management of Health, Safety, Environment and Community; Superintendent of Finance, and Human Resources Management, oriented towards contract managers and risk prevention staff.
<b>Suppliers</b>	
Suppliers of goods and services	Digitalization of the procurement processes (technology dissemination program). / Participation in the BHP Billiton World Class Suppliers Program.
<b>Indigenous communities and the broad community</b>	
Communities in the area of influence of Cerro Colorado are: Mamiña, Quipisca, Parca, Iquiuca, Macaya and Apo in the valleys of the pre-Andean gullies belonging to the commune of Pozo Almonte; as well as Lirima, Collacagua and Cancosa in the highlands of the Pica district. Also the town of Pozo Almonte in the Pampa del Tamarugal. / In Spence, residents of the Sierra Gorda district, the areas of Sierra Gorda and Baquedano. / In Escondida: the communities of Peine, Coloso and Antofagasta.	Development of projects with neighboring communities, in addition to regular field work with the various participants in the social investment programs and joint initiatives. / Working meetings with neighboring communities. / Partnerships for development of community activities. / Distribution of our Sustainability Report. / Process of participation and dialogue with indigenous communities CMCC (early ILO Convention 169) / Escondida runs workshops in Coloso, office of Indigenous Affairs FME.
<b>Government and regulatory bodies</b>	
National and regional government authorities. / National and regional directorates of public services.	Development of joint projects through the establishment of partnerships. / Making known, annually, our sustainability report. / We also we link with protocol and technical meetings between company executives and authorities.
<b>Associations, organizations, NGOs and others</b>	
Industry associations Iquique (AII) and Antofagasta (AIA). / Regional Council of Mining Safety for Tarapacá and Antofagasta. / <i>Fundación Juventud Emprendedora</i> ("Enterprising Youth Foundation") (sponsors since 1998 in Iquique, and since 2010 in Antofagasta). / In the national context, we are part of the Mining Council, National Mining Association, Chambers of Commerce, <i>Acción RSE</i> and other civil society organizations. / Through specific projects, we relate to <i>Casa de la Paz</i> and the <i>Norte Grande and Fraternidad Ecológica Universitaria</i> ("Ecological University Fraternity") corporations; the latter are environmental NGOs, and both are regional.	We conduct regular meetings with participation of our representatives, as well as the coordination needed for the realization of joint initiatives. / In the case of NGOs, we coordinate information and technical meetings and site visits and report delivery, among other instances.

# Performance Figures

## 1 / Generated Economic Value, BHP Billiton Chile

	2014			2015		
	Pampa Norte <sup>(2)</sup>	Minera Escondida	Total BHP Billiton Chile <sup>(1)</sup>	Pampa Norte <sup>(2)</sup>	Minera Escondida	Total BHP Billiton Chile <sup>(1)</sup>
	US\$ (millions)			US\$ (millions)		
Operating income	2,571	8,004	10,575	1,673	6,575	8,248
Financial income	9	2	56	3	1	4
Non-operating income	1	47	75	11	34	100
<b>Economic Value Generated</b>	<b>2,581</b>	<b>8,053</b>	<b>10,706</b>	<b>1,687</b>	<b>6,610</b>	<b>8,352</b>

(1) The total value for BHP Billiton Chile includes information for the financial statements of the Santiago office.

(2) The values of Pampa Norte includes the individual values of Spence and Cerro Colorado.

## 2 / Distributed Economic Value<sup>(1)</sup> BHP Billiton Chile

	2014				2015			
	Pampa Norte <sup>(4)</sup>	Minera Escondida	Total BHP Billiton Chile <sup>(3)</sup>		Pampa Norte <sup>(4)</sup>	Minera Escondida	Total BHP Billiton Chile <sup>(3)</sup>	
	US\$ (millions)		%		US\$ (millions)		%	
Operating expenses	1,303	2,628	3,881	51.91	927	3,147	3,956	61.66
Worker salaries and benefits	173	404	635	8.48	143	437	748	11.66
Other Expenses, Third Parties	249	829	1,109	14.84	231	728	987	15.37
Taxes	139	1,002	1,145	15.32	-38	341	255	3.97
Financial expenses	3	10	6	0.08	20	22	36	0.6
Community investment	10	23	33	0.45	6	27	33	0.52
Owners	0	668	668	8.93	0	400	400	6.23
<b>Economic Value Distributed</b>	<b>1,877</b>	<b>5,564</b>	<b>7,477</b>	<b>100</b>	<b>1,289</b>	<b>5,102</b>	<b>6,415</b>	<b>100</b>
<b>Economic Value Retained<sup>(2)</sup></b>	<b>704</b>	<b>2,489</b>	<b>3,229</b>		<b>398</b>	<b>1,508</b>	<b>1,937</b>	

(1) Worker salaries and benefits: Value distributed to workers through the payment of salaries, social laws, bonuses, social and medical benefits, vacations, and training, among others.

Other Expenses, Third Parties: Considers the costs of the company to its partner companies in return for services rendered during the year. Tax contribution of the company to the treasury through income tax, and the Specific Tax on Mining. Also considers disbursements as patents, contributions and stamp duties.

Financial expenses: payments arising from financial obligations of the company, and other disbursements, resulting from financial operations.

Community Investment: Includes social programs, sponsorship and donations.

Owners: Dividends paid to shareholders of the company.

Environment: Includes expenditures on environmental projects.

(2) Retained by the company: money that is reinvested in the company to continue operations. Includes depreciation and amortization for the period, in addition to net income. It corresponds to the difference between the Generated Economic Value and Distributed Economic Value.

(3) The total value for BHP Billiton Chile includes information for the financial statements of the Santiago office.

(4) The values of Pampa Norte includes the individual values of Spence and Cerro Colorado.



## Performance Figures continued

### 3 / Geographic Distribution of Local Suppliers, BHP Billiton Chile

	Number of Suppliers, by Region		Number by Region (%) 2015	Cost of Suppliers, by Region (US\$, millions)		Cost by Region (%) 2015
	2014	2015		2014	2015	
Arica & Parinacota Region	9	8	0.3	4	3	0.1
Tarapacá Region	149	145	5.2	50	47	0.9
Antofagasta Region	637	613	22.1	768	742	14.9
Metropolitan Region	1,845	1,856	66.8	4,393	4,041	81.0
Other Regions	159	156	5.6	166	159	3.1
<b>Total</b>	<b>2,799</b>	<b>2,778</b>	<b>100.0</b>	<b>5,381</b>	<b>4,992</b>	<b>100.0</b>

### 4 / Sales of copper, by product (tons), BHP Billiton Chile

Sales	2013	2014	2015
Fine Copper Concentrate	864,428	814,520	793,953
Fine Copper Cathodes	523,136	564,058	580,733
<b>Fine Copper, Total<sup>(1)</sup></b>	<b>1,387,564</b>	<b>1,378,578</b>	<b>1,374,686</b>

(1) Includes only sale of own production.

## Performance Figures continued

### 5 / Main Figures, BHP Billiton Chile

Operational Data	Metric	2014				2015			
		Pampa Norte		Minera Escondida	Total BHP Billiton Chile <sup>(1)</sup>	Pampa Norte		Minera Escondida	Total BHP Billiton Chile <sup>(1)</sup>
		Cerro Colorado	Spence			Cerro Colorado	Spence		
Production of Fine Copper [cathodes]	tmf	79,574	176,064	301,529	557,167	74,482	175,627	326,290	576,399
Production of Fine Copper [contained in concentrate]	tmf	N/A	N/A	870,119	870,119	N/A	N/A	826,220	826,220
Total Fine Copper Production	tmf	79,574	176,064	1,171,648	1,427,286	74,482	175,627	1,152,510	1,402,619
Share of Copper Production in Chile	%	1.4	3.1	20.2	24.7	1.3	3.0	20.0	24.3
Share of Copper Production worldwide <sup>(2)</sup>	%	0.4	1.0	6.3	7.7	0.4	0.9	6.5	7.8
<b>Financial Data</b>									
Sales	US\$ (millions)	2,571		8,004	10,575	1,673		6,575	8,248
Economic Value Distributed	US\$ (millions)	1,877		5,564	7,477	1,289		5,102	6,415
Economic Value Distributed to the Community	US\$ (millions)	10		23	33	6		27	33
<b>Collaborator Data</b>									
Own Headcount	People	928	1,129	4,608	7,476	822	1,033	3,798	6,416
Total Contractors Operational and Projects <sup>(3)</sup>	FTE <sup>(4)</sup>	3,169		8,707	26,977	3,574		5,846	17,549
Participation of women in the Organization	%	7.9		7.3	9.3	8.1		8.6	9.8
Total Hours of Training <sup>(5)</sup>	Hours	70,211		234,600	331,557	61,522		75,711	137,233
TRIF (Global)	N/A	1.11	2.56	1.83	2.05	ND	ND	1.63	ND
Severity Rate	N/A	111.87	40.80	27.61	37.02	ND	ND	23.69	ND
Frequency Rate	N/A	1.77	1.71	0.97	1.11	ND	ND	0.91	ND
<b>Suppliers</b>									
Number of Local Suppliers <sup>(6)</sup>	Suppliers	992		1,361	2,776	1,050		1,328	2,778
Local Suppliers	%	96		91	91	96		91	90
<b>Environmental Data</b>									
Total Water Consumption	ML	9,912		70,424	80,336	9,544		70,422	79,966
Total Energy Consumption (Direct and Indirect)	GJ	7,299,980		22,874,917	30,174,897	7,282,661		24,661,808	31,944,469
Total GHG emissions	KT CO2 eq	1,014		3,695	4,709	985		4,076	5,061

(1) The total value for BHP Billiton Chile includes information from the offices in Iquique and Santiago.

(2) The share of BHP Billiton operations en Chile with respect to the production of copper in the entire world was obtained accrued from January to September 2015.

(3) The number reported for contractors by the Santiago office was 8,129.

(4) Acronym means "Full Time Equivalent".

(5) The total number of hours of training for BHP Billiton Chile does not include hours incurred in the Santiago offices.

(6) The term "local" refers to national suppliers.

## People Figures

### 6 / Own Headcount, BHP Billiton Chile

	2013	2014	2015
BHP Billiton Santiago	589	674	511
Pampa Norte	2,418	2,194	2,107
Minera Escondida	4,300	4,608	3,798
<b>Total</b>	<b>7,307</b>	<b>7,476</b>	<b>6,416</b>

### 7 / Own Headcount by Position Category, BHP Billiton Chile 2015

Position Category	Pampa Norte**		Minera Escondida		BHP Billiton Santiago		Total			
	Male	Female	Male	Female	Male	Female	Male	% Male	% Female	Female
Executives	8	1	146	27	75	13	229	85	41	15
Supervisors/ Professionals	402	100	813	138	294	83	1,509	82	321	18
Operators, Administrative y Similar (OAS)	1,513	53	2,484	93	8	28	4,005	96	174	4
Graduates	4	2	26	16	4	6	34	59	24	41
Operator and Maintainer Development Program (Apprentices)	10	14	1	54	0	0	11	14	68	86
<b>Total</b>	<b>1,937</b>	<b>170</b>	<b>3,470</b>	<b>328</b>	<b>381</b>	<b>130</b>	<b>5,788</b>	<b>90</b>	<b>628</b>	<b>10</b>

(\*) Full Time Equivalent.

(\*\*) Includes Headcount from the Iquique office.

### 8 / Own Headcount, Female, BHP Billiton Chile

	Total Female Staff					
	2013		2014		2015	
	Nº	%	Nº	%	Nº	%
BHP Billiton Santiago	161	27	179	27	130	25
Pampa Norte*	215	9	175	8	170	8
Minera Escondida	353	8	340	7	328	9
<b>Total</b>	<b>729</b>	<b>10</b>	<b>694</b>	<b>9</b>	<b>628</b>	<b>10</b>

\* Includes Headcount from the Iquique office.



## People Figures continued

### 9 / Headcount by Age Range, 2015, and Average Age, BHP Billiton Chile

	< 30			30 - 50			> 50			Average Age	
	Male	Female	Total	Male	Female	Total	Male	Female	Total	2014	2015
BHP Billiton Santiago	17	12	29	279	107	386	85	11	96	33	42
Pampa Norte*	201	29	230	1,450	139	1,589	286	2	288	39	39
Minera Escondida	330	49	379	2,504	274	2,778	636	5	641	42	41
<b>Total</b>	<b>548</b>	<b>90</b>	<b>638</b>	<b>4,233</b>	<b>520</b>	<b>4,753</b>	<b>1,007</b>	<b>18</b>	<b>1,025</b>	<b>38</b>	<b>41</b>

(\*) Includes the Headcount from the Iquique office.

### 10 / New Hires and Turnover, BHP Billiton Chile

	BHP Billiton Santiago	Pampa Norte	Minera Escondida	Total
Total Headcount	511	2,107	3,798	6,416
Total Leaving	191	213	993	1,397
Total Incoming	11	95	143	249
<b>Turnover Rate (%)<sup>(1)</sup></b>	<b>37.4</b>	<b>10.1</b>	<b>26.1</b>	<b>21.8</b>
<b>New Hire Rate (%)<sup>(2)</sup></b>	<b>2.2</b>	<b>4.5</b>	<b>3.8</b>	<b>3.9</b>

(1) The calculation formula is Leaving/Staff.

(2) The calculation formula is Incoming/Staff.

### 11 / Absenteeism, BHP Billiton Chile 2015

	BHP Billiton Santiago		Pampa Norte		Minera Escondida		Total
	Male	Female	Male	Female	Male	Female	
Planned Hours	856,371	284,217	4,325,400	380,160	8,764,632	648,318	15,259,098
Absenteeism Hours	49,667	28,221	105,711	12,328	218,882	10,405	425,214
Absenteeism Rate (%)	5.8	9.9	2.4	3.2	2.5	1.6	2.8

## People Figures continued

### 12 / Training, BHP Billiton Chile

	Average hours/year/employee		Hours of training		Investment in training/year/employee (US\$)	
	2014	2015	2014	2015	2014	2015
BHP Billiton Santiago	40	ND	26,746	ND	1,465	ND
Pampa Norte	32	29	70,211	61,522	1,122	494
Minera Escondida	51	20	234,600	75,711	1,176	321
BHP Billiton Chile	44	23	331,557	137,233	1,294	383

### 13 / Own Headcount, Assessed, 2015 BHP Billiton Chile

	Metric	Pampa Norte		Minera Escondida		BHP Billiton Santiago	
		Male	Female	Male	Female	Male	Female
Executives	%	100	100	96	96	96	108
Supervisors/ Professionals	%	98	95	99	98	101	94
Operators, Administrative & Similar	%	ND	ND	97	55	138	118
Graduates	%	100	100	77	81	100	117
<b>Total</b>	<b>%</b>	<b>99</b>	<b>98</b>	<b>98</b>	<b>69</b>	<b>101</b>	<b>102</b>

Note: In cases where the evaluated staff exceeds the 100% barrier, it is because staff was evaluated at December 31 who are no longer with the company.

## Environmental Figures

### 14 / Strategic Supplies, BHP Billiton Operations in Chile

Strategic Supply	Metric	2013		2014		2015	
		Pampa Norte	Minera Escondida	Pampa Norte	Minera Escondida	Pampa Norte	Minera Escondida
Diesel <sup>(1)</sup>	m³	109,501	270,367	112,505	283,772	115,139	291,578
Oils and Lubricants	m³	2,921	6,431	3,055	6,383	3,381	6,738
Explosives	t.	19,327	103,076	29,400	112,811	27,020	110,199
Tyres	Units	633	1,293	708	1,507	622	1,639
Milling Balls	t.	N/A	71,778	N/A	65,846	N/A	61,859
Lime	t.	N/A	153,925	N/A	159,634	N/A	182,031
Sulphuric acid	t.	658,209	679,298	632,026	591,671	592,628	730,583
Extractants	t.	453	593	581	720	474	1,119
Anodes	Units	1,500	10,320	10,948	10,496	6,304	14,437

(1) In the case of Pampa Norte, the total consumption of diesel includes consumption of gasoline.

### 15 / Power Consumption by Source, BHP Billiton Operations en Chile

Direct and Indirect Power Source	Metric	2014				2015	
		Pampa Norte		Minera Escondida	Pampa Norte		Minera Escondida
		Cerro Colorado	Spence		Cerro Colorado	Spence	
Diesel <sup>(1)</sup>	GJ	2,252,852	2,091,370	10,953,585	2,265,770	2,179,612	11,254,925
Gasoline	GJ	0	0	15,248	0	0	14,181
Liquid Petroleum Gas (LPG)	GJ	4,498	4,461	5,744	3,482	3,546	3,798
Emergency Diesel Generators	GJ	0	0	0	0	0	0
<b>Sub-Total Direct Energy Consumed</b>	<b>GJ</b>	<b>2,257,350</b>	<b>2,095,831</b>	<b>10,974,577</b>	<b>2,269,252</b>	<b>2,183,158</b>	<b>11,272,904</b>
<b>Indirect Power Consumed</b>							
Electricity	GJ	945,587	2,001,212	11,900,340	900,125	1,930,126	13,388,904
<b>Sub-Total Indirect Energy Consumed</b>	<b>GJ</b>	<b>945,587</b>	<b>2,001,212</b>	<b>11,900,340</b>	<b>900,125</b>	<b>1,930,126</b>	<b>13,388,904</b>
<b>Total Direct and Indirect Energy Consumed</b>	<b>GJ</b>	<b>3,202,937</b>	<b>4,097,043</b>	<b>22,874,917</b>	<b>3,169,377</b>	<b>4,113,284</b>	<b>24,661,808</b>
Efficiency in Total Energy Consumption	GJ/t. of fine copper produced	40.3	23.3	19.5	42.6	23.4	21.4

(1) In the case of Cerro Colorado and Spence, the total for diesel consumption includes the consumption of gasoline.



## Environmental Figures continued

### 16 / Collection of Water by Source, BHP Billiton Operations en Chile

Collection of Water					
Operation	Water Source	Measure	2013	2014	2015
Cerro Colorado	Lagunillas	ML	3,432	3,297	3,526
Spence	FACB & ADASA	ML	6,876	6,615	6,789
Minera Escondida	Monturaqui	ML	41,188	41,157	44,105
	Punta Negra Salt Flat	ML	9,239	11,484	9,248
	Hamburgo	ML	3,059	3,300	2,608
	Mine drainage	ML	4,426	3,481	3,403
	Seawater	ML	21,819	23,673	24,376
	Bottom of Mine Water	ML	814	1,154	1,299
	Rainwater	ML	0	0	12
<b>Sub Total of collected water</b>		<b>ML</b>	<b>90,853</b>	<b>94,161</b>	<b>95,366</b>
<b>Water returned to source<sup>(1)</sup></b>		<b>ML</b>	<b>12,538</b>	<b>13,825</b>	<b>15,400</b>
<b>Sub Total of Water Consumed</b>		<b>ML</b>	<b>78,315</b>	<b>80,336</b>	<b>79,966</b>
<b>Total Water Collected by BHP Billiton Chile</b>		<b>ML</b>	<b>90,853</b>	<b>94,161</b>	<b>95,366</b>
<b>Total Water Consumed by BHP Billiton Chile</b>		<b>ML</b>	<b>78,315</b>	<b>80,336</b>	<b>79,966</b>
Indicators					
<b>BHP Billiton Operations Chile</b>					
Efficiency of Total Water Consumption	ML/KT of fine copper produced		55.2	56.3	57.0

(1) Corresponds to brine, Monturaqui and Punta Negra. For 2015, water returned to the Lagunillas source, is added.

### 17 / Recirculation of Water, Minera Escondida

Water Recovery	Metric	2014	2015
<b>Volume of treated recycled water</b>			
Effluent from Sewerage Treatment Plants	ML	1,142	944
<b>Volume of reused water</b>			
Recovery of clear water (tailings dam)	ML	21,369	27,325
Effluent from filter plant	ML	1,506	1,402
Water from Reverse Osmosis rejection	ML	1,132	1,452
Recirculation of water in concentrators	ML	117,670	137,328
<b>Total Volume of Recycled and/or Reused Water</b>	<b>ML</b>	<b>142,819</b>	<b>168,451</b>
Percentage of Water Recycled and/or Reused with respect to Total Water Consumed	%	72	71
<b>Total Water Consumed (does not consider desalination plant rejection)</b>	<b>ML</b>	<b>69,271</b>	<b>70,422</b>
<b>Total Desalinated Water</b>	<b>ML</b>	<b>10,228</b>	<b>10,068</b>

## Environmental Figures continued

### 18 / Greenhouse Gas Emissions from BHP Billiton Operations in Chile

Strategic Supplies	Pampa Norte				Minera Escondida		BHP Billiton Chile		
	Cerro Colorado		Spence		2014	2015	2014	2015	Metric
	2014	2015	2014	2015					
Direct Emissions	157	157	146	151	855	881	1,158	1,190	KT CO <sub>2</sub> equivalent
Indirect Emissions	228	215	483	461	2,840	3,195	3,551	3,871	KT CO <sub>2</sub> equivalent
<b>Total Emissions</b>	<b>385</b>	<b>372</b>	<b>629</b>	<b>612</b>	<b>3,695</b>	<b>4,076</b>	<b>4,709</b>	<b>5,061</b>	KT CO <sub>2</sub> equivalent
Intensity of Direct Emissions	2.0	2.1	0.8	0.9	0.7	0.8	0.8	0.8	KT CO <sub>2</sub> equivalent /KT fine Cu produced
Intensity of Indirect Emissions	2.9	2.9	2.7	2.6	2.4	2.8	2.5	2.8	KT CO <sub>2</sub> equivalent /KT fine Cu produced
Intensity of Total Emissions	4.8	5.0	3.6	3.5	3.2	3.5	3.3	3.6	KT CO <sub>2</sub> equivalent /KT fine Cu produced

### 19 / Concentration of Air Quality, BHP Billiton Operations in Chile

Type of Emission	Metric	Average Concentration			Location of Measurement	Operation
		2013	2014	2015		
PM10	ug/m3N	81	96	132	Villa San Lorenzo	Minera Escondida
	ug/m3N	79	52	79	Camp 2000	
	ug/m3N	73	89	86	Camp 5400	
	ug/m3N	43	43	34	Coloso	Cerro Colorado
	ug/m3N	38	40	33	Mamiña	
	ug/m3N	39	42	34	Parca	Cerro Colorado
	ug/m3N	68	63	57	Sierra Gorda	Spence

Note: In the case of Minera Escondida, the standard for PM10 as three times per year average (ug/m3N)<= 50 is only applicable to Coloso.

### 20 / Solid Waste at BHP Billiton Operations en Chile

Type of Solid Waste	Metric	2014			2015		
		Pampa Norte		Minera Escondida	Pampa Norte		Minera Escondida
		Cerro Colorado	Spence		Cerro Colorado	Spence <sup>(1)</sup>	
Hazardous	tons	1,805	1,643	8,341	2,019	ND	10,100
Non-hazardous	tons	1,673	3,813	36,067	619	ND	51,055
Total	tons	3,478	5,456	44,408	2,638	ND	61,155
Intensity of type of Hazardous Waste (t./t. of Cu Produced)		0.023	0.009	0.007	0.027	ND	0.009
Intensity of type of Non-Hazardous Waste (t./t. of Cu Produced)		0.021	0.022	0.031	0.008	ND	0.044

(1) Information not available for 2015.

## Environmental Figures continued

### 21 / Treatment and Disposal of Hazardous Waste, BHP Billiton Operations en Chile

Treatment or disposal of Hazardous Waste (t)	2014			2015		
	Pampa Norte		Minera Escondida	Pampa Norte		Minera Escondida
	Cerro Colorado	Spence		Cerro Colorado	Spence	
Reuse	1,143	1,020	4,283	1,291	ND	4,409
External Recycling	119	87	696	124	ND	1,309
External Landfill	543	536	3,362	604	ND	4,382
<b>Total</b>	<b>1,805</b>	<b>1,643</b>	<b>8,341</b>	<b>2,019</b>	<b>ND</b>	<b>10,100</b>

(1) Information not available for 2015.

### 22 / Treatment and Disposal of Non-hazardous Waste, BHP Billiton Operations en Chile

Treatment or disposal of Nonhazardous Waste (t)	2014			2015		
	Pampa Norte		Minera Escondida	Pampa Norte		Minera Escondida
	Cerro Colorado	Spence		Cerro Colorado	Spence <sup>(1)</sup>	
External Recycling	1,067	1,681	14,910	0	ND	30,705
Landfill	606	588	21,157	619	ND	20,350
Industrial landfill (Rescon)	N/A	1,544	N/A	0	ND	N/A
<b>Total</b>	<b>1,673</b>	<b>3,813</b>	<b>36,067</b>	<b>619</b>	<b>ND</b>	<b>51,055</b>

(1) Information not available for 2015.

### 23 / Massive Mine Waste, BHP Billiton Chile

Mine Waste	Metric	2014			2015		
		Pampa Norte		Minera Escondida	Pampa Norte		Minera Escondida
		Cerro Colorado	Spence		Cerro Colorado	Spence	
Gangue	tons	47,960,373	59,144,518	176,350,014	46,222,570	47,639,688	187,239,371
Tailings	tons	N/A	N/A	78,820,760	N/A	N/A	82,131,466
Leaching gravel	tons	17,392,969	17,402,739	0	19,814,139	16,019,197	0
Low grade ore	tons	0	18,555,269	0	N/A	5,008,371	0

## Environmental Figures continued

### 24 / Recyclable Waste, BHP Billiton Operations en Chile

Name of Waste	Type of Waste	Metric	Cerro Colorado		Minera Escondida	
			2014	2015	2014	2015
Scrap Iron	Non-hazardous	tons	46	43	14,720	30,625
Recycling of Plastic Bottles, Boxes, and Industrial Plastics	Non-hazardous	tons		N/A N/A	190	80
Batteries	Hazardous	tons	18	18	N/A	N/A
Lead waste	Hazardous	tons	52	29	303	431
Lead Anodes	Hazardous	tons	N/A	N/A	295	858
Other/reused bins	Peligroso	tons	N/A	N/A	99	20

### 25 / Energy and Emissions Savings from Minera Escondida Initiatives

Initiative	Reduction in Energy GJ		Reduction in Emissions ton CO <sub>2</sub> eq	
	2014	2015	2014	2015
Coloso osmosis rack membrane change	1,394	3,200	2,842	763
Improvements to SAG mills	121,177	100,257	29,219	23,945
Sele Cartridge implementation	170,179	99,888	41,077	25,606
<b>Total</b>	<b>292,750</b>	<b>203,345</b>	<b>73,138</b>	<b>50,314</b>





**KPMG Auditores Consultores Ltda.**  
Av. Isidora Goyenechea 3520, Piso 2  
Las Condes, Santiago, Chile

Teléfono +56 (2) 2798 1000  
Fax +56 (2) 2798 1001  
[www.kpmg.cl](http://www.kpmg.cl)

## **Independent Professionals Report BHP Billiton Chile 2015 Sustainability Report**

Messrs.

**Presidents and Directors**

BHP Billiton Chile Inc.

Santiago

We have reviewed information and data contents presented in the “BHP Billiton Chile 2015 Sustainability Report” that are mentioned further on by BHP Billiton Chile, as at 31 December 2015.

The management of BHP Billiton Chile is responsible for preparing said report. Likewise, the management of BHP Billiton Chile is also responsible for the information and the statements contained therein, the definition of the report’s scope and of the management and control of the information systems that provided the reported information.

Our review was conducted in accordance with the Standards of Attestation in Chile, issued by the Colegio de Contadores de Chile A.G (“Chilean College of Accountants AG”). A review has a scope that is significantly less than an examination, which objective is to express an opinion on the “BHP Billiton Chile 2015 Sustainability Report”. Consequently, we do not express such opinion.

The information and data content presented in the “BHP Billiton Chile 2015 Sustainability Report” were reviewed taking into account the criteria described in the Guide for creating Sustainability Reports of the Global Reporting Initiative (GRI) in its G4 version and its relevant supplement for the Mining and Metals Sector, and it is summarized as follows:

- Determine that the information and data presented in the BHP Billiton Chile 2015 Sustainability Report are duly supported with sufficient evidence.
- Determine that BHP Chile Inc. has created its BHP Billiton Chile 2015 Sustainability Report in accordance with the principles of Content and Quality of the GRI Guide in its G4 version and its Supplement for the Mining and Metals Sector.
- Confirm the option of “essential” conformity declared by BHP Chile Inc. in its BHP Billiton Chile 2015 Sustainability Report, as per the G4 Guide.

Our procedures considered asking questions to Senior Management, Management Areas and Units of BHP Billiton Chile involved in the Report creation process, as well as the execution of other analytical procedures and tests described as follows:

- Interviews to key BHP Billiton Chile personnel, in order to assess the creation process of the BHP Billiton Chile 2015 Sustainability Report, its content definition and the information systems used.
- Verification of the data included in the 2015 Sustainability Report 2015 using supporting documentation provided by BHP Billiton Chile.
- Analysis of the gathering and internal control processes of quantitative data reflected in the 2015 Sustainability Report.
- Information reliability verification using analytical procedures and review tests based on sampling and calculation reviews by means of re-calculations.
- Visit to the corporate offices of BHP Billiton in the Metropolitan Region and visits to the offices and operations of Minera Escondida Limitada.
- Review of the wording of the BHP Billiton Chile 2015 Sustainability Report.

Based on our review, we have no knowledge whatsoever that:

- The information and data published in the BHP Billiton Chile 2015 Sustainability Report are not duly supported with sufficient evidence.
- The 2015 Sustainability Report has not been created in accordance with the GRI’s G4 version of the Guide for creating Sustainability Reports and its supplement for the Mining and Metals Sector.
- The “essential” conformity option declared by BHP Billiton Chile does not meet the requirements set forth in the GRI Guide version G4.

KPMG Auditores y Consultores Ltda.

Luis Felipe Encina K-P  
Socio

Santiago, 25 de marzo de 2016

# BHP Billiton global



\* This map does not reflect changes that occurred in the first quarter of 2016.

## BHP Billiton Sustainability Report 2015

### Front page image

Organic Growth Project 1 (OGP1)  
Minera Escondida's New Concentrator Plant.

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**BHP Billiton Minerals Americas**  
Cerro El Plomo 6000, 18th Floor  
Las Condes, Santiago, Chile.  
Phone: +56 2 2579 5000  
[www.bhpbilliton.com](http://www.bhpbilliton.com)



**Minera Escondida**  
Latitude: 24° 15' 30" South  
Longitude: 69° 4' 15" West.  
Altitude: 3,100 meters above  
mean sea level.



**Minera Escondida Antofagasta**  
Avda. de la Minería 501  
Antofagasta, Chile.  
Phone: +56 55 203 000



**Cerro Colorado**  
Latitude: 20° 3' 33" South  
Longitude: 69° 15' 49" West.  
Altitude: 2,600 meters above  
mean sea level.



**BHP Billiton Pampa Norte**  
Esmeralda 340, 4th floor,  
Iquique, Región de Tarapacá  
Phone: +56 57 738 500



**Spence**  
Latitude: 22° 48' 24" South  
Longitude: 69° 16' 20" West.  
Altitude: 1,750 meters above  
mean sea level.

**Contact Information – Send us your opinion**

BHP Billiton Minerals Americas  
[MineralsAmericasNews@bhpbilliton.com](mailto:MineralsAmericasNews@bhpbilliton.com)  
Phone: +562257950000

In order to obtain the index with all of the GRI indicators answered, and additional details on the materiality process, please send a request to the above e-mail address.