



ANTOFAGASTA PLC

ANNUAL REPORT AND  
FINANCIAL STATEMENTS 2018

# DEVELOPING MINING FOR A BETTER FUTURE

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In this Annual Report, the terms "Company", "Group", "we", "us", "our" and "ourselves" are used to refer to Antofagasta plc and, unless the context requires otherwise, its subsidiaries. These terms may be used as collective expressions where general reference is made to the companies in the Group and/or where no useful purpose is served by identifying any particular company or companies.

OUR PURPOSE

# DEVELOPING MINING FOR A BETTER FUTURE

OUR VISION

TO BE RECOGNISED AS AN  
INTERNATIONAL MINING COMPANY BASED IN CHILE,  
FOCUSED ON COPPER AND ITS BY-PRODUCTS,  
KNOWN FOR ITS OPERATING EFFICIENCY,  
CREATION OF SUSTAINABLE VALUE, HIGH PROFITABILITY  
AND AS A PREFERRED PARTNER  
IN THE GLOBAL MINING INDUSTRY.

# RECORD YEAR OF PRODUCTION



**FATALITIES AND LOST TIME INJURY FREQUENCY RATE<sup>1</sup>**

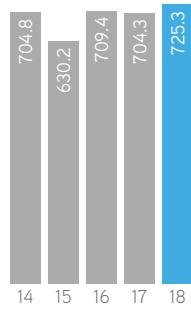


**1** Fatality    **1.6** LTIFR

**[+]** See page 44 for more information



**COPPER PRODUCTION<sup>2</sup>**

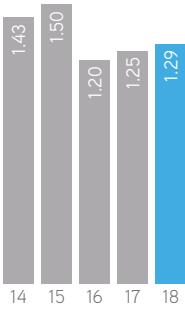


**725.3k tonnes**

**[+]** See pages 60 to 69 for more information



**NET CASH COSTS<sup>3</sup>**

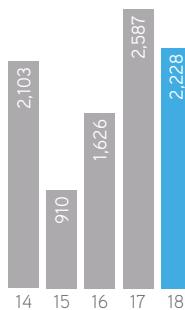


**\$1.29/lb**

**[+]** See pages 60 to 69 for more information



**EBITDA<sup>3</sup>**

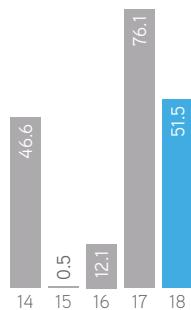


**\$2,228m**

**[+]** See page 76 for more information



**EARNINGS PER SHARE**

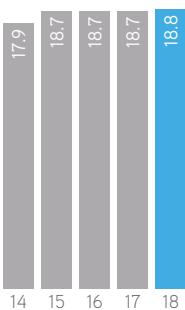


**51.5 ¢/share**

**[+]** See page 76 for more information



**MINERAL RESOURCES<sup>4</sup>**



**18.8bn tonnes**

**[+]** See page 208 for more information

1. Figures restated to include contractors in the transport division.

2. 100% of production at Los Pelambres, Centinela and Antucoya, and 50% of Zaldivar's production.

3. Non IFRS measure, refer to the alternative performance measures in Note 37 to the financial statements.

4. Mineral resources (including ore reserves) held by the Group's subsidiaries on a 100% basis and at Zaldivar on a 50% basis.

# 2018 OVERVIEW

## DURING 2018



### SAFETY

Safety is our top priority. Regrettably, after 26 months without a fatality there was a fatal accident at Los Pelambres



### COPPER PRODUCTION<sup>2</sup>

Record year of copper production – 725,300 tonnes, an increase of 3.0% compared with 2017 with higher production, particularly at Los Pelambres and Centinela



### NET CASH COSTS<sup>3</sup>

Net cash costs \$1.29/lb on lower grades at Centinela and higher input costs offset by higher by-product credits



### EBITDA<sup>3</sup>

EBITDA of \$2,228 million and margin of 47.0%, reflecting strong copper sales, lower copper price, lower grades and higher input costs



### EARNINGS PER SHARE

Earnings per share from continuing operations of 51.5 cents per share on lower EBITDA and higher depreciation and amortisation



### DIVIDEND PER SHARE

Total dividend of 43.8 cents per share, equivalent to a 65% pay-out ratio plus \$100 million of net cash proceeds from the sale of non-core assets during the year



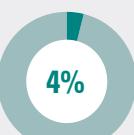
### PROJECTS

Encuentro Oxides project reached full capacity and Centinela's molybdenum plant started operating. Los Pelambres \$1.3 billion expansion project approved to produce 60,000 tonnes per year additional copper over 15 years from late 2021

# OUR BUSINESS TODAY

Mining is the Group's core business, representing over 96% of Group revenue and EBITDA. The Group operates four copper mines in Chile, two of which produce significant volumes of by-products. The Group also has a portfolio of growth opportunities located mainly in Chile.

In addition to mining, the Group has a transport division providing rail and road cargo services in northern Chile predominantly to mining customers, which include some of the Group's own operations.

	PRODUCTS	REVENUE	EBITDA <sup>1,2</sup>
<b>ANTUCOYA</b>	 CU		
- 70% owned - 21-year mine life - Produces copper cathodes			
<b>CENTINELA</b>	 CU  AG AU MO  CU		
- 70% owned - 49-year mine life - Produces copper cathodes and copper concentrates containing gold and silver and a separate molybdenum concentrate			
<b>LOS PELAMBRES</b>	 CU  AG AU MO		
- 60% owned - 20-year mine life - Produces copper concentrates containing gold and silver and a separate molybdenum concentrate			
<b>ZALDÍVAR</b>	 CU		
- 50% owned (and operated) - 12-year mine life - Produces copper cathodes			
<b>TRANSPORT</b>	 		
<b>GROUP</b>		\$4,733.1m	\$2,228.3m

KEY

 CATHODES CONCENTRATE ROAD RAIL

1. Non-IFRS measure. Refer to the alternative performance measure in Note 37 to the financial statements.

2. Add to more than 100% as exclude \$159 million of corporate costs and explorations and evaluations. See note 2 to the financial statements.



### COPPER PRODUCTION (TONNES) AND NET CASH COSTS<sup>1</sup> (\$/LB)

2018	2019 FORECAST	GROWTH POTENTIAL
------	---------------	------------------

<b>72,200</b> <b>\$1.99/lb</b>	<b>75-80,000</b> <b>\$2.00/lb</b>	<b>MINE LIFE EXTENSION</b> – Potential to process third parties' satellite ore bodies
<b>248,000</b> <b>\$1.51/lb</b>	<b>260-280,000</b> <b>\$1.35/lb</b>	<b>CENTINELA EXPANSION</b> – Building a second concentrator
<b>357,800</b> <b>\$0.91/lb</b>	<b>360-370,000</b> <b>\$1.05/lb</b>	<b>LOS PELAMBRES INCREMENTAL EXPANSION</b> – Phase 1 will increase throughput capacity to 190ktpd. Project was approved during 2018 – Phase 2 will further increase throughput capacity to 205ktpd and extend the life of mine
<b>47,300</b> <b>\$1.94/lb</b>	<b>55-60,000</b> <b>\$1.75/lb</b>	<b>MINE LIFE EXTENSION</b> – Assessing viability of primary sulphide leaching
<b>6.1m tonnes</b>		<b>HAULAGE CAPACITY INCREASE</b> – Programme to increase the fleet's haulage capacity
<b>725,300</b> <b>\$1.29/lb</b>	<b>750-790,000</b> <b>\$1.30/lb</b>	



# CONSIDERED GROWTH

**"I am proud to report record production of 725,300 tonnes which is due to the hard work of the operations teams, particularly at Centinela and Los Pelambres."**

**Jean-Paul Luksic**  
Chairman



## DEAR SHAREHOLDERS,

It is now 40 years since the Luksic family acquired a stake in Antofagasta and began the process of creating one of the world's leading copper mining companies. During the years in which I have been at the helm of the Company, as CEO of the mining division from 1998 and subsequently as Chairman of the Board, it has been fascinating to see the huge changes which have taken place, both in the industry and in Antofagasta.

We have grown from being a regional railway business to becoming a company focused on copper mining, developing and operating large-scale open pit mines at Los Pelambres, Centinela and Antucoya, as well as acquiring a 50% stake and operatorship of Zaldívar in 2015. I am proud to be able to report that this year we have had record production of 725,300 tonnes which is due to the hard work of the operations teams, particularly at Centinela and Los Pelambres.

### CONSIDERED GROWTH

While our production hit record levels during 2018, global trade tensions led to a fall in the copper price in the second half of the year, highlighting once again how the fundamentals of our industry are so often shaped by geopolitical circumstances. The cyclical nature of the copper industry has fundamentally shaped the way we think about the future, focusing our attention on those elements that we can control: the pace of our developments, costs, ensuring safe and reliable operations and maintaining good community and employee relations.

We are fortunate to have substantial mineral resources and we know that these resources will all one day be developed. The judgement we have to make is when. We think of this as 'considered growth'.

Evidence of our conviction to growing and developing our resource base over time has been our commitment to investing through the cycle. It is in line with this that we completed the acquisition of our shareholding in Zaldívar in 2015 and the construction of Antucoya with first production in the same year. We continually review and assess our portfolio of opportunities and expansion plans. And as part of this process the Board recently approved the expansion of Los Pelambres after the project had been fully reviewed and all risks and uncertainties minimised to acceptable levels. Construction is now under way and the first phase of the expansion is expected to add an average of 60,000 tonnes of copper production per year between 2021 and 2036. The project also includes a desalination plant to improve the water security of the whole mine and ensure that the expansion will not need to rely on local supplies.

We are also considering expanding our production at Centinela and having evaluated two development alternatives, have decided to advance one of these alternatives, the construction of a second concentrator, to the next stage of evaluation.

## PROCESS ENSURES SAFETY

After more than two years without a fatality at one of our mines, it is with great sadness that I have to report that a contractor suffered a fatal accident at Los Pelambres in October. My condolences go to the family of Jorge Pérez Barraza. We have undertaken a full investigation of the incident and have implemented the recommendations with direct oversight by senior management.

Safety remains the Group's top priority and this tragic incident provides a salutary reminder that we must always remain alert. It is the duty of all of us – including those with the most experience – to follow the rigorous procedures and processes that we have in place to maintain a safe working environment and to ensure that those working around us are doing the same. After many years in the industry I know that people can become lulled into a false sense of security through familiarity with the mining environment. We all have to guard against that and the complacency it sometimes breeds.

## GOVERNANCE: TALENT ESSENTIAL FOR THE FUTURE

We announced in November that Francisca Castro, who has served as an independent Non-Executive Director since 2016, has been appointed as chair of Antofagasta's Remuneration and Talent Management Committee, with the appointment effective in May 2019. Ms Castro is replacing Tim Baker as chair and I would like to thank them both, and indeed all of our committee members, for their hard work over the course of the year.

The role of the Remuneration and Talent Management Committee is vital to ensuring that Antofagasta performs at its full potential. Partly this is about ensuring that we maintain strong and transparent relations with our employees and the communities in which we work. I am proud that we have maintained such strong employee and union relations, successfully completing a number of major wage negotiations this year and recording yet another year without strikes – an unbroken record.

We engage constantly with our workforce, not only in the years when there are negotiations, but every year as this open dialogue is key to maintaining good relations and develops the trust that has built up between the Company and its employees.

## FAREWELL TO BILL HAYES

At this year's AGM Bill Hayes will not put himself forward for re-election as a director. Bill has been a Non-Executive Director for 12 years, of which five were as the Senior Independent Director. I would like to thank Bill for all the work he has done for us and his contribution to the success of the Company.

## CREATING A DIVERSE WORKFORCE

Diversity is another big issue being tackled by the Board and I challenge everyone in the business to see how we can improve the level of diversity across our workforce. To my mind ensuring that the most talented people are drawn to Antofagasta and want to stay here is not just the right thing to do – it is good business. While we still have much to do, I was enormously proud that three women at Antofagasta were honoured by Women In Mining as being identified as some of the 100 most inspirational women in mining today.

## OUTLOOK

It is our view that the copper market continues to look tight, with the outlook for 2019 and beyond positive for copper prices. The growing demand for copper as a critical element in renewable energy and electromobility is here to stay and represents strong new sources of demand, which we believe will help offset the worst excesses of continued global trade disputes. With growing production, new developments under way and an attractive portfolio of future projects, Antofagasta is well positioned to meet this demand with its next phase of considered growth.

As I said at the beginning of this letter, we have experienced many ups and downs over the past 40 years, and I have no doubt that the future will bring many new opportunities and challenges. What I have learnt though is that by focusing on what we do best – maintaining our costs, running safe and efficient operations, and managing our development programmes – we can ensure that Antofagasta will still be here in another 40 years.

I would like to finish by thanking all of our employees and contractors without whose hard work none of this would be possible and our shareholders for their continued support.

### Jean-Paul Luksic

Chairman

## TAILINGS FACILITIES

The Group has four tailings storage facilities, two at Los Pelambres in central Chile and two in northern Chile. The active tailings dam at Los Pelambres is monitored continuously and carefully managed. All of the Group's facilities are built using the downstream method, are managed by dedicated teams and are reviewed twice a year by an independent tailings board comprised of highly qualified independent experts.

The Company supports recent proposals to introduce an international independent developed standard and classification system that monitors the safety risk of tailings storage facilities and will work with the International Council on Mining and Metals (ICMM) and other bodies to ensure its success.

 See page 47 for more information

# A YEAR OF TWO HALVES

**"By focusing on what we do well – producing profitable tonnes throughout the cycle – the Group was able to successfully navigate significant volatility in the global commodity markets."**

Iván Arriagada  
Chief Executive Officer



## DEAR SHAREHOLDERS,

I am pleased to share with you the significant progress we have made during the year in many important areas. This progress demonstrates the transformational changes under way in the Group that underpin a set of solid results in 2018.

As part of our annual strategy review with the Board, during the year we devoted time to discussing how best to describe the ultimate purpose of what we do as an organisation. This is what motivates all of us who work at Antofagasta, beyond the immediate tasks that everyone is expected to accomplish in her or his specific role. This is very important as ultimately, as a business organisation, we work to be a cause for good in wider society, placing the common good at the centre of what we do. We concluded that the description which best reflects our purpose can be summarised as: **Developing Mining for a Better Future**. We will be sharing our strategy during 2019 with a clear reference to our organisational purpose.

### RESULTS – SAFETY, PRODUCTION AND COSTS

Although we achieved our planned results and a record production in 2018, very regrettably I must report that in October, after more than two years without a fatality, a contractor suffered a fatal accident at Los Pelambres. I am convinced that a fatality free environment is possible, as demonstrated by the prior 26 months without a fatal accident, and is an absolute imperative in how we conduct our operations. The safety of our workforce remains our number one priority and we will continue to work without compromise to this end.

On production, 2018 was a record year for Antofagasta, albeit one with two distinct halves. We started the year with lower ore grades at all of our operations, with a consequential reduction in copper production. However, in line with our mine plans ore grades recovered steadily during the year.

As a result, I am pleased to say that 2018 saw record production, with Antofagasta producing 725,300 tonnes of copper.

On costs, we worked very hard to maintain tight control, with full year net cash costs coming in at \$1.29/lb, below our guidance. Indeed, our cost performance improved during the year with the Group recording net cash costs of \$0.99/lb in the fourth quarter, the lowest since 2012. This result for the year is due not only to the increased production and higher by-product prices but also to our successful Cost and Competitiveness Programme which yielded 10c/lb of cost savings. That is equivalent to \$184 million over the whole of 2018 and we are now targeting a further \$100 million in 2019.

By focusing on what we do well – producing profitable tonnes throughout the cycle – the Group was able to successfully navigate significant volatility in the global commodity markets. This translated into EBITDA for the full year of \$2,228 million representing a margin of 47%. I am confident that the Group is now well positioned for further production growth in 2019 and a further strong performance on costs, which will support strong cash flow generation and returns.

The Group's operations have achieved an improved level of operating stability and we go into 2019 with real momentum for what we expect to be another record-setting year, with production increasing by up to 9% to 750-790,000 tonnes at net cash costs of \$1.30/lb.

### INNOVATION FOR THE FUTURE

Much of the progress we have made in recent years reflects not only our focus on costs but also the culture of continuous innovation that Antofagasta is building. At the heart of this culture is the development of three initiatives to drive innovation: seeking new ideas from our employees and contractors, investing in large scale 'strategic' change and accelerating the adoption of digital solutions across our organisation.

Our workforce has been a continual source of ideas for running our operation more efficiently, maximising uptime and improving reliability. Since 2017 we've received more than 200 ideas from employees and external parties of which 49 progressed to become innovation proposals and 16 are either being implemented or assessed in detail.

We have also introduced a number of larger scale innovations during the year. We are improving copper recoveries at Zaldívar, developing a new approach to leaching primary sulphides and investigating new large-volume material moving technologies.

The increased use of data and technology – the digitalisation of operations – is where we see the future of mining. As a company we are investing significantly into this area and have an implementation budget of \$40 million to strengthen our technological platform, including critical operating systems and connectivity, as a key enabler to progressing with our digital transformation. We have applied advanced data analytics to our processing plants to better understand and improve their performance and we are now working on the design of a Remote Centre that will allow integrated operations management at Centinela.

It's not just at the operating level that we're seeing the benefits of improved data. At Los Pelambres we constantly monitor the tailings deposits and as part of the Programa Tranque project we expect to start releasing the monitoring results online early next year. This will provide the community with real time information, helping to build trust between ourselves and our neighbours.

### EFFICIENT CAPITAL ALLOCATION

We are also taking a more innovative approach to the way we allocate capital as an organisation. Over the past couple of years we have worked to sell down non-core assets, reallocating capital either to shareholders or back into our core copper business where we believe we are best placed to maximise returns. As part of this process in July 2018 we sold our electricity transmission lines at Centinela for \$117 million. This was followed in August with the sale of our holding in the El Arrayan wind farm, which provides Los Pelambres with renewable energy, for \$28 million. Both sales follow a number of exits in 2017, most significant of which was the disposal of our interest in the Alto Maipo hydro power project.

At the same time we are investing in our core business and in November announced the Board's approval of the expansion of Los Pelambres. With work starting at the beginning of 2019 the project is expected to add an average of 60,000 tonnes per annum of copper production over 15 years, beginning in the second half of 2021. At a cost of \$1.3 billion, the project includes a \$500 million desalination plant and will increase plant throughput from 175,000 tonnes of ore per day to 190,000 tonnes.

We have taken a different approach to this expansion project in two key areas. First of all, we have taken advantage during the period of market downturn to advance further the project's detailed engineering and develop a detailed project execution plan securing the best possible terms from our suppliers and contractors. In so doing we have significantly mitigated key risk areas around timing and cost control. Second, instead of financing the project from our cash flow we will debt finance 100% of the project, benefiting from the strength of our balance sheet to secure very attractive rates and maximise project returns.

### REDUCING OUR ENVIRONMENTAL IMPACT

Copper mining is a key component in the move to a more sustainable world, with multiple applications in zero emission transportation and renewable power generation technologies. However, mining undoubtedly has a big impact on the environment, and we are improving the way we operate to reduce the impact we make on the environment and also on neighbouring communities, while at the same time explaining what we are doing and why we are doing it and listening to community members' concerns.

During 2018 we took some big steps towards realising our ambition to reduce the environmental impact we make. In June Zaldívar signed a renewable energy contract which, from 2020, will see the mine being powered 100% by renewable energy – a first in the Chilean mining industry. Not only will this remove the equivalent of 350,000 tonnes of greenhouse gases per year, it will also significantly reduce Zaldívar's power costs.

We are also improving the energy efficiency of our plants and working to safeguard wildlands and forests in the Los Pelambres region.

### BUILDING A WORKFORCE FOR THE 21<sup>ST</sup> CENTURY

Our operating achievements in 2018 are a real testament to the dedication, hard work and expertise of our workforce and I would like to thank them for everything that they have achieved. It also reflects Antofagasta's continued strong labour relations and I am proud that we have maintained our unbroken record with another year without a strike.

One of my current focuses is on improving diversity across our workforce and as part of this commitment we joined the 30% Club, an international organisation that promotes gender balance. I want to make sure that everybody – no matter what their gender, race or background – can thrive at Antofagasta. In driving this effort I have been struck by the huge contribution that individuals can make in changing our culture. For instance, three of Antofagasta's employees – Cecilia Arrue, Angie Caro and Laura Cristoffanini – were recognised by Women In Mining as among the "100 Global Inspirational Women In Mining" in 2018. This is a huge accolade and their work, alongside many other women at Antofagasta, has been critical to our successful development.

### COPPER MARKET

Although the copper price performed well in the first half of 2018 uncertainty was the dominant theme in the second half of the year and the price weakened. Markets suffered from persistent volatility as international trade negotiations failed to reach a conclusive agreement. However, the fundamentals remain positive with a supply deficit in 2018 that is expected to grow in 2019. With the year starting with progress in the trade negotiations the copper price has strengthened and if the negotiations are concluded successfully we expect the price will strengthen further. In line with the market, we believe the mid to longer-term outlook is favourable with continued new uses of copper and limited opportunities for supply growth.

As I said at the beginning of this letter, 2018 really was a year of two halves not just in respect of our production performance but also for the market. However, I am delighted that the Company and our people rose to the occasion and delivered a record level of production establishing real momentum as we go into 2019.

**Iván Arriagada**  
Chief Executive Officer

# DEVELOPING MINING FOR A BETTER FUTURE

Future demand for copper will be driven by continued urbanisation and rapidly rising adoption of renewable energy and electric vehicles.

## INCREASING MARKET DEMAND FOR COPPER

Copper is essential to modern society and a greener future. It can play a vital role in addressing some of the world's major challenges such as the availability of affordable and clean energy, air and noise pollution and sustainable urban development.

The metal is corrosion resistant, extremely malleable and an exceptional conductor of heat and electricity, making it a key input for efficient energy use and green technologies. For centuries, it has held a central role in humankind's development due to its unique combination of properties.

Today copper is a key component of everyday life from mobile telephones to the roofs, heating and electric wiring in people's homes. It is needed for power generation and transmission, motor vehicles, domestic appliances – such as air conditioning and televisions – and industrial machinery.

### MARKET TRENDS



#### BUILDING THE CITIES OF TOMORROW

12

Copper is a vital building block for urbanisation and greener, healthier buildings.



#### CONTRIBUTING TO CLEAN AND AFFORDABLE ENERGY

14

Electricity generated from solar and wind will power copper demand growth in energy markets in coming years.



#### ELECTRIC TRANSPORT GETS GREEN LIGHT

16

Electrification of transport is expected to take off in the next decade providing a significant boost to copper demand.

Since early this century, demand for the industrial metal has been driven by urbanisation, propelled by China where 58% of the population now lives in a city compared to only 39% in 2002. Urbanisation and industrialisation in India and Southeast Asian countries are expected to dominate copper consumption growth beyond 2020 as the rate of Chinese demand growth slows.

A growing middle class in emerging economies is also boosting sales of copper-rich consumer goods such as electronic devices and cars.

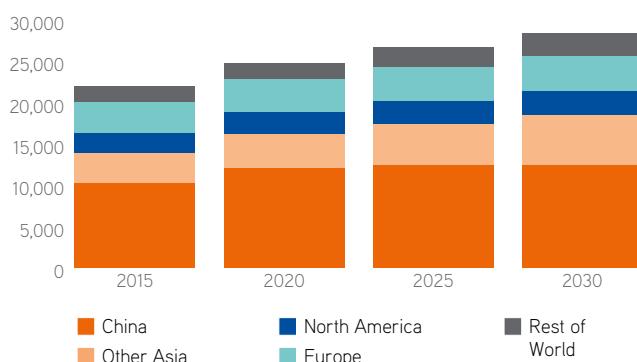
Going forward, copper demand growth will also be fuelled by renewable energy and electric vehicles pushed by the falling costs of these environmentally-friendly technologies and the world's need to find cleaner solutions for modern life.

The fact that copper is 100% recyclable only enhances its credentials as a metal able to contribute to the United Nation's Sustainable Development Goals.

## REFINED CONSUMPTION BY REGION 2000-2040

The most important market is China, which accounted for approximately 48% of global copper consumption in 2018, significantly more than Europe and North America combined, which consumed 16% and 10% respectively. An estimated 15-25% of Chinese consumption is re-exported as manufactured products. However, longer-term growth over the next 20 years is expected to come predominantly from the rest of Asia.

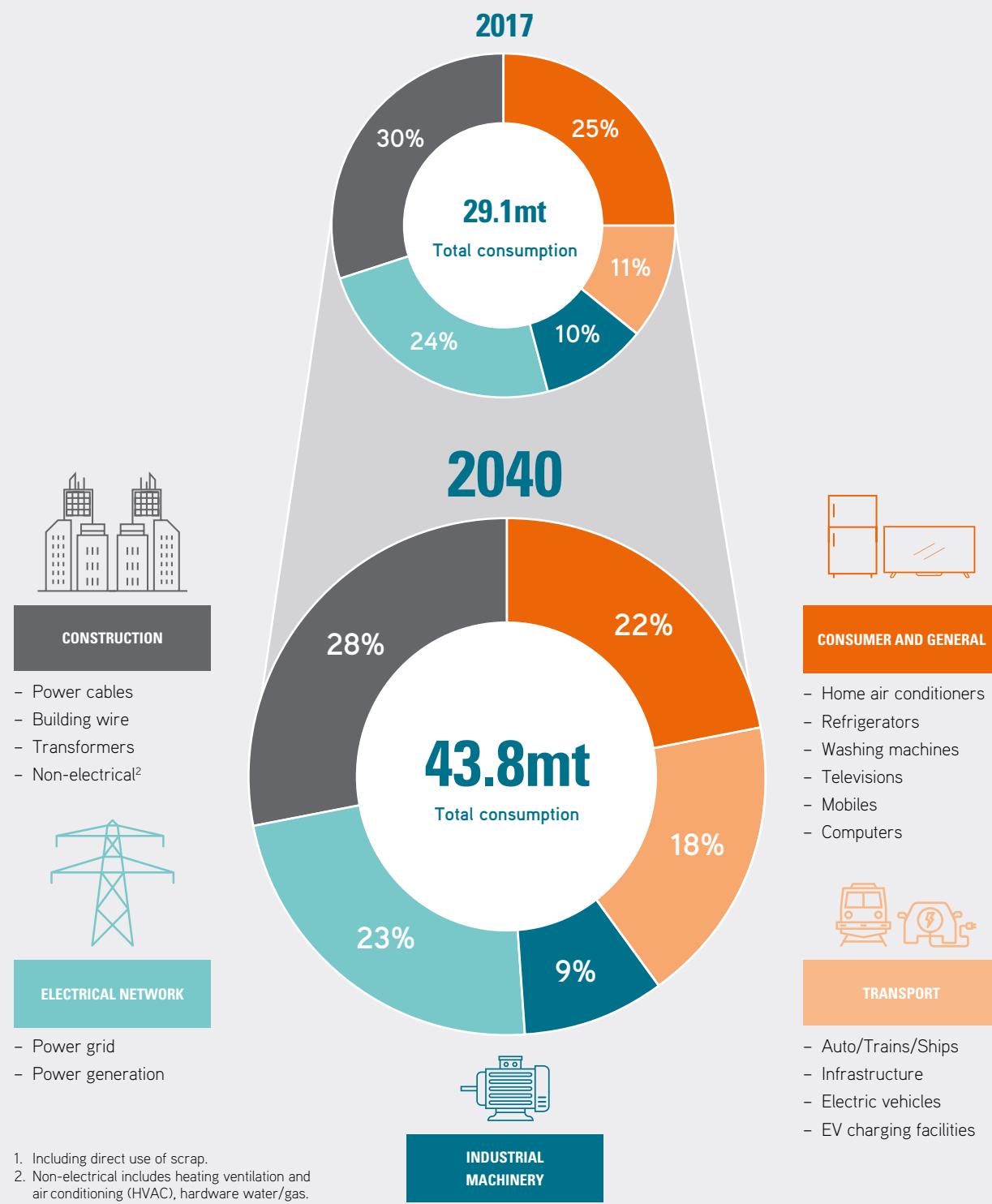
## REFINED CONSUMPTION BY REGION



Source: Wood Mackenzie, Copper Outlook December 2018

## GLOBAL COPPER CONSUMPTION BY MARKET SECTOR<sup>1</sup>

Growth in total consumption from 2017 to 2040 is estimated to be 1.8% per year and will reach 43.8mt, underpinned by electrification in transportation, buildings and manufacturing. In addition, governments continue to establish targets for renewable energy, which results in higher copper demand.



1. Including direct use of scrap.

2. Non-electrical includes heating ventilation and air conditioning (HVAC), hardware water/gas.

Source: Wood Mackenzie, Copper Outlook December 2018

# BUILDING THE CITIES OF TOMORROW

## COPPER IS A VITAL BUILDING BLOCK FOR URBANISATION AND GREENER, HEALTHIER BUILDINGS.

Today 55% of the world's population live in cities, up from just under 47% in 2000. This global trend is expected to rise to 64.5% by 2040 driven by India, China and Nigeria, according to the United Nations.

Rising urbanisation and industrialisation is a major stimulus for sustained and strong copper demand. The metal is a key component of the wiring, plumbing, heating and cooling, lighting and roofing of homes, as well as the commercial services, transport, power and telecommunications systems needed for vibrant, modern cities.

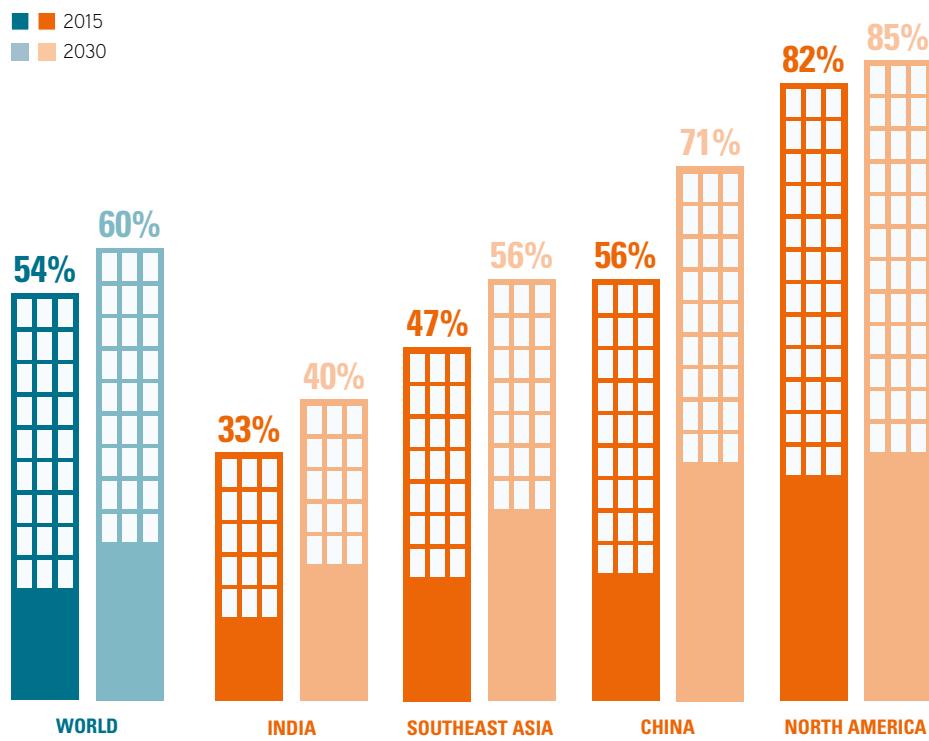
Growing wealth will also boost copper intensity in homes and offices. Greater spending on electrical goods will lead to higher electricity consumption and a larger number of power sockets, all of which consume copper.

Copper demand will also be pushed by an increasingly digital economy. Society's need for high-speed internet services is expected to sharply increase demand for higher quality copper telecommunications cables in residential and business properties.

Meanwhile, tougher housing regulations are gradually imposing higher energy efficiency standards and lower emission rates on new buildings to reduce negative impacts on the climate and the environment. Copper's superior thermal and electrical conductivity will make it indispensable for the greener buildings of the future.

Copper stands to benefit from urbanisation but also contribute to smarter and cleaner cities.

### WORLD URBANISATION PROSPECTS AS A PERCENTAGE POPULATION (%)



Source: United Nations Population Division, 2018 Revision of World Urbanisation Prospects.



30%

of copper is consumed  
by the construction sector

7.3m tonnes

per annum consumed  
by the construction sector



1. The 13th Five-Year Plan For Economic And Social Development Of The People's Republic Of China.

# CONTRIBUTING TO CLEAN AND AFFORDABLE ENERGY

## ELECTRICITY GENERATED FROM SOLAR AND WIND WILL POWER COPPER DEMAND GROWTH IN ENERGY MARKETS IN COMING YEARS.

The next few decades will witness a shake-up of the energy sector. Electrification will charge ahead, led by India, dominated by new wind and solar projects and the globalisation of natural gas markets.

Under current and planned government policies, global energy demand is set to grow by more than 25% to 2040, with renewable energy representing 40% of installed capacity, up from 25% today.

Solar photovoltaic and wind energy are now economically competitive with traditional power sources due to falling costs. This is driving the uptake of these green technologies over fossil fuels in advanced and developing economies alike.

The expansion of renewable energy sources also forms part of governments' efforts to tackle global warming by reducing carbon dioxide emissions, together with energy-related air pollution which causes millions of premature deaths each year.

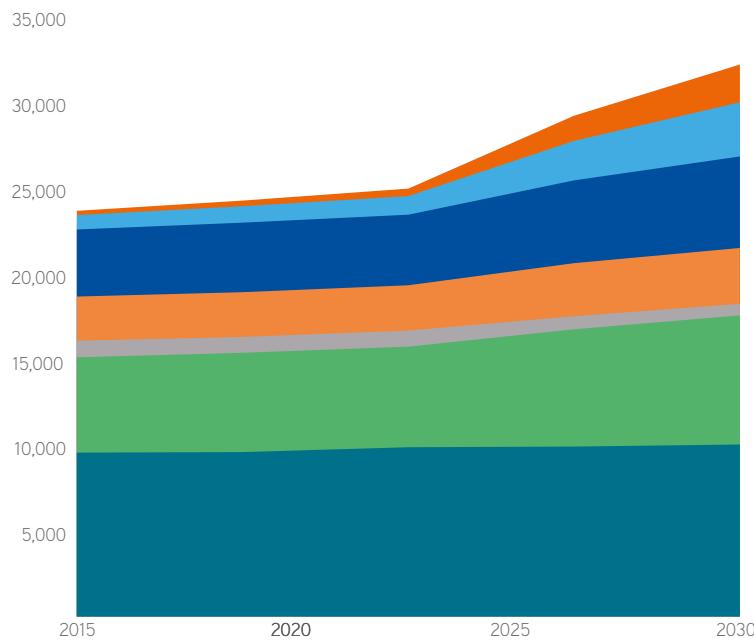
Many countries have established decarbonisation goals under the Paris Agreement.

This will not only benefit the environment but also copper. Growing electrification and especially new solar and wind projects will be key drivers behind copper demand growth.

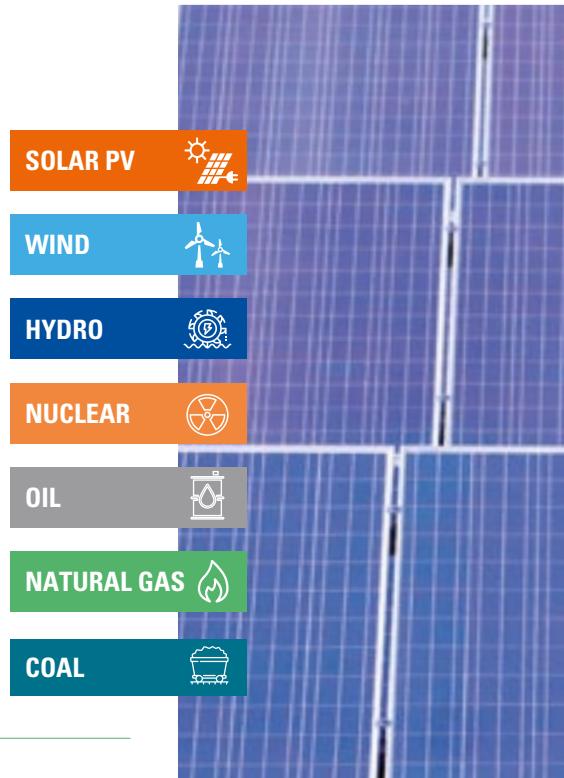
Copper is used for high-voltage power distribution conductors, transformers and earthing in energy infrastructure as well as in coil windings in the stator and rotor of wind generators and the cell ribbons and cabling of solar photovoltaic systems. Solar and wind technologies need four to six times as much copper as conventional energy mainly owing to the need to connect larger numbers of smaller units to the grid.

Copper's outstanding ability to conduct electricity means it will be a crucial element in the supply of affordable and clean energy for generations to come.

### GLOBAL ELECTRICITY GENERATION BY TECHNOLOGY 2015-2040<sup>1</sup>



1. Source: International Energy Agency [www.iea.org/weo/](http://www.iea.org/weo/) – see Electricity Generation by Technology in World with New Policies Scenario.



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**24%**

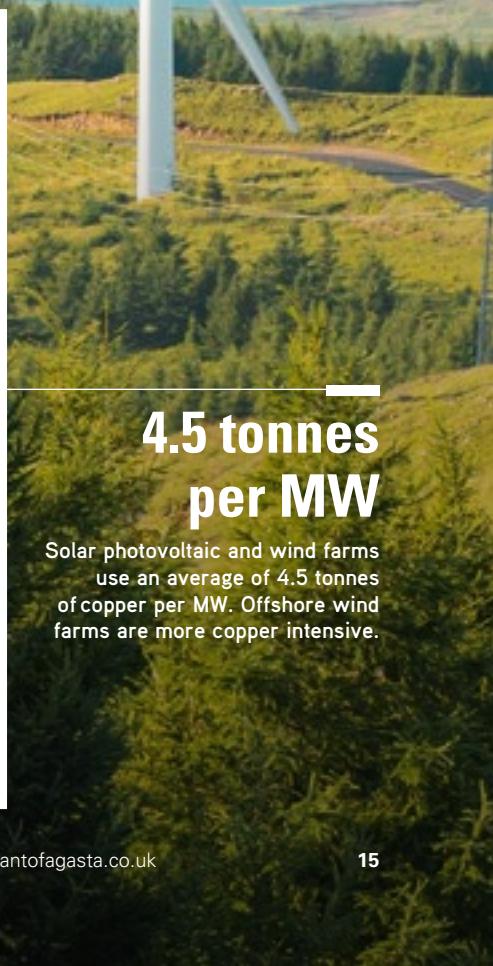
Power infrastructure and generation accounts for about 24% of annual copper consumption, or the equivalent of 6.9 million tonnes.



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**4.5 tonnes per MW**

Solar photovoltaic and wind farms use an average of 4.5 tonnes of copper per MW. Offshore wind farms are more copper intensive.



# ELECTRIC TRANSPORT GETS GREEN LIGHT

## ELECTRIFICATION OF TRANSPORT IS EXPECTED TO TAKE OFF IN THE NEXT DECADE PROVIDING A SIGNIFICANT BOOST TO COPPER DEMAND.

Electric vehicles have made rapid gains in recent years. Their sales have surged in China, the US and Europe and the question now is not if but when they will outnumber conventional petrol and diesel cars.

Cheaper and better batteries have made electric vehicles more affordable and increased the distance they can be driven before being recharged. Running costs are already attractive in countries with low electricity prices compared to fuel. Simpler engines mean less maintenance.

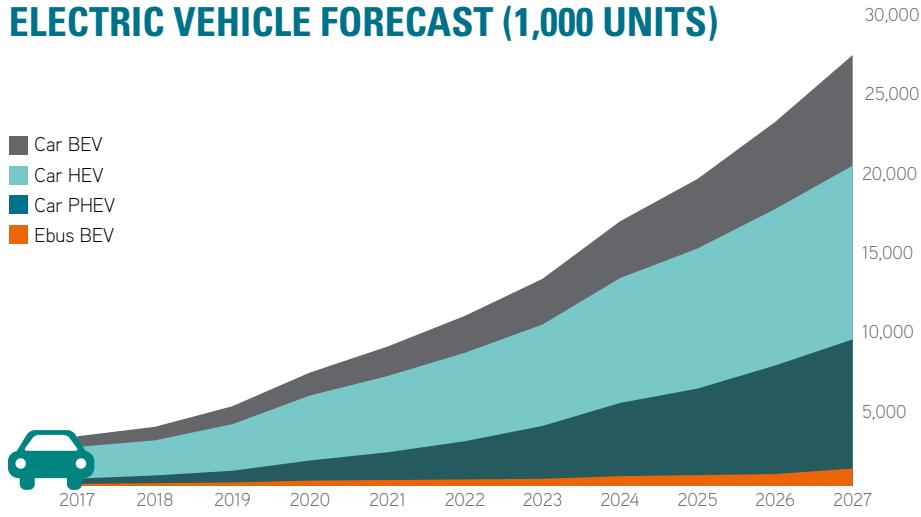
Faster than expected uptake of electric vehicles is also being driven by stricter environmental standards to restrict CO<sub>2</sub> emissions and combat harmful air pollution in cities. Governments are increasingly setting targets to phase out or ban the sale of conventional cars and giving incentives to car buyers to go green. Electric bus fleets are being pioneered in China.

This is good news for copper. Electric vehicles contain up to almost four times the amount of copper as conventional ones owing to its use in batteries, high-voltage wiring, windings and rotors. Charging stations will also boost demand.

The number of electric vehicles on the road is expected to soar from three million in 2017 to 27 million by 2027, according to the International Copper Association. This will raise copper demand in electric vehicles from 185,000 tonnes to 1.74 million tonnes per year over the same period.

The all-out advent of electric vehicles is now inevitable. Near-term progress may be hampered by insufficient fast-charging stations and lack of product choice but cleaner, quieter cities are on the horizon.

### ELECTRIC VEHICLE FORECAST (1,000 UNITS)



3m

2017

27m

2027

Source: International Copper Association, Electric Vehicle Market Factsheet, June 2017.

BEV: Battery electric vehicle

HEV: Hybrid electric vehicle

PHEV: Plug-in hybrid electric vehicle





**11%**

Transport currently accounts for about 11% of annual copper consumption, or the equivalent of 6.9 million tonnes. This share is expected to rise to 18% by 2040 due to the electrification of transport.



**20%**

Electric vehicle battery costs fell by an average of 20% per annum between 2010 and 2017. They are expected to halve by 2025 making the unit cost of electric cars competitive with conventional vehicles.

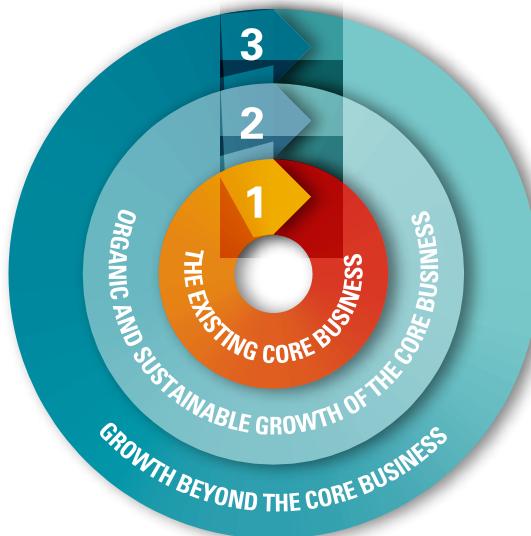
## NORWAY: THE POSTER CHILD

Around 50% of Norway's new car sales were electric or hybrids in 2018, driven by government policy. Electric cars are exempt from import taxes, VAT and road taxes, pay lower road tolls and city parking fees, and can cross fjords by ferry for free. Another incentive is the relatively low cost of electricity in Norway due to cheap hydropower making electric vehicles some of the least polluting in the world.

# STRATEGY

## OUR VISION

To be recognised as a Chilean-based international mining company, focused on copper and its by-products, known for its operating efficiency, creation of sustainable value, high profitability and as a preferred partner in the global mining industry.



### 1. THE EXISTING CORE BUSINESS

The first pillar of the strategy is to optimise and enhance the existing core business: Los Pelambres, Centinela, Antucoya, Zaldívar and the transport division.



#### CURRENT STRATEGIC FOCUS:

- Further embed the Safety Model across all operations to achieve annual target of zero fatalities
- Continue the Cost and Competitiveness Programme (CCP) to sustain the Group's competitive position
- Seek long-term productivity improvements through the development and application of innovative solutions
- Promote a culture that focuses on diversity and inclusion
- Continue to cultivate a proactive and inclusive approach to local communities and other stakeholders in order to strengthen sustainable development

#### 2018 IN REVIEW

- Regrettably the Group had one fatal accident at Los Pelambres
- Copper production of 725,300 tonnes, a 3.0% increase compared to 2017
- Group net cash costs of \$1.29/lb, 6c/lb lower than guidance for the year and 4c/lb higher than in 2017
- CCP achieved \$184 million of savings, outperforming targeted savings by \$84 million
- Labour agreements successfully reached at Los Pelambres

#### OBJECTIVES FOR 2019

- Achieve zero fatalities by continuing to embed the Safety Model
- Increase copper production to 750-790,000 tonnes
- Group cash costs before by-product credits of \$1.70/lb and net cash costs of \$1.30/lb
- Make a further \$100 million of savings as part of the CCP, mainly through productivity improvements leveraged on the Group's operating excellence methodology
- Continue improving operating efficiency by increasing plant availability and operating consistently to release spare capacity at the Group's operations
- Maintain good relationships with communities and local stakeholders

## 2. ORGANIC AND SUSTAINABLE GROWTH OF THE CORE BUSINESS

The second pillar of the strategy is to achieve sustainable, organic growth by further developing the areas around the Group's existing asset base in Chile.



### CURRENT STRATEGIC FOCUS:

- Advance the Los Pelambres Expansion project
- Continue the expansion of Centinela
- Improve copper recoveries at Zaldívar

### 2018 IN REVIEW

- Encuentro Oxides achieved design capacity
- Molybdenum plant started production
- Los Pelambres Expansion Phase 1 Environmental Impact Assessment (EIA) was approved by the environmental authorities
- Execution of the Los Pelambres Expansion project was approved
- Reviewed Centinela expansion alternatives and selected the second concentrator as the preferred option

### OBJECTIVES FOR 2019

- Start construction of Los Pelambres Expansion Phase 1
- Advance the Centinela second concentrator feasibility study
- Advance innovation programme to assess value-capturing technologies

## 3. GROWTH BEYOND THE CORE BUSINESS

The third pillar of the strategy is to seek growth beyond the Group's existing operations, in Chile or internationally, through the acquisition of high-quality operating assets and/or high-potential early-stage developments.



### CURRENT STRATEGIC FOCUS:

- Advance the Twin Metals project
- Develop the long-term growth pipeline beyond the Group's existing operations
- Continue the exploration programme focused on the Americas in order to identify long-term growth options
- Monitor the current market to assess potential accretive acquisitions or joint ventures

### 2018 IN REVIEW

- Increased exploration activity, particularly in Chile
- Divested non-core assets of Centinela electricity transmission lines and El Arrayan wind farm
- Continued preparation of Twin Metals Mine Plan of Operations

### OBJECTIVES FOR 2019

- Continue monitoring the market for potential acquisition opportunities
- Advance exploration programmes in the Americas
- Complete Twin Metals Mine Plan of Operations

# KEY PERFORMANCE INDICATORS

## MEASURING OUR PERFORMANCE

The Group uses Key Performance Indicators (KPIs) to assess performance in terms of meeting its strategic and operating objectives.

Performance is measured against the following financial, operating and sustainability KPIs:

### FINANCIAL KPIs

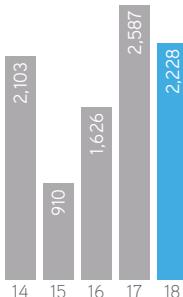
#### EBITDA<sup>2</sup>

##### WHY IT IS IMPORTANT

This is a measure of the Group's underlying profitability.

##### PERFORMANCE IN 2018

EBITDA was \$2,228 million, 13.9% lower than the previous year as unit costs increased due to grade declines and higher input costs.



**\$2,228m**

See page 76 for more information

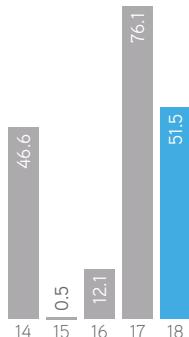
#### EARNINGS PER SHARE

##### WHY IT IS IMPORTANT

This is a measure of the profit attributable to shareholders.

##### PERFORMANCE IN 2018

Earnings per share from continuing operations of 51.5 cents per share, a 32.2% decrease on 2017, because of lower EBITDA and higher depreciation and amortisation.



**51.5 c/share**

See page 79 for more information

#### NET DEBT<sup>1</sup>

##### WHY IT IS IMPORTANT

This is a measure that reflects liquidity of the Group.

##### PERFORMANCE IN 2018

Net debt increased by \$140 in 2018 to \$596 million.



**\$596m**

See page 81 for more information

Remuneration performance criteria. See page 129 for more information

1. Non-IFRS measures refers to the alternative performance measures in Note 37 to the financial statements.

2. 100% of Los Pelambres, Centinela and Antucoya, and 50% of Zaldívar's production.

3. Mineral resources (including ore reserves) relating to the Group's subsidiaries on a 100% basis and Zaldívar on a 50% basis.

4. The Lost Time Injury Frequency Rate is the number of accidents with lost time during the year per million hours worked.

5. Figures restated to include contractors in the transport division.

6. Relates to the mining division only.

## OPERATING KPIs

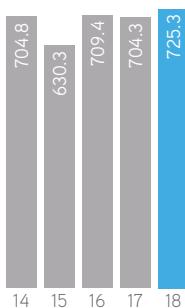
### COPPER PRODUCTION<sup>2</sup>

#### WHY IT IS IMPORTANT

Copper is the Group's main product and its production is a key operating parameter.

#### PERFORMANCE IN 2018

The Group achieved record production for the year of 725,300 tonnes, a 3.0% increase on 2017, on higher production at Los Pelambres and Centinela.



**725.3k tonnes**

**[+]** See page 60 for more information

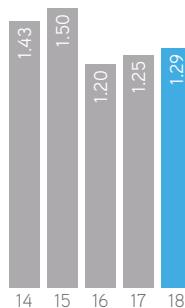
### NET CASH COSTS<sup>1</sup>

#### WHY IT IS IMPORTANT

This is a key indicator of operating efficiency and profitability.

#### PERFORMANCE IN 2018

Net cash costs of \$1.29/lb, 3.2% higher than in 2017 as average grades declined and cost pressure from rising input prices.



**\$1.29/lb**

**[+]** See page 60 for more information

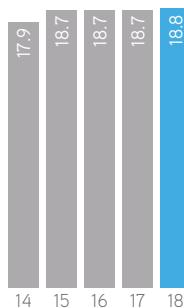
### MINERAL RESOURCES<sup>3</sup>

#### WHY IT IS IMPORTANT

Expansion of the Group's mineral resources base supports its strong organic growth pipeline.

#### PERFORMANCE IN 2018

Mineral resources at Zaldivar increased during the year increasing Group mineral resources to 18.8 billion tonnes.



**18.8bn**

**[+]** See page 208 for more information

## SUSTAINABILITY KPIs

### FATALITIES AND LOST TIME INJURY FREQUENCY RATE (LTIFR)<sup>5</sup>

#### WHY IT IS IMPORTANT

Safety is the top priority for the Group with fatalities and the LTIFR being two of the principal measures of performance.

#### PERFORMANCE IN 2018

There was a fatal accident at Los Pelambres involving a contractor during the year. The Group LTIFR increased to 1.6 accidents with lost time per million hours worked.



**1**  
Fatalities  
**1.6**  
LTIFR

**[+]** See page 44 for more information

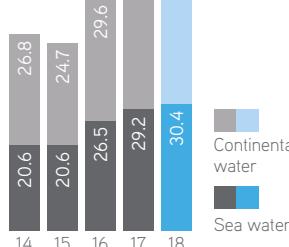
### WATER CONSUMPTION

#### WHY IT IS IMPORTANT

Water is a precious resource and the Group is focused on using the most sustainable sources and maximising its efficient use.

#### PERFORMANCE IN 2018

The Group's consumption of continental water increased by 0.7% mainly due to an increase in material processed. The Group's consumption of sea water increased by 4.2% as Encuentro Oxides achieved design capacity.



**67.2 million of m³**

**[+]** See page 46 for more information

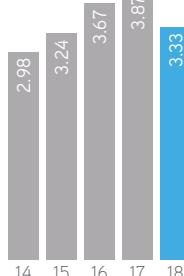
### CO<sub>2</sub> EMISSIONS INTENSITY<sup>6</sup>

#### WHY IT IS IMPORTANT

The Group recognises the risks and opportunities of climate change and the need to measure and mitigate its greenhouse gas (GHG) emissions.

#### PERFORMANCE IN 2018

Carbon emission intensity decreased by 14% compared to 2017 as the two electricity grids in Chile were combined into one resulting in an overall cleaner energy mix.



**3.33 tCO<sub>2</sub>e  
per tCu produced**

**[+]** See page 48 for more information

# RISK MANAGEMENT FRAMEWORK

**Effective risk management is an essential part of the Group's culture and strategy.**  
**Accurate and timely identification, assessment and management of key risks allows for a clear understanding of the actions required throughout the organisation in order to achieve the Group's objectives.**

## KEY ELEMENTS OF INTEGRATED RISK MANAGEMENT

### RECOGNISE THAT RISKS ARE INHERENT TO THE BUSINESS

Only through adequate risk management can the Group effectively support internal stakeholders in key strategic decisions and implement the Group's strategy

### EXPOSURE TO RISKS MUST BE CONSISTENT WITH THE GROUP'S RISK APPETITE

The Board defines and regularly reviews the Group's acceptable level of exposure to key risks. Risks are aligned with the Group's risk appetite, taking into consideration the balance between threats and opportunities

### ALL MEMBERS OF THE GROUP ARE RESPONSIBLE FOR MANAGING RISKS

Each business activity carries out risk evaluations to ensure the sound identification, management, monitoring and reporting of risks which could impact the achievement of the Group's goals

### RISK IS ANALYSED THROUGH A CONSISTENT FRAMEWORK

The Group's risk management methodology is applied to all operating companies, projects, exploration activities and support areas, so that the Group has a comprehensive view of uncertainties that could affect its strategic goals

### THE GROUP IS COMMITTED TO CONTINUOUS IMPROVEMENT

Lessons learned and best practices are proactively incorporated into the Group's procedures to protect and unlock value sustainably

## VIABILITY STATEMENT

To address the requirements of provision C.2.2 of the 2016 UK Corporate Governance Code, the Directors have assessed the prospects of the Group over a period of five years.

Mining is a long-term business and timescales can run into decades. The Group maintains Life-of-Mine plans covering the full remaining mine life for each of the mining operations. More detailed medium-term planning is performed for a five-year time horizon (as well as very detailed annual budgets). Accordingly, a period of five years has been selected as the appropriate period over which to assess the prospects of the Group.

When taking account of the impact of the Group's current position on this viability assessment, the Directors have considered in particular its financial position, including its significant balance of cash, cash equivalents and liquid investments and the borrowing facilities in place, including their terms and remaining durations.

When assessing the prospects of the Group, the Directors have considered the Group's copper price forecasts, the Group's expected production levels, operating cost profile, capital expenditure and

## AREAS OF FOCUS AND DEVELOPMENT DURING 2018

An independent review of the Group's risk management maturity level was concluded in 2018 and showed significant progress since the last review in 2012. Its focus was to strengthen the risk management system by further embedding risk management in the Group's culture and improving the overall maturity level. The main activities were as follows:

- The Board reviewed, defined and approved the Group's risk appetite for all key risks and updated the risk management policy
- Risk methodology was reviewed, strengthened and aligned with the risk appetite
- A risk assessment was carried out at all of the Group's operating companies, projects, exploration activities and support areas. Risks that represented a threat to the Group's strategic goals were identified as "key" and presented to the Audit and Risk Committee and the Board for their review
- Critical controls and key risk indicator dashboards were defined for each key risk and action plans to keep the exposure within the acceptable limits were prepared
- Timely and comprehensive risk analysis was embedded into each relevant decision-making process, including for all matters presented to the Board for approval
- Risks status and the applicability and efficacy of critical on-site controls were included in the performance reviews of the members of the Executive Committee and Risk and Compliance team

financing plans. The Directors have taken into consideration the principal risks which could impact the prospects of the Group over this period, and consider the most relevant to be risks to the copper price outlook. Robust down-side sensitivity analyses have been performed, assessing the impact of a significant deterioration in the copper price outlook over the five-year period. This analysis has focused on the existing asset base of the Group, without factoring in potential development projects, which is considered appropriate for an assessment of the Group's ability to manage the impact of a depressed economic environment. The stress tests indicated results which could be managed in the normal course of business.

Based on their assessment of the Group's prospects and viability, the Directors confirm that they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the next five years.

## GOING CONCERN

Based on the factors considered above, the Directors also considered it appropriate to prepare the financial statements on the going concern basis.

## GOVERNANCE

The Board determines the nature and extent of the significant risks that the Group will accept to achieve its strategic objectives, and maintains sound risk management systems.

The Board receives detailed analysis of key matters for consideration in advance of Board meetings. This includes reports on the Group's operating performance, including safety and health, financial, environmental, legal and social matters, key developments in the Group's exploration, project and business development activities, information on the commodity markets, updates on talent management and analysis of financial investments.

The provision of this information allows the early identification of potential issues and the assessment of any necessary preventive and mitigating actions.

The Audit and Risk Committee assists the Board by reviewing the effectiveness of the risk management process and monitoring key risks, preventive and mitigation procedures and action plans. The Chairman of the Committee reports to the Board following each Committee meeting and, if necessary, the Board discusses the matters raised in more detail.

These processes allow the Board to monitor effectively the Group's major risks and the preventive and mitigating procedures, and to assess whether the actual exposure is consistent with the defined risk appetite. If a gap is identified, additional action plans are prepared and analysed. Risk management reports are sent to the Board quarterly.

The Risk and Compliance Management Department is responsible for risk management systems across the Group. It promotes the risk management policy, vision and purpose, ensuring a strong risk management culture exists at all levels of the organisation. The department supports business areas in analysing their risks, identifying existing preventive and mitigating controls, and defining further action plans. It maintains and regularly updates the Group's risk register.

The department reports quarterly to the Audit and Risk Committee on the overall risk management process, with detailed updates of key risks, mitigation activities and actions being taken.

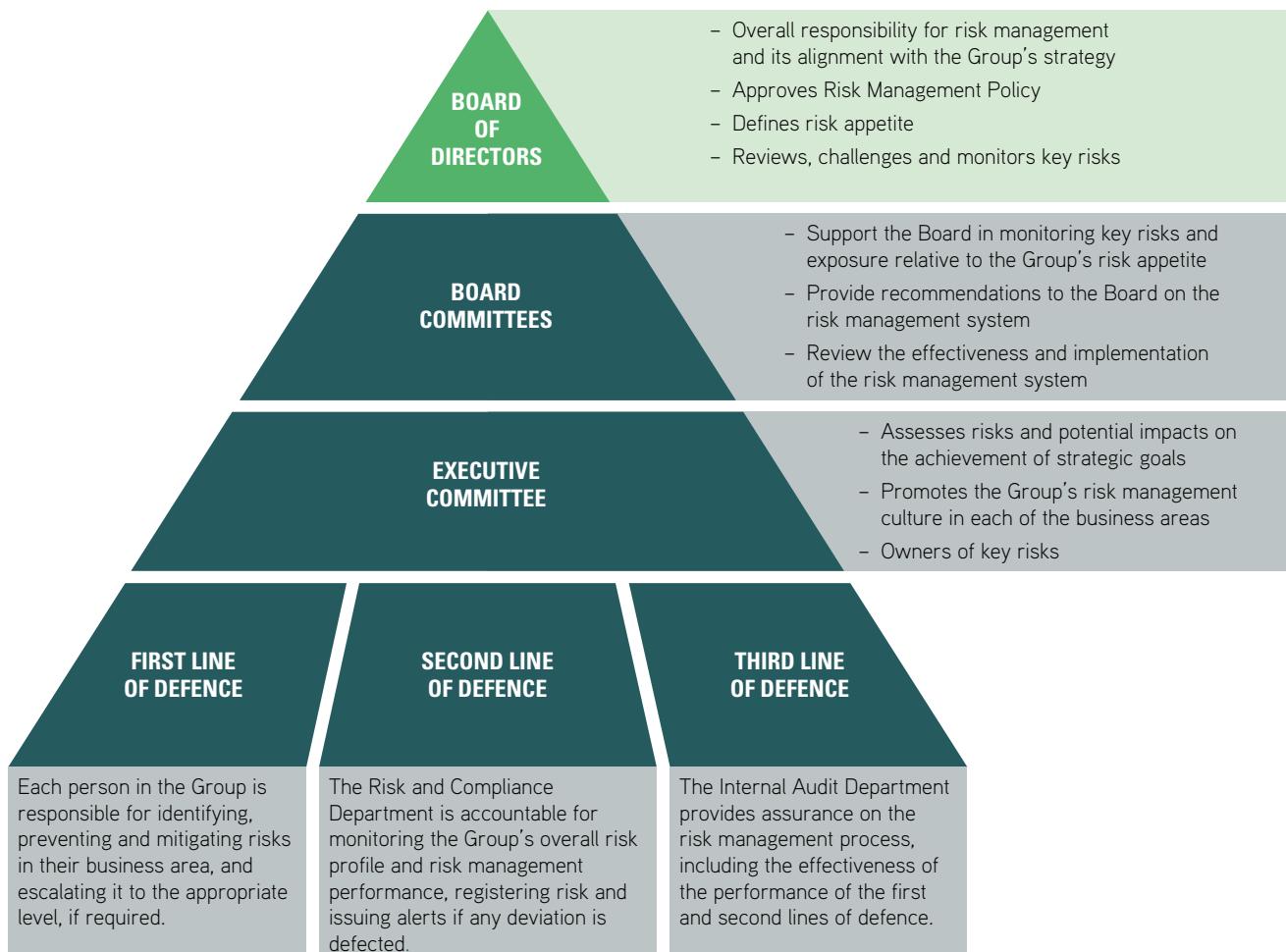
The General Managers of each of the operations have overall responsibility for leading and supporting risk management.

Risk owners within each operation have direct responsibility for the risk management processes and for the continuous updating of individual business risk registers, including relevant mitigation activities. The owners of the risks and controls at each business unit are identified, providing effective and direct management of risk. Each operation holds its own annual risk workshop in which the business unit's risks and mitigation activities are reviewed in detail and updated as necessary. Workshops are also used to assess key risks that may affect relationships with stakeholders, limit resources, interrupt operations and/or negatively affect potential future growth.

Mitigation techniques for significant strategic and business unit risks are annually reviewed by the Risk and Compliance Management Department.

The Group promotes a consistent risk management process across the different business units, ensuring risk is considered at all levels of the organisation. Adequate risk information flows from the business units to the centre and from the Board back to the business units.

**+ Further information on the Board and its Committees is given in the Governance section on pages 104 to 120**



# PRINCIPAL RISKS

The Group maintains a risk register through a robust assessment of the potential key risks that could affect the organisation's performance. This register is used to ensure key risks are identified in a comprehensive and systematic way and that the agreed definitions of risk are used.

## RISK MANAGEMENT

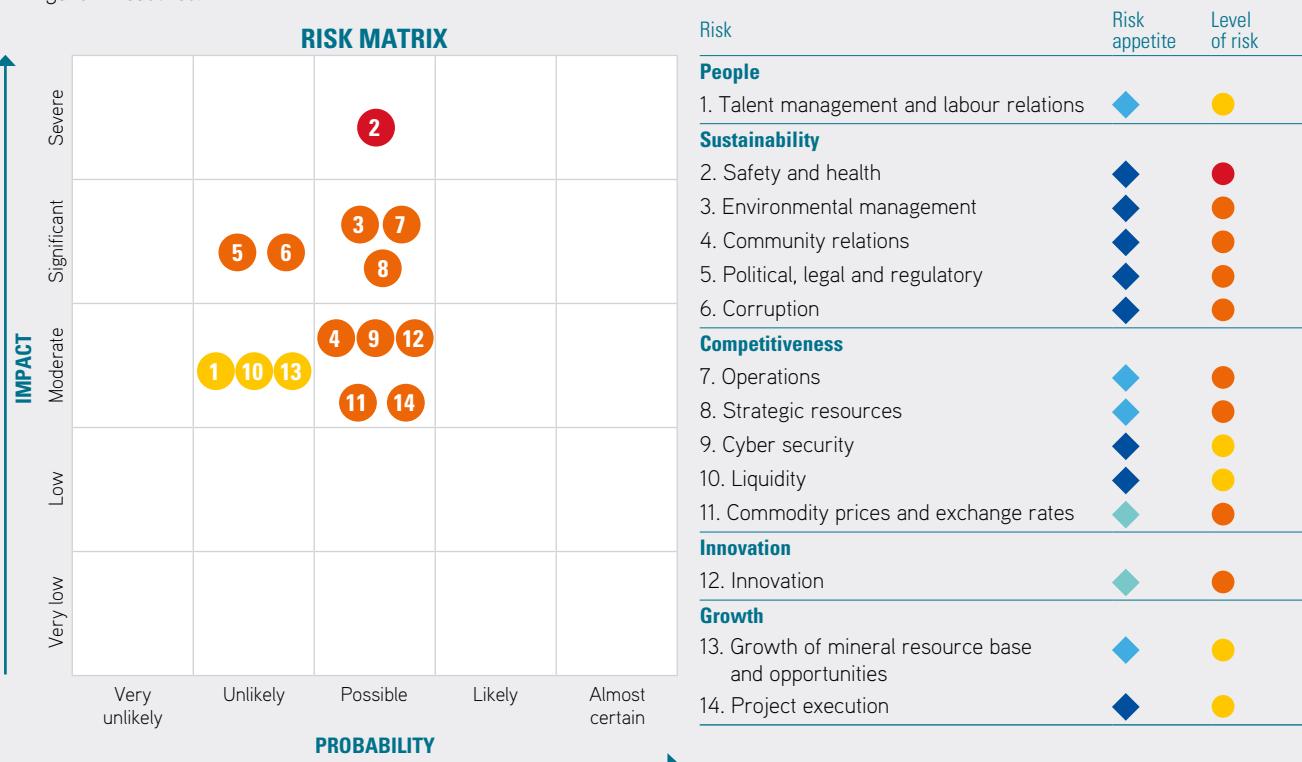
The Group is aware that not all risks can be completely eliminated and the exposure to some risks is necessary in pursuit of its corporate objectives.

The Group identifies, assesses and manages the risks critical to its success. Overseeing these risks benefits the Group and protects its business, people and reputation. It uses the risk management process to provide reasonable assurance that the risks it faces are recognised and controlled. This approach to the risk management system enables the organisation to achieve its strategic objectives and create value.

The risk map represents the position at a specific point in time as an example and that, by their very nature, risks change and evolve and are therefore periodically updated.

## RISK HEAT MAP

The Board has carried out a robust assessment of its principal risks, which are set out below, together with the related preventive and mitigation measures.



## HOW RISK MANAGEMENT RELATES TO OUR STRATEGY



## KEY

	Low	Medium	High	Very high
Risk appetite	Blue Diamond	Light Blue Diamond	Cyan Diamond	
Risk level	Green Circle	Yellow Circle	Orange Circle	Red Circle

# KEY RISKS

**The Board has carried out a robust assessment of its principal risks, which are set out below, together with the related preventive and mitigation measures. There has not been a significant change in the assessment of the potential impact of these risks to the Group during the year.**

In 2018, the Board assessed and approved the risk appetite for the Group. Risk appetite is a key element in embedding the risk management system into the Group's organisational culture. The risk appetite statement helps to translate the Group's strategy into the business units' objectives, clarifying which risk levels are, or are not, acceptable. It promotes consistent risk decision-making, aligned to the strategic focus and risk/reward balance approved by the Board.

The Group maintains a risk register through a robust assessment of the potential key risks that could affect the organisation's performance. This is used to ensure that key risks are identified in a comprehensive and systematic way and that the agreed definitions of risk are used.

The key risks, together with the related mitigation techniques have been presented to the Board and are in line with the organisation's priorities of Talent Management, Safety and Sustainability, Operations and Growth. In addition, these four pillars are supported by the Group's corporate governance structures. The key risks are outlined opposite and in more detail below.

## PEOPLE



### 1. TALENT MANAGEMENT AND LABOUR RELATIONS

The Group's highly skilled workforce and experienced management team are critical for maintaining current operations, implementing development projects, achieving long-term growth and pursuing current operations without major disruption. Managing talent and maintaining a high-quality labour force, in a changing technological and cultural environment, is a key priority for the Group. Any failures in this respect could have a negative impact on the performance of the existing operations and future growth.

#### PREVENTIVE AND MITIGATION MEASURES

The Group maintains good relations with its employees and unions founded on trust, continuous dialogue and good working conditions. The Group is committed to safety, non-discrimination, diversity and inclusion and compliance with Chile's strict labour regulations.

There are long-term labour agreements in place with all 19 unions at the Group's operations, helping to ensure labour stability.

The Group seeks to identify and address labour issues that may arise throughout the period covered by the labour agreements and to anticipate any potential issues in good time. Contractors are an important part of the Group's workforce and under Chilean law are subject to the same duties and responsibilities as the Group's own employees. The Group's approach is to treat contractors as strategic associates and to build long-term mutually beneficial relationships.

The Group maintains constructive relationships with its employees and their unions through regular communication and consultation. Union representatives are regularly involved in discussions about the future of the workforce.

The Group develops the talents of its employees through training and career development, invests in initiatives to widen the talent pool and is committed to its diversity and inclusion policy. Through these actions the Group aims to increase the number of women, people with disabilities and employees with international experience in the workplace.

The Group's Employee Performance Management System is designed to attract and retain key employees by creating suitable reward and remuneration structures and providing personal development opportunities. The Group has a talent management system to identify and develop internal candidates for key management positions, as well as identifying suitable external candidates where appropriate.

## SUSTAINABILITY



RISK APPETITE  
◆ ◇ ◇

RISK LEVEL  
● ● ● ● ●

### 2. SAFETY AND HEALTH

Safety and health incidents could result in harm to the Group's employees, contractors or local communities. Ensuring their safety and wellbeing is first and foremost an ethical obligation for the Group and is part of the Group's core values.

A poor safety record or serious accidents could have a long-term impact on the Group's morale, reputation and production.

#### PREVENTIVE AND MITIGATION MEASURES

The Group seeks continuous improvement of its safety and health risk management procedures, with particular focus on the early identification of risks and the prevention of fatalities.

The Corporate Safety and Health Department provides a common strategy for the Group's operations and co-ordinates all safety and health matters. The Group has a Significant Incident Report system, which is an important part of the overall approach to safety.

The Group's goal of zero serious accidents and fatalities and minimising the number of accidents requires all contractors to comply with its Occupational Safety and Health Plan. This plan is monitored through monthly audits and is supported by regular training and awareness campaigns for employees, contractors, employees' families and local communities, particularly with regard to road safety. The Group requires all staff in defined safety-critical roles to satisfy at least the minimum qualifications and experience defined for their role and complete any required training prior to commencing their work activities.

Critical controls and verification tools are regularly strengthened through the verification programme and regular audits of critical controls for potentially high-risk activities.

The Group continuously seeks to incorporate technology and innovation to reduce workers' exposure to safety and health risks.



RISK APPETITE  
◆ ◇ ◇

RISK LEVEL  
● ● ● ● ●

### 3. ENVIRONMENTAL MANAGEMENT

An operating incident that damages the environment could affect both the Group's relationship with local stakeholders and its reputation, undermining its social licence to operate and to grow.

The Group operates in challenging environments, including the largely agricultural Choapa Valley, and the Atacama Desert, where water scarcity is a key issue.

#### PREVENTIVE AND MITIGATION MEASURES

The Group has a comprehensive approach to incident prevention. Relevant risks are assessed, monitored and controlled in order to achieve the goal of zero incidents with significant environmental impact. The Group works to raise awareness among employees and contractors, providing training to promote operating excellence. The potential environmental impacts of a project are key considerations when assessing its viability, and the integration of innovative technology in the project design to mitigate such impacts is encouraged.

The Group prioritises the efficient use of natural renewable resources by pioneering the use of sea water, increasing renewable-based power supply, achieving higher rates of reuse and recovery through thickened tailings technology and reducing greenhouse gas emissions through energy efficiency and other measures.

The Group recognises that environmental sustainability is key to its licence to operate and performs regular risk assessments to identify potential impacts and develop preventive and mitigating strategies.

Each site maintains an updated environmental emergency preparedness plan and a detailed closure plan with appropriate financial provisions to ensure physical and chemical stability once operations have ceased.



## RISK APPETITE



## RISK LEVEL



## 4. COMMUNITY RELATIONS

Failure to identify and manage local concerns and expectations can have a negative impact on the Group. Relations with local communities and stakeholders affect the Group's reputation and social licence to operate and grow.

### PREVENTIVE AND MITIGATION MEASURES

The Group has a dedicated team that establishes and maintains relations with local communities. These are based on trust and mutual benefit throughout the mining lifecycle, from exploration to final remediation. The Group seeks to identify early any potentially negative operating impacts and minimise these through responsible behaviour. This means acting transparently and ethically, prioritising the safety and health of its employees and contractors, avoiding environmental incidents, promoting dialogue, complying with its commitments to stakeholders and establishing mechanisms to prevent or address a crisis. These steps are undertaken in the early stages of each project and continue throughout the life of each operation.

The Group contributes to the development of communities in the areas in which it operates, starting with an assessment of the existing situation and the specific needs of surrounding communities, while looking to develop long-term, sustainable relations and evaluating the impact of its contributions. The Group is focused on developing the potential of members of local communities through education, training and employment.

The Group works to communicate clearly and transparently with local communities, in line with the established Community Relations Plan, including the use of a grievance management process, local perception surveys, and local media and community engagement.



## RISK APPETITE



## RISK LEVEL



## 5. POLITICAL, LEGAL AND REGULATORY

The Group may be affected by political instability and regulatory developments in the countries in which it is operating, pursuing projects or conducting exploration activities. Issues regarding the granting of permits, or amendments to permits already granted, and changes to the legal environment or regulations, could adversely affect the Group's operations and development projects.

### PREVENTIVE AND MITIGATION MEASURES

Political, legal and regulatory developments affecting the Group's operations and projects are monitored continually. The Group operates in full compliance with the existing laws, regulations, licences, permits and rights in each country in which it operates.

The Group assesses political risk as part of its evaluation of potential projects, including the nature of any foreign investment agreements.

The Group monitors proposed changes in government policies and regulations, particularly in Chile, and belongs to several associations that engage with governments on these changes. This helps to improve the Group's internal processes and better prepares it to meet any new regulatory requirements.

As the Group has no operations or material exposure to the UK, Brexit is not expected to have any appreciable impact on the Group. This position is kept under review as Brexit discussions continue.



## RISK APPETITE



## RISK LEVEL



## 6. CORRUPTION

The Group's operations or projects around the world could be affected by risks related to corruption or bribery, including operating disruptions or delays resulting from a refusal to make "facilitation payments". Such risks depend on the economic or political stability of the country in which the Group is operating.

### PREVENTIVE AND MITIGATION MEASURES

The Group has a "zero tolerance" regime for any activity that would result in breaking any anti-bribery and corruption legislation. A robust governance regime, including an Ethics Committee, opens channels of communication, training and multiple layers of controls that are maintained across all operations, exploration activities and third-party relationships.

The Group's compliance model seeks to prevent any activity which may involve directly or indirectly the Group in any irregular situation, to detect any potential risk in good time and to act accordingly. There are control procedures in place that help to prevent corruption, covering such issues as conflicts of interest, suitability of suppliers, the receiving and giving of gifts and hospitality, and facilitation payments.

All employees in the Group receive training on the Group's Compliance Model, which is subject to external certification.

## COMPETITIVENESS



**RISK APPETITE**



**RISK LEVEL**



### 7. OPERATIONS

The Group's operations are subject to a number of circumstances not wholly within its control. These include damage to or breakdown of equipment or infrastructure, unexpected geological variations or technical issues, extreme weather conditions and natural disasters, any of which could adversely affect production and/or costs.

#### PREVENTIVE AND MITIGATION MEASURES

Key risks relating to each operation are identified as part of the regular risk review process undertaken by the individual operations. This process also identifies appropriate mitigation techniques for such risks. Monthly reports to the Board provide variance analysis of operating and financial performance, allowing potential issues to be identified in good time and any necessary monitoring or control activities to be implemented, preventing unplanned downtime.

The Group's focus is on maximising the availability of equipment and infrastructure and ensuring effective utilisation of the Group's assets, in line with the nameplate design and technical limits. The Group keeps the variation of the processes within defined tolerance limits. In the case of the Group's tailings storage facilities these are monitored constantly and reviewed twice a year by a team of independent experts to ensure compliance with international standards.

The Group has Business Continuity Plans and Disaster Recovery Plans for all key processes within its operations in order to mitigate the consequences of a crisis or natural disaster. The Group also has property damage and business interruption insurance to provide protection from some, although not all, of the costs that may arise from such events.



**RISK APPETITE**



**RISK LEVEL**



### 8. STRATEGIC RESOURCES

Disruption to the supply of any of the Group's key strategic inputs such as electricity, water, fuel, sulphuric acid or mining equipment could have a negative impact on production. Longer term, restrictions on the availability of key strategic resources such as water and electricity could affect the Group's growth opportunities.

A significant portion of the Group's input costs are influenced by external market factors.

#### PREVENTIVE AND MITIGATION MEASURES

In order to achieve the Group's security of supply, contingency plans are in place to address any short-term disruptions to strategic resources. The Group negotiates early with suppliers of key inputs to ensure supply continuity. Certain key supplies are purchased from several sources to mitigate potential disruption arising from exposure to a single supplier.

To achieve cost competitiveness, the Group endeavours to buy the highest possible proportion of its key inputs such as fuel and tyres, on as variable a price basis as possible, and to link costs to underlying commodity indices where this option exists.

The Group is committed to incorporating sustainable technological and innovative solutions, such as using sea water and renewable power when economically viable, to mitigate exposure to potentially scarce resources.

The Group maintains a rigorous, risk-based supplier management framework to ensure that it only engages with reputable product and service providers, and keeps in place the necessary controls to ensure the traceability of all supplies (including avoiding any conduct related to modern slavery).



**RISK APPETITE**



**RISK LEVEL**



### 9. CYBER SECURITY

Breaches in, or failures of, the Group's information security management could adversely impact its business activities.

#### PREVENTIVE AND MITIGATION MEASURES

The Group's information security management model is designed with defensive structural controls to prevent and mitigate the effects of computer risks. It employs a set of rules and procedures, including a Disaster Recovery Plan, to restore critical IT functions.

The Group's IT systems were audited in 2018 to identify any potential threat to the operations and additional systems have been put in place to protect the Group's assets and data.



**RISK APPETITE**



**RISK LEVEL**



## 10. LIQUIDITY

Restrictions in financing sources for future growth could prevent the Group from taking advantage of growth or other opportunities available in the market.

### PREVENTIVE AND MITIGATION MEASURES

Security, liquidity and return represent the order of priorities for the Group's investment strategy. The Group maintains a strong and flexible balance sheet, consistently returning capital to shareholders while leaving the Group with sufficient funds to progress its short, medium and long-term growth plans and maintain financial flexibility to take advantage of opportunities as they may arise.

The Group has a risk-averse investment strategy, managing its liquidity by maintaining adequate cash reserves and financing facilities through the periodic review of forecast and actual cash flows. It chooses to hold surplus cash in demand or term deposits or highly liquid investments.



**RISK APPETITE**



**RISK LEVEL**



## 11. COMMODITY PRICES AND EXCHANGE RATES

The Group's results are heavily dependent on commodity prices – principally copper and, to a lesser extent, gold and molybdenum. The prices of these commodities are strongly influenced by a variety of external factors, including world economic growth, inventory balances, industry demand and supply, possible substitution, etc.

The Group's sales are mainly denominated in US dollars, although some of the Group's operating costs are in Chilean pesos. As a result, the strengthening of the Chilean peso may negatively affect the Group's financial results.

### PREVENTIVE AND MITIGATION MEASURES

The Group considers exposure to commodity price fluctuations to be an integral part of its business and its usual policy is to sell its products at prevailing market prices. The Group monitors the commodity markets closely to determine the effect of price fluctuations on earnings, capital expenditure and cash flows. Very occasionally, when it feels appropriate, the Group uses derivative instruments to manage its exposure to commodity price fluctuations.

The Group runs its business plans through various commodity price scenarios and develops contingency plans as required.

As copper exports account for over 50% of Chile's exports, there is a correlation between the copper price and the US dollar/Chilean peso exchange rate. This natural hedge partly mitigates the Group's foreign exchange exposure. However, the Group monitors the foreign exchange markets and the macroeconomic variables that affect it and on occasion implements a focused currency-hedging programme to reduce short-term exposure to fluctuations in the US dollar against the Chilean peso.

## INNOVATION



**RISK APPETITE**



**RISK LEVEL**



## 12. INNOVATION

The Group's ability to deliver on its strategy and performance targets may be undermined by missed opportunities or delays in adopting new technologies and its ability to innovate.

### PREVENTIVE AND MITIGATION MEASURES

The Group seeks value-capturing innovations that realise cost savings, improving the efficiency, reliability and safety of its processes and supporting its corporate strategic pillars. It evaluates the potential of all ideas using its stage-gate approval process and Innovation Board.

The Group maintains partnerships with academic institutions and companies specialising in technology and engineering companies, including peers, where there is no competitive barrier to doing so, in order to maximise the potential for improvements in its processes and systems. A dedicated team monitors, identifies and analyses external innovation trends with potential application to the Group's business, including in non-operational areas such as product sales and purchasing, and maintains and manages a portfolio of ongoing projects.

The Group has a recognition and incentives programme to encourage all staff to suggest innovations to its day-to-day operating systems. It also dedicates resources to test and, if successful, escalate promising innovations with potential positive impact on the business and growth options.

## GROWTH



**RISK APPETITE**



**RISK LEVEL**



### 13. GROWTH OF MINERAL RESOURCE BASE AND OPPORTUNITIES

The Group needs to identify new mineral resources to ensure continued future growth and does so through exploration and acquisition.

The Group may fail to identify attractive acquisition opportunities or may select inappropriate targets. The long-term commodity price forecast and other assumptions used when assessing potential projects and other investment opportunities have a significant influence on the forecast return on investment and, if incorrectly estimated, could result in poor decisions.

Regarding exploration activity, there is a risk that the Group may not identify sufficient viable mineral resources.

#### PREVENTIVE AND MITIGATION MEASURES

The Group's exploration and investment strategy prioritises exploration and investment mostly in the Americas.

The Group focuses on growth opportunities in stable and secure countries in order to reduce risk exposure.

A rigorous assessment process evaluates and determines the risks associated with all potential business acquisitions and strategic exploration alliances, including conducting stress-test scenarios for sensitivity analysis. Each assessment includes country risk analysis (including corruption) and analysis of the Group's ability to operate in a new jurisdiction.

At the very least, all joint ventures must operate in line with, or to an equivalent of, the Group's policies and technical standards.

The Group's Business Development Committee reviews potential growth opportunities and transactions, and approves or recommends them within authority levels set by the Board.



**RISK APPETITE**



**RISK LEVEL**



### 14. PROJECT EXECUTION

Failure to effectively manage the Group's development projects could result in delays in the start of production and cost overruns.

#### PREVENTIVE AND MITIGATION MEASURES

The Group has a project management system to apply the best practices at each phase of a project's development. The project management system provides a common language and standards to support the decision-making process by balancing risk with benefit to increase. In addition, all geometallurgical models are reviewed by independent experts.

During the project development lifecycle, quality checks for each of the standards applied are carried out by a panel of experts from within the Group. This panel reviews each completed feasibility study to assess the technical and commercial viability of the project and how it can be safely developed, including any relevant risk or opportunity that could potentially impact the schedule, cost or future performance.

Detailed progress reports on ongoing projects are regularly reviewed and include assessments of progress against key project milestones and performance against budget.

Project robustness is stress-tested against a range of copper price scenarios. Joint project/operation teams are established early in the development project in order to assure smooth transition of the project into operating mode once construction is completed.

# COMPLIANCE AND INTERNAL CONTROL FRAMEWORK

The way in which the Group achieves its objectives is crucial to the long-term sustainable development of Antofagasta plc. The Group has zero tolerance for bribery and corruption and is committed to working with integrity and transparency. It complies with all applicable anti-corruption and anti-bribery legislation and ensures the necessary controls are in place to prevent unethical behaviour.

## AREAS OF FOCUS AND DEVELOPMENT DURING 2018

- In-depth training and communication in ethics and compliance, including presentations to the Group's main suppliers, training in the most exposed areas and company-wide communications.
- A Compliance Day was held for the Group's executives in August, as a refresher on the Group's Compliance Model, and to discuss examples of ethical dilemmas and reinforce the role of the leadership team in preventing irregular situations.
- Each new employee is trained on the Compliance Model as part of their induction programme.
- Supply area controls were reinforced and additional controls implemented to strengthen the supply chain due diligence process, particularly concerning working conditions and modern slavery.

### COMPLIANCE MODEL

The Group's Compliance Model applies to both employees and contractors. It is clearly defined and communicated regularly through internal channels as well as on the Group's website. All contracts with contractors include clauses relating to ethics, modern slavery and crime prevention to ensure adherence to the Group's Compliance Model.

The Group actively promotes open communication with all employees, contractors and local communities to support the achievement of the Group's objectives and the creation of value in an ethical and honest way.

### CODE OF ETHICS

The Code of Ethics sets out the Group's commitment to undertaking business in a responsible and transparent manner. The Code requires honesty, integrity and accountability from all employees and contractors and includes guidelines for identifying and managing potential conflicts of interest. It is the basis for the Compliance Model and supports the implementation of all other related activities.

The Compliance Model is reviewed regularly, both internally and by third parties, and on matters relating to corruption it is certified under Chilean anti-corruption legislation.

### COMPLIANCE MODEL



#### PREVENTION

#### DETECTION

#### ACTION

### FULL MANAGEMENT OF RISKS

#### PREVENTION:

The main focus of the Compliance Model is to prevent any irregular situation arising. The Group provides a series of tools and training opportunities to all employees and contractors to support appropriate behaviour through:

- Internal procedures
- Anti-trust guidelines (Politically Exposed Persons, facilitation fees, etc)
- Due diligence, and reviews of conflicts of interest and potential business partners
- Inclusion of anti-corruption clauses in contracts
- Training and communication

#### DETECTION:

The Group has several tools with which to detect any potentially irregular situations, including:

- Whistleblowing channels
- Data analysis
- Updating due diligence
- Internal controls
- Internal audit

#### ACTION:

If an irregular situation is detected it is investigated according to the Group's allegation investigation procedures. Each operating company has an internal Ethics Committee which reviews the conclusions of investigations and suggests action plans to the corporate Ethics Committee. The performance of the compliance programme is reported quarterly to the Audit and Risk Committee and every six months to the Board. The security and confidentiality of employees using whistleblowing channels is guaranteed, safeguarding individuals and achieving greater transparency.

The Group's Crime Prevention Model ensures compliance with the anti-bribery and anti-corruption laws in the United Kingdom and Chile and it is certified by an external entity.

# CREATING SUSTAINABLE VALUE FOR STAKEHOLDERS

Mining is a long-term activity which has an even longer-term impact and the Group seeks to ensure that its business develops on a sustainable basis.

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**At Antofagasta, the safety and health of the workforce always comes first. The Group is also continuously improving its environmental performance, contributing to the social development of the areas where it operates and maintaining open and transparent communication with local stakeholders.**

The sustainability of the Group's business is structured around five pillars: People, Financial Performance, Environmental Management, Social Development and Transparency, as set out in the recently updated Sustainability Policy.

Antofagasta remains convinced its operations allow it to produce lasting positive changes in the communities and regions where it operates. This drives its constant effort to mine in a more efficient, sustainable and inclusive way.

The Group's sustainability priorities are its values, its principal risks and its stakeholders' key concerns and expectations, all of which are reviewed annually by senior management as part of the sustainability reporting process.

## REPORTING AND TRANSPARENCY

The Group is part of sustainability indexes such as FTSE4Good, the STOXX Global ESG Leaders, and the ECPI Global Developed ESG Best in Class. Also, Antofagasta is member of the International Council on Mining and Metals (ICMM), and engages with the Carbon Disclosure Project (CDP) with the objective to improve its sustainability performance and share good practices within the mining industry.



## ANTOFAGASTA DURING 2018

### SAFETY AND HEALTH

- Visible leadership: regular onsite safety and health reviews by senior management to verify critical controls in the mining and transport divisions.
- Mining safety and health controls applied to the transport division.

### EMPLOYEES

- Diversity and Inclusion Strategy rolled out to all operations: "Somos inclusión, elegimos la diversidad" (We are inclusion, we choose diversity).
- Labour negotiations successfully concluded at Los Pelambres.

### SUPPLIERS

- Mining division joined the mining cluster in the city of Antofagasta, an alliance that seeks to strengthen employability and innovation in northern Chile.
- Transport division obtained the ProPyme hallmark to guarantee better conditions for SMEs.
- 61% of the Group's purchases on goods and services was from companies that use local employees, infrastructure and resources.
- No lawsuits or fines arising from incidents in the supply chain.

### COMMUNITIES

- Somos Choapa (We are Choapa) community engagement model at Los Pelambres replicated successfully as "Dialogues for Development" at the Group's operations in northern Chile.
- Launched new Social Management Model in both mining and transport divisions.

### ENVIRONMENT

- Set first carbon reduction target to reduce forecast carbon dioxide emissions over the period 2018 to 2022 by 300,000 tonnes.
- Transport division adopted the mining division's Environmental Management System.
- Started pilot of public-private programme to develop an online system to monitor the physical and chemical stability of tailings deposits.

### SUSTAINABLE GOVERNANCE

- Implemented a new Compliance Model.
- Company published its third Payment to Governments report in June.

# HOW WE ENGAGE WITH OUR STAKEHOLDERS

**Successful relationships with stakeholders are essential to the long-term success of the Group, which has a network of arrangements in place to ensure that the views and interests of stakeholders are represented.**

## EMPLOYEES

The Group has a workforce of approximately 21,500 people (employees and contractor workers) at its operations, projects, exploration programmes and corporate offices. Most of the workforce is based in Chile and 54% comes from communities where the Group's operations are located. Contractors account for approximately 70% of the workforce across the Group's operations.

### WHY WE ENGAGE

Constructive relationships built on mutual respect and transparency help the Group to retain employees and avoid labour disputes, contributing to greater productivity and business efficiency. Contractors are essential to mining operations. Operational continuity requires all contractors to adhere to the same standards expected of Antofagasta's own employees, particularly in the areas of safety and health.

### HOW WE ENGAGE

- Site visits
- Quarterly on-site CEO updates
- Engagement surveys
- On-site reviews
- Regular meetings with unions and contract managers
- Safety and health, and other meetings



## COMMUNITIES

The Group coexists with diverse communities in Chile, located in the Antofagasta and Coquimbo Regions. It is a priority for Antofagasta to strengthen engagement with communities in order to grow together and contribute to the long-term development of the areas around its operations. Group's activities also naturally affect local communities and Antofagasta strives to prevent, mitigate and compensate for any adverse impact that these activities may have.

### WHY WE ENGAGE

The wellbeing of local communities is directly related to Antofagasta's business success and the Group is convinced that mining activities bring unique opportunities for national and local development.

### HOW WE ENGAGE

Ongoing communication through the local engagement frameworks Somos Choapa and Dialogues for Development, which include: participatory dialogue, mine site visits, grievance mechanisms and citizen-participation processes and diverse communication channels. Regular reporting of dialogue with local communities to the Sustainability and Stakeholder Management Committee and the Board.



## SUPPLIERS

The Group works with over 4,800 suppliers, of which 93% are based in Chile. Suppliers provide a large range of products and services, from grinding media to catering.

### WHY WE ENGAGE

Suppliers play a critical role in the Group's ability to operate sustainably, safely and efficiently and therefore we ensure that they comply with the Group's standards and guidelines on sustainability matters.

The Group pays special attention to the top suppliers in each category to ensure the most cost-effective, efficient, and sustainable solutions across all operations.

### HOW WE ENGAGE

The procurement team maintains close relationships and regularly meets with suppliers. The Group encourages suppliers to raise any issues or concerns they have about their relationship with the Company, their contracts or the workforce. Antofagasta works together with local communities to foster local employment capabilities through offering job opportunities and training and/or by providing services to the mining industry.



**IN FOCUS****ALLIANCES AND WORKING TOGETHER FOR SUSTAINABLE MINING**

Antofagasta believes that working in partnership is the best way to ensure that Chile develops its remaining copper resources – some 22% of global reserves – in a sustainable way for future generations and the long-term benefit of the country. As we have seen over the years, if the mining industry performs well, Chile performs well. As a major mining group in Chile, Antofagasta plays a leading role in the public-private institutions Alianza Valor Minero (Mining Value Alliance) and Programa Nacional de Minería Alta Ley (National High-Grade Mining Programme), with the aim of building a strategic agenda for Chilean mining. The Group also sits on the Executive Committee of the Consejo Minero (Mining Council), which represents Chile's large mining companies, and participates in the Sociedad Nacional de Minería (National Mining Society, Sonami) as well as the UN Global Compact network in Chile, among other activities.

At the international level, Antofagasta's mining division is a member of the International Council on Mining and Metals (ICMM), the International Copper Association (ICA), for which Antofagasta's CEO Iván Arriagada was elected chairman of the Board in 2018, the International Molybdenum Association (IMOA), and the Civil Society and Mining & Metals Working Group of the World Economic Forum (WEF).

**CUSTOMERS**

The majority of our sales are to industrial customers, who refine or further process the copper concentrate and cathodes that we sell. Most sales are made under long-term framework agreements or annual contracts with sales volumes agreed for the following year.

**WHY WE ENGAGE**

The majority of the Group's sales are based on long-term customer relationships and commitments. Without these long-term relationships, the Group would be required to sell a greater proportion of cathodes and concentrate on the spot market, which entails greater uncertainty around pricing and volumes that may be sold.

**HOW WE ENGAGE**

- Major customers as equity holders in our mining operations
- Annual trip to Japan by the Chairman and several Directors to meet our partners
- Marketing team's regular meeting with customers around the world
- Representative marketing office in Shanghai

**SHAREHOLDERS**

Shareholders are financial institutions and individuals that own shares in the Company. Shareholders are entitled to receive dividends from the Company and to vote at shareholder meetings to elect the Directors of the Company, among other matters.

**WHY WE ENGAGE**

Shareholders, and particularly institutional investors, are constantly evaluating their holdings in the Company as part of their portfolios. Providing insightful information about the Company's strategy, projects and performance is crucial for their assessment of the Company. The Group pays special attention to maintaining fluent and transparent dialogue with shareholders, in order to ensure that every shareholder is treated and informed equally.

**HOW WE ENGAGE**

The Company regularly meets with institutional investors and banks' analysts at industry conferences and face-to-face meetings and on roadshows. Once a year the Board attend the Company's Annual General Meeting where they are available to answer questions.

The Company also provides regular production and financial reports.

**GOVERNMENTS AND REGULATORS**

Governments and regulators implement social policy and set the framework within which we are required to operate.

**WHY WE ENGAGE**

Mining is a long-term business and timescales can run into decades. Political cycles are typically far shorter and material developments and changes to policy, legislation or regulations can have a major impact on the Group's business.

**HOW WE ENGAGE**

Antofagasta works alongside mining associations and industry-related state bodies to engage with governments on public policy, laws, regulations and procedures that may affect the business.

The relationship with governments and regulators is strictly subjected to their engagement mechanisms, which are clearly defined under the Chilean Lobby Law No. 20,730.



# EMPLOYEES

**Antofagasta knows that a wide diversity of talent is required to address the challenges of mining in the future, and this needs to be combined with a culture of innovation and values aligned to the Group's business objectives.**

**The Group manages and develops talent, seeking to engage employees through shared values and an attractive offer that enhances their experience of being part of the Group.**

The Group's People strategy was developed in 2013 and continues to be built on four pillars: culture, talent management, organisational effectiveness, and labour relations and engagement. In 2018 efforts were focused on integrating the new Diversity and Inclusion (D&I) Strategy with these four pillars.



## INCLUSIVE CULTURE

The D&I Strategy was approved by the Board in 2017 and focuses on the inclusion of women, people with disabilities and employees with international experience. In 2018 the strategy was rolled out through the Group and individual targets were incorporated into the staff appraisal system at managerial level. Implementation of the D&I roadmap was included on business scorecards in the mining and transport divisions.

During 2018 the Group's Charter of Values was updated to align it with the D&I Strategy. Antofagasta is now effecting cultural change, creating an inclusive working environment through raised awareness and education to update expectations of the behaviour of the Group's employees.

Different programmes have been developed to put this into practice. An example is Promociona Chile, a public-private initiative that supports leadership development for high-potential women, aiming to increase their participation in senior management roles and on boards. Sensitive issues were also addressed with the publication of the first Sexual Abuse Protocol and the introduction of another public-private initiative that develops an Early Alert System to reduce loss and improve retention of female employees. In addition, the Group supports a new work/life balance protocol, a public-private initiative to promote female participation in the sector.

In 2017 and 2018 Antofagasta developed a diversity baseline and monitored the progress and perception of the programmes. In 2018 the percentage of women who were promoted was 21%, and the participation of women in the talent pool and succession plans for key managerial roles was reviewed. Among women employed, 9% held executive positions, 18% were supervisors and 5% worked as operators, both at mining sites and in the transport division.

## DIVERSITY & INCLUSION TARGETS:

Double the percentage of women in the workforce by 2022, compared to the 2017 baseline.

Go beyond the 1% of disabled workers required by Chilean legislation.<sup>1</sup>

## DIVERSE AND GLOBAL TALENTS

The Group's workforce are nearly all based in Chile, where the operations and corporate office are located, and a small number are in London, Toronto, Shanghai, Lima, and Minnesota in the US.

In 2018 the Group focused on improving the talent management system. Changes were introduced to increase the mobility of diverse and global talents, identifying roles for people with international experience and conducting an in-depth review of its female talent pool.

The Group has fostered three initiatives focused on attracting young talent at different levels of the organisation: a Young Graduates Programme, which aims to recruit into the talent pipeline young people with potential to take on key executive roles; an Apprentices Programme, which offers opportunities to young people from local communities; and the Eleva Programme, a public-private initiative that links technical education with the capabilities and skills required by the mining industry. At the supervisory level, training and development programmes were updated, aligning them to the Group's Operating Model.

Antofagasta invested \$4.7 million in training in 2018, providing an average of 44 hours of training per employee per year, 74% more than in 2017, including hours of training on Diversity and Inclusion topics.

**21,436**

people

**30%**

employees

**70%**

contractors

**9%**

women

**71%**

unionised employees

1. Chilean Labour Inclusion Law No. 21,015.



## LABOUR RELATIONS AND ENGAGEMENT

Antofagasta has 18 unions: ten in the mining division and eight in the transport division, together representing the 71% of the total number of employees.

During 2018 union leaders and employees were trained on the Group's business strategy, long-term vision and challenges of the Operating Model.

The Group recognises employees' rights to union membership and collective bargaining. In Chile, freedom of association is legally protected.

Antofagasta has a consultation and complaints system that can be accessed by workers and unions.

In 2018 labour agreements were successfully negotiated with six unions, two at Los Pelambres and four in the transport division concluding another year without a strike for the Group. These binding agreements cover salaries, shift patterns and employment benefits and are renegotiated every three years, in accordance with Chilean legislation. In addition, Chilean law protects basic human rights, such as decent working conditions and the minimum wage, and prohibits forced and child labour.



## ALIGNING CONTRACTORS

Contractors conduct key tasks in the Group's business and represent 70% of the workforce. The Group has established control mechanisms to make sure contractors meet Antofagasta's standards and guidelines on labour, environmental, social and ethical matters, and to adopt its good practices with regard to safe workplaces and quality employment. Antofagasta also requires contractors to pay ethical minimum wages 41% higher than Chile's legal minimum, and provide other basic benefits including life and health insurance for their employees. Contractors must also comply with the UK's Modern Slavery Act. Failure to comply can lead to sanctions and even contract withdrawal. The Group regularly audits its contractors to ensure full compliance with these standards and in 2018 audits were carried out that included modern slavery issues.

The mining division establishes performance agreements with contractors to measure compliance. These include KPIs on safety and health, labour conflicts, work stoppages, labour demands and other matters.

### A FOCUS ON SUSTAINABILITY

Performance agreements between Antofagasta Minerals and its contractor companies include key sustainability issues.

# COMMUNITIES

**Through dialogue and collaboration, Antofagasta has strengthened engagement with communities in the regions where it operates. The aim is to contribute to long-term development, building skills through trackable projects and programmes that aspire to excellence and are developed in a participative and transparent manner.**

## SOCIAL MANAGEMENT MODEL

In 2018 Antofagasta launched a new Social Management Model that will be gradually implemented from 2019 in both the mining and transport divisions. This model enhances social management and introduces standards for engagement, management of initiatives, management of socio-territorial risks and impact measurement of projects and programmes.

The objective of the Social Management Model is to have a single, integrated way of operating at Group level. This enables the application of common engagement principles, methodologies and practices, guarantees excellence in project execution, measures impacts and has a socio-territorial risk management system that offers the quantity and quality of information needed to make evidence-based decisions.

## SOCIAL PROJECTS AND PROGRAMMES

Antofagasta's portfolio of social management projects and programmes comprises voluntary, mandatory and committed initiatives that seek to legitimise the Group's activities, provide business continuity and contribute to community development in accordance with their interests and needs. It also strengthens links with its stakeholders to create a long-term relationship of understanding and coexistence.

In 2018 the Group agreed strategic and long-term guidelines for its portfolio of social management projects and programmes. In 2019 the challenge will be to implement these guidelines throughout the business, with the aim of incorporating and/or modifying elements in the processes, projects and programmes. This will ultimately add value to achieve positive results for both the communities and the Group.

## FROM COMPETITION TO COEXISTENCE

In 2014 the mining division developed a new and innovative local engagement framework called Somos Choapa (We are Choapa). By 2018 this framework was established throughout most of Los Pelambres' area of influence and has been replicated successfully through the "Dialogues for Development" initiative at the Group's operations in northern Chile.

After four years, this innovation has resulted in a redistribution of power among the different stakeholders, as well as alignment towards a shared vision of a sustainable future in the areas where we operate.

## ECONOMIC SOCIAL CONTRIBUTION \$34.3 MILLION<sup>1</sup>

**\$33.7m<sup>1</sup>**  
Mining division

**\$0.6m**  
Transport division

## INCORPORATION OF SUSTAINABLE DEVELOPMENT GOALS (SDG) INTO SOCIAL AND ENVIRONMENTAL PROCESSES, PROJECTS AND PROGRAMMES

In 2018 a gap assessment began with the aim of achieving specific SDGs for mining in Los Pelambres' area of influence. It set out to address social and environmental issues in future programmes and projects and to incorporate processes that contribute to the achievement of the objectives.

 See page 50 for more information

A portfolio of 133 initiatives has been developed, of which 25% are complete, 40% in execution and the remainder are at the conceptual or feasibility stage. These initiatives are focused on the economic, social and environmental development in Los Pelambres' area of influence. The following programmes stand out: employment, productive diversification; education, road safety, city, community, local identity, health; and waste and water issues.

The measured impacts include:

- Improvements to public spaces (24,000m<sup>2</sup> built and more than 185,000m<sup>2</sup> planned).
- Construction of green areas (55,000m<sup>2</sup>, increasing such areas by 0.9m<sup>2</sup> per inhabitant).
- Investments and improvements to mitigate water scarcity (146,000m<sup>3</sup> of storage tanks, 180km of improved irrigation canals, provision of 1,642 l/s of surface water).

## CHOAPA I – OPEN INNOVATION

- In 2018 Los Pelambres launched Choapa i, an open innovation platform developed with university students to address social challenges. The pilot project is under way in the Choapa Valley, seeking to create an innovation collaboration space for productive social challenges in the community.

1. Figure for social economic contribution includes, for both mining and transport division: community investment programmes (We are Choapa, Dialogues for Development, FCAB social initiatives), social projects and programmes established as part of our legal commitments, donations and sponsorships, Caimanes agreement, Foundation Los Pelambres



## ADDRESSING SOCIAL CONCERN<sup>1</sup>

**Engagement mechanisms:** dialogue with local people is crucial for aligning views on the region, resolving disputes and addressing concerns. To strengthen such dialogue, Antofagasta uses different engagement mechanisms: citizen dialogue, round tables, community meetings, participatory environmental monitoring with the community and community visits to operations, as well as communications in the media, on websites and social networks.

**Formal complaint mechanisms:** each of the Group's operating companies has a formal system to monitor its commitments to the community and to investigate and respond to queries and complaints.

**Conflicts:** engagement mechanisms based on the Somos Choapa design have allowed community concerns to be aired, creating opportunities to resolve possible issues sooner and avoid high conflict levels. However, there are communities that are not yet part of Somos Choapa, with whom other dialogue mechanisms have been used. One example is the Cuncumén community, close to Los Pelambres, with whom dialogue was established to address the inconvenience caused by unusual levels of dust from the Los Quillayes tailings dam. This led to an agreement to strengthen preventative measures when elevated levels of dust are detected.

**Water availability:** water scarcity, mainly caused by long periods of drought, has been a constraint on the development of various productive activities. This is especially evident in the central region of Chile, where the majority of agricultural activity is concentrated and coexists with different activities, such as mining. This is one of Antofagasta's greatest challenges, as the Choapa Valley, where Los Pelambres operates, is in this region. For this reason, operational measures are in place to protect water quality and efficiency of use.

+ See page 46 for more information

In addition, initiatives designed in conjunction with the community and public agencies have improved the structure and efficiency of local irrigation systems. The programmes focused on the needs of small and medium-sized farmers, as well as the availability and quality of drinking water for communities. Good examples of this are the Confluencia and APRoxima programmes.

**Culture and heritage:** communities cherish their identity and cultural heritage and this has led to the creation of programmes that work with the communities to recover cultural traditions, public spaces and places rich with local history.

For example, the transport division has introduced initiatives to create gardens and clean spaces near or next to its railway lines, and highlights the history and culture of the area each year with a popular event called Carnival of Giants.

+ See page 129 for more information

## TRAINING SOCIAL LEADERS

Antofagasta believes that better qualified social leaders contribute to communities' progress. In 2018, 118 social leaders participated in a Social Leaders Training Diploma course that had been developed/offered as part of the Somos Choapa framework and was supported and accredited by the University of Santiago.

Los Pelambres has carried out various activities to contribute to the recovery and/or improvement of public spaces for the community. In 2018 the most popular initiatives were the Recreo Programme, to improve communities' public spaces and green areas, and the Gran Mateada initiative encouraging neighbours to drink mate (a traditional hot drink) together in communal areas.

Protecting natural and cultural heritage is part of the Group's history. In 2018 Los Pelambres supported the opening of the Parque Rupestre de Monte Aranda (Monte Aranda Rock Art Park) in the Choapa Valley, which protects and displays archaeological pieces from the local indigenous culture. Meanwhile, the transport division has restored heritage buildings in the centre of Antofagasta city and built a railway museum that displays restored railway carriages from the last century.

**Developing local skills and employment prospects:** the Group's operating companies aim to improve local employment prospects through hiring initiatives and job-training programmes.

+ See page 40 for more information

Antofagasta is convinced that increasing the skills and opportunities of young people allows social development to meld with the needs of mining in the future. The Eleva Programme, a public-private initiative, promotes relevant and high-quality professional technical training and job opportunities for the young people on the programme. Likewise, Los Pelambres supported the construction of a Technical Training Centre in Los Vilos that opened in 2018. 304 students were trained there during the year, and the vast majority were studying free of charge.

1. A strong social performance by the Group's companies is encouraged among workers through the Performance Management System with a 5% weighting with respect to overall performance.

# SUPPLIERS

**Suppliers play a fundamental role in Antofagasta's ability to operate safely, sustainably and efficiently and the Company ensures they comply with the Group's standards and guidelines. Suppliers provide a large range of goods and services from mining equipment and energy to fuel and catering.**

## RESPONSIBLE SUPPLY

Around 4,750 suppliers of goods and services form part of Antofagasta's supply chain. A central corporate purchasing team defines and consolidates common procurement practices and procedures, as well as the standards and good practices required of suppliers.

 **Compliance:** the Group carries out due diligence on all its potential suppliers prior to awarding a contract. Company ownership, participation of politically exposed persons (PEP), antitrust issues, commercial behaviour, legal and labour cases, conflicts of interest and contract risks are all reviewed.

Contracts covering the supply of goods include clauses requiring compliance with Chilean Law 20,393 (Prevention of Crimes) and UK laws on bribery (UK Bribery Act) and modern slavery (UK Modern Slavery Act).

In addition, audits of direct suppliers monitor compliance with labour legislation and the Group's rigorous safety and health policy. In the case of contracts with direct suppliers in jurisdictions with different standards, for example in Asia, on-site audits and due diligence are carried out to ensure suppliers' compliance with the Group's standards. This was the case for China-based suppliers during 2018.

The identification of economic, environmental, labour and ethical risks in the supply chain forms part of the Group's Risk Management Model. These risks are addressed in contracts with Tier 1 suppliers.

In 2018 nearly 500 suppliers participated in a training session to reinforce their knowledge of Antofagasta's policies and practices, including the Group's new Compliance Model.

**Fair and transparent tender processes:** bidding processes are carried out on an online platform designed to guarantee objective and auditable evaluation and award procedures.

**Communication and complaints:** the Company encourages suppliers to raise any issues or concerns regarding its relationship with the Company or its contracts through the complaints reporting line as well as various other channels of communication and engagement.

 See page 34 for more information

**4,750**

Suppliers

**40%**

Of local suppliers  
from Coquimbo  
Region and  
Antofagasta Region

**\$3,244m**

Total payments  
to suppliers

**61%<sup>1</sup>**

Of local purchases

1. This figure represents total Group purchases through local suppliers from Coquimbo and Antofagasta Regions and has been calculated in accordance with the following definition: "local supplier is a supplier company that has facilities in any of the communes of a specific region, and may have its parent company or a branch installed in this region".



## LOCAL SUPPLIERS

Antofagasta seeks to conduct its business in a thriving local environment and requires suppliers to have high standards. To achieve this the Group has focused on developing the skills of local companies, to help improve their commercial, financial and human resource capabilities, as well as their productivity and use of innovation.

**Opportunities for local suppliers:** most of Antofagasta's suppliers have their headquarters in Santiago. However, an analysis conducted by the Company in 2018 showed that most of the spending on goods and services by Centinela, Antucoya and Zaldívar is through regional branches of these companies which use local employees, infrastructure and resources including power plants, ports, manufacturers, distribution centres, repair shops, logistics, and subcontractors.

As part of the local integration strategy, the Group's companies favour local suppliers, both for new projects and at its operations. In 2018, 1,897 local suppliers in the Antofagasta and Coquimbo regions supplied \$1,967 million of goods and services to the Group, representing 40% of the Group's suppliers and 61% of total purchases.

Future projects also incorporate local suppliers; for example, at least 55 companies from Los Vilos and Salamanca have been contracted to work on the construction of the Los Pelambres Expansion Project.

## MEETING HIGH STANDARDS

In 2018 there were no lawsuits or fines for incidents in the supply chain. This is a considerable achievement given the Group's large number of suppliers of goods and services of around 4,800 companies.



**Supplier development:** the Group's operating companies run development programmes for local suppliers, many of them within the framework of State programmes.

Antofagasta's mining operations in northern Chile continued to use the local procurement programme (PAL) during the year, and at Los Pelambres an online suppliers' portal links local suppliers with opportunities offered by existing suppliers. The Group paid a total of \$490 million to SMEs in 2018, with average payment times of 25 days.

**Collaborative innovation:** the mining division is part of the Expande Project, an open innovation programme that promotes the development of high-potential solutions from technology companies and connects them with challenges faced by the mining industry. The programme seeks to become a fundamental pillar for the development of technology providers.

#### ANTOFAGASTA MINING CLUSTER

In 2018 Antofagasta joined the mining cluster, an alliance that seeks to strengthen employability, human capital and innovation in northern Chile. It is the result of joint work between various local players and mining companies operating in the area.

**Local workforce:** the hiring of local people is central to the Group's strategy to contribute to local development. This aim is included in contracts with third party companies through the inclusion of local employment goals in the contracts' performance agreements. In 2018 the Group directly employed 3,480 people from the regions of Antofagasta and Coquimbo, equivalent to 54% of its employees.

**Alliances for local development:** a co-operation agreement has been signed between Los Pelambres and the Association of Traders and Companies of Salamanca. Monthly meetings are held to ensure that local businesses get the opportunity to supply Los Pelambres and the Expansion Project.

#### EMPLOYABILITY PROGRAMME

The aim is to develop skills and job qualifications among local people, through education (training, certification and qualification, technical training, internships) and job advice and information (employment portal, promotion of internships, working with contractor companies).

In 2018 the results were measured: participants' insertion in the labour market improved by 18% and salary levels increased by 35%.

# CUSTOMERS

**The Group's business model is underpinned by relationships with stakeholders at local, regional, national and international levels. Successful management of these relationships contributes to the long-term success of the Group.**

## CUSTOMERS

Most copper and molybdenum sales are made under annual contracts or longer-term framework agreements, with sales volumes agreed for the coming year. Gold and silver is contained in the copper concentrates and is therefore part of copper concentrates sales.

Most sales are to industrial customers who further process the copper into more added value products; smelters, in the case of copper concentrate production, and copper fabricators in the case of cathode production. The Group builds long-term relationships with these key customers while ensuring customer diversification. The Group also maintains relationships with trading companies that participate in shorter-term sales agreements, or in the spot market.

Over 80% of the Group's mining sales are under contracts of a year or longer and metals sales pricing is generally based on prevailing market prices.

## STRUCTURE OF SALES CONTRACTS

Typically, the Group's sales contracts set out the annual volumes to be supplied and the main terms for the sale of each payable metal, with the pricing of the contained copper in line with LME prices.

In the case of concentrates, a deduction is made from LME prices to reflect TC/RCs, the smelting and refining costs necessary to process the concentrate into refined copper. These TC/RCs are typically determined annually in line with market developments and the parties' assessments of the copper concentrate market at the time of the negotiation of the terms.

In the case of copper cathode transactions, a premium, or in some cases a discount, on the LME price is negotiated to reflect differences in quality, logistics and financing compared with the metal exchange's standard copper contract specifications.

Similarly, the Group's molybdenum contracts are made under medium and long-term framework agreements, with pricing usually based on Platts' average prices for Technical Molybdenum Oxide with a

deduction to reflect the cost of converting molybdenum sulphide concentrate into molybdenum oxide.

Across the industry, neither copper producers nor consumers tend to make annual commitments for 100% of their respective sales or purchases, and normally retain a portion to be sold or purchased on the spot market during the year.

In line with industry practice, sales agreements generally provide for provisional pricing at the time of shipment, with final pricing based on the average market price in the month in which settlement takes place.

For copper concentrates, the final price remains open until settlement occurs, on average four months from the shipment month.

Settlement for the gold and silver contained in the copper concentrates occurs approximately one month after shipment. Copper cathode sales remain open for an average of one month from the month of shipment. Settlement for copper in concentrate sales is later than for copper cathode sales, as copper in concentrate requires more processing to produce refined copper for sale. Molybdenum sales generally remain open for two or three months after the month of shipment.

## STRUCTURE OF SALES CONTRACTS

**The majority of the Group's sales are to industrial customers, who refine or further process the copper concentrate and cathodes.**

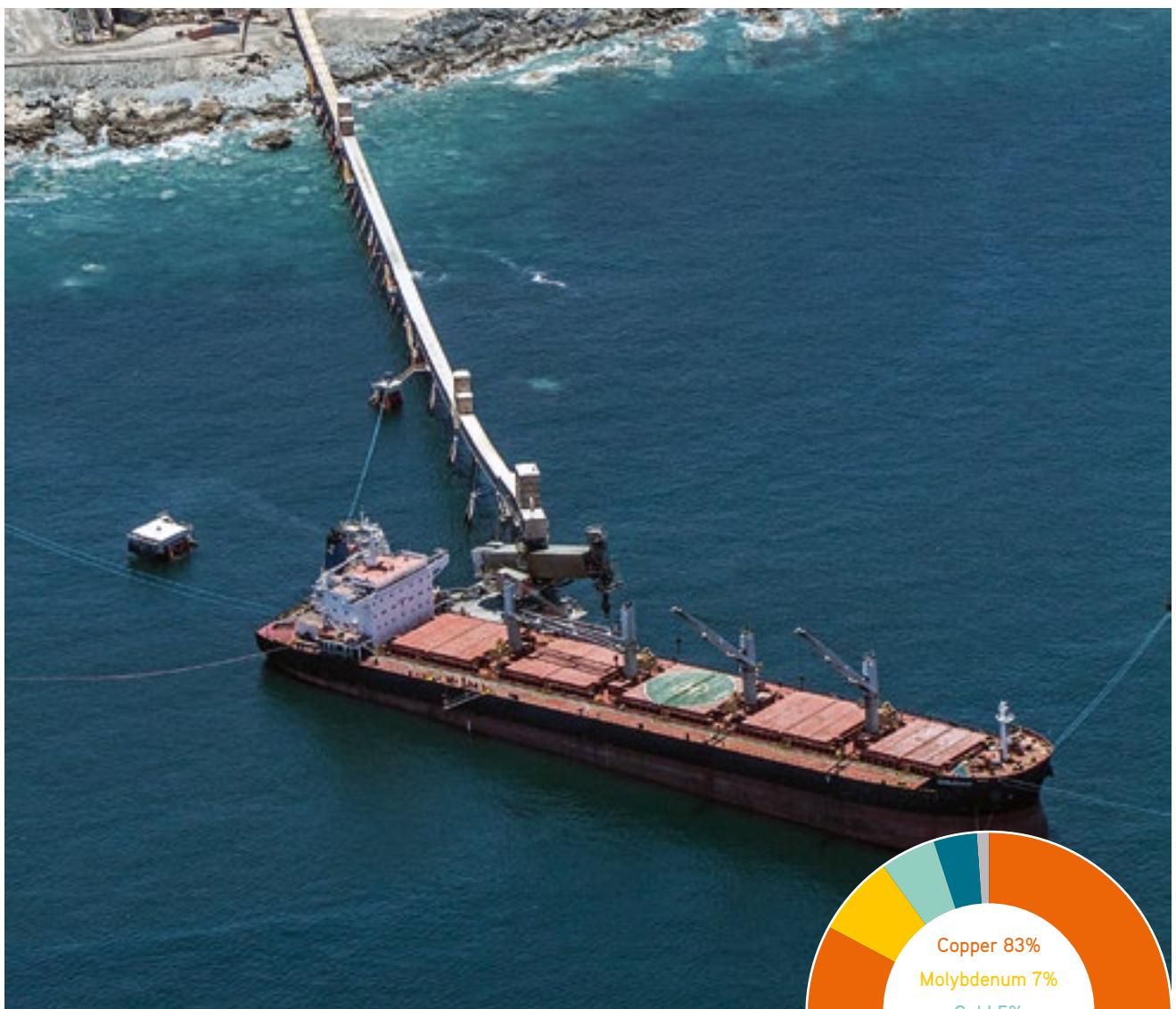
**Most sales are made under long-term framework agreements or annual contracts with sales volumes agreed for the following year.**

**83%**

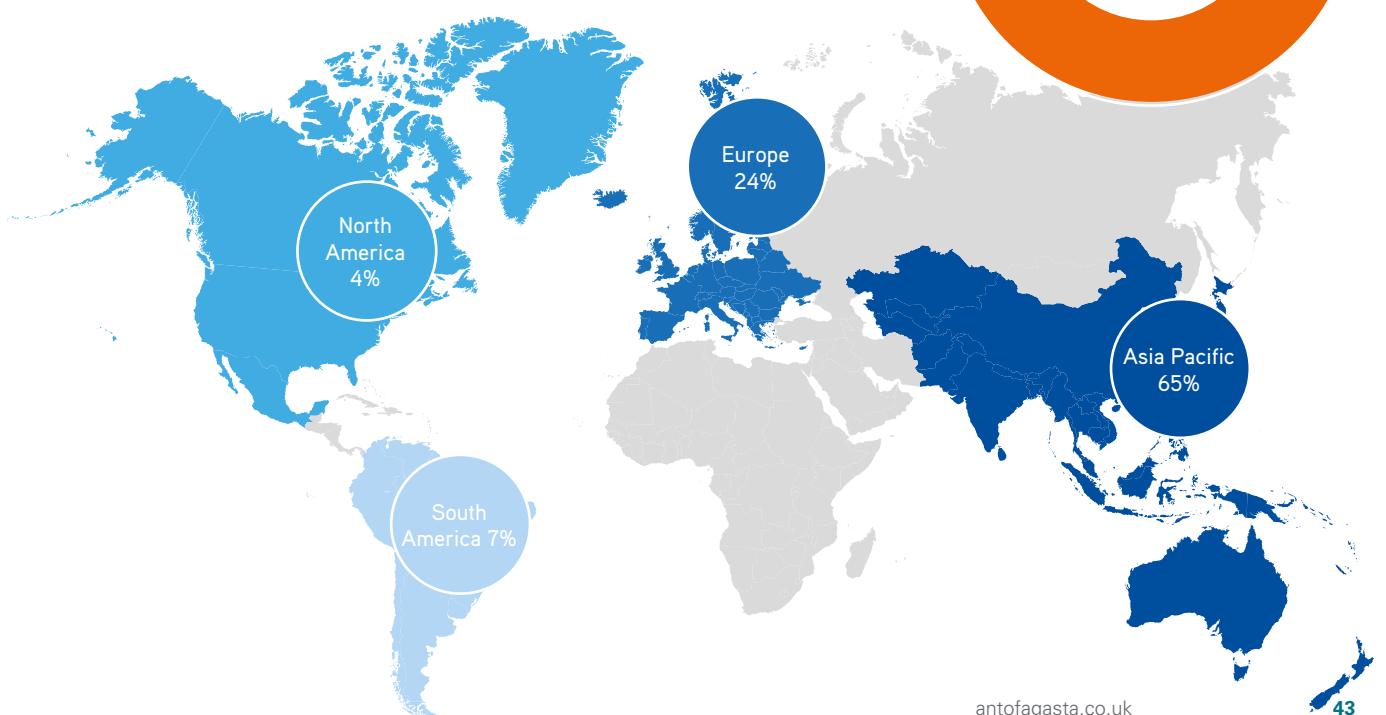
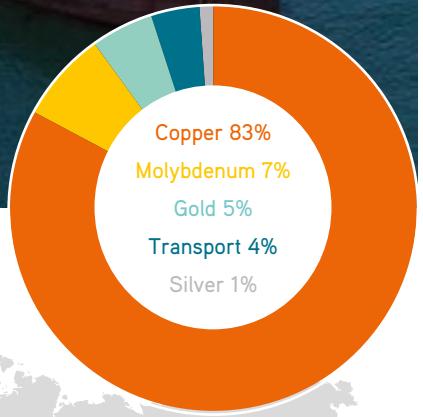
Of revenue from copper

**65%**

Of sales to Asia Pacific



#### TURNOVER BY LOCATION OF CUSTOMER AND PRODUCTS



# SAFETY AND HEALTH

Antofagasta puts people first and safety is both a top priority and a non-negotiable focal point. The Group continuously strives to improve its performance in all safety and health matters that could affect its employees, contractors and neighbours.



## SAFETY AND OCCUPATIONAL HEALTH STRATEGY

In 2018 the Group deepened the implementation of its Safety and Health Strategy, which is based on four pillars: safety risk management; health risk management; aligned reporting and improvement; and leadership. The strategy defines four goals: zero fatalities, zero occupational illnesses, the development of a resilient culture, and the automation of hazardous processes. Safety and health performance targets account for 5% of Antofagasta's annual performance bonuses to encourage a culture of accident prevention.

### SAFETY RISK MANAGEMENT

Antofagasta has defined Fatal Risk Standards, of which 15 are applicable across the whole business and seven cover specific tasks in each operation. The latter were developed in 2018. Based on these standards, the Group's operating companies implemented critical controls – both preventative and mitigating – that must be checked prior to any activity. In 2018 progress was made on ensuring compliance with all safety critical controls by conducting a review covering 98% of the Group's accident history. The challenge in 2019 will be to establish performance measures for each of these controls.

### HEALTH RISK MANAGEMENT

Antofagasta has defined ten Occupational Health Standards through which it can identify and control potential occupational health risks, with a goal of minimising exposure to hazardous agents or risk factors. Medical Surveillance Programmes identify early symptoms that can indicate incipient occupational diseases. During 2018, existing surveillance programmes were standardised and an occupational health baseline was developed for the entire Group. In 2019 the Company will focus on implementing engineering controls on potential occupational health risks.

### REPORTING

The preventative culture that Antofagasta is working to establish is based on the reporting, follow-up and control of potential accidents. In 2018 the standardisation of reporting was reinforced, aligning processes of analysis, warnings, improvement projects and corrective actions raised by investigations. In 2019 the focus will be to improve organisational learnings from events and reduce repetition of high-potential incidents.

Regrettably, after 26 months without a fatality, a contractor suffered a fatal accident at Los Pelambres in October 2018 while working on the wall of the Mauro tailings dam. The tragic loss led to important organisational lessons which have been incorporated into the Safety and Health Strategy.

"The first priority for everyone is to take care of the safety and health of all who work for Antofagasta. Huge progress has been made but the tragic fatality shows we must continue working to establish a resilient safety culture that ensures fatalities in all the Group's companies are completely eradicated."

Iván Arriagada  
CEO

### VISIBLE LEADERSHIP

Antofagasta understands that leadership is a key driver for eliminating fatalities, severe injuries and occupational illnesses. The Executive Committee conducts regular on-site safety and health reviews to verify that critical controls are correctly applied. Senior management review and challenge the investigation of high-potential events and recognise employees who display outstanding safe conduct. Safety performance is reported weekly to the Executive Committee and monthly to the Board, and the Sustainability and Stakeholder Management Committee reviews any serious safety incidents.

### AWARENESS AND COMMITMENT

Raising awareness of the importance of a preventive culture among employees and contractor workers is key to achieving their commitment to safety and health. The Group carries out a variety of actions including training, induction courses, discussions on the causes of accidents, safety meetings and recognition of employees committed to safety, as well as participation in joint safety and health committees.

Contractors apply the Group's standards and report on their own and their sub-contractors' performance. The Corporate Guidelines on Safety and Health for Contractors are essential in ensuring their commitment and providing orientation, training and support, while compliance is closely monitored through on-site audits.

---

3.2

TRIFR 2018

29%

TRIFR decreased  
compare to 2017



## PERFORMANCE

In 2018 Antofagasta did not achieve its zero fatalities goal with a fatal accident at Los Pelambres involving a contractor.

The Lost Time Injury Frequency Rate (LTIFR) remained steady at 1.6 and near-miss reporting increased by 56%. Compliance with Safety and Health standards is audited twice a year at each site, and 12 on-site visits were made by the Executive Committee.

In 2017 the Group began measuring the Total Recordable Injury Frequency Rate (TRIFR) which includes Lost Time Injury incidents and those requiring medical treatment. In 2018, the TRIFR was 3.2, 29% lower than the previous year.

During the year six workers with occupational diseases were identified, one from Centinela, two from Zaldívar and three from FCAB. Of these cases, five are related to hypoacusis.

### LOST TIME INJURY FREQUENCY RATE (LTIFR)<sup>1</sup>

	2018	2017	2016	2015	2014
Chilean mining industry	<b>1.2</b>	1.8	1.8	2.0	2.5
Mining division	<b>1.1</b>	1.0	1.2	1.2	1.1
Transport division	<b>6.7</b>	7.2 <sup>4</sup>	5.4 <sup>4</sup>	10.9	10.3
Group	<b>1.6</b>	1.5	1.6	2.0	1.7

### ALL INJURY FREQUENCY RATE (AIFR)<sup>2</sup>

	2018	2017	2016	2015	2014
Chilean mining industry	N/A <sup>3</sup>				
Mining division	<b>5.2</b>	7.4	6.9	6.9	5.0
Transport division	<b>15.7</b>	22.0	13.3	17.8	22.2
Group	<b>6.1</b>	8.3	7.3	7.9	6.1

## NUMBER OF FATALITIES

	2018	2017	2016	2015	2014
Chilean mining industry	<b>16</b>	14	18	16	27
Mining division	<b>1</b>	0	1	1	5
Transport division	<b>0</b>	0	1	0	0
Group	<b>1</b>	0	2	1	5

1. The Lost Time Injury Frequency Rate is the number of accidents with lost time during the year per million hours worked.
2. The All Injury Frequency Rate is the total number of accidents during the year per million hours worked.
3. N/A denotes that information is not available.
4. Figures restated to include contractors in the transport division.

## SAFE TRANSPORT

The transport division is aware of the potential accident risks arising from cargo transport and has developed a strategy based on action plans focused on improving safety on the railways. This includes the construction and improvement of pedestrian and vehicle crossings, the conducting of emergency drills, and the training and certification of personnel on safety issues. The incorporation of new technologies has also assisted accident prevention; for example, existing railway locomotives were replaced by nine state-of-the-art locomotives with remote monitoring systems and higher safety standards.

# ENVIRONMENT

Antofagasta seeks to prevent, mitigate and control the impact of all its activities on the environment. The Group remains committed to achieving the sustainable and efficient use of natural resources throughout the business cycle.

## ENVIRONMENTAL MANAGEMENT

Antofagasta continued to implement its Environmental Management Model, approved by the Board in 2017, which seeks to ensure strict compliance with environmental requirements and having no incidents that have impact on the environment. The model is focused on four areas: leadership, incident reporting, operating risk management and regulatory risk management.

Environmental performance is reported monthly to the Executive Committee and biannually to the Sustainability and Stakeholder Management Committee, as well as being one of the Group's annual performance bonus targets.

In 2018 significant progress was made in implementing visible leadership, with on-site visits by the Executive Committee and each operation's senior leadership teams. During the year, 182 audits were carried out to verify compliance with corrective action completions and environmental requirements.

During the year, the reporting of low-potential incidents increased by 91% owing to training and the dissemination and standardisation of reporting criteria. This tool creates a preventive and vigilant culture.

## ENVIRONMENTAL COMPLIANCE

In Chile, large-scale projects are subject to strict environmental and social impact assessments by the environmental authority (SEA<sup>1</sup>), which evaluates all project impacts, including those to water, air, soil and biodiversity, and to energy and water consumption. SEA project approval includes legally binding commitments set out in RCAs<sup>2</sup> that cover prevention, mitigation and compensation measures and compliance with these are regularly reviewed by the Environmental Superintendency (SMA<sup>3</sup>). Non-compliance can result in severe fines and the revocation of operating permits.

Antofagasta has a total of 66 RCAs listing 7,683 environmental commitments and it monitors its compliance with an environmental management system adopted in 2017.

The Los Pelambres Expansion Project was approved in 2018, generating a new RCA and environmental commitments. Construction is expected to commence in 2019.

## ENVIRONMENTAL INCIDENTS

The Group had no significant environmental incidents or fines in 2018.



## WATER AND MINING

Antofagasta Minerals adopted ICMM's Water Stewardship Framework to reinforce its management of water resources,<sup>4</sup> introducing the framework at its operations during 2018.

In 2018, 45% of Antofagasta's total water consumption came from the sea, significantly higher than 9% a decade ago, when only Michilla used sea water. The main loss of water is through evaporation and no water is discharged into waterways. Water reuse rates are considered in the original design and subsequent modification of the operations, and reuse rates have been consistently high, varying between 80% and 96%. Antofagasta's operations are zero discharge, with some residual water remaining inside the tailings dams. In 2018 Antofagasta consumed 36.9 million m<sup>3</sup> of continental water.

Los Pelambres mainly uses continental water from the Choapa River in the Choapa Valley, which is a water-stressed zone. The Company is an active member of the Río Choapa Monitoring Committee, which seeks long-term solutions to local water shortages and permanently monitors water quality and quantity in the surrounding area.

The Los Pelambres Expansion Project includes the construction of a desalination plant in the port area at Punta Chungo that will produce up to 400 l/s of desalinated water for industrial use.

Sea water will be collected some 730 metres from offshore and will pass to the desalination plant in a tunnel 20 metres below the seabed, without the need for pumping, reducing the environmental impacts on marine ecosystems.



## GLACIER BLANKETS

In 2018 Antofagasta's Innovation Board approved a proposal to test covering glaciers with a reflective blanket to help mitigate the accelerated melting of the glacier caused by climate change. The pilot project will start in 2019.

1. Servicio de Evaluación Ambiental (Environmental Assessment Service).
2. Resoluciones de Calificación Ambiental (Environmental Qualification Resolutions).
3. Superintendencia del Medio Ambiente.
4. Further information on Antofagasta's water report can be found at Carbon Disclosure Project – Water [www.cdp.net/en/responses/820](http://www.cdp.net/en/responses/820).



## MINING WASTE

The Group has four Tailings Storage Facilities (TSFs), two at Los Pelambres, one at Centinela and one at Zaldívar. All of the TSFs use the downstream method of construction, the safest form of construction. Three of the TSFs are active and one, at Los Pelambres, is inactive.

The Mauro tailings dam at Los Pelambres is designed for extreme weather and severe earthquakes and has early warning and evacuation procedures in place and its physical and chemical monitoring system provides real-time information to the mine, local communities and the authorities. In 2015 the dam withstood an 8.3° earthquake 100 km away without any negative impact to the integrity of the dam.

In addition, Antofagasta has pioneered the use of 'thickened tailings' technology at Centinela, one of its four mines. This innovation reduces the moisture content of the tailings and makes them more stable, both during the operation of the mine and after it has closed, reducing the environmental impacts and risks associated with tailings dams.



### PROGRAMA TRANQUE – TAILINGS DAM MONITORING AND ALERT SYSTEM

Antofagasta Minerals, together with other mining companies and inspection bodies in Chile, is pioneering an online system to monitor the physical and chemical stability of tailings deposits. The first pilot on an industrial scale began in 2018 at Los Pelambres' El Mauro tailings dam, with the participation of the local community. If the pilot is successful, it is expected the system will be incorporated into Chilean regulations.

### WATER CONSUMPTION SOURCE IN 2018 (MILLIONS OF M<sup>3</sup>)

Source	2018	2017	2016
Surface water	16,5	18,2	14,2
Underground water	19,4	17,2	13,5
Third party suppliers	0,9	1,2	1,2
Sea water	30,4	29,2	26,5
<b>Total</b>	<b>67,2</b>	<b>65,8</b>	<b>55,4</b>



### CLIMATE CHANGE, ADAPTION AND MITIGATION

The effects of climate change are increasingly evident in Chile, with rising temperatures in the centre of the country affecting snow accumulation and snow and ice melt in the mountains. This affects Los Pelambres and Antofagasta is promoting measures to mitigate the effects of and adapt to climate change.

Following Board approval of a climate change standard in 2016, Antofagasta set its first carbon reduction target in early 2018 to reduce forecast carbon dioxide emissions over the period 2018 to 2022 by 300,000 tonnes. The mining division is making significant progress in pursuit of this target, increasing its use of renewable energy and achieving energy savings and efficiency gains as well as reducing GHG emissions.



## ENVIRONMENTAL REMEDIATION TO CAPTURE GHG

The conservation and remediation of 11,000 ha of forest will capture an estimated 25,000 tonnes of CO<sub>2</sub> equivalent per year.

## ENERGY MANAGEMENT

Energy represents approximately 21% of the mining division's total production costs, made up of 14% electricity and 7% fuel.

During 2018 the governance and structure of the Energy Management System was reformulated. This involved updating and adapting ISO 50001 to the Group's own management structures, with the objective of standardising energy management, maximising operational productivity and streamlining cost controls.

Work focused on establishing the foundations of the system:

- The Executive Committee approved the structure of the system before its dissemination to the Company's main stakeholders.
- Consumption profiles were prepared by each of the Group's operations.

## CO<sub>2</sub> EMISSIONS IN 2018 (TONNES OF CO<sub>2</sub> EQUIVALENT)<sup>1</sup>

	Scope 1 Direct emissions		Scope 2 Indirect emissions		Total emissions		CO <sub>2</sub> emissions intensity tCO <sub>2</sub> e/tCu	
	2018	2017	2018	2017	2018	2017	2018	2017
Corporate offices	1	212	1,189	1,306	1,191	1,518	—	—
Los Pelambres	262,355	195,362	523,942	500,040	786,297	695,402	2.20	2.02
Centinela	453,898	334,019	563,101	969,598	1,016,999	1,303,617	4.10	5.71
Zaldívar	141,475	147,985	180,109	357,932	321,584	505,917	3.40	4.89
Antucoya	168,490	177,051	123,353	243,060	291,843	420,111	4.04	5.22
Transport division	99,400	95,304	1,224	2,068	100,624	97,372	N/A	N/A
<b>Total</b>	<b>1,125,619</b>	<b>949,933</b>	<b>1,392,919</b>	<b>2,071,936</b>	<b>2,518,538</b>	<b>3,023,937</b>	<b>3.33</b>	<b>3.87</b>

1. Further information on Antofagasta's carbon emissions can be found at Carbon Disclosure Project – Climate Change [www.cdp.net/en/responses/820](http://www.cdp.net/en/responses/820).



## BIODIVERSITY

Antofagasta's Biodiversity Standard was approved by the Board in 2016. It was developed in conjunction with the Wildlife Conservation Society (WCS) and is aligned with ICMM's position statement on Biodiversity and Protected Areas. It has three goals: to prevent and minimise the Group's impact on biodiversity, to appropriately restore or compensate for any such impact, and to generate additional benefits for the areas in which the Group operates.

Most of the Group's biodiversity challenges are in the Choapa Valley, where Los Pelambres is located, an area rich in biodiversity. Los Pelambres has undertaken several biodiversity projects over the years including the restoration of a coastal wetland recognised under the Ramsar Convention that had become an illegal waste dump, and the protection of both Santa Inés, a rare temperate relict rainforest, and Palmas de Monte Aranda, one of Chile's last remaining palm forests.

**+** [See page 39 for more information](#)

The Group protects over 26,921 hectares of high conservation value land.



## AIR

Antofagasta Minerals has strong air-quality monitoring and dust-suppression programmes. The mining division operates no copper smelters, so is not exposed to toxic air emissions such as lead, arsenic and selenium. Antofagasta Minerals' innovation programme, InnovaMinerals, made a pioneering proposal to reduce dust emissions through electromagnetic technologies, which will be piloted in 2019.



## MINE CLOSURE

Antofagasta has no operations close to closure. The Group has adopted comprehensive mine closure standards that ensure both legal compliance and that the physical and chemical stability of the facilities go beyond regulatory requirements for post-closure environmental and social management. All the Group's operations in Chile have closure plans approved by Sernageomin (the National Geology and Mining Service) as required under Chilean law. Plans also allow for the funding of closure activities and making financial provision for their implementation.

# VALUE CREATION

Mining and its associated activities are well placed to have a positive impact on the industry's different stakeholders, especially host communities and mining regions.

Antofagasta is always looking for new ways to contribute to the development of a more innovative, sustainable and inclusive mining industry, which allows it to adapt to challenges and generate a significant and lasting positive impact.

Antofagasta believes that the development of innovative, inclusive and sustainable mining practices requires it to deal with significant challenges and assume leadership roles in providing solutions that deliver value to its different stakeholders.

## CHALLENGES AND SOLUTIONS

Antofagasta is seeking solutions to technical, operational and socio-environmental challenges using the experience, acquired learnings, innovation, and the diversity and wealth of knowledge of its workforce.

Among the most important challenges are:

### PROVIDING A SAFE WORKPLACE

This is Antofagasta's main challenge, as many of its activities are considered hazardous and can have serious consequences. The Group continues to strengthen the execution of its Safety and Health Strategy, efficiently manage safety and health risks, improve incident reporting and foster visible leadership at its operations.

+ See page 44 for more information

### ADAPTING TO CLIMATE CHANGE

Antofagasta has adopted a learning-oriented approach to tackle this new scenario, in which one of the biggest challenges is water scarcity. The Group is committed to using sea water for any new water resource requirements, such as the Los Pelambres Expansion Project where a desalination plant is being built as an integral part of the project.

+ See page 47 for more information

### 

In addition, in 2018 Antofagasta set its first carbon reduction target to reduce forecast CO<sub>2</sub> emissions over the period 2018 to 2022 by 300,000 tonnes. This goal will mainly be achieved through energy efficiency measures and incorporating non-conventional renewable energy into its processes.

### IMPLEMENTING A RESPECTFUL, DIVERSE AND INCLUSIVE WORK CULTURE

Another challenge is for Antofagasta to review its activities' impacts over its people (employees, communities, contractors). In 2018 the Company began a due diligence to provide a baseline on which to

develop a Human Rights Policy and action plan. The Company has also extended its Diversity and Inclusion Strategy, first introduced in 2017, to all of its operations.

+ See page 36 for more information



### RESISTANCE TO NEW PROJECTS AND GREATER SOCIETAL DEMANDS REGARDING THE REAL CONTRIBUTION OF MINING TO LOCAL DEVELOPMENT.

These are undoubtedly the challenges that have gained most prominence in recent years. At Antofagasta, collaborative, trackable, comprehensive and transparent dialogue with members of host communities has been critical in moving the relationship from one of competition to one of coexistence. This has allowed the Company and local people to prepare together long-term, shared development plans that have a positive impact for all parties. As part of this process Antofagasta launched its Social Management Model in 2018 which standardises the way the Group engages with communities. This allows it to monitor the timely and correct implementation of social commitments, projects and programmes, while aligning its management of their impact and socio-environmental risk.

In addition, the Group seeks to align its environmental and social commitments with the UN Sustainable Development Goals (SDGs) and address local problems in ways that contribute in a tangible way to achieving these goals.

These challenges are compounded by economic and operational challenges, such as the volatility of the copper market, uncertainty about the world economy and international trade, and the deterioration in the quality of mineral deposits owing to lower grades, harder rock or geological issues.

+ See page 38 for more information

### SUSTAINABILITY PRIORITIES

The Group's Sustainability Policy is structured around five pillars: People, Financial Performance, Environmental Management, Social Development and Transparency, and Corporate Governance. The Policy provides the framework for Antofagasta's constant efforts to mine in a more innovative, sustainable and inclusive way.

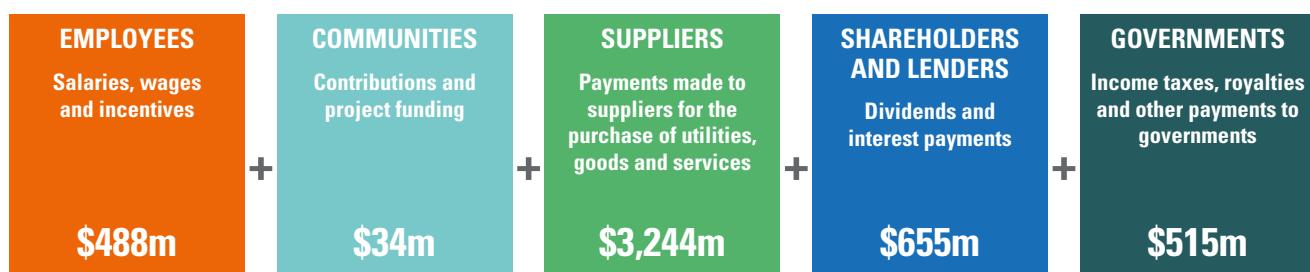
At Antofagasta, the safety and health of its employees and contractors always comes first. The Group is constantly improving its environmental performance, contributing to the social development of the areas in which it operates and maintaining open and transparent communication with all its stakeholders.

The Group's sustainability priorities are based on its values, its main risks and opportunities, and its stakeholders' key concerns and expectations, all of which are reviewed frequently by the Board and the Sustainability and Stakeholder Management Committee.

# TOTAL ECONOMIC CONTRIBUTION

The economic value generated is distributed among all the Group's stakeholders, delivering not only financial returns but contributing to the achievement of common sustainable development objectives.

## \$4,936m



### SUSTAINABLE DEVELOPMENT GOALS

In 2018 the Company mapped all the projects, programmes and processes in Los Pelambres' area of influence against the SDGs applicable to the mining industry.<sup>1</sup>

The aim of this exercise was to evaluate the performance of Los Pelambres and its expansion project with respect to the SDGs and therefore with regard to its positive contribution to sustainable development, critical areas and possible improvement measures.

During 2019 a second phase of the project will be carried out, applying the SDGs at the territorial level of the area of influence.

1. Mapping Mining to the Sustainable Development Goals: An Atlas, by the Columbia Center on Sustainable Investment, Sustainable Development Solutions Network, UNDP and the World Economic Forum (2016).

### DISTRIBUTION OF GENERATED ECONOMIC VALUE

During 2018, \$4,936 million was distributed to stakeholders, which includes employees, communities, suppliers, shareholders, lenders and governments.

Antofagasta aims to conduct mining for a better future and understands that generating economic value means more than making a profit.

For Antofagasta, creating economic value implies generating profits responsibly and with a long-term vision, incorporating unique and innovative solutions in business decisions to address challenges in the regions in which it operates and working to tackle today's global challenges.

### SUSTAINABILITY INDICES

Antofagasta is a constituent of the FTSE4Good Index series, the STOXX Global ESG Leaders Index and the ECPI Index.

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# OPERATING PERFORMANCE

The Group seeks to set realistic but demanding operating targets each year and then achieve them year after year.



## OPERATING PERFORMANCE

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# THE MINING LIFECYCLE

## CREATING VALUE THROUGH THE MINING LIFECYCLE

### CREATING VALUE THROUGH THE MINING LIFECYCLE

Mining is a long-term business and timescales can run into decades. The period from initial exploration to the start of production can exceed ten years and, depending on the nature of the project and the market conditions, it may take more than five years of operation to recoup the initial investment.

Where possible, mines exploit higher-grade areas towards the start of the mine life in order to maximise returns. As a result, average ore grades may decline over time, with production volumes decreasing along with revenue.

### INPUTS



Resources

Relationships

### EXPLORATION



Chile

International

### EVALUATION



Los Pelambres Expansion Phase 2

Centinela Second Concentrator

Zaldívar Chloride Leach Project

Twin Metals Minnesota

### CONSTRUCTION



Los Pelambres Expansion Phase 1

The Group's mining operations depend on a range of key inputs such as energy, water, labour, acid and fuel. The management of these inputs has a significant impact on operating costs and the sustainability of mining operations, and ensuring the long-term supply of key inputs is a vital part of the business.

See page 56 for more information

To ensure the sustainability of its mining business in the long term, the Group must focus on expanding its mineral resource base.

The Group undertakes exploration activities in Chile and abroad, with particular focus on the Americas. Exploration programmes outside Chile are generally carried out in partnership with other companies, in order to benefit from their local knowledge and experience.

**3-5 years**

See page 73 for more information

Effective project evaluation and design maximise value at this stage of the mining cycle. The Group's wealth of experience in both areas helps to make the best use of mineral deposits. The Group integrates sustainability criteria into the design process and project evaluation phase, developing innovative solutions for challenges such as water availability, long-term energy supply and community relations.

**5 years**

See pages 70 to 72 for more information

Once a project has been approved by the Board, construction begins.

This stage requires significant input of capital and resources, and effective project management and cost control to maximise return on investment.

The Group has a co-operative approach to developing projects. Typically, after the feasibility stage and before the construction phase, the Group seeks a development partner, generating an immediate cash return, diversifying risk and providing broader access to funding, while maintaining operating control of the project.

**3-5 years**

See pages 70 to 72 for more information

## CORE OPERATIONS

### EXTRACTION



Los Pelambres

Centinela

Antucoya

Zaldívar

### PROCESSING



The Group's four operations in Chile are Los Pelambres, Centinela, Antucoya and Zaldívar.

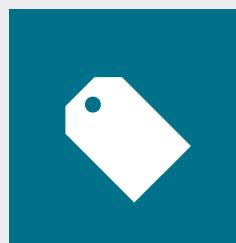
The world-class Los Pelambres and Centinela mining districts have long-life copper mining operations with large mineral resources and produce significant volumes of gold, silver and molybdenum as by-products. All of the Group's mines are open pit operations.

Safety and health are key elements of operating efficiency and remain a top priority for the Board and management team.

#### 20+ years

See pages 62 to 67 for more information

### MARKETING



The Group mines both copper sulphide and copper oxide ores, which require different processing routes:

#### LOS PELAMBRES AND CENTINELA CONCENTRATES

Mined sulphide ore is milled to reduce its size before passing to flotation cells where it is upgraded to a concentrate containing 25–35% copper. This concentrate is then shipped to a smelter operated by a third party and converted to copper metal.

#### CENTINELA CATHODES, ANTUCOYA AND ZALDÍVAR

Mined oxide ore, sometimes combined with leachable sulphide ore, is crushed, piled into heaps and then leached with sulphuric acid, producing a copper solution.

This solution is then put through a solvent extraction and electrowinning ("SX-EW") plant to produce copper cathodes, which are sold to fabricators around the world.

See pages 62 to 67 for more information

### MINE CLOSURE



Copper

Molybdenum

Gold

Silver

The marketing team builds long-term relationships with the smelters and fabricators who purchase the Group's products, with approximately 65% of output by value going to Asian markets.

As well as copper, Los Pelambres and Centinela produce significant volumes of gold, molybdenum and silver as by-products. Gold and silver are sold for industrial and electronic applications and in jewellery-making. Molybdenum is used to produce steel alloys.

Most copper and molybdenum sales are made under annual contracts or longer-term framework agreements. Sales volumes are agreed each year, which guarantees offtake.

See page 42 for more information

During the operation of a mine, its impact on the environment and the neighbouring communities is carefully managed. At the end of its life, a mine must be closed and its surroundings restored to their original state.

A closure plan for each mine is maintained and updated throughout its life to ensure compliance with the latest regulations and provide for a sustainable closure.

See page 49 for more information

The Group's mining operations create significant economic and social value for a wide range of stakeholders. Local communities benefit from job creation and improved infrastructure, while the Chilean government and local municipalities receive tax payments and royalties.

There are also benefits to society in general, with the copper the Group produces being used across many sectors, from industrial to medical, and increasingly in renewable and green technologies.

The copper and by-products from the Group's mines go on to be further processed for use in end markets, including property, power, electronics, transport and consumer products.

See pages 76 to 81 for more information

### OUTPUTS



# KEY INPUTS AND COST BASE

**The Group's mining operations depend on many inputs, ranging from energy and water to labour and fuel, the most important of which are reviewed below.**

**As concentrate producers, Los Pelambres and Centinela require reagents and grinding media. As cathode producers using the SX-EW process, Centinela, Antucoya and Zaldívar require sulphuric acid. The availability, cost and reliability of these inputs are central to the Group's cost management strategy, which focuses on cost control and security of supply.**

**The Group's largest operation, Los Pelambres, is competitively positioned on the copper industry cost curve in the first quartile, but, like the Group's other operations and the industry as a whole, it has a declining grade profile over time, which places upward pressure on unit costs.**

## ENERGY

The Group sources its energy from the main electricity grid in Chile, the National Electric System (SEN), formed following the merger early in 2018 of two previously independent systems, the northern grid (SING) and the central grid (SIC). The SEN has an installed capacity of 22.7 GW, supplying 99% of national demand, and its creation has increased customers' access to a range of power generation sources.

The northern sector of SEN supplies the Centinela, Antucoya and Zaldívar mines, and the central sector supplies Los Pelambres.

The northern sector of SEN is supplied by coal-fired power stations and renewable sources such as wind and solar, and the central sector primarily from hydroelectric plants. Due to this reliance on hydroelectric power, the cost of energy fluctuates in the southern sector depending on precipitation levels, while the northern sector's costs tend to be more stable.

Approximately 14% of the Group's cost base is energy-related. To manage price fluctuations, the Group has medium and long-term electricity contracts, called Power Purchase Agreements (PPAs) at each operation. Pricing, in most cases, is linked to the cost of electricity on the Chilean grids or the generation costs of a supplier, the latter being subject to adjustments for inflation and fuel input prices. The Group operations' power requirements are all under PPAs.

The Group's mining operations located in the northern sector of SEN benefit from long-term contracts, mostly indexed to the price of coal. The first of these to expire will be the PPA supplying 100% of Zaldívar's power until 2020. In 2018 the Group signed a new PPA to give Zaldívar continuity of supply after 2020, with the new PPA guaranteeing that 100% of the power will come from renewable sources.

## WATER

Water is a precious commodity in the regions where the Group's mines operate, so its efficient use and recycling is extremely important.

Water for each operation is sourced either from the sea or from surface and underground sources. Each operation has the necessary permits for the supply of water at current production levels and Zaldívar submitted an Environmental Impact Assessment during the year to extend its water extraction permit from current sources beyond 2025, in line with its existing Life-of-Mine.

The Group optimises water efficiency by reducing demand, using untreated sea water and encouraging recycling across its operations. Water reuse rates depend on a range of factors and the Group seeks to achieve an optimal rate, depending on circumstances at each operation.

The Group pioneered the use of untreated sea water in the 1990s and currently uses it at Centinela and Antucoya. In 2018, sea water accounted for 48% of total Group water use, an increase from the previous year.

## LABOUR

Securing the availability of labour is key to the Group's success. Labour agreements with unions are in place at all of the Group's mining operations and generally last for a period of three years.

The Group continues to foster good working relationships with its employees and unions and there has never been any industrial action. During 2018 Los Pelambres successfully concluded labour agreements with both mine and plant unions in the formal negotiation period.

Contractors account for approximately 70% of the Group's workforce and are responsible for labour negotiations with their own employees. The Group maintains strong relations with all contractors to ensure operating continuity and requires all contractors to adhere to the same standards expected of its own employees, particularly in the areas of safety and health.

## SERVICE CONTRACTS AND KEY SUPPLIES

The Group's Central Procurement Department negotiates corporate-level agreements for key purchases such as mining equipment, tyres and reagents. It also achieves synergies and economies of scale in other high-spend areas, while co-ordinating activities at each of the mining operations. A core team of experts defines product and service categories, and procurement policies and procedures are standardised across the Group.

The Group continually reviews its procurement processes and existing agreements, identifying additional cost-saving opportunities during the coming years as part of its Cost and Competitiveness Programme.

In total, the Group has over 4,750 suppliers of goods and services. Key contracts such as tyres, grinding media, mining and mobile equipment, chemicals, explosives, camp administration and maintenance, are under long-term agreements. Price adjustment formulae reflect the market variations of key cost elements, such as steel, petrol and the Consumer Price Index (CPI). Contracts are normally negotiated between the operation and the supplier, but tenders and negotiations are generally co-ordinated, and sometimes led, by the Central Procurement Department in order to maximise leverage and benefits.

The Group's corporate procurement team uses a variety of strategies, such as full-price competition, price auctions, sourcing from China and working with strategic suppliers, to reduce the costs to both parties and achieve a sustainable, longer-term, lower cost base.

## OIL PRICE

Fuel and lubricants represent approximately 7% of total operating cost base and are used mainly by trucks hauling ore and waste at the mine sites. Improving fuel efficiency is a priority, with the amount of fuel consumed per tonne of material extracted being a key measure. The oil price tends to affect not only the fuel price but the spot price of energy, shipping rates for supplies and products, and the cost of items such as tyres and conveyor belts, which contain oil-based products. The oil price rose by approximately 27% during 2018, putting pressure on the Group's operating cost base.



## SULPHURIC ACID

The sulphuric acid market was tight during 2018 and will tighten further during 2019, mainly due to supply disruptions across the world and scheduled smelter upgrades in Chile during 2018 and the first half of 2019. These upgrades have increased the regional deficit, raising demand for acid from outside the region and causing prices to rise in 2018 and into 2019. However, once the upgrades are completed, prices are expected to revert to previous levels.

The Group secures most of its sulphuric acid requirements under contracts for a year or longer, normally at prices agreed in the latter part of the previous year. The tight market in 2018 is reflected in higher annual acid prices for 2019.

## EXCHANGE RATE

Costs are affected by the Chilean peso to US dollar exchange rate, as approximately 35-40% of the mining division's operating costs are in Chilean pesos. However, as some 50% of Chile's foreign exchange earnings are generated from copper sales, an increase in the copper price tends to weaken the Chilean peso and vice versa, so a natural hedge exists for the Group. During 2018, the Chilean peso weakened by 1.3% from Ch\$649/\$1 in 2017 to Ch\$641/\$1.



# OPERATING EXCELLENCE AND INNOVATION

Excellence, forward thinking and innovation are three of the Group's core values and applying these to how the Group runs its operations allows the Group to achieve its production targets at competitive costs in a fatality-free environment. It does this through three initiatives: the implementation of its Cost Competitiveness Programme, the promotion of operating excellence, and the development of innovative solutions and ideas.

## COST AND COMPETITIVENESS PROGRAMME

The Cost and Competitiveness Programme (CCP) was introduced in 2014 to reduce the Group's cost base and improve its competitiveness within the industry. Four years later, its scope has evolved to reflect the greater maturity level that has been achieved over this period.

The programme focuses on five areas to deliver sustainable cost reductions and productivity increases:

### GOODS AND SERVICES PROCUREMENT PRODUCTIVITY:

- Improving the productivity and quality of purchase contracts while reducing costs
- Seeking synergies for the operating companies through centralised procurement

### OPERATING EFFICIENCY AND ASSET RELIABILITY:

- Maximising plant and equipment availability and minimising variability through continuous improvement
- Ensuring the reliability and performance of assets through planned, proactive and predictive maintenance

### ENERGY EFFICIENCY:

- Optimising energy efficiency and lowering energy contract prices

### CORPORATE AND ORGANISATIONAL EFFECTIVENESS:

- Reducing costs and restructuring the Group's organisational framework

## WORKING CAPITAL, CAPITAL EXPENDITURE AND SERVICES EFFICIENCY:

- Optimising inventory levels, capital expenditure and services costs

The Group has achieved savings in mine site costs of \$709 million since 2014, approximately \$184 million of which was made during 2018. This is equivalent to 10c/lb for the year.

The target for 2019 is a further \$100 million of savings, mainly as a result of productivity improvements achieved through applying the Group's operating excellence methodology.

## OPERATING EXCELLENCE

Following the introduction of the Group's new Operating Model in 2016, and as part of the organisational restructuring, Operating Excellence departments were established centrally and at each operation to drive continuous improvement. They apply the "full potential" methodology to challenge existing operating practices, identify opportunities and create value.

The departments implemented the operating model by standardising and strengthening production processes, improving collaboration between key areas, defining clear roles and responsibilities and seeking to reduce the variability and deviation from production plans so as to optimise asset performance. A key aspect of the methodology is that the operating departments originate and lead the initiatives, with support from Operating Excellence, which assist with the development of the necessary skills and culture.

In 2018 more than 50 initiatives were implemented at the Group's operations, making a significant contribution to efficiency. The success of operating excellence is gaining momentum and new opportunities are being identified to further improve assets usage and performance, and energy efficiency, through the implementation of innovative solutions.

**53%**

through productivity improvements

**\$184  
million**

of savings achieved in 2018

**47%**

through more efficient contract and input negotiations, consumption rates and better use of maintenance resources

## INCREASING CONCENTRATORS THROUGHPUT

### LOS PELAMBRES

In 2017 a study identified the main variables affecting plant performance as ore hardness, granulometry and amount of ore circulating through the pebble crushers.

Using this information, the performance of the SAG mills improved by 2.4% during 2017, which was better than expected based on the models that had been developed using historical performance data. In 2018 further improvements were implemented, again exceeding the performance predicted by the models with throughput increasing by a further 6.5%.

### CENTINELA

Historical data were used to build a virtual milling system in order to improve the operation of the milling circuit at Centinela, through testing hypotheses, identifying opportunities for improvement and implementing design improvements. As a result, the performance of the SAG mill increased by 10% in 2018, compared with 2017.

Improvements were made not only at the mill but also in the way it was fed from the stockpile and by changing the blasting procedure to improve fragmentation.

## INNOVATION

The Group believes that innovation is critical to its strategy of creating long-term value and is a key enabler of safe, sustainable competitiveness and growth. This requires out-of-the-box thinking, the creation and nurture of new ideas and the adoption of new technology, as well as incremental improvements.

The Group fosters a culture that supports innovation and, as one of its core values, this culture is strengthened by the recognition and support of actions by individuals and teams to further the adoption of innovation within the Group.

An innovation roadmap has been developed to prioritise the adoption of technology and transformational programmes in response to the challenges they face and their potential benefits. In 2018 the focus was on strengthening operating systems, communication networks and cyber security in order to provide a robust base to develop and implement future initiatives.

### INNOVATION MODEL

An innovation model has been developed based on three pillars: operating innovation, strategic innovation and digital transformation.

Through operating innovation, the Group focuses on the present, solving issues and challenges that limit each operation's ability to achieve full potential. In parallel, strategic innovation and digital transformation focus on tomorrow's operations, addressing the main challenges for the future and capturing the key opportunities for the Group.

### OPERATING INNOVATION

To apply new solutions to existing operations by adopting existing innovations from the market or co-developing new ones.

This process is supported by InnovAminerals, an open platform where challenges are shared and the ideas to solve them are generated from inside and outside the Group. These ideas are evaluated and then submitted to the Innovation Board, which decides which ones to implement.

## OPEN INNOVATION PLATFORM

### INNOVAMINERALS

Since the beginning of the programme in 2016, over 400 ideas have been uploaded to the platform.

49 of these have been presented to the Innovation Board and 31 have been approved for implementation.

16 have been either implemented or are in the advanced stages of being implemented.

## STRATEGIC INNOVATION

To co-develop and adapt solutions to challenges the Group has defined as priorities for its development and growth.

Current initiatives being explored include leaching primary sulphides at competitive rates of recovery, reducing the volume and improving the monitoring of tailings, and transporting large volumes of material over long distances.

## CATHODE PRODUCTION THROUGH NEW TECHNOLOGY WITH CUPROCHLOR-T®

This project seeks to extend the life of the Zaldívar mine using the existing infrastructure but applying a new technology to produce copper cathodes.

CuproChlor-T® is being developed in-house to economically leach chalcopyrite (primary sulphide) through the use of a chloride medium and applying temperature.

This initiative is currently in the pilot plant stage of testing.

## DIGITAL TRANSFORMATION

To combine information and operating technologies to capture improvements in productivity, cost reduction and safety in a sustainable way, through areas such as data management and integrated real-time analysis, process automation and robotics substitution.

Current projects under examination include digitising management functions, applying advanced analytical technologies to underpin operating excellence at the operations, implementing integrated operations management tools, adopting autonomous mine equipment for the development of future deposits and robotising some maintenance activities.

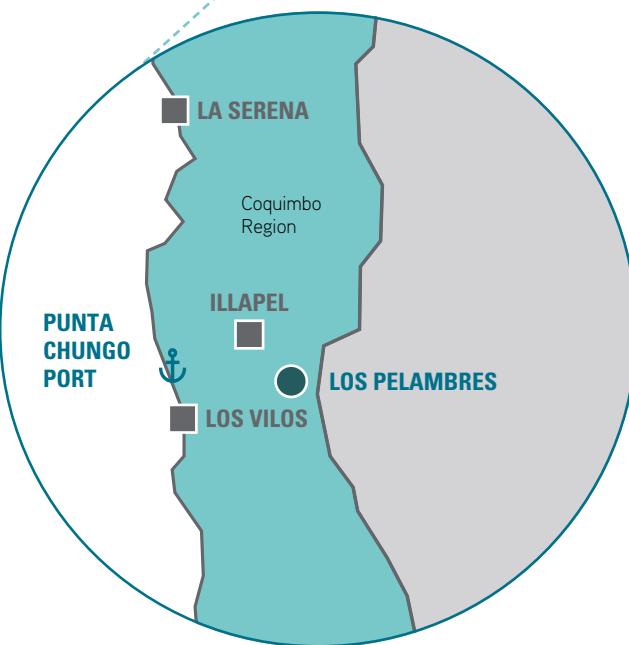
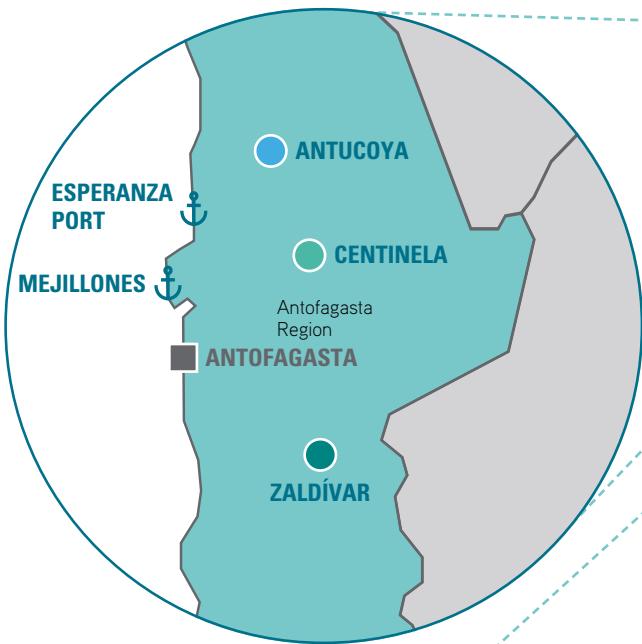
## INTEGRATED OPERATIONS MANAGEMENT (IOM)

IOM is a project carried out by the Group during 2018. Its aim was to improve the prediction of operating variables and to support decision-making through the use of integrated data from the whole value chain, in order to minimise the variability of various stages of the production process.

This included installing new equipment and sensors to capture better information, testing the use of remote operation and building an integrated operations control centre.

During 2019 work will be conducted to close technical and infrastructural gaps and to collect all the information needed to make a decision on whether to implement the project.

# BUSINESS UNITS



PACIFIC OCEAN



Los Pelambres is located in the Coquimbo Region of central Chile and Centinela, Antucoya, Zaldívar and the transport division are located in the Antofagasta Region of northern Chile.



### LOS PELAMBRES

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### CENTINELA

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### ANTUCOYA

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### ZALDÍVAR

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### TRANSPORT DIVISION

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### GROWTH PROJECTS AND OPPORTUNITIES

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**725,300**

Tonnes of copper produced in 2018

**210,100**

Ounces of gold produced in 2018

**13,600**

Tonnes of molybdenum produced in 2018

**\$1.29/lb**

Net cash costs<sup>1</sup> in 2018

● Los Pelambres

● Centinela

● Antucoya

● Zaldívar

● Capital city

■ Cities and town centres

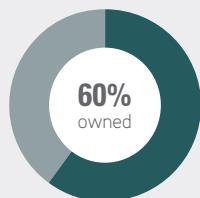
⚓ Ports

1. Non IFRS measure, refer to the alternative performance measures in Note 37 to the financial statements.

## MINING DIVISION

# LOS PELAMBRES

Los Pelambres is a sulphide deposit in Chile's Coquimbo Region, 240 km north of Santiago. It produces copper concentrate (containing gold and silver) and molybdenum concentrate through a milling and flotation process.



### 2018 PRODUCTION

COPPER (TONNES)	<b>357,800 +4.1%</b>
MOLYBDENUM (TONNES)	<b>13,300 +26.7%</b>
GOLD (OUNCE)	<b>63,200 +14.1%</b>

### 2018 FINANCIALS

EBITDA	<b>\$1,428m 0%</b>
NET CASH COSTS	<b>\$0.91/lb (10.8%)</b>

### 2019 FORECAST

COPPER (TONNES)	<b>360–370,000</b>
MOLYBDENUM (TONNES)	<b>9.5–10,500</b>
GOLD (OUNCE)	<b>50–60,000</b>



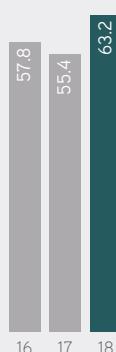
**COPPER PRODUCTION ('000 TONNES)**

**357,800 tonnes produced in 2018**



**MOLYBDENUM PRODUCTION ('000 TONNES)**

**13,300 tonnes produced in 2018**



**GOLD PRODUCTION ('000 OUNCES)**

**63,200 ounces produced in 2018**



## 2018 PERFORMANCE

### OPERATING PERFORMANCE

Los Pelambres finished the year strongly, outperforming both production and cost guidance for the full year and again confirming its position as a stable and reliable operation.

EBITDA at Los Pelambres was \$1,428 million in 2018, compared with \$1,428 million in 2017, reflecting increased sales volumes and lower operating costs as copper, molybdenum and gold sales volumes increased and the molybdenum price strengthened.

### PRODUCTION

Copper production for the year increased by 4.1% to 357,800 tonnes compared to 2017 due to higher throughput.

Molybdenum production in 2018 was 13,300 tonnes, 26.7% higher than in 2017 due to record recoveries and higher grades and throughput.

### CASH COSTS

Cash costs before by-product credits at \$1.52/lb were 5.6% higher than in 2017, following the one-off bonus paid after labour negotiations with the plant and mine unions early in the year and with a rise in input prices only partially offset by higher throughput.

Net cash costs for 2018 were \$0.91/lb compared with \$1.02/lb in 2017 due to significantly higher credits from molybdenum sales.

### CAPEX

Phase 1 of the Los Pelambres Expansion Project was approved by the Board in November. Construction of this \$1.3 billion project will start at the beginning of 2019 and first production is expected in the second half of 2021. Throughput at the plant will be increased from the current capacity of 175,000 tonnes of ore per day to an average of 190,000 tonnes of ore per day. The project includes a \$500 million desalination plant and an additional SAG mill, ball mill and corresponding flotation circuit with six additional cells. The expansion will add an average of 60,000 tonnes of copper a year to the mine's production over the first 15 years of operation.

**+** See pages 70 to 72 for more information

Capital expenditure was \$255 million, including \$54 million on mine development.

### SAFETY

Regrettably, during the year a contractor suffered a fatal accident. This is Los Pelambres' first fatality since September 2014. A full investigation has been completed and changes implemented as a result of the lessons learned.

## OUTLOOK FOR 2019

The forecast production for 2019 is 360–370,000 tonnes of payable copper (slightly higher than in 2018), 9.5–10,500 tonnes of molybdenum and 50–60,000 ounces of gold.

Cash costs before by-product credits for 2019 are forecast to be approximately \$1.50/lb and net cash costs around \$1.05/lb.

## MINING DIVISION

# CENTINELA

Centinela was formed in 2014 from the merger of the Esperanza and El Tesoro mining companies. Centinela mines sulphide and oxide deposits 1,350 km north of Santiago in the Antofagasta Region, one of Chile's most important mining areas.

Centinela produces copper concentrate (containing gold and silver) through a milling and flotation process, and molybdenum concentrate. It also produces copper in cathodes, using the solvent extraction and electrowinning (SX-EW) process.



### 2018 PRODUCTION

COPPER (TONNES)

**248,000 +8.6%**

GOLD (OUNCE)

**146,900 (6.4%)**

MOLYBDENUM (TONNES)

**300 (first year)**



**COPPER CONCENTRATE ('000 TONNES)**

**155,500 tonnes produced in 2018**

### 2018 FINANCIALS

EBITDA

**\$645m (25%)**

NET CASH COSTS

**\$1.51/lb +11.0%**

### 2019 FORECAST

COPPER (TONNES)

**260–280,000**

GOLD (OUNCE)

**190–200,000**

MOLYBDENUM (TONNES)

**2,000**



**COPPER CATHODES ('000 TONNES)**

**92,500 tonnes produced in 2018**



**GOLD ('000 OUNCES)**

**146,900 ounces produced in 2018**



## 2018 PERFORMANCE

### OPERATING PERFORMANCE

Centinela's performance strengthened during the year with the copper grade and throughput in the sulphide line increasing quarter by quarter. Additionally, the new Encuentro Oxides plant commissioned in 2017 achieved its design throughput capacity during the year, increasing cathode production by 28,000 tonnes and utilising most of the SX-EW plant's production capacity.

EBITDA at Centinela was \$645 million, compared with \$859 million in 2017, despite higher copper production, as the realised copper and gold price decreased by 4.5% and 2.3% respectively.

### PRODUCTION

Copper production for 2018 was 248,000 tonnes, 8.6% higher than in 2017, primarily as a result of higher throughput at Centinela Concentrates and the ramp-up at Encuentro Oxides, and partially offset by lower grades in both the sulphide and oxide lines.

Production of copper in concentrates was 155,500 tonnes, 5.1% lower than 2017, mainly reflecting lower average grades and the consequent drop in recoveries, partially offset by higher throughput.

New production from Encuentro Oxides contributed to cathode production of 92,500 tonnes in 2018, 43.4% higher than in 2017.

Gold production for the year 2018 was 146,900 ounces, 6.4% lower than in 2017, mainly due to lower grades and recoveries.

The new molybdenum plant started operation during the year producing 300 tonnes of molybdenum in concentrates.

### CASH COSTS

Cash costs before by-product credits for the year were \$1.89/lb, 4.4% higher than in 2017, mainly a result of higher input prices, offset by higher production.

Net cash costs were \$1.51/lb, 11.0% higher than in 2017, reflecting higher cash costs before by-product credits and lower credits from gold production.

### CAPEX

Capital expenditure was \$502 million, including \$279 million on mine development.

## OUTLOOK FOR 2019

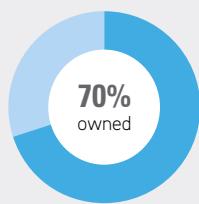
Production for 2019 is forecast at 260–280,000 tonnes of payable copper, 190–200,000 ounces of gold and 2,000 tonnes of molybdenum, with production decreasing in the second half of the year as grades decline.

Cash costs before by-products in 2019 are forecast to be approximately \$1.85/lb and net cash costs \$1.35/lb.

## MINING DIVISION

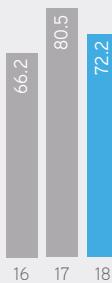
# ANTUCOYA

Antucoya is approximately 1,400 km north of Santiago and 125 km north-east of the city of Antofagasta. Construction of the project was completed in 2015 with full production achieved in 2016. Antucoya mines and leaches oxide ore to produce copper cathodes using the solvent extraction and electrowinning (SX-EW) process.



### 2018 PRODUCTION

COPPER (TONNES)

**72,200 (10.3%)**

### 2018 FINANCIALS

EBITDA

**\$142m (32%)**

CASH COSTS

**\$1.99/lb +18.5%**

#### COPPER PRODUCTION ('000 TONNES)

**72,200 tonnes produced in 2018**

### 2019 FORECAST

COPPER (TONNES)

**75–80,000**

## 2018 PERFORMANCE

### OPERATING PERFORMANCE

Antucoya had a challenging start to the year following a conveyor failure in December 2017 and lower plant availability during the first half of 2018. These affected both throughput and recoveries, but performance improved during the last quarter of 2018 and this is expected to continue into 2019.

EBITDA at Antucoya was \$142 million compared with \$207 million in 2017, reflecting Antucoya's lower sales volumes and lower realised prices.

### PRODUCTION

Copper production was 72,200 tonnes, 10.3% lower than in 2017, due to lower throughput and recoveries.

### CASH COSTS

Cash costs for 2018 were \$1.99/lb, 18.5% higher than in 2017, mainly because of lower production and higher input prices.

### CAPEX

Capital expenditure was \$43 million, including \$19 million on mine development.

### OUTLOOK FOR 2019

Production in 2019 is forecast to be 75–80,000 tonnes and cash costs are expected to be approximately \$2.00/lb.

# ZALDÍVAR

Zaldívar is an open-pit, heap-leach copper mine operating at an average elevation of 3,000 metres above sea level, approximately 1,400 km north of Santiago and 175 km south-east of the city of Antofagasta. The Group acquired a 50% interest in the asset from Barrick Gold Corporation in 2015 and is the operator of the mine.



## 2018 PRODUCTION<sup>1</sup>

COPPER (TONNES)

**47,300 (8.5%)**



## 2018 FINANCIALS

EBITDA

**\$87m (35%)**

CASH COSTS

**\$1.94/lb +19.8%**

### COPPER PRODUCTION ('000 TONNES)

**47,300 tonnes produced in 2018**

## 2019 FORECAST

COPPER (TONNES)<sup>1</sup>

**55–60,000**



1. Attributable share of production.

## 2018 PERFORMANCE

### OPERATING PERFORMANCE

During 2018 Zaldívar successfully focused on improving copper recoveries following a decline in 2017, although this effort was offset by lower throughput arising from multiple stoppages affecting the uptime of the plant.

Attributable EBITDA was \$87 million compared with \$134 million in 2017.

### PRODUCTION

Copper production was 47,300 tonnes, 8.5% lower than 2017, mainly due to lower throughput, which was partially offset by higher grades and recoveries.

### CASH COSTS

Cash costs for 2018 were \$1.94/lb, 19.8% higher than the previous year, mainly because of the impact of lower production and higher input prices.

### CAPEX

Attributable capital expenditure for 2018 was \$52 million, which includes approximately \$10 million with respect to mine development. These amounts are not included in the Group's capital expenditure figures.

### OUTLOOK FOR 2019

Attributable copper production in 2019 is forecast to be 55–60,000 tonnes at a cash cost of approximately \$1.75/lb.

### OTHER MATTERS

During 2018 Zaldívar submitted an Environmental Impact Assessment to extend the company's water extraction permit from current sources beyond 2025 in line with its existing life of mine.

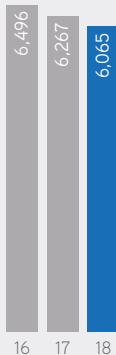
Zaldívar's final pit phase, which represents approximately 18% of current ore reserves, impacts a portion of Minera Escondida's mine property, as well as infrastructure owned by third parties (road, railway, powerline and pipelines). Mining of the final pit phase is subject to agreements or easements to access these areas and relocate this infrastructure.

# TRANSPORT DIVISION

This division, known as Ferrocarril de Antofagasta a Bolivia (FCAB), provides rail and truck services to the mining industry in the Antofagasta Region.

The transport division operates its own railway network, with access to Bolivia and the two largest ports in the region, Mejillones and the city of Antofagasta. The port at Antofagasta is managed by Antofagasta Terminal Internacional (ATI), which is minority-owned by the Group.

## 2018 TONNAGE TRANSPORTED ('000 TONNES)



**6.1M TONNES  
TRANSPORTED IN 2018**

## 100% OWNED 1888: start of operations

## 2018 FINANCIALS EBITDA \$89m (9%)

## 2018 PERFORMANCE

During the year, the transport division continued to improve its operations through the application of its Management Model, which is based on the three key areas of sustainability, productivity and cost management. Tonnage transported was 6.1 million, 3% down on the previous year as some existing customers' cathode production fell and others' operations were disrupted.

As production from existing customers has fallen it has become more important that the division expands its customer base and it has been successful in winning two important rail contracts from mining clients during the year. Both contracts are large tonnage, long-term, take or pay contracts. New locomotives, for the first of these contracts, were commissioned during the second half of the year as the first stage of modernising the current fleet and generating long-term operating benefits. Seven additional new locomotives will be commissioned in 2019, which will service new contracts as well as extensions of the current ones.

In 2018 the FCAB celebrated 130 years of continuous operation in Chile since its incorporation in the UK in 1888. This important milestone was commemorated with local stakeholders.

## OPERATING PERFORMANCE

The division's EBITDA was \$88.9 million in 2018, which was better than expected, but 9% lower than the previous year, mainly due to lower volumes and increased costs, including the cost of upgrading the safety standards at all of the division's sites and improving the safety features of the light vehicle fleet.

### TRANSPORT TONNAGE

During 2018 the division transported 6.1 million tonnes, slightly lower than in 2017, mainly due to lower production levels from some of the company's customers.

Looking ahead, the company will transport an increasing amount of bulk materials, particularly copper concentrates.

### COSTS

Cost management was focused on optimising the division's business processes to ensure long-term competitiveness. The Group's Cost and Competitiveness Programme has been applied at the division to reshape its cost structure and to improve operating standards. The programme achieved benefits of \$4.5 million in 2018, through increased revenues and lower costs. The main areas of improvement were in organisational effectiveness, lower prices in selected contracts, and improved operating and maintenance management. During the year, fleet reliability and availability improved compared with previous years, with a significant increase in the amount of preventive, as opposed to corrective, maintenance.



## CUSTOMERS MAP



## OUTLOOK

The division will continue to develop new business opportunities and expects significant future growth from the award of new contracts. Improvements are expected in maintenance, using knowledge gained from the mining division and best practices in the railway industry, and benefiting from the new locomotives and higher fleet availability.

Diversification of cargo will be an area of focus in the short and medium term, with bulk cargoes such as lime, explosives, diesel and concentrates being targeted.

## SUSTAINABILITY

The division's sustainability activities are aligned with those of the mining division's operations in the region, facilitating the exchange of best practices and experiences within the Group.

No fatalities or accidents with serious consequences to people were reported in 2018 and the Lost Time Injury Frequency Rate (LTIFR) fell 7% to 6.7 compared with 7.2 in 2017, as the maturity level of safety processes increased during the year.

In 2019 the focus will be on consolidating the application of the various sustainability programmes and implementing a new programme on Critical Behaviours. In the health area, a new occupational health unit will be created and controls over contractors will be improved through the implementation of a new programme.

In community matters, 2018 was marked by a number of high-profile activities to commemorate the FCAB's 130th anniversary and highlight the long relationship between the Company and the Antofagasta Region and its inhabitants.

Finally, looking to the future, FCAB plans to convert its real estate in the centre of Antofagasta city from industrial to urban use, in harmony with the gradual redevelopment of the city.



# GROWTH PROJECTS AND OPPORTUNITIES

The Group's approach to considered growth allows it to focus on controlling capital costs and optimising production from existing operations. It achieves this through careful project management and constant monitoring of the efficiency of its mines, plants and transport infrastructure. In 2018 Centinela's Encuentro Oxides brownfield project ramped up to full capacity and Centinela's molybdenum plant started operating. Additionally, Phase 1 of the Los Pelambres expansion was approved, with construction beginning in early 2019.

## GROWTH PROJECTS

Where possible, debottlenecking and incremental plant expansions are used to increase throughput and improve overall efficiencies, as these projects often have lower capital expenditure requirements and generate higher returns than greenfield projects.

The Group continues to review its options for maximising returns and reducing the capital cost of projects and is enhancing the capabilities of the project team to improve project execution strategy, management and control.

## LOS PELAMBRES EXPANSION

This expansion project is divided into two phases in order to simplify the permitting application process.



## PHASE 1

This phase is designed to optimise throughput within the limits of the existing operating, environmental and water extraction permits. The Board approved the project in October 2018 and the award of major contracts and long lead items with construction beginning in early 2019.

Throughput at the plant will increase from the current capacity of 175,000 tonnes of ore per day to an average of 190,000 tonnes of ore per day and first production is expected in the second half of 2021. The plant expansion includes an additional SAG mill, ball mill and the corresponding flotation circuit with six additional cells.

Annual copper production will be increased by 40,000 tonnes in the first full year of the expansion, reaching 70,000 tonnes towards the end of the first 15 years as the hardness of the ore increases and the benefit of higher milling capacity is fully realised. Over the full period production will average approximately 60,000 tonnes per year.

The capital cost of the project is \$1.3 billion, which includes \$500 million for a 400-litres per second desalination plant and water pipeline. The desalination plant will supply water for the expansion and a potential further growth phase (Phase 2) and will act as a back-up for the existing operation in extreme dry conditions, were these to occur. Desalinated water will be pumped from the coast to the Mauro tailings storage facility, where it will connect with the existing recycling circuit returning water to the Los Pelambres concentrator plant.

The EIA for the expansion was approved in February 2018.

## PHASE 2

In the second phase of expansion, throughput will increase to 205,000 tonnes of ore per day and, using the large resource base of Los Pelambres, the mine's life will be extended by 15 years beyond the current 20. As part of this development the Group will submit a new EIA to increase the capacity of the Mauro tailings storage facility and the mine waste dumps, and extend certain operating permits. Work began on the environmental baseline study for the new EIA in 2017 and will be completed in 2020, along with the early stages of community engagement activities, in preparation for submitting the EIA for approval in 2020.

Capital expenditure for this phase was estimated in the pre-feasibility study completed in 2014 at approximately \$500 million, the majority being on mining equipment, and increasing the capacity of the concentrator and the Mauro tailings facilities. The conveyors from the primary crusher in the pit to the concentrator plant will also have to be repowered to support the additional throughput.

Critical studies on tailings and waste storage capacity have been undertaken and are now progressing towards the feasibility study stage. However, the project will only proceed once Phase 1 is significantly advanced and will require the submission of extensive permit applications, including the new EIA. First production from this phase is estimated to be in 2023 at the earliest, depending in large part on the length of the permitting process. Phase 2 is expected to increase copper production by 35,000 tonnes per year.

**+60,000 tonnes**

annual copper production

**15 YEARS**

Life-of-Mine extension

**+35,000 tonnes**

annual copper production



### CENTINELA SECOND CONCENTRATOR

During 2018 the Company considered two growth alternatives for Centinela: the construction of a second concentrator, and the expansion of the existing concentrator. Following a detailed evaluation of the two alternatives it has decided to progress the studies on a second concentrator, as this alternative offers the best potential combination of financial returns and risk profile.

The construction of a second concentrator and tailings deposit some 7 km from the existing concentrator is being considered in two phases. Phase 1 would have an ore throughput capacity of 90,000 tonnes per day, producing copper, and gold and molybdenum as by-products, with an annual production of approximately 180,000 tonnes of copper equivalent. Once Phase 1 has been completed and is operating successfully, a further expansion is possible and would involve increasing the capacity of the concentrator to 150,000 tonnes of ore per day with annual production increasing to 250,000 tonnes of copper equivalent, maximising the potential of Centinela's large resource base.

Ore for the second concentrator would be sourced initially from the Esperanza Sur deposit, around 4 km from the Esperanza pit, and later from Encuentro Sulphides. The latter lies under the Encuentro Oxides reserves, which are expected to be depleted by 2026.

The EIA for both phases of the project was approved in 2016 and the feasibility study for Phase 1 is expected to be completed during 2020. The capital cost estimated in the 2015 pre-feasibility study for Phase 1 was \$2.7 billion, which included pre-stripping, mining equipment, a concentrator plant, a new tailings deposit, water pipeline and other infrastructure, plus the owner's and other costs. The feasibility study will update these estimates as well as including an evaluation of the potential disposal of Centinela's water infrastructure and the evaluation of a new milling and crushing strategy using high pressure rolls rather than the more traditional SAG mills.

Centinela second concentrator: Phase 1

# 180,000 tonnes

copper equivalent production per annum

### ZALDÍVAR CHLORIDE LEACH PROJECT

The feasibility study for the Zaldívar Chloride Leach Project was completed in 2018 and the project is expected to be brought to the Board for approval during 2019, following the completion of detailed engineering and subject to a favourable outcome or progress on the EIA for the extension of water rights beyond 2025. The application was submitted during 2018 and is currently being reviewed by the water regulator, a process which includes consultation with the relevant communities.

The project will improve copper recoveries from the secondary sulphides ore by adjusting the leach process through the addition of chlorides to increase the chlorine content of the leach solution. This process is based on a proprietary technology called CuproChlor® that was developed by the Group at its Michilla operation (which closed in 2015) and was based on many years of experience at the mine, which had similar ore types to those that are processed at Zaldívar.

The project requires an upgrade of the Solvent Extraction (SX) plant and the construction of additional washing ponds at an estimated capital cost of \$175 million. If approval is granted this year, the project completion date is expected to be in 2021.

As the Group equity accounts its interest in Zaldívar, capital expenditure at the operation is not included in Group total capital expenditure amounts.

### TWIN METALS MINNESOTA

Twin Metals Minnesota is a wholly-owned copper, nickel and platinum group metals (PGM) underground mining project which holds the Maturi, Maturi Southwest, Birch Lake and Spruce Road copper-nickel- PGM deposits in north-eastern Minnesota, US. In 2018 an update of the pre-feasibility study was completed on an 18,000 tonnes of ore per day project producing an average of 42,000 tonnes of copper per year plus nickel and PGM as by-products, the equivalent of some 65,000 tonnes of copper per annum.

In 2017 the Group commenced preparation of the Mine Plan of Operations (MPO), a prerequisite for permitting applications, and expects to complete it in 2019. Following a thorough review, it will be ready to be submitted to the relevant Federal and State agencies. While the MPO is being reviewed the Company will advance the feasibility study.

After reaffirming Twin Metal's right to renew its two federal mineral leases, the Department of Interior reinstated the leases to TMM in May 2018 and they are expected to be renewed during 2019. In October 2018, the US Forest Service announced its decision to rescind its proposal to withdraw federal land from the Superior National Forest.

### PROJECT COMPLETED DURING THE YEAR

#### MOLYBDENUM PLANT

The new molybdenum plant at Centinela started production in the third quarter of 2018 and is designed to produce an average of 2,400 tonnes of molybdenum per year. This allows Centinela to benefit from another by-product credit, lowering its unit net cash costs.

# EXPLORATION ACTIVITIES

The Group focuses on expanding its mineral resource base to ensure its long-term future, undertaking exploration activities in Chile and abroad, with particular focus on the Americas.

Exploration in Chile and internationally remains a key contributor to the sustainable and long-term growth of the Group's copper business. The Group has an active programme of early and intermediate-stage projects managed by its exploration teams in Santiago, Lima and Toronto. Exploration is conducted using these in-house teams and through partnerships with third parties, with the aim of building a portfolio of long-term opportunities in Chile and abroad, most specifically in the Americas.

The Group's exploration and evaluation expenditure, which includes expenditure on pre-feasibility studies, increased by 42% to \$98 million compared with 2017, following a reduction in expenditure when the copper market was weaker and cost control was critical.

## CHILE

The Group's exploration programmes are in the copper belts of northern and central Chile, particularly areas that are a good prospect for manto and IOCG (Iron Ore Copper Gold)-type deposits, as well as the main porphyry copper belts.

During 2018 drilling and geological modelling took place at several projects and in the Centinela region evaluation work continued to identify new high-quality projects on land belonging to Antofagasta and its partners.

## INTERNATIONAL

International exploration efforts remain concentrated on the key copper belts of North and South America, with a strong focus on Peru and western North America. South American activities were led from the Group's office in Lima and North American efforts from the office in Toronto.



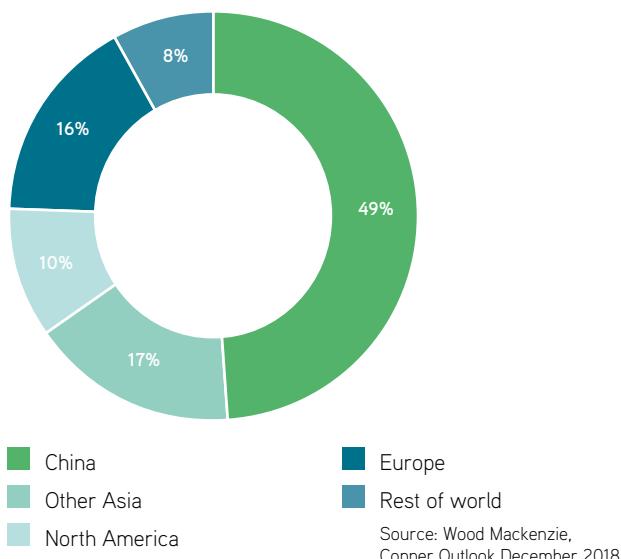
# THE COPPER MARKET: SUPPLIERS TO A CHANGING WORLD

As the world develops and becomes ever more environmentally aware, the demand for copper increases. The Group is responding by supplying the copper needed for a more sustainable world.

## MARKET ENVIRONMENT

During the first half of 2018 the copper price was well supported, trading above \$3.00/lb on good demand growth, favourable world economic prospects and production uncertainties due to an unusually large number of union negotiations. However, by the middle of the year no significant labour disruptions had occurred and investment community sentiment had turned negative as trade relations deteriorated between the US and China. Although the fundamental supply and demand characteristics remained positive for the year, sentiment outweighed this and copper prices came under pressure, correcting below \$3.00/lb, and trading between \$2.65/lb and \$2.85/lb during the second half of the year.

## REFINED CONSUMPTION BY REGION



## REFINED COPPER

### 2018 MARKET PERFORMANCE

The LME copper price at the beginning of 2018 was \$3.27/lb and ended the year at \$2.70/lb, averaging \$2.96/lb over the year, an increase of 5.9% compared with 2017.

Copper supply was relatively steady during the year, with mine production facing a low disruption rate compared with previous years. Demand was supported by the good performance of the global economy, especially in China, despite the trade tension between China and the US.

Global mine production accounts for some 87% of the total refined supply and is estimated to have grown by 2.8% during 2018, in part driven by good performance and a low rate of disruption in Chile, the largest producer in the world, where mine production is estimated to have increased by 5% compared to 2017.

Secondary copper supply is estimated to have remained flat or increased marginally as the drop in the copper price reduced scrap availability and the Chinese ban on the import of lower-grade scrap disrupted the usual trade flow and treatment of scrap. Scrap conversion to refined copper is coming under pressure in China as the country enacts environmentally-friendly legislation restricting the import of "dirty" lower-grade scrap, which has meant that demand in China for other forms of copper (concentrate, blister, cathodes) has been firm.

The Group's average realised price in 2018 was \$2.81/lb, 5% below the average LME price, reflecting a net negative provisional pricing adjustment at the end of the year of \$188 million.

### MARKET OUTLOOK

The market was in a slight deficit in 2018 and this deficit is expected to increase in 2019 as mine supply continues to be affected by the long-term trend of grade decline and lack of new investment, with few projects coming into production in the near future.

On the demand side, growth will continue to be driven by Chinese consumption and increased demand from other countries in Southeast Asia, where additional fabrication capacity has been installed in recent years. Demand will also rise as electric vehicle manufacture and investment in renewable energy increases, but the impact of this will be more significant in three or four years' time.



## COPPER CONCENTRATE

Some 70% of the Group's copper production is in the form of copper concentrates, so the dynamics of the concentrate market are important and affect the level of treatment and refining charges ("TC/RCs") paid by the Group. These account for some 10% of the Group's cost before by-product credits.

### 2018 MARKET PERFORMANCE

Most of the new copper production in the world is in the form of concentrates and this has been largely absorbed by new smelter capacity in China. During 2018 there was an unusually high disruption rate in the custom smelter sector, the most significant of which was at Tuticorin in India, which has been closed since March 2018. However, with the low disruption rate to mine supply the concentrate market has moved from a deficit in the first part of the year to a small surplus in the second half, softening the spot TC/RCs towards the fourth quarter of 2018, but in line with the annual terms agreed at the end of 2017.

### MARKET OUTLOOK

Further increases in smelter capacity and the reopening of Tuticorin are expected in 2019, while growth in concentrate production will be limited, leading to a tight copper concentrate market that should lead to declining TC/RCs. The annual terms for 2019 have been agreed at levels close to \$80 per dry tonne of concentrate and 8c/lb of refined copper, below the levels agreed for 2018.

## GOLD

The gold price during 2018 decreased by about 1.6%, peaking during the first quarter of the year at an average of \$1,330/oz. Macroeconomic events such as rising US interest rates and the trade tension between China and the US helped support the price of gold during the year.

Gold averaged \$1,270/oz in 2018 compared with \$1,258/oz in 2017 and closed the year at \$1,282/oz. At the beginning of 2019 the consensus price forecast for the year was slightly under \$1,300/oz.

## MOLYBDENUM

Molybdenum prices continued to perform strongly in 2018 due to increased demand from the steel industry and limited increases in production. The price averaged \$11.9/lb for the year compared with \$8.2/lb in 2017, and the consensus price for 2019 at the beginning of the year was about \$10.5/lb.

# STRONG OPERATING PERFORMANCE

**"Our strong operating performance during the year and asset sales have allowed us to increase our dividend pay-out ratio."**

Alfredo Atucha, CFO



## FINANCIAL REVIEW FOR THE YEAR ENDED 31 DECEMBER 2018

	Year ended 31.12.2018	Year ended 31.12.2017
	Total \$m	Total \$m
<b>Revenue</b>	<b>4,733.1</b>	4,749.4
EBITDA (including results from associates and joint ventures)	2,228.3	2,586.6
Total operating costs	(3,388.1)	(2,908.3)
<b>Operating profit from subsidiaries</b>	<b>1,345.0</b>	1,841.1
Net share of results from associates and joint ventures	22.2	59.7
<b>Total profit from operations, associates and joint ventures</b>	<b>1,367.2</b>	1,900.8
Net finance expense	(114.5)	(70.0)
<b>Profit before tax</b>	<b>1,252.7</b>	1,830.8
Income tax expense	(423.7)	(633.6)
<b>Profit from continuing operations</b>	<b>829.0</b>	1,197.2
<b>Discontinued operations</b>	<b>51.3</b>	0.5
<b>Profit for the year</b>	<b>880.3</b>	1,197.7

Attributable to:

Non-controlling interests	336.6	447.1
<b>Profit for the financial year attributable to the owners of the parent</b>	<b>543.7</b>	750.6

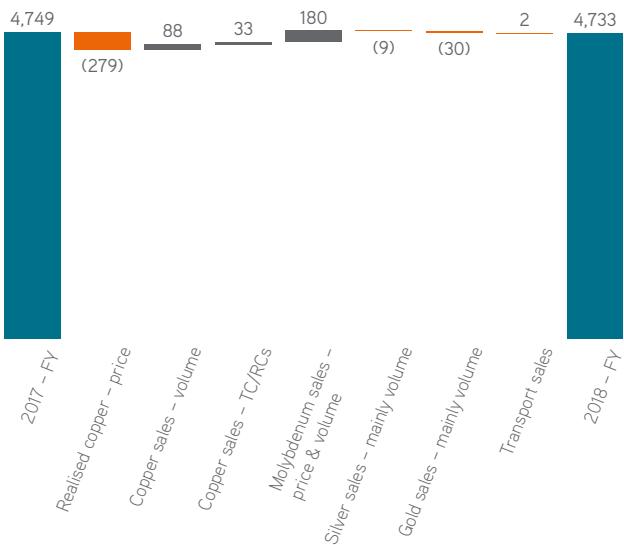
Basic earnings per share	US cents	US cents
From continuing operations	51.5	76.1
From discontinued operations	3.6	0.1
<b>Total continuing and discontinued operations</b>	<b>55.1</b>	76.2

The \$206.9 million decrease in the profit for the financial year attributable to the owners of the parent from \$750.6 million in 2017 to \$543.7 million in the current year reflected the following factors:



## REVENUE

The \$16.3 million decrease in revenue from \$4,794.4 million in 2017 to \$4,733.1 million in the current year reflected the following factors:



## REVENUE FROM THE MINING DIVISION

Revenue from the mining division decreased by \$18.0 million, or 0.4%, to \$4,560.3 million, compared with \$4,578.3 million in 2017. The decrease reflected a \$158.0 million reduction in copper sales, largely offset by increased by-product revenues, in particular molybdenum sales.

### REVENUE FROM COPPER SALES

Revenue from copper concentrate and copper cathode sales decreased by \$158.0 million, or 3.9%, to \$3,915.2 million, compared with \$4,073.2 million in 2017. The decrease reflected the \$279.4 million impact of lower realised prices, partly offset by the \$88.2 million impact of higher sales volumes and the \$32 million impact of lower treatment and refining charges.

### (I) REALISED COPPER PRICE

The average realised price decreased by 6.3% to \$2.81/lb in 2018 (2017 – \$3.00/lb), resulting in a \$279.4 million decrease in revenue. While the LME average market price increased by 5.7% to \$2.96/lb (2017 – \$2.80/lb), this was offset by a negative provisional pricing adjustment of \$188.0 million. The provisional pricing adjustment mainly reflected the decrease in the period-end copper price to \$2.71/lb at 31 December 2018, compared with \$3.25/lb at 31 December 2017.

Realised copper prices are determined by comparing revenue (gross of treatment and refining charges for concentrate sales) with sales volumes in the period. Realised copper prices differ from market prices, mainly because, in line with industry practice, concentrate and cathode sales agreements generally provide for provisional pricing at the time of shipment with final pricing based on the average market price in future periods (normally around one month after delivery to the customer in the case of cathode sales and normally four months after delivery to the customer in the case of concentrate sales).

Further details of provisional pricing adjustments are given in Note 6 to the financial statements.

### (II) COPPER VOLUMES

Copper sales volumes reflected within revenue increased by 2.0% from 657,700 tonnes in 2017 to 671,100 tonnes in 2018 increasing revenue by \$88.2 million. This increase was due to higher copper sales volumes at Los Pelambres (14,100 tonnes) and Centinela (8,700 tonnes) as a result of increased production volumes, partly offset by lower sales volumes at Antucoya (9,500 tonnes).

### (III) TREATMENT AND REFINING CHARGES

Treatment and refining charges (TC/RCs) for copper concentrate decreased by \$33.2 million to \$244.5 million in 2018 from \$277.7 million in 2017, mainly due to a decrease in the average TC/RCs. Treatment and refining charges are deducted from concentrate sales when reporting revenue, hence the decrease in these charges has had a positive impact on revenue.

## REVENUE FROM MOLYBDENUM, GOLD AND OTHER BY-PRODUCT SALES

Revenue from by-product sales at Los Pelambres and Centinela relate mainly to molybdenum and gold and, to a lesser extent, silver. Revenue from by-products increased by \$140.0 million or 27.7% to \$645.1 million in 2018, compared with \$505.1 million in 2017. This increase was due to higher molybdenum revenue, partly offset by lower gold and silver sales.

Revenue from molybdenum sales (net of roasting charges) was \$348.0 million (2017 – \$168.5 million), an increase of \$179.5 million. The increase was due to the higher realised price of \$12.4/lb (2017 – \$8.7/lb) and increased sales volumes of 14,000 tonnes (2017 – 9,600 tonnes).

Revenue from gold sales (net of treatment and refining charges) was \$248.0 million (2017 – \$278.4 million), a decrease of \$30.4 million which mainly reflected a decrease in volumes as well as a slightly lower realised price. Gold sales volumes decreased by 9.2% from 218,200 ounces in 2017 to 198,100 ounces in 2018, mainly due to lower grades and recoveries at Centinela. The realised gold price was \$1,256.3/oz in 2018 compared with \$1,280.4/oz in 2017, reflecting the average market price for 2018 of \$1,269.6/oz (2017 – \$1,257.6/oz), adjusted for a negative provisional pricing adjustment of \$1.8 million.

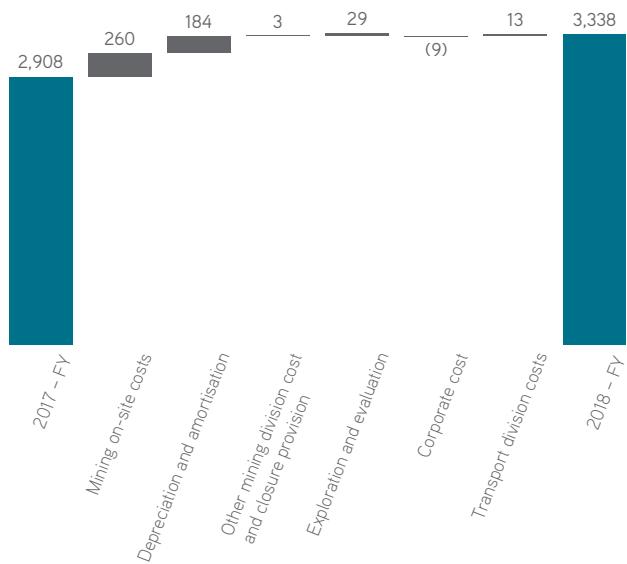
Revenue from silver sales decreased by \$9.1 million to \$49.1 million (2017 – \$58.2 million). The decrease was due to a decrease in the realised silver price to \$15.3/oz (2017 – \$16.8/oz) as well as lower sales volumes of 3.3 million ounces (2017 – 3.5 million ounces).

## REVENUE FROM THE TRANSPORT DIVISION

Revenue from the transport division (FCAB) slightly increased by \$1.7 million or 1.0% to \$172.8 million, with improved revenue from the sale of industrial water (\$3.6 million impact) being partly offset by slightly lower tonnages transported, mainly due to some customers' lower production levels.

## TOTAL OPERATING COSTS

The \$479.8 million increase in total operating costs from \$2,908.3 million in 2017 to \$3,388.1 million in the current year reflected the following factors:



## OPERATING COSTS (EXCLUDING DEPRECIATION, AMORTISATION AND LOSS ON DISPOSALS) AT THE MINING DIVISION

Operating costs (excluding depreciation, loss on disposals and impairments) at the mining division increased by \$282.0 million to \$2,505.1 million in 2018, an increase of 12.7%. Of this increase, \$259.7 million is attributable to higher mine-site operating costs. This increase in mine-site costs reflected the higher production volumes and activity levels in the year and higher key input prices, partly offset by cost savings from the Group's Cost and Competitiveness Programme. As a result, weighted average unit cash costs excluding by-product credits (which are reported as part of revenue) and refining charges for concentrates (which are deducted from revenue) increased from \$1.41/lb in 2017 to \$1.55/lb in 2018.

The Cost and Competitiveness Programme has been implemented to reduce the Group's cost base and improve its competitiveness within the industry. During 2018 the programme achieved benefits of \$184 million, of which \$87 million reflected cost savings and \$97 million reflected the value of productivity improvements. Of the \$87 million of cost savings, \$70 million related to Los Pelambres, Centinela and Antucoya, and therefore impacted the Group's operating costs, and \$17 million related to Zaldívar (on a 100% basis) and therefore impacted the share of results from associates and joint ventures.

Other mining division costs increased by \$2.9 million. Exploration and evaluation costs increased by \$28.8 million to \$97.6 million (2017 – \$68.8 million). This reflected increased early-stage generative exploration activity in Chile, drilling work at Centinela and evaluation expenditure at Twin Metals. Corporate costs decreased by \$9.4 million.

## OPERATING COSTS (EXCLUDING DEPRECIATION AND LOSS ON DISPOSALS) AT THE TRANSPORT DIVISION

Operating costs (excluding depreciation and loss on disposals) at the transport division increased by \$13.4 million to \$109.2 million, mainly due to higher diesel prices and, to a lesser extent, increased contractor and labour costs.

## DEPRECIATION, AMORTISATION AND DISPOSALS

The depreciation and amortisation charge increased by \$179.4 million in 2018 to \$760.5 million (2017 – \$581.1 million). This mainly reflected higher amortisation of mine development costs at Centinela and Los Pelambres, and the start of depreciation of the Encuentro Oxides project, which achieved commercial production on 1 January 2018. The loss on disposal of property, plant and equipment was \$13.3 million, an increase of \$5.0 million (2017 – \$8.3 million).

## OPERATING PROFIT FROM SUBSIDIARIES

As a result of the above factors, operating profit from subsidiaries decreased in 2018 by 26.9% to \$1,345.0 million (2017 – \$1,841.1 million).

## SHARE OF RESULTS FROM ASSOCIATES AND JOINT VENTURES

The Group's share of results from associates and joint ventures was a profit of \$22.2 million in 2018, compared with \$59.7 million in 2017, with the decrease mainly reflecting lower profit from Zaldívar. In August 2018 the Group disposed of its interest in El Arrayan for cash consideration of \$28.0 million, resulting in a profit on disposal of \$5.8 million, which is included within the total \$22.2 million share of results from associates and joint ventures for the year.

## EBITDA

EBITDA (earnings before interest, tax, depreciation, amortisation) decreased by \$358.3 million or 13.9% to \$2,228.3 million (2017 – \$2,586.6 million). EBITDA includes the Group's proportional share of EBITDA from associates and joint ventures.

EBITDA from the Group's mining division decreased by 14.0% from \$2,488.5 million in 2017 to \$2,139.4 million this year. This reflected the higher mine-site costs, increased exploration and evaluation expenditure and the reduction in revenue explained above.

EBITDA at the transport division decreased by \$9.2 million to \$88.9 million in 2018, reflecting the increased operating costs explained above partly offset by the slightly higher revenue.

## NET FINANCE EXPENSE

Net finance expense increased by \$44.5 million to \$114.5 million, compared with \$70.0 million in 2017.

	Year ended 31.12.18	Year ended 31.12.17
	\$m	\$m
Investment income	30.1	23.8
Interest expense	(113.5)	(91.5)
Other finance items	(31.1)	(2.3)
<b>Net finance expense</b>	<b>(114.5)</b>	<b>(70.0)</b>

Interest income increased from \$23.8 million in 2017 to \$30.1 million in 2018, mainly due to the increase in average interest rates.

Interest expense increased from \$91.5 million in 2017 to \$113.5 million in 2018. This mainly reflected the increase in the average LIBOR rate, which was partly offset by the effect of the lower average borrowing balance due to repayments.

Other finance items were a net expense of \$31.1 million (2017 – expense of \$2.3 million). This reflected an expense of \$12.7 million for the unwinding of the discounting of provisions (2017 – \$11.6 million) and an expense of \$18.3 million in respect of foreign exchange (2017 – gain of \$17.1 million). In 2017 there was an expense of \$7.8 million relating to the time value element of changes in the fair value of derivative options. Following the adoption of IFRS 9 from 1 January 2018 the time value is now recognised in other comprehensive income rather than the income statement.

## PROFIT BEFORE TAX

As a result of the factors set out above, profit before tax decreased by 31.6% to \$1,252.7 million (2017 – \$1,830.8 million).

## INCOME TAX EXPENSE

The tax charge for 2018 was \$423.7 million (2017 – \$633.6 million) and the effective tax rate was 33.8% (2017 – 34.6%).

	Year ended 31.12.2018	Year ended 31.12.2017		
	ITEMS	ITEMS		
	\$m	%	\$m	%
<b>Profit before tax</b>	<b>1,252.7</b>		1,830.8	
Tax at the Chilean corporate rate tax of 27.0% (2017 – 25.5%)	(338.2)	27.0	(466.9)	25.5
Effect of increase in future first category tax rates on deferred tax balances	–	–	(0.6)	–
Adjustment in respect of prior years	2.6	(0.2)	(35.4)	1.9
Items not deductible from first category tax	(10.8)	0.9	(26.7)	1.5
Deduction of mining royalty as an allowable expense in determination of first category tax	21.1	(1.7)	17.4	(1.0)
Credit of tax losses absorbed from dividends of the year	–	–	(4.3)	0.2
Mining tax (royalty)	(82.5)	6.5	(78.3)	4.3
Withholding taxes	(4.5)	0.4	(64.8)	3.5
Tax effect of share of results of associates and joint ventures	3.0	(0.2)	15.2	(0.8)
(Unrecognised tax losses)/reversal of previously unrecognised tax losses	(13.8)	1.1	9.9	(0.5)
Net other items	(0.6)	–	0.9	–
<b>Tax expense and effective tax rate for the year</b>	<b>(423.7)</b>	<b>33.8</b>	(633.6)	34.6

The effective tax rate varied from the statutory rate principally due to the mining tax (impact of \$82.5 million/6.5%) and items not deductible for Chilean corporate tax purposes, principally the funding of expenses outside of Chile (impact of \$10.8 million/0.9%), partly offset by the deduction of the mining tax which is an allowable expense when determining the Chilean corporate tax charge (impact of \$21.1 million/1.7%) and the impact of the recognition of the Group's share of profit from associates and joint ventures, which are included in the Group's profit before tax net of their respective tax charges (impact of \$3.0 million/0.2%).

## PROFIT FROM DISCONTINUED OPERATIONS

On 11 September 2018 the Group completed the disposal of Centinela Transmisión SA, which holds the electricity transmission line supplying Centinela and other external parties, for a cash consideration of \$117.2 million. The profit on disposal was \$49.2 million, which along with the \$2.1 million profit from Centinela Transmisión SA for the period prior to the disposal, resulted in a total profit from discontinued operations of \$51.3 million (2017 – \$0.5 million).

## NON-CONTROLLING INTERESTS

Profit for 2018 attributable to non-controlling interests was \$336.6 million, compared with \$447.1 million in 2017, a decrease of \$110.5 million. This reflected the decrease in earnings analysed above.

## EARNINGS PER SHARE

	Year ended 31.12.18	Year ended 31.12.17
	\$ cents	\$ cents
Earnings per share from continuing operations	51.5	76.1
Earnings per share from discontinued operations	3.6	0.1
<b>Earnings per share from continuing and discontinued operations</b>	<b>55.1</b>	76.2

Earnings per share calculations are based on 985,856,695 ordinary shares.

As a result of the factors set out above, profit attributable to equity shareholders of the Company was \$543.7 million compared with \$750.6 million in 2017, and total earnings per share from continuing and discontinued operations was 55.1 cents per share (2017 – 76.2 cents per share). Earnings per share from continuing operations was 51.5 cents per share (2017 – 76.1 cents per share).

## FINANCIAL REVIEW CONTINUED

### DIVIDENDS

Dividends per share declared in relation to the period are as follows:

	Year ended 31.12.18 \$ cents	Year ended 31.12.17 \$ cents
<b>Ordinary dividends:</b>		
Interim	6.8	10.3
Final	37.0	40.6
<b>Total dividends to ordinary shareholders</b>	<b>43.8</b>	<b>50.9</b>

The Board determines the appropriate dividend each year based on consideration of the Group's cash balance, the level of free cash flow and underlying earnings generated during the year and significant known or expected funding commitments. It is expected that the total annual dividend for each year would represent a payout ratio based on underlying net earnings for that year of at least 35%.

The Board has declared a final dividend of 2018 of 37.0 cents per ordinary share, which amounts to \$364.8 million and will be paid on 24 May 2019 to shareholders on the share register at the close of business on 26 April 2019.

The Board declared an interim dividend for the first half of 2018 of 6.8 cents per ordinary share, which amounted to \$67.0 million and was paid on 5 October 2018 to shareholders on the share register at the close of business on 7 September 2018.

This gives total dividends proposed in relation to 2018 (including the interim dividend) of 43.8 cents per share or \$431.8 million in total (2017 – 50.9 cents per ordinary share or \$501.8 million in total).

### CAPITAL EXPENDITURE

Capital expenditure decreased by \$28.4 million from \$901.3 million in 2017 to \$872.9 million. The decrease reflected a decrease in capitalised stripping costs at Centinela and the completion of the Encuentro Oxides project at the end of the prior year, partly offset by preliminary expenditure related to the Los Pelambres Expansion project and the purchase of new locomotives at the transport division.

NB: capital expenditure figures quoted in this report are on a cash flow basis, unless stated otherwise.

### DERIVATIVE FINANCIAL INSTRUMENTS

The Group periodically uses derivative financial instruments to reduce its exposure to commodity price, foreign exchange and interest rate movements. The Group does not use such derivative instruments for speculative trading purposes. At 31 December 2018 the derivative financial instruments in place had a fair value of \$0.8 million (positive).

### CASH FLOWS

The key features of the Group cash flow statement are summarised in the following table.

	Year ended 31.12.18 \$m	Year ended 31.12.17 \$m
Cash flows from continuing operations	1,877.0	2,495.0
Income tax paid	(498.0)	(338.4)
Net interest paid	(41.8)	(44.8)
Capital contributions and loans to associates	(8.1)	(45.4)
Disposal of subsidiary and associate	145.2	3.1
Purchases of property, plant and equipment	(872.9)	(901.3)
Dividends paid to equity holders of the Company	(466.9)	(252.3)
Dividends paid to non-controlling interests	(120.0)	(320.0)
Dividends from associates	16.6	81.8
Other items	(0.2)	4.3
Changes in net debt relating to cash flows	30.9	682.0
Other non-cash movements	(154.3)	(72.2)
Exchange	(16.5)	5.5
Movement in net debt in the period	(139.9)	615.3
Net debt at the beginning of the year	(456.4)	(1,071.7)
<b>Net debt at the end of the year</b>	<b>(596.3)</b>	<b>(456.4)</b>

Cash flows from continuing operations were \$1,877.0 million in 2018 compared with \$2,495.0 million in 2017. This reflected EBITDA from subsidiaries for the year of \$2,118.8 million<sup>1</sup> (2017 – \$2,430.5 million) adjusted for the negative impact of a net working capital increase of \$240.3 million (2017 – working capital decrease of \$12.5 million) and a non-cash decrease in provisions of \$1.6 million (2017 – increase of \$52.0 million). The working capital increase was mainly due to a one-off short-term VAT payment of \$265 million made in December 2018, with the same amount then being reclaimed and refunded to the Group in January 2019. This resulted in a temporary increase in receivables as at 31 December 2018, resulting in a negative cash flow impact for 2018. There will be a corresponding decrease in receivables and a positive cash flow impact in 2019. Accordingly, there is nil net cumulative impact in respect of this transaction over the period from Q4 2018 to Q1 2019.

1. Excluding the Group's share of EBITDA from associates and joint ventures.

The net cash outflow in respect of tax in 2018 was \$498.0 million (2017 – \$338.4 million). This amount differs from the current tax charge in the consolidated income statement of \$404.5 million (2017 – \$509.8 million) mainly because cash tax payments for corporate tax and the mining tax partly include the settlement of outstanding balances in respect of the previous year's tax charge of \$147.2 million (2017 – \$113.7 million), payments on account for the current year based on the prior year's profit levels of \$465.4 million, as well as the recovery of \$114.6 million in 2018 relating to prior years.

The cash inflow from the disposal of a subsidiary and an associate of \$145.2 million related to proceeds from the disposal of Centinela Transmisión SA (\$117.2 million) and El Arrayan (\$28.0 million).

Contributions and loans to associates and joint ventures of \$8.1 million relate to Tethyan Copper Company.

Capital expenditure in 2018 was \$872.9 million compared with \$901.3 million in 2017. This included expenditure of \$502.4 million at Centinela (2017 – \$578.3 million), \$255.5 million at Los Pelambres (2017 – \$240.0 million), \$42.8 million at Antucoya (2017 – \$43.6 million), \$4.5 million at Corporate (2017 – \$6.9 million) and \$67.7 million at the transport divisions (2017 – \$32.5 million).

Dividends paid to equity holders of the Company were \$466.9 million, of which \$399.9 million related to the payment of the final element of the previous year's dividend and \$67.0 million to the interim dividend declared in respect of the current year.

Dividends paid by subsidiaries to non-controlling shareholders were \$120.0 million (2017 – \$320.0 million).

## FINANCIAL POSITION

	At 31.12.18 \$m	At 31.12.17 \$m
Cash, cash equivalents and liquid investments	1,897.6	2,252.3
Total borrowings	(2,493.9)	(2,708.7)
<b>Net debt at the end of the period</b>	<b>(596.3)</b>	<b>(456.4)</b>

At 31 December 2018 the Group had combined cash, cash equivalents and liquid investments of \$1,897.6 million (31 December 2017 – \$2,252.3 million).

Total Group borrowings at 31 December 2018 were \$2,493.9 million, a decrease of \$214.8 million on the prior year (31 December 2017 – \$2,708.7 million). The movement reflected repayments during the year of \$562.1 million, new borrowings of \$309.6 million (of which \$215.0 million related to new borrowing facilities resulting in cash inflows and \$94.6 million to new finance leases with no cash impact), non-cash net increases of \$47.3 million (principally accrued interest) and decreases due to foreign exchange of \$9.6 million.

The repayments of borrowings and finance leasing obligations of \$562.1 million reflected repayments at Los Pelambres of \$263.2 million, Centinela \$175.0 million, Antucoya \$90.3 million, the corporate centre of \$3.2 million and the transport division of \$30.4 million. The new borrowing facilities of \$215.0 million reflected new short-term facilities at Los Pelambres of \$100.0 million, Centinela \$25.0 million and Antucoya \$45.0 million, and a new long-term loan at the transport division for \$45.0 million. The \$94.6 million of new finance leases were all at Los Pelambres.

This resulted in net debt at 31 December 2018 of \$596.3 million (31 December 2017 – \$456.4 million).

## CAUTIONARY STATEMENT ABOUT FORWARD-LOOKING STATEMENTS

This Annual Report contains certain forward-looking statements. All statements other than historical facts are forward-looking statements. Examples of forward-looking statements include those regarding the Group's strategy, plans, objectives or future operating or financial performance, reserve and resource estimates, commodity demand and trends in commodity prices, growth opportunities, and any assumptions underlying or relating to any of the foregoing. Words such as "intend", "aim", "project", "anticipate", "estimate", "plan", "believe", "expect", "may", "should", "will", "continue" and similar expressions identify forward-looking statements.

Forward-looking statements involve known and unknown risks, uncertainties, assumptions and other factors that are beyond the Group's control. Given these risks, uncertainties and assumptions, actual results could differ materially from any future results expressed or implied by these forward-looking statements, which speak only as at the date of this report. Important factors that could cause actual results to differ from those in the forward-looking statements include: global economic conditions, demand, supply and prices for copper and other long-term commodity price assumptions (as they materially affect the timing and feasibility of future projects and developments), trends in the copper mining industry and conditions of the international copper markets, the effect of currency exchange rates on commodity prices and operating costs, the availability and costs associated with mining inputs and labour, operating or technical difficulties in connection with mining or development activities, employee relations, litigation, and actions and activities of governmental authorities, including changes in laws, regulations or taxation. Except as required by applicable law, rule or regulation, the Group does not undertake any obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Past performance cannot be relied on as a guide to future performance.

# ESTABLISHING GOOD SUSTAINABILITY PRACTICES

Antofagasta believes in developing effective, accountable and transparent institutions. To this end, it has established guidelines and internal regulations that set out the Group's commitment to conduct its business responsibly.

## BOARD INVOLVEMENT

The Board is responsible for leading and monitoring sustainable practices. The Sustainability and Stakeholder Management Committee assists the Board in the stewardship of the Group's sustainability programmes and makes recommendations to ensure that ethical, safety and health, environmental, social and community considerations are taken into account in the Board's deliberations.

The Committee reviews and updates the Group's strategy and policy framework, including safety and health, environment, climate change, human rights, community and other stakeholder issues. It also establishes targets and monitors the Group's performance in these areas.

**Sustainability and performance goals:** by incorporating sustainability targets in annual performance bonus agreements, the Company mobilises and aligns the whole organisation behind strong sustainability practices and gives a clear signal of the Board's commitment to create value in a sustainable manner. Targets associated with safety, people, environment and social performance account for 20% of these targets.

## BUSINESS INTEGRITY AND COMPLIANCE

In 2018 Antofagasta implemented a new Compliance Model structured around three pillars (Prevent, Detect and Act) that were based on compliance risk management and the Code of Ethics.

1. **PREVENT** situations and behaviours that are at odds with ethical behaviour and compliance. For this purpose, the Company has various guidelines and tools, including:

- **Crime Prevention Manual** which describes the Group's Anti-Corruption Model to ensure compliance with regulations under the UK Bribery Act and Law 20,393 in Chile. There is a person in charge of Crime Prevention at each of Antofagasta's operations. All of them are certified by the risk classification system Feller Rate until March 2019 in line with Law 20,393
- **Policies and procedures** which determine how the Group engages with stakeholders and provides guidelines that all workers must follow. These include the Antitrust Protocol, and guidelines on business relations with companies linked to Politically Exposed Person and on modern slavery
- **Conflict of interest declarations** which must be completed by all employees and updated regularly
- **Due diligence** is conducted on suppliers and contractors to review company ownership, involvement in corruption cases, commercial behaviour, legal and labour cases, conflicts of interest and contract risks
- **Training** to provide employees with the knowledge and skills to deal with any problem that might arise

2. **DETECT** promptly infringements of ethics guidelines. For this purpose, there is a consultation and complaint reporting mechanism. Complaints that affect the Group are resolved by the Corporate Ethics Committee. Committees have also been established at each operation to deal with local issues. In addition, assessments and analysis are conducted on the most sensitive concerns and complaints.

3. **ACT** when identifying possible infringements. To this end, investigations are conducted to take the necessary measures to protect the Company, as well as to strengthen internal controls, the effective functioning of the Compliance Model and communication with key stakeholders.

## MODERN SLAVERY ACT

In compliance with the UK's Modern Slavery Act 2015 the Group has published a statement setting out the steps taken to ensure that slavery and human trafficking are not occurring in its supply chain or in any part of its business. This statement is available at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

## CODE OF ETHICS

The Code stresses the commitment of the Board, employees and contractors to conduct business in a responsible and transparent manner. It includes the values that guide the Company's actions, guidelines to identify and manage potential conflicts of interest and for the handling of privileged, confidential and financial information, and it also sets out the role of the Ethics Committee. At the same time, it provides guidelines on a number of issues including respect for human rights, local culture and values and the rights of neighbouring communities.

## TRAINING

Antofagasta ensures its Crime Prevention Model and its policies and procedures are implemented and understood across the entire organisation. This is achieved through induction training for all new workers, extensive e-learning every two years, special training for the most exposed areas and a training plan that is updated annually.

## MANAGEMENT OF COMPLIANCE RISKS

The Compliance Risks Department keeps a record and monitors the evolution of the main compliance risks, but daily risk management is everyone's responsibility. Compliance risks and existing controls are regularly highlighted and assessed and action plans are defined to reduce risk exposure. As part of this process, changes in the operating environment that require controls to be strengthened or additional measures are also highlighted, and this helps to continuously improve the Compliance Model.

## HUMAN RIGHTS

Antofagasta respects and supports human rights by:

- providing high safety and health standards, fair wages and good labour relations
- preventing discrimination, harassment and bullying
- complying with the UK Modern Slavery Act

## NON-FINANCIAL INFORMATION STATEMENT

The table below sets out where stakeholders can find information in the strategic report that relates to non-financial matters, as required under the new Non-financial Reporting Directive requirements.

Reporting Requirement	Relevant Policies and Standards	Content	Page
<b>Sustainability</b>	Value Chart Sustainability Policy ICMM Guidelines	Letter from the Chairman Sustainability and Stakeholder Management Committee Chairman's letter Value creation How we engage with our stakeholders	6 114 50 34, 35
<b>Safety and health</b>	Safety and Occupational Health Strategy Special Corporate Safety and Health Regulation for Contractors and Subcontractors (RECCS) Transversal Fatality Risk Standard (ERFT) Occupational Health Standard (ESO)	Safety and Occupational Health Strategy Safety risk management Health risk management Safety and Health reporting Visible leadership Awareness and commitment Performance Safe transport	44, 45
<b>Environmental matters</b>	Environmental Management Model Integral closure of mining operations Standard Climate change Standard Water management Standard Biodiversity Standard	Environmental management Environmental compliance Water and mining Mining waste Climate change Energy management Biodiversity Air Mine closure	46, 47, 48, 49
<b>Employees and contractors</b>	People Strategy Diversity and Inclusion Strategy	Inclusive culture Diverse and global talents Labour relations and engagement Aligning contractors	36, 37
<b>Social matters</b>	Social Management Model Engagement Standard Management of initiatives Standard	Social Management Model Social projects and programmes From competition to coexistence Open innovation Addressing social concerns	38, 39
<b>Suppliers</b>	Code of Ethics Purchase and contracts guideline Direct award procedure Material management policy	Responsible supply Local suppliers	40, 41
<b>Human Rights</b>	Code of Ethics	Respectful, diverse and inclusive work culture Human Rights Modern Slavery Act	50 82-83 82
<b>Anti-corruption and anti-bribery</b>	Code of Ethics Compliance Model Anti-Corruption Model Antitrust Protocol	Business integrity and compliance Code of Ethics Management of Compliance Risks	82
<b>Description of principal risks and impact of business activity</b>		Principal Risks Key Risks Risk Management Framework	24 25 25
<b>Description of the business model</b>		The Mining Lifecycle	54
<b>Non-financial Key Performance Indicators</b>		Key Performance Indicators Antofagasta during 2018 Total economic contribution	20 33 51

- providing good-quality accommodation, services and facilities and opportunities for training and development
- preventing corruption and malpractice
- preventing or mitigating adverse environmental and social impacts
- respecting communities' rights, culture and heritage
- engaging in dialogue throughout the mining lifecycle from exploration to closure
- responding to grievances
- supporting community development

Of the Group's operations only Zaldívar needs to engage with an indigenous community and they live in Peine, 100 km away from the mine. Relations with the community are good and are conducted in accordance with the provisions of ILO Convention 169, ICMM Guidelines and Antofagasta's Sustainability Policy.

Corporate due diligence of suppliers' legal compliance includes key human rights issues such as general working conditions, preventing child labour, discrimination, harassment and other abuses. These are regularly audited by each operation and also by the corporate centre.

## PAYMENTS TO GOVERNMENTS

Antofagasta makes payments to governments relating to activities involving the exploration, discovery, development and extraction of minerals. In June 2018, the Group published its third report detailing its mining division's payments to governments for the year ended 31 December 2017. These payments were primarily taxes paid to the Chilean government, and mineral licence fees.

In 2017 these payments totalled \$317 million, of which 99.9% were paid in Chile. The full report is available on the Company's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

Chilean law allows political donations subject to certain requirements, but Antofagasta made no political donations in 2018. However, it often contributes financing for projects benefiting local communities in alliance with the local municipalities and the government. These contributions are regulated by specific laws and are reviewed by the Chilean Internal Revenue Service.

The Strategic Report has been approved by the Board and signed on its behalf by:

**Jean-Paul Luksic**  
Chairman

18 March 2019

**Ollie Oliveira**  
Senior Independent Director



# A BETTER FUTURE IS BUILT ON STRONG AND EFFECTIVE GOVERNANCE

The Board of Antofagasta plc is responsible for the long-term, sustainable success of the Group, generating value for shareholders and contributing to wider society.

The Board has established strong and effective governance structures that clearly define roles and responsibilities and promote constructive challenge.

These structures reflect the Board's commitment to international best practice and continuing success as an international mining company based in Chile.

# GOVERNANCE

## Applying the Code in 2018

### Board Leadership and Company Purpose

- Chairman's introduction
- Senior Independent Director's introduction
- Group governance overview
- Board activities
- Stakeholder engagement
- Shareholder engagement

### Division of Responsibilities

- Directors' biographies
- Board balance and skills
- Roles in the Boardroom
- Executive Committee members' biographies
- Introduction to the Committees

### Composition, Succession and Evaluation

- Nomination and Governance Committee report
- Board effectiveness

### 86 Audit, Risk and Internal Control

- Audit and Risk Committee report
- Sustainability and Stakeholder Management Committee report
- Projects Committee report

### 92 Remuneration

- Remuneration and Talent Management Committee report
- Committee Chairman's introduction
- Remuneration at a glance
- 2018 Directors' Remuneration Report
- 2018 Executive Remuneration Report
- Summary of 2017 Directors' Remuneration Policy

### 104 Directors' Report

### Statement of Directors' Responsibilities

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# FOCUSING ON THE PRINCIPLES



**"We continuously monitor and carefully consider how best to apply the principles of the Code to our specific circumstances as an international mining company based in Chile."**

Jean-Paul Luksic, Chairman

Chairman, Jean-Paul Luksic meeting with management at Zaldívar during a site visit in 2018



## UK CORPORATE GOVERNANCE CODE COMPLIANCE STATEMENT

The UK Corporate Governance Code issued by the Financial Reporting Council in April 2016 sets out the governance principles and provisions that applied to the Company during the 2018 financial year.

The Code is not a rigid set of rules. It consists of main and supporting principles and provisions. The Listing Rules require companies to apply the main principles and report to shareholders on how they have done so. The Corporate Governance Report that follows has been prepared for this purpose and demonstrates how these principles have been considered and applied to the Company's specific circumstances.

The Company complied with all of the detailed provisions of the Code in 2018. At the time of Jean-Paul Luksic's appointment as Chairman in 2004, he was not considered independent, as he had previously been CEO of Antofagasta Minerals SA. The Company's non-compliance with the relevant provisions of the July 2003 Combined Code (which was the forerunner of the Corporate Governance Code) was explained in the Statement of Compliance in the Company's 2004 Annual Report.

The UK Corporate Governance Code issued by the Financial Reporting Council in July 2018 will be applied by the Company during the 2019 financial year.

**+** The UK Corporate Governance Code is available on the Financial Reporting Council website at [www.frc.org.uk](http://www.frc.org.uk)

# HOW THE CODE PRINCIPLES WERE APPLIED IN 2018

## LEADERSHIP

### THE ROLE OF THE BOARD

- The Company is headed by an effective Board which is collectively responsible for the Company's long-term sustainable success, generating value for shareholders and contributing to wider society as shown throughout this Corporate Governance Report.
- The Board settled the Group's purpose statement, reaffirmed the Group's vision and values and adopted behavioural guidelines in respect of these values during the year as explained in the Chairman's introduction – page 88.
- An overview of how the Board ensures that its obligations to shareholders are met is described throughout this Corporate Governance Report and an example of how the Board listens to and engages with stakeholders is set out in the stakeholder engagement case study – page 96.
- The Company has appropriate insurance in place to cover Directors against claims that may be made against them.

### DIVISION OF RESPONSIBILITIES

- The Board is structured to ensure that there is limited scope for an individual or small group of individuals to dominate its decision-making, as demonstrated throughout this Corporate Governance Report.
- The CEO is not a Director of the Company and therefore not a member of the Board – page 101.
- There is a clear division of responsibilities between the Chairman and CEO – page 101.
- The division of responsibilities between the Chairman, the CEO and the Senior Independent Director are recorded in writing and have been approved by the Board.
- The roles of the Board and the Board Committees are recorded in the Schedule of Matters Reserved for the Board and the Terms of Reference for each of the Board's Committees, which are available on the Company's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

### THE CHAIRMAN

- The Chairman is responsible for leadership of the Board, and his responsibilities are set out on page 101.
- He is responsible for setting the Board's agenda and ensuring that the Directors receive accurate, timely and clear information – pages 92 and 101.

### NON-EXECUTIVE DIRECTORS

- The Non-Executive Directors constructively challenge management and each other, and help develop proposals on strategy – page 101.

## EFFECTIVENESS

### COMPOSITION OF THE BOARD

- The Board has 11 Directors, comprising a Non-Executive Chairman and ten other Non-Executive Directors, five of whom are independent.
- All members of the Audit and Risk and Remuneration and Talent Management Committees are independent and two of the three Nomination and Governance Committee members are independent.
- The Board comprises Directors with a broad and complementary set of technical skills, educational and professional experience, nationalities, personalities, cultures and perspectives, including gender – page 100.
- The Directors' biographies provide further information on their experience – pages 98 and 99.
- The Roles in the Boardroom diagram shows the participation in Board discussions and deliberations of each Director, the CEO and the Company Secretary – page 101.

### APPOINTMENTS TO THE BOARD

- There is a formal and transparent procedure for the identification and appointment of new Directors – page 106.

### COMMITMENT

- All Directors have confirmed they are able to allocate sufficient time to meet the expectations of their role.
- Other significant commitments are disclosed to the Board when they arise – pages 91 and 138.
- Time commitment is considered as part of the Board effectiveness review and when electing and re-electing Directors.

## DEVELOPMENT

- New Directors receive a thorough induction on joining the Board – page 100.
- Directors are regularly updated with information and training and, as a minimum, receive an annual briefing on legal, regulatory, market and other developments that are relevant to directors of UK-listed companies – page 100.

## INFORMATION AND SUPPORT

- The Board is provided with information in a form and of a quality appropriate to discharge its duties – page 92.
- The Board has access to independent professional advice and to the advice and services of the Company Secretary – page 100.
- The Board is regularly updated on the Group's performance between scheduled Board meetings – page 93.

## EVALUATION

- An internal Board and Committee effectiveness review was completed during the year and an externally-facilitated review will be conducted in 2019 – page 107.

## RE-ELECTION

- All Directors stand for annual re-election. William Hayes will not be standing for re-election in 2019 – page 89.

## ACCOUNTABILITY

### FINANCIAL AND BUSINESS REPORTING

- The Board has presented this Annual Report, which is fair, balanced and understandable – page 139.
- Auditors' report – pages 142 to 146.
- Business model description – pages 54 and 55.
- Going concern statement – page 22.
- Robust assessment of principal risks and the Group's risk appetite – pages 24 to 30.
- Effectiveness of risk management and internal control systems – pages 22 and 23 and 111 and 112.
- Viability statement – page 22.

### AUDIT COMMITTEE AND AUDITORS

- Three out of the four Audit and Risk Committee members are considered to have recent and relevant financial experience – page 108.
- Whistleblowing policy – page 113.
- Internal audit function – page 111.

## REMUNERATION

### THE LEVEL AND STRUCTURE OF REMUNERATION

- The Company has no executive directors but voluntarily discloses the CEO's remuneration, which includes transparent, stretching and rigorously applied performance-related elements designed to promote the Company's long-term sustainable success – pages 118 to 133.

## PROCEDURE

- The Directors' Remuneration Policy was approved by shareholders at the 2017 AGM – pages 134 to 136.
- The procedure for setting policies on executive remuneration is voluntarily disclosed – pages 125 to 133.
- No Director is involved in setting his or her own remuneration and the CEO is not involved in fixing his own remuneration – page 118.

## RELATIONS WITH SHAREHOLDERS

### DIALOGUE WITH SHAREHOLDERS

- The Chairman and Senior Independent Director met with shareholders and the Company met with over 550 investors and potential investors during the year – pages 88, 90 and 97.

### CONSTRUCTIVE USE OF GENERAL MEETINGS

- The Company held an accessible AGM in central London with voting on a poll, separate resolutions and proxy voting (for, against or withheld).
- All Directors attended the meeting and Committee Chairs were available to answer questions.
- Notice was sent out at least 20 working days before the meeting.

# DEVELOPING OUR GOVERNANCE FOR A BETTER FUTURE

**"One of the foundations of our success has been our enduring regard for international corporate governance best practice, which we apply to enable us to operate successfully in Chile, where our corporate headquarters, senior management team and all of our operating assets are located."**

Jean-Paul Luksic, Chairman



## INTRODUCTION

As noted in my introduction to the Annual Report, it is now nearly 40 years since my father Andrónico Luksic acquired a stake in the Company and began the process of creating one of the world's leading copper mining companies. Over this period, the Company has generated significant returns for shareholders over several mining cycles and we have contributed enormously to the interests of our stakeholders, most of whom are in Chile.

One of the foundations of our success over this period has been our enduring regard for international corporate governance best practice, applied in a way that allows us to operate successfully in Chile, where our corporate headquarters, senior management team and all of our operating assets are located.

As you would expect, we have been closely monitoring the UK corporate governance reforms that were finalised during 2018 and we will report against those in the 2019 Annual Report. We have conducted a thorough analysis of the requirements in the new code and I, and our Senior Independent Director, Ollie Oliveira, have met with shareholders and policy makers during the year to discuss the implications of these reforms and to understand how they will impact our ability to continue to operate successfully in Chile. We were pleased to receive assurances from policy makers and shareholders alike that the "comply or explain" methodology underpinning the Code remains fundamental to the UK corporate governance framework and that our unique circumstances as a controlled company based in Chile will continue to be taken into account when considering how we decide to apply the new Code in 2019.

Throughout this year's Corporate Governance Report we outline how we have applied the principles of the 2016 UK Corporate Governance Code, while highlighting some of the unique circumstances that differentiate us from other companies and that, in many cases, have brought us the success that we have achieved thus far.

The Board has been pursuing and overseeing a number of important developments during the year, which are highlighted throughout this Corporate Governance Report, a selection of which I would like to highlight in this introductory letter.

## RISK AND RISK APPETITE

The risks facing the Group are constantly evolving, and in order to achieve our strategic objectives we believe it is fundamentally important that our approach and attitude towards those risks is equally dynamic.

During 2018, the Board, with the assistance of the Audit and Risk Committee, reviewed and updated the Group's risk management policy and risk appetite. The purpose of this exercise was to ensure that our management team have clear and current guidance from the Board on this subject and for this guidance to be applied to the day-to-day responsibilities of all of the members of our workforce.

## REVIEWING AND EMBEDDING OUR CULTURE

In recent years, we have put a tremendous amount of effort into defining the values that drive our culture and our vision for the future. In 2018, those efforts were furthered through the adoption of our purpose statement and behavioural guidelines, setting out the behaviours that embody our culture and charter of values. Over the last two years, our employees have provided input and guidance on these matters and I was delighted to lead several discussions with the Board during the year that allowed us to refine and adopt statements that are truly reflective of the culture we have and want to develop further.

## STAKEHOLDER ENGAGEMENT

Mining is a long-term business and timescales often run into decades. Our relationships with our employees, local communities, suppliers, governments, customers and shareholders are central to our long-term success. The Group's governance structures include a network of arrangements to ensure that the views and interests of stakeholders are represented in the boardroom and considered as part of deliberations.

Along with fellow Directors, I regularly visit the Group's operations and projects to understand first-hand the realities and challenges that exist on site. These visits provide us with a closer understanding of the topics that are important for our workforce and other stakeholders.

We engage constantly with our workforce, not only in the years when there are scheduled union negotiations, but every year. This open dialogue is key to maintaining good relations and is a testament to the trust that has been built up between the Company and its employees. I am proud that we have maintained such strong employee and union relations, successfully completing wage negotiations at Los Pelambres and the transport division this year and recording yet another year without strikes.

The strength of these relationships is something that we have sought to replicate with the communities that surround our operations. In 2014 we launched Somos Choapa, an innovative model of community engagement at Los Pelambres and I am delighted that the success of this model has seen it expanded to our operations in the north of Chile during 2018.

## DIVERSITY AND INCLUSION

We have a diverse Board comprising Directors with a broad spectrum of complementary skills, personalities and competencies. We believe in the benefits of diversity throughout the Group, not just at Board level, and that more diverse companies attract the best talent and achieve stronger, more reliable overall performance.

The Company took further steps to implement the Group's diversity and inclusion strategy during 2018. This included appointing female executives to all the Group's operating company boards, inclusiveness and unconscious bias training for all employees and further talent management efforts to increase the number of female workers in the Group and to enable us to achieve our goal of 1% of the workforce comprising workers with disabilities by the end of 2019. We are also incorporating global profiles into our Group, which will enable us to integrate new perspectives and organisational practices. Progress in the implementation of our diversity and inclusion model will once again be measured and assessed during the year and specific objectives have again been included as targets within the Group's 2019 Annual Bonus Plan. Performance against these targets will be determined by the Remuneration and Talent Management Committee and the Board at the end of the year.

I was enormously proud that three women from the Company were honoured by the Women In Mining advocacy organisation in their "Top100 Global Inspirational Women in Mining 2018 Edition", identifying them as key women in mining today, and that our occupational health and safety manager, Katharina Jenny, was named female executive of the year in Chile.

## BOARD CHANGES AND SUCCESSION PLANNING

As announced in November last year, Francisca Castro, who has served as an independent Non-Executive Director since 2016, has been appointed as Chair of the Remuneration and Talent Management Committee, with effect from 1 May 2019. Ms Castro is replacing Tim Baker as Chair and Tim will continue to serve on this Committee to assist Francisca during the transition period. I would like to thank them both, and indeed all of our committee members, for their hard work over the course of the year.

As announced in January, William Hayes, a Non-Executive Director of the Company since 2006, will not offer himself for re-election as a Director at the Company's upcoming Annual General Meeting. I would like to thank Bill for the significant contribution he has made to the Company as a Director, former Senior Independent Director and Audit and Risk Committee Chairman, and for the wise counsel he has contributed to the Board over many years.

In accordance with the Board's succession plans, we expect to be in a position to appoint a new independent Non-Executive Director soon and we will notify shareholders as soon as a decision has been made.

As always, I welcome questions or comments from shareholders at the Annual General Meeting.

### Jean-Paul Luksic

Chairman

# ENSURING INDEPENDENCE

**"The Company's corporate governance arrangements rigorously protect the interests of all shareholders. I regularly meet shareholders to discuss corporate governance and related matters and report these discussions to the Board."**

Ollie Oliveira, Senior Independent Director



## Q. WHAT ARE YOUR RESPONSIBILITIES AS SENIOR INDEPENDENT DIRECTOR?

I am appointed by the Board to act as a sounding board for the Chairman and to serve as an intermediary for the other Directors and shareholders. Thus my role is to support the Chairman on several levels. I advise him on corporate governance matters and I seek to ensure that he clearly understands the issues that are especially important to the Board's independent Non-Executive Directors. I lead the annual review of the Chairman's performance and follow up on the closure of gaps identified in internal and externally-facilitated reviews of Board and Committees' performance. Most importantly, I provide feedback on issues that matter to the Company's shareholders.

I live in Europe, close to many shareholders, directors at other UK-listed companies and advisers, and I am senior independent director at another large FTSE-listed mining company, which helps me to ensure that the Chairman, the Board and the Group receive independent and objective feedback and challenge, as well as a balanced view of issues that are relevant and important for shareholders of UK-listed companies.

## Q. WHAT IMPACT DOES THE CONTROLLING SHAREHOLDING HAVE ON COMPANY DECISIONS?

The Luksic family first acquired an interest in the Company 40 years ago. Since then, the Company has demonstrated an excellent track record in terms of safety, operational expertise and financial acumen.

First as an Independent Director and now as the Senior Independent Director, I have discussed the role of the controlling shareholder with other shareholders, proxy advisers and policy makers. The widely-held view is that the substantial controlling interest is regarded positively, with shareholders satisfied that the interests of the controlling shareholder are aligned with theirs, with their understanding of the copper price cycle and market fundamentals, long-term vision of the industry, and well-known conservative operating, financial and growth strategy.

Their support is – of course – conditional on the continuation of the current corporate governance framework, which rigorously protects the interests of all shareholders equally.

I, and all the Independent Directors, place a strong emphasis on maintaining this governance and protection regime. We guard our independence and preside over a framework and processes that go beyond the regulatory norm. We are supported and encouraged by the other Directors who – like the Independent Directors – bring their own perspectives and opinions and are committed to the long-term sustainable success of the Company.

The controlling shareholder, and the members of the Luksic family who serve on the Board (including the Chairman), are not just supportive of this framework but actively encourage the Independent Directors to provide the independent input and challenge that we are convinced proves indispensable in Board decision-making.

## Q. WHAT DID YOU DISCUSS WITH SHAREHOLDERS IN 2018?

I initiated meetings with a number of shareholders and proxy advisers during the year to understand their perspectives ahead of the 2019 AGM and reporting season, to explain and reinforce the reasons behind the Company's current governance arrangements and to anticipate and gauge responses to the Company's likely approach to the 2018 Code.

I was delighted to hear that levels of concern regarding the Company's current corporate governance arrangements are low and to receive assurances that explanations and circumstances will be carefully considered when assessing how the Company decides to apply the new Code in 2019.

**Ollie Oliveira**  
Senior Independent Director

## RELATIONSHIP AGREEMENT

The E. Abaroa Foundation is a controlling shareholder of the Company for the purposes of the Listing Rules and certain other shareholders of the Company (including Aureberg Establishment) are also treated as controlling shareholders. Details of the Company's substantial shareholders are set out on page 138.

In 2014 the Company entered into relationship agreements in respect of each controlling shareholder, which contain the mandatory independence provisions required by the Listing Rules. The Company has complied with, and, so far as the Directors are aware, each controlling shareholder and its associates (including Metalinvest Establishment and Kupferberg Establishment) has complied with the mandatory independence provisions at all times during 2018.

## RELATED PARTY TRANSACTIONS

Certain related party transactions outside the ordinary course of business must be subject to independent assessment and approval. The Company has for many years presented all such related party transactions (regardless of their size) between the Company and the controlling shareholder or its associates to a committee of Directors independent from the controlling shareholder, to support the negotiation process and ultimately to make an assessment as to whether the Company should enter into such transactions. In most cases, transactions of this nature will also be subject to independent review by third-party shareholders in each of the Group's mining operating companies.

Any other proposed related party transaction over \$25 million, whether or not in the ordinary course of business, is also tabled for Board approval. Any Director with a potential conflict or connection with the related party will not take part in the decision on that transaction.

## RELATED PARTY GOVERNANCE IN PRACTICE

There are a number of checks and balances to ensure that there is full transparency in the way related party transactions are handled by the Board. The following diagram summarises the approach taken to identify and manage related party transactions and actual or potential conflicts of interest.

### IDENTIFYING DIRECTORS' INTERESTS

#### Process

Monitoring of Directors' interests

#### How this is managed

If a Director has an interest in any other company, the Board will normally consider that interest under its arrangements for authorising conflicts of interest under section 175 of the Companies Act.



[Further details on this process are set out on page 138](#)

#### Responsibility

Directors

#### Proposed transaction

Ongoing monitoring of Directors' interests and the Company's related parties provides information to determine if a related party approval is required for a proposed transaction.

#### Responsibility

Company Secretary, Antofagasta Group management and the Executive Committee

#### Process

Contract negotiation and verification

#### How this is managed

The Executive Committee seeks to ensure that the best possible terms are achieved for a proposed transaction and that they are verified by industry benchmarking reports or independent third-party valuation/assessment.

If the potential transaction is between the Group and the controlling shareholder or its associates, a committee of Directors independent from the controlling shareholder and its associates is formed, to oversee and support management with this process and to ensure compliance with the Relationship Agreement.

#### Responsibility

Antofagasta Group management and Executive Committee and, if involving the controlling shareholder, Directors who are independent from the controlling shareholder

#### Process

Approval by Independent Directors

#### How this is managed

Potential related party transactions outside the ordinary course of business that involve the controlling shareholder or its associates are approved by a committee of Directors independent from the controlling shareholder.

All other potential related party transactions over \$25 million, whether or not in the ordinary course of business, are approved by the Board and any Director with a potential conflict or connection with the related party will not take part in that decision. Transactions within the ordinary course of business that are below \$25 million require approval by the relevant subsidiary board.

#### Responsibility

Directors who are independent from the related party

# STRUCTURED FOR EFFECTIVE DECISION-MAKING

## ANTOFAGASTA PLC BOARD

The Board's role is to promote the long-term, sustainable success of the Company, generating value for shareholders and contributing to wider society. The Board has established the Company's purpose, values, strategy and risk appetite and monitors the culture of the Group as well as ongoing performance against these measures.

The schedule of matters reserved for the Board is available on the Company's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

### KEY RESPONSIBILITIES

- Culture
- Strategy
- Governance
- Shareholder engagement
- Internal controls, risk management and compliance
- Financial and performance reporting
- Approving material transactions

## BOARD COMMITTEES



The Board is assisted in its responsibilities by five Board Committees. The Board has delegated authority to these Committees to perform certain activities as set out in their terms of reference.

The Chair of each Committee reports to the Board following each Committee meeting, allowing the Board to understand and, if necessary, discuss matters in detail and consider the Committee's recommendations.

The terms of reference for each Committee are available on the Company's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

### KEY RESPONSIBILITIES

The key responsibilities of each Committee are set out on page 104.

## BOARD AND COMMITTEE INFORMATION FLOWS

### CHAIRMAN AGREES AGENDA WITH DIRECTORS

The Chairman tables an agenda of standing topics to be considered by the Board each year, which is then supplemented, during the year, with agreed key topics and events requiring consideration.

### PAPERS CIRCULATED IN ADVANCE OF MEETINGS

Materials are sent to Board and Committee members a week in advance of each meeting. Each presentation has a summary sheet setting out the objective, background, proposal, justification and risk analysis and next steps. Materials include the CEO's report, which is an open and candid summary of his views on evolving strategic challenges, changes in risk assessments and emerging issues, as well as the management report with detailed information on the Group's performance against key safety, health, environmental, community, financial, project development and organisational culture indicators.

### BOARD AND COMMITTEE MEETINGS

Each Board and Committee meeting has one or more short sessions without management present to allow Directors to set expectations for the meeting and to reflect on and evaluate the meeting's progress. The CEO provides timely updates to the Board on emerging issues, and executives present to the Board and its Committees on operating and development matters, allowing close interaction between Board members and a wide range of executive management.

## CEO AND EXECUTIVE COMMITTEE →

The Board has delegated day-to-day responsibility for implementing the Group's strategy and fostering the corresponding organisational culture to the Company's CEO, Iván Arriagada.

Mr Arriagada is not a Director of the Company but is invited to attend all Board and Committee meetings and is supported by the members of the Executive Committee, each of whom has executive responsibility for his or her respective functions. Mr Arriagada chairs the Executive Committee.

The Executive Committee reviews significant matters and approves expenditure within designated authority levels.

The Executive Committee leads the annual budgeting and planning processes, monitors the performance of the Group's operations and investments, evaluates risk and establishes internal controls, and promotes the sharing of best practices across the Group.

## SUBCOMMITTEES OF THE EXECUTIVE COMMITTEE



The Executive Committee is assisted in its responsibilities by the Operating Performance Review Committee, the Business Development Committee, the Disclosure Committee and, from time to time, Project Steering Committees.

Members of the Executive Committee also sit on the boards of the Group's operating companies and report on the activities of those companies to the Board, Mr Arriagada and the Executive Committee.

Following the introduction of the EU Market Abuse Regulation, the Board adopted its current Disclosure Procedures Manual and delegated to the Disclosure Committee primary internal responsibility for identifying information that may need to be disclosed to the market and for managing the disclosure of such information.

The Ethics Committee is responsible for implementing, developing and updating the Group's Code of Ethics and monitoring compliance.

### MINUTES PREPARED, CIRCULATED AND APPROVED

The Company Secretary minutes all Board and Committee meetings and these are circulated and reviewed by the Board and management before being updated as necessary and tabled for approval.

### ACTION LISTS PREPARED AND UPDATED AS KEY ACTIONS ARE IMPLEMENTED

The Board and each Committee respectively maintains an action list that is reviewed at the beginning of each meeting to ensure that Directors' enquiries and concerns are clearly identified and addressed in a timely manner.

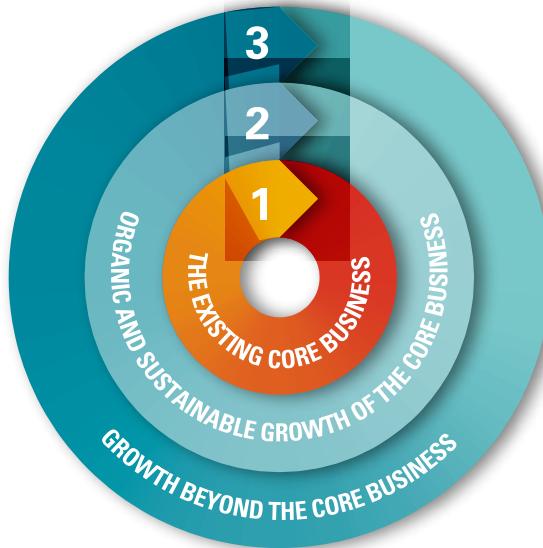
### INFORMATION BETWEEN MEETINGS

Between Board meetings, Directors receive flash reports with monthly and year-to-date production and financial results, including key metrics in respect of safety, environmental and community-relations performance, ensuring that the Board is regularly updated on the Group's performance. Occasionally, Directors may receive additional reports highlighting key developments in the Group's exploration, projects and business development activities, or general information on the commodity markets or innovations in mining.

The Group's management team, led by Iván Arriagada, performs an essential role in ensuring that the Board has the information required to make effective decisions, reporting in real time on the Company's performance and implementation of the Group's strategy.

# STRATEGIC CHALLENGE AND OVERSIGHT

The Board's 2018 activities focused on revisions to, and implementation of, the Group's strategy – as explained in more detail below.



## STRATEGY AND CULTURE

- Held a stand alone strategy day with particular focus on the Group's purpose, mission, vision and strategic pillars.
- Adopted the Group's purpose statement and approved an updated Charter of Values with four strategic pillars.
- Approved the 2018 Human Resources plan which included a review of the Group's organisational culture, talent management, organisational effectiveness, labour relations and staff engagement.
- Monitored progress on the implementation of the Group's diversity and inclusion strategy and reviewed a gender-based remuneration analysis.

## GOVERNANCE AND ENGAGEMENT

- Reviewed and considered the 2018 UK Corporate Governance Code.
- Reviewed Director independence.
- Reviewed Directors' conflict of interest declarations.
- Approved updates to Committees' terms of reference.
- Oversaw the implementation of key recommendations arising from the 2016–17 externally-facilitated and 2018 internal Board effectiveness reviews.
- Engaged with shareholders on corporate governance matters at the 2018 AGM. All Directors attended.

- Monitored feedback from letters sent to investors regarding the Group's corporate governance arrangements.
- Approved sponsorship of the 2018 FIA Formula-E championship, which promotes the use of electricity for worldwide mobility.

## INTERNAL CONTROLS, RISK MANAGEMENT AND COMPLIANCE

- Commissioned an external review of risk management system's maturity level.
- Approved a restructuring of the risk management function and reporting lines.
- Approved updates to the Group's Risk Management Policy.
- Reviewed the Group's risk appetite statements, aligned with the Group's strategic pillars.
- Reviewed the Group's risk matrix, materialised risks and risk mitigation actions.
- Reviewed budgets for initiatives designed to mitigate material identified risks.
- Approved project guidelines specifying the level of project definition for feasibility study and execution approval, designed to reduce project development risk.
- Reviewed findings of the independent technical board on tailings deposits.
- Commissioned an independent audit of data protection.

- Approved the Group's Modern Slavery Act statement.
- Reviewed half-yearly compliance reports.
- Reviewed results of the Group's whistle blowing processes.

## SUCCESSION PLANNING AND TALENT MANAGEMENT

- Reviewed Board succession plans. Each Director withdrew from any meeting when his or her own position was being considered.
- Reviewed the annual talent management exercise, including succession plans for the Executive Committee.
- Monitored the implementation of upgraded short-term and long-term incentive programmes.

## FINANCIAL AND PERFORMANCE REPORTING

- Approved the Group's 2017 full-year and 2018 half-year results.
- Approved the dividends paid to shareholders during 2018.
- Reviewed and approved the Group's commercial parameters.
- Reviewed and approved the base case and development case for the Group's assets.
- Reviewed and approved the Group's 2019 budget.
- Reviewed the Group's reserves and resources statements.

## THE EXISTING CORE BUSINESS

The first pillar of the strategy is to optimise and enhance the existing core business: Los Pelambres, Centinela, Antucoya, Zaldívar and the Transport Division.



- Reviewed and monitored the Group's safety and health performance.
- Reviewed and monitored the Group's operating performance.
- Approved carbon emission reduction targets.
- Monitored results of the Group's Competitiveness and Cost Programme.
- Reviewed the Group's compliance with environmental commitments and the results of a sustainability audit.
- Monitored labour relations at the Group's mining operations and transport division and reviewed the results of collective negotiations.
- Continued to monitor dialogue with governments in Argentina and Chile regarding the Cerro Amarillo waste dump at Los Pelambres and its removal.

- Reviewed the Group's maintenance strategy.
- Approved key procurement and sales contracts.
- Reviewed and approved the Group's copper concentrate and copper cathode sales strategy.
- Reviewed the recovery plan following the blockage of Los Pelambres' concentrate pipeline.
- Continued to monitor the independent review of tailings dam safety at Los Pelambres and Centinela.
- Reviewed progress in the implementation of the Somos Choapa community relations model and its extension to the operations in the north of Chile.

## ORGANIC AND SUSTAINABLE GROWTH OF THE CORE BUSINESS

The second pillar of the strategy is to achieve sustainable, organic growth by further developing the areas around the Group's existing asset base in Chile.



- Approved execution of the Los Pelambres Expansion Project.
- Monitored the alternative growth cases for the expansion of Centinela.
- Reviewed the Zaldívar Sulphide Leaching project.
- Reviewed and approved the acquisition and divestment of mining properties in Chile.

- Reviewed lessons learned from the Encuentro Oxides, Molybdenum Plant and Thermo-Solar plant projects at Centinela.
- Approved work plans, budgets and studies in relation to the Los Pelambres Expansion and Centinela expansion projects.

## GROWTH BEYOND THE CORE

The third pillar of the strategy is to seek growth beyond the Group's existing operations, through the acquisition of high-quality operating assets and/or high-potential early-stage developments.



- Continued to monitor developments at the Twin Metals project in Minnesota.
- Monitored the "Growth beyond the Core Business" strategy guidelines for management of the preferred geography, commodity, size and stage for growth opportunities outside the Group's core business.

- Reviewed business development and exploration updates detailing exploration activities and results during the year.
- Reviewed business development opportunities and divestment of non-core assets.
- Approved the divestment of non-core assets, including the sale of Centinela's electricity transmission lines and the Group's interest in the Parque Eólico El Arrayán wind farm.

**+** Further information on the Group's strategy and objectives for 2019 can be found on pages 18 and 19

# ENGAGEMENT ON LOS PELAMBRES EXPANSION

**Strong ongoing stakeholder engagement and relationships are central to the Group's long-term sustainable success.**

During 2018, the Board approved a \$1.3 billion investment to expand the Los Pelambres mine in the Choapa Province in the Coquimbo Region of Chile. The expansion will add an average of 60,000 tonnes of copper a year to the mine's production over the first 15 years of operation and involves the construction of a desalination plant, water pipeline and additional plant infrastructure.

In reaching an approval decision, the Board and each of its Committees received and carefully considered, at regular intervals over a study period of several years, detailed information in relation to the interests of, and impact of the project on, the Group's stakeholders. Specific information relating to the impact of the project was received through extensive and collaborative stakeholder engagement processes. Some of the specific stakeholder considerations arising from these processes include the following.

## GOVERNMENT AND REGULATORS

The formal environmental approval process for the Los Pelambres Expansion commenced in June 2016, involving participation from the citizens of the Salamanca and Los Vilos municipalities, more than 100 professionals, 20 companies from various fields, and a wide range of governmental agencies, trade associations and communities, representing the views of their own stakeholders. The feedback received was used to clarify and refine elements of the project design in the interests of stakeholders. The environmental permit for the project was finally received in February 2018.

## LOCAL COMMUNITIES

Prior to the formal environmental approval process, Los Pelambres initiated a voluntary preliminary participation process aimed at gathering the communities' comments and concerns, with the idea of incorporating them, when possible and appropriate, into the project design. This "open house" process allowed them to understand the project's planned activities and phases of development before the formal permitting process began. As a result, local community views on and concerns about water supply, local employment and the impact of construction activities on livelihoods were identified at an early stage.

The capital cost of the project includes \$500 million for a desalination plant and water pipeline. The desalination plant will supply the expansion of Los Pelambres and a potential further growth phase as well as acting as a back-up for the existing operation should extreme dry conditions occur.

The project also includes voluntary commitments relating to:

- the professional development of local suppliers – efforts aimed at improving skills and capabilities to allow some of these suppliers to supply key inputs for the project, as well as ancillary services in the future, and
- road maintenance and safety and health measures to reinforce the availability of emergency healthcare, mitigating the impact of additional workers and construction in the province.

Processes are in place to monitor the impact of the project on local communities and throughout the construction period. The results will be reported to the Sustainability and Stakeholder Management Committee and to the Board.

## WORKFORCE

30% of the project's workers will come from the Coquimbo Region. At its peak, the construction will require 3,000 workers. Workers will be fully trained to meet the safety and other standards required by the Group and for this project, including awareness training on the impact of this increased workforce and activity in the province during the construction phase. To assist the local workforce, the Group is operating a mobile office that provides job application support in the local communities.

## SUPPLIERS

The main project contract is with the EPCM contractor Bechtel. Bechtel is working with three local supplier associations to engage with local suppliers for the project and a local supplier platform has been launched to connect project contractors with local suppliers for goods and services.

All of the projects' suppliers and contractors are required to comply with the Group's policies relating to safety and health, environment, ethics, labour conditions, compliance and risk management. Ongoing compliance is subject to monitoring and audit processes and mechanisms are in place to require suppliers and employees of contractors to report any conduct that is not in accordance with the Group's Code of Ethics. This can be done through the Group's website, by intranet, by email, by letter, or by using a dedicated whistleblowing hotline. Likewise, monthly audits of contractors ensure that all labour law requirements are fulfilled.

## CUSTOMERS

First production is expected in the second half of 2021 and to average approximately 60,000 tonnes over the first 15 years of operation. This additional production will allow the Group to maintain its long-term relationships with existing customers, many of whom have been with us since Los Pelambres first began production in 1999.

+ Further details on the Los Pelambres Expansion project are set out on pages 70 and 71

+ Further details on the Group's relationships with stakeholders and stakeholder engagement mechanisms are set out on pages 34 to 43

# SHAREHOLDER ENGAGEMENT

The shares of Antofagasta plc are listed on the main market of the London Stock Exchange. As explained in the Directors' Report on page 137, the controlling shareholders of the Company hold approximately 65% of the Company's ordinary shares. The majority of the Company's remaining ordinary shares are held by institutional investors, mainly based in the UK and North America.

The Company maintains an active dialogue with institutional shareholders and sell-side analysts, as well as with potential shareholders. This communication is managed by the investor relations team in London, and includes a formal programme of presentations and roadshows to update institutional shareholders and analysts on developments in the Group.

Throughout the year the Company held regular meetings with institutional investors and sell-side analysts, including international investor roadshows, and presentations at industry conferences and to banks' equity sales forces. These were attended by the CEO and various members of the management team, including the CFO, the Vice President of Investor Relations and the Vice President of Development.

The Company publishes quarterly production figures as well as the half-year and full-year financial results. Copies of these production reports, financial results, presentations and press releases are available on the Company's website. The Group also publishes a separate Sustainability Report on its social and environmental performance: the latest report is available on the website in both Spanish and English.

## WHAT INVESTORS FOCUSED ON MOST IN 2018

- free cash flow generation and capital allocation
- the Group's ability to achieve its full-year production and cost guidance
- cost reduction programmes and expected future costs
- labour negotiations at Los Pelambres
- the Group's capital expenditure programme and the potential from longer-term growth projects
- supply and demand factors in the world copper market.

The Board receives regular summaries and feedback regarding meetings held as part of the investor relations programme. The Company's Annual General Meeting is also an opportunity to communicate with both institutional and private shareholders. All the Directors met shareholders at the 2018 Annual General Meeting.

## CORPORATE GOVERNANCE ENGAGEMENT

As noted on pages 88, 90, 105 and 119, the Board paid close attention to the UK Corporate Governance reforms and the final reform package as published in the 2018 Corporate Governance Code and associated reporting regulations.

Senior Independent Director Ollie Oliveira met with a number of proxy advisers and major shareholders in London in November 2018 to discuss corporate governance and associated matters relating to the Company, its strategy and management performance and its approach towards the UK Corporate Governance reforms. These meetings were also attended by the Company Secretary and the Director of the London Office.

## 2018 SHAREHOLDER ENGAGEMENT CALENDAR

<b>Q1</b>	<ul style="list-style-type: none"> <li>- CEO presented at an industry conference for institutional investors in the US.</li> <li>- One-on-one and small group meetings with some 140 investors, of which senior management participated in over 40%.</li> <li>- Presentation of full-year 2017 results by the CEO and CFO.</li> <li>- US East Coast roadshow – 2 days.</li> <li>- London and Geneva roadshow – 4 days.</li> <li>- Scandinavia roadshow – 1 day.</li> <li>- Investor relations team attended three investor conferences: two in the UK and, together with the CFO, one in Chile.</li> </ul>
<b>Q2</b>	<ul style="list-style-type: none"> <li>- CEO presented at an industry conference for institutional investors in the US.</li> <li>- One-on-one and small group meetings with some 110 investors, of which senior management participated in over 50%.</li> <li>- Annual General Meeting in London.</li> <li>- US West Coast roadshow – 3 days.</li> <li>- Buy-side analysts and institutional investors visited Los Pelambres.</li> <li>- Investor relations team attended two investor conferences in the UK and one in the US.</li> </ul>
<b>Q3</b>	<ul style="list-style-type: none"> <li>- Presentation of half-year 2018 results by the CEO and CFO.</li> <li>- One-on-one and small group meetings with some 140 investors, of which senior management participated in over 60%.</li> <li>- Europe roadshow – 2 days.</li> <li>- London roadshow – 2 days.</li> <li>- US East Coast roadshow – 3 days.</li> <li>- Chairman's lunch with key investors.</li> <li>- CFO attended two industry conferences in the UK.</li> <li>- Investor relations team attended two investor conferences in the UK.</li> </ul>
<b>Q4</b>	<ul style="list-style-type: none"> <li>- CEO presented at an industry conference in Australia.</li> <li>- CEO and CFO presented to institutional investors in Chile.</li> <li>- North America roadshow – 3 days.</li> <li>- One-on-one and small group meetings with some 160 investors.</li> <li>- Sustainable and responsible investment roadshow in London with Vice President of Corporate Affairs and Sustainability – 1 day.</li> <li>- Investor relations team attended three investor conferences in the UK.</li> </ul>

# INDEPENDENT OVERSIGHT

Biographical details for each Director standing for re-election at the 2019 AGM are set out below.\*

All Directors have confirmed that their other commitments do not prevent them from devoting sufficient time to fulfilling their roles. Ages are as at the date of the AGM.



## JEAN-PAUL LUKSIC

**Chairman, 54**  
INDEPENDENT: NO  
APPOINTED TO THE BOARD  
1990  
**APPOINTED CHAIRMAN 2004\***  
Over 25 years' experience with Antofagasta, including responsibility for overseeing development of the Los Pelambres and El Tesoro (Centinela Cathodes) mines

\* Non-Executive since 2014

### PREVIOUS ROLES

- Chairman of Consejo Minero, the industry body representing the largest mining companies operating in Chile
- CEO of the Group's mining division

### CURRENT POSITIONS

- Member of the board of Consejo Minero
- Non-Executive Director of Quiñenco SA; and of Banco de Chile and Sociedad Matriz SAAM SA, both of which are listed companies in the Quiñenco group
- Member of the governing board of Centro de Estudios Pùblicos, a Chilean not-for-profit academic foundation
- Chairman of 2019 APEC CEO Summit



## OLLIE OLIVEIRA

**Senior Independent Director, 67**  
INDEPENDENT: YES  
APPOINTED TO THE BOARD  
2011  
**APPOINTED SENIOR INDEPENDENT DIRECTOR 2016**  
Chartered accountant, management accountant and economist with over 35 years of strategic and operating experience in the mining industry and corporate finance

### PREVIOUS ROLES

- Senior executive positions within the Anglo American group, including Executive Director Corporate Finance and Head of Strategy and Business Development of De Beers SA
- Director and audit committee chairman of Dominion Diamond Corporation

### CURRENT POSITIONS

- Director, senior independent director, nomination committee chairman and audit and risk committee and remuneration committee member of Polymetal International plc



## GONZALO MENÉNDEZ

**Non-Executive Director, 70**  
INDEPENDENT: NO  
APPOINTED TO THE BOARD  
1985  
Commercial engineer and economist with extensive experience in commercial and financial businesses across Latin America

### PREVIOUS ROLES

- CEO of Antofagasta Holdings plc
- Member of the governing board of Centro de Estudios Pùblicos
- Member of the High Council of Universidad de Antofagasta
- Member of the Council of COANIL, a charitable foundation for intellectually-disabled children
- Member of the Corporate Governance Committee, SOFOFA/KPMG
- Member of the Council of the School of Business and Economics, Diego Portales University
- Professor, Graduate School of Business and Economics, University of Chile

### CURRENT POSITIONS

- Chairman of the Board of Directors of Banco Latinoamericano de Comercio Exterior SA "Bladex", listed on the NYSE
- Director of Quiñenco SA and other companies in the Quiñenco group, including Banco de Chile and Compañía Sudamericana de Vapores SA
- Vice-Chairman of Fundación Andrónico Luksic A (charitable foundation)
- Vice-Chairman of Fundación Educacional Luksic (charitable foundation)



## RAMÓN JARA

**Non-Executive Director, 66**  
INDEPENDENT: NO  
APPOINTED TO THE BOARD  
2003  
Lawyer with considerable legal and commercial experience in Chile

### PREVIOUS ROLES

- Partner, Jara del Favaro Abogados
- Director of Empresa Nacional del Petróleo ("ENAP")

### CURRENT POSITIONS

- Chairman of Fundación Minera Los Pelambres (charitable foundation)
- Director of Fundación Andrónico Luksic A (charitable foundation)



## JUAN CLARO

**Non-Executive Director, 68**  
INDEPENDENT: NO  
APPOINTED TO THE BOARD  
2005  
Extensive industrial experience in Chile, including an active role representing Chilean industrial interests nationally and internationally

### PREVIOUS ROLES

- Chairman of the Sociedad de Fomento Fabril (Chilean Industrial Council)
- Chairman of the Confederación de la Producción y del Comercio (Chilean Business Confederation)
- Chairman of the Consejo Binacional de Negocios Chile-China (Council for Bilateral Business Chile-China)

### CURRENT POSITIONS

- Chairman of Embotelladora Andina SA (Coca Cola) and Energía Coyanco SA
- Director of Empresas Melón and Agrosuper
- Member of the governing board of Centro de Estudios Pùblicos
- Country adviser, Goldman Sachs

\* As noted on page 89 William Hayes will not offer himself for re-election at the 2019 AGM.

## KEY TO COMMITTEES

 NG	Nomination and Governance
 AR	Audit and Risk
 ST	Sustainability and Stakeholder Management
 PC	Projects
 RT	Remuneration and Talent Management
 Chairman	

## BOARD MEETING ATTENDANCE

	Number attended		Number attended		Number attended
Jean-Paul Luksic	9/9	Juan Claro	9/9	Vivianne Blanlot	9/9
Ollie Oliveira	9/9	William Hayes <sup>1</sup>	7/9	Jorge Bande	9/9
Gonzalo Menéndez	9/9	Tim Baker <sup>2</sup>	8/9	Francisca Castro	9/9
Ramón Jara	9/9	Andrónico Luksic C <sup>3</sup>	7/9		

1. William Hayes was unable to attend two meetings during the year due to commitments in his capacity as Chair of the Group's Joint Venture Company, Tethyan Copper Company Pty Limited.  
 2. Tim Baker was unable to attend one meeting during the year due to a commitment outside Chile.  
 3. Andrónico Luksic C was unable to attend two meetings during the year due to an unscheduled meeting requiring his attendance and a commitment outside Chile.



### TIM BAKER

Non-Executive Director, 67

INDEPENDENT: YES  
APPOINTED TO THE BOARD  
2011

Geologist with significant mining operations experience across North and South America and Africa, which has included managing mines in Chile, the United States, Tanzania and Venezuela and geological and operating roles in Canada, Kenya and Liberia

#### PREVIOUS ROLES

- Vice President and Chief Operating Officer at Kinross Gold Corporation
- General Manager of Placer Dome Chile

#### CURRENT POSITIONS

- Chairman of Golden Star Resources
- Director of Sherritt International Corporation
- Director of Alio Gold (previously called Rye Patch Gold Corporation)

### ANDRÓNICO LUKSIC C

Non-Executive Director, 65

INDEPENDENT: NO  
APPOINTED TO THE BOARD  
2013

Extensive experience across a range of business sectors throughout Chile, Latin America and Europe

#### CURRENT POSITIONS

- Chairman of Quiñenco SA and of Compañía Cervecerías Unidas SA; Vice Chairman of Banco de Chile and Compañía Sudamericana de Vapores SA, all of which are listed companies in the Quiñenco group
- Director of Nexans SA, a company listed on NYSE Euronext Paris

### VIVIANNE BLANLOT

Non-Executive Director, 64

INDEPENDENT: YES  
APPOINTED TO THE BOARD  
2014

Economist with extensive experience across the energy, mining, water and environmental sectors in the public and private sectors in Chile

#### PREVIOUS ROLES

- Executive Director of the Comisión Nacional de Medio Ambiente (Environmental Agency in Chile)
- Undersecretary of Comisión Nacional de Energía (National Energy Commission in Chile)
- Minister of Defence for Chile
- Director of Scotiabank Chile
- Member of the Consejo para la Transparencia (Transparency Council), the Chilean body responsible for enforcing transparency in the public sector

#### CURRENT POSITIONS

- Director of Empresas CMPC SA, a pulp and packaging company listed in Chile
- Director of Colbún SA, an energy company listed in Chile

### JORGE BANDE

Non-Executive Director, 66

INDEPENDENT: YES  
APPOINTED TO THE BOARD  
2014

Economist with over 40 years' experience in the mining, energy and water industries in Chile

#### PREVIOUS ROLES

- Co-founder and Executive Director of Copper and Mining Studies "CESCO", an independent not-for-profit think tank focused on mining policy issues
- Vice President of Development and later director of Codelco
- CEO of AMP Chile
- Adviser to the World Bank
- Member of the Global Agenda Council for Responsible Minerals Resource Management at the World Economic Forum
- Director of Edelnor SA, Electroandina SA (now E-CL SA) and Bupa Chile SA
- Member of the Experts Committee for Copper Prices for the Chilean Ministry of Finance

#### CURRENT POSITIONS

- Director of CESCO
- Director of NextMinerals SA
- Professor of the International Post-Graduate Programme in Mineral Economics at the University of Chile

### FRANCISCA CASTRO

Non-Executive Director, 56

INDEPENDENT: YES  
APPOINTED TO THE BOARD  
2016

Commercial engineer with over 25 years' experience in industry including mining, energy, finance and public/private infrastructure projects in the United States and Chile

#### PREVIOUS ROLES

- Executive Vice-President of Strategic Business and Subsidiaries at Codelco
- General Co-ordinator of Concessions at the Chilean Ministry of Public Works
- Various roles within the Chilean Finance Ministry and the World Bank, Washington DC

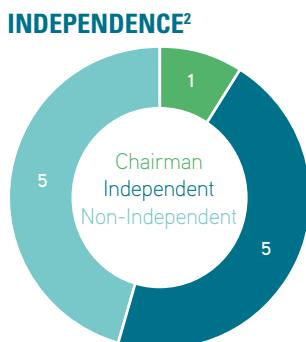
#### CURRENT POSITIONS

- Member of the Chilean Pension Funds Risk Classification Committee
- Member of the independent Technical Panel of Chilean Public Works Concessions
- Director of Salfacorp

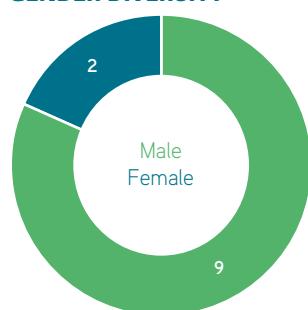
# A DIVERSE AND EFFECTIVE BOARD

The Board comprises of 11 Directors with a broad and complementary set of technical skills, educational and professional experience, nationalities, personalities, cultures, perspectives and gender.

## BOARD BALANCE<sup>1</sup>



## GENDER DIVERSITY



## TENURE



## NATIONALITY<sup>3</sup>



1. William Hayes will not be standing for re-election at the 2019 AGM. The following figures reflect the Board balance during 2018 and as at the date of the Annual Report.

2. The Board reviews the independence of Directors annually. None of the relationships set out in Provision B.1.1. of the Code apply to the Company's Independent Directors.

3. "A Report into the Ethnic Diversity of UK Boards" (Sir John Parker, The Parker Review Committee, 12 October 2017), identified eight of the current Directors as being from an ethnic minority background (which includes individuals with South American heritage). As explained on page 106, although the Group's footprint is primarily in Chile, the mining industry is international and the Board includes a number of Directors from outside Chile in support of its vision and strategy.

## BOARD SKILLS MATRIX

Director	Independence	CEO experience	Mining experience	Mining operations experience	Board governance	Financial	Legal	Executive compensation	Latin American experience	UK market	Project management	Sustainability	Energy experience	Government relations	Communication
Jean-Paul Luksic	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ollie Oliveira	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gonzalo Menéndez	✓	✓		✓	✓		✓	✓					✓	✓	
Ramón Jara	✓			✓	✓	✓		✓			✓	✓	✓	✓	✓
Juan Claro	✓				✓		✓	✓			✓	✓	✓	✓	✓
William Hayes	✓	✓		✓	✓	✓	✓	✓		✓			✓	✓	✓
Tim Baker	✓	✓	✓	✓			✓	✓		✓	✓	✓			
Andrónico Luksic C	✓				✓	✓	✓	✓					✓	✓	
Vivianne Blanlot	✓				✓			✓			✓	✓	✓	✓	✓
Jorge Bande	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
Francisca Castro	✓	✓		✓	✓		✓	✓		✓	✓	✓	✓		

## PROFESSIONAL DEVELOPMENT

### INDUCTION

New Directors receive a thorough induction on joining the Board. This includes meetings with the Chairman, other Directors, the CEO and Executive Committee members; briefings on the Group's strategy, UK corporate governance, operations, projects and exploration activities; and visits to the Group's operating companies.

### CONTINUING PERSONAL DEVELOPMENT

Directors receive an annual briefing on governance, legal, regulatory and market developments that are relevant to directors of UK-listed companies complemented by discussions on Board-related matters.

Directors have access to, and are encouraged regularly to attend, round-table discussions, seminars and other events that cover topics relevant to the Group and their role.

### RESOURCES

The Company provides Directors with the necessary resources to maintain and enhance their knowledge and capabilities.

All Directors have access to the advice and services of the Company Secretary as well as to management and such information as they need to discharge their duties and responsibilities fully and effectively.

Directors are also entitled to seek independent professional advice concerning the affairs of the Group at the Company's expense.

# ROLES IN THE BOARDROOM



## CHAIRMAN

### JEAN-PAUL LUKSIC

**Leads the Board and ensures its effectiveness in all aspects of its duties.**

- Promotes the highest standards of integrity, probity and corporate governance.
- Sets the agenda for Board meetings in consultation with other Directors, members of senior management, and the Company Secretary.
- Chairs meetings and ensures that there is adequate time for discussion of all agenda items, focusing on strategic, rather than routine, issues.
- Promotes a culture of openness and debate within the Board by facilitating the effective contribution of all Directors.
- Oversees Director development, induction and performance reviews.
- Leads relations with shareholders.

## INDEPENDENT NON-EXECUTIVE DIRECTORS

### TIM BAKER JORGE BANDE VIVIANNE BLANLOT FRANCISCA CASTRO OLIE OLIVEIRA

**Ensure that no individual or small group of individuals can dominate the Board's decision-making.**

- Meet the independence criteria set out in the UK Corporate Governance Code.
- No connection with the Group or any other Director which could be perceived to compromise independence.
- Provide a range of outside perspectives to the Group and encourage robust debate with, and challenge of, the Group's executive management.

## CEO

### IVÁN ARRIAGADA<sup>1</sup>

**Leads the implementation of the Group's strategy set by the Board.**

- Manages the overall operations and resources of the Group.
- Leads the Executive Committee and ensures its effectiveness in all aspects of its duties.
- Provides information to the Board and participates in Board discussion regarding day-to-day activities of the Group.

## SENIOR INDEPENDENT DIRECTOR

### OLIE OLIVEIRA

**Provides a sounding board for the Chairman and supports the Chairman in the delivery of his objectives as required.**

- Where necessary, acts as an intermediary between the Chairman and the other members of the Board or the CEO.
- Acts as an additional point of contact for shareholders, focusing on the Group's governance and strategy, and gives shareholders an alternative means of raising concerns other than with the Chairman or senior management.

## NON-EXECUTIVE DIRECTORS

### JUAN CLARO WILLIAM HAYES RAMÓN JARA ANDRÓNICO LUKSIC C GONZALO MENÉNDEZ

**Provide a range of outside perspectives to the Group and encourage robust debate with, and challenge of, the Group's executive management.**

- The Board does not consider these Directors to be independent because they do not meet one or more of the independence criteria set out in the UK Corporate Governance Code.<sup>2</sup>
- Ensure that no individual or small group of individuals can dominate the Board's decision-making.

## EXECUTIVE COMMITTEE MEMBERS

### + See pages 102 and 103

**Present proposals, recommendations and information to the Board within their areas of responsibility.**

- Support the CEO in the implementation of the Group's strategy set by the Board.

## COMPANY SECRETARY

### JULIAN ANDERSON

**Ensures that Directors have access to the advice and services they need to perform their roles effectively.**

- Provides a conduit for Board and Committee communications and provides a link between the Board and management.
- Supports the Board in applying the Code and complying with listing obligations.

1. The Group's CEO, Iván Arriagada, is not a director. This is consistent with practice in Chile where local law prohibits CEOs of public companies from being directors of those companies. Despite this, interaction between the Board and executive management is as you would expect between Non-Executive Directors and management in a typical UK-listed company. The CEO and CFO are invited to attend all Board meetings, the CEO is also invited to attend all Board Committee meetings and there is regular formal and informal dialogue between management and the Board. The Board considers that there are considerable benefits associated with having a Board comprising exclusively Non-Executive Directors. Not only does it provide a broad range of perspectives, but also encourages robust debate with, and independent oversight of, the Group's executive management.

2. Ramón Jara provides advisory services to the Group. Andrónico Luksic C is the brother of Jean-Paul Luksic, the Chairman of the Company, and is Chairman of Quiñenco SA and Chairman or Director of Quiñenco's other listed subsidiaries. Jean-Paul Luksic and Gonzalo Menéndez are also Non-Executive Directors of Quiñenco and some of its listed subsidiaries. Like Antofagasta plc, Quiñenco is controlled by a foundation in which members of the Luksic family are interested. Gonzalo Menéndez, Ramón Jara, Juan Claro and William Hayes have served on the Board for more than nine years from the date of their first election.

# AN EXPERIENCED MANAGEMENT TEAM



**IVÁN ARRIAGADA**

CEO

JOINED THE GROUP IN 2015

- Commercial engineer and economist with over 20 years' international experience in the mining and oil and gas industries.

#### PREVIOUS ROLES

- Chief Financial Officer of Codelco
- Various positions at BHP Billiton, including President of Pampa Norte (Spence and Cerro Colorado), Vice President Operations and Chief Financial Officer of the Base Metals division
- Over 15 years of experience with Shell in Chile, the United Kingdom, Argentina and the United States

BD D P

**ALFREDO ATUCHA**

CFO

JOINED THE GROUP IN 2013

- Chartered accountant with an MBA and over 30 years' financial and international experience in the mining, energy and fast-moving consumer goods industries.

#### PREVIOUS ROLES

- 10 years' at BHP Billiton as Vice President of Finance for Minera Escondida and Senior Manager of Base Metals Major Projects
- Finance and Administration Manager at Chilquinta Energía (part of Sempra Energy and PSG Group)
- CFO at Reckitt Benckiser in Spain, Brazil and Chile
- Tax Planning and Treasury Manager at British American Tobacco

BD E D P

**RENÉ AGUILAR**

Vice President of Corporate Affairs and Sustainability

JOINED THE GROUP IN 2017

- Industrial psychologist with 20 years' experience in mining, including in sustainability, safety, human resources and corporate affairs.

E P

#### PREVIOUS ROLES

- Group Head of Safety at Anglo American plc, London
- Vice President of Corporate Affairs and Sustainability at Codelco, Chile
- Health and Safety Director at International Council on Mining and Metals "ICMM", London



**HERNÁN MENARES**

Vice President of Operations

OP P

JOINED THE GROUP IN 2008

- Mining engineer and mineral economist with 30 years' experience in mining.

#### PREVIOUS ROLES

- Project Development Manager for the Centinela District
- Operating and business planning roles at Codelco
- Various positions at Compañía Minera del Pacífico and Compañía Minera Huasco SA



**PATRICIO ENEI**

Vice President of Legal

E D

JOINED THE GROUP IN 2014

- Lawyer with over 20 years' experience in mining, including roles at some of the largest international copper companies operating in Chile.

#### PREVIOUS ROLES

- General Counsel at Codelco
- Corporate Affairs Manager at Minera Escondida
- Senior Lawyer at BHP Billiton in Chile
- Chief Legal Counsel at Minera Doña Inés de Collahuasi
- Lawyer at the Instituto de Normalización Previsional and in private practice



**ANDRÓNICO LUKSIC L.**

Vice President of Development

BD

JOINED THE GROUP IN 2006

- Business administrator with broad mining experience in sales, exploration, business development and general management.

#### PREVIOUS ROLES

- Corporate Manager at Antofagasta Minerals
- Director, Antofagasta Minerals Toronto Office
- Various positions at Banco de Chile

## KEY TO COMMITTEES

**OP** Operating Performance Review Committee  
**BD** Business Development Committee

**E** Ethics Committee  
**D** Disclosure Committee  
**P** Project Steering Committees



### ANA MARÍA RABAGLIATI

#### Vice President of Human Resources

##### JOINED THE GROUP IN 2013

- Human resources specialist with more than 25 years' experience in international companies across a range of industries, including financial services, industrials and oil and gas.

##### PREVIOUS ROLES

- Corporate Human Resources Manager at Masisa
- Country Human Resources Vice President at Citigroup
- Human Resources Manager of the Lafarge Group in Chile
- Various positions at Shell, including Human Resources Manager of the Lubricants Business of Shell Oil Latin America



### GONZALO SÁNCHEZ

#### Vice President of Sales

##### JOINED THE GROUP IN 1996

- Civil engineer with over 25 years' experience in marketing and hedging metals.

##### PREVIOUS ROLES

- Deputy Commercial Director, Antofagasta Minerals
- Copper sales at Codelco



### FRANCISCO WALTHER

#### Vice President of Projects

##### JOINED THE GROUP IN 2007

- Mining engineer with over 25 years' experience in mining operations and engineering for open pit and underground mines.

##### PREVIOUS ROLES

- Project Director of Reko Diq
- Director of Codelco's Chuquicamata underground mine project
- Head of engineering for Codelco's Mansa Mina (now Ministro Hales) project



### MAURICIO LARRAIN

#### General Manager – Los Pelambres

##### JOINED THE GROUP IN 2017

- Civil mining engineer and Master of Science (Mineral Economics) with 28 years' experience in mining.

##### PREVIOUS ROLES

- General Manager at El Teniente
- Operations Manager at El Teniente
- Mine Planning Corporate Director at Codelco
- Various positions at Codelco and Los Pelambres



### ANDRÉS HEVIA

#### General Manager – Centinela

##### JOINED THE GROUP IN 2017

- Civil mining engineer and MBA, with 35 years' experience in mining.

##### PREVIOUS ROLES

- Mining consultant and director in various mining companies
- Head of Planning at Minera Escondida
- General Manager at São Bento Mineração in Brazil



### LEONARDO GONZALEZ

#### General Manager – Antucoya

##### JOINED THE GROUP IN 2015

- Civil mining engineer and MBA, with 24 years' experience in mining.

##### PREVIOUS ROLES

- General Manager at Zaldívar
- Operations Manager at Zaldívar
- Mining Superintendent at Collahuasi



### LUIS SANCHEZ

#### General Manager – Zaldívar

##### JOINED THE GROUP IN 2016

- Civil metallurgic engineer and MBA, with 24 years' experience in mining.

##### PREVIOUS ROLES

- Operations Manager at Centinela
- President at Pampa Norte (Spence and Cerro Colorado)
- General Manager at Spence
- Various roles at Escondida, Codelco and Collahuasi



### MAURICIO ORTIZ

#### General Manager – FCAB (Transport division)

##### JOINED THE GROUP IN 2015

- Electrical engineer and Master of Science (Metals and Energy Finance) with 14 years' experience in the energy, mining and railway industries.

##### PREVIOUS ROLES

- Business Development Manager at Antofagasta plc
- Finance Manager at Codelco – Chuquicamata
- Business Development Principal at Rio Tinto plc, London
- Various operating and project roles at BHP Billiton

# BOARD COMMITTEES

The Board relies on its Committees to ensure that deliberations are focused on key issues and that proposals are submitted after detailed specialist debate and rigorous challenge.

Each Committee also provides an essential forum to allow the views and perspectives of stakeholders to be discussed, so that they can be represented in the Board's deliberations.

## NOMINATION AND GOVERNANCE COMMITTEE

p105

**CHAIR**  
Jean-Paul Luksic

**MEMBERS**  
Tim Baker  
Ollie Oliveira

### KEY RESPONSIBILITIES

- Corporate governance
- Succession planning for the CEO and the Board
- Board and Committee composition
- Board effectiveness reviews

## AUDIT AND RISK COMMITTEE

p108

**CHAIR**  
Ollie Oliveira

**MEMBERS**  
Jorge Bande  
Vivianne Blanlot  
Francisca Castro

### KEY RESPONSIBILITIES

- Financial reporting
- External audit
- Internal audit
- Risk and internal control
- Compliance

## SUSTAINABILITY AND STAKEHOLDER MANAGEMENT COMMITTEE

p114

**CHAIR**  
Vivianne Blanlot

**MEMBERS**  
Jorge Bande  
Juan Claro  
William Hayes

### KEY RESPONSIBILITIES

- Policies and commitments
- Safety and health
- Community relations
- Environment

## PROJECTS COMMITTEE

p116

**CHAIR**  
Ollie Oliveira

**MEMBERS**  
Tim Baker  
Jorge Bande  
Ramón Jara

### KEY RESPONSIBILITIES

- Policies and commitments
- Project reviews
- Lessons learned from completed projects

## REMUNERATION AND TALENT MANAGEMENT COMMITTEE

p118

**CHAIR**  
Tim Baker

**MEMBERS**  
Vivianne Blanlot  
Francisca Castro

### KEY RESPONSIBILITIES

- Remuneration governance
- Directors' remuneration
- Executive remuneration
- Human resources and policy
- Talent management and succession planning for the Executive Committee



**"The Nomination and Governance Committee ensures that the Board and its Committees operate effectively and that the Group is aligned with the principles of corporate governance best practice."**

Jean-Paul Luksic, Chairman

## 2018 MEMBERSHIP AND MEETING ATTENDANCE

	Number attended
Jean-Paul Luksic (Chair)	3/3
Tim Baker	3/3
Ollie Oliveira	3/3

- Other regular attendees include the CEO and the Company Secretary.
- The Committee meets as necessary and at least twice per year.
- Except for the Chairman, all Committee members are independent.

## KEY RESPONSIBILITIES

The Nomination and Governance Committee supports the Board in ensuring that the Group has effective governance structures in place and that the Board and its Committees operate effectively. The Committee identifies qualified individuals to join the Board, recommends any changes to Board and Committee composition and monitors an annual process to assess Board effectiveness.

This involves:

- monitoring trends, initiatives and proposals in relation to corporate governance

- overseeing and facilitating annual reviews of the Chairman, Directors and the Board, including externally-facilitated reviews
- evaluating and overseeing the balance of skills, knowledge and experience on the Board and its Committees, and reviewing the independence of Directors
- overseeing Board succession plans and leading the process of identifying suitable candidates to fill vacancies, nominating such candidates for approval by the Board and ensuring that appointments are made on merit and against objective criteria
- overseeing CEO succession plans.

## KEY ACTIVITIES IN 2018

### Corporate governance

- Reviewed the 2018 UK Corporate Governance Code and associated reforms and approved plans to respond to the new requirements and expectations.
- Reviewed updates to the Committees' terms of reference.
- Completed the review of governance structures in place at the Group's operating companies.
- Solicited feedback from shareholders on the Group's corporate governance arrangements in advance of the 2018 AGM.
- Attended meetings with shareholders.
- Reviewed Directors' potential conflict of interest declarations.
- Reviewed the Governance section of the 2017 Annual Report and recommended it to the Board for approval.

### Succession planning

- Reviewed updated written succession plans for the Board and its Committees.
- Reviewed updated written succession plans for the CEO.
- Continued to provide input to the Remuneration and Talent Management Committee in relation to succession plans for the Executive Committee (excluding the CEO) and the Group's diversity and inclusion programme.

### Board and committee composition

- Reviewed the independence of all Directors, making recommendations to the Board.
- Recommended that Independent Non-Executive Director, Francisca Castro, be appointed Chair of the Remuneration and Talent Management Committee, with effect from 1 May 2019.

### Board effectiveness reviews

- Oversaw the implementation of recommendations arising from the 2016-17 externally-facilitated review of Board and Committees' performance.
- Reviewed the 2018 internal evaluation of Board and Committees' performance.
- Reviewed plans for the external Board effectiveness review to be carried out in 2019.

# BOARD COMPOSITION AND SUCCESSION PLANNING

**Succession planning at Board level includes the setting of policies that encourage a strong and diverse pipeline of candidates well into the future.**

## **Q. WHAT IS THE SCOPE OF THE BOARD'S SUCCESSION PLANNING?**

The succession plan is reviewed formally once a year and addresses Board size, Committee structure and composition, skills on the Board, Board and Committee members' tenure, independence of Directors, diversity (including gender), Board roles, Board policies, and succession plans for all Board and Committee positions. Succession plans include contingency plans in the event of an unexpected departure, medium-term plans for orderly replacement of current Directors and long-term plans linking strategy with the skills needed on the Board in the future.

## **Q. WHAT STEPS DOES THE COMMITTEE TAKE TO IDENTIFY AND APPOINT NEW DIRECTORS?**

The Committee discusses relevant profiles for future appointments and potential candidates, taking into account the results of Board effectiveness reviews, as shown on page 107, the Group's vision and strategy, as shown on pages 18 and 19, the Board's diversity policy (below) and the core competencies and areas of expertise on the Board, as shown on page 100.

The Committee usually appoints external search consultancies who do not have any connection to the Group to assist with searches for Board candidates. The consultancy is typically briefed on the skills and experience of the existing Directors and asked to identify potential candidates who would best meet a number of criteria, including relevant experience, skills, personality type, contribution to Board diversity and whether they have sufficient time to devote to the role. Members of the Committee usually interview short-listed candidates and collectively select a candidate to be recommended to the Board for appointment. A similar process is being followed for the director search that we have commenced in 2019.

## **Q. WHAT IS THE BOARD'S POSITION IN RELATION TO DIVERSITY?**

The Board believes in the benefits of diversity and that more diverse companies attract the best talent, thereby achieving stronger overall performance. However, diversity is a general term that covers a number of different components including gender, disability, educational and professional experience, nationality, personality type, culture and perspective. We are an international mining company based in Chile, thus we consider this broad definition of diversity when setting policies and making appointments in support of our vision and strategy.

## **Q. WHAT POLICY IS CURRENTLY IN PLACE TO ENSURE THAT THERE IS DIVERSITY AT BOARD LEVEL?**

The Board adopted its Diversity Policy in August 2015.

The Committee has worked hard to ensure that the Board is suitably diverse across the definitions of diversity set out above. The Board reviews its effectiveness in meeting diversity goals each year as part of the annual Board evaluation process.

As previously noted, the Group's current activities are focused in Chile, but for many years the Board has included a number of Directors from outside Chile in support of our vision and strategy. Our Board is more diverse than companies of a similar size and scope

in Chile and we consider this to be a significant advantage. Two of our three most recent Board appointments have been women.

The Board actively seeks to increase female representation beyond the current level, while ensuring that appointments continue to be made on merit. This extends across all levels of the Group, including the Board where we ensure that searches for new Directors access the widest possible talent pool and include female candidates.

## **Q. WHAT POLICIES ARE IN PLACE TO PROMOTE A DIVERSE PIPELINE OF TALENT FOR THE FUTURE?**

To further promote diversity at the Executive Committee level and below, a new Diversity and Inclusion strategy was approved by the Board in 2017. This was prepared following an exercise to assess the maturity of the Group's existing diversity and inclusion model which included interviews with stakeholders, a bench-marking exercise and a comprehensive review of the Group's policies and processes. As noted on page 89, the Board has reviewed progress in the implementation of this strategy during 2018 which saw the adoption of targets to double the percentage of women in the workforce by 2022, compared to the 2017 baseline and to ensure that more than 1% of the workforce comprises of disabled workers by the end of 2019.

The Group carefully considered the elements of diversity that would most contribute to achievement of the Group's vision and strategy and has committed to increasing the percentage of women, people with disabilities and international backgrounds and/or experience in the workforce by 2022, and for these improvements to be embedded, sustained and improved upon from that point onwards. The current levels of gender diversity within the mining division's workforce and further rationale behind the Diversity and Inclusion strategy are set out within the Strategic Report on page 36.

As shown on page 129, metrics associated with the development of the Diversity and Inclusion strategy were included as part of the Group's Annual Bonus Plan in 2018 and will again be included in 2019. Performance will be assessed by the Remuneration and Talent Management Committee at the end of the year.

The Remuneration and Talent Management Committee is also responsible for succession planning for the Executive Committee (excluding the CEO) which allows for ongoing monitoring of the impact of the Diversity and Inclusion strategy on appointments and progress within the Company including at the level of those who report to the Executive Committee, as noted on page 120.

## **Q. WHAT SUPPORT DOES THE COMPANY PROVIDE TO FACILITATE INDUCTION AND ASSIST WITH PROFESSIONAL DEVELOPMENT?**

The Company provides new Directors with a thorough induction, and incumbent directors with access to resources and continuing professional development. Further details are set out on page 100.

**Jean-Paul Luksic**

Chair of the Nomination and Governance Committee

# A YEAR OF INTERNAL REVIEW

Candid, thorough effectiveness reviews reflect the Board's commitment to continuous improvement.

## EXTERNAL REVIEW

The Board aims to undertake an externally-facilitated effectiveness review at least once every three years. A further external review will be undertaken in 2019.

The most recent external reviews were carried out in 2016/17 and 2013 by Independent Audit Limited ("Independent Audit"). Independent Audit has no other connection with the Group.

Based on interviews with Board members and executive management and detailed reviews of Board and Committee papers, Independent Audit stated in its February 2017 report that:

- a very thorough approach to follow-through of the agreed actions has been adopted
- considerable progress has been made across many aspects of the Board's activities, including a strong focus on cost and competitiveness as well as considerable attention given to other crucial areas, including relations with local communities, and to safety and health
- looking ahead, management will need to focus on the further development of the information provided to Directors to help support discussion of the main challenges and risks. In turn, the Board will need to assess how the Group will respond to industry trends, macroeconomic developments and innovation.

Following the 2019 externally-facilitated review, the Chairman and the Senior Independent Director will meet to agree an action plan for closing any gaps identified and the Nomination and Governance Committee will evaluate gap-closure progress.

## INTERNAL REVIEW

In years where there is no externally-facilitated review, the Board conducts an internal effectiveness assessment, led by the Senior Independent Director and the Company Secretary.

An internal review was carried out in 2018, which confirmed that significant improvements had been made to Board effectiveness since the first external review in 2013. The Board will continue to use the findings of external and internal reviews to make additional improvements to Board and Committee effectiveness.

During 2018, the Senior Independent Director asked Non-Executive Directors to complete a survey on the Chairman's effectiveness. At a meeting without the Chairman present, the Senior Independent Director presented consolidated results to Non-Executive Directors and agreed on both positive aspects and improvement opportunities, which were summarised in a feedback letter shared by the Senior Independent Director with the Chairman. The Chairman used these comments to continue to improve the operation of the Board.

In turn, the Chairman assessed each of the Non-Executive Directors' individual effectiveness, performance and potential to assume new Board or Committee roles, in order to update the Board and Committee succession plans.

### Year 1 – 2016

- External effectiveness review, including benchmarking.
- Annual review of the Chairman by the Non-Executive Directors, led by the Senior Independent Director.
- Annual review of Non-Executive Directors conducted by the Chairman.

### Year 2 – 2017

- Internal review based on assessment and monitoring of gap closure progress following external effectiveness review.
- Annual review of the Chairman by the Non-Executive Directors, led by the Senior Independent Director.
- Annual review of Non-Executive Directors conducted by the Chairman.

### Year 3 – 2018

- Internal review, gap closure and development of plan for 2019 external assessment.
- Annual review of the Chairman by the Non-Executive Directors, led by the Senior Independent Director.
- Annual review of Non-Executive Directors conducted by the Chairman.

**"External reviews provide fresh ideas and we look forward to benefiting from another external review in 2019."**

Jean-Paul Luksic



**"The Audit and Risk Committee supports the Board in its responsibilities relating to financial reporting and risk management."**

Ollie Oliveira, Chair

## 2018 MEMBERSHIP AND MEETING ATTENDANCE

	Number attended
Ollie Oliveira (Chair)	7/7
Jorge Bande	7/7
Vivianne Blanlot <sup>1</sup>	6/7
Francisca Castro	7/7

1. Vivianne Blanlot was unable to attend one meeting held at short notice due to prior commitments.

- Other regular attendees include the CEO, the CFO, the Group Financial Controller, the Head of Internal Audit, the Head of Risk and the Company Secretary.
- At least one Committee member serves on each of the other Board Committees which allows the Committee to take into account the full spectrum of risks faced by the Group.
- The Committee meets as necessary and at least twice a year.
- All Committee members are independent.
- Ollie Oliveira, Jorge Bande and Francisca Castro are all considered to have recent and relevant financial experience.
- The Committee as a whole has significant experience relevant to the mining sector.

## KEY RESPONSIBILITIES

The Audit and Risk Committee assists the Board in meeting its responsibilities relating to financial reporting and control and risk management. The Committee's main responsibilities cover:

- financial reporting, which includes responsibility for reviewing the year-end and half-year financial reports, and monitoring the overall financial reporting process
- overseeing the external audit process and managing the relationship with PwC, the Group's external auditor

- internal audit, including monitoring of the Group's Internal Audit function, processes and findings
- assisting the Board with its responsibilities in respect of risk management, including reviews of the Group's risk appetite and key risks
- monitoring the performance of the compliance and crime prevention models.

## KEY ACTIVITIES IN 2018

Financial reporting	External audit	Risk and internal control	Compliance
<ul style="list-style-type: none"> <li>- Reviewed the 2017 year-end and 2018 half-year financial reports, focusing on the significant accounting issues relating to the Group's results.</li> <li>- Assisted the Board in ensuring that the 2017 Annual Report was fair, balanced and understandable, and reviewed the long-term viability statement contained in the 2017 Annual Report.</li> </ul>	<ul style="list-style-type: none"> <li>- Reviewed and approved the 2018 audit plan, including fees.</li> <li>- Assessed the effectiveness of the external audit process.</li> </ul>	<ul style="list-style-type: none"> <li>- Reviewed the conclusions of the assessment of the maturity of the Group's risk management process, which was completed during the year.</li> <li>- Played a central role in the review of the Group's risk appetite, which was completed during the year.</li> <li>- Assisted the Board in reviewing and updating the Group's risk management policy.</li> <li>- Conducted detailed reviews with the General Managers of each of the Group's operations, covering the operations' key risks.</li> <li>- Reviewed developments in the Group's standard risk management processes during the year.</li> <li>- Assisted the Board with its assessment of the Group's key risks and its review of the effectiveness of the risk management and internal control processes.</li> </ul>	<ul style="list-style-type: none"> <li>- Reviewed the Group's whistleblowing arrangements, including details of the most significant reports and the actions taken.</li> <li>- Reviewed updates to the conflict of interest declarations by the Group's employees and suppliers, and details of the Group's limited relationships with politically exposed persons.</li> <li>- Monitored the functioning of the Group's crime prevention model, in accordance with Chilean and UK anti-corruption legislation.</li> </ul>
	Internal audit		
	<ul style="list-style-type: none"> <li>- Reviewed the key findings from the internal audit reviews conducted during 2018.</li> <li>- Agreed the scope and areas of focus for the 2019 internal audit plan.</li> </ul>		

# PROACTIVE RISK MANAGEMENT

**Proactive and focused risk management is a key tool in ensuring optimal performance and driving appropriate behaviour across the Group.**

## Q. WHAT WERE THE KEY AREAS OF FOCUS FOR THE COMMITTEE IN 2018?

The Group completed a review of the maturity of its risk management process during the year. The Committee was closely involved throughout the process, in particular reviewing the conclusions and key actions arising from the assessment. Partly as a result of this process, the Group updated its risk management policy, and the Committee reviewed this policy prior to its approval by the Board. The Board concluded a detailed review of the Group's risk appetite, and the Committee was closely involved with the work around the framework and context of the review. I'll discuss the conclusions of these reviews in more detail below.

The copper market weakened in the second half of 2018, and we have considered the potential accounting implications of that, particularly in terms of the carrying value of the Group's assets.

We have also monitored the implementation work in respect of the significant new accounting standards, which apply for the first time in 2018 and 2019.

## FINANCIAL REPORTING

### Q. WHAT ARE THE COMMITTEE'S MAIN ACTIVITIES IN RESPECT OF THE GROUP'S FINANCIAL REPORTING?

The Committee reviews the year-end financial statements and half-yearly financial report, and ensures that the key accounting policies, estimates and judgements applied in those financial statements are reasonable.

We also monitor the overall financial reporting process to ensure it is robust and well controlled. This includes ensuring that the Group's accounting and finance function is adequately resourced, with appropriate segregation of duties, that there are appropriate internal review processes, that the Group's accounting policies are appropriate and clearly communicated, and that the Group's accounting and consolidation systems are also appropriate.

The Committee assists the Board in undertaking its assessment that the Annual Report is, when taken as a whole, fair, balanced and understandable, and provides the necessary information to allow shareholders to assess the Group's position and performance, business model and strategy. As part of this assessment, we use our detailed knowledge of the financial results and the key accounting judgements applied in the financial statements to ensure that the tone and content of the narrative reporting fairly reflects the financial results for the year.

We also review the going concern basis adopted in the financial statements, as well as the detailed long-term viability statement in the Annual Report.

Given the significant new accounting standards that apply in 2018 and 2019, we have monitored the implementation and impact of those new standards. As expected, the impact of the standards which applied for the first time in 2018 (IFRS 9 Financial Instruments and IFRS 15 Revenue from Contracts with Customers), was relatively limited for the Group. The implementation of IFRS 16 Leases has been a more complex and extensive process, and has a more pervasive impact for the Group's operations. We monitored the progress of the implementation, in terms of the detailed contract review process to identify leases contained within wider service contracts, the conclusions of that work, and the necessary systems changes and training required to implement the new standard. The main elements of the implementation process were completed well in advance of the 2018 year-end, and the effectiveness of the process has been confirmed by the smooth transition to the new standard from January 2019 onwards.

### Q. WHAT WERE THE SIGNIFICANT ACCOUNTING ISSUES IN RELATION TO THE FINANCIAL STATEMENTS CONSIDERED BY THE COMMITTEE DURING 2018?

The main accounting issues considered in detail by the Committee in respect of the 2018 financial statements were:

- Asset valuations: we have considered whether there were any indicators of impairment (or reversal of previous impairments) at the Group's operations, and concluded that there were not. Accordingly, we have not performed any impairment reviews in respect of the Group's assets at the 2018 year end. While the copper spot price has decreased during 2018 (from \$3.25/lb at 31 December 2017 to \$2.70/lb at 31 December 2018) we remain confident in a positive longer-term outlook for the copper market, supported by the increase in consensus analyst forecasts for the long-term copper price. We also considered the Group's operating performance as well as the progress of significant development projects that contribute to the value of the Group's operations, both of which were generally in line with expectations for 2018.
- Inventories: we keep the Group's inventory balances under close review. This reflects a combination of the value of the inventories, the long-term nature of some of the balances and the fact that the monitoring of mining work-in-progress inventories, particularly in respect of leaching processes, can be complex. Relevant factors that we review can include the processes and controls over the stockpiles, including physical verification processes, the specific accounting policies applied to the inventory balances, the level of headroom indicated by net realisable value tests, the forecast future movements in the value of the balances and the potential accounting impact of operating factors such as changing recovery levels for the leach pile inventories. These reviews have not raised any concerns with the carrying value of the Group's inventory balances as at 31 December 2018.

## EXTERNAL AUDIT

### Q. WHAT ARE THE COMMITTEE'S ACTIVITIES IN RESPECT OF THE EXTERNAL AUDIT PROCESS?

The Committee is responsible for overseeing Antofagasta's relationship with PwC, the Group's external auditor. I have a key direct relationship with Jason Burkitt, the lead PwC audit partner. We review and approve the scope of the external audit, the terms of engagement and fees. The Committee monitors the effectiveness of the audit process and we are responsible for ensuring the independence of the external auditor. We also make recommendations to the Board in respect of the appointment, reappointment or removal of the external auditor. The Committee formally meets with PwC without management present at least once a year.

### Q. HOW LONG HAS PWC BEEN THE GROUP'S AUDITOR?

PwC has been our external auditor for four years. We carried out a tender process during 2014, which resulted in PwC being appointed with effect from 2015 onwards. In line with relevant regulatory guidance we expect to undertake a tender process in respect of the external audit at least every ten years.

### Q. HOW DO YOU ASSESS THE EFFECTIVENESS OF THE EXTERNAL AUDIT PROCESS?

The Committee considered the following factors as part of its review of the effectiveness of the external audit process during the year:

- the appropriateness of the proposed audit plan, the significant risk areas and areas of focus, and the effective performance of the audit
- the technical skills and industry experience of the audit engagement partner and the wider audit team
- the quality of the external auditor's reporting to the Committee
- the effectiveness of the co-ordination between the UK and Chilean audit teams
- the effectiveness of the interaction and relationship between the Group's management and the external auditor
- feedback from management in respect of the effectiveness of the audit processes for the individual operations and the Group overall
- the review of reports from the external auditor detailing its own internal quality control procedures, as well as its annual transparency report.

In light of this assessment, the Committee considers it appropriate that PwC be reappointed as external auditor.

## INDEPENDENCE AND OBJECTIVITY OF THE EXTERNAL AUDITOR

The Committee monitors the external auditor's independence and objectivity in line with Group policy, which covers the potential employment of former auditors, the types of non-audit services that the external auditor may and may not provide to the Group, and the approval process in respect of permitted non-audit services.

The policy specifies services which the external auditor may not provide to any Group entity. This includes playing any part in the management or decision-making of the entity, preparing accounting records and financial statements and designing or implementing internal control procedures relating to the preparation of financial information. In addition, a number of more specific services are prohibited, including internal audit services and valuation services that would have a material effect on the financial statements and the preparation of material tax calculations. The policy also includes "blacklisted" services that may not be provided to Antofagasta plc or its subsidiaries within the European Union (EU) – for instance, virtually all services in respect of taxation are prohibited.

The policy also requires prior approval by the Committee for all non-audit services, other than services considered to be clearly trivial, which the Committee has defined as being services with fees of not more than \$25,000. In addition to this pre-approval process for specific non-audit services, the Audit and Risk Committee monitors the total level of non-audit services provided by the external auditor in order to ensure that neither the auditor's objectivity nor its independence is put at risk.

A breakdown of the audit and non-audit fees is disclosed in Note 7 to the financial statements. The Company's external auditor, PwC, has provided non-audit services (excluding audit-related services) which amounted to \$88,000, or 5% of the fees for audit and audit-related services. This mainly related to transfer pricing documentation and compliance services provided to Group companies outside the EU.

In general, where the external auditor is selected to provide non-audit services it is because it has specific expertise or experience in the relevant area and is considered to be the most suitable provider. The Committee has reviewed the level of these services in the course of the year and is confident that the objectivity and independence of the auditor is not impaired by such non-audit work.

The external auditor provides a report to the Committee at least once a year, setting out its firm's policies and procedures for maintaining its independence.

The Committee considers that PwC remained independent and objective throughout 2018.

## INTERNAL AUDIT

### Q. WHAT ARE THE COMMITTEE'S MAIN ACTIVITIES IN RELATION TO INTERNAL AUDIT?

The Committee monitors and reviews the effectiveness of the Group's Internal Audit function. The Head of Internal Audit reports directly to the Committee and meets us without management present at least once a year.

The Committee reviews and approves Internal Audit's plan of work for the coming year, including the department's budget, headcount and other resources. We ensure there are sufficient resources in the plan to allow for special reviews that may be required during the year.

We also monitor the resources available to the Internal Audit team so that it has the right mix of skills and experience. Internal Audit utilises a mix of permanent team members, temporary secondees from elsewhere in the Group and third parties, particularly for areas such as IT-related reviews. The permanent team includes members with specific expertise in some of the most relevant areas for the Group, including mining technical experience, IT and sustainability.

Internal Audit presents to the Committee summaries of the key findings from the reviews conducted during the year and any actions that have been taken or proposed. All Internal Audit reports are distributed to the Committee members once they have been finalised.

The Committee monitors the interaction between Internal Audit and PwC, to ensure an efficient relationship between the internal and external audit processes, avoid duplication of work, and achieve the effective and timely sharing of findings.

## RISK MANAGEMENT AND INTERNAL CONTROL

### Q. WHAT ARE THE COMMITTEE'S MAIN ACTIVITIES IN RELATION TO RISK MANAGEMENT AND INTERNAL CONTROL?

The Committee plays an important role in assisting the Board with its responsibilities with regard to risk management and related controls. The Board has ultimate responsibility for overseeing the Group's principal risks, as well as maintaining control systems. In order to achieve our business objectives, internal control systems are designed to identify and manage, rather than eliminate, the risk of failure, and can only provide reasonable, not absolute, assurance against material misstatement or loss. The Committee assists the Board with its assessment of the Group's principal risks and its review of the effectiveness of the risk management process.

### Q. WHAT WERE THE COMMITTEE'S MAIN ACTIVITIES IN 2018 RELATING TO RISK?

The Risk Management function presented to the Committee several times during the year on developments in the Group's risk management processes and Group-level strategic risks. The General Managers of the Group's operations presented to the Committee their assessments of their respective operations' key potential risks and any significant materialised risks. The analysis of key risks includes an assessment of the significance of the risks based on the probability of the risk materialising and the potential impact of the risk, as well as an evaluation of the quality of the controls in place in respect of those specific risks. The evaluation of the potential impact is not limited to economic factors but includes issues such as safety and health, environmental, community and reputational issues. We also look at whether those risks have been increasing or decreasing in significance. The General Managers present their forecasts of any expected change in key risks over the coming 12 months. If there is a specific issue at one of the operations that requires more detailed understanding, we will ask the General Manager to attend the next meeting to discuss that issue. This direct interaction between the Committee and the General Managers is extremely valuable – not just in terms of the direct insight into each operation it affords the Committee but in allowing us to emphasise the importance we attach to strong risk management processes.

As explained above, the Group completed a review of the maturity of its risk management process during the year. We have been closely involved throughout the process, in particular reviewing the conclusions and key actions arising from the assessment. In general, the review confirmed that the Group's risk management processes are at the appropriate level for a Group of its size and nature. The review helped us to identify a number of areas that would benefit from further improvement and we are working to further strengthen these processes, particularly with respect to our risk appetite processes, our risk-related training, and the full alignment of evaluation and remuneration processes with risk management objectives. Partly as a result of this review, the Group updated its risk management policy, which the Committee reviewed prior to its approval by the Board.

In terms of risk appetite, we have already updated our review of the Group's risk appetite. This was a Board-level process, but the Committee was closely involved, particularly with respect to the overall framework of the review.

The mining industry is undergoing a period of dynamic change, with technological advances presenting significant opportunities and risks, and it is important that our overall risk appetite assessment is regularly updated to reflect the challenges and opportunities facing the Group. A clearly-articulated risk appetite framework is very valuable in ensuring that we have a focused, proactive approach to risk management. It is also important in achieving a clear understanding across the Group regarding the types of actions and behaviours that are unacceptable. The updated review reconfirmed the Group's low risk appetite for issues relating to safety, environmental impact, local communities, and potential corruption issues. Conversely, we have a higher appetite for exposure to commodity price fluctuations, given that this is a fundamental part of our business, and focused exposure to the copper price is a key reason why many of our investors choose to invest in the Group. We also have a higher risk appetite in relation to the opportunities that come from adopting innovative technological solutions – assuming, of course, that the associated risks are well understood and managed.

**+ For more information on the Group's risk management framework please refer to pages 22 and 23**

## Q. HOW DOES THE COMMITTEE INTERACT WITH THE BOARD AND OTHER COMMITTEES?

I report to the Board following each Committee meeting, summarising the main matters reviewed by the Committee. These regular reports allow the Directors to understand the main issues under consideration, and, when relevant, to discuss these matters in more detail with the Board.

The Risk Management function presents directly to the Board, providing updates of the analysis of the Group's key risks and relevant developments in the risk management and compliance processes.

We try to ensure that the review of risk by the Board is not compartmentalised into isolated sessions, but permeates everything that the Board considers. To this end, the operating update provided by the CEO to the Board at each meeting covers any significant materialised risks, and each proposal presented to the Board incorporates an analysis of the principal risks.

These processes have assisted the Board in carrying out a robust assessment of the principal risks facing the Company, including those that could threaten its business model, future performance, solvency or liquidity, and to assess the acceptability of the level of risks that arise from the Group's operations and development activities.

As noted above, the Board concluded a detailed review of the Group's risk appetite during 2018. The Committee assisted the Board with this process, particularly in terms of the overall framework of the review.

Each year the Board, with the support of the Committee, reviews the effectiveness of the Group's risk management and internal control systems. The review covers all material controls, including financial, operating and compliance controls. No significant failures or weaknesses were identified as a result of this review during 2018.

## AUDIT AND RISK COMMITTEE, BOARD AND RISK MANAGEMENT FUNCTION INTERACTION

### BOARD

The Chairman of the Audit and Risk Committee reports to the Board following each Committee meeting, allowing a wider discussion of the risk and compliance issues reviewed in detail by the Committee.

### AUDIT AND RISK COMMITTEE

The Committee supports the Board in its review of the effectiveness of the Group's risk management and internal control systems.

### GENERAL MANAGERS OF THE OPERATIONS

The General Managers give detailed presentations to the Committee at least once a year, including on each operation's key risks and materialised risks.

The Risk Management function provides regular presentations covering changes in the Group's key risks, major materialised risks, and updates on the risk management and compliance processes.

### RISK MANAGEMENT FUNCTION

There are detailed presentations at each Committee meeting covering the risk management process, significant whistleblowing reports, and updates on compliance processes and activities.

We also have members of the Audit and Risk Committee participating on the Nomination and Governance Committee, the Projects Committee, the Remuneration and Talent Management Committee and the Sustainability and Stakeholder Management Committee, allowing close co-ordination between these Committees.

## COMPLIANCE

### Q. WHAT ARE THE COMMITTEE'S MAIN RESPONSIBILITIES RELATING TO COMPLIANCE?

The Committee ensures that appropriate compliance policies and procedures are observed throughout the Group. The Group's Risk Management function makes regular presentations to the Committee covering developments in the Group's compliance processes and significant compliance issues. Chilean law requires the Group to appoint a Crime Prevention Officer and the Committee makes recommendations to the Board regarding this appointment as well as monitoring and overseeing the performance of the role. The Crime Prevention Officer is currently Alfredo Atucha, the CFO. The Committee receives reports from the Risk Management function in respect of the Group's crime prevention model, in accordance with Chilean and UK anti-corruption legislation.

### Q. WHAT WERE THE COMMITTEE'S MAIN ACTIVITIES IN 2018 RELATING TO COMPLIANCE?

The Committee reviewed the Group's whistleblowing arrangements, which enable employees and contractors to raise concerns in confidence about possible improprieties or non-compliance with the Group's Code of Ethics. This is important to encourage any potential issues to be raised. We received regular reports on reported whistleblowing incidents, detailing the number and type of incidents, along with details of the most significant and the actions resulting from their investigation.

We reviewed updates with respect to the conflict of interest declarations by the Group's employees and suppliers, as well as details of the Group's limited relationships with politically exposed persons (ie individuals who hold prominent public positions). We also reviewed details of the compliance training undertaken by the Group's employees during the year.

#### Ollie Oliveira

Chair of the Audit and Risk Committee

**+** For more information on the Group's compliance and internal control framework, please refer to page 31.



Chair of the Audit and Risk Committee, Ollie Oliveira and Committee member, Francisca Castro, meeting with Centinela General Manager, Andrés Hevia, and members of his team at a site visit to Centinela during 2018



**"The interests of our stakeholders need to be addressed, including the commitments we have made to the communities neighbouring our operating sites. This reflects the focus of the Sustainability and Stakeholder Management Committee, the Board and the Group as a whole."**

Vivianne Blanlot, Chair

## 2018 MEMBERSHIP AND MEETING ATTENDANCE

	Number attended
Vivianne Blanlot (Chair)	8/8
Jorge Bande	8/8
Juan Claro <sup>1</sup>	7/8
William Hayes	8/8

1. Juan Claro was unable to attend one meeting held at short notice due to prior commitments.

- Other regular attendees include the CEO, the Vice President of Corporate Affairs and Sustainability and the Company Secretary.
- Sessions were also regularly attended by Directors who are not Committee members, including the Chairman of the Board.
- The Committee meets as necessary and at least twice per year.

## KEY RESPONSIBILITIES

- The Sustainability and Stakeholder Management Committee supports the Board in the stewardship of the Group's social responsibility programmes and makes recommendations to the Board to ensure that ethical, safety and health, environment, social and community considerations are taken into account in the Board's deliberations.

- The Committee provides guidance to the Board on sustainability matters, reviewing and updating the Group's framework of strategies and policies (including safety and health, environmental, climate change, human rights, community and other stakeholder interests), while monitoring and reviewing the Group's performance in respect of sustainability matters, indicators and targets.

## KEY ACTIVITIES IN 2018

Policies and commitments	Safety and health	Community relations	Environment
<ul style="list-style-type: none"> <li>- Reviewed the Group's 2017 Sustainability Report.</li> <li>- Reviewed the sustainability aspects of the Group's expansion projects at Los Pelambres and Centinela.</li> <li>- Reviewed the Committee's terms of reference.</li> </ul>	<ul style="list-style-type: none"> <li>- Monitored the continued deployment of the Group's safety and occupational health strategy.</li> <li>- Monitored the work conducted by the Independent Technical Review Board appointed to advise Los Pelambres and Centinela in the operation of their tailings deposits.</li> </ul>	<ul style="list-style-type: none"> <li>- Reviewed the application of UN Sustainable Development Goals to the "Somos Choapa" community relations programme.</li> <li>- Monitored results from the communications campaign "Generation Change".</li> <li>- Reviewed issues raised by communities with Los Pelambres and strategies to resolve them.</li> <li>- Reviewed Los Pelambres' public perception survey results.</li> <li>- Reviewed results from Los Pelambres' local employment programme.</li> <li>- Monitored the first year of the technical training centre at Los Vilos, run in partnership with a technical education specialist.</li> <li>- Reviewed the transport division's sustainability strategy.</li> </ul>	<ul style="list-style-type: none"> <li>- Reviewed the Group's environmental compliance programme.</li> <li>- Monitored fulfilment of the compliance plan presented by Los Pelambres to the environmental authorities.</li> <li>- Reviewed progress of the removal of the Cerro Amarillo waste rock dump and of the strategy to resolve legal disputes in Argentina.</li> <li>- Reviewed reports from the new environmental management system.</li> <li>- Reviewed results of the internal audit of sustainability processes.</li> </ul>



A full description of the Group's sustainability and stakeholder management initiatives can be found on pages 32 to 51

# MONITORING OUR COMMITMENTS TO STAKEHOLDERS

The Committee discusses topics and issues raised by the Group's stakeholders and ensures that they are considered as part of the Board's deliberations.

## **Q. HOW DOES THE COMMITTEE ENSURE THAT THE BOARD TAKES INTO ACCOUNT THE VIEWS AND INTERESTS OF STAKEHOLDERS?**

Committee meetings provide a forum for detailed discussion of the key issues that matter for our workforce (such as safety and health), local communities and other stakeholders. These issues are identified as part of the risk management and community engagement processes and are brought to the Committee by executive management. As Chairman of the Committee, I report to the Board following each Committee meeting, summarising the main matters reviewed by the Committee.

## **Q. WHAT WERE THE KEY ACHIEVEMENTS OVERSEEN BY THE COMMITTEE DURING THE YEAR?**

After 26 months without a fatality there was a fatal accident at Los Pelambres on 7 October and our sincere condolences go to the family of Jorge Pérez Barraza. This incident was both extremely sad and incredibly disappointing for the Group, and as a Committee we will do everything we can to help the Group achieve its target of zero fatalities in the future.

Although the Group missed its zero fatalities goal, in recent years the systematic and thorough application of safety standards and high levels of near-miss reporting by our operating companies has significantly improved our safety record. Our first priority is the safety and health of our people and we will continue to focus on these standards and reporting statistics and details in pursuit of a fatality-free working environment.

The Environmental Impact Assessment (EIA) for the Los Pelambres Expansion project was approved in February 2018 and an EIA was submitted for the extension of Zaldívar's water rights beyond 2025 in line with its existing life of mine.

Along with two other mining companies, we are pioneering an online system for monitoring the physical and chemical stability of tailings deposits and providing early emergency warnings in the event of a failure. The tailings dam at Los Pelambres is being used as the pilot, with the participation of the local community, and the results will be used to modify Chile's already-rigorous tailings deposit regulations.

The Group has made some 7,683 environmental commitments as part of the EIA processes it has completed to receive approval for its projects over the years, and is using updated operating controls to ensure compliance. The Committee has focused on ensuring that the executive management recognises the importance of fulfilling these commitments, as well as obtaining new approvals when new conditions or new technology require a practical adjustment to previous commitments. During the year the Committee also reviewed progress in closing gaps identified by an external audit of the Group's environmental commitments.

## **Q. SIGNIFICANT PROGRESS HAS BEEN MADE IN RELATION TO COMMUNITY RELATIONS AT LOS PELAMBRES. WHAT ABOUT STAKEHOLDERS ELSEWHERE IN THE GROUP?**

The future of our operating companies depends on committed and sustained partnerships with neighbouring communities and with local, regional and national governments. In 2018 the Committee oversaw the application of lessons learned from Los Pelambres' "Somos Choapa" model to the other mining operations and at the transport division through the "Dialogue for Development" initiative.

We are also pleased to report that the model has attracted the attention of others as best practice in stakeholder relations and how best to address community issues.

## **Q. WHAT ARE THE COMMITTEE'S PRIORITIES IN 2019?**

Our number one priority continues to be the safety and health of our workforce. We have learned that on-site verification by supervisors of the Group's safety standards, together with employees' and contractors' careful attention to risks through near-miss reporting, are key to meeting the Group's target of zero fatalities. Lessons from the safety model are also being applied to occupational health processes, with a goal of reaching the same maturity level as the Group's safety standards and processes.

The Committee will continue to monitor the implementation of the Group's environmental management system by the Group's operating companies. Being a good neighbour starts with continuing to meet environmental commitments.

Work is under way to achieve our greenhouse gases target for reduced carbon dioxide emissions, which was substantially advanced by the introduction of a new power purchase agreement at Zaldívar, which will now be exclusively supplied by renewable energy from 2020, as explained on page 56.

A good, long-term relationship with our neighbours is built day by day. The Committee continues to monitor the implementation of the Group's social programmes and the work done with communities close to our operations in accordance with the Group's Social Management Model.

### **Vivianne Blanlot**

Chair of the Sustainability and Stakeholder Management Committee



**“The Projects Committee oversees the full project lifecycle, from concept to start of operations, carefully assessing, through robust challenge, investment proposals prior to submission to the Board.”**

Ollie Oliveira, Chair

## 2018 MEMBERSHIP AND MEETING ATTENDANCE

	<u>Number attended</u>
Ollie Oliveira (Chair)	7/7
Tim Baker	7/7
Jorge Bande <sup>1</sup>	6/7
Ramón Jara	7/7

1. Jorge Bande was unable to attend one meeting held at short notice due to prior commitments.

- Other regular attendees include the CEO, the Vice President of Projects, the Projects Finance Manager and the Company Secretary.
- Sessions were also regularly attended by Directors who are not Committee members, including the Chairman of the Board.
- The Committee meets as necessary and at least twice per year.

## KEY RESPONSIBILITIES

- The Projects Committee reviews all aspects of projects to be submitted for Board approval, highlighting key matters throughout the project development lifecycle for the Board's consideration and making recommendations to management to ensure that all projects submitted to the Board are aligned with the Group's strategy and risk appetite.

- The Committee adds an important level of governance and control to the evaluation of the Group's projects and plays a key role in providing the Board with additional overview of the projects portfolio. This includes overview of the establishment of project development guidelines, which draw from best practice, industry experience and lessons learned from other Group projects.

## KEY ACTIVITIES IN 2018

### Policies and commitments

- Reviewed the Group's projects portfolio, including budgets and schedules.
- Reviewed project development guidelines.
- Reviewed the Committee's terms of reference.

### Project reviews

- Reviewed the Los Pelambres Expansion project, including progress in its permitting applications.
- Reviewed the Centinela Second Concentrator project and an alternative plan to expand the existing concentrator.
- Reviewed Zaldívar's Sulphide Leaching project.
- Reviewed a sustaining capital expenditure project for Centinela's tailings deposit.
- Reviewed the Twin Metals Minnesota project pre-feasibility study.

### Lessons learned from completed projects

- Reviewed Antucoya's dust control status and work plan.
- Reviewed lessons learned from the Encuentro Oxides project.
- Reviewed lessons learned from the Centinela Molybdenum Plant project.
- Reviewed lessons learned from the El Tesoro Thermo-Solar Plant project.



A full description of the Group's growth projects and opportunities can be found on pages 70 to 72

# THOROUGH PROJECT REVIEW

The Committee supports the Board by ensuring that project development deliberations follow approved guidelines and that project execution decisions create value for the Company.

## **Q. WHAT IS THE PROJECTS COMMITTEE'S APPROVAL AUTHORITY?**

The Committee is not responsible for approving projects – that is for the Board to decide. Our role is to assist the Board by ensuring that projects follow a standard, structured process with consistent analysis, execution and evaluation practices. The Committee invites management to consider different perspectives, ideas and improvements to enhance the value of the Group's projects, enabling a focused discussion once the project is presented to the Board.

## **Q. WHAT TOOLS DOES THE COMMITTEE USE?**

The Committee provides guidance to each project manager, from the early stages of project planning through to completion, to ensure that policies, strategies and the Group's standard ADS implementation framework are applied.

ADS is a project management system whose processes and practices are widely used in the mining industry. ADS defines standards and common criteria, including governance by a steering committee, functional quality assurance reviews and risk management.

## **Q. WHAT WERE THE COMMITTEE'S KEY ACTIVITIES IN 2018?**

### **LOS PELAMBRES**

The Committee monitored various aspects of the Los Pelambres Expansion Project, including the functional quality assurance review, Environmental Impact Assessment, technical permitting matters, detailed engineering, vendor and contracting strategy, project execution plan and co-ordination with the community relations team.

These activities aided the Board in its approval of the construction of the Los Pelambres Expansion project, as explained in more detail on pages 70 to 72 and 96.

### **CENTINELA**

The Committee reviewed progress on the Centinela Second Concentrator project's feasibility study.

The Committee reviewed a scoping study of a lower-cost alternative expansion plan for Centinela, to expand the existing concentrator and optimise the use of the current tailings deposit, which did not prove attractive in comparison with the Second Concentrator project.

The Committee reviewed lessons learned from the Encuentro Oxides and Molybdenum Plant projects.

### **ANTUCOYA**

The Committee continued monitoring Antucoya's dust control status and work plan.

### **ZALDÍVAR**

The Committee reviewed Zaldívar's sulphide leaching project.

### **TWIN METALS**

The Committee reviewed the pre-feasibility study for the Twin Metals Minnesota project and the proposed work plan and budget for 2019.

## **Q. WHAT ARE THE COMMITTEE'S PRIORITIES IN 2019?**

- To oversee progression of the Los Pelambres and Centinela expansion projects.
- To oversee submission of the Mine Plan of Operations (MPO) for the Twin Metals project.
- To monitor the progression of projects at Zaldívar and the transport division.
- To continue to review and further enhance the Group's ADS framework and project development guidelines.

### **Ollie Oliveira**

Chair of the Projects Committee



**"The Committee is focused on ensuring that the Group's incentives and talent management initiatives promote and ensure our long-term sustainable success as an international mining company based in Chile."**

Tim Baker, Chair

## 2018 MEMBERSHIP AND MEETING ATTENDANCE

	Number attended
Tim Baker (Chair) <sup>1</sup>	6/6
Vivianne Blanlot <sup>2</sup>	5/6
Francisca Castro <sup>1</sup>	6/6

1. Francisca Castro has been appointed Chair with effect from 1 May 2019. Tim Baker will continue to serve on the Committee following this change.
2. Vivianne Blanlot was unable to attend one meeting during the year for medical reasons.

- Other regular attendees include the CEO, the Vice President of Human Resources and the Company Secretary.
- At least one Committee member serves on each of the other Board Committees which allows the Committee to take into account strategic priorities and the views of all stakeholders in its deliberations.
- The Committee meets as necessary and at least twice per year.
- All Committee members are independent.

## KEY RESPONSIBILITIES

- The Remuneration and Talent Management Committee ensures that the Group's remuneration arrangements support the effective implementation of the Group's strategy and enable the recruitment, motivation, reward and retention of talent.
- The Committee is responsible for setting the remuneration for the Chairman, Directors and the CEO and for monitoring the compensation strategy, level, structure and outcomes for

- Executive Committee members. No Director, nor the CEO, are involved in setting his or her own remuneration.
- The Committee actively participates in the Group's talent management strategy, including the review, consideration and implementation of succession plans for members of the Executive Committee (excluding the CEO).

## KEY ACTIVITIES IN 2018

Governance	Directors' remuneration	Executive remuneration	Human Resources and policy
<ul style="list-style-type: none"> <li>- Monitored UK corporate governance reforms relating to remuneration and succession planning.</li> <li>- Reviewed feedback from shareholders on the Group's remuneration arrangements in advance of the 2019 AGM.</li> <li>- Reviewed the Committee's terms of reference.</li> </ul>	<ul style="list-style-type: none"> <li>- Evaluated Chairman, Director and Committee fees and adjusted fees paid to Committee members.</li> <li>- Reviewed and adjusted Ramón Jara's services contract with Antofagasta Minerals SA.</li> <li>- Reviewed the 2017 Directors' Remuneration Report prior to its approval by the Board and subsequent approval by shareholders at the 2018 AGM.</li> </ul>	<ul style="list-style-type: none"> <li>- Evaluated the CEO's performance and determined the variable compensation payable to him under the 2017 Annual Bonus Plan.</li> <li>- Reviewed LTIP eligibility, participants and criteria and approved the grant of the 2018 awards.</li> <li>- Reviewed performance for LTIP awards granted in 2015 and approved vesting level.</li> <li>- Reviewed Group performance against the 2017 Annual Bonus Plan performance metrics and reviewed the metrics to apply to the 2018 Annual Bonus Plan.</li> <li>- Reviewed and approved the individual performance of Executive Committee members under the 2017 Annual Bonus Plan.</li> <li>- Reviewed proposed LTIP and Annual Bonus Plan structures for 2019, and on the basis of the significant changes implemented in 2017, agreed that no further changes, other than using Total Incident Recordable Frequency Rate in place of Lost Time Frequency Rate for the 2019 Annual Bonus Plan.</li> </ul>	<ul style="list-style-type: none"> <li>- Reviewed the 2018 Human Resources plan.</li> <li>- Reviewed and approved implementation of the diversity and inclusion strategy.</li> <li>- Reviewed a gender-based remuneration analysis.</li> <li>- Reviewed the results of the collective bargaining negotiations at Los Pelambres and Centinela.</li> <li>- Reviewed compensation across the Group to ensure it remains competitive, motivating and appropriately aligned with the Group's strategy, vision and risk appetite.</li> </ul>
<b>Talent management and succession planning</b>			
<ul style="list-style-type: none"> <li>- Reviewed the Group's talent management strategy and succession plans for members of the Executive Committee (excluding the CEO).</li> </ul>	<ul style="list-style-type: none"> <li>- Approved the implementation of succession plans and revisions to the composition of the Executive Committee and the appointment of new directors in the Group's operating companies.</li> </ul>		

# REMUNERATION AND TALENT MANAGEMENT

The Committee has broad oversight of the Group's incentives and talent management initiatives.

Dear Shareholders,

As set out in the Chairman's and CEO's introductory letters and the Group's performance highlights on the opening pages of this Annual Report, 2018 was a good year for the Group. Our operating performance was in line with guidance, a key project milestone was achieved with the approval of construction of the Los Pelambres Expansion project and we made significant progress on a number of cultural and talent management initiatives which are described in more detail below.

Sadly, as reported in the Chairman's letter, one of our contractors suffered a fatal accident at Los Pelambres in October. Responsibility for safety and health is one of the Company's core values and in 2016, the Committee recommended the introduction of an automatic 15% adjustment to the Group's performance score under the Annual Bonus Plan (downwards if there is a fatality during the year and upwards if there are no fatalities during the year) to further align the Group's incentives with this core value and our goal of zero fatalities.

The Committee therefore endorsed the automatic 15% downward adjustment for the Group performance score under the 2018 Annual Bonus Plan. The Committee also continues to support the Sustainability and Stakeholder Management Committee and the Board in their oversight of the performance of the Group's safety and health risk management processes through incentives in the Group's Annual Bonus Plan that relate specifically to safety and health performance.

## AREAS OF FOCUS FOR THE COMMITTEE IN 2018

As noted by the Chairman on page 89, the Committee oversaw significant strategic initiatives during the year which included the approval and implementation of the Group's Diversity and Inclusion Programme and associated updates to the Group's charter of values to support a more inclusive culture. Strong leadership from the Board and the Committee is required to ensure that our inclusive culture and values are entrenched in the actions of all of our employees and the wider workforce. We all benefit from the increased levels of productivity, innovation and employee engagement that come with a more diverse and inclusive workplace. Metrics for the design and implementation of the diversity and inclusion programme were included in the Group's 2018 Annual Bonus Plan and some of the specific activities that were undertaken in 2018 are highlighted in the Chairman's introduction to the Governance section on page 88 and more generally on page 36. I am pleased to report that metrics for this programme have again been included in the 2019 Annual Bonus Plan.

As a Committee, we monitor the Group's relationships with unions and labour negotiations that take place on a regular basis, including those during 2018 at Los Pelambres and the transport division. We were pleased that the negotiations in 2018 once again concluded without a strike and we continue to foster open and collaborative dialogue with our workforce. With 71% of the Group's employees represented by labour unions, and the regular dialogue that takes place between the unions and senior management throughout the year (rather than only at the time of negotiations), the concerns and perspectives of our employees are well represented before the Committee and the Board. During 2018 the Group provided training to staff responsible for labour negotiations and union representatives to further upgrade and foster our labour relations.

Our broader workforce also includes some 15,000 contractors and the Group's policy is to ensure that the minimum wage for services provided by employees and contractors is some 41% above the legal minimum wage. We require bank guarantees for all service contracts to guarantee the contractors obligations towards their employees during the term of the contract and services provided under these service contracts are audited regularly by an independent third party to ensure that local labour laws and other conditions are being complied with.

The Committee has been monitoring the UK corporate governance reforms that were finalised during 2018 and we will report against those new requirements that apply to us in the 2019 Annual Report. The principles of the Code and the purpose behind these reforms, and others in recent years, are carefully reviewed and discussed by the Committee and the Board. Where specific regulations or Code principles do not apply to us, we typically consider whether it would be helpful for additional information to be provided to the Committee to consider how the purpose behind them might influence its views and perspectives. For example, although the Group has fewer than ten employees in the UK, the Committee received gender pay gap information for all of the mining division's employees during 2018. This showed the pay gap information across all levels of the Group's mining operating companies and the Committee used the findings to identify and discuss initiatives that should be included in the diversity and inclusion programme to encourage higher levels of female participation generally, but specifically at the Group's mining operations.

As in previous years, although our CEO is not a Director, we voluntarily disclose his remuneration as if he were and provide details on the Group's executive pay structures to allow shareholders to understand how these structures support strategy and promote long-term sustainable success.

## EXECUTIVE REMUNERATION

Awards under both the LTIP and the Annual Bonus Plan are subject to financial and non-financial performance metrics. The non-financial metrics measure the development of important projects and exploration activities that are essential for future mining activities. Other metrics relate to safety, people and environmental and social targets, which ensure that we act in a way that preserves our social licence to operate and takes into account the interests of all of the Group's stakeholders. The Committee reviews these metrics at the beginning of the year and, if necessary, recommends amendments before recommending the metrics to the Board for approval.

The Group's performance score for 2018 under the Annual Bonus Plan, which forms the basis for calculating 70% of the CEO's and Executive Committee's annual bonus, was 100.2, within a range of 90 (Threshold) to 110 (Maximum). This score includes the 15% downwards adjustment for the fatality described above. A full breakdown of performance against each metric is set out on page 129.

As noted in the 2017 Annual Report, at the beginning of 2018 the Board and the Committee each carefully considered the pay arrangements for Iván Arriagada, taking into account individual and Group performance, the Group's strategy and packages available to market peers both internationally and in Chile. The findings showed that all

elements of the CEO's remuneration package were significantly below those in the FTSE 100 and international mining markets, both of which are considered to be talent markets for our CEO. The decision was taken to increase his base salary by 10% and his target and maximum annual bonus to 67% (from 50%) and 133% (from 100%) of base salary, respectively. The Committee also granted LTIP awards to Iván Arriagada equal to 325% of base salary in 2018 in light of this positioning versus the international market and to retain his excellent services for the future.

The Committee once again considered the pay arrangements for Iván Arriagada in 2019 versus international and local Chilean peer companies and in light of this review, a decision was taken to increase his target and maximum annual bonus to 100% (from 67%) and 200% (from 133%) of base salary, respectively in 2019. The Committee expects to grant LTIP awards to Iván Arriagada equal to 200% of his base salary in 2019. The total remuneration awarded for 2018 and the total remuneration for the lead executive in the Group for the past ten years is shown on pages 126 and 127.

The Committee carefully considered a number of factors when setting Iván Arriagada's remuneration below the level of his predecessor at the time of his appointment in 2016, including broader market conditions and the opportunity to increase his remuneration at a later time if his performance warranted it. The Board and the Committee were pleased to recognise Iván Arriagada's performance through this increase, which brings his total remuneration package into closer alignment with international peers, albeit still towards the lower end of market practice.

### TALENT MANAGEMENT AND SUCCESSION PLANNING

The Committee dedicated a significant amount of time and effort towards reviewing the Group's talent management and succession plans during the year. Mining is cyclical and our employees work in a strong and competitive mining jurisdiction. The work that the Committee has put into talent management and succession planning in recent years has allowed us to develop common standards across the Group's operations, to promote internally, to develop career paths within the organisation and to identify and retain key talent.

The Committee is responsible for reviewing, monitoring and recommending the talent management strategy for the Group's senior management. This includes assessing any changes in compensation policies across the Group that may have a significant long-term impact on labour costs and succession plans, as well as overseeing the Group's compensation and talent management strategies.

In 2018 the Committee reviewed and updated succession plans for the Executive Committee (excluding the CEO) and the General Managers of each of the Group's operating companies. This exercise involved identifying the individuals within the Group's talent pool that form part of these succession plans and identifying their individual development needs. This ensures that talented individuals are available at each stage of the pipeline in the future or in the case of unexpected departures.

### ARRANGEMENTS IN PLACE WITH ADVISERS

During the year, the Committee reappointed remuneration consultants Willis Towers Watson to provide advice to the Committee on compensation benchmarking, regulatory and corporate governance developments and market practice. This reappointment was based on the Committee's satisfaction with the quality of advice received in previous years.

Willis Towers Watson is an independent global professional services firm that is a signatory to, and adheres to, the Code of Conduct for Remuneration Consultants. This can be found at [www.remunerationconsultantsgroup.com](http://www.remunerationconsultantsgroup.com).

The Committee is satisfied that the advice provided by Willis Towers Watson in 2018 was objective and independent, that no conflict of interest arose as a result of these services and that it

### REVIEW OF NON-EXECUTIVE DIRECTOR AND COMMITTEE FEES

Basic fee levels for Non-Executive Directors have remained unchanged since 2012 and this continued for the base fee in 2018. However, as indicated in the 2017 Annual Report, from 1 April 2018, there was a \$5,000 per annum increase in all Board Committee Chairman's fees and a \$2,000 per annum increase in all Board Committee members' fees in recognition of the considerable additional time commitments and responsibilities attached to these roles, which have grown in recent years.

As reported in the 2017 Annual Report, the Committee and the Board also reviewed the fee payable and time commitments under Ramón Jara's service contract, which resulted in an exceptional 8% increase to the hourly rate for services under that contract with effect from 1 January 2018. This contract was last reviewed in 2011 and the adjustments bring his hourly rate into line with the market and reflect the time Ramón Jara commits to the Group under this contract.

These adjustments are in accordance with the Directors' Remuneration Policy that was approved by shareholders at the 2017 AGM and further details of which are set out within the Directors' Remuneration Report on page 122.

No change is expected to be made to the pay arrangements for Directors in 2019.

### KEY OBJECTIVES FOR THE COMMITTEE IN 2019

As announced in November last year, Francisca Castro, who has served as an independent Non-Executive Director since 2016, will take over as Chair of the Committee from 1 May 2019. Francisca first joined the Committee at the beginning of 2017 and has contributed enormously over that time. I will continue to serve on the Committee and look forward to continuing to support the Group in this new role.

The Committee welcomes the UK corporate governance reforms published in 2018. Supporting strategy, creating long-term value and independent judgement are already at the core of our approach to remuneration and during the year the Committee will continue to identify areas where the Group's remuneration arrangements can be strengthened.

As well as the periodic annual activities of the Committee, the Committee will also continue to oversee the implementation of the diversity and inclusion programme and the progression of our talent management and succession planning activities in 2019. These areas of focus are essential to our long-term continued success.

Shareholders are invited to vote on the 2018 Directors' Remuneration Report at the 2019 AGM and we trust that there will continue to be strong support for the Group's pay arrangements.

#### Tim Baker

Chair of the Remuneration and Talent Management Committee

had no other connection with the Company. Willis Towers Watson's fees for this work were charged in accordance with normal billing practices and amounted to £95,837.

The Committee also received assistance from the Chairman, the CEO, the Vice President of Human Resources and the Company Secretary during 2018, none of whom participated in discussions relating to their own remuneration.

The Committee Chairman and the Committee as a whole regularly speak with advisers without management present, to provide a forum for open discussion and the sharing of views and opinions on compensation issues. Additionally, part of each Committee meeting is held without management present to ensure that individual views or areas of concern can be debated between Committee members.

# REMUNERATION AT A GLANCE

## REMUNERATION REPORT

2018 Executive Remuneration Report – Voluntary Disclosures

2018 Directors' Remuneration Report p122

2018 Total Remuneration p126

2018 Annual Bonus Plan p128

Long-Term Incentive Plan p130

Illustration of CEO Remuneration Policy in 2019 p132

Summary of Directors' Remuneration Policy p134

## REMUNERATION PHILOSOPHY AND APPROACH TO REPORTING

The Directors' Remuneration Policy was approved at the 2017 AGM. This policy applies to Directors and is designed to ensure that they are fairly rewarded with regard to their responsibilities.

A summary of the policy is set out on pages 134 to 136 and a report on the implementation of that policy in 2018 is set out in the 2018 Directors' Remuneration Report on pages 122 to 124.

Although the Directors' Remuneration Policy does not apply to executives, the Company voluntarily reports the CEO's remuneration as if he were a member of the Board and provides additional information on the structure and components of the other Executive Committee members' and wider Group remuneration in the 2018 Executive Remuneration Report on pages 125 to 133.

The CEO and the Executive Committee receive a base salary and benefits in line with market conditions in Chile, taking into consideration international factors, as appropriate. They participate in the Annual Bonus and Long Term Incentive Plan which are designed to align remuneration with overall Group performance and promote outcomes that are for the long-term benefit of the Group.

Market conditions and remuneration structures available in Chile are a central consideration when setting executive remuneration and some elements of the Group's LTIP may therefore differ slightly from arrangements that would typically be expected for UK-listed companies.

## 2018 SHARE PRICE PERFORMANCE

The following graph shows the Company's performance compared with the performance of the FTSE All-Share Index and the Euromoney Global Mining Index over a ten-year period, measured by total shareholder return.



Further details on the selection of these indices and the calculations of total shareholder return are set out on page 126.

## CEO TOTAL REMUNERATION IN 2018



Maximum, Target and Minimum opportunities reflect the potential 2018 outcomes adjusted for the actual 2018 exchange rate, share price and inflation. A detailed breakdown of the CEO's remuneration is set out in the 2018 Executive Remuneration Report on pages 125 to 133.

# 2018 DIRECTORS' REMUNERATION REPORT

## INFORMATION INCORPORATED BY REFERENCE

The information set out on pages 118 to 136 forms part of (and is incorporated by reference into) this 2018 Directors' Remuneration Report, provided that any disclosure relating to the remuneration of the CEO and other executives (none of whom is a Director) is provided on a voluntary basis and strictly, therefore, does not form part of the Directors' Remuneration Report.

## STATEMENT OF SHAREHOLDER VOTING

The table below shows the voting results on the 2017 Directors' Remuneration Policy at the 2017 AGM and on the Company's 2017 Directors' Remuneration Report at the 2018 AGM:

### RESOLUTION TO APPROVE THE 2017 DIRECTORS' REMUNERATION POLICY

Votes for	1,080,230,434
	99.81%
Votes against	2,069,669
	0.19%
Votes cast as a percentage of issued share capital	91.27%
Votes withheld	1,062,115

### RESOLUTION TO APPROVE THE COMPANY'S 2017 DIRECTORS' REMUNERATION REPORT

Votes for	1,073,241,098
	99.08%
Votes against	9,917,915
	0.92%
Votes cast as a percentage of issued share capital	91.34%
Votes withheld	113,419

The considerable vote in favour of the 2017 Directors' Remuneration Policy and the Company's 2017 Directors' Remuneration Report confirms the strong support received from shareholders for the Group's remuneration arrangements.

## IMPLEMENTATION OF THE DIRECTORS' REMUNERATION POLICY IN 2018

### CHAIRMAN

Jean-Paul Luksic was appointed Executive Chairman in 2004 and was redesignated as Non-Executive Chairman in 2014. Mr Luksic's total fee in 2018 was \$1,003,750, (2017 – \$1,000,000) comprising:

- \$730,000 per annum for his services as Chairman of the Board,
- \$15,000 per annum (increased from \$10,000 with effect from 1 April 2018) for his services as Chairman of the Nomination and Governance Committee, and
- \$260,000 per annum for his services as Chairman of the Antofagasta Minerals board.

This fee level reflects his responsibility, experience and time commitment to the role.

### NON-EXECUTIVE DIRECTORS

There has been no change to Non-Executive Director base fees since 2012. The base Non-Executive Director's fee in respect of the Board remains \$130,000 per annum. Given the core role which Antofagasta Minerals plays in the management of the mining operations and projects, all Directors also serve as directors of Antofagasta Minerals. The annual fee payable to directors of Antofagasta Minerals remains \$130,000. Therefore, the combined base fees payable to Non-Executive Directors amount to \$260,000 per annum.

The Board periodically reviews both the structure and levels of fees paid to Non-Executive Directors and will continue to review these fees from time to time, in accordance with the Directors' Remuneration Policy.

The Board remains satisfied that the current fee structure is aligned with the Group's international peers and did not recommend any change in 2018. As disclosed in the 2017 Annual Report, fees paid to all Board Committee Chairmen were increased by \$5,000 per annum and fees paid to all Board Committee members were increased by \$2,000, from 1 April 2018, to reflect the considerable additional time commitments and responsibilities attached to these roles, which have grown in recent years.

In addition to Board fees, the Senior Independent Director receives an additional fee that reflects his responsibility, experience and time commitment to the role.

### ADDITIONAL DIRECTOR FEES PAYABLE IN 2018<sup>1</sup>

Role	Additional fees (\$'000)
Senior Independent Director	20
Audit and Risk Committee Chairman	25
Audit and Risk Committee member	12
Nomination and Governance Committee Chairman	15
Nomination and Governance Committee member	6
Projects Committee Chairman	21
Projects Committee member	12
Remuneration and Talent Management Committee Chairman	21
Remuneration and Talent Management Committee member	12
Sustainability and Stakeholder Management Committee Chairman	21
Sustainability and Stakeholder Management Committee member	12

1. With effect from 1 April 2018.

The 2017 Directors' Remuneration Policy does not allow for the payment of variable remuneration to the Chairman or Non-Executive Directors.

It is not expected that there will be any change to the Directors' benefits in 2019. However, because the cost of travel to Board meetings is reported as an expense benefit, the amounts relating to benefits in 2019 will ultimately depend on the number and location of Board meetings.

## REMUNERATION REPORTING REGULATIONS

This Directors' Remuneration Report has been prepared in accordance with Schedule 8 of the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (as amended). It also describes how the Board has applied the principles of good governance as set out in the Corporate Governance Code

### AUDITED SINGLE FIGURE OF DIRECTORS' REMUNERATION TABLE

The remuneration of the Directors for 2018 is set out below in US dollars. Unless otherwise noted, amounts that are denominated in Chilean pesos have been converted at the exchange rate on the first day of the month following the month in which the entitlement to payment accrued.

Any additional fees payable for serving on subsidiary and joint venture company boards are also included in the amounts below.

As explained in the Directors' Remuneration Policy, Directors do not receive pensions or performance-related pay and are not eligible to participate in the LTIP.

	Fees		Benefits <sup>2,3</sup>		Total	
	2018 \$000	2017 \$000	2018 \$000	2017 \$000	2018 \$000	2017 \$000
<b>Chairman</b>						
Jean-Paul Luksic	1,004	1,000	12	11	1,016	1,011
<b>Non-Executive Directors</b>						
Ollie Oliveira	329	319	158	129	487	448
Gonzalo Menéndez	260	260	10	25	270	285
Ramón Jara <sup>1</sup>	991	863	13	21	1,004	884
Juan Claro	272	270	9	11	281	281
Hugo Dryland (retired effective 31 October 2016)	-	-	-	58	-	58
William Hayes	320	318	38	49	358	367
Tim Baker	297	290	64	46	361	336
Andrónico Luksic C	260	260	4	3	264	263
Vivianne Blanlot	303	296	9	8	312	304
Jorge Bande	295	290	7	9	302	299
Francisca Castro (appointed 1 November 2016)	283	280	8	6	291	286
<b>Total Board</b>	<b>4,614</b>	<b>4,446</b>	<b>332</b>	<b>376</b>	<b>4,946</b>	<b>4,822</b>

1. During 2018, remuneration of \$695,000 (2017 – \$569,000) for the provision of services by Ramón Jara was paid to Asesorías Ramón F Jara Ltda. As reported in the 2017 Annual Report, Mr Jara's time commitments and the hourly rate payable under his contract were increased by 8% with effect from 1 January 2018. The reported increase in 2018 is due to this increase and, to a lesser extent, the annual adjustment for inflation in Chile. This amount is included in the amounts attributable to Ramón Jara of \$991,000 (2017 – \$863,000).

2. Amounts for Jean-Paul Luksic include the provision of life and health insurance. Amounts for Ramón Jara include the provision of life insurance.  
 3. Except as described in footnote 2, all "benefits" amounts included in this table arose in connection with the fulfilment of Directors' duties and, in particular, the cost of attending Board meetings. These calculations have been based on what the Company believes would be deemed by HMRC to be taxable benefits if the Non-Executive Directors were UK tax resident and domiciled, relating to the costs of flights for attending Board meetings in Santiago, Chile and associated hotel and subsistence expenses, and for the cost of flights for attending Board meetings in London. Given these expenses are incurred by Directors in connection with the fulfilment of their duties, the Company also pays the professional fees incurred to complete individual tax returns and the actual tax incurred by Directors on these expenses, the latter of which has led to the higher reported figures for certain Directors. Figures are reported in the year that they are paid, or would be payable, by the Company.

## DIRECTORS' INTERESTS (AUDITED)

The Directors who held office at 31 December 2018 had the following interests in ordinary shares of the Company:

	Ordinary shares of 5p each	
	31 December 2018	1 January 2018
Jean-Paul Luksic <sup>1</sup>	41,963,110	41,963,110
Ramón Jara <sup>2</sup>	5,260	5,260

1. Jean-Paul Luksic's interest relates to shares held by Aureberg Establishment, an entity that he ultimately controls.
2. Ramón Jara's interest relates to shares held by a close family member.

There have been no changes to the Directors' interests in the shares of the Company between 31 December 2018 and the date of this report.

The Directors had no interests in the shares of the Company during the year other than those set out above. No Director had any material interest in any contract (other than a service contract) with the Company or its subsidiary undertakings during the year other than in the ordinary course of business.

## SHAREHOLDING GUIDELINES

The Group does not have shareholding guidelines or requirements for Directors, all of whom are non-executive.

The Chairman Jean-Paul Luksic and Non-Executive Director Andrónico Luksic C are members of the Luksic family. Members of the Luksic family are interested in the E. Abaroa Foundation which controls Metalinvest Establishment and Kupferberg Establishment (which, in aggregate, hold approximately 60.66% of the Company's ordinary shares and approximately 94.12% of the Company's preference shares). In addition, Jean-Paul Luksic controls the Severe Studere Foundation which, in turn, controls Aureberg Establishment (which holds approximately 4.26% of the Company's ordinary shares). This creates significant alignment between these members of the Board and shareholders.

During the period, no Non-Executive Director was eligible for any short-term or long-term incentive awards and no Non-Executive Director owns any shares as a result of the achievement of performance conditions.

## LETTERS OF APPOINTMENT

Each Non-Executive Director has a letter of appointment from the Company. The Company has a policy of putting all Directors forward for re-election at each AGM, in accordance with the UK Corporate Governance Code. Under the terms of the letters, if a majority of shareholders do not confirm a Director's appointment, the appointment will terminate with immediate effect. In other circumstances, the appointment may be terminated by either party on one month's written notice.

There is a contract between Antofagasta Minerals and Asesorías Ramón F Jara Ltda dated 2 November 2004 for the provision of advisory services by Ramón Jara. This contract does not have an expiry date but may be terminated by either party on one month's notice.

No other Director is party to a service contract with the Group.

## OTHER INFORMATION

As described in this report, Directors are not entitled to payments for loss of office and do not receive pension benefits and no such payments were made, or benefits received, during 2018. No payments were made to past Directors.

# 2018 EXECUTIVE REMUNERATION REPORT

## VOLUNTARY DISCLOSURES – EXECUTIVE REMUNERATION

Iván Arriagada is the CEO and is responsible for leading the senior management team and for the executive management of the Group. Members of the Executive Committee report to Iván Arriagada and are responsible for leading the day-to-day operation of the Group's mining and transport businesses. No member of the Executive Committee, including the CEO, sits on the Board of the Company. Consequently, the following disclosures have been made voluntarily to demonstrate the remuneration arrangements that the Committee believe are appropriate for the CEO and the Executive Committee, including the variable pay mechanisms (Annual Bonus Plan and LTIP) designed to motivate the CEO and the Executive Committee as a whole to implement the Group's strategy effectively.

### REMUNERATION PRINCIPLES

The remuneration arrangements in place for Iván Arriagada and the Executive Committee align remuneration with performance, the Group's strategic objectives and stakeholders' interests. Iván Arriagada and the other Executive Committee members are eligible to receive a combination of base salary and other benefits, as well as variable remuneration in the form of an annual cash bonus pursuant to the Annual Bonus Plan and cash-based contingent awards linked to the Company's share price pursuant to the LTIP.

The performance components of variable remuneration are selected to incentivise the delivery of the Group's strategy, to reward Group and individual performance and to motivate Iván Arriagada and the Executive Committee.

The table on page 127 shows the total remuneration for the Group's lead executive over the last ten years. The total remuneration for the CEO in 2018 was 24% higher than in 2017 (total remuneration for the CEO in 2017 was 19% lower than for the Group's lead executive in 2016). The table on page 127 shows the changes in the individual components of the CEO's remuneration in 2018. The main cause of this increase was due to the increase in remuneration under the LTIP due to the inclusion of an additional tranche of awards as a consequence of the CEO having reached more than three full years of employment with the Group.

### EXTERNAL APPOINTMENTS

The Board will consider any proposal for an executive to serve as a Non-Executive Director of another company on a case-by-case basis. The Board would carefully consider the time commitments of the proposed role, the industry of the company, whether or not it is a supplier, customer or competitor, and whether it would be appropriate for the executive to retain remuneration for the position.

### SHAREHOLDING GUIDELINES

The Group does not have shareholding guidelines or requirements for the CEO and Executive Committee members, all of whom are based in Chile.

The CEO, the Executive Committee and certain senior executives participate in the LTIP, which entitles them to cash-based contingent share awards linked to the Company's share price. Further details of the LTIP are set out on pages 130 and 131.

The Committee considers cash-based awards to be appropriate because share-based awards would be taxable on the date of grant

for Chilean employees. Independent advice was sought by the Committee on the viability of granting an interest in shares, rather than cash-based awards, during 2017. After reviewing this advice, the Committee determined that it remains appropriate to continue to use cash-based awards due to the negative tax consequences of issuing interests in shares. However, the Committee will continue to monitor this position.

### SALARY AND BENEFITS

The total remuneration paid to Iván Arriagada in 2018 was \$2.2 million. Fixed remuneration comprises base salary and benefits and, in 2018, represented less than 31% of his total remuneration.

Benefits payable to Iván Arriagada reflect amounts paid to maintain life and health insurance policies.

According to Chilean law, all employees are required to pay their own pension and compulsory health insurance contributions. No additional contributions are made by the Group and the Group does not operate a defined benefit pension scheme.

Iván Arriagada's total remuneration package is determined by the Committee, taking into account the performance of the Group and his personal performance. The Company also benchmarks each element of his remuneration and his total remuneration package by reference to peers in Chile, the FTSE 100 and FTSE mining indices, and comparable international mining companies.

### EMPLOYMENT CONTRACT

Iván Arriagada is employed under a contract of employment with Antofagasta Minerals, a subsidiary of the Company. His contract is governed by Chilean labour law. It does not have a fixed term and can be terminated by either party on 30 days' notice in writing. Except in the case of termination for breach of contract or misconduct under the Chilean Labour Code, Iván Arriagada is entitled to receive one month's base salary for each year of service on termination, otherwise no other compensation or benefits are payable on termination of his employment. The salary payable to Iván Arriagada under his employment contract as of 1 January 2018 was Ch\$32,932,182 (\$51,097) per month and his salary is adjusted for inflation in Chile every three months.

Iván Arriagada's total salary payments for 2018 were Ch\$430,388,950 (\$668,400) (2017: Ch\$390,416,994 (\$603,387)). As disclosed in the 2017 Annual Report, Iván Arriagada received a 10% merit-based increase and an increase in his target and maximum annual bonus opportunity to 67% (from 50%) and 133% (from 100%) of base salary respectively, which took effect from 1 April 2018. Under his employment contract Iván Arriagada is entitled to 20 working days' paid holiday per year.

Because Iván Arriagada's salary is paid in Chilean pesos, it is subject to exchange rate movements when reported in US dollars.

### REMUNERATION STRUCTURE

The Committee is satisfied that the remuneration arrangements for Iván Arriagada and the Executive Committee are linked to performance, are appropriately stretching and are aligned to the Group's strategy.

Variable remuneration is a core component of Executive Committee remuneration and in 2019 up to 58% of the Executive Committee's total potential annual remuneration (excluding that of the CEO) may be received under the Annual Bonus Plan and the LTIP.

# 2018 TOTAL REMUNERATION

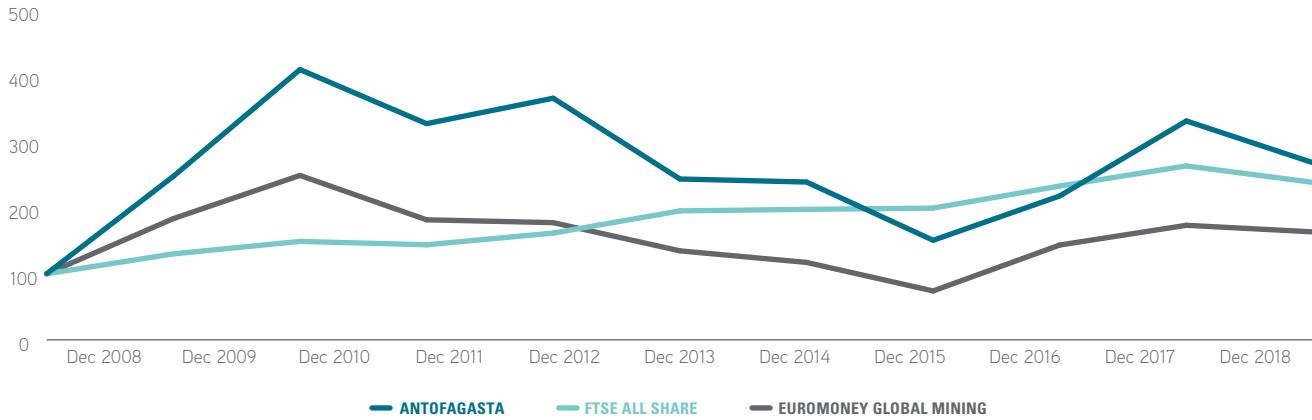
## SINGLE FIGURE OF CEO REMUNERATION TABLE:

	Salary		Benefits <sup>2</sup>		Annual Bonus <sup>3</sup>		LTIP <sup>4</sup>		Total	
	2018 \$000	2017 \$000	2018 \$000	2017 \$000	2018 \$000	2017 \$000	2018 \$000	2017 \$000	2018 \$000	2017 \$000
<b>CEO (not on the Board)</b>										
Iván Arriagada <sup>1</sup>	668	603	8	7	564	517	981	663	2,221	1,790
<b>Total</b>	<b>668</b>	<b>603</b>	<b>8</b>	<b>7</b>	<b>564</b>	<b>517</b>	<b>981</b>	<b>663</b>	<b>2,221</b>	<b>1,790</b>

1. No pension contributions are payable to or for Iván Arriagada and the Group does not operate a defined benefit pension scheme.
2. The benefits expense represents the provision of life and health insurance and does not include taxable benefits relating to expenses.
3. The annual bonus paid to Iván Arriagada in 2017 is reported based on the exchange rate as at 1 April 2017. In the 2017 Remuneration Report a slightly higher figure of \$526,000 was reported, which reflected the anticipated exchange rate at the date the 2017 Remuneration Report was published. Iván Arriagada's 2018 annual bonus will be paid following the date of publication of this report and the exchange rate used to calculate this figure is as at 1 January 2019 and is calculated as shown on page 128.
4. As explained on pages 130 and 131, awards granted pursuant to the LTIP are split between Restricted Awards and Performance Awards. Amounts relating to Restricted Awards are reported in the year they vest. Performance Awards are reported in the year the performance period ends. The 2017 amounts payable to Iván Arriagada under the LTIP relate to Restricted Awards and Performance Awards granted in 2015 and to Restricted Awards granted in 2016 (prior to his appointment as CEO). The performance period for Performance Awards granted in 2015 concluded on 31 December 2017 and those awards vested on 28 March 2018. In the 2017 Remuneration Report, a slightly lower figure of \$662,000 was reported because the Performance Awards granted in 2015 had not yet vested and were estimated using the assumptions set out in the 2017 Remuneration Report. The 2018 amounts payable to Iván Arriagada under the LTIP relate to Restricted Awards granted in 2015, Restricted Awards and Performance Awards granted in 2016 (prior to his appointment as CEO) and to Restricted Awards granted in 2017. The performance period for Performance Awards granted in 2016 concluded on 31 December 2018 and those awards will vest on or after 22 March 2019. Because the Performance Awards granted in 2016 have not yet vested, the amounts attributable to these awards have been estimated by applying the performance scores set out on page 131, using the closing share price on 31 December 2018 of 783p and the exchange rate as at 31 December 2018 of \$1.28/£1.00. As noted on pages 130 and 131, LTIP participants receive conditional rights to receive a cash payment by reference to a specified number of the Company's shares ("phantom share awards"). Participants are not compensated for dividends paid by the Company between the date of grant and vesting.

## COMPARISON OF OVERALL PERFORMANCE AND REMUNERATION

The following graph shows the Company's performance compared with the performance of the FTSE All-Share Index and the Euromoney Global Mining Index over a ten-year period, measured by total shareholder return (as defined below). The FTSE All-Share Index has been selected as an appropriate broad equity market index benchmark as it is the most broadly-based index to which the Company belongs and relates to the London Stock Exchange, where the Company's ordinary shares are traded. The Euromoney Global Mining Index is also shown because this index has been determined to be the most appropriate specific comparator group for the Company and total shareholder return performance in comparison with the Euromoney Global Mining Index is one of the performance criteria in the Group's LTIP as set out on pages 130 to 131.



Total shareholder return represents share price growth plus dividends reinvested over the period.

Total shareholder return is calculated to show a theoretical change in the value of a shareholding over a period, assuming that dividends are reinvested to purchase additional shares at the closing price applicable on the ex-dividend date. Total shareholder return for the FTSE All-Share Index and the Euromoney Global Mining Index are calculated by aggregating the returns of all individual constituents of those indices at the end of a ten-year period.

## LEAD EXECUTIVE REMUNERATION FOR THE LAST TEN YEARS

The total remuneration of the lead executive in the Group for the past ten years, in US dollars, is as follows:

Single figure of remuneration for the Group's lead executive \$000	2009	2010	2011	2012	2013	2014 <sup>1,2</sup>	2015	2016 <sup>3</sup>	2017	2018
Chairman – Jean-Paul Luksic	3,184	3,330	3,521	3,598	3,615	2,196	–	–	–	–
CEO – Diego Hernández	–	–	–	–	–	688	2,445	1,525	–	–
CEO – Iván Arriagada	–	–	–	–	–	–	–	681	1,790	2,221
<b>Total</b>	<b>3,184</b>	<b>3,330</b>	<b>3,521</b>	<b>3,598</b>	<b>3,615</b>	<b>2,884</b>	<b>2,445</b>	<b>2,206</b>	<b>1,790</b>	<b>2,221</b>
Percentage change on previous year										24%
Proportion of maximum annual bonus paid to the CEO	–	–	–	–	–	69%	39%	61%	79%	66%
Proportion of maximum LTIP awards vesting in favour of the CEO <sup>4</sup>	–	–	–	–	–	76%	16%	–	85%	60%

1. The single figure of remuneration for the Group's lead executive in 2014 comprises Jean-Paul Luksic's remuneration until 1 September 2014 (when he became Non-Executive Chairman) and Diego Hernández's remuneration from 1 September 2014 (when he became CEO).
2. The Chairman was not eligible for variable remuneration and the 2014 percentage figures therefore only relate to the 2014 annual bonus and LTIP awards vesting for the CEO.
3. The single figure of remuneration for the Group's lead executive in 2016 comprises Diego Hernández's remuneration until 8 April 2016 (when he stepped down as CEO) and Iván Arriagada's remuneration from 8 April 2016 (when he became CEO).
4. No Performance Awards vested for the CEO in 2016. As Restricted Awards do not have a performance element, they are not included in these calculations.

## RELATIVE CHANGE IN REMUNERATION

The total remuneration paid to Iván Arriagada in 2018 was 24% higher than in 2017. This included a 10.8% increase in base salary, a 4.6% increase in benefits and an 8.9% increase in annual bonus. As noted on page 125, the LTIP component of Iván Arriagada's 2018 total remuneration included an additional tranche of awards compared with 2017 as he has now reached more than three years of service with the Group. The comparative increase in LTIP remuneration was the biggest contributor to Iván Arriagada's remuneration increase in 2018.

The equivalent average percentage increase in total remuneration for Group employees as a whole in 2018 was 4.8%. This comprised a 5.8% increase in salaries, a 6.2% increase in benefits and a 0.5% increase in annual bonus. It is common for employment contracts in Chile to include a quarterly adjustment for Chilean inflation and most Group employees' base salaries in Chile are adjusted for inflation.

The table below compares the changes from 2017 to 2018 in base salary, benefits and annual bonus paid to the CEO and Group employees as a whole. The underlying elements of the CEO's pay are calculated using the values reported in the single figure of remuneration table on page 126.

	Percentage change in base salary	Percentage change in benefits	Percentage change in annual bonus
CEO	10.8%	4.6%	8.9%
Employees <sup>1</sup>	5.8%	6.2%	0.5% <sup>2</sup>

1. Mining division employees were chosen as the comparator group because the mining division accounts for more than 95% of the Group's revenue and the Annual Bonus Plan that applies to the Executive Committee is the same plan that applies to all mining division employees at the management and professional level.
2. This figure relates to the percentage change in the average annual bonus for mining division employees and does not include a one-off bonus paid to employees as a result of the conclusion of collective bargaining agreements with labour unions at Los Pelambres in 2018.

## RELATIVE IMPORTANCE OF REMUNERATION SPEND

The table below shows the total expenditure on employee remuneration, the levels of distributions to shareholders and the taxation cost in 2017 and 2018.

	2017 (\$m)	2018 (\$m)	Percentage change
Employee remuneration <sup>1</sup>	433.2	<b>447.8</b>	3.4%
Distributions to shareholders <sup>2</sup>	501.8	<b>431.8</b>	(13.9%)
Taxation <sup>3</sup>	509.8	<b>404.5</b>	(20.7%)

1. Employee remuneration includes salaries and social security costs, as set out in Note 8 to the financial statements.
2. Distributions to shareholders represent the dividends proposed and approved for payment in relation to the year as set out in Note 13 to the financial statements.
3. Taxation has been included because it provides an indication of the Group's tax contribution, the majority of which is paid by the Group's operations in Chile to the Chilean state. The taxation cost represents the current tax charge in respect of corporate tax, mining tax (royalty) and withholding tax, as set out in Note 10 to the financial statements.

# 2018 ANNUAL BONUS PLAN

Employees are eligible to receive cash bonuses under the Annual Bonus Plan, based on Group and individual performance. The Annual Bonus Plan focuses on the delivery of annual financial and non-financial targets designed to align remuneration with the Group's strategy and create a platform for sustainable future performance. Individual award levels are calibrated at the conclusion of each annual performance period to ensure that performance targets remain stretching and that high or maximum payments under the plan are received only for exceptional performance.

For 2018, the bonus payable to the CEO and members of the Executive Committee was 70% attributable to the performance of the Group and 30% to personal performance, according to metrics fixed at the beginning of the year.

The target bonus payable to the CEO for achieving both Group and personal performance targets in 2018 was 50% of the maximum bonus opportunity. The maximum bonus payable to the CEO for achieving stretch performance targets in 2018 was 133% of annual base salary. The maximum bonus receivable for members of the Executive Committee, excluding the CEO, was 67% of annual base salary.

For 2018, the actual bonus for the CEO was 88% of base salary and includes a downward adjustment following the fatality at Los Pelambres as explained on page 129. The average bonus for the Executive Committee members (excluding the CEO) was approximately 48% of base salary.

The Group performance criteria for the Annual Bonus Plan and the individual performance criteria for the CEO are set annually by the Remuneration and Talent Management Committee. The individual performance criteria for the Executive Committee are set by the CEO and reviewed by the Committee.

Annual Bonus Plan metrics are provided on a voluntary basis, including the outcomes against each of the performance metrics relating to business development, sustainability and organisational capabilities. This is to provide shareholders with further clarity on the structure of the metrics and reassurance that the metrics are based on stretching performance criteria.

A critical issue for a mining company is the commodity price and the impact of changes in this price on our long-term and annual performance targets are carefully reviewed to ensure there is fair opportunity for achievement under each metric.

## IVÁN ARRIAGADA – INDIVIDUAL PERFORMANCE UNDER THE 2018 ANNUAL BONUS PLAN

The Committee, with input from the Board, assessed Iván Arriagada's performance against his individual objectives as 110 (within a range of 90 (Threshold) to 110 (Maximum)) for his individual contribution to the business during the year. This performance score reflects exceptional performance during the year, in which all of his individual objectives were met or exceeded and counts towards 30% of his annual bonus. Iván Arriagada's performance against his individual objectives is summarised below:

Category	Performance
<b>Relationship with the Board</b>	<ul style="list-style-type: none"> <li>- Strong communication throughout the year, bringing the right issues forward for discussion and approval in a timely manner.</li> <li>- Receptive to Board input and feedback, ensuring that Board input was shared throughout the Group.</li> </ul>
<b>Leadership</b>	<ul style="list-style-type: none"> <li>- Strong leadership in developing safety culture, operational excellence, reliability of operations, talent management, diversity and inclusion, community relations and environmental responsibility.</li> </ul>
<b>Strategic planning</b>	<ul style="list-style-type: none"> <li>- Strong alignment between the strategic plan and management prioritisation with a focus on the Group's core business and organic growth at the Group's current operations.</li> </ul>
<b>Succession planning and talent development</b>	<ul style="list-style-type: none"> <li>- Significant upskilling of the workforce and a much greater rotation of skills ensuring better performance, sharing of ideas and development of relationships.</li> <li>- Strong progress on the development of internal talent.</li> </ul>
<b>Business development</b>	<ul style="list-style-type: none"> <li>- Strong results from the Group's exploration programme.</li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li>- One fatality during the year<sup>1</sup>.</li> <li>- Strong operating results and cost savings from the cost and competitiveness programme significantly above target.</li> <li>- Sound environmental performance.</li> </ul>
<b>Project development</b>	<ul style="list-style-type: none"> <li>- Construction of the Los Pelambres Expansion Project approved by the Board.</li> <li>- Advancement of the Centinela Second Concentrator project studies.</li> </ul>

1. The Committee carefully considered how this result should affect Ivan Arriagada's 2018 Annual Bonus. 70% of Ivan Arriagada's bonus is determined by the Group performance score which was automatically adjusted downwards by 15% as a consequence of the fatality during the year. In determining whether Ivan Arriagada's individual performance score should also be reduced, the Committee considered the safety leadership that had been demonstrated during the year, including the leadership and measures taken in response to the fatality. The Committee determined that very strong safety leadership had been demonstrated throughout the year and decided that a further downward adjustment to Ivan Arriagada's personal performance score was not warranted on this occasion.

Based on performance achieved against targets during the 2018 financial year, the Committee determined that Iván Arriagada would receive a bonus payment of \$578,560 for 2018. This figure was determined as follows:

Overall Performance Score

$$(70\% \times 100.2) + (30\% \times 110) = 103.1$$

Overall Performance Score as a percentage to be applied to the Maximum

$$(103.1 - 90) \div 20 = 65.7\%$$

Gross Annual Bonus

$$65.7\% \text{ of Ch\$}595,946,880 \text{ (Maximum)}$$

$$= \text{Ch\$}391,537,100$$

Calculated in US dollars using the exchange rate as at 1 January 2019 of \$1 = Ch\$695. Because the annual bonus is calculated and paid in Chilean pesos, it is subject to exchange rate movements when reported annually in US dollars.

## GROUP PERFORMANCE UNDER THE 2018 ANNUAL BONUS PLAN

Group performance under the 2018 Annual Bonus Plan is shown in the table below. The choice of these criteria, and their respective weightings, reflects the Committee's belief that any incentive compensation should be tied both to the overall performance of the Group and to those areas of the business that the relevant individual can directly influence.

Weighting	Objective	Measure	2018 Threshold (90)	2018 Target (100)	2018 Maximum (110)	2018 Outcome	2018 Performance score <sup>i</sup>
<b>60%</b>	<b>Core Business</b>						<b>100</b>
15%	EBITDA <sup>2</sup>	\$m	1,866	2,073	2,280	2,139	103
25%	Copper production <sup>3</sup>	kt	693	737	759	725	97
20%	Costs <sup>4</sup>						
	Cash costs before by-product credits (17%)	\$/lb	1.83	1.72	1.67	1.72	100
	Corporate expenditure (3%)	\$m	83	79	75	75	110
<b>20%</b>	<b>Business Development</b>						<b>105</b>
15%	Growth projects – construction execution <sup>5</sup>		Measured according to schedule and budget as described in more detail in the footnotes				104
5%	Exploration programme <sup>6</sup>		Measured according to KPIs and milestones as described in more detail in the footnotes				108
<b>20%</b>	<b>Sustainability and Organisational Capabilities</b>						<b>104</b>
5%	Safety <sup>7</sup>						95
5%	People – Diversity and Inclusion policy implementation <sup>8</sup>		Measured according to KPIs and milestones as described in more detail in the footnotes				107
5%	Environmental performance <sup>9</sup>						109
5%	Social performance <sup>10</sup>						105
<b>Total – pre-adjustments</b>							<b>102</b>
Adjustment for failing to meet zero fatality target <sup>11</sup>							-1.8
<b>Total – post-adjustments</b>							<b>100.2</b>

- Performance score range is 90-110 where 90 = threshold (0% bonus), 100 = target (50% bonus) and 110 = stretch (100% bonus).
- Mining division only. The threshold, target and maximum target figures for EBITDA were adjusted for exchange rate fluctuations, copper price fluctuations, fuel price fluctuations and the impact of one-off bonuses paid as part of labour negotiations at Los Pelambres, which were not included in the Group's budget and were not included in the figures disclosed in the 2017 Annual Report due to their commercial sensitivity.
- 100% basis, except for Zaldívar (50%).
- The threshold, target and maximum target figures for cash costs were adjusted for exchange rate fluctuations, fuel price fluctuations and the impact of one-off bonuses paid as part of labour negotiations at Los Pelambres. These were not included in the Group's budget and were not included in the figures disclosed in the 2017 Annual Report due to their commercial sensitivity. The figures for corporate expenditure were adjusted for exchange rate fluctuations.
- Split between the Los Pelambres Expansion (6%), Centinela Second Concentrator (6%) and the Zaldívar Chloride Leach projects (3%). Targets for the Los Pelambres Expansion project related to dates for approval of key permits and execution of the project. Targets for the Centinela Second Concentrator project were based on study completion dates and the budget to advance the project. Targets for the Zaldívar Chloride Leach project were based on feasibility study completion dates and the return of the project. Outcome was 104 comprising 107.5 for the Los Pelambres Expansion project, 100 for the Centinela Second Concentrator project and 105 for the Zaldívar Chloride Leach project.
- Maximum and target were defined according to the progress of execution of planned exploration programmes, including metres drilled, efficiency targets and increase of the potential size of prospects previously discovered to have potential mineralisation. A score of 108 was achieved against the plan approved at the beginning of 2018.

- Performance against the global lost-time accidents frequency index with threshold of 1.2, target of 1.0 and maximum of 0.9 accidents with lost time per million hours worked. Outcome was 95 based on 1.1 accidents with lost time per million hours worked in 2018.
- Performance against targets set at the beginning of 2018 for implementation of the diversity and inclusion strategy approved by Board in 2017. The maximum was achievable if the quality and performance against the agreed action plan exceeded both the CEO's and the Remuneration and Talent Management Committee's expectations. The outcome was 107.
- The control of risks relating to environmental performance across all companies where maximum was achievable with no environmental incidents impacting on production or the Group's reputation and completion of the implementation of an environmental risk mitigation plan across all companies. The outcome was 109.
- The control of risks relating to social incidents performance within the budget across all companies where maximum was achievable with no social incidents impacting production or the Group's reputation and without costs incurred outside the scope of the budget. There were no social incidents that impacted on production. The outcome was 105 because Los Pelambres had a situation that, although resolved without incident, could have led to an impact on the Group's reputation.
- As noted in the Company's 2015 Remuneration Report, a standalone adjustment trigger amounting to 15% of the performance score applies to the Annual Bonus Plan – upwards if there are no fatalities during the year and downwards if there are one or more fatalities during the year. This resulted in an automatic decrease of 1.8 to the final Group performance score for 2018 (ie 15% of 102 – 90).

# LONG-TERM INCENTIVE PLAN (LTIP)

The Company introduced the LTIP in 2011. Eligibility to participate in the LTIP is determined by the Committee each year on an individual basis and all members of the Executive Committee currently participate. Awards are normally granted annually and Directors are not eligible to participate.

Under the LTIP, participants are eligible to receive conditional rights to receive a cash payment by reference to a specified number of the Company's ordinary shares ("phantom share awards"), which are paid in cash upon vesting based on the price of the Company's ordinary shares at the time of vesting. Participants are not compensated for dividends paid by the Company between the date of grant and the vesting of awards.

LTIP awards are split between Restricted Awards and Performance Awards. Restricted Awards vest only if the relevant employee remains employed by the Group on the vesting date. Performance Awards vest subject to both the satisfaction of performance conditions and the relevant employee remaining employed by the Group on the vesting date. The same performance criteria apply to all participants in the LTIP and are designed to link business objectives, shareholder value and senior management rewards.

- Performance Awards reward performance over three years. There is no additional holding period before these amounts are paid.
- Restricted Awards vest one-third in each year over a three-year period following the grant of the award.

The Committee carefully considered the design of the LTIP, including the vesting and holding periods for Restricted Awards and Performance Awards and the mix of awards that are granted to participants in the LTIP, and confirmed that the current design continues to be appropriate, taking into account the overall quantum of remuneration available to the CEO and the Executive Committee and remuneration structures typically used in the market in Chile.

The number of Performance Awards and Restricted Awards granted to each member of the Executive Committee is calculated as a percentage of salary up to a limit of 200% of base salary or 325% of base salary if the Committee determines that exceptional circumstances apply. The market value of shares in relation to which the award is to be granted is equal to the closing price on the dealing day before the grant, or, if the Committee determines, the average closing price during a period set by the Committee not exceeding five dealing days ending with the last dealing day before the grant.

Iván Arriagada participates in the LTIP and is expected to receive total payments of \$981,497 in respect of the Restricted Awards granted in 2015, 2016 and 2017, that vested and were paid in 2018 and Performance Awards granted in 2016 which include performance elements that concluded on 31 December 2018 but that will not vest until on or after 22 March 2019 as shown below and the details of which are set out in more detail on page 131. These anticipated total payments amount to 147% of his base salary.

LTIP awards granted after 17 March 2015 are subject to malus provisions under the LTIP rules. These allow the Committee to, at its discretion, reduce the number of shares to which an award relates or to cancel an award as a result of:

- actions by a participant that, in the reasonable opinion of the Committee, amount to gross misconduct that has or may have a material effect on the value or reputation of the Company or any of its subsidiaries
- a materially adverse error in the consolidated financial statements of the Group during the performance period
- any reasonable circumstance that the Committee determines in good faith to have resulted in an unfair benefit to the participant

Clawback has not been introduced due to uncertainty around its legal validity in Chile.

## IVÁN ARRIAGADA'S LTIP AWARDS

The following LTIP awards with one or more outstanding tranches have been granted to Iván Arriagada. The number of shares over which each grant relates is determined based on the limits set out in the LTIP rules, considerations around retention and the share price at the time of grant.

Year of grant <sup>1</sup>	Award type	Number of shares to which the grant relates	Date of grant	Vesting date	Face value of award (using market price at date of grant) \$'000	Market price at the date of grant \$ <sup>2</sup>	End of performance period	% of award receivable if Threshold performance achieved	% of award receivable if Target performance achieved	% of award receivable if Maximum performance achieved
2016	Performance Awards	85,559	22 March 2016	22 March 2019	630	7.36	31 December 2018	0%	57%	100%
	Restricted Awards	36,668	22 March 2016	22 March 2017 22 March 2018 22 March 2019	270	7.36	N/A	0%	100%	100%
2017	Performance Awards	76,070	30 March 2017	30 March 2020	770	10.12	31 December 2019	0%	57%	100%
	Restricted Awards	32,602	30 March 2017	30 March 2018 30 March 2019 30 March 2020	330	10.12	N/A	0%	100%	100%
2018 <sup>3</sup>	Performance Awards	109,397	28 March 2018	28 March 2021	1,470	13.44	31 December 2020	0%	48%	100%
	Restricted Awards	46,885	28 March 2018	28 March 2019 28 March 2020 28 March 2021	630	13.44	N/A	0%	100%	100%

1. 2016 awards were granted before Iván Arriagada was appointed CEO.

2. The market price used at the date of grant was the average closing share price on the five dealing days before the grant date, ending on the day before the grant date, converted into US dollars using the exchange rate on the date immediately prior to the date of grant.

3. As noted in the Chair's Introduction on page 119, Iván Arriagada received an LTIP grant of 325% of base salary in 2018. It is expected that an LTIP grant of 200% of base salary will be awarded to Iván Arriagada in 2019.

## ANTICIPATED GROUP PERFORMANCE UNDER THE 2016 LTIP

As noted in the single figure table on page 126, performance against the Performance Awards granted in 2016 will not be finally determined by the Committee until after the date of this report, once the Group's 2018 results have been released to the market. The performance criteria attaching to these Performance Awards and the anticipated performance against these criteria, based on estimates as at the date of this report, are as follows:

Weighting	Objective	Measure			Anticipated performance	Anticipated achievement <sup>1</sup>
		Threshold (0%)	Target (see below)	Maximum (100%)		
40%	Relative total shareholder return <sup>2</sup>	0% vesting at performance below the index during the three-year period	33% vesting at performance equal to the index during the three-year period	100% vesting at performance equal to or greater than the index plus 5% during the three-year period	To be updated at the vesting date	0%
20%	EBITDA <sup>3</sup>	0% vesting at \$3,297 million or below	75% vesting at \$3,708 million	100% vesting at \$4,120 million	EBITDA for the period was \$6,543 million	100%
5%	Mineral resources increase	0% vesting at 79.4 million tonnes of contained copper or below as at 31 December 2018	50% vesting at 81.5 million tonnes of contained copper	100% vesting at 83.6 million tonnes of contained copper	Resources increased to 85.7 million tonnes of contained copper	100%
35%	Projects, development and sustainability					
	1. Centinela Second Concentrator and Encuentro Oxides (four project-specific goals <sup>4</sup> ) (10%)	At least two of the four goals achieved	At least three of the four goals achieved	All four goals achieved	All four goals achieved	100%
	2. Los Pelambres Expansion (three specific goals <sup>5</sup> ) (10%)	At least one of the three goals achieved	At least two of the three goals achieved	All three goals achieved	All three goals achieved	100%
	3. Environmental and Communities (four specific goals <sup>6</sup> ) (15%)	At least two of the four goals achieved	At least three of the four goals achieved	All four goals achieved	All four goals achieved	100%
<b>Total</b>						<b>60%</b>

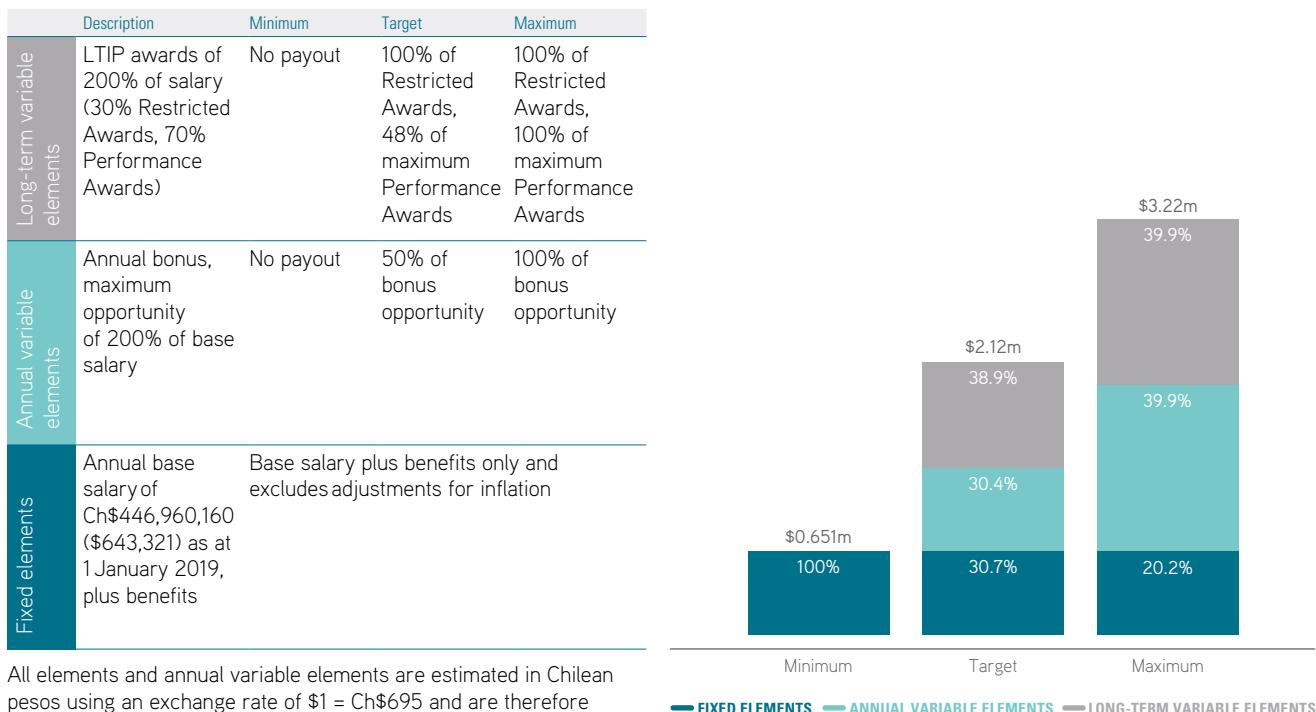
1. Anticipated achievement is based on estimates made as at the date of this report. These awards will not vest until after the Group's 2018 results have been released to the market.
2. Total shareholder return is calculated to show a theoretical change in the value of a shareholding over a specified period. Total shareholder return for the Euromoney Global Mining Index is calculated by aggregating the returns of all individual constituents of that index and, for the purposes of comparison with the Company's share performance, taking an average of the index over the three months before the beginning and the end of the period respectively.
3. Targets are calculated based on the mining operations' accumulated EBITDA over the period from 2016-18, versus the 2016 budget figure and the 2016 internal base case figures for 2017 and 2018. The final calculations have not been adjusted for commodity price or exchange rate fluctuations.
4. Goals were: (1) commissioning of the Encuentro Oxides project in 2017 (2) Encuentro Oxides in full production by Q3 2018 (3) Centinela Second Concentrator project Environmental Impact Study approved in 2016 (4) Centinela Molybdenum Plant start-up in the first half of 2018.
5. Goals were: (1) Board approval of the implementation strategy for the Environmental Impact Study for the Los Pelambres Expansion in the first half of 2016 (2) Presentation of the Environmental Impact Study to the Environmental Authority in the first half of 2016 (3) Approval of the Environmental Impact Study and commencement of the commitment phase for the project during 2017.
6. Goals were: (1) Presentation of the Environmental Impact Study for the desalination plant at Los Pelambres to the Environmental Authority in 2016 (2) Resolution of disputes relating to the Mauro tailings dam by the end of 2018 (3) Execution of four works programmes under the "Somos Choapa" commitments by the end of 2018 (4) Implementation and advancement of an agreement with the Salamanca community in relation to water matters.

# ILLUSTRATION OF CEO REMUNERATION POLICY IN 2019

A significant proportion of the remuneration available to Iván Arriagada is dependent on the performance of the Group and in 2019 his total remuneration will consist of the same elements as it did in 2018.

The chart below outlines the CEO's total potential remuneration in 2019 under different performance scenarios.

The figures are based on the following assumptions:



All elements and annual variable elements are estimated in Chilean pesos using an exchange rate of \$1 = Ch\$695 and are therefore subject to exchange rate fluctuations during the year.

— FIXED ELEMENTS — ANNUAL VARIABLE ELEMENTS — LONG-TERM VARIABLE ELEMENTS

## 2019 ANNUAL BONUS PLAN

The Board has agreed Group performance criteria for the 2019 Annual Bonus Plan as follows. The number of KPIs and weightings attributable to each component of the 2019 Annual Bonus Plan is consistent with the 2018 Annual Bonus Plan and reflects the Committee's view of the balance required to successfully implement the Group's strategy in 2019. 70% of the CEO and Executive Committee's 2019 annual bonus will be calculated based on the Group's performance against these criteria in 2019.

Weighting	Objective	Measure	Threshold	Target	Maximum
<b>60%</b>	<b>Core Business</b>				
15%	EBITDA	\$m	≤-10%	The Group's future metals price assumptions are commercially sensitive and therefore the target for EBITDA will not be disclosed in advance. However, the Company will disclose the 2019 target and outcome in the 2019 Annual Report.	≥+10%
25%	Copper production	tonnes	734,000	750-790,000	804,000
20%	Costs				
	Cash costs before by-product credits (17%)	\$/lb	1.77	1.70	1.57
	Corporate expenditure (3%)	\$m	77	74	70
<b>20%</b>	<b>Business Development – Growth Projects Execution</b>				
15%	Projects			Measured according to KPIs and milestones. The Company will disclose the 2019 targets and outcomes in the 2019 Annual Report.	
5%	Exploration				
<b>20%</b>	<b>Sustainability and Organisational Capabilities</b>				
5%	Safety				
5%	People				
5%	Environmental			Measured according to KPIs and milestones. The Company will disclose the 2019 targets and outcomes in the 2019 Annual Report.	
5%	Social				

## PERFORMANCE SCORE ADJUSTMENTS AND BOARD DISCRETION

As has been the case since 2016, the final performance score under the 2019 Annual Bonus Plan will be subject to a 15% adjustment upwards if there are no fatalities and 15% downwards if there are one or more fatalities, during 2019.

The final performance score for Core Business will also automatically be adjusted to 90 (0% bonus) when applied to the 2019 annual bonus for the Executive Committee if the Group does not record a profit after tax (excluding extraordinary non-cash items and changes to legislation or accounting rules and calculated using the statutory nominal tax rate) in 2019.

The Committee maintains discretion to adjust the final performance score within a range of 3%. However, use of this adjustment must be approved by the Board.

The 2019 Annual Bonus Plan EBITDA targets will be adjusted for copper price and exchange rate fluctuations during 2019 and cost targets will be adjusted for exchange rate fluctuations, any one-off bonuses awarded as part of labour negotiations and input prices if these prices deviate by more than 20% over the year.

## 2019 LTIP AWARDS

Awards will not be granted under the LTIP in 2019 until after the date of this report and following publication of the Group's 2018 results.

As noted on page 120, it is not currently expected that there will be any change to the design of the LTIP in 2019 and the number of KPIs and weightings attributable to each component of the LTIP in 2019 is expected to be consistent with the 2018 LTIP. Additionally, the mix of Restricted Awards and Performance Awards are expected to be granted to the CEO and Executive Committee members in accordance with the 30% Restricted Award, 70% Performance Award split, following practice in recent years and subject to the limits set out in the LTIP rules. The performance conditions attaching to Performance Awards are anticipated to be those set out below. If the performance conditions set by the Committee end up materially different from those disclosed, the revised performance conditions will be disclosed in the 2019 Annual Report.

Weighting	Objective	Measure
50%	Relative Total Shareholder Return	Comparison against Euromoney Global Mining Index with 0% vesting at performance below the index, 33% vesting at performance equal to the index and 100% vesting at performance equal to or greater than the index plus 5% during the three-year period.
25%	Mineral Resources Increase	Tonnes of contained copper at the end of 2020. Maximum is expected to be 84.2 million tonnes of contained copper, with an anticipated Target and Threshold of 83.0 and 81.8 million tonnes of contained copper respectively.
12.5%	Projects Performance	Relates to the Group's priority projects.
12.5%	Environmental Performance	Relates to the Group's environmental performance.

# SUMMARY OF DIRECTORS' REMUNERATION POLICY

The 2017 Directors' Remuneration Policy was approved by shareholders at the AGM held on 24 May 2017 and took effect from that date. The following information on pages 134 to 136 is provided for reference and covers elements of the policy that apply to all Directors. It does not form part of the 2018 Directors' Remuneration Report.

The full policy can be found in the Remuneration and Talent Management section of the Company's website at [www.antofagasta.co.uk/investors/corporate-governance/board-committees/](http://www.antofagasta.co.uk/investors/corporate-governance/board-committees/)

## POLICY SCOPE

The policy applies to Non-Executive Directors only. The Board has considered the pros and cons of having executives on the Board and continues to be of the view that the existing structure is effective in ensuring that the Board maintains objectivity and independence from management and is appropriate given that the CEO, Executive Committee members and most senior managers are based in Chile where local company law prohibits CEOs of public companies from serving as directors of those companies.

Although the policy does not cover executive remuneration, the Company will continue to embrace the spirit of the UK remuneration reporting regulations and the UK Corporate Governance Code by voluntarily reporting each year on the remuneration and incentive pay design for the CEO as if he were a Director and by providing detailed information in relation to the structure and components of the other Executive Committee members' remuneration.

The Company's policy is to ensure that Non-Executive Directors are fairly rewarded with regard to the responsibilities undertaken, and to consider comparable pay levels and structures in the UK, Chile and the international mining industry.

The Chairman's fees and other terms are set by the Committee. Non-Executive Directors' fees and other terms are set by the Board upon recommendation of the Committee.

	Purpose	Operation	Maximum opportunity
<b>DIRECTORS</b>			
<b>Fees</b>	To attract and retain high-calibre, experienced Directors by offering globally competitive fee levels.	<p>Fees are reviewed annually and the competitiveness of total fees is assessed against companies of a similar nature, size and complexity.</p> <p>Directors receive a base fee for services to the Company's Board as well as additional fees for chairing or serving as a member of any of the Board's Committees or serving as Senior Independent Director. The Chairman receives a higher base fee which reflects his responsibility, experience and time commitment to the role.</p> <p>Separate base fees are paid for services to the Antofagasta Minerals board (all Non-Executive Directors are members of both boards), and for serving as a director, or chairing, any subsidiary or joint-venture company boards.</p> <p>Ramón Jara also receives a base fee for advisory services provided to Antofagasta Minerals pursuant to a separate service contract. This fee is currently denominated in Chilean pesos and is automatically adjusted for Chilean inflation.</p> <p>All other fee levels are currently denominated in US dollars and are not automatically adjusted for inflation. The Committee may determine fee levels and/or pay fees in any other currency if deemed necessary or appropriate.</p>	<p>In normal circumstances, the maximum annual fee increase will be 7%. However, the Committee has discretion to exceed this in exceptional circumstances, for example:</p> <ul style="list-style-type: none"> <li>- if there is a sustained period of high inflation;</li> <li>- if fees are out of line with the market; and/or</li> <li>- if fees for chairing or serving as a member of any of the Board's Committees or performing a specific role on the Board such as Senior Independent Director are out of line with the market.</li> </ul> <p>Any increases will take into account the factors described under the heading "Operation", will not be excessive, and the rationale for the increase will be disclosed in the Remuneration Report for the relevant financial year.</p> <p>Fee levels for additional roles within the Group are set based on the needs and time commitment expected and may be determined and/or paid in a combination of currencies including US dollars and Chilean pesos.</p> <p>Chilean-peso-denominated fees will be increased to take account of Chilean inflation and may be reported from one year to the next as an increase or decrease as a result of exchange rate movements only. Because all amounts are reported in US dollars, any exchange rate impact will not be taken into account when applying the maximum annual fee increase described above.</p>
<b>Variable remuneration</b>	Given the non-executive composition of the Board, there are no arrangements for Directors to acquire benefits through the acquisition of shares in the Company or any of its subsidiary undertakings, to benefit through performance-related pay or to participate in long-term incentive schemes. The Code states that remuneration for Non-Executive Directors should not include share options or other performance-related elements.		
<b>Benefits</b>	To provide appropriate benefits and reimburse appropriate expenses that are incurred in the performance of duties of the Directors.	<p>Benefits include the provision of life, accident and health insurance and may also include professional advice and certain other minor benefits including occasional spousal travel in connection with the business and any Company business expenses which are deemed to be taxable. The Company will pay any tax payable on those benefits on behalf of Directors.</p> <p>The Committee retains the discretion to provide additional insurance benefits in accordance with Company policy, should this be deemed necessary.</p>	<p>Set at a level appropriate to the individual's role and circumstances. The maximum opportunity will depend on the type of benefit and cost of its provision, which will vary according to the market and individual circumstances.</p>
<b>Pension</b>	No Director is entitled to pension contributions. The Code considers that the participation by a Non-Executive Director in a company's pension scheme could potentially impact on the independence of that Non-Executive Director.		

As Directors do not receive variable remuneration, there are no provisions in place to recover sums paid or to withhold payments made to Directors.

### SHAREHOLDING REQUIREMENTS

The Company does not currently have shareholding guidelines or requirements for Directors. However, Chairman Jean-Paul Luksic and Non-Executive Director Andrónico Luksic C are members of the Luksic family; members of the Luksic family are interested in the E. Abaroa Foundation which controls the Metalinvest Establishment and Kupferberg Establishment (which, in aggregate, hold approximately 60.66% of the Company's ordinary shares and approximately 94.12% of the Company's preference shares). In addition, Mr Jean-Paul Luksic controls the Severe Studere Foundation which in turn, controls Aureberg Establishment (which holds approximately 4.26% of the Company's ordinary shares). This creates significant alignment between these members of the Board and shareholders.

### RECRUITMENT POLICY

The appointment of Non-Executive Directors (including the Chairman) is handled through the Nomination and Governance Committee and Board processes. The current fee levels are set out in the Directors' Remuneration Report. Details of each element of remuneration paid to the Chairman and Directors are set out in the 2016 Directors' Remuneration Report.

The terms of appointment for any new Non-Executive Director will be consistent with those in place for current Non-Executive Directors as summarised in the service contracts and letters of appointment policy detailed on this page.

Variable pay will not be considered and, as such, no maximum applies. Fees will be consistent with the policy at the time of appointment.

A timely announcement with respect to any Director appointment will be made to the regulatory news services and posted on the Company's website.

### TERMINATION POLICY

The letters of appointment for the Non-Executive Directors do not provide for any compensation for loss of office beyond payments in lieu of notice, and therefore the maximum amount payable upon termination of these letters is one month's payment.

### SERVICE CONTRACTS AND LETTERS OF APPOINTMENT

All Directors' service contracts and letters of appointment are available for inspection at the Company's registered office during normal business hours and at the Annual General Meeting (for 15 minutes prior to and during the meeting).

Each Director has a letter of appointment with the Company. The Company has a policy of putting all Directors forward for re-election at each Annual General Meeting in accordance with the Corporate Governance Code. Under the terms of the letters, if a majority of shareholders do not confirm a Director's appointment or reappointment, the appointment will terminate with immediate effect. In other circumstances, the appointment may be terminated by either the Director or the Company on one month's prior written notice. The letters require the Directors to undertake that they will have sufficient time to discharge their responsibilities.

The letters of appointment do not provide for any compensation for loss of office beyond payments in lieu of notice, and therefore the maximum amount payable upon termination of these appointments is one month's fees.

There is also a contract between Antofagasta Minerals and Asesorías Ramón F Jara Ltda (formerly E.I.R.L.) dated 2 November 2004 for the provision of advisory services by Ramón Jara. This contract does not have an expiry date but can be terminated by either party on one month's notice. The amounts payable under this contract for services are denominated in Chilean pesos and, as is typical for employment contracts or contracts for services in Chile, are adjusted in line with Chilean inflation, and are also reviewed periodically in line with the Company's policy on Directors' pay.

### CONSIDERATION OF EMPLOYMENT CONDITIONS ELSEWHERE IN THE COMPANY

When the Committee reviews Director compensation, it also reviews pay conditions across the rest of the Group. This is set in the context of very different working environments and geographies and therefore is not a mechanical process. However, this acts as one input into the pay review process. The Committee does not currently use any other remuneration comparison metrics when determining the quantum and structure of Director compensation and does not solicit employees' views.

### REMUNERATION POLICY FOR OTHER EMPLOYEES

Remuneration arrangements are determined throughout the Group based on the principle that reward should be granted for delivery of the Group's strategy. A significant proportion of the CEO and Executive Committee members' remuneration is in the form of variable pay. The CEO and Executive Committee are eligible to participate in the LTIP and Annual Bonus Plan, which are both subject to performance criteria aligned with the Group's strategy. The remuneration structure for other Group employees varies according to their role, location and working environment.

### CONSIDERATION OF SHAREHOLDER VIEWS

The Company maintains a dialogue with institutional shareholders and sell-side analysts, as well as potential shareholders. This communication is managed by the investor relations team, and includes a formal programme of presentations to update institutional shareholders and analysts on developments in the Group following the announcement of the half-year and full-year results. The Board receives regular summaries and feedback in respect of the meetings held as part of the investor relations programme, as well as receiving analysts' reports on the Company.

The Senior Independent Director meets with shareholders regularly and the Chairman, and the Chairman of the Remuneration and Talent Management Committee, are also regularly available to meet shareholders to discuss matters of importance, including the Group's remuneration structures.

The Company's Annual General Meeting is also used as an opportunity to communicate with both institutional and private shareholders.

This ongoing dialogue allows the Company to respond to the needs and concerns of all shareholders throughout the year and the Directors' pay arrangements will continue to be reviewed each year in line with the policy, taking into account the views of all the Company's shareholders.

# DIRECTORS' REPORT

## DIRECTORS

Directors who have served during the year and summaries of current Directors' key skills and experience are set out in the Corporate Governance Report on pages 98 to 101.

## POST-BALANCE SHEET EVENTS

There have been no post-balance sheet events.

## FINANCIAL RISK MANAGEMENT

Details of the Company's policies on financial risk management are set out in Note 24 to the financial statements.

## RESULTS AND DIVIDENDS

The consolidated profit before tax has decreased from \$1,830.8 million in 2017 to \$1,252.7 million in 2018.

The Board has recommended a final dividend of 37 cents per ordinary share (2017 – 40.6 cents). An interim dividend of 6.8 cents was paid on 5 October 2018 (2017 interim dividend – 10.3 cents). This gives total dividends per share proposed in relation to 2018 of 43.8 cents (2017 – 50.9 cents) and a total dividend amount in relation to 2018 of \$431.8 million (2017 – \$501.8 million).

Preference shares carry the right to a fixed cumulative dividend of 5% per annum. The preference shares are classified within borrowings and preference dividends are included within finance costs. The total cost of dividends paid on preference shares and recognised as an expense in the income statement was \$0.1 million (2017 – \$0.1 million). Further information relating to dividends is set out in the Financial Review on page 80 and in Note 13 to the financial statements.

## POLITICAL CONTRIBUTIONS

The Group did not make political donations during the year ended 31 December 2018 (2017 – nil).

## AUDITOR

The Company's auditor, PricewaterhouseCoopers LLP, has indicated its willingness to continue in office and a resolution seeking its reappointment will be proposed at the Annual General Meeting.

## DISCLOSURE OF INFORMATION TO AUDITORS

The Directors in office at the date of this report have each confirmed that:

- so far as they are aware, there is no relevant audit information of which the Group's auditor is unaware; and
- they have taken all the steps that they ought to have taken as Directors in order to make themselves aware of any relevant audit information and to establish that the Group's auditor is aware of that information.

## CAPITAL STRUCTURE

Details of the authorised and issued ordinary share capital are shown in Note 29 to the financial statements. The Company has one class of ordinary shares, which carry no right to fixed income. Each ordinary share carries one vote at any general meeting of the Company.

Details of the preference share capital are shown in Note 22 to the financial statements. The preference shares are non-redeemable and are entitled to a fixed cumulative dividend of 5% per annum. Each preference share carries 100 votes on a poll at any general meeting of the Company.

When the preference shares were issued, they carried one vote on a poll at any general meeting of the Company in parity with ordinary shares in issue at that time. The number of ordinary shares in issue has increased since then through stock splits and bonus issues and because the preference shares were not split at the same time as the ordinary shares, in order to maintain proportionate voting rights attaching to the preference shares, the voting rights attaching to preference shares have increased to 100 votes on a poll at any general meeting of the Company.

There are no specific restrictions on the transfer of shares or on their voting rights beyond those standard provisions set out in the Company's Articles of Association and other provisions of applicable law and regulation (including, in particular, following a failure to provide the Company with information about interests in shares as required by the Companies Act 2006). The Company is not aware of any agreements between holders of the Company's shares that may result in restrictions on the transfer of securities or on voting rights.

With regard to the appointment and replacement of Directors, the Company is governed by, and has regard to, its Articles of Association, the UK Corporate Governance Code 2016, the Companies Act 2006 and related legislation. The Articles of Association may be amended by special resolution of the shareholders. There are no significant agreements in place that take effect, alter or terminate upon a change of control of the Company. There are no agreements in place between the Company and its Directors or employees that provide for compensation for loss of office resulting from a change of control of the Company.

The percentages of the total nominal share capital of the Company represented by each class of share are:

Class	Number in issue	Nominal value per share	Percentage of capital
Ordinary shares of 5p each	985,865,695	5p	96.10%
Preference shares of £1.00 each	2,000,000	£1	3.90%

## AUTHORITY TO ISSUE SHARES AND AUTHORITY TO PURCHASE OWN SHARES

At the 2018 AGM, held on 23 May 2018, authority was given to the Directors to allot unissued relevant securities in the Company up to a maximum amount equivalent to two-thirds of the ordinary shares in issue (of which one-third may only be offered by way of rights issue). This authority expires on the date of this year's AGM, scheduled to be held on 22 May 2019. No shares have been issued as at the date of this report or during the year. The Directors propose to seek renewal of this authority at this year's AGM.

A further special resolution passed at the 2018 AGM granted authority to the Directors to allot equity securities in the Company for cash, without regard to the pre-emption provisions of the Companies Act 2006. This authority also expires on the date of this year's AGM and the Directors will seek to renew this authority on similar terms by way of two separate resolutions, in line with the Investment Association's guidance and the Pre-Emption Group's Statement of Principles.

The Company was also authorised by a shareholders' resolution passed at the 2018 AGM to purchase up to 10% of its issued ordinary share capital. Any shares bought back may be held as treasury shares or, if not so held, must be cancelled immediately upon completion of the purchase, thereby reducing the amount of the Company's issued and authorised share capital. This authority will expire at this year's AGM and a resolution to renew the authority for a further year will be proposed. No shares were purchased by the Company during the year.

### **DIRECTORS' INTERESTS AND INDEMNITIES**

Details of Directors' contracts and letters of appointment, remuneration and emoluments, and their interests in the shares of the Company as at 31 December 2018, are given in the Directors' Remuneration Report. No Director had any material interest in a contract of significance (other than a service contract – see page 124) with the Company or any subsidiary company during the year.

In accordance with the Company's Articles of Association and to the extent permitted by the laws of England and Wales, Directors are granted an indemnity from the Company in respect of liabilities personally incurred as a result of their office. The Company also maintained a Directors' and Officers' liability insurance policy throughout the financial year. A new policy has been entered into for the current financial year.

### **CONFLICTS OF INTEREST**

Each year, the Directors complete a form identifying interests that may constitute a conflict of interest including, for example, directorships in other companies. Directors are also required to notify the Company during the year of any relevant changes in those positions or situations.

The Board, with assistance from the Nomination and Governance Committee, considers the potential and actual conflict situations and decides in relation to each situation the steps, if any, which need to be taken to manage it.

The authorisation process is not regarded as a substitute for managing an actual conflict of interest if one arises, and the monitoring, and, if appropriate, authorisation of actual and potential conflicts of interest is an ongoing process.

### **SUBSTANTIAL SHAREHOLDINGS**

As at 31 December 2018 and 18 March 2019, the following significant holdings of voting rights in the share capital of the Company had been disclosed to the Company under Disclosure and Transparency Rule 5:

Shareholder	Ordinary share capital %	Preference share capital %	Total share capital %
1. Metalinvest Establishment	50.72	94.12	58.04
2. Kupferberg Establishment	9.94	–	8.27
3. Aureberg Establishment	4.26	–	3.54

Metalinvest Establishment and Kupferberg Establishment are both controlled by the E. Abaroa Foundation ("Abaroa"), in which members of the Lukšić family are interested. As explained in Note 35 to the financial statements, Metalinvest Establishment is the immediate Parent Company of the Group and the E. Abaroa Foundation is the Ultimate Parent Company. Aureberg Establishment is controlled by the Severe Studere Foundation that, in turn, is controlled by Jean-Paul Lukšić, the Chairman of the Company.

### **EXPLORATION AND RESEARCH AND DEVELOPMENT**

The Group's subsidiaries carry out exploration and research and development activities that are necessary to support and expand the Group's operations.

### **OTHER STATUTORY DISCLOSURES**

The Corporate Governance Report on pages 84 to 136, the Statement of Directors' Responsibilities on page 139 and Note 24 to the financial statements are incorporated into this Directors' Report by reference.

Other information can be found in the following sections of the Strategic Report:

	Location in Strategic Report
Future developments in the business of the Group	Pages 56 to 75
Viability and going concern statement	Page 22
Subsidiaries, associates and joint ventures	Pages 56 to 75
Employee consultation	Pages 36 to 37
Greenhouse gas emissions	Page 48

Disclosures required pursuant to Listing Rule 9.8.4R can be found on the following pages of the Annual Report:

	Location in Annual Report
Statement of interest capitalised by the Group (LR 9.8.4(1))	See Notes 5, 9 and 15 to the financial statements on pages 160 to 164, 169 and 173 and 174.
Relationship agreement (LR 9.8.4(14))	Page 91

By order of the Board

**Julian Anderson**  
Company Secretary

18 March 2018

# DIRECTORS' RESPONSIBILITIES

## STATEMENT OF DIRECTORS' RESPONSIBILITIES IN RELATION TO THE FINANCIAL STATEMENTS

The Directors are responsible for preparing the Annual Report, the Directors' Remuneration Report and the financial statements in accordance with the applicable law and regulations.

Company law requires the Directors to prepare financial statements for each financial year. Under that law, the Directors have prepared the Group financial statements in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union, and the Parent Company financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law), including Financial Reporting Standard 101 Reduced Disclosure Framework ("FRS 101"). Under company law, the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and the Company and of the profit or loss of the Group for that period. In preparing these financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently
- make judgements and accounting estimates that are reasonable and prudent
- state whether IFRS as adopted by the European Union and applicable UK Accounting Standards, including FRS 101, have been followed, subject to any material departures disclosed and explained in the Group and Parent Company Financial Statements
- prepare the Financial Statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and the Group and enable them to ensure that the financial statements and the Directors' Remuneration Report comply with the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation. They are also responsible for safeguarding the assets of the Company and the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Directors are responsible for the maintenance and integrity of the Company's website. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The Directors consider that the Annual Report and financial statements, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Company's position and performance, business model and strategy.

Each of the Directors, whose names and functions are listed in the Corporate Governance Report, confirms that to the best of his or her knowledge:

- the Parent Company financial statements, which have been prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law), give a true and fair view of the assets, liabilities, financial position and profit of the Company,
- the Group financial statements, which have been prepared in accordance with IFRS as adopted by the EU, give a true and fair view of the assets, liabilities, financial position and profit of the Group, and
- the Strategic Report and the Directors' Report include a fair review of the development and performance of the business and the position of the Group, together with a description of the principal risks and uncertainties that it faces.

By order of the Board

**Jean-Paul Luksic**

Chairman

**Ollie Oliveira**

Senior Independent Director

18 March 2019



# FINANCIAL STATEMENTS

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## REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

### OPINION

In our opinion:

- Antofagasta plc's Group financial statements and Parent Company financial statements (the 'financial statements') give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 December 2018 and of the Group's profit and cash flows for the year then ended;
- The Group financial statements have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union;
- The Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 'Reduced Disclosure Framework', and applicable law); and
- The financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation.

We have audited the financial statements, included within the Annual Report and Financial Statements 2018 (the 'Annual Report'), which comprise: the consolidated and Parent Company balance sheets as at 31 December 2018; the consolidated income statement and consolidated statement of comprehensive income, the consolidated cash flow statement, and the consolidated and Parent Company statements of changes in equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

### OUR AUDIT APPROACH

#### OVERVIEW



- Overall Group materiality: \$64 million (2017: \$49 million), based on 5% of three-year average profit before tax adjusted for one off items.
- Overall Parent Company materiality: \$14.5 million (2017: \$18.5 million), based on 1% of Total Assets.
  
- We identified the four mine sites, Los Pelambres, Centinela, Antucoya and Zaldivar, which in our view, required an audit of their complete financial information.
- Taken together, the locations and functions where we performed our audit work accounted for 96% of revenue and 86% of absolute adjusted profit before tax (i.e. the sum of the numerical values without regard to whether they were profits or losses for the relevant locations and functions).
  
- Impairment assessments at Antucoya and Centinela.

Our opinion is consistent with our reporting to the Audit Committee.

### BASIS FOR OPINION

We conducted our audit in accordance with International Standards on Auditing (UK) ('ISAs (UK)') and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### INDEPENDENCE

We remained independent of the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, as applicable to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, we declare that non-audit services prohibited by the FRC's Ethical Standard were not provided to the Group or the Parent Company.

Other than those disclosed in Note 7 to the financial statements, we have provided no non-audit services to the Group or the Parent Company in the period from 1 January 2018 to 31 December 2018.

## THE SCOPE OF OUR AUDIT

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements.

## CAPABILITY OF THE AUDIT IN DETECTING IRREGULARITIES, INCLUDING FRAUD

Based on our understanding of the Group and industry, we identified that the principal risks of non-compliance with laws and regulations related to breaches of safety and environmental regulations and unethical and prohibited business practices. We considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the preparation of the financial statements such as the Companies Act 2006 ('CA06'), and the UK Listing Rules. We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to posting inappropriate journal entries to increase revenue or reduce expenditure, and management bias in accounting estimates. The Group engagement team shared this risk assessment with the component auditors so that they could include appropriate audit procedures in response to such risks in their work. Audit procedures performed by the Group engagement team and/or component auditors included:

- Discussions with management, internal audit and the Group's legal advisors, including consideration of known or suspected instances of non-compliance with laws and regulation and fraud;
- Evaluation of management's controls designed to prevent and detect irregularities, in particular their anti-bribery controls;
- Assessment of matters reported on the Group's whistleblowing helpline and the results of management's investigation of such matters;

### Key audit matter

#### Impairment assessments at Antucoya and Centinela

In accordance with IAS 36 'Impairment of assets' the Directors are required to perform a review for impairment of long-lived assets at any time an indicator of impairment exists.

There is a heightened level of potential impairment risk at Antucoya from the perspective of its high cost base; and Centinela from the perspective of its sensitivity to changes in the long term copper price and that a significant portion of its value generation is tied up in two significant capital projects that have not yet been formally approved. Based on the Directors' considerations of the results of their carrying value review, they concluded that no impairment indicators existed in respect of Antucoya and Centinela.

This assessment included consideration of a valuation and sensitivity analysis. This analysis requires judgement on the part of the Directors in valuing the relevant CGUs. The Directors have applied assumptions that a market participant would use to determine fair value, including incorporating value from cash flows related to the planned construction of a second concentrator at Centinela.

Refer to Note 4 Asset Sensitivities.

- Challenging assumptions and judgements made by management in their significant accounting estimates, in particular in relation to impairment assessments at Antucoya and Centinela;
- Identifying and testing journal entries, in particular any journal entries posted with unusual account combinations

There are inherent limitations in the audit procedures described above and the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we would become aware of it. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

### KEY AUDIT MATTERS

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. This is not a complete list of all risks identified by our audit.

### How our audit addressed the key audit matter

We considered the Directors' impairment indicator analysis and agree that no impairment or reversal indicators existed as at 31 December 2018. Our consideration is described below, and incorporates consideration of sensitivity disclosures.

We evaluated the Directors' future cash flow forecasts, and the process by which they were drawn up, including verifying the mathematical accuracy of the cash flow models and agreeing future capital and operating expenditure to the latest Board approved budgets and the latest approved Life of Mine plans. We assessed the reasonableness of the Directors' future capital and operating expenses in light of their historical accuracy and the current operational results and concluded the forecasts had been appropriately prepared, based on updated assessments of future operational performance and cost saving initiatives.

We evaluated the appropriateness of key market related assumptions in the Directors' valuation models, including the copper prices, discount rates and foreign currency exchange rates. We noted that the recoverable amount was particularly sensitive to changes in the long-term copper price and foreign exchange assumptions and in the case of Centinela, the expansion projects.

We formed an independent view of the copper price that a market participant might use in a fair value less cost of disposal scenario. We found that the Directors' long-term copper price assumption of \$3.10/lb was within a reasonable range. We independently calculated a weighted average cost of capital by making reference to market data, and considering the CGU specific risks. The discount rate used by the Directors' of 8% fell within a reasonable range. We performed sensitivity analysis around the key assumptions within the cash flow forecasts using a range of higher discount rates and lower long term copper prices.

In light of the above, we reviewed the appropriateness of the related disclosures in Note 4 of the financial statements, including the sensitivities provided, and concluded they were appropriate.

We determined that there were no key audit matters applicable to the Parent Company to communicate in our report.

### HOW WE TAILORED THE AUDIT SCOPE

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the Group and the Parent Company, the accounting processes and controls, and the industry in which they operate.

The core mining business consists of four assets: Los Pelambres; Centinela; Antucoya and Zaldívar, a joint venture with Barrick Gold Corporation operated by the Group. These mines produce copper cathodes, copper concentrates and significant volumes of by-products.

In addition to mining the Group has a transport division that provides rail and road cargo services in northern Chile predominantly to mining customers, including to the Group's own operations.

All of the above operations are located in Chile. In addition, the Group has corporate head offices located in both Santiago, Chile (Antofagasta Minerals S.A.) and London, UK (Antofagasta plc). The Group also has exploration projects in various countries.

In establishing the overall approach to the Group audit, we determined the type of work that needed to be performed at each of the four mine sites and the corporate offices in Chile, by us, as the Group engagement team and by component auditors from PwC Chile operating under our instruction. Los Pelambres and Centinela were considered to be financially significant components of the Group, due to their contribution towards Group profit before tax, and so required audits of their complete financial information. Antucoya and Zaldívar were also subject to an audit of their complete financial information, in response to the risk of impairment of Antucoya's carrying value and the carrying value of inventory at Zaldívar.

We also requested that component auditors perform specified procedures over the corporate offices in Chile, and specific line items of other entities within the Group to ensure that we had sufficient coverage from our audit work for each line of the Group's financial statements. For all other non-financially significant components, the Group team performed analytical review procedures.

Where work was performed by component auditors, we determined the level of involvement we needed to have in the audit work to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the Group financial statements as a whole.

UK staff were seconded to PwC Chile to be an integral part of the team. In addition the Senior Statutory Auditor visited Chile twice, and attended key audit meetings with management and met with our component auditors. The Group team also reviewed the component auditor working papers, attended local audit clearance meetings, and reviewed other forms of communications dealing with significant accounting and auditing issues.

### MATERIALITY

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	<b>Group financial statements</b>	<b>Parent Company financial statements</b>
<b>Overall materiality</b>	\$64 million (2017: \$49 million).	\$14.5 million (2017: \$18.5 million).
<b>How we determined it</b>	5% of three-year average profit before tax adjusted for one off items.	1% of Total Assets.
<b>Rationale for benchmark applied</b>	For overall Group materiality, we chose to use an underlying earnings measure as the benchmark because an underlying measure removes the impact of material items which do not recur from year to year or otherwise significantly affect the underlying trend of performance from continuing operations.  The adoption of a multi-year average benchmark for materiality responds to longer-term trends in commodity markets and reduces volatility in the measure year-on-year.	For the Parent Company materiality, we determined our materiality based on total assets, which is more applicable than a performance-related measure as the company is an investment holding company for the Group.

For each component in the scope of our Group audit, we allocated a materiality that is less than our overall Group materiality. The range of materiality allocated across components was between \$10 million and \$40 million. Certain components were audited to a local statutory audit materiality that was also less than our overall Group materiality. We agreed with the Audit Committee that we would report to them misstatements identified during our audit above \$1.5 million (Group audit) (2017: \$1.5 million) and \$728,000 (Parent Company audit) (2017: \$923,500) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

## GOING CONCERN

In accordance with ISAs (UK) we report as follows:

### Reporting obligation

We are required to report if we have anything material to add or draw attention to in respect of the Directors' statement in the financial statements about whether the Directors considered it appropriate to adopt the going concern basis of accounting in preparing the financial statements and the Directors' identification of any material uncertainties to the Group's and the Parent Company's ability to continue as a going concern over a period of at least twelve months from the date of approval of the financial statements.

We are required to report if the Directors' statement relating to Going Concern in accordance with Listing Rule 9.8.6R(3) is materially inconsistent with our knowledge obtained in the audit.

### Outcome

We have nothing material to add or to draw attention to. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the Group's and Parent Company's ability to continue as a going concern. For example, the terms on which the United Kingdom may withdraw from the European Union, which is currently due to occur on 29 March 2019, are not clear, and it is difficult to evaluate all of the potential implications on the Company's trade, customers, suppliers and the wider economy.

We have nothing to report.

## REPORTING ON OTHER INFORMATION

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The Directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic Report and Directors' Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on the responsibilities described above and our work undertaken in the course of the audit, CA06, ISAs (UK) and the Listing Rules of the Financial Conduct Authority ('FCA') require us also to report certain opinions and matters as described below (required by ISAs (UK) unless otherwise stated).

### STRATEGIC REPORT AND DIRECTORS' REPORT

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic Report and Directors' Report for the year ended 31 December 2018 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements. (CA06)

In light of the knowledge and understanding of the Group and Parent Company and their environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic Report and Directors' Report. (CA06)

### THE DIRECTORS' ASSESSMENT OF THE PROSPECTS OF THE GROUP AND OF THE PRINCIPAL RISKS THAT WOULD THREATEN THE SOLVENCY OR LIQUIDITY OF THE GROUP

We have nothing material to add or draw attention to regarding:

- The Directors' confirmation on page 25 of the Annual Report that they have carried out a robust assessment of the principal risks

facing the Group, including those that would threaten its business model, future performance, solvency or liquidity.

- The disclosures in the Annual Report that describe those risks and explain how they are being managed or mitigated.
- The Directors' explanation on page 22 of the Annual Report as to how they have assessed the prospects of the Group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

We have nothing to report having performed a review of the Directors' statement that they have carried out a robust assessment of the principal risks facing the Group and statement in relation to the longer-term viability of the Group. Our review was substantially less in scope than an audit and only consisted of making inquiries and considering the Directors' process supporting their statements; checking that the statements are in alignment with the relevant provisions of the UK Corporate Governance Code (the 'Code'); and considering whether the statements are consistent with the knowledge and understanding of the Group and Parent Company and their environment obtained in the course of the audit. (Listing Rules)

### OTHER CODE PROVISIONS

We have nothing to report in respect of our responsibility to report when:

- The statement given by the Directors, on page 139, that they consider the Annual Report taken as a whole to be fair, balanced and understandable, and provides the information necessary for the members to assess the Group's and Parent Company's position and performance, business model and strategy is materially inconsistent with our knowledge of the Group and Parent Company obtained in the course of performing our audit.
- The section of the Annual Report on pages 108 to 113 describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee.
- The Directors' statement relating to the Parent Company's compliance with the Code does not properly disclose a departure from a relevant provision of the Code specified, under the Listing Rules, for review by the auditors.

### DIRECTORS' REMUNERATION

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006. (CA06)

## RESPONSIBILITIES FOR THE FINANCIAL STATEMENTS AND THE AUDIT

### RESPONSIBILITIES OF THE DIRECTORS FOR THE FINANCIAL STATEMENTS

As explained more fully in the Statement of Directors' Responsibilities set out on page 139, the Directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The Directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Group's and the Parent Company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or the Parent Company or to cease operations, or have no realistic alternative but to do so.

### AUDITORS' RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: [www.frc.org.uk/auditorsresponsibilities](http://www.frc.org.uk/auditorsresponsibilities). This description forms part of our auditors' report.

### USE OF THIS REPORT

This report, including the opinions, has been prepared for and only for the Parent Company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

## OTHER REQUIRED REPORTING

### COMPANIES ACT 2006 EXCEPTION REPORTING

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- We have not received all the information and explanations we require for our audit; or
- Adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- Certain disclosures of Directors' remuneration specified by law are not made; or
- The Parent Company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

### APPOINTMENT

Following the recommendation of the audit committee, we were appointed by the members on 20 May 2015 to audit the financial statements for the year ended 31 December 2015 and subsequent financial periods. The period of total uninterrupted engagement is 4 years, covering the years ended 31 December 2015 to 31 December 2018.

### Jason Burkitt

(Senior Statutory Auditor)  
for and on behalf of PricewaterhouseCoopers LLP  
Chartered Accountants and Statutory Auditors  
London  
18 March 2019

## CONSOLIDATED INCOME STATEMENT

For the year ended 31 December 2018

	Notes	2018 \$m	2017 \$m
<b>Group revenue</b>	5,6	<b>4,733.1</b>	4,749.4
Total operating costs		(3,388.1)	(2,908.3)
<b>Operating profit from subsidiaries</b>	5,7	<b>1,345.0</b>	1,841.1
Net share of results from associates and joint ventures	5,17	<b>22.2</b>	59.7
<b>Total profit from operations, associates and joint ventures</b>	7	<b>1,367.2</b>	1,900.8
Investment income		<b>30.1</b>	23.8
Interest expense		(113.5)	(91.5)
Other finance items		(31.1)	(2.3)
<b>Net finance expense</b>	9	<b>(114.5)</b>	(70.0)
<b>Profit before tax</b>	5	<b>1,252.7</b>	1,830.8
Income tax expense	10	(423.7)	(633.6)
<b>Profit for the financial year from continuing operations</b>	5	<b>829.0</b>	1,197.2
<b>Profit for the financial year from discontinued operations</b>	11	<b>51.3</b>	0.5
<b>Profit for the year</b>		<b>880.3</b>	1,197.7
Attributable to:			
Non-controlling interests	30	<b>336.6</b>	447.1
<b>Profit for the year attributable to the owners of the parent</b>	12	<b>543.7</b>	750.6
<hr/>			
		US cents	US cents
<b>Basic earnings per share</b>	12		
From continuing operations		<b>51.5</b>	76.1
From discontinued operations		<b>3.6</b>	0.1
<b>Total continuing and discontinued operations</b>		<b>55.1</b>	76.2

## CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

For the year ended 31 December 2018

	Note	2018 \$m	2017 \$m
<b>Profit for the year</b>	5	<b>880.3</b>	1,197.7
<i>Items that may be subsequently reclassified to profit or loss:</i>			
Gains on cash flow hedges – time value		<b>6.8</b>	–
Gains/(losses) on cash flow hedges – intrinsic value	24	<b>1.4</b>	(16.8)
Tax effects arising on cash flow hedges deferred in reserves	24	–	(1.0)
(Losses)/gains in fair value of cash flow hedges transferred to the income statement	24	<b>(0.6)</b>	18.0
Deferred tax effects arising on amounts transferred to the income statement	27	–	0.3
Share of other comprehensive losses of equity accounted units, net of tax	17	<b>(0.4)</b>	–
<b>Total items that may be subsequently reclassified to profit or loss</b>		<b>7.2</b>	0.5
<i>Items that will not be subsequently reclassified to profit or loss:</i>			
Actuarial gains on defined benefit plans	26	<b>3.9</b>	5.7
Tax on items recognised through Other Comprehensive Income which will not be reclassified to profit or loss in the future		–	(1.0)
(Losses)/gains in fair value of equity investments	18	<b>(1.3)</b>	1.4
<b>Total items that will not be subsequently reclassified to profit or loss</b>		<b>2.6</b>	6.1
<b>Total other comprehensive income</b>		<b>9.8</b>	6.6
<b>Total comprehensive income for the year</b>		<b>890.1</b>	1,204.3
Attributable to:			
Non-controlling interests	30	<b>339.3</b>	448.8
Equity holders of the Company		<b>550.8</b>	755.5

## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2018

	Share capital \$m	Share premium \$m	Other reserves (Note 29) \$m	Retained earnings (Note 29) \$m	Equity attributable to equity owners of the parent \$m	Non-controlling interests \$m	Total equity \$m
At 1 January 2017	89.8	199.2	(22.3)	6,548.6	<b>6,815.3</b>	1,694.4	8,509.7
Profit for the year	–	–	–	750.6	<b>750.6</b>	447.1	1,197.7
Other comprehensive income for the year	–	–	9.8	(4.9)	<b>4.9</b>	1.7	6.6
Dividends	–	–	–	(252.4)	<b>(252.4)</b>	(320.0)	(572.4)
At 31 December 2017	<b>89.8</b>	<b>199.2</b>	<b>(12.5)</b>	<b>7,041.9</b>	<b>7,318.4</b>	<b>1,823.2</b>	<b>9,141.6</b>
Adoption of new accounting standards	–	–	(5.8)	11	<b>(4.7)</b>	(2.0)	(6.7)
Balance at 1 January 2018	<b>89.8</b>	<b>199.2</b>	<b>(18.3)</b>	<b>7,043.0</b>	<b>7,313.7</b>	<b>1,821.2</b>	<b>9,134.9</b>
Profit for the year	–	–	–	543.7	<b>543.7</b>	336.6	880.3
Other comprehensive income for the year	–	–	3.8	3.3	<b>7.1</b>	2.7	9.8
Transfer to non-controlling interests	–	–	–	(38.2)	<b>(38.2)</b>	38.2	–
Dividends	–	–	–	(466.9)	<b>(466.9)</b>	(120.0)	(586.9)
<b>At 31 December 2018</b>	<b>89.8</b>	<b>199.2</b>	<b>(14.5)</b>	<b>7,084.9</b>	<b>7,359.4</b>	<b>2,078.7</b>	<b>9,438.1</b>

# CONSOLIDATED BALANCE SHEET

As at 31 December 2018

	Note	2018 \$m	2017 \$m
<b>Non-current assets</b>			
Intangible assets	14	150.1	150.1
Property, plant and equipment	15	9,184.1	9,064.3
Other non-current assets		2.6	3.5
Inventories	19	172.7	111.1
Investment in associates and joint ventures	17	1,056.1	1,069.7
Trade and other receivables	20	56.1	67.0
Derivative financial instruments	24	–	0.2
Equity investments	18	4.7	6.5
Deferred tax assets	27	37.2	69.1
		10,663.6	10,541.5
<b>Current assets</b>			
Inventories	19	576.3	483.6
Trade and other receivables	20	873.5	739.2
Current tax assets		90.7	155.2
Derivative financial instruments	24	0.8	0.1
Liquid investments	21	863.2	1,168.7
Cash and cash equivalents	21	1,034.4	1,083.6
		3,438.9	3,630.4
Assets classified as held for sale	11	–	37.8
<b>Total assets</b>		14,102.5	14,209.7
<b>Current liabilities</b>			
Short-term borrowings	22	(646.0)	(753.6)
Derivative financial instruments	24	–	(7.1)
Trade and other payables	23	(608.3)	(609.0)
Current tax liabilities		(52.8)	(192.4)
		(1,307.1)	(1,562.1)
<b>Non-current liabilities</b>			
Medium and long-term borrowings	22	(1,847.9)	(1,955.1)
Trade and other payables	23	(7.7)	(7.4)
Liabilities in relation to joint venture	17	(1.0)	(2.0)
Post-employment benefit obligations	26	(107.4)	(114.0)
Decommissioning and restoration provisions	28	(409.8)	(433.0)
Deferred tax liabilities	27	(983.5)	(994.1)
		(3,357.3)	(3,505.6)
Liabilities directly associated with assets classified as held for sale	11	–	(0.4)
<b>Total liabilities</b>		(4,664.4)	(5,068.1)
<b>Net assets</b>		9,438.1	9,141.6
<b>Equity</b>			
Share capital	29	89.8	89.8
Share premium		199.2	199.2
Other reserves	29	(14.5)	(12.5)
Retained earnings	29	7,084.9	7,041.9
<b>Equity attributable to equity owners of the parent</b>		7,359.4	7,318.4
Non-controlling interests	30	2,078.7	1,823.2
<b>Total equity</b>		9,438.1	9,141.6

The financial statements on pages 147 to 197 were approved by the Board of Directors on 18 March 2019 and signed on its behalf by

**Jean-Paul Luksic**    **Ollie Oliveira**  
Chairman              Senior Independent Director

## CONSOLIDATED CASH FLOW STATEMENT

For the year ended 31 December 2018

	Notes	2018 \$m	2017 \$m
<b>Cash flow from continuing operations</b>	31	<b>1,877.0</b>	2,495.0
Interest paid		(68.2)	(59.1)
Income tax paid		(498.0)	(338.4)
<b>Net cash from operating activities</b>		<b>1,310.8</b>	2,097.5
<b>Investing activities</b>			
Capital contribution and loan to associates and joint venture	17	(8.1)	(45.4)
Dividends from associates	17	16.6	81.8
Disposal of subsidiary and joint venture	17	145.2	3.1
Cash derecognised due to loss of control of subsidiary	11	(13.2)	(2.2)
Proceeds from sale of property, plant and equipment		0.7	6.9
Purchases of property, plant and equipment		(872.9)	(901.3)
Net decrease in liquid investments	21	305.5	163.5
Interest received		26.4	14.3
<b>Net cash used in investing activities</b>		<b>(399.8)</b>	(679.3)
<b>Financing activities</b>			
Dividends paid to equity holders of the Company	13	(466.9)	(252.3)
Dividends paid to preference shareholders of the Company	13	(0.1)	(0.1)
Dividends paid to non-controlling interests	30	(120.0)	(320.0)
Proceeds from issue of new borrowings	31	420.0	272.0
Repayments of borrowings	31	(733.8)	(725.5)
Repayments of obligations under finance leases	31	(33.3)	(33.5)
Net cash used in financing activities		(934.1)	(1,059.4)
<b>Net (decrease)/increase in cash and cash equivalents</b>		<b>(23.1)</b>	358.8
Cash and cash equivalents at beginning of the year		<b>1,083.6</b>	716.3
<b>Net (decrease)/increase in cash and cash equivalents</b>	31	<b>(23.1)</b>	358.8
Effect of foreign exchange rate changes	31	(26.1)	8.5
Cash and cash equivalents at end of the year	21,31	<b>1,034.4</b>	1,083.6

# NOTES TO THE FINANCIAL STATEMENTS

## 1 BASIS OF PREPARATION

The financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") and with those parts of the Companies Act 2006 applicable to companies reporting under IFRS. For these purposes, IFRS comprise the standards issued by the International Accounting Standards Board ("IASB") and IFRS Interpretations Committee ("IFRS IC") that have been endorsed by the European Union ("EU").

The financial statements have been prepared on the going concern basis. Details of the factors which have been taken into account in assessing the Group's going concern status are set out within the Risk Management Framework section of the Strategic Report.

Antofagasta plc is a company limited by shares, incorporated and domiciled in the United Kingdom at Cleveland House, 33 King Street, London SW1Y 6RJ.

The immediate parent of the Group is Metalinvest Establishment, which is controlled by E. Abaroa Foundation, in which members of the Luksic family are interested.

The nature of the Group entities operations is mainly related to mining and exploration activities and rail and road cargo.

### SIGNIFICANT EVENT DURING 2018

On 11 September 2018 the Group completed the disposal of Centinela Transmission, which holds the electricity transmission line supplying Centinela and other external parties, for cash consideration of \$117 million. The profit on disposal, along with the net results of Centinela Transmission prior to the disposal date, are shown in the income statement on the line for "Profit for the period from discontinued operations".

### A) ADOPTION OF NEW ACCOUNTING STANDARDS

The Group has applied IFRS 15 Revenue from Contracts with Customers and IFRS 9 Financial Instruments in the current period. The impact of the implementation of these standards, and the changes to the Group's accounting policies resulting from these new standards is set out below:

#### – IFRS 9 Financial Instruments

The Group has been impacted by IFRS 9's rules in respect of the modification of financial liabilities (for example, the refinancing of a loan agreement). Under IAS 39 Financial Instruments for modifications which did not have substantially different terms the Group did not recognise any immediate change to the carrying value of the liability, or any immediate profit or loss impact. Instead, the difference between the original and modified cash flows was amortised over the remaining term of the modified liability by calculating a new effective interest rate. Under IFRS 9 it is necessary to adjust the carrying value of the financial liability, based on the present value of the modified cash flows discounted at the original effective interest rate. Any adjustment to the carrying value of the financial liability will result in an immediate profit or loss being recognised in the income statement.

IFRS 9 introduces new classification categories for financial assets and liabilities; however, this has not resulted in any significant changes in the valuation or recognition methodology for the Group's financial assets and liabilities. The most relevant point is in respect of equity investments. Previously under IAS 39 these balances were classified as Available-for-Sale assets measured at fair value, with movements in the fair value being recorded in other comprehensive income. Under IFRS 9 the Group generally applies an irrevocable election for each equity investment to designate them as Fair Value through Other Comprehensive Income (FVOCI), resulting in a similar accounting treatment.

The Group has also been impacted by IFRS 9's requirements in respect of commodity price hedging. Previously under IAS 39 the time value element of changes in the fair value of derivative options was excluded from the designated hedging relationship, and recognised in the income statement within other finance items. Under IFRS 9 the time value element is now recognised within other comprehensive income rather than the income statement.

The Group's copper and molybdenum sale contracts generally provide for provisional pricing of sales at the time of shipment, with final pricing based on the monthly average London Metal Exchange ("LME") copper price or the monthly average market molybdenum price for specified future periods. Under IAS 39 the final pricing adjustment mechanism represented an embedded derivative which was separated from the host contract (the copper or molybdenum sales contract which was recognised at amortised cost) and recognised at fair value through profit or loss. Under IFRS 9 the total receivable balance is measured at fair value through profit or loss. However, this does not result in any significant change to the overall combined value to be recognised on the balance sheet and in the income statement.

IFRS 9 requires a forward-looking expected credit loss (ECL) review is required for the Group's financial assets, other than those measured at fair value through profit or loss. As required by IFRS 9, the Group applies the "simplified approach" to its trade receivable balances and the "general approach" to all other financial assets. The general approach incorporates a review for any significant increase in counterparty credit risk since inception. The ECL reviews include assumptions about the risk of default and expected loss rates. For trade receivables, the assessment takes into account the use of credit enhancements, for example, letters of credit.

The Group has applied the optional transitional provisions of IFRS 9 in respect of the classification, measurement and impairment requirements of the standard. Other effects of the transition to IFRS 9 are not material. Accordingly the cumulative impact of applying IFRS 9 has been recognised as an adjustment to equity as at 1 January 2018, with no restatement of prior periods, with the effects as shown on the following page.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 1 BASIS OF PREPARATION CONTINUED

	Share capital \$m	Share premium \$m	Other reserves \$m	Retained earnings \$m	Net equity \$m	Non-controlling interests \$m	Total \$m
Balance at 31 December 2017	89.8	199.2	(12.5)	7,041.9	7,318.4	1,823.2	9,141.6
Modification of financial liabilities	–	–	–	(2.2)	(2.2)	(0.8)	(3.0)
Hedging – time value reclassification	–	–	(6.8)	6.8	–	–	–
Expected credit loss model	–	–	–	(0.9)	(0.9)	(0.2)	(1.1)
Tax impact	–	–	1.0	(2.6)	(1.6)	(1.0)	(2.6)
Total impact	–	–	(5.8)	1.1	(4.7)	(2.0)	(6.7)
Balance at 1 January 2018	<b>89.8</b>	<b>199.2</b>	<b>(18.3)</b>	<b>7,043.0</b>	<b>7,313.7</b>	<b>1,821.2</b>	<b>9,134.9</b>

– IFRS 15 Revenue from Contracts with Customers

The core principle of IFRS 15 is that an entity recognises revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard introduces a five-step process for applying this principle, which includes guidance in respect of identifying the performance obligations under the contract with the customer, allocating the transaction price between the performance obligations, and recognising revenue as the entity satisfies the performance obligations.

The only relevant impact for the Group relates to the shipping of material sold to customers. The Group sells a significant proportion of its products on Cost, Insurance & Freight (CIF) Incoterms, which means that the Group is responsible for shipping the product to a destination port specified by the customer. Under IAS 18 Revenue the Group recognised the total contract revenue when the material had been loaded at the port of loading, at which point the legal title and risks and rewards relating to the material passed to the customer, as well as accruing the related shipping costs at that point. Under IFRS 15 the shipping service represents a separate performance obligation, and is now recognised separately from the sale of the material when the shipping service has been provided, along with the associated costs.

As explained above, the Group's copper and molybdenum sale contracts generally provide for provisional pricing of sales at the time of shipment, with final pricing based on the monthly average London Metal Exchange ("LME") copper price or the monthly average market molybdenum price for specified future periods. The provisional pricing adjustments to revenue are dealt with under IFRS 9 rather than IFRS 15, and therefore the IFRS 15 rules on variable consideration do not apply to the provisional pricing mechanism of the Group's sales contracts.

For the Transport division, revenue in respect of its transportation and ancillary services continue to be recognised in-line with the performance of those services, as was the case under IAS 18, and accordingly the adoption of IFRS 15 has not resulted in any adjustments to its revenue recognition.

The Group has applied the optional transitional provisions of IFRS 15, and accordingly there has been no restatement of prior periods. This has not resulted in any overall impact to net assets or retained earnings as at 1 January 2018. The impact on individual asset and liability lines at 1 January 2018 was immaterial.

The following accounting standards, amendments and interpretations became effective in the current reporting period:

- Classification and Measurement of Share-based Payment Transactions (Amendments to IFRS 2)
- Applying IFRS 9 'Financial Instruments' with IFRS 4 'Insurance Contracts' (Amendments to IFRS 4)

- Transfers of Investment Property (Amendments to IAS 40)
- Annual Improvements to three IFRS Standards 2014–2016 Cycle
- IFRIC 22, Foreign Currency Transactions and Advance Consideration
- Clarifications to IFRS 15 'Revenue from Contracts with Customers'

The application of these standards and interpretations effective for the first time in the current year has had no significant impact on the amounts reported in these financial statements.

### B) ACCOUNTING STANDARDS ISSUED BUT NOT YET EFFECTIVE

At the date of authorisation of these financial statements, the following standards and interpretations which have not been applied in these financial statements were in issue but not yet effective:

- IFRS 16 Leases
- IFRS 17 Insurance Contracts
- IFRIC 23 Uncertainty over Income Tax Treatments
- Sale or Contribution of Assets between an Investor and its Associate or Joint Venture (Amendments to IFRS 10 and IAS 28)
- Prepayment Features with Negative Compensation (Amendments to IFRS 9)
- Long-term Interests in Associates and Joint Ventures (Amendments to IAS 28)
- Annual Improvements to three IFRS Standards 2015–2017 Cycle
- Plan Amendment, Curtailment or Settlement (Amendments to IAS 19)
- Amendments to References to the Conceptual Framework in IFRS Standards
- Definition of a Business (Amendments to IFRS 3)

The Group is continuing to evaluate in detail the potential impact of these new interpretations, excluding IFRS 16.

- IFRS 16 Leases

Adoption of this standard is mandatory in 2019. The standard has been endorsed by the EU.

IFRS 16 Leases will result in most of the Group's existing operating leases being accounted for similarly to finance leases under the current IAS 17, resulting in the recognition of additional assets within property, plant and equipment in respect of the right of use of the lease assets, and additional lease liabilities. The operating lease charges currently reflected within operating expenses (and EBITDA) will be eliminated, and instead depreciation and finance charges will be recognised in respect of the lease assets and liabilities. The Group expects to apply the optional transitional provisions of IFRS 16 which will result in the initial impact of the new standard being recognised as an adjustment to the balance sheet as at 1 January 2019, with no restatement of the comparative period.

The Group also expects to apply the transition option to recognise the right of use assets as at 1 January 2019 at amounts equal to the corresponding lease liabilities, and consequently it is expected that there will be no overall impact on net assets or retained earnings as at 1 January 2019.

The Group has completed a detailed contract review process to identify all relevant leases, including those effectively embedded within wider service contracts, and has calculated the impact of the implementation of IFRS 16 in respect of these leases. The Group has also completed the implementation of the necessary changes to its accounting systems and processes to apply the requirements of IFRS 16 from 1 January 2019 onwards.

It is expected that the implementation of IFRS 16 on 1 January 2019 will result in the recognition of additional lease assets within property, plant and equipment and additional lease liabilities as at 1 January 2019 of approximately \$130 million in each case. Additionally, it is expected that during 2019 relevant contracts will be renewed or replaced, and it is estimated that this could result in additional lease assets and liabilities of approximately \$60 million being recognised during 2019, resulting in total lease assets and liabilities at the end of 2019 of approximately \$190 million. Based on the operating leases in place at 31 December 2018, and anticipated renewals and replacements of those leases, it is currently estimated that the new standard will result in a decrease in annual operating expenses before depreciation (and therefore an increase in EBITDA) of approximately \$66 million, an increase in annual depreciation of approximately \$61 million, an increase in finance costs of approximately \$7 million, and a net impact on profit before tax of less than \$5 million.

## 2 PRINCIPAL ACCOUNTING POLICIES

### A) ACCOUNTING CONVENTION

These financial statements have been prepared under the historical cost convention as modified by the use of fair values to measure certain financial instruments, principally provisionally priced sales as explained in Note 2(F) and financial derivative contracts as explained in Note 2(W).

### B) BASIS OF CONSOLIDATION

The financial statements comprise the consolidated financial statements of Antofagasta plc ("the Company") and its subsidiaries (collectively "the Group").

**Subsidiaries** – A subsidiary is an entity over which the Group has control, which is the case when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The consolidated financial statements include all the assets, liabilities, revenues, expenses and cash flows of the Company and its subsidiaries after eliminating inter-company balances and transactions. For partly-owned subsidiaries, the net assets and profit attributable to non-controlling shareholders are presented as "Non-controlling interests" in the consolidated balance sheet and consolidated income statement.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on an acquisition-by-acquisition basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS. Subsequent to acquisition, the carrying amount of non-controlling interests is the amount of those interests at initial recognition plus the non-controlling interests' share of subsequent changes in equity. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Changes in the Group's ownership interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of

the consideration paid or received is recognised directly in equity and attributed to owners of the Company.

When the Group loses control of a subsidiary, a gain or loss is recognised in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests. When assets of the subsidiary are carried at revalued amounts or fair values and the related cumulative gain or loss has been recognised in other comprehensive income and accumulated in equity, the amounts previously recognised in other comprehensive income and accumulated in equity are accounted for as if the Group had directly disposed of the relevant assets (ie reclassified to profit or loss or transferred directly to retained earnings as specified by applicable IFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IFRS 9 Financial Instruments: Recognition and Measurement or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

Acquisitions and disposals are treated as explained in Note 2(G) relating to business combinations and goodwill.

### C) INVESTMENTS IN ASSOCIATES

An associate is an entity over which the Group is in a position to exercise significant influence, but not control or joint control, through the power to participate in the financial and operating policy decisions of that entity. The results and assets and liabilities of associates are incorporated in these consolidated financial statements using the equity method of accounting. This requires recording the investment initially at cost to the Group and then, in subsequent periods, adjusting the carrying amount of the investment to reflect the Group's share of the associate's results less any impairment and any other changes to the associate's net assets such as dividends. When the Group loses control of a former subsidiary but retains an investment in associate in that entity the initial carrying value of the investment in associate is recorded at its fair value at that point. When the Group's share of losses of an associate exceeds the Group's interest in that associate the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

### D) JOINT ARRANGEMENTS

A joint arrangement is an arrangement of which two or more parties have joint control. Joint arrangements are accounted depending on the nature of the arrangement.

- (i) Joint ventures – are accounted for using the equity method in accordance with IAS 28 Investment in Associates and Joint Ventures as described in Note 2I.
- (ii) Joint operations – are accounted for recognising directly the assets, obligations, revenues and expenses of the joint operator in the joint arrangement. The assets, liabilities, revenues and expenses are accounted for in accordance with the relevant IFRS.

When a Group entity transacts with its joint arrangements, profits and losses resulting from the transactions with the joint arrangements are recognised in the Group's consolidated financial statements only to the extent of interests in the joint arrangements that are not related to the Group.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 2 PRINCIPAL ACCOUNTING POLICIES CONTINUED

#### E) CURRENCY TRANSLATION

The functional currency for each entity in the Group is determined as the currency of the primary economic environment in which it operates. Transactions in currencies other than the functional currency of the entity are translated at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in currencies other than the functional currency are retranslated at year end exchange rates. Gains and losses on retranslation are included in net profit or loss for the period within other finance items.

The presentational currency of the Group and the functional currency of the Company is the US dollar. On consolidation, income statement items for entities with a functional currency other than the US dollar are translated into US dollars at average rates of exchange. Balance sheet items are translated at period-end exchange rates. Exchange differences on translation of the net assets of such entities are taken to equity and recorded in a separate currency translation reserve. Cumulative translation differences arising after the transition date to IFRS are recognised as income or as expenses in the income statement in the period in which an operation is disposed of.

On consolidation, exchange gains and losses which arise on balances between Group entities are taken to reserves where that balance is, in substance, part of the net investment in a foreign operation, ie where settlement is neither planned nor likely to occur in the foreseeable future. All other exchange gains and losses on Group balances are dealt with in the income statement.

Fair value adjustments and any goodwill arising on the acquisition of a foreign entity are treated as assets of the foreign entity and translated at the period-end rate.

#### F) REVENUErecognition

Revenue represents the value of goods and services supplied to third parties during the year. Revenue is measured at the fair value of consideration received or receivable, and excludes any applicable sales tax.

Revenue is recognised when the Group satisfies a performance obligation by transferring a promised good or service (ie an asset) to a customer. An asset is transferred when (or as) the customer obtains control of that asset.

For the Group's mining products the customer generally gains control over the material when it has been loaded at the port of loading, and so this is the point of revenue recognition. The Group sells a significant proportion of its products on Cost, Insurance & Freight (CIF) Incoterms, which means that the Group is responsible for shipping the product to a destination port specified by the customer. The shipping service represents a separate performance obligation, and is recognised separately from the sale of the material when the shipping service has been provided, along with the associated costs. Shipment revenue is recognised at the contracted price as this reflects the stand-alone selling price.

Revenue from mining activities is recorded at the invoiced amounts with an adjustment for provisional pricing at each reporting date, as explained below. For copper and molybdenum concentrates, which are sold to smelters and roasting plants for further processing, the invoiced amount is the market value of the metal payable by the customer, net of deductions for tolling charges. Revenue includes amounts from the sale of by-products.

Copper and molybdenum concentrate sale agreements and copper cathode sale agreements generally provide for provisional pricing of sales at the time of shipment, with final pricing based on the monthly average London Metal Exchange ("LME") copper price or the monthly average market molybdenum price for specified future periods. This normally ranges from one to four months after delivery to the customer. For sales contracts which contain provisional pricing mechanisms the total receivable balance is measured at fair value through profit or loss. Gains and losses from the marking-to-market of open sales are recognised through adjustments to other income as part of revenues in the income statement and to trade

receivables in the balance sheet. The fair value calculations are based on forward prices at the period end for copper concentrate and cathode sales, and period-end average prices for molybdenum concentrate sales due to the absence of a futures market.

For the Transport division, revenue in respect of its transportation and ancillary services are recognised in-line with the performance of those services.

Interest income is accrued on a time basis, by reference to the principal outstanding and the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

Dividend income from equity investments, associates and joint ventures is recognised when the shareholders' right to receive payment has been established. For associates and joint ventures, it is recorded as a decrease of the investment.

#### G) BUSINESS COMBINATIONS AND GOODWILL

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. The results of businesses acquired during the year are brought into the consolidated financial statements from the effective date of acquisition. The identifiable assets, liabilities and contingent liabilities of a business which can be measured reliably are recorded at their provisional fair values at the date of acquisition. Provisional fair values are finalised within 12 months of the acquisition date. Acquisition-related costs are expensed as incurred.

When the consideration transferred by the Group in a business combination includes assets or liabilities resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Changes in the fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the "measurement period" (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as "measurement period" adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at subsequent reporting dates in accordance with IFRS 9.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date (ie the date when the Group obtains control) and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances which existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Goodwill arising in a business combination is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling

interest in the acquiree and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net identifiable assets acquired and liabilities assumed. Any goodwill on the acquisition of subsidiaries is separately disclosed, while any goodwill on the acquisition of associates and joint ventures is included within investments in equity accounted entities. Internally generated goodwill is not recognised. Where the fair values of the identifiable net assets acquired exceed the sum of the consideration transferred, the surplus is credited to the profit or loss in the period of acquisition as a bargain purchase gain.

The Group often enters into earn-in arrangements whereby the Group acquires an interest in a project company in exchange for funding exploration and evaluation expenditure up to a specified level of expenditure or a specified stage in the life of the project. Funding is usually conditional on the achievement of key milestones by the partner. Typically there is no consideration transferred or funding liability on the effective date of acquisition of the interest in the project company and no goodwill is recognised on this type of transaction.

The results of businesses sold during the year are included in the consolidated financial statements for the period up to the effective date of disposal. Gains or losses on disposal are calculated as the difference between the sales' proceeds (net of expenses) and the net assets attributable to the interest which has been sold. Where a disposal represents a separate major line of business or geographical area of operations, the net results attributable to the disposed entity are shown separately in the income statement as a discontinued operation.

## H) EXPLORATION AND EVALUATION EXPENDITURE

Exploration and evaluation costs, other than those incurred in acquiring exploration licences, are expensed in the year in which they are incurred. When a mining project is considered to be commercially viable (normally when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved) all further directly attributable pre-production expenditure is capitalised. Capitalisation of pre-production expenditure ceases when commercial levels of production are achieved.

Costs incurred in acquiring exploration and mining licences are classified for as intangible assets when construction of the related mining operation has not yet commenced. When construction commences the licences are transferred from intangible assets to the mining properties category within property, plant and equipment.

## I) STRIPPING COSTS

Pre-stripping and operating stripping costs are incurred in the course of the development and operation of open-pit mining operations.

Pre-stripping costs relate to the removal of waste material as part of the initial development of an open-pit, in order to allow access to the ore body. The capitalised costs are depreciated once production commences on a unit of production basis, in proportion to the volume of ore extracted in the year compared with total proven and probable reserves for that pit at the beginning of the year.

Operating stripping costs relate to the costs of extracting waste material as part of the ongoing mining process. The ongoing mining and development of the Group's open-pit mines is generally performed via a succession of individual phases. The costs of extracting material from an open-pit mine are generally allocated between ore and waste stripping in proportion to the tonnes of material extracted. The waste stripping costs are generally absorbed into inventory and expensed as that inventory is processed and sold. Where the stripping costs relate to a significant stripping campaign which is expected to provide improved access to an identifiable component of the ore body (typically an individual phase within the overall mine plan), the costs of removing waste in order to improve access to that part of the ore body will be capitalised within property, plant and equipment. The capitalised costs will then be amortised on a unit of production basis, in proportion to the volume of ore extracted compared with the total ore contained in the component of the pit to which the stripping campaign relates.

## J) INTANGIBLE ASSETS

Intangible assets with finite useful lives that are acquired separately are carried at cost less accumulated amortisation and accumulated impairment losses. Exploration and mining licences are classified as intangible assets when construction of the related mining operation has not yet commenced. When construction commences the licences are transferred from intangible assets to the mining properties category within property, plant and equipment. Amortisation is recognised on a straight-line basis over the estimated useful lives of the intangible assets. The estimated useful life and amortisation method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis. Intangible assets with indefinite useful lives that are acquired separately are carried at cost less accumulated impairment losses.

Intangible assets acquired in a business combination and recognised separately from goodwill are initially recognised at their fair value at the acquisition date (which is regarded as their cost).

Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost less accumulated amortisation and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognised in profit or loss when the asset is derecognised.

## K) PROPERTY, PLANT AND EQUIPMENT

The costs of mining properties and leases, which include the costs of acquiring and developing mining properties and mineral rights, are capitalised as property, plant and equipment in the year in which they are incurred, when a mining project is considered to be commercially viable (normally when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved). The cost of property, plant and equipment comprises the purchase price and any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended. Once a project has been established as commercially viable, related development expenditure is capitalised. This includes costs incurred in preparing the site for mining operations, including pre-stripping costs. Capitalisation ceases when the mine is capable of commercial production, with the exception of development costs which give rise to a future benefit.

Interest on borrowings related to construction or development of projects is capitalised, until such time as the assets are substantially ready for their intended use or sale which, in the case of mining properties, is when they are capable of commercial production.

## L) DEPRECIATION OF PROPERTY, PLANT AND EQUIPMENT

Depreciation of an asset begins when it is available for use, ie when it is in the location and condition necessary for it to be capable of operating in the manner intended.

Property, plant and equipment is depreciated over its useful life, or over the remaining life of the operation if shorter, to residual value. The major categories of property, plant and equipment are depreciated as follows:

- (i) **Land** – freehold land is not depreciated unless the value of the land is considered to relate directly to a particular mining operation, in which case the land is depreciated on a straight-line basis over the expected mine life.
- (ii) **Mining properties** – mining properties, including capitalised financing costs, are depreciated on a unit of production basis, in proportion to the volume of ore extracted in the year compared with total proven and probable reserves at the beginning of the year.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 2 PRINCIPAL ACCOUNTING POLICIES CONTINUED

- (iii) **Buildings and infrastructure** – straight-line basis over 10 to 25 years.
- (iv) **Railway track** (including trackside equipment) – straight-line basis over 20 to 25 years.
- (v) **Wagons and rolling stock** – straight-line basis over 10 to 20 years.
- (vi) **Machinery, equipment and other assets** – are depreciated on a unit of production basis, in proportion to the volume of ore/material processed or on a straight-line basis over 5 to 20 years.
- (vii) **Assets under construction** – no depreciation until asset is available for use.
- (viii) **Assets held under finance lease** – are depreciated over the shorter of the lease term and their useful life.
- (ix) **Stripping cost** – The capitalised costs will then be amortised on a unit of production basis, in proportion to the volume of ore extracted compared with the total ore contained in the component of the pit to which the stripping campaign relates (Note 21).

Residual values and useful lives are reviewed, and adjusted if appropriate, at least annually, and changes to residual values and useful lives are accounted for prospectively.

### M) IMPAIRMENT OF PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS (EXCLUDING GOODWILL)

Property, plant and equipment and finite life intangible assets are reviewed for impairment if there is any indication that the carrying amount may not be recoverable. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment (if any). Where the asset does not generate cash flows that are independent from other assets, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Any intangible asset with an indefinite useful life is tested for impairment annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs of disposal and value in use. Fair value less costs of disposal reflects the net amount the Group would receive from the sale of the asset in an orderly transaction between market participants. For mining assets this would generally be determined based on the present value of the estimated future cash flows arising from the continued use, further development or eventual disposal of the asset. The estimates used in determining the present value of those cash flows are those that an independent market participant would consider appropriate. Value in use reflects the expected present value of the future cash flows which the Group would generate through the operation of the asset in its current condition, without taking into account potential enhancements or further development of the asset. The fair value less costs of disposal valuation will normally be higher than the value in use valuation, and accordingly the Group typically applies this valuation estimate in its impairment assessments.

If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount is reduced to the recoverable amount. An impairment charge is recognised in the income statement immediately. Where an impairment subsequently reverses, the carrying amount is increased to the revised estimate of recoverable amount, but so that the increased carrying amount does not exceed the carrying value that would have been determined if no impairment had previously been recognised. A reversal is recognised in the income statement immediately.

### N) INVENTORY

Inventory consists of raw materials and consumables, work-in-progress and finished goods. Work-in-progress represents material that is in the process of being converted into finished goods. The conversion process for mining operations depends on the nature of the copper ore.

For sulphide ores, processing includes milling and concentrating and results in the production of copper concentrate. For oxide ores, processing includes leaching of stockpiles, solvent extraction and electrowinning and results in the production of copper cathodes. Finished goods consist of copper concentrate containing gold and silver at Los Pelambres and Centinela and copper cathodes at Centinela and Antucoya. Los Pelambres also produces molybdenum as a by-product.

Inventory is valued at the lower of cost, on a weighted average basis, and net realisable value. Net realisable value represents estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution. Cost of finished goods and work-in-progress is production cost and for raw materials and consumables it is purchase price. Production cost includes:

- labour costs, raw material costs and other costs directly attributable to the extraction and processing of ore;
- depreciation of plant, equipment and mining properties directly involved in the production process; and
- an appropriate portion of production overheads.
- Stockpiles represent ore that is extracted and is available for further processing. Costs directly attributable to the extraction of ore are generally allocated as part of production costs in proportion to the tonnes of material extracted. Operating stripping costs are generally absorbed into inventory, and therefore expensed as that inventory is processed and sold. If ore is not expected to be processed within 12 months of the statement of financial position date it is included within non-current assets. If there is significant uncertainty as to when any stockpiled ore will be processed it is expensed as incurred.

### O) TAXATION

Tax expense comprises the charges or credits for the year relating to both current and deferred tax.

Current tax is based on taxable profit for the year. Taxable profit may differ from net profit as reported in the income statement because it excludes items of income or expense that are taxable and deductible in different years and also excludes items that are not taxable or deductible. The liability for current tax is calculated using tax rates for each entity in the consolidated financial statements which have been enacted or substantively enacted at the balance sheet date.

Deferred tax is the tax expected to be payable or recoverable on temporary differences (ie differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax basis used in the computation of taxable profit). Deferred tax is accounted for using the balance sheet liability method and is provided on all temporary differences with certain limited exceptions as follows:

- (i) tax payable on undistributed earnings of subsidiaries, associates and joint ventures is provided except where the Group is able to control the remittance of profits and it is probable that there will be no remittance of past profits earned in the foreseeable future;
- (ii) deferred tax is not provided on the initial recognition of an asset or liability in a transaction that does not affect accounting profit or taxable profit and is not a business combination; nor is deferred tax provided on subsequent changes in the carrying value of such assets and liabilities, for example where they are depreciated; and
- (iii) the initial recognition of any goodwill.

Deferred tax assets are recognised only to the extent that it is probable that they will be recovered through sufficient future taxable profit. The carrying amount of deferred tax assets is reviewed at each balance sheet date.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. Deferred tax is charged or credited in the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also taken directly to equity.

## P) PROVISIONS

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (when the effect of the time value of money is material).

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

## Q) PROVISIONS FOR DECOMMISSIONING AND RESTORATION COSTS

An obligation to incur decommissioning and restoration costs occurs when environmental disturbance is caused by the development or ongoing production of a mining property. Costs are estimated on the basis of a formal closure plan and are subject to regular formal review.

Such costs arising from the installation of plant and other site preparation work, discounted to their net present value, are provided and capitalised at the start of each project, as soon as the obligation to incur such costs arises. These decommissioning costs are charged against profits over the life of the mine, through depreciation of the asset and unwinding or amortisation of the discount on the provision. Depreciation is included in operating costs while the unwinding of the discount is included as financing costs. Changes in the measurement of a liability relating to the decommissioning of plant or other site preparation work are added to, or deducted from, the cost of the related asset in the current year.

The costs for restoration of site damage, which is created on an ongoing basis during production, are provided for at their net present values and charged against operating profits as extraction progresses. Changes in the measurement of a liability relating to site damage created during production are charged against operating profit.

## R) SHARE-BASED PAYMENTS

For cash-settled share-based payments, a liability is recognised for the goods or services acquired, measured initially at the fair value of the liability. At the end of each reporting period until the liability is settled, and at the date of settlement, the fair value of the liability is remeasured, with any changes in fair value recognised in profit or loss for the year. The Group currently does not have any equity settled share-based payments to employees or third parties.

## S) POST-EMPLOYMENT BENEFITS

The Group operates defined contribution schemes for a limited number of employees. For such schemes, the amount charged to the income statement is the contributions paid or payable in the year.

Employment terms may also provide for payment of a severance indemnity when an employment contract comes to an end. This is typically at the rate of one month for each year of service (subject in most cases to a cap as to the number of qualifying years of service) and based on final salary level. The severance indemnity obligation is treated as an unfunded defined benefit plan, and the calculation is based on valuations performed by an independent actuary using the projected unit credit method, which are regularly updated.

The obligation recognised in the balance sheet represents the present value of the severance indemnity obligation. Actuarial gains and losses are immediately recognised in other comprehensive income.

## T) CASH AND CASH EQUIVALENTS

Cash and cash equivalents comprise cash on hand, deposits held on call with banks, highly liquid investments that are readily convertible into known amounts of cash and which are subject to insignificant risk of changes in value, net of bank overdrafts which are repayable on demand. Cash and cash equivalents normally have a maturity period of 90 days or less.

## U) LIQUID INVESTMENTS

Liquid investments represent highly liquid current asset investments such as term deposits and managed funds invested in high quality fixed income instruments. They do not meet the IAS 7 definition of cash and cash equivalents, normally because even if readily accessible, the underlying investments have an average maturity profile greater than 90 days from the date first entered into. These assets are designated as fair value through profit or loss.

## V) LEASES

Rental costs under operating leases are charged to the income statement account in equal annual amounts over the term of the lease.

Assets under finance leases are recognised as assets of the Group at inception of the lease at the lower of fair value or the present value of the minimum lease payments derived by discounting at the interest rate implicit in the lease. The interest element is charged within financing costs so as to produce a constant periodic rate of interest on the remaining balance of the liability.

## W) OTHER FINANCIAL INSTRUMENTS

Financial assets and financial liabilities are recognised on the Group's balance sheet when the Group becomes a party to the contractual provisions of the instrument. Financial assets are derecognised when the contractual rights to the cash flows from the financial asset expire or the Group has transferred the asset to another party. Financial liabilities are removed from the Group's balance sheet when they are extinguished – ie when the obligation specified in the contract has been discharged, cancelled or expired.

- (i) **Investments** – Equity investments which are not subsidiaries, associates or joint ventures are recognised at fair value. The Group generally applies an irrevocable election for each equity investment to designate them as Fair Value through Other Comprehensive Income (FVOCI). Dividends from equity investments are recognised in the income statement when the right to receive payment is established.
- (ii) **Trade and other receivables** – As explained above, for sales contracts which contain provisional pricing mechanism the total receivable balance is measured at fair value through profit or loss. Other receivable balances are recognised at amortised cost.
- (iii) **Trade and other payables** – Trade and other payables are generally not interest-bearing and are normally stated at their nominal value.
- (iv) **Borrowings (loans and preference shares)** – Interest-bearing loans and bank overdrafts are initially recorded at the proceeds received, net of direct issue costs. They are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis. The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis using the effective interest rate method. Amounts are either recorded as financing costs in profit or loss or capitalised in accordance with the accounting policy set out in Note 2(K). Finance charges are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 2 PRINCIPAL ACCOUNTING POLICIES CONTINUED

The Sterling-denominated preference shares issued by the Company carry a fixed rate of return without the right to participate in any surplus. They are accordingly classified within borrowings and translated into US dollars at period-end rates of exchange. Preference share dividends are included within finance costs.

- (v) **Equity instruments** – Equity instruments issued are recorded at the proceeds received, net of direct issue costs. Equity instruments of the Company comprise its Sterling-denominated issued ordinary share capital and related share premium. As explained in Note 2(E), the presentational currency of the Group and the functional currency of the Company is US dollars, and ordinary share capital and share premium are translated into US dollars at historical rates of exchange based on dates of issue.
- (vi) **Derivative financial instruments** – As explained in Note 24(D), the Group periodically uses derivative financial instruments to reduce exposure to foreign exchange, interest rate and commodity price movements. The Group does not use such derivative instruments for trading purposes. The Group has applied the hedge accounting provisions of IFRS 9 Financial Instruments. The effective portion of changes in the fair value of derivative financial instruments that are designated and qualify as hedges of future cash flows have been recognised directly in equity, with such amounts subsequently recognised in profit or loss in the period when the hedged item affects profit or loss. Any ineffective portion is recognised immediately in profit or loss. Realised gains and losses on commodity derivatives recognised in profit or loss are recorded within revenue. The time value element of changes in the fair value of derivative options is recognised within other comprehensive income.

Financial assets with embedded derivatives are considered in their entirety when determining the appropriate classification and measurement. The treatment of embedded derivatives arising from provisionally priced commodity sales contracts is set out in further detail in Note 2(F) relating to revenue. Derivatives embedded in financial liabilities are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contract and the host contract is not measured at fair value. Changes in fair value are reported in profit or loss for the year.

- (vii) **Impairment of financial assets** – The Group applies the forward-looking expected credit loss model to its financial assets, other than those measured at fair value through profit or loss. The Group applies the IFRS 9 “simplified approach” to its trade receivables, measuring the loss allowance at the lifetime expected credit loss. For other financial assets, where the credit risk has not increased significantly since initial recognition, the loss allowance is measured at the 12 month expected credit loss. If there has been a significant increase in credit risk, the loss allowance is measured at the lifetime expected credit loss. Increases or decrease to the credit loss allowance are recognised immediately in profit or loss.

### X) EXCEPTIONAL ITEMS

Exceptional items are material items of income and expense which are non-regular or non-operating and typically non-cash movements. Profit excluding exceptional items is considered to be a useful performance measure as it provides an indication of the underlying earnings of the Group's operations, excluding these one-off items.

### Y) ROUNDING

All amounts disclosed in the financial statements and notes have been rounded off to the nearest million dollars unless otherwise stated.

These policies have been consistently applied to all the years presented, unless otherwise stated.

### 3 CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

Determining many of the amounts included in the financial statements involves the use of judgement and/or estimation. These judgements and estimates are based on management's best knowledge of the relevant facts and circumstances having regard to prior experience, but actual results may differ from the amounts included in the financial statements. Information about such judgements and estimates is included in the principal accounting policies in Note 2 or the other notes to the financial statements, and the key areas are set out below.

#### A) JUDGEMENTS

The following are the critical judgements, apart from those involving estimations (which are dealt with separately), that the directors have made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognised in the financial statements.

##### (i) Capitalisation of property, plant and equipment of project costs

As explained in Note 2(K) the costs of developing mining properties are capitalised as property, plant and equipment when the mining project is considered to be commercially viable. Commercial viability is normally considered to be demonstrable when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved. Management reviews amounts capitalised to ensure that the treatment of that expenditure as capital rather than operating expenditure is reasonable, in particular in respect of the commercial viability of the project.

As at 31 December 2018 \$226.2 million of feasibility study costs relating to projects which are still under evaluation and have not yet received final Board approval were capitalised within property, plant and equipment. Should the Group ultimately take the decision to abandon any of these projects, and not continue with their development, then it is likely that the corresponding element of the capitalised feasibility study costs would need to be impaired.

The capitalisation of the construction and commissioning costs for a new mining operation ceases, and depreciation commences, when the operation is in the condition necessary for it to be capable of operating in the manner intended (which is termed as achieving commercial production).

The determination of the commercial production date requires judgement which involves the consideration of a number of relevant factors, including the successful completion of commissioning tests and the processing and production levels achieved compared with expected design capacity.

##### (ii) Deferred taxation

As explained in Note 2(O), deferred tax assets are recognised only to the extent that it is probable that they will be recovered through sufficient future taxable profits. Generally under Chilean tax law most tax losses can be carried forward indefinitely, and so the expiry of tax losses is not generally an issue. The key assumptions to which the forecasts of the probable level of future taxable profits are most sensitive are future commodity prices, production levels and operating costs.

As set out in Note 27, the Group has recognised \$37.2 million of deferred tax assets as at 31 December 2018, with the majority of these deferred tax assets relating to short-term timing differences and provisions. The Group had unused tax losses of \$207.1 million available for offset against future profits. A deferred tax asset of \$0.3 million has been recognised in respect of \$1.1 million of these losses.

with no deferred tax asset recognised in respect of the remaining \$206.0 million of tax losses. If the Group's assessment as to the recoverability of those tax losses were to change, then potentially additional deferred tax assets of up to \$55.0 million could be recognised.

No deferred tax liability is recognised in respect of the undistributed earnings of subsidiaries where it is not likely that those profits will be distributed in the foreseeable future. When determining whether it is likely that distributions will be made in the foreseeable future, and what is the appropriate foreseeable future period for this purpose, the Group considers factors such as the predictability of the likely future Group dividends, taking into account the Group's dividend policy and the level of potential volatility of the Group's future earnings, as well as the current level of distributable reserves at the Antofagasta plc entity level. As set out in Note 27, at 31 December 2018 deferred withholding tax liabilities of \$11.3 million have been recognised, which relate to undistributed earnings of subsidiaries where it is considered likely that the corresponding profits will be distributed in the foreseeable future. The value of the remaining undistributed earnings of subsidiaries for which deferred tax liabilities have not been recognised was \$5,080.0 million.

## B) ESTIMATES

The group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

### (i) Non-financial assets impairment

As explained in Note 2(M), the Group reviews the carrying value of its intangible assets and property, plant and equipment to determine whether there is any indication that those assets are impaired. In making assessments for impairment, assets that do not generate independent cash flows are allocated to an appropriate cash generating unit ("CGU"). The recoverable amount of those assets, or CGU, is measured at the higher of their fair value less costs to sell and value in use.

Details of the valuations and sensitivities of the Group's mining operations are included in Note 4, including quantitative sensitivity analyses.

Management necessarily applies its judgement in allocating assets to CGUs, in estimating the probability, timing and value of underlying cash flows and in selecting appropriate discount rates to be applied within the fair value less cost to dispose calculation. The key assumptions are set out in Note 2(M) and Note 4. Subsequent changes to CGU allocation, licensing status, reserves and resources, price assumptions or other estimates and assumptions in the fair value less cost to dispose calculation could impact the carrying value of the respective assets.

### (ii) Inventory valuation

The valuation of work in progress inventories involves a number of estimates, including the average ore grade, volume and density of ore stockpiles, and the total recoveries and the speed of recovery in respect of material on the leach piles. Evaluating the net realisable value of the inventories also requires an estimate of the likely future copper price for the periods when it is expected that the inventories will be completed and sold. As set out in Note 19, the value of work in progress inventory at 31 December 2018 was \$435.5 million.

### (iii) Useful economic lives of property, plant and equipment and ore reserves estimates

As explained in Note 2(L), mining properties, including capitalised financing costs, are depreciated in proportion to the volume of ore extracted in the year compared with total proven and probable reserves at the beginning of the year.

There are numerous uncertainties inherent in estimating ore reserves, and assumptions that were valid at the time of estimation may change when new information becomes available. These include assumptions as to grade estimates and cut-off grades, recovery rates, commodity prices, exchange rates, production costs, capital costs, processing and reclamation costs and discount rates. The actual volume of ore extracted and any changes in these assumptions could affect prospective depreciation rates and carrying values.

The majority of other items of property, plant and equipment are depreciated on a straight-line basis over their useful economic lives. Management reviews the appropriateness of useful economic lives at least annually and, again, any changes could affect prospective depreciation rates and asset carrying values.

The total depreciation and amortisation charge for 2018 was \$760.5 million, and so as a very simplistic sensitivity, a 10% adjustment and the useful economic lives of all of the Group's property, plant equipment would result in an impact of approximately \$75 million on the annual depreciation charge.

### (iv) Provisions for decommissioning and site restoration costs

As explained in Note 2(Q), provision is made, based on net present values, for decommissioning and site rehabilitation costs as soon as the obligation arises following the development or ongoing production of a mining property. The provision is based on a closure plan prepared with the assistance of external consultants.

Management uses its judgement and experience to provide for and (in the case of capitalised decommissioning costs) amortise these estimated costs over the life of the mine. The ultimate cost of decommissioning and site rehabilitation is uncertain and cost estimates can vary in response to many factors including changes to relevant legal requirements, the emergence of new restoration techniques or experience at other mine sites.

The expected timing and extent of expenditure can also change, for example in response to changes in ore reserves or processing levels. As a result, there could be significant adjustments to the provisions established which would affect future financial results.

Details of the decommissioning and restoration provisions are set out in Note 28. The total value of these provisions as at 31 December 2018 was \$409.8 million.

## 4 ASSET SENSITIVITIES

### Other asset sensitivities

There were no indicators of potential impairment, or reversal of previous impairments, for the Group's operations at the 2018 year-end, and accordingly no impairment reviews have been performed. However, in order to provide an indication of the sensitivities of the recoverable amount of the Group's mining operations, a valuation and sensitivity analysis has been performed.

The recoverable amount is the higher of fair value less costs of disposal and value in use. Fair value less costs of disposal reflects the net amount the Group would receive from the sale of the asset in an orderly transaction between market participants. For mining assets this would generally be determined based on the present value of the estimated future cash flows arising from the continued use, further development or eventual disposal of the asset. Value in use reflects the expected present value of the future cash flows which the Group would generate through the operation of the asset in its current condition, without taking into account potential enhancements or further development of the asset. The fair value less costs of disposal valuation will normally be higher than the value in use valuation, and accordingly the Group typically applies this valuation estimate in its impairment or valuation assessments.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 4 ASSET SENSITIVITIES CONTINUED

The key assumptions to which the value of the assets are most sensitive are future commodity prices, the discount rate used to determine the present value of the future cash flows, future operating costs, sustaining and development capital expenditure, and the US dollar/Chilean peso exchange rate. The commodity price forecasts (representing the Group's estimates of the assumptions that would be used by independent market participants in valuing the assets) are based on the forward curve for the short term and consensus analyst forecasts including both investment banks and commodity consultants for the longer term. A long-term copper price of \$3.10/lb has been used in the base valuations. A real post-tax discount rate of 8% has been used in determining the present value of the forecast future cash flow from the assets. In the case of Centinela, a significant element of the valuation relates to the planned construction of the second concentrator, and a substantial change in the plans for that development could have a considerable impact on the valuation.

This valuation exercise demonstrated positive headroom for all of the Group's mining operations, with the recoverable amount of the assets in excess of their carrying value. As an additional down-side sensitivity, a valuation was performed with a 5% reduction in the long-term copper price. Los Pelambres still showed positive headroom in this alternative down-side scenario, and Zaldívar indicated a break-even position. However the Antucoya valuation indicated a potential deficit of \$110 million and the Centinela valuation indicated a potential deficit of \$770 million. This was a simple sensitivity exercise, looking at an illustrative change in the forecast long-term copper price in isolation. In reality, a deterioration in the long-term copper price environment is likely to result in corresponding improvements in a range of input cost factors. In particular, given that copper exports account for over 50% of Chile's exports, movements in the US dollar/Chilean peso exchange rate are highly correlated to the copper price, and a decrease in the copper price is likely to result in a weakening of the Chilean peso, with a resulting reduction in the Group's operating costs and capital expenditure. These likely cost reductions, as well as potential operational changes which could be made in a weaker copper price environment, could partly mitigate the impact of the lower copper price modelled in these estimated potential sensitivities.

### 5 SEGMENT INFORMATION

The Group's reportable segments are as follows:

- Los Pelambres
- Centinela
- Antucoya
- Zaldívar
- Exploration and evaluation
- Corporate and other items
- Transport division

For management purposes, the Group is organised into two business divisions based on their products – Mining and Transport. The mining division is split further for management reporting purposes to show results by mine and exploration activity.

Los Pelambres produces primarily copper concentrate and molybdenum as a by-product. Centinela produces copper concentrate containing gold as a by-product, molybdenum concentrates and copper cathodes. Antucoya and Zaldívar produce copper cathodes. The transport division provides rail cargo and road cargo transport together with a number of ancillary services. All the operations are based in Chile. The Exploration and evaluation segment incurs exploration and evaluation expenses. "Corporate and other items" comprises costs incurred by the Company, Antofagasta Minerals SA, the Group's mining corporate centre and other entities, that are not allocated to any individual business segment. Consistent with its internal management reporting, the Group's corporate and other items are included within the mining division.

The chief operating decision-maker monitors the operating results of the business segments separately for the purpose of making decisions about resources to be allocated and assessing performance. Segment performance is evaluated based on the operating profit of each of the segments.

## A) SEGMENT REVENUES AND RESULTS

FOR THE YEAR ENDED 31 DECEMBER 2018

	Los Pelambres \$m	Centinela \$m	Antucoya \$m	Zaldivar \$m	Exploration and evaluation <sup>2</sup> \$m	Corporate and other items \$m	Mining \$m	Transport division \$m	Total \$m
<b>Revenue</b>	<b>2,493.5</b>	<b>1,609.2</b>	<b>457.6</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>4,560.3</b>	<b>172.8</b>	<b>4,733.1</b>
Operating cost excluding depreciation	(1,065.9)	(964.2)	(316.0)	–	(97.6)	(61.4)	(2,505.1)	(109.2)	(2,614.3)
Depreciation and amortisation	(243.3)	(415.4)	(78.7)	–	–	(7.2)	(744.6)	(15.9)	(760.5)
Loss on disposals	(10.5)	–	–	–	–	–	(10.5)	(2.8)	(13.3)
<b>Operating profit/(loss)</b>	<b>1,173.8</b>	<b>229.6</b>	<b>62.9</b>	<b>–</b>	<b>(97.6)</b>	<b>(68.6)</b>	<b>1,300.1</b>	<b>44.9</b>	<b>1,345.0</b>
<b>Equity accounting results</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>14.2</b>	<b>–</b>	<b>(2.9)</b>	<b>11.3</b>	<b>10.9</b>	<b>22.2</b>
Investment income	6.0	5.1	1.2	–	–	17.0	29.3	0.8	30.1
Interest expense	(5.8)	(35.5)	(49.6)	–	–	(20.5)	(111.4)	(2.1)	(113.5)
Other finance items	(13.2)	(7.8)	(3.1)	–	–	0.4	(23.7)	(7.4)	(31.1)
<b>Profit/(loss) before tax</b>	<b>1,160.8</b>	<b>191.4</b>	<b>11.4</b>	<b>14.2</b>	<b>(97.6)</b>	<b>(74.6)</b>	<b>1,205.6</b>	<b>47.1</b>	<b>1,252.7</b>
Tax	(371.8)	(18.7)	0.9	–	–	(20.1)	(409.7)	(14.0)	(423.7)
Profit/(loss) for the year from continuing operations	789.0	172.7	12.3	14.2	(97.6)	(94.7)	795.9	33.1	829.0
Profit for the year from discontinued operations	–	51.3	–	–	–	–	51.3	–	51.3
Profit/(loss) for the year	789.0	224.0	12.3	14.2	(97.6)	(94.7)	847.2	33.1	880.3
Non-controlling interests	(315.5)	(35.8)	14.7	–	–	–	(336.6)	–	(336.6)
<b>Profit/(losses) attributable to the owners of the parent</b>	<b>473.5</b>	<b>188.2</b>	<b>27.0</b>	<b>14.2</b>	<b>(97.6)</b>	<b>(94.7)</b>	<b>510.6</b>	<b>33.1</b>	<b>543.7</b>
<b>EBITDA<sup>1</sup></b>	<b>1,427.6</b>	<b>645.0</b>	<b>141.6</b>	<b>87.4</b>	<b>(97.6)</b>	<b>(64.6)</b>	<b>2,139.4</b>	<b>88.9</b>	<b>2,228.3</b>
<b>Additions to non-current assets</b>									
Capital expenditure	364.8	535.2	65.7	–	–	4.5	970.2	67.7	1,037.9
<b>Segment assets and liabilities</b>									
Segment assets	4,003.7	5,283.8	1,942.0	–	–	1,439.2	12,668.7	340.5	13,009.2
Deferred tax assets	–	29.0	–	–	–	5.3	34.3	2.9	37.2
Investment in associates and joint venture	–	–	–	996.4	–	–	996.4	59.7	1,056.1
Segment liabilities	(1,218.0)	(1,746.1)	(948.8)	–	–	(632.2)	(4,545.1)	(119.3)	(4,664.4)

1. EBITDA refers to Earnings Before Interest, Tax, Depreciation and Amortisation. EBITDA is calculated by adding back depreciation, amortisation, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group's subsidiaries, and the Group's proportional share of the EBITDA of its associates and joint ventures (Note 37B).

2. Operating cash outflow in the exploration and evaluation segment was \$81.0 million.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 5 SEGMENT INFORMATION CONTINUED

FOR THE YEAR ENDED 31 DECEMBER 2017

	Los Pelambres \$m	Centinela \$m	Antucoya \$m	Zaldivar \$m	Exploration and evaluation <sup>2</sup> \$m	Corporate and other items \$m	Mining \$m	Transport division \$m	Total \$m
<b>Revenue</b>	<b>2,423.9</b>	<b>1,645.8</b>	<b>508.6</b>	–	–	–	<b>4,578.3</b>	<b>171.1</b>	<b>4,749.4</b>
Operating cost excluding depreciation	(995.8)	(786.4)	(301.3)	–	(68.8)	(70.8)	(2,223.1)	(95.8)	(2,318.9)
Depreciation and amortisation	(205.2)	(276.6)	(76.1)	–	–	(6.7)	(564.6)	(16.5)	(581.1)
(Loss)/gain on disposals	(5.6)	(3.7)	–	–	–	0.9	(8.4)	0.1	(8.3)
<b>Operating profit/(loss)</b>	<b>1,217.3</b>	<b>579.1</b>	<b>131.2</b>	–	<b>(68.8)</b>	<b>(76.6)</b>	<b>1,782.2</b>	<b>58.9</b>	<b>1,841.1</b>
<b>Equity accounting results</b>	–	–	–	58.5	–	(8.2)	50.3	9.4	59.7
Investment income	4.4	6.2	0.7	–	–	11.9	23.2	0.6	23.8
Interest expense	(5.8)	(24.9)	(41.0)	–	–	(17.8)	(89.5)	(2.0)	(91.5)
Other finance items	6.7	(5.9)	(5.8)	–	–	(3.2)	(8.2)	5.9	(2.3)
<b>Profit/(loss) before tax</b>	<b>1,222.6</b>	<b>554.5</b>	<b>85.1</b>	<b>58.5</b>	<b>(68.8)</b>	<b>(93.9)</b>	<b>1,758.0</b>	<b>72.8</b>	<b>1,830.8</b>
Tax	(360.1)	(196.8)	(1.2)	–	–	(58.6)	(616.7)	(16.9)	(633.6)
Profit/(loss) for the year from continuing operations	862.5	357.7	83.9	58.5	(68.8)	(152.0)	1,141.3	55.9	1,197.2
Profit for the year from discontinued operations	–	–	–	–	–	0.5	0.5	–	0.5
Profit/(loss) for the year	862.5	357.7	83.9	58.5	(68.8)	(152.0)	1,141.8	55.9	1,197.7
Non-controlling interests	(342.1)	(93.7)	(11.3)	–	–	–	(447.1)	–	(447.1)
<b>Profit/(losses) attributable to the owners of the parent</b>	<b>520.4</b>	<b>264.0</b>	<b>72.6</b>	<b>58.5</b>	<b>(68.8)</b>	<b>(152.0)</b>	<b>694.7</b>	<b>55.9</b>	<b>750.6</b>
<b>EBITDA<sup>1</sup></b>	<b>1,428.1</b>	<b>859.4</b>	<b>207.3</b>	<b>134.2</b>	<b>(68.8)</b>	<b>(71.7)</b>	<b>2,488.5</b>	<b>98.1</b>	<b>2,586.6</b>
<b>Additions to non-current assets</b>									
Capital expenditure	263.6	619.2	78.2	–	–	8.4	969.4	32.1	1,001.5
<b>Segment assets and liabilities</b>									
Segment assets	3,687.5	5,479.2	1,712.0	–	9.5	1,810.4	12,698.6	372.3	13,070.9
Deferred tax assets	–	–	0.5	–	–	64.8	65.3	3.8	69.1
Investment in associates and Joint Venture	–	–	–	982.1	–	22.1	1,004.2	65.5	1,069.7
Segment liabilities	(1,387.0)	(1,943.0)	(960.1)	–	(4.5)	(657.1)	(4,951.7)	(116.4)	(5,068.1)

1. EBITDA refers to Earnings Before Interest, Tax, Depreciation and Amortisation. EBITDA is calculated by adding back depreciation, amortisation, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group's subsidiaries, and the Group's proportional share of the EBITDA of its associates and joint ventures (Note 37B).

2. Operating cash outflow in the exploration and evaluation segment was \$45.6 million.

## NOTES TO SEGMENT REVENUES AND RESULTS

- (i) Inter-segment revenues are eliminated on consolidation. Revenue from the Transport division segment is stated after eliminating inter-segmental sales to the mining division of nil (year ended 31 December 2017 – \$0.3 million).
- (ii) Revenue includes provisionally priced sales of copper and molybdenum concentrates and copper cathodes. Further details of such adjustments are given in Note 6.
- (iii) The copper and molybdenum concentrate sales are stated net of deductions for tolling charges. Tolling charges for copper and molybdenum concentrates are detailed in Note 6.
- (iv) The effects of tax and non-controlling interests on the expenses within the Exploration and evaluation segment are allocated to the mine that the exploration work relates to.
- (v) The assets of the Transport division segment include \$54.6 million (31 December 2017 – \$60.1 million) relating to the Group's 40% interest in Inversiones Hornitos SA ("Inversiones Hornitos"), which owns the 165MW Hornitos thermoelectric power plant in Mejillones in Chile's Antofagasta Region and \$5.1million (31 December 2017 – \$5.3 million) relating to the Group's 30% interest in Antofagasta Terminal International SA ("ATI"), which operates a concession to manage installations in the port of Antofagasta. Further details of these investments are set out in Note 17.

## B) ENTITY-WIDE DISCLOSURES

### REVENUE BY PRODUCT<sup>1</sup>

	2018 \$m	2017 \$m
<b>Copper</b>		
– Los Pelambres	2,040.3	2,149.0
– Centinela concentrate	827.9	1,037.0
– Centinela cathodes	589.4	378.6
– Antucoya	457.6	508.6
<b>Gold</b>		
– Los Pelambres	78.6	68.7
– Centinela	169.4	209.7
<b>Molybdenum</b>		
– Los Pelambres	340.2	168.5
– Centinela	7.8	–
<b>Silver</b>		
– Los Pelambres	34.4	37.7
– Centinela	14.7	20.5
<b>Total</b>	<b>4,560.3</b>	<b>4,578.3</b>
<b>Transport division</b>	<b>172.8</b>	<b>171.1</b>
	<b>4,733.1</b>	<b>4,749.4</b>

### REVENUE BY LOCATION OF CUSTOMER<sup>1</sup>

	2018 \$m	2017 \$m
<b>Europe</b>		
– United Kingdom	125.3	46.6
– Switzerland	587.0	835.1
– Spain	152.9	163.5
– Germany	117.3	139.4
– Rest of Europe	131.7	114.2
<b>Latin America</b>		
– Chile	248.1	206.9
– Rest of Latin America	73.9	125.2
<b>North America</b>		
– United States	199.4	207.4
<b>Asia</b>		
– Japan	1,413.0	1,698.2
– China	481.2	484.8
– Singapore	633.9	124.8
– South Korea	322.0	372.1
– Rest of Asia	247.4	231.2
	<b>4,733.1</b>	<b>4,749.4</b>

### INFORMATION ABOUT MAJOR CUSTOMERS

In the year ended 31 December 2018 the Group's mining revenue included \$678.1 million related to one large customer that individually accounted for more than 10% of the Group's revenue (year ended 31 December 2017 – one large customer representing \$823.4 million).

1. Figures include both revenue from the sale of products and the associated income from the provision of shipping services.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 5 SEGMENT INFORMATION CONTINUED

#### NON-CURRENT ASSETS BY LOCATION OF ASSETS

	2018 \$m	2017 \$m
Chile	10,449.0	10,250.2
USA	172.6	215.4
Other	0.1	0.1
	<b>10,621.7</b>	<b>10,465.7</b>

The above non-current assets disclosed by location of assets exclude financial instruments, equity investments and deferred tax assets.

### 6 REVENUE

Copper and molybdenum concentrate sale contracts and copper cathode sale contracts generally provide for provisional pricing of sales at the time of shipment, with final pricing being based on the monthly average London Metal Exchange copper price or monthly average molybdenum price for specified future periods. This normally ranges from one to four months after shipment to the customer. For sales contracts which contain provisional pricing mechanisms the total receivable balance is measured at fair value through profit or loss. Gains and losses from the mark-to-market of open sales are recognised through adjustments to revenue in the income statement and to trade receivables in the balance sheet. The Group determines mark-to-market prices using forward prices at each period-end for copper concentrate and cathode sales, and period-end month average prices for molybdenum concentrate sales due to the absence of a futures market in the market price references for that commodity in the majority of the Group's contracts.

An analysis of the Group's revenue is as follows:

	2018 \$m	2017 \$m
Revenue from contracts with customers		
Sale of products	4,660.5	4,221.9
Rendering of transport services	172.8	141.8
Shipping services	74.4	66.4
Provisional pricing adjustments in respect of concentrate and cathode sales	(174.6)	319.3
<b>Total revenue</b>	<b>4,733.1</b>	<b>4,749.4</b>

The categories of revenue which are principally affected by different economic factors are the individual product types. A summary of revenue by product is set out in Note 5.

In addition to mark-to-market and final pricing adjustments, revenue also includes realised gains and losses relating to derivative commodity instruments. Details of these realised gains or losses are shown in the tables that follow.

Copper and molybdenum concentrate sales are stated net of deductions for tolling charges, as shown in the tables that follow.

FOR THE YEAR ENDED 31 DECEMBER 2018<sup>1</sup>

	Los Pelambres Copper concentrate \$m	Centinela Copper concentrate \$m	Centinela Copper cathodes \$m	Antucoya Copper cathodes \$m	Los Pelambres Gold in concentrate \$m	Centinela Gold in concentrate \$m	Los Pelambres Molybdenum concentrate \$m
<b>Provisionally invoiced gross sales</b>	2,325.7	957.3	599.1	465.0	79.6	171.1	358.6
<b>Effects of pricing adjustments to previous year invoices</b>							
Reversal of mark-to-market adjustments at the end of the previous year	(54.1)	(20.0)	(1.7)	(2.7)	–	(0.2)	(4.6)
Settlement of sales invoiced in the previous year	14.2	8.8	0.6	1.6	0.4	(0.2)	18.9
<b>Total effect of adjustments to previous year invoices in the current year</b>	(39.9)	(11.2)	(1.1)	(1.1)	0.4	(0.4)	14.3
<b>Effects of pricing adjustments to current year invoices</b>							
Settlement of sales invoiced in the current year	(59.8)	(26.3)	(7.9)	(6.2)	(1.2)	(1.3)	0.2
Mark-to-market adjustments at the end of the current year	(23.6)	(9.5)	(0.7)	(0.7)	–	0.7	0.7
	(83.4)	(35.8)	(8.6)	(6.9)	(1.2)	(0.6)	0.9
<b>Total effect of adjustments to current year invoices</b>	(123.3)	(47.0)	(9.7)	(8.0)	(0.8)	(1.0)	15.2
Total pricing adjustments	–	–	–	0.6	–	–	–
Realised losses on commodity derivatives	–	–	–	–	–	–	–
<b>Revenue before deducting tolling charges</b>	2,202.4	910.3	589.4	457.6	78.8	170.1	373.8
Tolling charges	(162.1)	(82.4)	–	–	(0.3)	(0.6)	(33.6)
<b>Revenue net of tolling charges</b>	2,040.3	827.9	589.4	457.6	78.5	169.5	340.2

## FOR THE YEAR ENDED 31 DECEMBER 2017

	Los Pelambres Copper concentrate \$m	Centinela Copper concentrate \$m	Centinela Copper cathodes \$m	Antucoya Copper cathodes \$m	Los Pelambres Gold in concentrate \$m	Centinela Gold in concentrate \$m	Los Pelambres Molybdenum concentrate \$m
<b>Provisionally invoiced gross sales</b>	2,138.9	1,031.1	385.9	502.7	70.4	209.6	173.6
<b>Effects of pricing adjustments to previous year invoices</b>							
Reversal of mark-to-market adjustments at the end of the previous year	(28.0)	(15.3)	0.4	0.6	–	1.3	0.7
Settlement of sales invoiced in the previous year	53.3	37.6	–	0.7	(0.9)	(2.2)	2.0
<b>Total effect of adjustments to previous year invoices in the current year</b>	25.3	22.3	0.4	1.3	(0.9)	(0.9)	2.7
<b>Effects of pricing adjustments to current year invoices</b>							
Settlement of sales invoiced in the current year	110.2	61.7	3.9	5.7	(0.6)	1.5	3.2
Mark-to-market adjustments at the end of the current year	54.1	20.1	1.7	2.7	–	0.2	4.7
<b>Total effect of adjustments to current year invoices</b>	164.3	81.8	5.6	8.4	(0.6)	1.7	7.9
Total pricing adjustments	189.6	104.1	6.0	9.7	(1.5)	0.8	10.6
Realised losses on commodity derivatives	–	–	(13.3)	(3.8)	–	–	–
<b>Revenue before deducting tolling charges</b>	2,328.5	1,135.2	378.6	508.6	68.9	210.4	184.2
Tolling charges	(179.5)	(98.2)	–	–	(0.2)	(0.8)	(15.7)
<b>Revenue net of tolling charges</b>	2,149.0	1,037.0	378.6	508.6	68.7	209.6	168.5

1. Figures include both revenue from the sale of products and the associated income from the provision of shipping services.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 6 REVENUE CONTINUED

#### (I) COPPER CONCENTRATE

The typical period for which sales of copper concentrate remain open until settlement occurs is a range of approximately three to four months from shipment date.

		2018	2017
Sales	Tonnes	<b>177,400</b>	160,900
Average mark-to-market price	\$/lb	<b>2.71</b>	3.28
Average provisional invoice price	\$/lb	<b>2.79</b>	3.07

#### (II) COPPER CATHODES

The typical period for which sales of copper cathodes remain open until settlement occurs is approximately one month from shipment date.

		2018	2017
Sales	Tonnes	<b>14,300</b>	14,700
Average mark-to-market price	\$/lb	<b>2.70</b>	3.27
Average provisional invoice price	\$/lb	<b>2.75</b>	3.14

#### (III) GOLD CONCENTRATES

The typical period for which sales of gold in concentrate remain open is approximately one month from shipment date.

		2018	2017
Sales	Ounces	<b>22,100</b>	7,100
Average mark-to-market price	\$/oz	<b>1.284</b>	1,300
Average provisional invoice price	\$/oz	<b>1.253</b>	1,268

#### (IV) MOLYBDENUM CONCENTRATE

The typical period for which sales of molybdenum remain open is approximately two months from shipment date.

		2018	2017
Sales	Tonnes	<b>3,600</b>	2,400
Average mark-to-market price	\$/lb	<b>12.1</b>	9.4
Average provisional invoice price	\$/lb	<b>12.1</b>	8.5

As detailed above, the effects of gains and losses from the marking-to-market of open sales are recognised through adjustments to revenue in the income statement and to trade debtors in the balance sheet. The effect of mark-to-market adjustments on the balance sheet at the end of each period are as follows:

	Effect on debtors of year end mark-to-market adjustments	
	2018 \$m	2017 \$m
Los Pelambres – copper concentrate	<b>(23.6)</b>	54.1
Los Pelambres – molybdenum concentrate	<b>0.7</b>	4.7
Centinela – copper concentrate	<b>(9.5)</b>	20.1
Centinela – gold concentrate	<b>0.7</b>	0.2
Centinela – copper cathodes	<b>(0.7)</b>	1.7
Antucoya – copper cathodes	<b>(0.7)</b>	2.7
	<b>(33.1)</b>	83.5

## 7 PROFIT BEFORE TAX

Operating profit from subsidiaries and total profit from operations and associates and joint ventures is derived from Group revenue by deducting operating costs as follows:

	2018 \$m	2017 \$m
<b>Group revenue</b>	<b>4,733.1</b>	<b>4,749.4</b>
Cost of sales	(2,826.4)	(2,356.4)
<b>Gross profit</b>	<b>1,906.7</b>	<b>2,393.0</b>
Administrative and distribution expenses	(417.6)	(414.1)
Other operating income	21.8	26.0
Other operating expenses	(165.9)	(163.8)
<b>Operating profit from subsidiaries</b>	<b>1,345.0</b>	<b>1,841.1</b>
<b>Equity accounting results</b>	<b>22.2</b>	<b>59.7</b>
Net share of results from associates and joint venture	22.2	59.7
<b>Total profit from operations, associates and joint venture</b>	<b>1,367.2</b>	<b>1,900.8</b>

Other operating expenses comprise \$14.8 million of costs relating to the decommissioning and restoration provisions (2017 – \$39.8 million), \$97.6 million of Exploration and evaluation expenditure (2017 – \$68.8 million) and \$53.5 million of Other expenses (2017 – \$55.2 million).

Profit before tax is stated after (charging)/crediting:

	2018 \$m	2017 \$m
Foreign exchange (losses)/gains		
– included in net finance costs	(18.2)	17.1
– included in income tax expense	(0.7)	0.7
Depreciation of property, plant and equipment		
– owned assets	(731.5)	(553.5)
– assets held under finance leases	(29.0)	(27.6)
Loss on disposal of property, plant and equipment	(13.3)	(8.3)
Cost of inventories recognised as expense	(1,955.2)	(1,697.0)
Employee benefit expense	(447.8)	(433.2)
Closure provision	(14.8)	(39.8)
Severance charges	(18.7)	(31.9)
Exploration and evaluation cost	(97.6)	(68.8)
Auditors' remuneration	(1.7)	(1.8)

A more detailed analysis of auditors' remuneration on a worldwide basis is provided below:

Group	2018 \$000	2017 \$000
Fees payable to the Company's auditor and its associates for the audit of parent company and consolidated financial statements	1,020	1,003
Fees payable to the Company's auditor and its associates for other services:		
– The audit of the Company's subsidiaries	374	315
– Audit-related assurance services	252	268
– Tax advisory services	76	45
– Other assurance services	–	46
– Corporate finance services not covered above	–	65
– Other non-audit services	12	118
	1,734	1,860

Details of the Company's policy on the use of auditors for non-audit services, the reason why the auditor was used rather than another supplier and how the auditor's independence and objectivity was safeguarded are set out in the Audit Committee report on page 110. No services were provided pursuant to contingent fee arrangements.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 8 EMPLOYEES

#### A) AVERAGE MONTHLY NUMBER OF EMPLOYEES

	2018 Number	2017 Number
Los Pelambres	907	900
Centinela	2,047	2,044
Michilla	4	5
Antucoya	786	737
Exploration and evaluation	56	49
Corporate and other employees		
– Chile	433	447
– United Kingdom	4	5
– Other	3	4
<b>Mining and Corporate</b>	<b>4,240</b>	4,191
<b>Transport division</b>	<b>1,371</b>	1,219
	<b>5,611</b>	5,410

- (i) The average number of employees for the year includes all the employees of subsidiaries. The average number of employees does not include contractors who are not directly employed by the Group.
- (ii) The average number of employees does not include employees from associates and joint ventures.
- (iii) The average number of employees includes Non-Executive Directors.

#### B) AGGREGATED REMUNERATION

The aggregated remuneration of the employees included in the table above was as follows:

	2018 \$m	2017 \$m
Wages and salaries	(423.0)	(411.9)
Social security costs	(24.8)	(21.3)
	<b>(447.8)</b>	(433.2)

The comparative 2017 total employee costs have been restated to \$433.2 million (from \$417.8 million) to correctly reflect the full impact of the employee severance provision expense.

#### C) KEY MANAGEMENT PERSONNEL

In accordance with IAS 24, key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including any Directors (Executive and Non-Executive) of the Company. Key management personnel who are not Directors have been treated as responsible senior management at the Corporate Centre and those responsible for the running of the key business divisions of the Group.

Compensation for key management personnel (including Directors) was as follows:

	2018 \$m	2017 \$m
Salaries and short-term employee benefits	(18.4)	(18.7)
	<b>(18.4)</b>	(18.7)

Disclosures on Directors' remuneration required by Schedule 8 of the Large and Medium-sized Companies and Group (Financial Statement) Regulations 2008 including those specified for audit by that Schedule are included in the Remuneration report on page 118.

## 9 NET FINANCE EXPENSE

	2018 \$m	2017 \$m
<b>Investment income</b>		
Interest income	9.9	9.2
Fair value through profit or loss	20.2	14.6
	<b>30.1</b>	23.8
<b>Interest expense</b>		
Interest expense	(113.6)	(91.5)
	<b>(113.6)</b>	(91.5)
<b>Other finance items</b>		
Time value effect of options	–	(7.8)
Unwinding of discount on provisions	(12.7)	(11.6)
Preference dividends	(0.1)	(0.1)
Foreign exchange	(18.2)	17.2
	<b>(31.0)</b>	(2.3)
<b>Net finance expense</b>	<b>(114.5)</b>	(70.0)

During 2018, amounts capitalised and consequently not included within the above table were as follows: \$4.5 million at Centinela (year ended 31 December 2017 – \$8.8 million) and \$0.9 million at Los Pelambres (year ended 31 December 2017 – \$1.3 million).

The fair value through profit or loss line represents the fair value gains relating to liquid investments.

## 10 INCOME TAX EXPENSE

The tax charge for the year comprised the following:

	2018 \$m	2017 \$m
<b>Current tax charge</b>		
– Corporate tax (principally first category tax in Chile)	(321.2)	(376.6)
– Mining tax (royalty)	(78.1)	(69.1)
– Withholding tax	(4.5)	(64.8)
– Exchange losses on corporate tax balances	(0.7)	0.7
	<b>(404.5)</b>	(509.8)
<b>Deferred tax charge</b>		
– Corporate tax (principally first category tax in Chile)	(14.6)	(114.6)
– Mining tax (royalty)	(4.6)	(9.2)
	<b>(19.2)</b>	(123.8)
<b>Total tax charge</b>	<b>(423.7)</b>	(633.6)

The rate of first category (ie corporate) tax in Chile is 27.0% (2017 – 25.5%).

In addition to first category tax and the mining tax, the Group incurs withholding taxes on any remittance of profits from Chile. Withholding tax is levied on remittances of profits from Chile at 35% less first category (ie corporation) tax already paid in respect of the profits to which the remittances relate.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 10 INCOME TAX EXPENSE CONTINUED

The Group's mining operations are also subject to a mining tax (royalty). Production from Los Pelambres, Antucoya, Encuentro (oxides), the Tesoro North East pit and the Run-of-Mine processing at Centinela Cathodes is subject to a rate of between 5–14%, depending on the level of operating profit margin, and production from Centinela Concentrates and the Tesoro Central and Mirador pits is subject to a rate of 5% of taxable operating profit. In 2018 production from Los Pelambres and the Tesoro Central and Mirador pits had been subject to a rate of 4%.

	2018	2017		
	\$m	%	\$m	%
<b>Profit before tax</b>	<b>1,252.7</b>	—	1,830.8	—
<b>Tax at the Chilean corporate tax rate of 27% (2017 – 25.5%)</b>	<b>(338.2)</b>	<b>27.0</b>	(466.9)	25.5
Items not deductible from first category tax	(10.8)	0.9	(26.7)	1.5
Effect of increase in future first category tax rates on deferred tax balances	—	—	(0.6)	—
Adjustment in respect of prior years	2.6	(0.2)	(35.4)	1.9
Deduction of mining tax (royalty) as an allowable expense in determination of first category tax	21.1	(1.7)	17.4	(1.0)
Credit of tax losses absorbed from dividends of the year	—	—	(4.3)	0.2
Mining tax (royalty)	(82.5)	6.5	(78.3)	4.3
Withholding tax	(4.5)	0.4	(64.8)	3.5
Tax effect of share of profit of associates and joint ventures	3.0	(0.2)	15.2	(0.8)
(Unrecognised tax losses)/reversal of previously unrecognised tax losses	(13.8)	1.1	9.9	(0.5)
Net other items	(0.6)	—	0.9	—
<b>Tax expense and effective tax rate for the year</b>	<b>(423.7)</b>	<b>33.8</b>	(633.6)	34.6

The effective tax rate varied from the statutory rate principally due to the mining tax (royalty) (impact of \$82.5 million/6.5%) and items not deductible for Chilean corporate tax purposes, principally the funding of expenses outside of Chile (impact of \$10.8 million/0.9%), partly offset by the deduction of the mining tax (royalty) which is an allowable expense when determining the Chilean corporate tax charge (impact of \$21.1 million/1.7%) and the impact of the recognition of the Group's share of profit from associates and joint ventures, which are included in the Group's profit before tax net of their respective tax charges (impact of \$3.0 million/0.2%).

The main factors which could impact the sustainability of the Group's existing effective tax rate are:

- the level of future distributions made by the Group's Chilean subsidiaries out of Chile, which could result in increased withholding tax charges.
- the impact of expenses which are not deductible for Chilean first category tax. Some of these expenses are relatively fixed costs, and so the relative impact of these expenses on the Group's effective tax rate will vary depending on the Group's total profit before tax in a particular year.

There are no significant tax uncertainties which would require critical judgements, estimates or potential provisions.

### 11 DISCONTINUED OPERATIONS

#### (I) PROFIT FOR THE PERIOD FROM DISCONTINUED OPERATIONS

On 11 September 2018 the Group completed the disposal of Centinela Transmisión, which holds the electricity transmission line supplying Centinela and other external parties, for a cash consideration of \$117 million. The profit on disposal has been calculated as follows:

	2018 \$m	2017 \$m
<b>Proceeds on disposal, cash and cash equivalent</b>	<b>117.2</b>	—
<b>Assets of disposal group classified as held for sale</b>		
Property, plant and equipment	33.9	33.2
Cash and cash equivalents	13.2	2.2
Deferred tax assets	0.3	—
Trade and other receivables	3.7	2.2
Trade and other payables	(2.4)	—
Current tax liabilities	(1.1)	—
Deferred tax assets	(7.4)	0.2
<b>Total carrying amount disposed (Net asset)</b>	<b>40.2</b>	37.8
Transaction cost	(1.0)	—
<b>Profit on disposal of discontinued operations (Before tax)</b>	<b>76.0</b>	0.5

The net results of Centinela Transmisión are shown as a discontinued operation in the income statement. The net results reflect the following elements:

Revenue	4.8	3.4
Total operating costs	(1.6)	(2.8)
Net finance income	(0.3)	-
<b>Profit after tax of discontinued operations</b>	<b>2.9</b>	0.6
Tax	(0.8)	(0.1)
<b>Profit from the year from discontinued operations</b>	<b>2.1</b>	0.5
Profit on disposal of discontinued operations	76.0	-
Attributable tax expenses	(26.8)	-
<b>Net profit attributable to discontinued operations</b>	<b>51.3</b>	-
 Cash and cash equivalents received as consideration for disposal	 117.2	-
Net cash disposed of	(13.2)	-
<b>Net cash inflow arising on disposal</b>	<b>104.0</b>	-

During the period, Centinela Transmisión., contributed \$0.6 million (2017 – \$0.6 million) to the Group's net cash flow from operating activities, \$1.5 million (2017 – nil) in respect to net cash used in investing activities and paid \$10.7 million (2017 – \$0.1 million) in net cash provided in financing activities.

## 12 EARNINGS PER SHARE

	2018 \$m	2017 \$m
Profit for the year attributable to equity holders of the Company	543.7	750.6
 Number		
Ordinary shares in issue throughout each year	985,856,695	985,856,695
 cents		
Basic earnings per share		
From continuing operations	51.5	76.1
From discontinued operations	3.6	0.1
Total continuing and discontinued operations	55.1	76.2

Basic earnings per share are calculated as profit after tax and non-controlling interests, based on 985,856,695 ordinary shares.

There was no potential dilution of earnings per share in either year set out above, and therefore diluted earnings per share did not differ from basic earnings per share as disclosed above.

### Reconciliation of basic earnings per share from continuing operations:

	2018	2017
Profit for the year attributable to equity holders of the Company	\$m	543.7
Less: profit for discontinued operations attributable to equity holders of the Company	\$m	(35.9)
Profit from continuing operations	\$m	507.8
Ordinary shares	Number	985,856,695
Basic earnings per share from continuing operations	cents	51.5
		76.1

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 13 DIVIDENDS

Amounts recognised as distributions to equity holders in the year:

	2018 \$m	2017 \$m	2018 cents per share	2017 cents per share
Final dividend paid in June (proposed in relation to the previous year)				
– ordinary	<b>399.9</b>	150.8	<b>40.6</b>	15.3
Interim dividend paid in October				
– ordinary	<b>67.0</b>	101.5	<b>6.8</b>	10.3
	<b>466.9</b>	252.3	<b>47.4</b>	25.6

The proposed final dividend for each year, which is subject to approval by shareholders at the Annual General Meeting and has therefore not been included as a liability in these financial statements, is as follows:

	2018 \$m	2017 \$m	2018 cents per share	2017 cents per share
Final dividend proposed in relation to the year				
– ordinary	<b>364.8</b>	400.3	<b>37.0</b>	40.6
	<b>364.8</b>	400.3	<b>37.0</b>	40.6

This gives total dividends proposed in relation to 2018 (including the interim dividend) of 43.8 cents per share or \$431.8 million (2017 – 50.9 cents per share or \$501.8 million).

In accordance with IAS 32, preference dividends have been included within interest expense (see Note 9) and amounted to \$0.1 million (2017 – \$0.1 million).

Further details of the currency election timing and process (including the default currency of payment) are available on the Antofagasta plc website ([www.antofagasta.co.uk](http://www.antofagasta.co.uk)) or from the Company's registrar, Computershare Investor Services PLC on +44 370 702 0159.

Further details relating to dividends for each year are given in the Directors' Report on page 137.

### 14 INTANGIBLE ASSETS

Cost	\$m
At 1 January 2017	150.1
Additions	–
Disposals	–
Foreign currency exchange difference	–
At 31 December 2017	<b>150.1</b>
Additions	–
Disposals	–
Foreign currency exchange difference	–
<b>At 31 December 2018</b>	<b>150.1</b>

The \$150.1 million intangible asset reflects the value of Twin Metals' mining licence assets included within the corporate segment. These items will be transferred to the mining properties category within property, plant and equipment when construction of the Twin Metals project commences.

## 15 PROPERTY, PLANT AND EQUIPMENT

	Land \$m	Mining properties \$m	Stripping Cost \$m	Buildings and infrastructure \$m	Railway track \$m	Wagons and rolling stock \$m	Machinery, equipment and others \$m	Assets under construction \$m	Total \$m
<b>Cost</b>									
<b>At 1 January 2017</b>	53.4	640.1	642.5	4,810.8	75.2	120.1	6,360.9	1,161.2	13,864.2
Additions	1.5	2.3	370.6	–	–	–	52.7	515.8	942.9
Additions – capitalised depreciation	–	–	58.6	–	–	–	–	–	58.6
Adjustment to capitalised decommissioning provisions	–	–	–	(3.7)	–	–	–	–	(3.7)
Capitalisation of interest	–	–	–	–	–	–	10.2	–	10.2
Capitalisation of critical spare parts	–	–	–	0.9	–	–	9.2	–	10.1
Reclassifications	–	–	–	111.6	1.1	0.6	135.6	(248.9)	–
Asset disposals	–	(0.2)	–	–	–	(0.2)	(10.5)	(8.7)	(19.6)
Assets transferred to disposal group classified as held for sale	–	–	–	(14.5)	–	–	(39.4)	–	(53.9)
<b>At 31 December 2017</b>	54.9	642.2	1,071.7	4,905.1	76.3	120.5	6,518.7	1,419.4	14,808.8
Additions	0.9	20.1	351.3	5.8	–	–	92.6	518.8	989.5
Additions – capitalised depreciation	–	–	48.4	–	–	–	–	–	48.4
Adjustment to capitalised decommissioning provisions	–	–	–	(24.0)	–	–	–	–	(24.0)
Capitalisation of interest	–	–	–	–	–	–	5.4	–	5.4
Capitalisation of critical spare parts	–	–	–	–	–	–	11.1	–	11.1
Reclassifications	–	–	–	434.2	8.2	29.5	501.2	(973.1)	–
Asset disposals	–	–	–	–	(0.4)	(3.9)	(5.6)	(8.6)	(18.5)
Assets transferred to disposal group classified as held for sale	–	–	–	–	–	–	–	(1.3)	(1.3)
<b>At 31 December 2018</b>	55.8	662.3	1,471.4	5,321.1	84.1	146.1	7,123.4	955.2	15,819.4
<b>Accumulated depreciation and impairment</b>									
<b>At 1 January 2017</b>	–	(388.5)	(159.2)	(1,648.9)	(25.0)	(70.6)	(2,834.5)	–	(5,126.7)
Charge for the year	–	(42.9)	(45.7)	(195.0)	(2.8)	(8.1)	(287.4)	–	(581.9)
Depreciation capitalised in inventories	–	–	–	–	–	–	(1.4)	–	(1.4)
Depreciation capitalised in property, plant and equipment	–	–	–	–	–	–	(58.6)	–	(58.6)
Reclassification impairment	–	(10.6)	–	(83.4)	–	–	94.0	–	–
Asset disposals	–	–	–	–	–	0.3	3.1	–	3.4
Assets transferred to disposal group classified as held for sale	–	–	–	12.1	–	–	8.6	–	20.7
<b>At 31 December 2017</b>	–	(442.0)	(204.9)	(1,915.2)	(27.8)	(78.4)	(3,076.2)	–	(5,744.5)
Charge for the year	–	(48.3)	(237.0)	(230.3)	(2.9)	(7.5)	(235.1)	–	(761.1)
Depreciation capitalised in inventories	–	–	–	–	–	–	(86.4)	–	(86.4)
Depreciation capitalised in property, plant and equipment	–	–	–	–	–	–	(48.4)	–	(48.4)
Reclassification	–	–	–	4.9	–	–	(4.9)	–	–
Asset disposals	–	–	–	–	0.2	1.6	2.7	–	4.5
Assets transferred to disposal group classified as held for sale	–	–	–	0.5	–	–	0.1	–	0.6
<b>At 31 December 2018</b>	–	(490.3)	(441.9)	(2,140.1)	(30.5)	(84.3)	(3,448.2)	–	(6,635.3)
<b>Net book value</b>									
<b>At 31 December 2018</b>	55.8	172.0	1,029.5	3,181.0	53.6	61.8	3,675.2	955.2	9,184.1
At 31 December 2017	54.9	200.2	866.8	2,989.9	48.5	42.1	3,442.5	1,419.4	9,064.3
<b>Assets under finance leases included in the totals above</b>									
<b>Net book value</b>									
<b>At 31 December 2018</b>	–	–	–	25.0	–	–	153.0	–	178.0
At 31 December 2017	–	–	–	25.4	–	–	87.0	–	112.4

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 15 PROPERTY, PLANT AND EQUIPMENT CONTINUED

The Group has pledged assets with a carrying value of \$1,650.0 million (2017 – \$1,650.0 million) as security against bank loans provided to the Group.

At 31 December 2018 the Group had entered into contractual commitments for the acquisition of property, plant and equipment amounting to \$561.4 million (2017 – \$174.5 million) of which \$185.5 million was related to Los Pelambres and \$108.4 million to Centinela.

Compensation from insurance companies related to property, plant and equipment included in the consolidated income statement was \$0.4 million in 2018 (2017 – nil).

The average interest rate for the amounts capitalised was 2.9% (2017 – 1.9%).

At 31 December 2018, assets capitalised relating to the decommissioning provision were \$115.3 million (at 31 December 2017 – \$146.5 million).

Depreciation capitalised in property, plant and equipment of \$48.4 million related to the depreciation of assets used in mine development (operating stripping) at Centinela, Los Pelambres and Antucoya (at 31 December 2017 – \$58.6 million).

### 16 INVESTMENTS IN SUBSIDIARIES

The subsidiaries of the Group, the percentage of equity owned and the main country of operation are set out below. These interests are consolidated within these financial statements.

	Country of incorporation	Country of operations	Registered office	Nature of business	Economic interest
<b>Direct subsidiaries of the Parent Company</b>					
Antofagasta Railway Company plc	UK	Chile	1	Railway	100%
Andes Trust Limited (The)	UK	UK	1	Investment	100%
Chilean Northern Mines Limited	UK	Chile	1	Investment	100%
Andes Re Limited	Bermuda	Bermuda	4	Insurance	100%
<b>Indirect subsidiaries of the Parent Company</b>					
Minera Los Pelambres SCM	Chile	Chile	2	Mining	60%
Minera Centinela SCM	Chile	Chile	2	Mining	70%
Minera Antucoya SCM	Chile	Chile	2	Mining	70%
Antofagasta Minerals SA	Chile	Chile	2	Mining	100%
Alfa Estates Limited	Jersey	Jersey	3	Investment	100%
Energía Andina Geothermal SpA	Chile	Chile	2	Energy	100%
Northern Minerals Investment (Jersey) Limited	Jersey	Jersey	3	Investment	100%
Northern Metals (UK) Limited	UK	UK	1	Investment	100%
Northern Minerals Holding Co	USA	USA	5	Investment	100%
Duluth Metals Limited	Canada	Canada	7	Investment	100%
Twin Metals (UK) Limited	UK	UK	1	Investment	100%
Twin Metals (USA) Inc	USA	USA	6	Investment	100%
Twin Metals Minnesota LLC	USA	USA	6	Mining	100%
Franconia Minerals (US) LLC	USA	USA	6	Mining	100%
Duluth Metals Holdings (USA) Inc	USA	USA	13	Investment	100%
Duluth Exploration (USA) Inc	USA	USA	14	Investment	100%
DMC LLC (Minnesota)	USA	USA	13	Investment	100%
DMC (USA) LLC (Delaware)	USA	USA	13	Investment	100%
DMC (USA) Corporation	USA	USA	13	Investment	100%
Antofagasta Investment Company Limited	Jersey	Jersey	3	Investment	100%
Minprop Limited	Jersey	Jersey	3	Mining	100%
Antofagasta Energy Jersey PCC	Australia	Australia	3	Investment	100%
Antofagasta Minerals Australia Pty Limited	Australia	Australia	9	Mining	100%
Antofagasta Minerals Adelaide Pty Limited	Australia	Australia	9	Mining	100%
Antofagasta Minerals Perth Pty Limited	Australia	Australia	9	Mining	100%
Minera Anaconda Peru	Peru	Peru	10	Mining	100%
Los Pelambres Holding Company Limited	Jersey	Jersey	3	Investment	100%
Los Pelambres Investment Company Limited	Jersey	Jersey	3	Investment	100%
Lamborn Land Co	USA	Chile	5	Investment	100%
Anaconda South America Inc	USA	USA	15	Investment	100%
El Tesoro (SPV Bermuda) Limited	Bermuda	Bermuda	4	Investment	100%

	Country of incorporation	Country of operations	Registered office	Nature of business	Economic interest
Morrisville Holdings Co	BVI	BVI	8	Investment	100%
Antofagasta Minerals Canada	Canada	Canada	9	Mining	100%
Antofagasta Minerals (Changai) Co. Limited	China	China	16	Agency	100%
Andes Investments Company (Jersey) Limited	Jersey	Jersey	3	Investment	100%
Bolivian Rail Investors Co Inc	USA	USA	5	Investment	100%
Blue Ocean Overseas Inc	BVI	BVI	8	Investment	100%
Inversiones Ferrobol Limitada	Bolivia	Bolivia	11	Investment	100%
Inversiones Los Pelambres Chile Limitada.	Chile	Chile	2	Investment	100%
Equatorial Resources SpA	Chile	Chile	2	Investment	100%
Minera Santa Margarita de Astillas SCM	Chile	Chile	2	Mining	75.5%
Minera Penacho Blanco SA	Chile	Chile	2	Mining	66.6%
Michilla Costa SpA	Chile	Chile	2	Logistics	99.9%
Pampa Fenix SA	Chile	Chile	2	Investment	90.0%
Minera Mulpun Limitada	Chile	Chile	2	Mining	100%
Fundación Minera Los Pelambres	Chile	Chile	2	Community development	100%
Inversiones Punta de Rieles Limitada	Chile	Chile	12	Investment	100%
Ferrocarril Antofagasta a Bolivia (Permanent Establishment)	Chile	Chile	12	Railway	100%
Inversiones Chilean Northern Mines Limitada	Chile	Chile	12	Investment	100%
The Andes Trust Chile SA	Chile	Chile	12	Investment	100%
Forestal SA	Chile	Chile	12	Forestry	100%
Servicios de Transportes Integrados Limitada	Chile	Chile	12	Road transport	100%
Inversiones Train Limitada	Chile	Chile	12	Investment	100%
Servicios Logisticos Capricornio Limitada	Chile	Chile	12	Transport	100%
Embarcadores Limitada	Chile	Chile	12	Transport	100%
Servicios Logisticos Baquedano Limitada	Chile	Chile	12	Transport	100%
FCAB Ingenieria y Servicios Limitada	Chile	Chile	12	Transport	100%
Emisa Antofagasta SA	Chile	Chile	12	Transport	100%

#### Registered offices:

1. Cleveland House, 33 King Street, London, SW1Y 6RJ, UK
2. Avenida Apoquindo N° 4001, Piso 18, Las Condes, Santiago, Chile
3. 22 Grenville Street, St Helier, Jersey, JE4 8PX3, Channel Islands
4. Crawford House, 50 Cedar Avenue, Hamilton HM 11, Bermuda
5. 1209 Orange Street, Wilmington, DE 19801, USA
6. 6040 Earle Brown Drive, 480 Brooklyn Center, MN 55430, USA
7. 161 Bay Street, Suite 4320, Toronto, Ontario, M5J 2S1, Canada
8. PO Box 958, Road Town, Tortola VG1110, British Virgin Islands
9. Riparian Plaza, Level 28, 71 Eagle Street, Brisbane, Qld 4001, Australia
10. Avenida Paseo de la Republica N° 3245 Piso 3, Lima, Peru
11. Avenida 16 de Julio N° 1440, piso 19 oficina 1905, La Paz, Bolivia
12. Simon Bolívar 255, Antofagasta, Chile
13. 6041 Earle Brown Drive, 480 Brooklyn Center, MN 55430, USA
14. 1010 Dale Street N, St Paul, MN 55117-5603, USA
15. 2711 Centerville Road, Suite 400, Wilmington, DE 19808, USA
16. Unit 3309, IFC 2, 8 Century Avenue, Shanghai, China

With the exception of the Antofagasta Railway Company plc, all of the above Group companies have only one class of ordinary share capital in issue. The Antofagasta Railway Company plc has ordinary and preference share capital in issue, with the ordinary share capital representing 76% of the Company's total share capital, and the preference share capital representing 24%. Antofagasta plc holds 100% of both the ordinary and preference share.

The proportion of the voting rights is proportional with the economic interest for the companies listed above.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 17 INVESTMENT IN ASSOCIATES AND JOINT VENTURES

	Inversiones Hornitos 2018 \$m	ATI 2018 \$m	El Arrayan 2018 \$m	Minera Zaldivar 2018 \$m	Energía Andina 2018 \$m	Tethyan Copper 2018 \$m	Total 2018 \$m
Balance at the beginning of the year	60.1	5.3	22.0	982.1	0.2	–	1,069.7
Obligations on behalf of JV	–	–	–	–	–	(2.0)	(2.0)
Capital contribution	–	–	–	–	–	8.1	8.1
Disposal	–	–	(20.3)	–	–	–	(20.3)
Gains/(losses) in fair value of cash flow hedges deferred in reserves of associates	–	–	(0.4)	–	–	–	(0.4)
Derecognition of investment in associate upon reclassification to subsidiary	–	–	–	–	(0.2)	–	(0.2)
Share of net profit/(loss) before tax	15.4	(0.2)	(0.7)	26.3	–	(7.1)	33.7
Share of tax	(4.3)	–	(0.6)	(12.0)	–	–	(16.9)
Share of income/(loss) from associates	11.1	(0.2)	(1.3)	14.3	–	(7.1)	16.8
Dividends received	(16.6)	–	–	–	–	–	(16.6)
<b>Balance at the end of the year</b>	<b>54.6</b>	<b>5.1</b>	<b>–</b>	<b>996.4</b>	<b>–</b>	<b>–</b>	<b>1,056.1</b>
<b>Obligations on behalf of JV</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>(1.0)</b>	<b>(1.0)</b>
Share of income/(loss) after tax	11.1	(0.2)	(1.3)	14.3	–	(7.1)	16.8
Profit on disposal	–	–	5.8	–	–	–	5.8
Purchase price adjustment	–	–	–	(0.4)	–	–	(0.4)
<b>Net share of results from associates and joint ventures</b>	<b>11.1</b>	<b>(0.2)</b>	<b>4.5</b>	<b>13.9</b>	<b>–</b>	<b>(7.1)</b>	<b>22.2</b>

	Inversiones Hornitos 2017 \$m	ATI 2017 \$m	El Arrayan 2017 \$m	Minera Zaldivar 2017 \$m	Energía Andina 2017 \$m	Tethyan Copper 2017 \$m	Total 2017 \$m
Balance at the beginning of the year	71.3	6.5	22.0	983.6	3.2	–	1,086.6
Obligations on behalf of JV	–	–	–	–	–	(3.1)	(3.1)
Capital contribution	–	–	–	–	0.1	9.3	9.4
Gains/(losses) in fair value of cash flow hedges deferred in reserves of associates	–	–	–	–	(3.1)	–	(3.1)
Provision against carrying value of assets	14.3	(1.5)	0.1	77.5	–	(8.2)	82.2
Share of net profit/(loss) before tax	(3.7)	0.3	(0.1)	(19.0)	–	–	(22.5)
Share of tax	10.6	(1.2)	–	58.5	–	(8.2)	59.7
Share of income/(loss) from associates	(21.8)	–	–	(60.0)	–	–	(81.8)
Dividends received	60.1	5.3	22.0	982.1	0.2	–	1,069.7
<b>Balance at the end of the year</b>	<b>60.1</b>	<b>5.3</b>	<b>22.0</b>	<b>982.1</b>	<b>0.2</b>	<b>–</b>	<b>1,069.7</b>
<b>Obligations on behalf of JV</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>(2.0)</b>	<b>(2.0)</b>
Share of income/(loss) before tax	10.6	(1.2)	–	58.5	–	(8.2)	59.7
<b>Net share of results from associates and joint ventures</b>	<b>10.6</b>	<b>(1.2)</b>	<b>–</b>	<b>58.5</b>	<b>–</b>	<b>(8.2)</b>	<b>59.7</b>

The investments which are included in the \$1,056.1 million balances at 31 December 2018 are set out below:

## Investment in associates

- (i) The Group's 40% interest in Inversiones Hornitos SA, which owns the 165MW Hornitos thermoelectric power plant operating in Mejillones, in Chile's Antofagasta Region. The Group has a 16-year power purchase agreement with Inversiones Hornitos SA for the provision of up to 40MW of electricity for Centinela.
- (ii) The Group's 30% interest in ATI, which operates a concession to manage installations in the port of Antofagasta.

- (iii) The Group's former 30% interest in El Arrayan, which operates an 115MW wind-farm project. The Group has a 20-year power purchase agreement with El Arrayan for the provision of up to 40MW of electricity for Los Pelambres. In August 2018, the Group disposed of its interest in El Arrayan for cash consideration of \$28.0 million, resulting in a profit on disposal of \$5.8 million.

### INVESTMENT IN JOINT VENTURES

- (iv) The Group's 50% interest in Minera Zaldívar SpA ("Zaldívar"), an open-pit, heap-leach copper mine located in Northern Chile, which produces approximately 100,000 tonnes of copper cathodes annually.
- (v) During 2018 the Group acquired the remaining 49.9% interest in Energia Andina from Origin Geothermal Chile Limitada and accordingly Energia Andina became a subsidiary of the Group during the year.
- (vi) The Group's 50% interest in Tethyan Copper Company Limited ("Tethyan"), which is a joint venture with Barrick Gold Corporation over Tethyan's mineral interest in Pakistan, which is currently subject to international arbitration. As the net carrying value of the interest in Tethyan is negative it is included within non-current liabilities, as the Group is liable for its share of the joint venture's obligations.

Summarised financial information for the associates is as follows:

	Inversiones Hornitos 2018 \$m	ATI 2018 \$m	Total 2018 \$m
Cash and cash equivalents	0.7	0.3	1.0
Current assets	38.6	11.3	49.9
Non-current assets	274.8	119.7	394.5
Current liabilities	(31.2)	(34.2)	(65.4)
Non-current liabilities	(156.6)	(82.2)	(238.8)
Revenue	151.1	46.2	197.3
Profit/(loss) from continuing operations	27.6	(0.5)	27.1
Total comprehensive income/(expense)	27.6	(0.5)	27.1

	Inversiones Hornitos 2017 \$m	ATI 2017 \$m	El Arrayan 2017 \$m	Total 2017 \$m
Cash and cash equivalents	12.6	0.8	6.0	19.4
Current assets	37.1	11.7	9.0	57.8
Non-current assets	283.5	127.6	244.0	655.1
Current liabilities	(37.2)	(31.5)	(12.0)	(80.7)
Non-current liabilities	(161.3)	(92.6)	(182.0)	(435.9)
Revenue	164.7	41.8	33.0	239.5
Profit/(loss) from continuing operations	26.5	(3.9)	0.1	24.1
Total comprehensive income/(expense)	26.5	(3.9)	0.1	24.1

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 17 INVESTMENT IN ASSOCIATES AND JOINT VENTURES CONTINUED

Summarised financial information for the joint ventures is as follows:

	Minera Zaldivar 2018 \$m	Tethyan Copper 2018 \$m	Total 2018 \$m
Cash and cash equivalent	124.0	3.2	127.2
Current assets	602.6	–	602.6
Non-current assets	1,921.0	0.2	1,921.2
Current liabilities	(102.5)	(5.1)	(107.6)
Non-current liabilities	(547.6)	(0.1)	(547.7)
Revenue	599.5	–	599.5
Profit/(loss) after tax from continuing and discontinued operations	28.4	(14.1)	14.3
Total comprehensive income/(expense)	28.4	(14.1)	14.3

	Minera Zaldivar 2017 \$m	Energía Andina 2017 \$m	Tethyan Copper 2017 \$m	Total 2017 \$m
Cash and cash equivalent	75.6	0.7	3.2	75.9
Current assets	574.3	0.1	–	572.7
Non-current assets	1,569.7	26.9	0.2	1,570.9
Current liabilities	(109.5)	(0.6)	(7.1)	(116.2)
Non-current liabilities	(114.6)	(26.9)	(0.1)	(140.7)
Revenue	654.7	–	–	649.0
Profit/(loss) after tax from continuing and discontinued operations	116.9	(0.5)	(16.3)	98.6
Total comprehensive income/(expense)	116.9	(0.5)	(16.3)	98.6

The above summarised financial information is based on the amounts included in the IFRS financial statements of the associate or joint venture (ie 100% of the results or balances of the associate or joint venture, rather than the Group's proportionate share), after the Group's fair value adjustments.

### 18 EQUITY INVESTMENTS

	2018 \$m	2017 \$m
Balance at the beginning of the year	6.5	4.6
Movement in fair value	(1.3)	1.4
Foreign currency exchange differences	(0.5)	0.5
<b>Balance at the end of the year</b>	<b>4.7</b>	<b>6.5</b>

Equity investments represent those investments which are not subsidiaries, associates or joint ventures and are not held for trading purposes. The fair value of all equity investments are based on quoted market prices.

## 19 INVENTORIES

	2018 \$m	2017 \$m
Current		
Raw materials and consumables	227.0	198.3
Work in progress	262.8	218.7
Finished goods	86.5	66.6
	<b>576.3</b>	483.6
Non-current		
Work in progress	172.7	111.1
Total	<b>749.0</b>	594.7

During 2018 a net realisable value ("NRV") adjustment of \$1.1 million has been recognised (2017 nil).

Non-current work in progress represents inventory expected to be processed more than 12 months after the balance sheet date.

## 20 TRADE AND OTHER RECEIVABLES

Trade and other receivables do not generally carry any interest, are principally short term in nature and are normally stated at their nominal value less any impairment.

	Due in one year		Due after one year		Total	
	2018 \$m	2017 \$m	2018 \$m	2017 \$m	2018 \$m	2017 \$m
Trade debtors	475.5	588.8	–	–	475.5	588.8
Other debtors	398.0	150.4	56.1	67.0	454.1	217.4
	<b>873.5</b>	739.2	56.1	67.0	<b>929.6</b>	806.2

The largest balances of trade receivables are held with equity participants in the key mining projects. Many other significant trade receivables are secured by letters of credit or other forms of security. The average credit period given on sale of goods and rendering of service is 36 days (2017 – 45 days). There is no material element which is interest-bearing. Trade debtors include mark-to-market adjustments in respect of provisionally priced sales of copper and molybdenum concentrates which remain open as to final pricing. Where these have resulted in credit balances, they have been reclassified to trade creditors. Other debtors at 31 December 2018 include a short-term VAT receivable of \$265 million, which was refunded to the Group in January 2019.

Movements in the provision for doubtful debts were as follows:

	2018 \$m	2017 \$m
Balance at the beginning of the year	(2.3)	(1.1)
Adoption of new accounting standards	(0.7)	–
Expected credit loss	(1.7)	(1.1)
Amounts written off	–	–
Unused amounts reversed	–	–
Foreign currency exchange difference	0.1	(0.1)
<b>Balance at the end of the year</b>	<b>(4.6)</b>	(2.3)

The ageing analysis of the trade and other receivables balance is as follows:

	Past due but not impaired				Total \$m
	Neither past due nor impaired \$m	Up to 3 months past due \$m	3-6 months past due \$m	More than 6 months past due \$m	
<b>2018</b>	<b>907.4</b>	16.9	0.2	5.1	<b>929.6</b>
2017	780.2	17.4	0.4	8.2	806.2

With respect to the trade receivables that are neither past due nor impaired, there are no indications that the debtors will not meet their payment obligations. The carrying value of the trade receivables recorded in the financial statements represents the Group's maximum exposure to credit risk. The Group does not hold any collateral as security.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 21 CASH, CASH EQUIVALENTS AND LIQUID INVESTMENTS

The fair value of cash, cash equivalents and liquid investments is not materially different from the carrying values presented. The credit risk on cash and cash equivalents is limited because the counterparties are banks with high credit ratings assigned by international credit rating agencies.

Cash, cash equivalents and liquid investments comprised:

	2018 \$m	2017 \$m
Cash and cash equivalents	1,034.4	1,083.6
Liquid investments	863.2	1,168.7
	<b>1,897.6</b>	<b>2,252.3</b>

At 31 December 2018 and 2017 there is no cash which is subject to restriction.

The currency exposure of cash, cash equivalents and liquid investments was as follows:

	2018 \$m	2017 \$m
US dollars	1,861.9	2,095.4
Chilean pesos	29.3	153.1
Sterling	1.2	0.8
Other	5.2	3.0
	<b>1,897.6</b>	<b>2,252.3</b>

The credit quality of cash, cash equivalents and liquid investments are as follow:

<b>Current account bank deposits and cash at bank</b>	2018 \$m	2017 \$m
AAA	1,326.8	1,260.6
AA+	22.8	8.2
AA	9.7	34.4
AA-	19.5	47.0
A+	15.6	108.8
A	128.8	10.5
A-	29.0	–
BBB+	4.6	–
BBB-	7.0	–
Subtotal	<b>1,563.8</b>	1,469.5
Cash at bank <sup>1</sup>	<b>333.8</b>	782.8
Total cash, cash equivalents and liquid investments	<b>1,897.6</b>	<b>2,252.3</b>

1. Cash at bank is held with investment grade financial institutions.

There have been no impairments recognised in respect of cash or cash equivalents as at 31 December 2018 (31 December 2017 nil)

## 22 BORROWINGS

### A) ANALYSIS BY TYPE OF BORROWING

Borrowings may be analysed by business segment and type as follows:

	Notes	2018 \$m	2017 \$m
<b>Los Pelambres</b>			
– Short-term loan	(i)	(100.0)	(242.0)
– Finance leases	(ii)	(114.1)	(44.9)
<b>Centinela</b>			
– Senior loan	(iii)	(445.1)	(596.2)
– Subordinated debt	(iv)	(207.1)	(194.2)
– Short-term loan	(v)	(200.0)	(200.0)
<b>Antucoya</b>			
– Senior loan	(vi)	(349.3)	(423.9)
– Subordinated debt	(vii)	(368.3)	(347.5)
– Short-term loan	(viii)	(75.0)	(30.0)
– Finance leases	(ix)	(35.2)	(42.6)
<b>Corporate and other items</b>			
– Senior loan	(x)	(500.1)	(497.4)
– Finance leases	(xi)	(22.1)	(26.6)
<b>Transport division</b>			
– Senior loan	(xii)	(74.2)	(59.6)
– Finance leases	(xiii)	(0.4)	(0.8)
<b>Preference shares</b>			
<b>Total</b>		<b>(2,493.9)</b>	<b>(2,708.7)</b>

- (i) The short-term loan (PAE) is US dollar denominated, comprising a working capital loan for an average period of 1 year and has an interest rate of LIBOR six-month rate plus a weighted average spread of 0.28%.
- (ii) Finance leases at Los Pelambres are US dollar denominated, with an interest of LIBOR six-month rate plus 1.7% with a remaining duration of 6 years.
- (iii) Senior loan at Centinela represents US dollar denominated syndicated loans. These loans are for a remaining duration of 1.2 years and have an interest rate of LIBOR six-month rate plus 1.0%. The loans are subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained. At 31 December 2018 we are in compliance with all covenants.
- (iv) Subordinated debt is US dollar denominated, provided to Centinela by Marubeni Corporation with a remaining duration of 3 years and a weighted average interest rate of LIBOR six-month rate plus 4.25%. Long-term subordinated debt provided by Group companies to Centinela has been eliminated on consolidation.
- (v) The short-term loan (PAE) is US dollar denominated, comprising a range of working capital loans for an average period of 1 year and with an interest rate of LIBOR six-month plus a weighted average spread of 0.18%.
- (vi) Senior loan at Antucoya represents US dollar denominated syndicated loans. These loans are for a remaining duration of 6.5 years and have an interest rate of LIBOR six-month rate plus 2.49%.
- (vii) Subordinated debt is US dollar denominated, provided to Antucoya by Marubeni Corporate with a remaining duration of 7 years and an interest rate of LIBOR six-month rate plus 3.65%. Long-term subordinated debt provided by Group companies to Antucoya has been eliminated on consolidation.
- (viii) The short-term loan are US dollar denominated, comprising a working capital loan for an average period of 1 year and has an interest rate of LIBOR six-month rate plus 0.53%.
- (ix) Finance leases at Antucoya are US dollar denominated, with a maximum remaining duration of 5 years and with an average interest rate of approximately LIBOR six-month rate plus 1.41%.
- (x) Senior loan at Corporate (Antofagasta plc) of \$500.0 million has an interest rate of LIBOR six-month rate plus 1.5%, and has a remaining duration of 2.2 years.
- (xi) Finance leases at Corporate and other items are denominated in Unidades de Fomento (ie inflation-linked Chilean pesos) and have a remaining duration of 10 years and are at fixed rates with an average interest rate of 5.29%.
- (xii) Long-term loans at Transport division are US dollar denominated, with a remaining duration of 5 years and an interest rate of LIBOR six-month rate plus 0.48%. The Group has used interest rate swaps to swap the floating rate interest for fixed rate interest. At 31 December 2018 the current notional amount hedged was \$30.0 million.
- (xiii) Finance leases at Transport division are Chilean peso denominated, with a maximum remaining duration of 1 year and with a fixed interest rate of 5.9%.
- (xiv) The preference shares are Sterling-denominated and issued by Antofagasta plc. There were 2 million shares of £1 each authorised, issued and fully paid at 31 December 2018. The preference shares are non-redeemable and are entitled to a fixed cumulative dividend of 5% per annum. On winding up they are entitled to repayment and any arrears of dividend in priority to ordinary shareholders, but are not entitled to participate further in any surplus. Each preference share carries 100 votes in any general meeting of the Company.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 22 BORROWINGS CONTINUED

#### B) ANALYSIS OF BORROWINGS BY CURRENCY

The exposure of the Group's borrowings to currency risk is as follows:

At 31 December 2018	Chilean pesos \$m	Sterling \$m	US dollars \$m	2018 Total \$m
Corporate loans	–	–	(1,368.7)	(1,368.7)
Other loans (including short-term loans)	–	–	(950.4)	(950.4)
Finance leases	(114.8)	–	(57.0)	(171.8)
Preference shares	–	(3.0)	–	(3.0)
	<b>(114.8)</b>	<b>(3.0)</b>	<b>(2,376.1)</b>	<b>(2,493.9)</b>

At 31 December 2017	Chilean pesos \$m	Sterling \$m	US dollars \$m	2017 Total \$m
Corporate loans	–	–	(1,577.1)	(1,577.1)
Other loans (including short-term loans)	–	–	(1,013.7)	(1,013.7)
Finance leases	(27.4)	–	(87.5)	(114.9)
Preference shares	–	(3.0)	–	(3.0)
	<b>(27.4)</b>	<b>(3.0)</b>	<b>(2,678.3)</b>	<b>(2,708.7)</b>

#### C) ANALYSIS OF BORROWINGS BY TYPE OF INTEREST RATE

The exposure of the Group's borrowings to interest rate risk is as follows:

At 31 December 2018	Fixed \$m	Floating \$m	2018 Total \$m
Corporate loans	–	(1,368.7)	(1,368.7)
Other loans (including short-term loans)	–	(950.4)	(950.4)
Finance leases	(103.1)	(68.7)	(171.8)
Preference shares	(3.0)	–	(3.0)
	<b>(106.1)</b>	<b>(2,387.8)</b>	<b>(2,493.9)</b>

At 31 December 2017	Fixed \$m	Floating \$m	2017 Total \$m
Corporate loans	–	(1,577.1)	(1,577.1)
Other loans (including short-term loans)	–	(1,013.7)	(1,013.7)
Finance leases	(27.4)	(87.5)	(114.9)
Preference shares	(3.0)	–	(3.0)
	<b>(30.4)</b>	<b>(2,678.3)</b>	<b>(2,708.7)</b>

The above floating rate corporate loans include the long-term loans at the Transport division segment, where the Group has used interest rate swaps to swap the floating rate interest for fixed rate interest. At 31 December 2018 the current notional amount hedged of the long-term loans at the Transport division segment was \$30.0 million (2017 – \$60.0 million).

## D) MATURITY PROFILE

The maturity profile of the Group's borrowings is as follows:

At 31 December 2018	Within 1 year \$m	Between 1-2 years \$m	Between 2-5 years \$m	After 5 years \$m	2018 Total \$m
Corporate loans	(232.2)	(225.5)	(833.9)	(77.1)	(1,368.7)
Other loans	(375.0)	–	–	(575.4)	(950.4)
Finance leases	(38.8)	(26.3)	(94.4)	(12.3)	(171.8)
Preference shares	–	–	–	(3.0)	(3.0)
	<b>(646.0)</b>	<b>(251.8)</b>	<b>(928.3)</b>	<b>(667.8)</b>	<b>(2,493.9)</b>

At 31 December 2017	Within 1 year \$m	Between 1-2 years \$m	Between 2-5 years \$m	After 5 years \$m	2017 Total \$m
Corporate loans	(260.2)	(230.9)	(471.6)	(614.4)	(1,577.1)
Other loans	(472.0)	–	–	(541.7)	(1,013.7)
Finance leases	(21.4)	(26.9)	(45.4)	(21.2)	(114.9)
Preference shares	–	–	–	(3.0)	(3.0)
	<b>(753.6)</b>	<b>(257.8)</b>	<b>(517.0)</b>	<b>(1,180.3)</b>	<b>(2,708.7)</b>

The amounts included above for finance leases are based on the present value of minimum lease payments.

The total minimum lease payments for these finance leases may be analysed as follows:

	2018 \$m	2017 \$m
Within 1 year	(44.3)	(24.7)
Between 1 – 2 years	(32.4)	(30.0)
Between 2 – 5 years	(103.5)	(50.6)
After 5 years	(13.6)	(23.4)
Total minimum lease payments	(193.8)	(128.7)
Less amounts representing finance charges	22.0	13.8
Present value of minimum lease payments	(171.8)	(114.9)

All leases are on a fixed payment basis and no arrangements have been entered into for contingent rental payments.

## 23 TRADE AND OTHER PAYABLES

	Due in one year		Due after one year		Total
	2018 \$m	2017 \$m	2018 \$m	2017 \$m	2018 \$m
Trade creditors	(463.7)	(515.1)	–	–	(463.7)
Other creditors and accruals	(144.6)	(93.9)	(7.7)	(7.4)	(152.3)
	<b>(608.3)</b>	<b>(609.0)</b>	<b>(7.7)</b>	<b>(7.4)</b>	<b>(616.0)</b>
					(616.4)

Trade creditors and accruals principally comprise amounts outstanding for trade purchases and ongoing costs. Other creditors are mainly related to property plant and equipment payables, finance interest and employee retentions.

The average credit period taken for trade purchases is 26 days (2017 – 30 days).

At 31 December 2018, the other creditors and accruals include \$24.0 million (2017 – \$9.1 million) relating to prepayments.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 24 FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT

#### A) CATEGORIES OF FINANCIAL INSTRUMENTS

The carrying value of financial assets and financial liabilities is shown below:

				2018
	At fair value through profit and loss	At fair value through other comprehensive income	Held at amortised cost	Total
<b>Financial assets</b>				
Derivative financial assets	0.8	–	–	0.8
Equity investments	–	4.7	–	4.7
Loans and receivables	510.2	–	19.4	929.6
Cash and cash equivalents	–	–	1,034.4	1,034.4
Liquid investments	863.2	–	–	863.2
	<b>1,374.2</b>	<b>4.7</b>	<b>1,453.8</b>	<b>2,832.7</b>

				2018
	At fair value through profit and loss	Available-for-sale	Held at amortised cost	Total
<b>Financial liabilities</b>				
Derivative financial liabilities	–	–	–	–
Trade and other payables	(34.5)	–	(581.5)	(616.0)
Borrowings and leases	–	–	(2,493.9)	(2,493.9)
	<b>(34.5)</b>	<b>–</b>	<b>(3,075.4)</b>	<b>(3,109.9)</b>

				2017
	At fair value through profit and loss	Available-for-sale	Held at amortised cost	Total
<b>Financial assets</b>				
Derivative financial assets	0.3	–	–	0.3
Equity investments	–	6.5	–	6.5
Loans and receivables	83.5	–	722.7	806.2
Cash and cash equivalents	–	–	1,083.6	1,083.6
Liquid investments	1,168.7	–	–	1,168.7
	<b>1,252.5</b>	<b>6.5</b>	<b>1,806.3</b>	<b>3,065.3</b>
<b>Financial liabilities</b>				
Derivative financial liabilities	(7.1)	–	–	(7.1)
Trade and other payables	–	–	(612.3)	(612.3)
Borrowings and leases	–	–	(2,712.8)	(2,712.8)
	<b>(7.1)</b>	<b>–</b>	<b>(3,325.1)</b>	<b>(3,332.2)</b>

#### B) FAIR VALUE OF FINANCIAL INSTRUMENTS

	Level 1 \$m	Level 2 \$m	Level 3 \$m	Total 2018 \$m
<b>Financial assets</b>				
Derivative financial assets (a)	–	0.8	–	0.8
Equity investments (b)	4.7	–	–	4.7
Loans and receivables (c)	–	510.2	–	510.2
Liquid investment (d)	863.2	–	–	863.2
	<b>867.9</b>	<b>511.0</b>	–	<b>1,378.9</b>
<b>Financial liabilities</b>				
Derivative financial liabilities (a)	–	–	–	–
Trade and other payables	–	(34.5)	–	(34.5)
	<b>–</b>	<b>(34.5)</b>	–	<b>(34.5)</b>

	Level 1 \$m	Level 2 \$m	Level 3 \$m	Total 2017 \$m
<b>Financial assets</b>				
Derivative financial assets (a)	-	0.3	-	0.3
Equity investments (b)	6.5	-	-	6.5
Loans and receivables (c)	-	83.5	-	83.5
Liquid investment (d)	1,168.7	-	-	1,168.7
	1,175.2	83.8	-	1,259.0
<b>Financial liabilities</b>				
Derivative financial liabilities (a)	-	(7.1)	-	(7.1)
Trade and other payables	-	-	-	-
	-	(7.1)	-	(7.1)

Recurring fair value measurements are those that are required in the balance sheet at the end of each reporting year.

(a) Derivatives in designated hedge accounting relationships are valued using a discounted cash flow analysis valuation model, which includes observable credit spreads and using the applicable yield curve for the duration of the instruments for non-optional derivatives, and option pricing models for optional derivatives. These are level 2 inputs as described below. Hedging instruments relate to cathodes options outstanding at 31 December 2018 with a nominal amount of \$7.0 million.

(b) Equity investments are investments in shares on active markets and are valued using unadjusted quoted market values of the shares at the financial reporting date. These are level 1 inputs as described below.

(c) Provisionally priced metal sales for the period are marked-to-market at the end of the period. Gains and losses from the marking-to-market of open sales are recognised through adjustments to revenue in the income statement and trade receivables in the balance sheet. Forward prices at the end of the period are used for copper sales while period-end average prices are used for molybdenum concentrate sales. These are level 2 inputs as described below.

(d) Liquid investments are highly liquid current asset investments that are valued using market prices at the period end. These are level 1 inputs as described below.

The inputs to the valuation techniques described above are categorised into three levels, giving the highest priority to unadjusted quoted prices in active markets (level 1) and the lowest priority to unobservable inputs (level 3 inputs):

- Level 1 fair value measurement inputs are unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2 fair value measurement inputs are derived from inputs other than quoted market prices included in level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 fair value measurement inputs are unobservable inputs for the asset or liability.

The degree to which inputs into the valuation techniques used to measure the financial assets and liabilities are observable and the significance of these inputs in the valuation are considered in determining whether any transfers between levels have occurred. In the year ended 31 December 2018, there were no transfers between levels in the hierarchy.

## C FINANCIAL RISK MANAGEMENT

The Group's activities expose it to a variety of financial risks: market risk (including commodity price risk, currency risk, interest rate risk and other price risk), credit risk and liquidity risk. The Group periodically uses derivative financial instruments, to reduce its exposure to commodity price, foreign exchange and interest rate movements. The Group does not use such derivative instruments for speculative trading purposes.

The Board of Directors is responsible for overseeing the Group's risk management framework. The Audit and Risk Committee assists the Board with its review of the effectiveness of the risk management process, and monitoring of key risks and mitigations. The Internal Audit department undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the Audit and Risk Committee.

### (I) COMMODITY PRICE RISK

The Group generally sells its copper and molybdenum concentrate and copper cathode output at prevailing market prices, subject to final pricing adjustments which normally range from one to four months after delivery to the customer, and it is therefore exposed to changes in market prices for copper and molybdenum both in respect of future sales and previous sales, which remain open as to final pricing. In 2018, sales of copper and molybdenum concentrate and copper cathodes represented 90.1% of Group revenue and therefore revenues and earnings depend significantly on LME and realised copper prices.

The Group periodically uses futures and min-max options to manage its exposure to copper prices. These instruments may give rise to accounting volatility due to fluctuations in their fair value prior to the maturity of the instruments. Details of those copper and molybdenum concentrate sales and copper cathode sales, which remain open as to final pricing, are given in Note 6. Details of commodity rate derivatives entered into by the Group are given in Note 24(D).

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 24 FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT CONTINUED

#### Commodity price sensitivity

The sensitivity analysis below shows the impact of a movement in the copper price on the financial instruments held as at the reporting date. A movement in the copper market price as at the reporting date will affect the final pricing adjustment to sales that remain open at that date, impacting the trade receivables balance and consequently the income statement. A movement in the copper market price will also affect the valuation of commodity derivatives, impacting the hedging reserve in equity if the fair value movement relates to an effective designated cash flow hedge, and impacting the income statement if it does not. The calculation assumes that all other variables, such as currency rates, remain constant.

- If the copper market price as at the reporting date had increased by 10 c/lb, profit attributable to the owners of the parent would have increased by \$46.9 million (2017 – increase by \$16.8 million).
- If the copper market price as at the reporting date had decreased by 10 c/lb, profit attributable to the owners of the parent would have decreased by \$47.0 million (2017 – decrease by \$16.9 million). In addition, a movement in the average copper price during the year would impact revenue and earnings. A 10 c/lb change in the average copper price during the year would have affected profit attributable to the owners of the parent by \$80.0 million (2017 – \$67.0 million) and earnings per share by 8.1 cents (2017 – 6.8 cents), based on production volumes in 2018, without taking into account the effects of provisional pricing and hedging activity. A \$1/lb change in the average molybdenum price for the year would have affected profit attributable to the owners of the parent by \$12.0 million (2017 – \$9.8 million), and earnings per share by 1.2 cents (2017 – 1.0 cents), based on production volumes in 2018, and without taking into account the effects of provisional pricing. A \$100/oz change in the average gold price for the year would have affected profit attributable to the owners of the parent by \$6.7 million (2017 – \$9.4 million), and earnings per share by 0.7 cents (2017 – 1.0 cents), based on production volumes in 2018, and without taking into account the effects of provisional pricing.

#### (II) CURRENCY RISK

The Group is exposed to a variety of currencies. The US dollar, however, is the currency in which the majority of the Group's sales are denominated. Operating costs are influenced by the countries in which the Group's operations are based (principally in Chile) as well as those currencies in which the costs of imported goods and services are determined. After the US dollar, the Chilean peso is the most important currency influencing costs and to a lesser extent sales.

Given the significance of the US dollar to the Group's operations, this is the presentational currency of the Group for internal and external reporting. The US dollar is also the currency for borrowing and holding surplus cash, although a portion of this may be held in other currencies, notably Chilean pesos and Sterling, to meet short-term operating and capital commitments and dividend payments.

When considered appropriate, the Group uses forward exchange contracts and currency swaps to limit the effects of movements in exchange rates in foreign currency denominated assets and liabilities. The Group may also use these instruments to reduce currency exposure on future transactions and cash flows. Details of any exchange rate derivatives entered by the Group in the year are given in Note 24(D).

The currency exposure of the Group's cash, cash equivalents and liquid investments is given in Note 21, and the currency exposure of the Group's borrowings is given in Note 22(B). The effects of exchange gains and losses included in the income statement are given in Note 9. Exchange differences on translation of the net assets of entities with a functional currency other than the US dollar are taken to the currency translation reserve and are disclosed in the Consolidated Statement of Changes in Equity on page 148.

#### Currency sensitivity

The sensitivity analysis below shows the impact of a movement in the US dollar/Chilean peso exchange rate on the financial instruments held as at the reporting date.

The impact on profit or loss is as a result of the retranslation of monetary financial instruments (including cash, cash equivalents, liquid investments, trade receivables, trade payables and borrowings). The impact on equity is as a result of changes in the fair value of derivative instruments which are effective designated cash flow hedges, and changes in the fair value of equity investments. The calculation assumes that all other variables, such as interest rates, remain constant.

If the US dollar had strengthened by 10% against the Chilean peso as at the reporting date, profit attributable to the owners of the parent would have increased by \$5.8 million (2017 – decrease of \$9.2 million). If the US dollar had weakened by 10% against the Chilean peso as at the reporting date, profit attributable to the owners of the parent would have decreased by \$7.2 million (2017 – increase of \$11.4 million).

#### (III) INTEREST RATE RISK

The Group's policy is generally to borrow and invest cash at floating rates. Fluctuations in interest rates may impact the Group's net finance income or cost, and to a lesser extent the value of financial assets and liabilities. The Group occasionally uses interest rate swaps and collars to manage interest rate exposures on a portion of its existing borrowings. Details of any interest rate derivatives entered into by the Group are given in Note 24(D).

The Interest rate exposure of the Group's borrowings is given in Note 22.

#### Interest rate sensitivity

The sensitivity analysis below shows the impact of a movement in interest rates in relation to the financial instruments held as at the reporting date. The impact on profit or loss reflects the impact on annual interest expense in respect of the floating rate borrowings held as at the reporting date, and the impact on annual interest income in respect of cash and cash equivalents held as at the reporting date. The impact on equity is as a result of changes in the fair value of derivative instruments which are effective designated cash flow hedges. The calculation assumes that all other variables, such as currency rates, remain constant.

If the interest rate increased by 1%, based on the financial instruments held as at the reporting date, profit attributable to the owners of the parent would have decreased by \$2.1 million (2017 – increase of \$0.3 million). This does not include the effect on the income statement of changes in the fair value of the Group's liquid investments relating to the underlying investments in fixed income instruments.

#### **(IV) OTHER PRICE RISK**

The Group is exposed to equity price risk on its equity investments.

##### **Equity price sensitivity**

The sensitivity analysis below shows the impact of a movement in the equity values of the equity investment financial assets held as at the reporting date.

If the value of the equity investments had increased by 10% as at the reporting date, equity would have increased by \$0.5 million (2017 – increase of \$0.7 million). There would have been no impact on the income statement.

#### **(V) CASH FLOW RISK**

The Group's future cash flows depend on a number of factors, including commodity prices, production and sales levels, operating costs, capital expenditure levels, and financial income and costs. Its cash flows are therefore subject to the exchange, interest rate and commodity price risks described above as well as operating factors and input costs. To reduce the risk of potential short-term disruptions to the supply of key inputs such as electricity and sulphuric acid, the Group enters into medium and long-term supply contracts to help ensure continuity of supply. Long-term electricity supply contracts are in place at each of the Group's mines, in most cases linking the cost of electricity under the contract to the current cost of electricity on the Chilean grid or the generation cost of the supplier. The Group seeks to lock in supply of sulphuric acid for future periods of a year or longer, with contract prices agreed in the latter part of the year, to be applied to purchases of acid in the following year. Further information on production and sales levels and operating costs are given in the Operating review on pages 56 to 69.

#### **(VI) CREDIT RISK**

Credit risk arises from trade and other receivables, cash, cash equivalents, liquid investments and derivative financial instruments. The Group's credit risk is primarily to trade receivables. The credit risk on cash, cash equivalents and liquid investments and on derivative financial instruments is limited as the counterparties are financial institutions with high credit ratings assigned by international credit agencies.

The largest balances of trade receivables are held with equity participants in the key mining projects. Many other significant trade receivables are secured by letters of credit or other forms of security. All customers are subject to credit review procedures, including the use of external credit ratings where available. Credit is provided only within set limits, which are regularly reviewed. The main customers are recurrent with a good credit history during the years while they have been customers.

Outstanding receivable balances are monitored on an ongoing basis.

The carrying value of financial assets recorded in the financial statements represents the maximum exposure to credit risk. The amounts presented in the balance sheet are net of allowances for any doubtful receivables (Note 20).

The Group review of the expected credit loss of employee receivables which mainly considered the recovery rate of receivables due from former employees. The expected credit losses of the other non-trade receivables are immaterial to the Group.

#### **(VII) LIQUIDITY RISK**

The Group manages liquidity risk by maintaining adequate cash reserves and financing facilities, through the review of forecast and actual cash flows.

The Group typically holds surplus cash in demand or term deposits or highly liquid investments, which typically can be accessed or liquidated within 24 hours.

The majority of borrowings comprise a short-term loan at Los Pelambres, Centinela and Antucoya, repayable over a period of up to 1 year, project financing (senior debt) at Centinela, repayable over approximately 1 year, project financing (senior debt) at Antucoya repayable over approximately 6.5 years, long-term subordinated debt at Antucoya repayable over approximately 7 years, and a corporate loan at Antofagasta plc repayable over approximately 2.2 years. The loans are subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained.

At the end of 2018 the Group was in a net debt position (2017 – net debt position), as disclosed in Note 31(C). Details of cash, cash equivalents and liquid investments are given in Note 21, while details of borrowings including the maturity profile are given in Note 22(D). Details of undrawn committed borrowing facilities are also given in Note 22.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 24 FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT CONTINUED

The following table analyses the maturity of the Group's contractual commitments in respect of its financial liabilities and derivative financial instruments. The table has been drawn up based on the undiscounted cash flows on the earliest date on which the Group can be required to pay. The table includes both interest and principal cash flows.

At 31 December 2018	Less than 6 months \$m	Between 6 months to 1 year \$m	Between 1-2 years \$m	After 2 years \$m	2018 Total \$m
Corporate loans	(156.3)	(137.5)	(263.1)	(954.6)	(1,511.5)
Other loans (including short-term loans)	(158.4)	(220.8)	–	(575.4)	(954.6)
Finance leases	(27.7)	(16.1)	(32.4)	(117.1)	(193.3)
Preference shares*	–	–	(3.0)	–	(3.0)
Trade and other payables	(607.0)	(1.3)	(7.7)	–	(616.0)
	<b>(949.4)</b>	<b>(375.2)</b>	<b>(306.3)</b>	<b>(1,647.6)</b>	<b>(3,278.4)</b>

At 31 December 2017	Less than 6 months \$m	Between 6 months to 1 year \$m	Between 1-2 years \$m	After 2 years \$m	2017 Total \$m
Corporate loans	(205.8)	(102.6)	(274.8)	(1,157.7)	(1,740.9)
Other loans (including short-term loans)	(191.5)	(285.4)	–	(871.3)	(1,348.2)
Finance leases	(11.2)	(11.2)	(29.8)	(73.8)	(126.0)
Preference shares*	–	–	(3.0)	–	(3.0)
Trade and other payables	(606.1)	(2.8)	(6.1)	(1.4)	(616.4)
Derivative financial instruments	(1.5)	(5.5)	(0.1)	–	(7.1)
	<b>(1,016.1)</b>	<b>(407.5)</b>	<b>(313.8)</b>	<b>(2,104.2)</b>	<b>(3,841.6)</b>

\* The preference shares pay an annual dividend of £100,000 in perpetuity, and accordingly it is not possible to determine total amounts payable for periods without a fixed end date.

#### (VIII) CAPITAL RISK MANAGEMENT

The Group's objectives are to return capital to shareholders while leaving the Group with sufficient funds to progress its short, medium and long-term growth plans as well as preserving the financial flexibility to take advantage of opportunities as they may arise. This policy remains unchanged.

The Group monitors capital on the basis of net cash (defined as cash, cash equivalents and liquid investments less borrowings) which was a net debt of \$596.3 million at 31 December 2018 (2017 – net debt \$456.4 million), as well as gross cash (defined as cash, cash equivalents and liquid investments) which was \$1,897.6 million at 31 December 2018 (2017 – \$2,252.3 million). The Group's total cash is held in a combination of on demand and term deposits and managed funds investing in high quality, fixed income instruments. Some of the managed funds have been instructed to invest in instruments with average maturities greater than 90 days. These amounts are presented as liquid investments but are included in net cash for monitoring and decision-making purposes. The Group has a risk averse investment strategy. The Group's borrowings are detailed in Note 22. Additional project finance or shareholder loans are taken out by the operating subsidiaries to fund projects on a case-by-case basis.

## 24 FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT CONTINUED

### D) DERIVATIVE FINANCIAL INSTRUMENTS

The Group periodically uses derivative financial instruments, to reduce its exposure to commodity price, foreign exchange and interest rate movements. The Group does not use such derivative instruments for speculative trading purposes.

The Group has applied the hedge accounting provisions of IFRS 9 "Financial Instruments". Changes in the fair value of derivative financial instruments that are designated and effective as hedges of future cash flows have been recognised directly in equity, with such amounts subsequently recognised in the income statement in the period when the hedged item affects profit or loss. Any ineffective portion is recognised immediately in the income statement. Realised gains and losses on commodity derivatives recognised in the income statement have been recorded within revenue. The time value element of changes in the fair value of derivative options is recognised within other comprehensive income. Realised gains and losses and changes in the fair value of exchange and interest derivatives are recognised within other finance items for those derivatives where hedge accounting has not been applied. When hedge accounting has been applied the realised gains and losses on exchange and interest derivatives are recognised within other finance items and interest expense respectively.

## 25 LONG-TERM INCENTIVE PLAN

The long-term incentive plan (the "Plan") was introduced at the end of 2011. Awards granted pursuant to the Plan form part of the remuneration of senior managers in the Group. Directors are not eligible to participate in the Plan.

### DETAILS OF THE AWARDS

Under the Plan, the Group may grant awards based on the price of ordinary shares in the Company and cannot grant awards over actual shares.

- Restricted Awards: These awards are conditional rights to receive cash payment by reference to a specified number of the Company's ordinary shares, subject to the relevant employee remaining employed by the Group when the Restricted Award vests; and
- Performance Awards: These awards are conditional rights to receive cash payment by reference to a specified number of the Company's ordinary shares subject to both the satisfaction of a performance condition and the relevant employee remaining employed by the Group when the Performance Award vests.

When awards vest under the Plan, participants become entitled to receive a cash payment by reference to the number and portion of awards that have vested and the market value of the Company's ordinary shares on the date of vesting. There is no exercise price payable by participants in respect of the awards.

Restricted Awards can only vest in full if participants remain employed by the Group for three years from the date that Restricted Awards are granted. In ordinary circumstances, the first one-third of a Restricted Award will vest after one year, the second one-third will vest after two years and the remaining one-third will vest after three years. There are no performance criteria attached to Restricted Awards. The fair value of Restricted Awards granted under the Plan is recorded as a compensation expense over the vesting periods, with a corresponding liability recognised for the fair value of the liability at the end of each period until settled.

Performance Awards only vest if certain performance criteria are met. The performance criteria reflect a number of factors including total shareholder return, earnings levels, growth in the Group's reserves and resources and project delivery targets. The fair value of Performance Awards under the Plan is recorded as a compensation expense over the vesting period, with a corresponding liability at the end of each period until settled.

### VALUATION PROCESS AND ACCOUNTING FOR THE AWARDS

The fair value of the awards is determined using a Monte Carlo simulation model. The inputs into the Monte Carlo simulation model are as follows:

	2018	2017
Weighted average forecast share price at vesting date	\$10.2	\$9.20
Expected volatility	34.02%	25.60%
Expected life of awards	3 years	3 years
Expected dividend yields	4.38%	2.18%
Discount rate	2.18%	1.19%

Expected volatility was determined by calculating the historical volatility of the Group's share price over the previous five years. The expected life of awards used in the model has been adjusted based on management's best estimate for the effects of non-transferability and compliance of the objectives determined according to the characteristic of each plan.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 25 LONG-TERM INCENTIVE PLAN CONTINUED

The number of awards outstanding at the end of the year is as follows:

	Restricted Awards	Performance Awards
Outstanding at 1 January 2018	506,517	1,438,554
Granted during the year	296,030	496,962
Cancelled during the year	(25,642)	(55,212)
Payments during the year	(271,801)	(365,261)
Outstanding at 31 December 2018	505,104	1,515,043
Number of awards that have vested	308,675	-

The Group has recorded a liability for \$9.1 million at 31 December 2018, of which \$4.1 million is due after more than one year (31 December 2017 – \$11.4 million of which \$5.9 million was due after more than one year) and total expenses of \$3.9 million for the year (2017 – expense of \$10.1 million). The intrinsic value is \$9.1 million.

### 26 POST-EMPLOYMENT BENEFIT OBLIGATIONS

#### A) DEFINED CONTRIBUTION SCHEMES

The Group operates defined contribution schemes for a limited number of employees. The amount charged to the income statement in 2018 was \$0.5 million (2017 – \$0.1 million), representing the amount paid in the year. There were no outstanding amounts which remain payable at the end of either year.

#### B) SEVERANCE PROVISIONS

Employment terms at some of the Group's operations provide for payment of a severance payment when an employment contract comes to an end. This is typically at the rate of one month for each year of service (subject in most cases to a cap as to the number of qualifying years of service) and based on final salary level. The severance payment obligation is treated as an unfunded defined benefit plan, and the obligation recognised is based on valuations performed by an independent actuary using the projected unit credit method, which are regularly updated. The obligation recognised in the balance sheet represents the present value of the severance payment obligation. Actuarial gains and losses are immediately recognised in other comprehensive income.

The most recent valuation was carried out in 2018 by Ernst & Young, a qualified actuary in Santiago, Chile who is not connected with the Group.

The main assumptions used to determine the actuarial present value of benefit obligations were as follows:

	2018	2017
Average nominal discount rate	5.0%	4.9%
Average rate of increase in salaries	1.5%	1.5%
Average staff turnover	6.0%	6.5%

Amounts included in the income statement in respect of severance provisions are as follows:

	2018 \$m	2017 \$m
Current service cost (charge to operating profit)	(18.7)	(31.9)
Interest cost (charge to interest expenses)	(5.0)	(4.5)
Foreign exchange charge to other finance items	13.0	(8.1)
<b>Total charge to income statement</b>	<b>(10.7)</b>	<b>(44.5)</b>

Movements in the present value of severance provisions were as follows:

	2018 \$m	2017 \$m
Balance at the beginning of the year	(114.0)	(92.2)
Current service cost	(18.7)	(31.9)
Actuarial gains	3.9	5.7
Interest cost	(5.0)	(4.5)
Paid in the year	13.4	17.0
Foreign currency exchange difference	13.0	(8.1)
<b>Balance at the end of the year</b>	<b>(107.4)</b>	<b>(114.0)</b>

## ASSUMPTIONS DESCRIPTION

### Discount rate

	31 December 2018	31 December 2017
Nominal discount rate	4.99%	4.87%
Reference rate name	<b>20-year Chilean Central Bank Bonds</b>	20-year Chilean Central Bank Bonds
Governmental or corporate rate	<b>Governmental</b>	Governmental
Reference rating	<b>AA-/AA+</b>	AA-/AA+
Corresponds to an Issuance market (primary) or secondary market	<b>Secondary</b>	Secondary
Issuance currency associated to the reference rate	<b>Chilean peso</b>	Chilean peso
Date of determination of the reference interest rate	<b>14 November 2018</b>	27 November 2017
Source of the reference interest rate	<b>Bloomberg</b>	Bloomberg

The discount rate is the interest rate used to discount the estimated future severance payments to their present value. The table above shows the principal instruments and assumptions utilised in determining the discount rate.

### Rate of increase in salaries

This represents the estimated average rates of future salary increases, reflecting likely future promotions and other changes. This has been based on historical information for the Group for the period from 2014 to 2018.

### Turnover rate

This represents the estimated average level of future employee turnover. This has been based on historical information for the Group for the period from 2014 to 2018.

### Sensitivity analysis

Significant actuarial assumptions for the determination of the defined obligation are discount rate, expected salary increase and staff turnover. The sensitivity analysis below has been determined based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period, while holding all other assumptions constant.

- If the discount rate is 100 basis points higher the defined benefit obligation would decrease by \$7.0 million. If the discount rate is 100 basis points lower the defined benefit obligation would increase by \$8.1 million.
- If the expected salary growth increases by 1% the defined benefit obligation would increase by \$6.0 million. If the expected salary growth decreases by 1% the defined benefit obligation would decrease by \$5.8 million.

If the staff turnover increases by 1% the defined benefit obligation would decrease by less than \$0.1 million. If the staff turnover decreases by 1% the defined benefit obligation would increase by less than \$1.8 million.

## 27 DEFERRED TAX ASSETS AND LIABILITIES

	Accelerated capital allowances \$m	Temporary differences on provisions \$m	Withholding tax \$m	Short-term differences \$m	Mining tax (Royalty) \$m	Tax losses \$m	Total \$m
<b>At 1 January 2017</b>	<b>(984.6)</b>	220.6	(11.3)	56.7	(80.2)	0.7	<b>(798.1)</b>
(Charge)/credit to income	(2.7)	(99.1)	–	2.1	(24.1)	–	<b>(123.8)</b>
Reclassification	–	(1.8)	–	–	–	–	<b>(1.8)</b>
Charge deferred in equity	–	(1.8)	–	0.5	–	–	<b>(1.3)</b>
<b>At 1 January 2018</b>	<b>(987.3)</b>	<b>117.9</b>	<b>(11.3)</b>	<b>59.3</b>	<b>(104.3)</b>	<b>0.7</b>	<b>(925.0)</b>
(Charge)/credit to income	(70.0)	71.4	–	(15.6)	(4.6)	(0.4)	<b>(19.2)</b>
Charge deferred in equity	–	0.9	–	(1.6)	0.7	–	–
Reclassifications	–	–	–	(2.1)	–	–	<b>(2.1)</b>
<b>At 31 December 2018</b>	<b>(1,057.3)</b>	<b>190.2</b>	<b>(11.3)</b>	<b>40.0</b>	<b>(108.2)</b>	<b>0.3</b>	<b>(946.3)</b>

The charge to the income statement of \$19.2 million (2017 – \$123.8 million) includes a credit for foreign exchange differences of \$0.1 million (2017 – includes a credit of \$0.1million).

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 27 DEFERRED TAX ASSETS AND LIABILITIES CONTINUED

Certain deferred tax assets and liabilities have been offset. Deferred tax assets and liabilities are offset where the Group has a legally enforceable right to do so. The following is the analysis of the deferred tax balance (after offset):

	2018 \$m	2017 \$m
Deferred tax assets	37.2	69.1
Deferred tax liabilities	(983.5)	(994.1)
Net deferred tax balances	(946.3)	(925.0)

At 31 December 2018, the Group had unused tax losses of \$207.1 million (2017 – \$86.1 million) available for offset against future profits. A deferred tax asset of \$0.3 million has been recognised in respect of \$1.1 million of these losses as at 31 December 2018 (31 December 2017 – \$0.7 million in respect of \$2.6 million of the losses). No deferred tax asset has been recognised in respect of the remaining \$206.0 million of tax losses (2017 – \$83.5 million of tax losses). These losses may be carried forward indefinitely.

At 31 December 2018 deferred withholding tax liabilities of \$11.3 million have been recognised (31 December 2017 – \$11.3 million) which relate to undistributed earnings of subsidiaries where it is considered likely that the corresponding profits will be distributed in the foreseeable future. The value of the remaining undistributed earnings of subsidiaries, for which deferred tax liabilities have not been recognised, because the Group is in a position to control the timing of the distributions and it is likely that distributions will not be made in the foreseeable future, was \$5,080 million (31 December 2017 – \$5,303.4 million).

Temporary differences arising in connection with interests in associates are insignificant.

The deferred tax balance of \$946.3 million (2017 – \$925.0 million) includes \$967.1 million (2017 – \$1,041.2 million) due in more than one year. All amounts are shown as non-current on the face of the balance sheet as required by IAS 12 Income Taxes.

### 28 DECOMMISSIONING AND RESTORATION PROVISIONS

	2018 \$m	2017 \$m
Balance at the beginning of the year	(433.0)	(392.1)
Charge to operating profit in the year	(14.8)	(39.8)
Unwind of discount to net interest in the year	(7.6)	(7.2)
Capitalised adjustment to provision	24.0	3.5
Reclassification	–	0.1
Utilised in year	21.6	2.6
Foreign currency exchange difference	–	(0.1)
<b>Balance at the end of the year</b>	<b>(409.8)</b>	<b>(433.0)</b>

Decommissioning and restoration costs relate to the Group's mining operations. Costs are estimated on the basis of a formal closure plan and are subject to regular independent formal review. It is estimated that the provision will be utilised from 2024 until 2064 based on current mine plans.

### 29 SHARE CAPITAL AND OTHER RESERVES

#### (I) SHARE CAPITAL

The ordinary share capital of the Company is as follows:

	2018 Number	2017 Number	2018 \$m	2017 \$m
<b>Authorised</b>				
Ordinary shares of 5p each	1,300,000,000	1,300,000,000	118.9	118.9
<b>Issued and fully paid</b>				
Ordinary shares of 5p each	985,856,695	985,856,695	89.8	89.8

The Company has one class of ordinary shares which carry no right to fixed income. Each ordinary share carries one vote at any general meeting.

There were no changes in the authorised or issued share capital of the Company in either 2017 or 2018. Details of the Company's preference share capital, which is included within borrowings in accordance with IAS 32 Financial Instruments, are given in Note 22A(xiv).

### (II) OTHER RESERVES AND RETAINED EARNINGS

Details of the share premium account, hedging, fair value and translation reserves and retained earnings for both 2018 and 2017 are included within the consolidated statement of changes in equity on page 148.

	2018 \$m	2017 \$m
<b>Hedging reserves<sup>1</sup></b>		
At 31 December 2017/2016	(0.4)	(8.8)
Adoption of new accounting standards	(5.8)	–
At 1 January	(6.2)	(8.8)
Parent and subsidiaries net cash flow hedge fair value gains/(losses)	5.5	(16.8)
Parent and subsidiaries net cash flow hedge (gains)/losses transferred to the income statement	(0.4)	18.0
Reclassification <sup>2</sup>	–	8.0
Tax on the above	–	(0.8)
At 31 December	(1.1)	(0.4)
<b>Equity investment revaluation reserve<sup>3</sup></b>		
At 1 January	(9.8)	(11.2)
(Losses) / Gains on equity investment	(1.3)	1.4
At 31 December	(11.1)	(9.8)
<b>Foreign currency translation reserves<sup>4</sup></b>		
At 1 January	(2.3)	(2.3)
Currency translation reclassified on disposal	–	–
At 31 December	(2.3)	(2.3)
<b>Total other reserves per balance sheet</b>	<b>(14.5)</b>	<b>(12.5)</b>
<b>Retained earnings</b>		
At 1 January	7,041.9	6,548.6
Adoption of new accounting standards	1.1	–
Parent and subsidiaries' profit for the period	521.5	690.9
Equity accounted units' profit/(loss) after tax for the period	22.2	59.7
Actuarial gains <sup>5</sup>	3.3	5.8
Transfer to non-controlling interest <sup>6</sup>	(38.2)	–
Reclassification <sup>2</sup>	–	(9.6)
Tax relating to components of other comprehensive income	–	(1.1)
<b>Total comprehensive income for the year</b>	<b>7,551.8</b>	<b>7,294.3</b>
Dividends paid	(466.9)	(252.4)
<b>At 31 December</b>	<b>7,084.9</b>	<b>7,041.9</b>

1. The hedging reserve records gains or losses on cash flow hedges that are recognised initially in equity (through other comprehensive income), as described in Note 24.

2. Mainly compromises an \$8.0 million reclassification between the hedging reserve and retained earnings in the prior year.

3. The equity investments revaluation reserves record fair value gains or losses relating to equity investments, as described in Note 18.

4. Exchange differences arising on the translation of the Group's net investment in foreign-controlled companies are taken to the foreign currency translation reserve. The cumulative differences relating to an investment are transferred to the income statement when the investment is disposed of.

5. Actuarial gains or losses relating to long-term employee benefits, as described in Note 26.

6. Mainly reflect the net assets attributable to NCIs accounts increase as a result of the Centinela and Encuentro merge.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 30 NON-CONTROLLING INTERESTS

The non-controlling interests of the Group during 2018 and 2017 are as follows:

	<b>Non-controlling Interest %</b>	<b>Country</b>	<b>1 January 2018 \$m</b>	<b>Adoption of new accounting standards \$m</b>	<b>Share of profit/(losses) for the financial year \$m</b>	<b>Share of dividends \$m</b>	<b>Transfer from retained earnings \$m</b>	<b>Hedging and actuarial gains/(losses) \$m</b>	<b>At 31 December 2018 \$m</b>
Los Pelambres	40.0	Chile	925.1	–	315.4	(120.0)	(13.7)	(0.9)	1,105.9
Centinela	30.0	Chile	942.3	0.9	35.9	–	53.2	2.1	1,034.4
Antucoya	30.0	Chile	(44.2)	(2.9)	(14.7)	–	(1.3)	1.5	(61.6)
Total			1,823.2	(2.0)	336.6	(120.0)	38.2	2.7	2,078.7

	<b>Non-controlling Interest %</b>	<b>Country</b>	<b>1 January 2017 \$m</b>	<b>Share of profit for the financial year \$m</b>	<b>Share of dividends \$m</b>	<b>Hedging and actuarial gains \$m</b>	<b>At 31 December 2017 \$m</b>
Los Pelambres	40.0	Chile	901.1	342.1	(320.0)	1.9	925.1
Centinela	30.0	Chile	848.5	93.7	–	0.1	942.3
Antucoya	30.0	Chile	(55.2)	11.3	–	(0.3)	(44.2)
Total			1,694.4	447.1	(320.0)	1.7	1,823.2

The proportion of the voting rights is proportional with the economic interest under the companies listed above.

Summarised financial position and cash flow information for the years ended 2018 and 2017 is set out below:

	<b>Los Pelambres 2018 \$m</b>	<b>Centinela 2018 \$m</b>	<b>Antucoya 2018 \$m</b>
Non-controlling interest (%)	40.0%	30.0%	30.0%
Cash and cash equivalents	459.9	179.7	148.3
Current assets	460.3	1,282.6	467.4
Non-current assets	3,478.8	5,452.6	1,857.0
Current liabilities	(379.3)	(955.0)	(459.0)
Non-current liabilities	(1,254.7)	(2,610.5)	(2,220.1)
Accumulated non-controlling interest			
Net cash flow from operating activities	940.2	207.5	80.8
Net cash flow from investing activities	(345.4)	(399.8)	(42.1)
Net cash flow from financing activities	(368.7)	(150.0)	(45.2)

	<b>Los Pelambres 2017 \$m</b>	<b>Centinela 2017 \$m</b>	<b>Antucoya 2017 \$m</b>
Non-controlling interest (%)	40.0%	30.0%	30.0%
Cash and cash equivalents	241.8	353.0	158.9
Current assets	457.4	809.2	207.5
Non-current assets	2,981.7	4,770.1	1,366.5
Current liabilities	(584.6)	(862.4)	(198.5)
Non-current liabilities	(827.4)	(1,773.1)	(1,686.8)
Accumulated non-controlling interest			
Net cash flow from operating activities	1,277.0	68.1	240.7
Net cash flow from investing activities	(272.8)	(573.6)	(75.7)
Net cash flow from financing activities	(908.7)	(150.0)	(160.5)

#### NOTES TO THE SUMMARISED FINANCIAL POSITION AND CASH FLOW

- (i) The amounts disclosed for each subsidiary are based on the amounts included in the consolidated financial statements (100% of the results and balances of the subsidiary rather than the non-controlling interest proportionate share) before inter-company eliminations.
- (ii) Summarised income statement information is shown in the segment information in Note 5.
- (iii) There are some subsidiaries with a non controlling interest portion not included in this note, portions are not material to the Group.

## 31 NOTES TO THE CONSOLIDATED CASH FLOW STATEMENT

### A) RECONCILIATION OF PROFIT BEFORE TAX TO NET CASH INFLOW FROM OPERATING ACTIVITIES

	2018 \$m	2017 \$m
Profit before tax from continuing operations	1,252.7	1,830.8
Depreciation and amortisation	760.5	581.1
Net loss on disposals	13.3	8.3
Net share of results from associates and joint ventures	(22.2)	(59.7)
Net finance expense	114.5	70.0
(Increase)/decrease in inventories	(81.7)	(55.0)
Decrease/(increase) in debtors	(151.5)	5.9
Increase in creditors	(7.0)	61.6
Increase in provisions	(1.6)	52.0
Cash flow from continuing operations	1,877.0	2,495.0

The working capital increase was mainly due to a one-off short-term VAT payment of \$265 million made in December 2018, which was reclaimed and refunded to the Group in January 2019. This resulted in a temporary increase in receivables as at 31 December 2018, resulting in a negative cash flow impact for 2018. There will be a corresponding decrease in receivables and a positive cash flow impact in 2019. Accordingly, there is nil net cumulative impact in respect of this transaction over the period from Q4 2018 to Q1 2019.

### B) ANALYSIS OF CHANGES IN NET DEBT

	Adoption of new accounting standards \$m	At 1 January 2018 \$m	Cash flow \$m	Reclassification to disposal group \$m	Fair value gains \$m	New leases \$m	Amortisation of finance costs \$m	Capitalisation of interest \$m	Movement between maturity categories \$m	Other \$m	Exchange \$m	At 31 December 2018 \$m
Cash and cash equivalents	1,083.6	(9.9)	(13.2)	–	–	–	–	–	–	–	(26.1)	1,034.4
Liquid investments	1,168.7	(306.3)	–	0.8	–	–	–	–	–	–	–	863.2
Total cash and cash equivalents and liquid investments	2,252.3	(316.2)	(13.2)	0.8	–	–	–	–	–	–	(26.1)	1,897.6
Borrowings due within one year	–	(732.2)	247.0	–	–	–	–	–	(122.0)	–	–	(607.2)
Borrowings due after one year	(2.5)	(1,858.6)	66.8	–	–	–	–	(33.7)	122.0	–	–	(1,711.9)
Finance leases due within one year	–	(21.5)	–	–	–	–	–	–	(17.3)	–	–	(38.8)
Finance leases due after one year	–	(93.4)	33.3	–	–	(94.6)	–	–	17.3	(5.3)	9.7	(133.0)
Preference shares	–	(3.0)	–	–	–	–	–	–	–	–	–	(3.0)
Total borrowings	(2.5)	(2,708.7)	347.1	–	–	(94.6)	(5.9)	(33.7)	–	(5.3)	9.7	(2,493.9)
Net (debt)/cash	(2.5)	(456.4)	30.9	(13.2)	0.8	(94.6)	(5.9)	(33.7)	–	(5.3)	(16.4)	(596.3)

	At 1 January 2017 \$m	Cash flows \$m	Reclassification to disposal group \$m	Fair value gains \$m	New leases \$m	Amortisation of finance costs \$m	Capitalisation of interest \$m	Movement between maturity categories \$m	Other \$m	Exchange \$m	At 31 December 2017 \$m
Cash and cash equivalents	716.3	361.0	(2.2)	–	–	–	–	–	–	8.5	1,083.6
Liquid investments	1,332.2	(166.1)	–	2.6	–	–	–	–	–	–	1,168.7
Total cash and cash equivalents and liquid investments	2,048.5	194.9	(2.2)	2.6	–	–	–	–	–	8.5	2,252.3
Borrowings due within one year	(814.2)	267.5	–	–	–	–	–	(185.5)	–	–	(732.2)
Borrowings due after one year	(2,198.4)	186.0	–	–	–	(3.9)	(27.8)	185.5	–	–	(1,858.6)
Finance leases due within one year	(22.5)	1.3	–	–	–	–	–	–	(0.2)	(0.1)	(21.5)
Finance leases due after one year	(82.6)	32.2	–	–	(34.1)	–	–	–	(6.6)	(2.3)	(93.4)
Preference shares	(2.5)	0.1	–	–	–	–	–	–	(0.6)	(3.0)	(3.0)
Total borrowings	(3,120.2)	487.1	–	–	(34.1)	(3.9)	(27.8)	–	(6.8)	(3.0)	(2,708.7)
Net (debt)/cash	(1,071.7)	682.0	(2.2)	2.6	(34.1)	(3.9)	(27.8)	–	(6.8)	5.5	(456.4)

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 31 NOTES TO THE CONSOLIDATED CASH FLOW STATEMENT CONTINUED

#### C) NET DEBT

	2018 \$m	2017 \$m
Cash, cash equivalents and liquid investments	1,897.6	2,252.3
Total borrowings	(2,493.9)	(2,708.7)
	<b>(596.3)</b>	<b>(456.4)</b>

### 32 OPERATING LEASE ARRANGEMENTS

	2018 \$m	2017 \$m
Minimum lease payments expense under operating leases recognised for the year	<b>172.4</b>	140.6

At the balance sheet date, the Group had outstanding commitments for future minimum lease payments under non-cancellable operating leases, which fall due as follows:

	2018 \$m	2017 \$m
Within one year	47.6	94.1
In their second to fifth years inclusive	95.0	78.3
After five years	–	–
	<b>142.6</b>	172.4

Operating lease payments relate mainly to rental of plant and equipment by operating subsidiaries of the Group.

### 33 EXCHANGE RATES IN US DOLLARS

Assets and liabilities denominated in foreign currencies are translated into US dollars and sterling at the period-end rates of exchange.

Results denominated in foreign currencies have been translated into US dollars at the average rate for each period.

	2018	2017
Year-end rates	\$1.2700=£1; \$1 = Ch\$694.77	\$1.3535 = £1; \$1 = Ch\$614.75
Average rates	\$1.2667=£1; \$1 = Ch\$640.62	\$1.2878 = £1; \$1 = Ch\$649.19

### 34 RELATED PARTY TRANSACTIONS

Transactions between the Company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note. Transactions between the Group and its associates and joint ventures are disclosed below.

The transactions which Group companies entered into with related parties who are not members of the Group are set out below. There are no guarantees given or received and no provisions for doubtful debts related to the amount of outstanding balances.

#### A) QUIÑENCO SA

Quiñenco SA (“Quiñenco”) is a Chilean financial and industrial conglomerate, the shares of which are traded on the Santiago Stock Exchange. The Group and Quiñenco are both under the control of the Luksic family, and three Directors of the Company, Jean-Paul Luksic, Andronico Luksic and Gonzalo Menéndez, who are also directors of Quiñenco.

The following transactions took place between the Group and the Quiñenco group of companies, all of which were on normal commercial terms:

- the Group earned interest income of \$2.8 million (2017 – \$0.6 million) during the year on deposits with Banco de Chile SA, a subsidiary of Quiñenco. Deposit balances at the end of the year were \$47.0 million (2017 – \$18.0 million);
- the Group earned interest income of \$1.4 million (2017 – \$0.4 million) during the year on investments with BanChile Corredores de Bolsa SA, a subsidiary of Quiñenco. Investment balances at the end of the year were \$6.5 million (2017 – \$16.5 million);
- the Group made purchases of fuel from ENEX SA, a subsidiary of Quiñenco, of \$221.6 million (2017 – \$185.3 million). The balance due to ENEX SA at the end of the year was nil (2017 – nil).

#### B) COMPAÑÍA DE INVERSIONES ADRIÁTICO SA

In 2017, the Group leased office space on normal commercial terms from Compañía de Inversiones Adriático SA, a company controlled by the Luksic family, at a cost of \$1.2 million (2017 – \$0.6 million).

### **C) ANTOMIN LIMITED, ANTOMIN 2 LIMITED AND ANTOMIN INVESTORS LIMITED**

The Group holds a 51% interest in Antomin 2 Limited ("Antomin 2") and Antomin Investors Limited ("Antomin Investors"), which own a number of copper exploration properties. The Group originally acquired its 51% interest in these properties for a nominal consideration from Mineralinvest Establishment, which continues to hold the remaining 49% of Antomin 2 and Antomin Investors. Mineralinvest is owned by a E. Abaroa Foundation, in which members of the Luksic family are interested. During the year ended 31 December 2018 the Group incurred \$0.2 million (year ended 31 December 2017 – \$0.6 million) of exploration work at these properties.

### **D) TETHYAN COPPER COMPANY LIMITED**

As explained in Note 17 the Group has a 50% interest in Tethyan Copper Company Limited ("Tethyan"), which is a joint venture with Barrick Gold Corporation over Tethyan's mineral interests in Pakistan. During 2018 the Group contributed \$8.1 million (2017 – \$9.3 million) to Tethyan.

### **E) COMPAÑIA MINERA ZALDÍVAR SPA**

The Group has a 50% interest in Zaldívar which was acquired on 1 December 2015 (see Note 16), which is a joint venture with Barrick Gold Corporation. Antofagasta is the operator of Zaldívar from 1 December 2015 onwards. The balance due from Zaldívar to Group companies at the end of the year was \$3.6 million (2017 – \$5.2 million). During 2018 the Group has not received dividends from Minera Zaldívar (2017 – \$60.0 million).

### **F) INVERSIONES HORNITOS SA**

As explained in Note 17, the Group has a 40% interest in Inversiones Hornitos SA, which is accounted for as an associate. The Group paid \$162.2 million (year ended 31 December 2017 – \$175.2 million) to Inversiones Hornitos in relation to the energy supply contract at Centinela. During 2018 the Group received dividends from Inversiones Hornitos SA of \$16.6 million (2017 – \$21.8 million).

### **G) DIRECTORS AND OTHER KEY MANAGEMENT PERSONNEL**

Information relating to Directors' remuneration and interests is given in the Remuneration Report on page 118. Information relating to the remuneration of key management personnel including the Directors is given in Note 8.

## **35 ULTIMATE PARENT COMPANY**

The immediate parent of the Group is Metalinvest Establishment, which is controlled by E. Abaroa Foundation, in which members of the Luksic family are interested.

Both Metalinvest Establishment and the E. Abaroa Foundation are domiciled in Liechtenstein. Information relating to the interest of Metalinvest Establishment and the E. Abaroa Foundation is given in the Directors' Report.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 36 ANTOFAGASTA PLC – BALANCE SHEET OF THE PARENT COMPANY AND RELATED NOTES

Balance Sheet of The Parent Company at 31 December 2018 is as follow:

	Note	2018 \$m	2017 \$m
<b>Non-current assets</b>			
Investment in subsidiaries	36D	<b>538.6</b>	538.6
Other receivables		<b>500.0</b>	500.0
Property, plant and equipment		<b>0.3</b>	0.3
		<b>1,038.9</b>	1,038.9
<b>Current assets</b>			
Other receivables	36D	<b>59.0</b>	57.5
Liquid investments		<b>255.8</b>	378.5
Cash and cash equivalents		<b>106.2</b>	372.1
		<b>421.0</b>	808.1
<b>Total assets</b>		<b>1,459.9</b>	1,847.0
<b>Current liabilities</b>			
Amounts payable to subsidiaries		<b>(306.8)</b>	(304.1)
Other payables		<b>(9.4)</b>	(11.0)
		<b>(316.2)</b>	(315.1)
<b>Non-current liabilities</b>			
Medium and long-term borrowings	36E	<b>(500.1)</b>	(497.4)
		<b>(500.1)</b>	(497.4)
<b>Total liabilities</b>		<b>(816.3)</b>	(812.5)
<b>Net assets</b>		<b>643.6</b>	1,034.5
<b>Equity</b>			
Share capital		<b>89.8</b>	89.8
Share premium		<b>199.2</b>	199.2
<b>Retained earnings</b>			
At 1 January		<b>745.5</b>	651.9
Profit for the year attributable to the owners		<b>76.0</b>	346.0
Other changes in retained earnings		<b>(466.9)</b>	(252.4)
		<b>354.6</b>	745.5
<b>Total equity</b>		<b>643.6</b>	1,034.5

The financial statements on page 198 were approved by the Board of Directors on 18 March 2019 and signed on its behalf by

**Jean-Paul Luksic**  
Chairman

**Ollie Oliveira**  
Senior Independent Director

## PARENT COMPANY STATEMENT OF CHANGES IN EQUITY

	Share capital \$m	Share premium \$m	Retained earnings \$m	Total equity \$m
<b>At 1 January 2017</b>	89.8	199.2	651.9	940.9
Comprehensive profit for the year	–	–	346.0	346.0
Dividends	–	–	(252.4)	(252.4)
<b>At 31 December 2017</b>	89.8	199.2	745.5	1,034.5
Comprehensive profit for the year	–	–	76.0	76.0
Dividends	–	–	(466.9)	(466.9)
<b>At 31 December 2018</b>	<b>89.8</b>	<b>199.2</b>	<b>354.6</b>	<b>643.6</b>

The ordinary shares rank after the preference shares in entitlement to dividend and on a winding-up. Each ordinary share carries one vote at any general meeting.

Antofagasta plc is a company limited by shares, incorporated and domiciled in the United Kingdom at Cleveland House, 33 King Street, London.

## 36A BASIS OF PREPARATION OF THE BALANCE SHEET AND RELATED NOTES OF THE PARENT COMPANY

The Antofagasta plc Parent Company balance sheet and related notes have been prepared in accordance with FRS 101, which applies the recognition and measurement bases of IFRS with reduced disclosure requirements. The financial information has been prepared on an historical cost basis. The financial statements have been prepared on a going concern basis. The functional currency of the Company and the presentational currency adopted is US dollars.

The following exemptions from the requirements of IFRS have been applied in the preparation of these financial statements, in accordance with FRS 101:

- Paragraphs 45(b) and 46 to 52 of IFRS 2, 'Share-based payment' (details of the number and weighted-average exercise prices of share options and how the fair value of goods or services received was determined)
- IFRS 7, 'Financial Instruments: Disclosures'
- Paragraphs 91 to 99 of IFRS 13, 'Fair value measurement' (disclosure of valuation techniques and inputs used for fair value measurement of assets and liabilities)
- Paragraph 38 of IAS 1, 'Presentation of financial statements' comparative information requirements in respect of:
  - (vii) paragraph 79(a)(iv) of IAS 1, 'Presentation of financial statements'
  - (viii) paragraph 73(e) of IAS 16, 'Property, plant and equipment'
  - (ix) paragraph 118(e) of IAS 38 Intangible assets (reconciliations between the carrying amount at the beginning and end of the period)
- The following paragraphs of IAS 1, 'Presentation of financial statements':
  - 10(d), (statement of cash flows)
  - 10(f) (a statement of financial position as at the beginning of the preceding period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements)
  - 16 (statement of compliance with all IFRS)
  - 38A (requirement for minimum of two primary statements, including cash flow statements)
  - 38B-D (additional comparative information)
  - 40A-D (requirements for a third statement of financial position)
  - 111 (cash flow statement information), and
  - 134-136 (capital management disclosures)
- IAS 7, 'Statement of cash flows'
- Paragraph 30 and 31 of IAS 8 'Accounting policies, changes in accounting estimates and errors' (requirement for the disclosure of information when an entity has not applied a new IFRS that has been issued but is not yet effective)
- Paragraph 17 of IAS 24, 'Related party disclosures' (key management compensation)
- The requirements in IAS 24, 'Related party disclosures' to disclose related party transactions entered into between two or more members of a group.

As permitted by section 408 of the Companies Act 2006, the profit and loss account of the Parent Company is not presented as part of these financial statements. The profit after tax for the year of the Parent Company amounted to \$76.0 million (2017 – \$346.0 million).

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 36 ANTOFAGASTA PLC – BALANCE SHEET OF THE PARENT COMPANY AND RELATED NOTES CONTINUED

A summary of the principal accounting policies is set out below.

#### 36B PRINCIPAL ACCOUNTING POLICIES OF THE PARENT COMPANY

##### A) CURRENCY TRANSLATION

The Company's functional currency is the US dollar. Transactions in currencies other than the functional currency are translated at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities, including amounts due from or to subsidiaries, denominated in currencies other than the functional currency are retranslated at year-end exchange rates. Gains and losses on retranslation are included in net profit or loss for the year.

##### B) REVENUErecognition

Dividends proposed by subsidiaries are recognised as income by the Company when they represent a present obligation of the subsidiaries, in the period in which they are formally approved for payment.

Interest income is accrued on a time basis, by reference to the principal outstanding and the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

##### C) DIVIDENDS PAYABLE

Dividends proposed are recognised when they represent a present obligation, in the period in which they are formally approved for payment. Accordingly, an interim dividend is recognised when paid and a final dividend is recognised when approved by shareholders.

##### D) INVESTMENTS IN SUBSIDIARIES

Investments in subsidiaries represent equity holdings in subsidiaries and long-term amounts owed by subsidiaries. Such investments are valued at cost less any impairment provisions. Investments are reviewed for impairment if events or changes in circumstances indicate that the carrying amount may not be recoverable. The recoverable amount of the investment is the higher of fair value less cost to dispose and value in use. As explained in Note 36D, amounts owed by subsidiaries due in currencies other than the functional currency are translated at year-end rates of exchange with any exchange differences taken to the profit and loss account.

##### E) CURRENT ASSET INVESTMENTS AND CASH AT BANK AND IN HAND

Current asset investments comprise highly liquid investments that are readily convertible into known amounts of cash and which are subject to insignificant risk of changes in value, typically maturing within 12 months.

Cash at bank and in hand comprise cash in hand and deposits repayable on demand.

##### F) BORROWINGS

Interest-bearing loans and bank overdrafts are initially recorded at the proceeds received, net of direct issue costs. They are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis. The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis using the effective interest rate method.

##### G) BORROWINGS – PREFERENCE SHARES

The sterling-denominated preference shares issued by the Company carry a fixed rate of return without the right to participate in any surplus. They are accordingly classified as borrowings and translated into US dollars at year-end rates of exchange. Preference share dividends are included within finance costs.

##### H) EQUITY INSTRUMENTS – ORDINARY SHARE CAPITAL AND SHARE PREMIUM

Equity instruments issued are recorded at the proceeds received, net of direct issue costs. Equity instruments of the Company comprise its sterling-denominated issued ordinary share capital and related share premium.

As explained above, the presentational and the functional currency of the Company is US dollars, and ordinary share capital and share premium are translated into US dollars at historical rates of exchange based on dates of issue.

### 36C EMPLOYEE BENEFIT EXPENSE

##### A) AVERAGE NUMBER OF EMPLOYEES

The average number of employees was 5 (2017 – 5).

##### B) AGGREGATE REMUNERATION

The aggregate remuneration of the employees mentioned above was as follows:

	2018 \$m	2017 \$m
Wages and salaries	1.9	1.3
Social security costs	0.3	0.2
Pension contributions	0.1	0.1
	<b>2.3</b>	<b>1.6</b>

The above employee figures exclude Directors who receive Directors' fees from Antofagasta plc. Details of fees payable to Directors are set out in the Remuneration Report.

## 36D SUBSIDIARIES

### A) INVESTMENT IN SUBSIDIARIES

	2018 \$m	2017 \$m
Shares in subsidiaries at cost	60.6	60.6
Amounts owed by subsidiaries due after more than one year	478.0	478.0
	<b>538.6</b>	538.6

	Shares \$m	Loans \$m	Total \$m
1 January 2018	60.6	478.0	538.6
New shares in subsidiaries	-	-	-
<b>31 December 2018</b>	<b>60.6</b>	<b>478.0</b>	<b>538.6</b>

The above amount of \$478.0 million (2017 – \$478.0 million) in respect of amounts owed by subsidiaries due after more than one year relates to long-term funding balances which form an integral part of the Company's long-term investment in those subsidiary companies.

### B) TRADE AND OTHER RECEIVABLES – AMOUNTS OWED BY SUBSIDIARIES DUE AFTER ONE YEAR

At 31 December 2018, an amount of \$500.0 million was owed to the Company by an indirect subsidiary, pursuant to a 10-year loan agreement. There have been no impairments recognised in respect of subsidiary receivables as at 31 December 2018.

### C) TRADE AND OTHER RECEIVABLES – AMOUNTS OWED BY SUBSIDIARIES DUE WITHIN ONE YEAR

At 31 December 2018, amounts owed by subsidiaries due within one year were \$52.6 million (2017 – \$54.2 million). There have been no impairments recognised in respect of subsidiary receivables as at 31 December 2018.

## 36E BORROWINGS – PREFERENCE SHARES

The authorised, issued and fully paid preference share capital of the Company comprised 2,000,000 5% cumulative preference shares of £1 each at both 31 December 2018 and 31 December 2017. As explained in Note 22B, the preference shares are recorded in the balance sheet in US dollars at period-end rates of exchange.

The preference shares are non-redeemable and are entitled to a fixed 5% cumulative dividend, payable in equal instalments in June and December of each year. On a winding-up, the preference shares are entitled to repayment and any arrears of dividend in priority to ordinary shareholders, but are not entitled to participate further in any surplus. Each preference share carries 100 votes (see Note 22A (xiv)) at any general meeting.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 37 ALTERNATIVE PERFORMANCE MEASURES

This Annual Report includes a number of alternative performance measures, in addition to IFRS amounts. These measures are included because they are considered to provide relevant and useful additional information to users of the financial statements. Set out below are definitions of these alternative performance measures, explanations as to why they are considered to be relevant and useful, and reconciliations to the IFRS figures.

#### A) UNDERLYING EARNINGS PER SHARE

Underlying earnings per share is earnings per share from continuing operations, excluding exceptional items. This measure is reconciled to earnings per share from continuing and discontinued operations (including exceptional items) on the face of the income statement. This measure is considered to be useful as it provides an indication of the earnings generated by the ongoing businesses of the Group, excluding the impact of exceptional items which are non-regular or non-operating in nature.

#### B) EBITDA

EBITDA refers to Earnings Before Interest, Tax, Depreciation and Amortisation. EBITDA is calculated by adding back depreciation, amortisation, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group's subsidiaries, and the Group's proportional share of the EBITDA of its associates and joint ventures.

EBITDA is considered to provide a useful and comparable indication of the current operating earnings performance of the business, excluding the impact of the historic cost of property, plant and equipment or the particular financing structure adopted by the business.

For the year ended 31 December 2018

	<b>Los Pelambres \$m</b>	<b>Centinela \$m</b>	<b>Antucoya \$m</b>	<b>Zaldivar \$m</b>	<b>Exploration and evaluation \$m</b>	<b>Corporate and other items \$m</b>	<b>Mining \$m</b>	<b>Transport division \$m</b>	<b>Total \$m</b>
Operating profit	<b>1,173.8</b>	<b>229.6</b>	<b>62.9</b>	–	(97.6)	(68.6)	1,300.1	44.9	1,345.0
Depreciation and amortisation	<b>243.3</b>	<b>415.4</b>	<b>78.7</b>	–	–	7.2	744.6	15.9	760.5
(Loss)/gain on disposals	<b>10.5</b>	–	–	–	–	–	10.5	2.8	13.3
<b>EBITDA from subsidiaries</b>	<b>1,427.6</b>	<b>645.0</b>	<b>141.6</b>	–	(97.6)	(61.4)	2,055.2	63.6	2,118.8
Proportional share of the EBITDA from associates and JV	–	–	–	87.4	–	(3.2)	84.2	25.3	109.5
<b>EBITDA</b>	<b>1,427.6</b>	<b>645.0</b>	<b>141.6</b>	<b>87.4</b>	<b>(97.6)</b>	<b>(64.6)</b>	<b>2,139.4</b>	<b>88.9</b>	<b>2,228.3</b>

For the year ended 31 December 2017

	<b>Los Pelambres \$m</b>	<b>Centinela \$m</b>	<b>Antucoya \$m</b>	<b>Zaldivar \$m</b>	<b>Exploration and evaluation \$m</b>	<b>Corporate and other items \$m</b>	<b>Mining \$m</b>	<b>Transport division \$m</b>	<b>Total \$m</b>
Operating profit	1,217.3	579.1	131.2	–	(68.8)	(76.6)	1,782.2	58.9	1,841.1
Depreciation and amortisation	205.2	276.6	76.1	–	–	6.7	564.6	16.5	581.1
Gain on disposals	5.6	3.7	–	–	–	(0.9)	8.4	(0.1)	8.3
<b>EBITDA from subsidiaries</b>	<b>1,428.1</b>	<b>859.4</b>	<b>207.3</b>	–	(68.8)	(70.8)	2,355.2	75.3	2,430.5
Proportional share of the EBITDA from associates and JV	–	–	–	134.2	–	(0.9)	133.3	22.8	156.1
<b>EBITDA</b>	<b>1,428.1</b>	<b>859.4</b>	<b>207.3</b>	<b>134.2</b>	<b>(68.8)</b>	<b>(71.7)</b>	<b>2,488.5</b>	<b>98.1</b>	<b>2,586.6</b>

## C) CASH COSTS

Cash costs are a measure of the cost of operating production expressed in terms of cents per pound of payable copper produced.

This is considered to be a useful and relevant measure as it is a standard industry measure applied by most major copper mining companies which reflects the direct costs involved in producing each pound of copper. It therefore allows a straightforward comparison of the unit production cost of different mines, and allows an assessment of the position of a mine on the industry cost curve. It also provides a simple indication of the profitability of a mine when compared against the price of copper (per lb).

	2018 \$m	2017 \$m
<b>Reconciliation of cash costs excluding tolling charges and by-product revenue:</b>		
Total Group operating cost (Note 5)	<b>3,388.1</b>	2,908.3
Zaldivar operating costs	202.3	184.0
Less:		
Depreciation and amortisation (Note 5)	(760.5)	(581.1)
Loss on disposal (Note 5)	(13.3)	(8.3)
Elimination of non-mining operations:		
Corporate and other items – Total operating cost (Note 5)	(61.4)	(70.8)
Exploration and evaluation – Total operating cost (Note 5)	(97.6)	(68.8)
Transport division – Total operating cost (Note 5)	(109.2)	(95.8)
Closure provision and other expenses not included within cash costs	(78.8)	(88.0)
Inventory variation	(0.5)	11.9
<b>Total cost relevant to the mining operations' cash costs</b>	<b>2,469.1</b>	2,191.4
<b>Copper production volumes – 2018/2017 (tonnes)</b>	<b>725,300</b>	704,300
<b>Cash costs excluding tolling charges and by-product revenue (\$ / tonne)</b>	<b>3,404</b>	3,111
Cash costs excluding tolling charges and by-product revenue (\$ / lb)	1.55	1.41
Reconciliation of cash costs before deducting by-product revenue:		
Tolling charges – copper – Los Pelambres (Note 6)	162.1	179.5
Tolling charges – copper – Centinela (Note 6)	82.4	98.2
Tolling charges – copper – total	244.5	277.7
Copper production volumes – 2017/2016 (tonnes)	725,300	657,700
Tolling charges (\$ / tonne)	337	394
Tolling charges (\$ / lb)	0.17	0.19
Cash costs excluding tolling charges and by-product revenue (\$ / lb)	1.55	1.41
Tolling charges (\$ / lb)	0.17	0.19
<b>Cash costs before deducting by-products revenue (\$ / lb)</b>	<b>1.72</b>	1.60

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 37 ALTERNATIVE PERFORMANCE MEASURES CONTINUED

#### CASH COSTS (CONTINUED)

	2018 \$m	2017 \$m
<b>Reconciliation of cash costs (net of by-product revenue):</b>		
Gold revenue – Los Pelambres (Note 5)	<b>78.6</b>	68.7
Gold revenue – Centinela (Note 5)	<b>169.4</b>	209.7
Molybdenum revenue – Los Pelambres (Note 5)	<b>340.2</b>	168.5
Molybdenum revenue – Centinela (Note 5)	<b>7.8</b>	–
Silver revenue – Los Pelambres (Note 5)	<b>34.4</b>	37.7
Silver revenue – Centinela (Note 5)	<b>14.7</b>	20.5
Total by-product revenue	<b>645.1</b>	505.1
Copper production volumes – 2018/2017 (tonnes)	<b>725,300</b>	704,300
By-product revenues (\$ / tonne)	<b>889</b>	717
By-product revenues (\$ / lb)	<b>0.43</b>	0.35
Cash costs before deducting by-product revenue (\$ / lb)	<b>1.72</b>	1.60
By-product revenue (\$ / lb)	<b>(0.43)</b>	(0.35)
Cash costs (net of by-product revenue) (\$ / lb)	<b>1.29</b>	1.25

The totals in the tables above may include some small apparent differences as the specific individual figures have not been rounded.

## FIVE YEAR SUMMARY

	2018 \$m	2017 \$m	2016 \$m	2015 \$m	2014 \$m
<b>Consolidated balance sheet<sup>1</sup></b>					
Intangible asset	150.1	150.1	150.1	150.1	118.6
Property plant and equipment	9,184.1	9,064.3	8,737.5	8,601.1	8,227.1
Investment property	2.6	3.5	2.6	2.0	2.6
Inventories	172.7	111.1	157.3	263.9	247.8
Investment in associates and joint ventures	1,056.1	1,069.7	1,086.6	1,149.1	198.5
Trade and other receivables	56.1	67.0	66.7	292.9	239.5
Derivative financial instruments	–	0.2	0.2	–	–
Equity investments	4.7	6.5	4.6	2.7	15.6
Deferred tax assets	37.2	69.1	82.8	124.6	104.6
Non-current assets	10,663.6	10,541.5	10,288.4	10,583.9	9,153.9
Current assets	3,438.9	3,668.2	3,435.4	2,953.2	3,661.2
Current liabilities	(1,307.1)	(1,562.1)	(1,554.0)	(1,438.6)	(1,163.4)
Non-current liabilities	(3,357.3)	(3,506.0)	(3,660.1)	(3,581.7)	(3,617.4)
	9,438.1	9,141.6	8,509.7	8,519.3	8,034.7
Share capital	89.8	89.8	89.8	89.8	89.8
Share premium	199.2	199.2	199.2	199.2	199.2
Reserves (retained earnings and hedging, translation and fair value reserves)	7,070.4	7,029.4	6,526.3	6,357.1	5,884.7
Equity attributable to equity holders of the Company	7,359.4	7,318.4	6,815.3	6,646.1	6,173.7
Non-controlling interests	2,078.7	1,823.2	1,694.4	1,873.2	1,861.0
	9,438.1	9,141.6	8,509.7	8,519.3	8,034.7
	2018 \$m	2017 \$m	2016 \$m	2015 \$m	2014 \$m
<b>Consolidated income statement<sup>1</sup></b>					
Group revenue	4,733.1	4,749.4	3,621.7	3,225.7	4,810.2
Total profit from operations and associates	1,367.2	1,900.8	355.7	283.2	1,608.5
Profit before tax	1,252.7	1,830.8	284.6	242.8	1,558.5
Income tax expense	(423.7)	(633.6)	(108.6)	(154.4)	(703.6)
Profit for the financial year from continuing operations	829.0	1,197.2	176.0	88.4	854.9
Profit for the financial year from discontinued operations	51.3	0.5	38.3	613.3	(4.2)
Profit for the year	880.3	1,197.7	214.3	701.7	850.7
Non-controlling interests	(336.6)	(447.1)	(56.3)	(93.5)	(390.9)
Net earnings (profit attributable to equity holders of the Company)	543.7	750.6	158.0	608.2	459.8
EBITDA	2,228.3	2,586.6	1,626.1	910.1	2,102.9
	2018 cents	2017 cents	2016 cents	2015 cents	2014 cents
<b>Earnings per share</b>					
Basic and diluted earnings per share	55.1	76.2	16.0	61.7	46.6

1. These numbers have been restated for prior years.

## FIVE YEAR SUMMARY CONTINUED

	2018 cents	2017 cents	2016 cents	2015 cents	2014 cents
<b>Dividends per share proposed in relation to the year</b>					
Ordinary dividends (interim and final)	43.8	50.9	18.4	3.1	21.5
	43.8	50.9	18.4	3.1	21.5
Dividends per share paid in the year and deducted from equity	47.4	25.6	3.1	12.9	97.8
	2018 \$m	2017 \$m	2016 \$m	2015 \$m	2014 \$m
<b>Consolidated cash flow statement</b>					
Cash flow from continuing operations	1,877.0	2,495.0	1,457.3	858.3	2,507.8
Interest paid	(68.2)	(59.1)	(46.3)	(38.6)	(45.4)
Income tax paid	(498.0)	(338.4)	(272.6)	(427.1)	(641.5)
Net cash from operating activities	1,310.8	(2,097.5)	1,138.4	392.6	1,820.9
Investing activities					
Acquisition and disposal of subsidiaries, joint venture and associates	145.2	3.1	30.0	(29.9)	–
Dividends from associates	16.6	81.8	10.2	12.1	20.0
Equity investments, investing activities and recovery of VAT	284.2	115.9	(425.2)	414.8	372.7
Purchases and disposals of intangible assets, property, plant and equipment	(872.2)	(894.4)	(794.6)	(1,046.9)	(1,613.7)
Interest received	26.4	14.3	14.4	11.0	16.5
Net cash used in investing activities	(399.8)	(679.3)	(1,165.2)	(638.9)	(1,204.5)
Financing activities					
Dividends paid to equity holders of the Company	(466.9)	(252.3)	(30.6)	(127.2)	(964.2)
Dividends paid to preference holders and non-controlling interests	(120.1)	(320.1)	(260.0)	(80.0)	(412.4)
New borrowings less repayment of borrowings and finance leases	(347.1)	(487.0)	214.3	452.0	1,019.4
Net cash used in financing activities	(934.1)	(1,059.4)	(76.3)	244.8	(357.2)
Net (decrease)/increase in cash and cash equivalents	(23.1)	358.8	(103.1)	(1.5)	259.2
	2018 \$m	2017 \$m	2016 \$m	2015 \$m	2014 \$m
<b>Consolidated net cash</b>					
Cash, cash equivalents and liquid investments	1,897.6	2,252.3	2,048.5	1,731.6	2,374.5
Short-term borrowings	(646.0)	(753.6)	(836.8)	(758.9)	(284.5)
Medium and long-term borrowings	(1,847.9)	(1,955.1)	(2,283.4)	(1,996.2)	(2,091.6)
	(2,493.9)	(2,708.7)	(3,120.2)	(2,755.1)	(2,376.1)
Net (debt)/cash at the year-end	(596.3)	(456.4)	(1,071.7)	(1,023.5)	(1.6)

## PRODUCTION STATISTICS

	Production		Sales		Net cash costs		Realised prices	
	2018 '000 tonnes	2017 '000 tonnes	2018 '000 tonnes	2017 '000 tonnes	2018 '000 \$/lb	2017 '000 \$/lb	2018 '000 \$/lb	2017 '000 \$/lb
<b>Production and sales volumes, realised prices and cash costs by mine</b>								
<b>Copper</b>								
Los Pelambres	<b>357.8</b>	343.8	<b>358.9</b>	344.8	<b>0.91</b>	1.02	<b>2.78</b>	3.06
Centinela	<b>248.0</b>	228.3	<b>240.9</b>	232.2	<b>1.51</b>	1.37	<b>2.82</b>	2.96
Antucoya	<b>72.2</b>	80.5	<b>71.3</b>	80.8	<b>1.99</b>	1.68	<b>2.91</b>	2.86
Zaldívar (attributable basis – 50%)	<b>47.3</b>	51.7	<b>46.5</b>	51.3	<b>1.94</b>	1.62	–	–
<b>Group total</b>	<b>725.3</b>	704.3	<b>717.6</b>	709.1				
Group weighted average (net cash costs)					<b>1.29</b>	1.25	<b>2.81</b>	3.00
Group weighted average (excluding tolling charges and before by-products)					<b>1.55</b>	1.41		
Group weighted average (before by-product credits)					<b>1.72</b>	1.60		

### Cash costs at Los Pelambres comprises

Cash costs before by-product credits	<b>1.52</b>	1.44
By-product credits (principally molybdenum and gold)	(0.61)	(0.42)
Net cash costs	<b>0.91</b>	1.02

### Cash cost at Centinela comprises

Cash costs before by-product credits	<b>1.89</b>	1.81
By-product credits (principally gold)	(0.38)	(0.45)
Net cash costs	<b>1.51</b>	1.36

	Production		Sales		Realised prices	
	2018 '000 tonnes	2017 '000 tonnes	2018 '000 tonnes	2017 '000 tonnes	2018 '000 \$/lb	2017 '000 \$/lb
LME average					<b>2.96</b>	2.80

	'000 ounces	'000 ounces	'000 ounces	'000 ounces	\$/oz	\$/oz
	Gold	Los Pelambres	146.9	135.5	1,260	1,270
Centinela Concentrates					1,255	1,284
<b>Group total</b>	<b>210.1</b>	212.4	<b>198.1</b>	218.2	<b>1,256</b>	1,280
<b>Market average price</b>					<b>1,270</b>	1,258

	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	\$/lb	\$/lb
	Molybdenum	Los Pelambres	0.3	0.4	12.5	8.7
Centinela					10.6	–
<b>Group total / average realised price</b>	<b>13.6</b>	10.5	<b>14.0</b>	9.6	<b>12.4</b>	8.7
<b>Market average price</b>					<b>11.9</b>	8.2

## ORE RESERVES AND MINERAL RESOURCES ESTIMATES

At 31 December 2018

### INTRODUCTION

The ore reserves and mineral resources estimates presented in this report comply with the requirements of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 edition (the JORC Code) which has been used by the Group as minimum standard for the preparation and disclosure of the information contained herein. The definitions and categories of Ore Reserves and Mineral Resources are set out below.

The information on ore reserves and mineral resources was prepared by or under the supervision of Competent Persons as defined in the JORC Code. The Competent Persons have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking. The Competent Persons consent to the inclusion in this report of the matters based on their information in the form and context in which it appears. The Competent Person for Exploration Results and Mineral Resources is Osvaldo Gálvez (CP, Chile), Assistant Manager of Mineral Resource Evaluation for Antofagasta Minerals S.A. The Competent Person for Ore Reserves is Murray Canfield (P.Eng. Ontario), Technical Manager of Mining for Antofagasta Minerals S.A.

The Group's operations and projects are subject to a comprehensive programme of audits aimed at providing assurance in respect of ore reserves and mineral resources estimates. The audits are conducted by suitably qualified Competent Persons from within a particular division, another division of the Company or from independent consultants.

The ore reserves and mineral resources estimates represent full reserves and resources, with the Group's attributable share for each mine shown in the 'Attributable Tonnage' column. The Group's economic interest in each mine is disclosed in the notes following the estimates on pages 216 to 217. The totals in the table may include some small apparent differences as the specific individual figures have not been rounded.

### DEFINITIONS AND CATEGORIES OF ORE RESERVES AND MINERAL RESOURCES

A '**Mineral Resource**' is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

An '**Inferred Mineral Resource**' is that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.

An '**Indicated Mineral Resource**' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.

A '**Measured Mineral Resource**' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

An '**Ore Reserve**' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves.

A '**Probable Ore Reserve**' is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified.

A '**Proved Ore Reserve**' is the economically mineable part of a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified.

## ORE RESERVES ESTIMATES

GROUP SUBSIDIARIES	TONNAGE (MILLIONS OF TONNES)		COPPER (%)		MOLYBDENUM (%)		GOLD (G/TONNE)		ATTRIBUTABLE TONNAGE (MILLIONS OF TONNES)	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
<b>Ore reserves</b>										
<b>Los Pelambres (see note (a))</b>										
Proved	<b>732.7</b>	719.6	<b>0.61</b>	0.62	<b>0.020</b>	0.021	<b>0.05</b>	0.05	<b>439.6</b>	431.8
Probable	<b>399.5</b>	473.8	<b>0.59</b>	0.58	<b>0.018</b>	0.017	<b>0.04</b>	0.05	<b>239.7</b>	284.3
<b>Total</b>	<b>1,132.2</b>	1,193.4	<b>0.60</b>	0.60	<b>0.019</b>	0.020	<b>0.05</b>	0.05	<b>679.3</b>	716.0
<b>Centinela (see note (b))</b>										
<i>Centinela Cathodes (oxides)</i>										
Proved	<b>134.3</b>	36.4	<b>0.52</b>	0.63	–	–	–	–	<b>94.0</b>	25.5
Probable	<b>191.8</b>	155.1	<b>0.32</b>	0.34	–	–	–	–	<b>134.2</b>	108.6
<b>Subtotal</b>	<b>326.0</b>	191.5	<b>0.40</b>	0.39	–	–	–	–	<b>228.2</b>	134.0
<i>Centinela Concentrates (sulphides)</i>										
Proved	<b>565.9</b>	573.9	<b>0.48</b>	0.48	<b>0.012</b>	0.012	<b>0.19</b>	0.19	<b>396.2</b>	401.7
Probable	<b>1,279.2</b>	1,299.5	<b>0.40</b>	0.40	<b>0.012</b>	0.012	<b>0.12</b>	0.12	<b>895.5</b>	909.6
<b>Subtotal</b>	<b>1,845.2</b>	1,873.4	<b>0.42</b>	0.42	<b>0.012</b>	0.012	<b>0.14</b>	0.14	<b>1,291.6</b>	1,311.4
Proved	<b>700.2</b>	610.3	<b>0.49</b>	0.49	–	–	–	–	<b>490.1</b>	427.2
Probable	<b>1,471.0</b>	1,454.6	<b>0.39</b>	0.39	–	–	–	–	<b>1,029.7</b>	1,018.2
<b>Total</b>	<b>2,171.2</b>	2,064.9	<b>0.42</b>	0.42	–	–	–	–	<b>1,519.8</b>	1,445.4
<b>Encuentro Oxides (see note (c))</b>										
Proved	–	101.5	–	0.54	–	–	–	–	–	101.5
Probable	–	10.7	–	0.43	–	–	–	–	–	10.7
<b>Total</b>	–	112.2	–	0.53	–	–	–	–	–	112.2
<b>Antucoya (see note (d))</b>										
Proved	<b>346.6</b>	336.9	<b>0.36</b>	0.36	–	–	–	–	<b>242.6</b>	235.8
Probable	<b>294.1</b>	339.5	<b>0.31</b>	0.30	–	–	–	–	<b>205.9</b>	237.6
<b>Total</b>	<b>640.7</b>	676.4	<b>0.34</b>	0.33	–	–	–	–	<b>448.5</b>	473.4
<b>Total Group Subsidiaries</b>	<b>3,944.1</b>	4,046.8	<b>0.46</b>	0.46	–	–	–	–	<b>2,647.6</b>	2,747.1

GROUP JOINT VENTURES	TONNAGE (MILLIONS OF TONNES)		COPPER (%)		MOLYBDENUM (%)		GOLD (G/TONNE)		ATTRIBUTABLE TONNAGE (MILLIONS OF TONNES)	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
<b>Zaldívar (see note (n))</b>										
Proved	<b>252.8</b>	265.0	<b>0.46</b>	0.49	–	–	–	–	<b>126.4</b>	132.5
Probable	<b>214.7</b>	163.5	<b>0.47</b>	0.54	–	–	–	–	<b>107.4</b>	81.8
<b>Total Group Joint Ventures</b>	<b>467.5</b>	428.5	<b>0.46</b>	0.51	–	–	–	–	<b>233.7</b>	214.2
<b>Total Group</b>	<b>4,411.6</b>	4,475.3	<b>0.46</b>	0.47	–	–	–	–	<b>2,881.4</b>	2,961.3

ORE RESERVES AND MINERAL RESOURCES ESTIMATES CONTINUED

At 31 December 2018

## MINERAL RESOURCES ESTIMATES (INCLUDING ORE RESERVES)

GROUP SUBSIDIARIES	TONNAGE (MILLIONS OF TONNES)		COPPER (%)		MOLYBDENUM (%)		GOLD (G/TONNE)		ATTRIBUTABLE TONNAGE (MILLIONS OF TONNES)	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
<b>Los Pelambres (see note (a))</b>										
<b>Sulphides</b>										
Measured	<b>1,200.8</b>	1,190.9	<b>0.58</b>	0.59	<b>0.020</b>	0.021	<b>0.05</b>	0.05	<b>720.5</b>	714.5
Indicated	<b>2,093.6</b>	2,163.0	<b>0.52</b>	0.52	<b>0.016</b>	0.015	<b>0.05</b>	0.05	<b>1,256.1</b>	1,297.8
Measured + Indicated	<b>3,294.4</b>	3,353.8	<b>0.54</b>	0.54	<b>0.017</b>	0.017	<b>0.05</b>	0.05	<b>1,976.6</b>	2,012.3
Inferred	<b>2,819.0</b>	2,670.2	<b>0.46</b>	0.46	<b>0.016</b>	0.015	<b>0.06</b>	0.06	<b>1,691.4</b>	1,602.1
<b>Total</b>	<b>6,113.4</b>	6,024.1	<b>0.50</b>	0.51	<b>0.017</b>	0.016	<b>0.05</b>	0.05	<b>3,668.0</b>	3,614.4
<b>Los Pelambres Total</b>										
Measured	<b>1,200.8</b>	1,190.9	<b>0.58</b>	0.59	<b>0.020</b>	0.021	<b>0.05</b>	0.05	<b>720.5</b>	714.5
Indicated	<b>2,093.6</b>	2,163.0	<b>0.52</b>	0.52	<b>0.016</b>	0.015	<b>0.05</b>	0.05	<b>1,256.1</b>	1,297.8
Measured + Indicated	<b>3,294.4</b>	3,353.8	<b>0.54</b>	0.54	<b>0.017</b>	0.017	<b>0.05</b>	0.05	<b>1,976.6</b>	2,012.3
Inferred	<b>2,819.0</b>	2,670.2	<b>0.46</b>	0.46	<b>0.016</b>	0.015	<b>0.06</b>	0.06	<b>1,691.4</b>	1,602.1
<b>Total</b>	<b>6,113.4</b>	6,024.1	<b>0.50</b>	0.51	<b>0.017</b>	0.016	<b>0.05</b>	0.05	<b>3,668.0</b>	3,614.4
<b>Centinela (see note (b))</b>										
<b>Centinela Cathodes (Oxides)</b>										
Measured	<b>217.4</b>	46.0	<b>0.50</b>	0.52	—	—	—	—	<b>152.2</b>	32.2
Indicated	<b>305.8</b>	242.1	<b>0.33</b>	0.35	—	—	—	—	<b>214.1</b>	169.5
Measured + Indicated	<b>523.2</b>	288.1	<b>0.40</b>	0.38	—	—	—	—	<b>366.3</b>	201.7
Inferred	<b>28.6</b>	19.3	<b>0.36</b>	0.42	—	—	—	—	<b>20.0</b>	13.5
<b>Subtotal</b>	<b>551.8</b>	307.5	<b>0.40</b>	0.38	—	—	—	—	<b>386.3</b>	215.2
<b>Centinela Concentrates (Sulphides)</b>										
Measured	<b>956.1</b>	583.6	<b>0.49</b>	0.47	<b>0.013</b>	0.011	<b>0.19</b>	0.19	<b>669.3</b>	408.5
Indicated	<b>2,032.7</b>	1,619.3	<b>0.38</b>	0.38	<b>0.012</b>	0.012	<b>0.12</b>	0.12	<b>1,422.9</b>	1,133.5
Measured + Indicated	<b>2,988.8</b>	2,202.9	<b>0.42</b>	0.41	<b>0.013</b>	0.012	<b>0.15</b>	0.14	<b>2,092.2</b>	1,542.0
Inferred	<b>973.2</b>	974.8	<b>0.32</b>	0.31	<b>0.011</b>	0.011	<b>0.10</b>	0.09	<b>681.3</b>	682.4
<b>Subtotal</b>	<b>3,962.0</b>	3,177.7	<b>0.39</b>	0.38	<b>0.012</b>	0.011	<b>0.13</b>	0.12	<b>2,773.4</b>	2,224.4
<b>Centinela Total</b>										
Measured	<b>1,173.5</b>	629.7	<b>0.49</b>	0.48	—	—	—	—	<b>821.5</b>	440.8
Indicated	<b>2,338.6</b>	1,861.3	<b>0.37</b>	0.38	—	—	—	—	<b>1,637.0</b>	1,302.9
Measured + Indicated	<b>3,512.1</b>	2,491.0	<b>0.41</b>	0.40	—	—	—	—	<b>2,458.4</b>	1,743.7
Inferred	<b>1,001.8</b>	994.1	<b>0.32</b>	0.31	—	—	—	—	<b>701.3</b>	695.9
<b>Total</b>	<b>4,513.9</b>	3,485.2	<b>0.39</b>	0.38	—	—	—	—	<b>3,159.7</b>	2,439.6
<b>Encuentro (see note (c))</b>										
<b>Oxides</b>										
Measured	—	124.7	—	0.51	—	—	—	—	—	124.7
Indicated	—	50.8	—	0.34	—	—	—	—	—	50.8
Measured + Indicated	—	175.5	—	0.46	—	—	—	—	—	175.5
Inferred	—	1.0	—	0.34	—	—	—	—	—	1.0
<b>Subtotal</b>	—	176.4	—	0.46	—	—	—	—	—	176.4
<b>Sulphides</b>										
Measured	—	407.1	—	0.53	—	0.015	—	0.21	—	407.1
Indicated	—	457.8	—	0.36	—	0.014	—	0.13	—	457.8
Measured + Indicated	—	864.9	—	0.44	—	0.015	—	0.17	—	864.9
Inferred	—	76.0	—	0.33	—	0.012	—	0.16	—	76.0
<b>Subtotal</b>	—	940.9	—	0.43	—	0.015	—	0.17	—	940.9
<b>Encuentro Total</b>										
Measured	—	531.7	—	0.52	—	—	—	—	—	531.7
Indicated	—	508.7	—	0.36	—	—	—	—	—	508.7
Measured + Indicated	—	1,040.4	—	0.44	—	—	—	—	—	1,040.4
Inferred	—	77.0	—	0.33	—	—	—	—	—	77.0
<b>Total</b>	—	1,117.4	—	0.44	—	—	—	—	—	1,117.4

GROUP SUBSIDIARIES	TONNAGE (MILLIONS OF TONNES)		COPPER (%)		MOLYBDENUM (%)		GOLD (G/TONNE)		ATTRIBUTABLE TONNAGE (MILLIONS OF TONNES)	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
<b>Antucoya (see note (d))</b>										
<i>Oxides</i>										
Measured	<b>407.1</b>	378.8	<b>0.34</b>	0.34	—	—	—	—	<b>285.0</b>	265.2
Indicated	<b>418.9</b>	477.6	<b>0.30</b>	0.29	—	—	—	—	<b>293.2</b>	334.4
Measured + Indicated	<b>825.9</b>	856.5	<b>0.32</b>	0.32	—	—	—	—	<b>578.1</b>	599.5
Inferred	<b>427.8</b>	435.3	<b>0.27</b>	0.27	—	—	—	—	<b>299.5</b>	304.7
<b>Total</b>	<b>1,253.7</b>	1,291.8	<b>0.30</b>	0.30	—	—	—	—	<b>877.6</b>	904.3
<i>Antucoya Total</i>										
Measured	<b>407.1</b>	378.8	<b>0.34</b>	0.34	—	—	—	—	<b>285.0</b>	265.2
Indicated	<b>418.9</b>	477.6	<b>0.30</b>	0.29	—	—	—	—	<b>293.2</b>	334.4
Measured + Indicated	<b>825.9</b>	856.5	<b>0.32</b>	0.32	—	—	—	—	<b>578.1</b>	599.5
Inferred	<b>427.8</b>	435.3	<b>0.27</b>	0.27	—	—	—	—	<b>299.5</b>	304.7
<b>Total</b>	<b>1,253.7</b>	1,291.8	<b>0.30</b>	0.30	—	—	—	—	<b>877.6</b>	904.3
<b>Polo Sur (see note (e))</b>										
<i>Oxides</i>										
Measured	—	—	—	—	—	—	—	—	—	—
Indicated	<b>86.8</b>	86.8	<b>0.43</b>	0.43	—	—	—	—	<b>86.8</b>	86.8
Measured + Indicated	<b>86.8</b>	86.8	<b>0.43</b>	0.43	—	—	—	—	<b>86.8</b>	86.8
Inferred	<b>38.8</b>	38.8	<b>0.35</b>	0.35	—	—	—	—	<b>38.8</b>	38.8
<b>Subtotal</b>	<b>125.6</b>	125.6	<b>0.40</b>	0.40	—	—	—	—	<b>125.6</b>	125.6
<i>Sulphides</i>										
Measured	—	—	—	—	—	—	—	—	—	—
Indicated	<b>704.1</b>	704.1	<b>0.37</b>	0.37	<b>0.007</b>	0.007	<b>0.06</b>	0.06	<b>704.1</b>	704.1
Measured + Indicated	<b>704.1</b>	704.1	<b>0.37</b>	0.37	<b>0.007</b>	0.007	<b>0.06</b>	0.06	<b>704.1</b>	704.1
Inferred	<b>684.8</b>	684.8	<b>0.30</b>	0.30	<b>0.007</b>	0.007	<b>0.05</b>	0.05	<b>684.8</b>	684.8
<b>Subtotal</b>	<b>1,388.9</b>	1,388.9	<b>0.34</b>	0.34	<b>0.007</b>	0.007	<b>0.05</b>	0.05	<b>1,388.9</b>	1,388.9
<b>Polo Sur Total</b>										
Measured	—	—	—	—	—	—	—	—	—	—
Indicated	<b>790.9</b>	790.9	<b>0.38</b>	0.38	—	—	—	—	<b>790.9</b>	790.9
Measured + Indicated	<b>790.9</b>	790.9	<b>0.38</b>	0.38	—	—	—	—	<b>790.9</b>	790.9
Inferred	<b>723.6</b>	723.6	<b>0.31</b>	0.31	—	—	—	—	<b>723.6</b>	723.6
<b>Total</b>	<b>1,514.5</b>	1,514.5	<b>0.34</b>	0.34	—	—	—	—	<b>1,514.5</b>	1,514.5
<b>Penacho Blanco (see note (f))</b>										
<i>Oxides</i>										
Measured	—	—	—	—	—	—	—	—	—	—
Indicated	—	—	—	—	—	—	—	—	—	—
Measured + Indicated	—	—	—	—	—	—	—	—	—	—
Inferred	<b>18.3</b>	18.3	<b>0.29</b>	0.29	—	—	—	—	<b>9.3</b>	9.3
<b>Subtotal</b>	<b>18.3</b>	18.3	<b>0.29</b>	0.29	—	—	—	—	<b>9.3</b>	9.3
<i>Sulphides</i>										
Measured	—	—	—	—	—	—	—	—	—	—
Indicated	—	—	—	—	—	—	—	—	—	—
Measured + Indicated	—	—	—	—	—	—	—	—	—	—
Inferred	<b>321.9</b>	321.9	<b>0.38</b>	0.38	—	—	<b>0.05</b>	0.05	<b>164.2</b>	164.2
<b>Subtotal</b>	<b>321.9</b>	321.9	<b>0.38</b>	0.38	—	—	<b>0.05</b>	0.05	<b>164.2</b>	164.2
<b>Penacho Blanco Total</b>										
Measured	—	—	—	—	—	—	—	—	—	—
Indicated	—	—	—	—	—	—	—	—	—	—
Measured + Indicated	—	—	—	—	—	—	—	—	—	—
Inferred	<b>340.2</b>	340.2	<b>0.37</b>	0.37	—	—	—	—	<b>173.5</b>	173.5
<b>Total</b>	<b>340.2</b>	340.2	<b>0.37</b>	0.37	—	—	—	—	<b>173.5</b>	173.5

ORE RESERVES AND MINERAL RESOURCES ESTIMATES CONTINUED

At 31 December 2018

## MINERAL RESOURCES ESTIMATES (INCLUDING ORE RESERVES) CONTINUED

GROUP SUBSIDIARIES	TONNAGE (MILLIONS OF TONNES)		COPPER (%)		MOLYBDENUM (%)		GOLD (G/TONNE)		ATTRIBUTABLE TONNAGE (MILLIONS OF TONNES)	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
<b>Mirador (see note (g))</b>										
<i>Oxides</i>										
Measured	3.3	7.3	0.47	0.64	–	–	–	–	2.6	5.7
Indicated	24.1	28.6	0.32	0.28	–	–	–	–	18.8	22.3
Measured + Indicated	27.4	35.9	0.34	0.35	–	–	–	–	21.4	28.0
Inferred	8.5	9.1	0.26	0.27	–	–	–	–	6.6	7.1
<b>Subtotal</b>	<b>35.9</b>	<b>44.9</b>	<b>0.32</b>	<b>0.34</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>28.0</b>	<b>35.1</b>
<i>Sulphides</i>										
Measured	31.2	31.2	0.35	0.35	0.006	0.006	0.13	0.13	31.2	31.2
Indicated	16.8	16.8	0.28	0.28	0.008	0.008	0.08	0.08	16.8	16.8
Measured + Indicated	48.0	48.0	0.32	0.32	0.007	0.007	0.11	0.11	48.0	48.0
Inferred	2.5	2.5	0.26	0.26	0.008	0.008	0.06	0.06	2.5	2.5
<b>Subtotal</b>	<b>50.5</b>	<b>50.5</b>	<b>0.32</b>	<b>0.32</b>	<b>0.007</b>	<b>0.007</b>	<b>0.11</b>	<b>0.11</b>	<b>50.5</b>	<b>50.5</b>
<b>Mirador Total</b>										
Measured	34.5	38.5	0.36	0.40	–	–	–	–	33.8	36.9
Indicated	40.9	45.4	0.30	0.28	–	–	–	–	35.6	39.1
<b>Measured + Indicated</b>	<b>75.5</b>	<b>83.9</b>	<b>0.33</b>	<b>0.34</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>69.4</b>	<b>76.1</b>
Inferred	11.0	11.5	0.26	0.27	–	–	–	–	9.1	9.5
<b>Total</b>	<b>86.4</b>	<b>95.4</b>	<b>0.32</b>	<b>0.33</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>78.5</b>	<b>85.6</b>
<b>Llano (see note (h))</b>										
<i>Oxides</i>										
Measured	–	29.9	–	0.50	–	–	–	–	–	21.1
Indicated	–	6.5	–	0.43	–	–	–	–	–	4.6
Measured + Indicated	–	36.3	–	0.49	–	–	–	–	–	25.7
Inferred	–	6.1	–	0.32	–	–	–	–	–	4.3
<b>Subtotal</b>	<b>–</b>	<b>42.4</b>	<b>–</b>	<b>0.46</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>30.0</b>
<b>Llano Total</b>										
Measured	–	29.9	–	0.50	–	–	–	–	–	21.1
Indicated	–	6.5	–	0.43	–	–	–	–	–	4.6
<b>Measured + Indicated</b>	<b>–</b>	<b>36.3</b>	<b>–</b>	<b>0.49</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>25.7</b>
Inferred	–	6.1	–	0.32	–	–	–	–	–	4.3
<b>Total</b>	<b>–</b>	<b>42.4</b>	<b>–</b>	<b>0.46</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>30.0</b>
<b>Paleocanal (see note (i))</b>										
<i>Oxides</i>										
Measured	–	12.4	–	0.50	–	–	–	–	–	11.0
Indicated	–	6.6	–	0.41	–	–	–	–	–	5.9
Measured + Indicated	–	19.0	–	0.47	–	–	–	–	–	17.0
Inferred	–	2.8	–	0.33	–	–	–	–	–	2.5
<b>Subtotal</b>	<b>–</b>	<b>21.8</b>	<b>–</b>	<b>0.45</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>19.5</b>
<b>Paleocanal Total</b>										
Measured	–	12.4	–	0.50	–	–	–	–	–	11.0
Indicated	–	6.6	–	0.41	–	–	–	–	–	5.9
<b>Measured + Indicated</b>	<b>–</b>	<b>19.0</b>	<b>–</b>	<b>0.47</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>17.0</b>
Inferred	–	2.8	–	0.33	–	–	–	–	–	2.5
<b>Total</b>	<b>–</b>	<b>21.8</b>	<b>–</b>	<b>0.45</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>19.5</b>

GROUP SUBSIDIARIES	TONNAGE (MILLIONS OF TONNES)		COPPER (%)		MOLYBDENUM (%)		GOLD (G/TONNE)		ATTRIBUTABLE TONNAGE (MILLIONS OF TONNES)	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
<b>Los Volcanes (see note (j))</b>										
<i>Oxides</i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	<b>30.8</b>	30.8	<b>0.31</b>	0.31	-	-	-	-	<b>15.7</b>	15.7
<b>Subtotal</b>	<b>30.8</b>	30.8	<b>0.31</b>	0.31	-	-	-	-	<b>15.7</b>	15.7
<i>Sulphides</i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	<b>1,873.4</b>	1,873.4	<b>0.50</b>	0.50	<b>0.011</b>	0.011	<b>0.03</b>	0.03	<b>955.4</b>	955.4
<b>Subtotal</b>	<b>1,873.4</b>	1,873.4	<b>0.50</b>	0.50	<b>0.011</b>	0.011	<b>0.03</b>	0.03	<b>955.4</b>	955.4
<b>Los Volcanes Total</b>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	<b>1,904.2</b>	1,904.2	<b>0.50</b>	0.50	-	-	-	-	<b>971.1</b>	971.1
<b>Total</b>	<b>1,904.2</b>	1,904.2	<b>0.50</b>	0.50	-	-	-	-	<b>971.1</b>	971.1
<b>Brujulina (see note (k))</b>										
<i>Oxides</i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	<b>87.2</b>	87.2	<b>0.49</b>	0.49	-	-	-	-	<b>44.5</b>	44.5
<b>Total</b>	<b>87.2</b>	87.2	<b>0.49</b>	0.49	-	-	-	-	<b>44.5</b>	44.5
<b>Brujulina Total</b>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	<b>87.2</b>	87.2	<b>0.49</b>	0.49	-	-	-	-	<b>44.5</b>	44.5
<b>Total</b>	<b>87.2</b>	87.2	<b>0.49</b>	0.49	-	-	-	-	<b>44.5</b>	44.5
<b>Sierra (see note (l))</b>										
<i>Oxides</i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	<b>52.0</b>	52.0	<b>0.69</b>	0.69	-	-	-	-	<b>52.0</b>	52.0
<b>Total</b>	<b>52.0</b>	52.0	<b>0.69</b>	0.69	-	-	-	-	<b>52.0</b>	52.0
<b>Sierra Total</b>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	<b>52.0</b>	52.0	<b>0.69</b>	0.69	-	-	-	-	<b>52.0</b>	52.0
<b>Total</b>	<b>52.0</b>	52.0	<b>0.69</b>	0.69	-	-	-	-	<b>52.0</b>	52.0

ORE RESERVES AND MINERAL RESOURCES ESTIMATES CONTINUED

At 31 December 2018

## MINERAL RESOURCES ESTIMATES (INCLUDING ORE RESERVES) CONTINUED

GROUP SUBSIDIARIES	TONNAGE (MILLIONS OF TONNES)		COPPER (%)		NICKEL (%)		TPM (G/TONNE AU+PT+PD)	ATTRIBUTABLE TONNAGE (MILLIONS OF TONNES)		
	2018	2017	2018	2017	2018	2017		2018	2017	
<b>Twin Metals (see note (m))</b>										
<i>Maturi</i>										
Measured	<b>291.4</b>	279.5	<b>0.63</b>	0.63	<b>0.20</b>	0.20	<b>0.57</b>	0.57	<b>224.6</b>	215.3
Indicated	<b>818.3</b>	745.5	<b>0.57</b>	0.58	<b>0.18</b>	0.19	<b>0.57</b>	0.59	<b>771.6</b>	712.5
Measured + Indicated	<b>1,109.7</b>	1,025.0	<b>0.59</b>	0.59	<b>0.19</b>	0.19	<b>0.57</b>	0.58	<b>996.1</b>	927.7
Inferred	<b>534.1</b>	481.4	<b>0.50</b>	0.49	<b>0.16</b>	0.16	<b>0.57</b>	0.52	<b>483.2</b>	433.6
<b>Subtotal</b>	<b>1,643.8</b>	1,506.4	<b>0.56</b>	0.56	<b>0.18</b>	0.18	<b>0.57</b>	0.56	<b>1,479.3</b>	1,361.3
<i>Maturi Southwest</i>										
Measured	—	—	—	—	—	—	—	—	—	—
Indicated	<b>93.1</b>	93.1	<b>0.48</b>	0.48	<b>0.17</b>	0.17	<b>0.31</b>	0.31	<b>65.2</b>	65.2
Measured + Indicated	<b>93.1</b>	93.1	<b>0.48</b>	0.48	<b>0.17</b>	0.17	<b>0.31</b>	0.31	<b>65.2</b>	65.2
Inferred	<b>29.3</b>	29.3	<b>0.43</b>	0.43	<b>0.15</b>	0.15	<b>0.26</b>	0.26	<b>20.5</b>	20.5
<b>Subtotal</b>	<b>122.4</b>	122.4	<b>0.47</b>	0.47	<b>0.17</b>	0.17	<b>0.30</b>	0.30	<b>85.7</b>	85.7
<i>Birch Lake</i>										
Measured	—	—	—	—	—	—	—	—	—	—
Indicated	<b>90.4</b>	90.4	<b>0.52</b>	0.52	<b>0.16</b>	0.16	<b>0.87</b>	0.87	<b>63.3</b>	63.3
Measured + Indicated	<b>90.4</b>	90.4	<b>0.52</b>	0.52	<b>0.16</b>	0.16	<b>0.87</b>	0.87	<b>63.3</b>	63.3
Inferred	<b>217.0</b>	217.0	<b>0.46</b>	0.46	<b>0.15</b>	0.15	<b>0.64</b>	0.64	<b>151.9</b>	151.9
<b>Subtotal</b>	<b>307.4</b>	307.4	<b>0.48</b>	0.48	<b>0.15</b>	0.15	<b>0.70</b>	0.70	<b>215.2</b>	215.2
<i>Spruce Road</i>										
Measured	—	—	—	—	—	—	—	—	—	—
Indicated	—	—	—	—	—	—	—	—	—	—
Measured + Indicated	—	—	—	—	—	—	—	—	—	—
Inferred	<b>435.5</b>	435.5	<b>0.43</b>	0.43	<b>0.16</b>	0.16	—	—	<b>304.8</b>	304.8
<b>Subtotal</b>	<b>435.5</b>	435.5	<b>0.43</b>	0.43	<b>0.16</b>	0.16	—	—	<b>304.8</b>	304.8
<b>Twin Metals Total</b>										
Measured	<b>291.4</b>	279.5	<b>0.63</b>	0.63	<b>0.20</b>	0.20	<b>0.57</b>	0.57	<b>224.6</b>	215.3
Indicated	<b>1,001.8</b>	929.1	<b>0.56</b>	0.56	<b>0.18</b>	0.19	<b>0.57</b>	0.59	<b>900.0</b>	840.9
Measured + Indicated	<b>1,293.2</b>	1,208.6	<b>0.57</b>	0.58	<b>0.18</b>	0.19	<b>0.57</b>	0.58	<b>1,124.6</b>	1,056.2
Inferred	<b>1,215.9</b>	1,163.1	<b>0.47</b>	0.46	<b>0.16</b>	0.16	<b>0.37</b>	0.34	<b>960.4</b>	910.8
<b>Total</b>	<b>2,509.1</b>	2,371.7	<b>0.52</b>	0.52	<b>0.17</b>	0.17	<b>0.47</b>	0.46	<b>2,085.0</b>	1,967.0
<b>Group subsidiaries</b>										
Measured + Indicated	<b>9,791.9</b>	9,880.4	<b>0.47</b>	0.47	—	—	—	—	<b>6,998.1</b>	7,361.8
Inferred	<b>8,582.7</b>	8,467.4	<b>0.43</b>	0.43	—	—	—	—	<b>5,626.4</b>	5,571.6
<b>Group subsidiaries total</b>	<b>18,374.6</b>	18,347.8	<b>0.45</b>	0.45	—	—	—	—	<b>12,624.5</b>	12,933.4

GROUP JOINT VENTURES	TONNAGE (MILLIONS OF TONNES)		COPPER (%)	MOLYBDENUM (%)		GOLD (G/TONNE)	ATTRIBUTABLE TONNAGE (MILLIONS OF TONNES)			
	2018	2017		2018	2017		2018	2017		
<b>Zaldívar (see note (n))</b>										
<i>Oxides</i>										
Measured	<b>544.2</b>	432.4	<b>0.43</b>	0.49	—	—	—	—		
Indicated	<b>230.7</b>	171.8	<b>0.38</b>	0.45	—	—	—	—		
Measured + Indicated	<b>774.9</b>	604.2	<b>0.41</b>	0.48	—	—	—	—		
Inferred	<b>43.7</b>	8.8	<b>0.25</b>	0.51	—	—	—	—		
<b>Total</b>	<b>818.6</b>	613.0	<b>0.41</b>	0.48	—	—	—	—		
<b>Zaldívar Total</b>										
Measured	<b>544.2</b>	432.4	<b>0.43</b>	0.49	—	—	—	—		
Indicated	<b>230.7</b>	171.8	<b>0.38</b>	0.45	—	—	—	—		
Measured + Indicated	<b>774.9</b>	604.2	<b>0.41</b>	0.48	—	—	—	—		
Inferred	<b>43.7</b>	8.8	<b>0.25</b>	0.51	—	—	—	—		
<b>Group Joint Ventures total</b>	<b>818.6</b>	613.0	<b>0.41</b>	0.48	—	—	—	—		
TOTAL GROUP	2018	2017	2018	2017	2018	2017	2018	2017		
<b>Measured + Indicated</b>	<b>10,566.8</b>	10,484.6	<b>0.46</b>	0.47	—	—	—	—		
<b>Inferred</b>	<b>8,626.4</b>	8,476.2	<b>0.43</b>	0.43	—	—	—	—		
<b>Total</b>	<b>19,193.2</b>	18,960.8	<b>0.45</b>	0.45	—	—	—	—		
							<b>2018</b>	<b>2017</b>		

## NOTES TO ORE RESERVES AND MINERAL RESOURCES ESTIMATES

The ore reserves mentioned in this report were determined considering specific cut-off grades for each mine and using a long-term copper price of \$3.10/lb (\$3.00 in 2017), \$9.00/lb molybdenum (unchanged from 2017) and \$1,300/oz gold (\$1,250 in 2017), unless otherwise noted. These same values have been used for copper equivalent (CuEq) estimates, where appropriate.

In order to ensure that the stated resources represent mineralisation that has "reasonable prospects for eventual economic extraction" (JORC code) the resources are enclosed within pit shells that were optimised based on measured, indicated and inferred resources and considering a copper price of \$3.60/lb (unchanged from 2017). Mineralisation estimated outside these pit shells is not included in the resource figures.

Group policy on auditing of resource and reserve estimates is that prior to first publication, an independent external audit is done. External audits are also done on resources and reserves for any material changes (incorporation of a significant amount of drillhole information, for instance) or every three to five years, whichever comes first. In 2017 external audits were carried out on the 2016 ore reserve estimates at Los Pelambres, Centinela, Zaldívar and Antucoya (Encuentro Oxides was audited prior to first publication in 2015). All reserve estimates were found to comply with the JORC Code (2012). All the resource models that support the reserve estimates have been audited as per Group policy.

### A) LOS PELAMBRES

Los Pelambres is 60% owned by the Group. The cut-off grade applied to the determination of mineral resources is 0.35% copper, while cut-off grade applied for mineral reserves is variable over 0.35% copper. For 2018 the mineral resource model has been updated with 38 drill holes for a total of 10,900 metres. The decrease of 63 million tonnes in ore reserves is due to depletion in the period and reflects the remaining capacity of the existing tailing dams, limiting the amount of mineral resource that can be converted into ore reserves. Mineral resources increased overall by a net 89 million tonnes, including depletion, with the greatest difference in inferred resources, which increased by 149 million tonnes due to modifications in optimisation strategy.

### B) CENTINELA (CONCENTRATES AND CATHODES)

Centinela is 70% owned by the Group and consists of Centinela Concentrates (Esperanza + Esperanza Sur, mostly sulphide porphyry deposits) and Centinela Cathodes (Tesoro Central, an oxide deposit + the oxide portion of the Mirador deposit) operations. For 2018 there has been a change in ownership for three deposits, with the Group portion transferred to Centinela ownership: the entire Encuentro deposit (both oxides and sulphides); the Group portion of Paleocanal (now referred to as Tesoro Sur); and oxides contained in Phase 4 of Mirador. The cut-off grade applied to the determination of ore reserves for Centinela Concentrates is 0.15% equivalent copper, with 0.15% copper used as a cut-off grade for mineral resources. The cut-off grades used for the Centinela Cathodes ore reserves is as follows: Tesoro Central and Mirador Oxides deposits, 0.20% copper (down from 0.41% and 0.30% respectively in 2017). These changes in cut-off grades reflect results of ongoing metallurgical testwork on lower grade material. For these oxide deposits, the cut-off grade for mineral resources is 0.15%. The cut-off grade applied to oxides contained in the Esperanza, Esperanza Sur and Encuentro deposits is 0.20% copper for ore reserves and 0.15% copper for mineral resources.

The Centinela Cathodes ore reserves have increased by a net 135 million tonnes, due in large part to the incorporation into Centinela ownership of 98 million tonnes of Encuentro Oxides. The remaining increase in Centinela Cathodes ore reserves is a combination of lower cut-off grade in Tesoro Central and additional oxide ore reserves in Esperanza Sur. Centinela Cathodes ore reserves are made up of 209 million tonnes at 0.48% copper of heap leach ore and 117 million tonnes at 0.27% copper of ROM ore. Centinela Cathodes mineral resources increased by a net 244 million tonnes, also due mostly to the incorporation into Centinela ownership of 165 million tonnes from Encuentro Oxides, but also positively impacted by the incorporation into Centinela ownership of 21 million tonnes from Tesoro Sur (ex-Paleocanal) and 9 million tonnes from Phase 4 Mirador. Additionally, due to the high proportion of Centinela ownership in the Llano deposit (97% approx), resources of 40 million tonnes have now been consolidated into the Centinela Cathodes section.

Centinela Concentrates ore reserves have decreased by a net 28 million tonnes, including depletion of 46 million tonnes, which was partially offset by an increase in Esperanza Sur ore reserves. Centinela Sulphides mineral resources increased by a net 784 million tonnes, due to the incorporation of 919 million tonnes of Encuentro Sulphides into Centinela ownership, more than offsetting a decrease of 135 million tonnes in Esperanza and Esperanza Sur. The decrease in Esperanza and Esperanza Sur resources is due to updates to the economic parameters and cost model in the period in addition to depletion of 50 million tonnes.

### C) ENCUENTRO

The entire Encuentro deposit (both oxides and sulphides) was acquired by Centinela in 2018 and, now incorporated into the Centinela section.

### D) ANTUCOYA

Antucoya is 70% owned by the Group. The ore reserve cut-off grade is calculated using an economic formula with a minimum of 0.16% copper, while the cut-off grade for mineral resources is 0.15% copper. For 2018 the mineral resource model has been updated with 36 drill holes for a total of 4,500 metres. Ore reserves have decreased by 36 million tonnes and mineral resources by 38 million tonnes, mainly due to depletion, but also impacted by updates to the resource model.

### E) POLO SUR

Polo Sur is 100% owned by the Group. The cut-off grade applied to the determination of mineral resources for both oxides and sulphides is 0.20% copper. For 2018 the resource model has not been updated.

### F) PENACHO BLANCO

Penacho Blanco is 51% owned by the Group. The cut-off grade applied to the determination of mineral resources for both oxides and sulphides is 0.20% copper. For 2018 the resource model has not been updated.

### G) MIRADOR

Mirador is 100% owned by the Group. A portion of Mirador Oxides is subject to an agreement between the Group and Centinela, whereby Centinela purchased the rights to mine the oxide ore reserves within an identified area. The mineral resources for Mirador Oxides, subject to the agreement with Centinela, are included in the Centinela Cathodes/Oxides sections. The resources not subject to the agreement are reported in this section. The cut-off grade applied to the determination of mineral resources for oxides is 0.15% copper and for sulphides is 0.20% copper. For 2018 Mirador Oxides mineral resources have decreased by 9 million tonnes due to the transfer of ownership of Phase 4 to Centinela.

## H) LLANO

The Llano deposit is covered by AMSA and Centinela mining tenements shared in different proportions, with the Group owning 70.8% of the resource. The cut-off grade applied to the determination of mineral resources is 0.15% copper. For 2018, due to the high proportion of Centinela ownership in the Llano deposit (97% approx), these resources are now incorporated into the Centinela Oxides section.

## I) PALEOCANAL

The Paleocanal deposit was covered by AMSA and Centinela mining tenements shared in different proportions, with the Group owning 89.2% of the resource in 2017. The cut-off grade applied to the determination of mineral resources is 0.15% copper. For 2018 ownership of the Paleocanal mineral resources (now referred to as Tesoro Sur in the Centinela Cathodes/Oxides notes) has been transferred to Centinela, and are now incorporated into the Centinela Oxides section.

## J) LOS VOLCANES

Los Volcanes is 51% owned by the Group. The cut-off grade applied to the determination of ore reserves and mineral resources is 0.20% copper. For 2018 the mineral resource model has not been updated.

## K) BRUJULINA

Brujulina is 51% owned by the Group. The cut-off grade applied to the determination of mineral resources is 0.30% copper. For 2018 the mineral resource model has not been updated.

## L) SIERRA

Sierra is 100% owned by the Group. The cut-off grade applied to the determination of mineral resources is 0.30% copper. For 2018 the mineral resource model has not been updated.

## M) TWIN METALS MINNESOTA LLC

Twin Metals Minnesota LLC ("Twin Metals") is owned 100% by the Group.

Twin Metals has a 70% interest in the Birch Lake Joint Venture ("BLJV") which holds the Birch Lake, Spruce Road and Maturi Southwest deposits, as well as a portion of the main Maturi deposit. With these interests taken into consideration, Twin Metals owns 83.1% of the resource. For 2018 the resource estimate increased by 137 million tonnes due to re-evaluation of the categorisation criteria in the Maturi deposit.

The cut-off grade applied to the determination of mineral resources is 0.3% copper, which when combined with credits from nickel, platinum, palladium and gold, is deemed appropriate for an underground operation. In the resource table 'TPM' (Total Precious Metals) refers to the sum of platinum, palladium and gold values in grammes per tonne. The TPM value of 0.57 g/tonne for the Maturi resource estimate is made up of 0.15 g/tonne platinum, 0.34 g/tonne palladium and 0.08 g/tonne gold. The TPM value of 0.30 g/tonne for the Maturi Southwest resource estimate is made up of 0.08 g/tonne platinum, 0.17 g/tonne palladium and 0.05 g/tonne gold. The TPM value of 0.70 g/tonne for the Birch Lake resource estimate is made up of 0.19 g/tonne platinum, 0.41 g/tonne palladium and 0.10 g/tonne gold. The Spruce Road resource estimate does not include TPM values as they were not assayed.

On 22 December 2017 the Solicitor of the Department of the Interior issued a new legal opinion concluding that the BLM did not have discretion to deny Twin Metals' application for renewal of federal mineral leases MNES-1352 and MNES-1353. Immediately after, Twin Metals dismissed its lawsuit filed in the U.S. District Court in Minnesota against the BLM and USFS, with immediate effect. Currently there is no pending litigation.

As expected, on 2 May 2018 the BLM reinstated the federal mineral leases MNES-1352 and MNES-1353 and the renewal process is ongoing.

## N) ZALDÍVAR

Zaldívar is 50% owned by the Group. Cut-off grades are calculated using an economic formula which is equivalent to approximately 0.20% copper. For 2018 no new drill holes have been incorporated in the mineral resource model, but adjustments have been made using blast hole information. Ore reserves have increased by 39 million tonnes with depletion more than offset by the inclusion of 89 million tonnes of low grade sulphide Dump Leach ore in the estimate. Mineral resources have increased by a net 206 million tonnes, including depletion, principally due to inclusion of potential Dump Leach ore in the pit optimisation process.

The final pit phase (Phase 13), which represents approximately 18% of current ore reserves, impacts a portion of Minera Escondida mine property, as well as infrastructure owned by third parties (road, railway, powerline and pipelines). Mining of the final pit phase is subject to agreements or easements to access these areas and relocate this infrastructure.

## O) ANTOMIN 2 AND ANTOMIN INVESTORS

The Group has an approximately 51% interest in two indirect subsidiaries, Antomin 2 Limited ("Antomin 2") and Antomin Investors Limited ("Antomin Investors"), which own a number of copper exploration properties in Chile's Antofagasta Region and Coquimbo Region. These include, among others, Penacho Blanco, Los Volcanes and Brujulina. The remaining approximately 49% of Antomin 2 and Antomin Investors is owned by Mineralinvest Establishment ("Mineralinvest"), a company controlled by the Luksic family.

Further details are set out in Note 34C to the financial statements.

## BUSINESS, FINANCIAL AND ACCOUNTING

AIFR	All Injury Frequency Rate.
AMSA	Antofagasta Minerals S.A., a wholly-owned subsidiary of the Group incorporated in Chile, which acts as the corporate centre for the mining division.
Annual Report	The Annual Report and Financial Statements of Antofagasta plc.
Antucoya	Minera Antucoya S.A., a 70%-owned subsidiary of the Group incorporated in Chile.
ATI	Antofagasta Terminal Internacional S.A., a 30%-owned associate of the Group incorporated in Chile that operates the port in the city of Antofagasta.
Australian dollars	Australian currency.
Banco de Chile	A commercial bank that is a subsidiary of Quiñenco.
Barrick Gold	Barrick Gold Corporation, incorporated in Canada. Joint venture partner of the Group in both Zaldívar and Tethyan.
Capex	Capital expenditure.
Cash costs	A measure of the cost of operating production expressed in terms of US dollars per pound of payable copper produced. Cash costs are stated net of by-product credits and include tolling charges for concentrates for Los Pelambres and Centinela. Cash costs exclude depreciation, financial income and expenses, hedging gains and losses, exchange gains and losses, and corporation tax.
CDP	Carbon Disclosure Project.
Centinela	Minera Centinela S.A., a 70%-owned subsidiary of the Group incorporated in Chile that holds the Centinela Concentrates (formerly Esperanza) and Centinela Cathodes (formerly El Tesoro) operations.
Centinela Mining District	Copper district located in the Antofagasta Region of Chile, where Centinela is located.
CGU	Cash-Generating Unit.
Chilean peso	Chilean currency.
Comex	A commodity exchange that trades metals such as gold, silver, copper and aluminium.
Companies Act 2006	Principal legislation for United Kingdom company law.
Company	Antofagasta plc.
Continental water	Water that comes from the interior of land masses including rain, snow, streams, rivers, lakes and groundwater.
Corporate Governance Code	The UK Corporate Governance Code is a set of principles of good corporate governance, most of which have their own more detailed provisions published by the Financial Reporting Council, most recently updated in 2016. A later update was published in 2018 and applies to accounting periods beginning on or after 1 January 2019.
Directors	The Directors of the Company.
Duluth	Duluth Metals Limited, a wholly-owned subsidiary of Antofagasta plc acquired on 28 January 2015 through which the Group holds the Twin Metals Project.
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation.
EIA	Environmental Impact Assessment.
El Arrayán	Parque Eólico el Arrayán SpA, a 30%-owned associate of the Group that operates a wind-power plant providing up to 40MW of electricity to Los Pelambres.
Encuentro	Copper oxide and sulphide prospect in the Centinela Mining District.
Energía Andina	Energía Andina S.A., a 50%-owned joint venture entity of the Group incorporated in Chile.
EPS	Earnings per share.

Esperanza Sur	Copper deposit in the Centinela Mining District.	IVA	Impuesto al Valor Agregado, or Chilean Value Added Tax (Chilean VAT).
EU	European Union.	Key Management Personnel	Persons with authority and responsibility for planning, directing and controlling the activities of the Group.
FCA	Financial Conduct Authority. UK regulatory body.	KPI	Key performance indicator.
FCAB	Ferrocarril de Antofagasta a Bolivia, the corporate name of the Group's transport division.	LBMA	London Bullion Market Association.
FTSE All-Share Index	A market-capitalisation weighted index representing the performance of all eligible companies listed on the London Stock Exchange's main market.	LIBOR	London Inter Bank Offered Rate.
GAAP	Generally Accepted Accounting Practice or Generally Accepted Accounting Principles, a collection of commonly-followed accounting rules and standards for financial reporting.	LME	London Metal Exchange.
GHG	Greenhouse Gas.	Los Pelambres	Minera Los Pelambres S.A., a 60%-owned subsidiary of the Group incorporated in Chile.
Government	The Government of the Republic of Chile.	LSE	London Stock Exchange.
Group	Antofagasta plc and its subsidiary companies and joint ventures.	LTIFR	Lost Time Injury Frequency Rate.
Hedge accounting	Accounting treatment for derivative financial instruments permitted under IAS 39 "Financial Instruments: Recognition and Measurement", which recognises the offsetting effects on profit or loss of changes in the fair values of a hedging instrument and the hedged item.	LTIP	Long Term Incentive Plan in which the Group's CEO, Executive Committee members and the other senior managers participate.
IAS	International Accounting Standards.	Marubeni	Marubeni Corporation, the Group's 30% minority partner in Centinela and Antucoya.
IASB	International Accounting Standards Board.	Michilla	Minera Michilla S.A., a 99.9%-owned subsidiary of the Group incorporated in Chile which was closed at the end of 2015 and sold in November 2016.
ICMM	International Council on Metals and Mining.	PEP	Politically Exposed Person, an individual who holds or has held a prominent public position in a national or international organisation within the last year.
IFRIC	International Financial Reporting Interpretations Committee.	Platts	A provider of energy and metals information and source of benchmark price assessments.
IFRS	International Financial Reporting Standards.	PPA	Power Purchase Agreement.
Inversiones Hornitos	Inversiones Hornitos S.A., a 40%-owned associate of the Group incorporated in Chile, which owns the 150MW Hornitos thermoelectric power plant in Mejillones in Chile's Antofagasta Region.		

## GLOSSARY AND DEFINITIONS CONTINUED

Provisional pricing	A sales term in several copper and molybdenum concentrate sale agreements and cathodes sale agreements that provides for provisional pricing of sales at the time of shipment, with final pricing being based on the monthly average LME copper price or monthly average molybdenum price for specific future periods, normally ranging from 30 to 180 days after delivery to the customer. For the purposes of IAS 39, the provisional sale is considered to contain an embedded derivative (ie the forward contract for which the provisional sale is subsequently adjusted) that is separated from the host contract (ie the sale of metals contained in the concentrate or cathode at the provisional invoice price less tolling charges deducted).
Quiñenco	Quiñenco S.A., a Chilean financial and industrial group listed on the Santiago Stock Exchange and controlled by a foundation in which the Luksic family are interested.
Ramsar Convention	International treaty for the conservation and sustainable utilisation of wetlands.
RCA	Resolucion de Calificación Ambiental, Environmental Approval Resolution.
Realised prices	Effective sale price achieved comparing revenues (grossed up for tolling charges for concentrate) with sales volumes.
Run-of-river	A type of hydroelectric plant using the flow of a river as it occurs and having little or no reservoir capacity.
SERNAGEOMIN	Servicio Nacional de Geología y Minería, a government agency that provides geological and technical advice and regulates the mining industry in Chile.
SHFE	Shanghai Futures Exchange.
SONAMI	Sociedad Nacional de Minería. Institution that represents the mining activity in Chile, for large, medium and small scale, metallic and non-metallic companies.
Sterling	Pounds sterling, UK currency.
SVS	Superintendencia de Valores y Seguros de Chile, the Chilean securities regulator.
Tesoro Central and Tesoro Noreste	Copper oxide open pits forming part of the Centinela operation.
Tethyan	Tethyan Copper Company Limited, a 50-50 joint venture with Barrick Gold incorporated in Australia.
TSR	Total Shareholder Return, being the movement in the Company's share price plus reinvested dividends.
Twin Metals Minnesota Project	A copper, nickel and platinum group metals underground-mining project located in Minnesota, US.
UK	United Kingdom.
UKLA	United Kingdom Listing Authority, part of the FCA.
US	United States.
US dollar	United States currency.
Zaldívar	Compañía Minera Zaldívar SpA, a 50-50 joint venture with Barrick Gold, which operates the Zaldívar copper mine in Chile.

## MINING INDUSTRY

Brownfield project	A development or exploration project in the vicinity of an existing operation.	Heap-leaching or leaching	A process for the recovery of copper from ore, generally oxides. The crushed material is laid on a slightly sloping, impermeable pad and leached by uniformly trickling (gravity fed) chemical solution through the beds to ponds. The metal is then recovered from the solution through the SX-EW process.
By-products (credits in copper concentrates)	Products obtained as a result of copper processing. Los Pelambres and Centinela Concentrates receive credit for the gold and silver content in the copper concentrate sold. Los Pelambres also produces molybdenum concentrate.	JORC	The Australasian Joint Ore Reserves Committee.
Concentrate	The product of a physical concentration process, such as flotation or gravity concentration, which involves separating ore minerals from unwanted waste rock. Concentrates require subsequent processing (such as smelting or leaching) to break down or dissolve the ore minerals and obtain the desired elements, usually metals.	ktpd	Thousand tonnes per day.
Contained copper	The proportion or quantity of copper contained in a given quantity of ore or concentrate.	Life-of-Mine ("LOM")	The remaining life of a mine expressed in years, calculated by reference to scheduled production rates (ie comparing the rate at which ore is expected to be extracted from the mine to current defined reserves).
Copper cathode	Refined copper produced by electrolytic refining of impure copper by electrowinning.	Mineral resources	Material of intrinsic economic interest occurring in such form and quantity that there are reasonable prospects for eventual economic extraction. Mineral resources are stated inclusive of ore reserves, as defined by JORC.
Cut-off grade	The lowest grade of mineralised material considered economic to process and used in the calculation of ore reserves and mineral resources.	MW	Megawatts (one million watts).
Flotation	A process of separation by which chemicals in solution are added to materials, some of which are attracted to bubbles and float, while others sink. This results in the production of concentrate.	Net cash cost	Gross cash costs less by-product credits.
Grade A copper cathode	Highest-quality copper cathode (LME registered and certified in the case of Centinela Cathodes).	Open pit	Mine working or excavation that is open to the surface.
Greenfield project	The development or exploration of a new project at a previously undeveloped site.	Ore	Rock from which metal(s) or mineral(s) can be economically and legally extracted.
		Ore grade	The relative quantity, or percentage, of metal content in an ore body or quantity of processed ore.
		Ore reserves	Part of Mineral Resources for which appropriate assessments have been carried out to demonstrate that at a given date extraction could be reasonably justified. These include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors.

## GLOSSARY AND DEFINITIONS CONTINUED

Oxide and sulphide ores	Different kinds of ore containing copper. Oxide ore occurs on the weathered surface of ore-rich lodes and normally results in the production of cathode copper through a heap-leaching process. Sulphide ore comes from an unweathered parent ores process and normally results in the production of concentrate through a flotation process which then requires smelting and refining to produce cathode copper.
Payable copper	The proportion or quantity of contained copper for which payment is received after metallurgical deduction.
Porphyry	A large body of rock which contains disseminated chalcopyrite and other sulphide minerals. Such a deposit is mined in bulk on a large scale, generally in open pits, for copper and its by-product molybdenum.
Run-of-Mine ("ROM")	A process for the recovery of copper from ore, typically used for low-grade ores. The mined, uncrushed ore is leached with a chemical solution. The metal is then recovered from the solution through the SX-EW process.
Stockpile	Material extracted and piled for future use.
SX-EW	Solvent extraction and electrowinning. A process for extracting metal from an ore and producing pure metal. First the metal is leached into solution, the resulting solution is then purified in the solvent-extraction process before being treated in an electrochemical process (electrowinning) to recover cathode copper.
Tailings dam	Construction used to deposit the rock waste which remains as a result of the concentrating process after the recoverable minerals have been extracted in concentrate form.
TC/RCs	Treatment and refining charges, being terms used to set the smelting and refining charge or margin for processing copper concentrate and normally set either on an annual or spot basis.
Tolling charges	Charges or margins for converting concentrate into finished metal. These include TC/RCs, price participation and price sharing for copper concentrate and roasting charges for molybdenum concentrate.
Tonne	Metric tonne.
tpd	Tonnes per day, normally with reference to the quantity of ore processed over a given period of time expressed as a daily average.
Underground mine	Natural or man-made excavation under the surface of the ground.

## CURRENCY ABBREVIATIONS

\$	US dollars
\$'000	Thousand US dollars
\$m	Million US dollars
£	Pound sterling
£'000	Thousand pounds sterling
£m	Million pounds sterling
p	Pence sterling
C\$	Canadian dollar
C\$m	Million Canadian dollars
Ch\$	Chilean peso
Ch\$'000	Thousand Chilean pesos
Ch\$m	Million Chilean pesos
A\$	Australian dollars
A\$'000	Thousand Australian dollars
A\$m	Million Australian dollars

## DEFINITIONS AND CONVERSION OF WEIGHTS AND MEASURES

lb	Pound
oz	A troy ounce
'000 m <sup>3</sup>	Thousand cubic metres
'000 tonnes	Thousand metric tonnes
1 kilogramme	2.2046 pounds
1 tonne	204.6 pounds or 1,000 kilograms
1 kilometre	0.6214 miles
1 troy ounce	31.1 grammes

## CHEMICAL SYMBOLS

Cu	Copper
Mo	Molybdenum
Au	Gold
Ag	Silver

## DIVIDENDS

Details of dividends proposed in relation to the year are given in the Directors' Report on page 137, and in Note 13 to the Financial Statements.

If approved at the Annual General Meeting, the final dividend of 37.0 cents will be paid on 24 May 2019 to ordinary shareholders that are on the register at the close of business on 26 April 2019. Shareholders can elect (on or before 29 April 2019) to receive this final dividend in US dollars, Sterling or Euro, and the exchange rate, which will be applied to final dividends to be paid in Sterling or Euro, will be set as soon as reasonably practicable after that date which is currently anticipated to be on 2 May 2019.

Further details of the currency election timing and process (including the default currency of payment) are available on the Antofagasta plc website ([www.antofagasta.co.uk](http://www.antofagasta.co.uk)) or from the Company's registrar, Computershare Investor Services PLC on +44 37 0702 0159.

Dividends are paid gross without deduction of United Kingdom income tax. Antofagasta plc is a resident in the United Kingdom for tax purposes.

## ANNUAL GENERAL MEETING

The Annual General Meeting will be held at Church House Conference Centre, Dean's Yard, Westminster, London SW1P 3NZ at 10.00 am on Wednesday 22 May 2019. The formal notice of the Annual General Meeting and resolutions to be proposed are set out in the Notice of Annual General Meeting.

## LONDON STOCK EXCHANGE LISTING AND SHARE PRICE

The Company's shares are listed on the London Stock Exchange.

## SHARE CAPITAL

Details of the Company's ordinary share capital are given in Note 29 to the Financial Statements.

## SHAREHOLDER CALENDAR 2019

23 January 2019	Q4 2018 Production Report
19 March 2019	FY 2018 Results Announcement
24 April 2019	Q1 2019 Production Report
25 April 2019	2018 Final Dividend – Ex Dividend date
26 April 2019	2018 Final Dividend – Record date
29 April 2019	2018 Final Dividend – Final date for receipt of Currency Elections
2 May 2019	2018 Final Dividend – Pound Sterling/ Euro Rate set
22 May 2019	Annual General Meeting
24 May 2019	2018 Final Dividend – Payment date
24 July 2019	Q2 2019 Production Report
22 August 2019	HY 2019 Results Announcement
5 September 2019	2019 Interim Dividend – Ex Dividend date
6 September 2019	2019 Interim Dividend – Record date
9 September 2019	2019 Interim Dividend – Final date for receipt of Currency Elections
12 September 2019	2019 Interim Dividend – Pound Sterling/ Euro Rate set
4 October 2019	2019 Interim Dividend – Payment date
23 October 2019	Q3 2019 Production Report
22 January 2020	Q4 2019 Production Report

Dates are provisional and subject to change.

## REGISTRARS

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 Tel: +44 37 0702 0159  
[www.computershare.com](http://www.computershare.com)

## WEBSITE

Antofagasta plc's annual and half-yearly financial reports, press releases and other presentations are available on the Group's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

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## REGISTERED NUMBER

1627889

Additional information can be found in the Shareholder Information section of the Notice of Annual General Meeting and on the Group's website.

## DIRECTORS AND ADVISERS

### DIRECTORS

Jean-Paul Luksic	Chairman
Manuel Lino Silva De Sousa-Oliveira (Ollie Oliveira)	Non-Executive
Gonzalo Menéndez	Non-Executive
Ramón Jara	Non-Executive
Juan Claro	Non-Executive
William Hayes	Non-Executive
Tim Baker	Non-Executive
Andrónico Luksic C	Non-Executive
Vivianne Blanlot	Non-Executive
Jorge Bande	Non-Executive
Francisca Castro	Non-Executive

### COMPANY SECRETARY

Julian Anderson

### AUDITOR

PricewaterhouseCoopers LLP

### SOLICITORS

Clifford Chance LLP

### FINANCIAL ADVISERS

N M Rothschild & Sons

### STOCKBROKERS

J.P. Morgan Cazenove

Citigroup Global Markets Limited

For up-to-date investor information including our past financial results, visit:

+ Group website:  
[www.antofagasta.co.uk](http://www.antofagasta.co.uk)

+ Investors:  
[www.antofagasta.co.uk/investors](http://www.antofagasta.co.uk/investors)



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ISO 14001 – A pattern of control for an environmental management system against which an organisation can be credited by a third party.

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