

23 December 2015

The Director

Operations 3

GPO Box 1632

Melbourne Victoria 3001

Attn: Dale Seymour

Subject: Anti-Dumping Notice No. 2015/132: Grinding Balls Exported from China

#### Dear Sir:

I, Rajiv Kalra, am CEO of CITIC Heavy Industries Company Australia Pty Ltd, a company which has commenced the sale of Grinding Media from China into Australia and other countries. We are an interested party and submit our concern in regards to your recent decision to initiate an investigation of alleged dumping and subsidisation of grinding balls exported from the People's Republic of China.

We have attached our grinding media brochure for your information.

According to the Public Notice,

The application alleges that the goods have been exported to Australia at prices less than their normal value and were in receipt of countervailable subsidies. The application also alleges that the dumping and subsidisation caused material injury to the Australian industry through:

- Lost sales volume;
- Price depression;
- Price suppression;
- Loss of profits;
- Reduced profitability;
- Reduced revenues;
- Reduced return on investment;
- Reduced capacity utilisation; and
- Reduced employment.

We wish to submit our objection to these allegations, which are not correct, which mischaracterise how our business would operate, and which arbitrarily penalise one Australian firm for the benefit of another.

This brief submission is not, nor can it be, an exhaustive rebuttal to the information contained in the Public Notice cited above, as well as the Anti-Dumping Commission Consideration report number: 316 dated 12 November 2015. It is intended, however, to succinctly make a few important points:

1. In its assessment of 'normal value' of the goods, we disagree with some of the methodology used to determine an accurate value. The applicants claim "billet being the principal raw



material input into grinding ball manufacture accounting for in excess of 80 per cent of production cost" (CON 316, p 16, sec 3.4.2) is a factual error in two significant ways.

First, that billet is required as a raw material; in actual practice, the 'special steel' process which is commonly used to produce the feedstock for grinding balls is based on steel scrap as a precursor material, not billet, which is much more expensive. The present scrap steel price is USD 192/tonne (source: MetalBulletin, www.metalbulletin.com). As per their process description in their application, their billet feedstock is an internal product, and using an external billet cost as the basis for the total cost is not

Second, as a result of the feed material difference (scrap vs billet) the actual fraction that raw material makes of the total cost is closer to 60% rather than the 80% claimed.

The Forged Grinding Media with B2 material specification of Raw Steel Rods are the latest in the industry being produced by many Chinese steel plants in China. The manufacturing of the forged grinding media in China and rest of the world has been developed using the "Russian Technology" of hot rolling process with use of special steels as raw material with higher carbon content. All new plants have been following this process for the last five years and competition is higher with lower pricing. These new plants have automatic PLC control system operating at lower cost per tonne. Moly-cop and Donhad's process of making forged grinding balls is upset forging, which is different with local steel bar bought from their high cost steel plant Waratah, Newcastle. Donhad we believe has taken the steps to import raw steel material from Chinese Special Steel manufacturing.

2. It is inaccurate to conclude that high chrome grinding media and forged steel grinding media are like for like in application. This was contended on the basis that in terms of total operational cost, the higher cost (and superior wear performance) of high chrome balls was proportionally offset by the lower cost (and increased consumption requirement) of the forged steel balls (CON 316, p 7, sec 2.3).

This bottom line analysis discounts the requirements which may differ across various end-user sites. Marginal differences in operating costs have significant impacts on the viability of most mining and beneficiation operations, and their requirements can best be met by increased market options at the lowest possible prices. Cast grinding balls provide approximately 5-8% less grinding power for the same application. It is our contention that high chrome media should not be included in the goods description to which the notice pertains.

Presently "cast grinding balls are classified to 7325.91.00.26 whereas forged grinding balls are classified to 7326.11.00.29. The rate of duty of goods exported from China under the above classification is currently 4% as China is designated as DCS region.

3. Perceived 'harm' to the industry is based on external factors, not simply competition. According to one of Moly-cop's internal presentations, the market for grinding balls decreased by 9%, no attribution was given to 'Chinese dumping,' just recognition of the fact that the total demand for grinding balls is driven by a wide array of factors, and some of them have been decreasing recently.



Furthermore, we wish to state that Moly-Cop has the lion's share of the grinding media market on a global basis, and the market to supply grinding media is very competitive. Mining companies operating in Australia and worldwide account for commodity prices are priced in USD on global basis. Grinding media comprises a significant part of the total operating cost of producing the concentrate and other mineral resources. In most of the cases International mining companies have a Global internet procurement process in place to procure grinding balls for different countries and different plants. It is in the end user's interest, in this case the actual operating mines, for the grinding media to be priced as competitively as possible. We do not agree that any custom duty should be levied on importing grinding media from China into Australia

Moly-cop has high market share in Chile and Peru for the supply of grinding medial. These two countries have zero import duty for import of grinding media from China. Grinding balls are quoted by various suppliers on global basis including suppliers from China.

1. As per attached "Arrium Mining Consumables presentation & Site Tour, dated: 24<sup>th</sup> November 2014 (available on the internet)" for the shareholders given by John Barbagallo – Chief Executive, Mining Consumables. Moly-Cop in is the global leader of Grinding Media. These is a strong Grinding Media focus particularly in North and South America. Moly-Cop (Arrium) has an international footprint as seen on page 10 & page 27 of the presentation. Also refer page 20 of the presentation for the key market drivers and additional demand.

Refer Page: 24 for Moly Cop's (Arrium) high quality customer base, all international mining companies.

Moly-Cop (Arrium) has stable sales in 2014 (page 29), 54% of the total sales in Australia with 33% in Indonesia and 13% in other countries.

Moly-Cop (Arrium) – Key Strengths (page 32)

- a. Facilities close to key growth regions.
- b. Installed capacity in about four times greater than the next largest competitor.
- c. History of expanding capacity ahead of forecast market demand.
- d. Strong capability to capture market growth.
- e. Moly-Cop's capacity is approximately equal to the rest of the world capacity (page 40). In other word Moly-cop has major line of share in world market.
- f. Page 47, mining consumable results in Australasia is weaker, grinding media is down by 9% due to new Indonesian Tax and production in Indonesia is ramping up. No mention of competition from PRC China or the dumping of Grinding Media reported in the presentation.
- g. Page 55, Grinding Media Business Model, raw material steel bar quality and price is the key factor in the final pricing of grinding media.



One question we have regarding the consideration report is on the export prices (CON 316 p 14, sec 3.3.3)

The applicants' estimate of the monthly FOB export prices in AUD per tonne, for the period July 2014 to June 2015<sup>6</sup> are shown in the table below.

Month	Weighted average Export price AUD/FOB per tonne			
Jul 2014	940			
Aug 2014	888			
Sep 2014	837			
Oct 2014	899			
Nov 2014	906			
Dec 2014	964			
Jan 2015	1003			
Feb 2015	955			
Mar 2015	982			
Apr 2015	1023			
May 2015	1021			
Jun 2015	820			

The above estimated price has not stated whether it is for "forged grinding balls" under tariff 7326.11.00.29 or "cast grinding balls" under tariff 7325.91.00.26.

Prices of cast grinding balls are much lower as the consumption is much higher with poor quality. Generally used on small grinding mills. These are different to the "cast high chrome balls" being imported by Magotteaux, refer page 7 of Consideration report number: 316.

Both Moly-cop and Donhad do not make "cast grinding balls" in Australia and hence balls under classification no 7325.91.00.26 should be ignored for this exercise. Only "forged grinding balls" are required to be taken into account by commission.

#### Rajiv Kalra

CEO- CITIC Heavy Industries Australia Pty Ltd 23 December 2015

#### Additional links to websites:

- https://www.arrium.com/~/media/Arrium%20Mining%20and%20Materials/Files/ASX%20An nouncements/FY2015/Mining%20Consumables%20Presentation%20and%20Site%20Tour%2 024%20Nov%202014.pdf
- 2. www.metalbulletin.com
- 3. http://www.kemcore.com/about/grinding-media-a-key-mining-consumable/



## **GRINDING MEDIA SOLUTIONS**



#### **Introduction to CITIC Heavy Industries**

CITIC HIC commenced business in 1958. After more than 50 years of evolution and development it has become a significant global supplier of mining, cement and metallurgical equipment. Our manufacturing facilities are located in Luoyang, China, and Pontevedra, Spain.

CITIC HIC produces over 200,000 tons of quality equipment annually. Our products include grinding mills, scrubbers, crushers, kilns, coolers, hoists, reducers, steam turbines and compressors. CITIC HIC also manufactures heavy castings and forgings, as well as electric/hydraulic control and lubrication systems.

Our factory in Luoyang covers more than 3 million square meters, of which 2 million square meters is under cover. It has a total workforce of approximately 10,000 employees of which more than 1,200 are engineers.

CITIC HIC has offices in Australia, Brazil, Canada, Chile, India, South Africa and Spain. We encourage you to visit our impressive facilities.

CITIC HIC is the second-largest manufacturing facility in China.

#### **Products advantages of CITIC Grinding Media**

The manufacturing process of hot-rolled steel balls controls all aspects of production, including steel bar billets and heat treatment. The process is computer controlled which maintains quality, enhances production efficiency, and reduces human and environmental factors on productivity.





#### **Advantages of Forged balls over Cast balls**

#### 1.Different raw materials

- CITIC HIC steel balls are made from alloyed high carbon round steel bars. The balls are hotrolled from billets.
- Cast balls are made from melting scrap with the addition of alloying elements

#### 2. Different forming principles steel ball hardness.

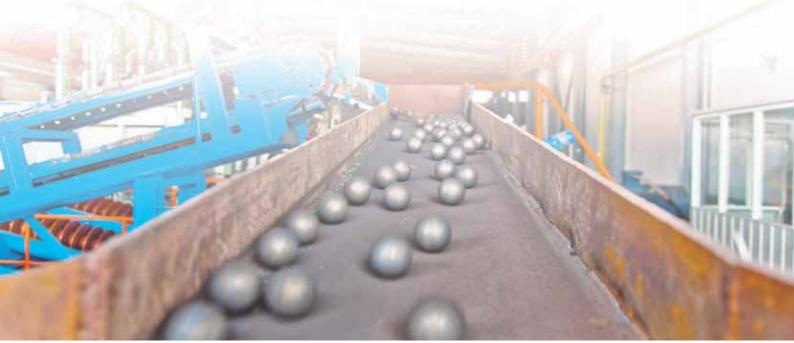
- CITIC HIC steel balls are cooled rapidly in the quenching process. The transformation from austenite to martensite makes a fine grained, dense and hard metallographic structure with ball hardness over 56HRC.
- Cast balls use alloying elements such as Cr to achieve hardness and wear. The cost of cast steel balls is correspondingly higher.

#### 3. Different impact toughness and breakage resistance

- ◆ CITIC HIC steel balls are high— density with impact toughness greater or equal to 7J/cm². Laboratory testing has been performed using 6m high test rig with more than 20,000 drops with no breakage.
- Cast balls have gas holes and sand inclusions internal to the ball with impact toughness less than or equal to 4J/cm<sup>2</sup>. The falling ball test shows high breakage of more than 3%.

#### 4. Production advantages of CITIC HIC hot-rolled alloy steel balls, compared to traditional forge balls.

- CITIC HIC balls use round steel bars with uniform quality throughout the entire production process. Temperature, velocity and other processing parameters are tracked and controlled by computer to ensure even and stable quality. These bars are hot-rolled from billets through rolls. Therefore, the density of hot-rolled balls exceeds 7.8g/cm³ with high grinding efficiency.
- Cast balls use traditional sand casting process where it is difficult to avoid gas holes and sand inclusions appearing in the interior and on the surface of balls. Compared with hot-rolled steel balls, the density of cast balls can only reach to 7.45g/cm³ which will, in turn, result in lower grinding efficiency and approx. 5% less power draw for same volume of balls.



#### **Main Products**

Hot-rolled steel grinding balls have taken the place of cast grinding balls in grinding processes. These hot-rolled steel balls are precise in size and shape and are well regarded by customers. Hot-rolled steel grinding balls have high hardness, strong impact toughness and are resistant to breakage. Our products are widely used in industries including metal processing industry, thermal power industry, cement industry and non-metallic crushing industry.

CITIC offers hot rolled grinding steel balls in 14 different sizes of hot-rolled steel grinding balls ranging from 20mm to 150mm.





#### **Specific Characteristics:**

Steel grinding balls meeting exact specifications are rolled from alloyed high carbon round steel bars.



#### **High Hardness**

Surface hardness ranges from 57HRC to 67HRC. Through hardness ranges from 56HRC to 64HRC.



#### **Strong Impact Toughness**

The main advantage is strong impact toughness and breakage resistance as a result of fine ASTM grain size, especially when considering grinding mills of diameters over 8m.



### Low Breakage Rate

Breakage resistance is 10 times more than traditional forged balls. As the operation of falling ball impact reaches over 10,000 times, the actual breakage can be lowered to 1%, close to no breakage.



#### **Wear Resistance**

CITIC hot-rolled grinding balls have been assessed by an independent laboratory as having high wear resistance, refer micrograph on left.

#### **Product Data**

NOMINAL	NOMINAL DIAMETER		APPROX.MASS PER BALL	AVERAGE	
(mm)	(ins)	METER		NUMBER OF	
		(mm)	(g)	BALLS PER MT	
20	3/4	20.8	37	27000	
25	1	26	72	13900	
30	1 <sup>1/4</sup>	31.2	125	8000	
40	1 <sup>1/2</sup>	41.6	396	3380	
50	2	52	578	1730	
60	2 <sup>1/2</sup>	62.4	999	1000	
70	2 <sup>3/4</sup>	67.6	1270	790	
75	3	78	1951	510	
90	3 <sup>1/2</sup>	88.4	2839	350	
95	3 <sup>3/4</sup>	93.6	3371	290	
100	4	98.8	3964	250	
115	4 <sup>1/2</sup>	114.4	6154	162	
120	4 <sup>3/4</sup>	119.6	7032	142	
125	5	124.8	7989	125	





#### **NOMINAL DIAMETER** SURFACE **VOLUMETRIC IMPACT HARDNESS HARDNESS TOUGHNESS** (ins) (mm) 3/4 62-64 62-64 62-64 62-64 25 1 1 1/4 30 62-64 62-64 1 1/2 40 61-63 61-63 61-63 7-15 J/cm<sup>2</sup> 50 2 61-63 2<sup>1/2</sup> 61-63 61-63 7-15 J/cm<sup>2</sup> 60 23/4 70 60-63 60-63 7-15 J/cm<sup>2</sup> 60-63 59-61 15-25 J/cm<sup>2</sup> 75 3 3<sup>1/2</sup> 90 60-63 59-61 15-25 J/cm<sup>2</sup> 3<sup>3/4</sup> 59-61 15-25 J/cm<sup>2</sup> 60-63 100 60-63 58-60 15-25 J/cm<sup>2</sup> 41/2 115 59-63 58-60 >20 J/cm<sup>2</sup> 4<sup>3/4</sup> >20 J/cm<sup>2</sup> 120 59-63 58-60 >20 J/cm<sup>2</sup> 125 5 59-63 58-60

The above values are indicative only. Actual values may vary between individual units of Grinding Media.

Diameter	Steel			Chemi	cal Compo	sition		
	Grade	С	Si	Mn	Р	Cr	Ni	Cu
Ф20mm~Ф70mm	B2	0.70~0.82	0.15~0.36	0.70~0.90	≤0.035	0.25~0.60	≤0.25	≤0.25
Ф75mm~Ф125mm	В3	0.58~0.66	1.6~1.90	0.65~0.80	≤0.030	0.70~0.90	≤0.05	≤0.15











## **Equipment**



Heating furnace

## Computer operation table





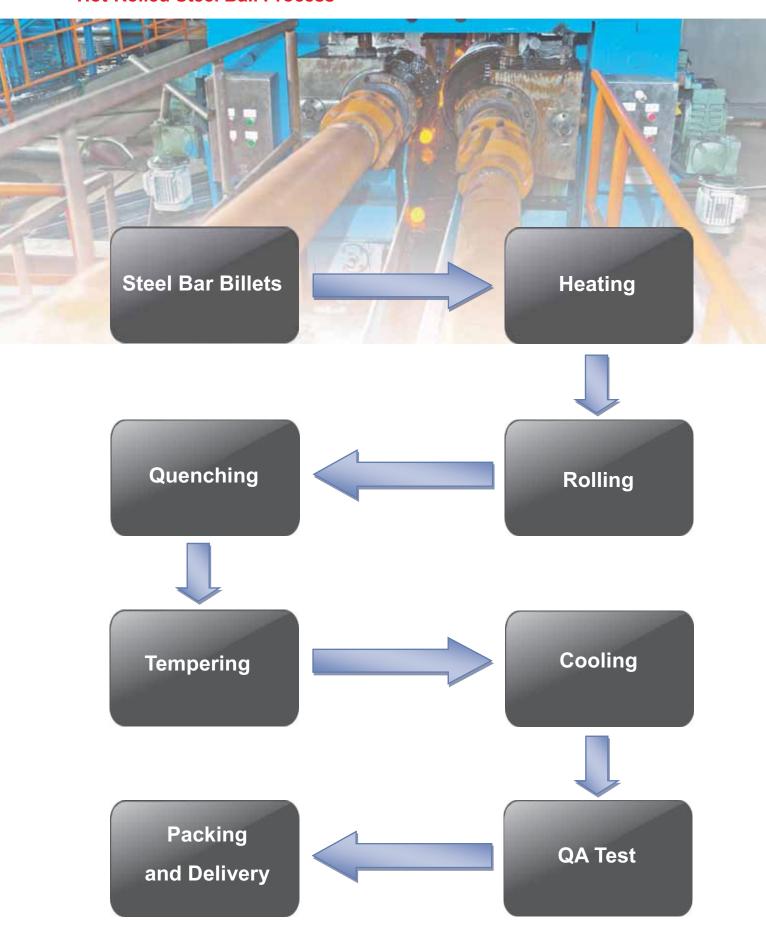








#### **Hot-Rolled Steel Ball Process**





## **Inspection and Test**





#### **Contact Details**



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October 2015



# **Arrium Mining Consumables Presentation & Site Tour**

24 November 2014











This presentation contains certain forward-looking statements with respect to the financial condition, results of operations and business of Arrium and certain plans and objectives of the management of Arrium. Forward-looking statements can generally be identified by the use of words such as 'project', 'foresee', 'plan', 'expect', 'aim', 'intend', 'anticipate', 'believe', 'estimate', 'may', 'should', 'will' or similar expressions. All such forward looking statements involve known and unknown risks, significant uncertainties, assumptions, contingencies and other factors, many of which are outside the control of Arrium, which may cause the actual results or performance of Arrium to be materially different from any future results or performance expressed or implied by such forward looking statements. Such forward-looking statements speak only as of the date of this presentation. Factors that could cause actual results or performance to differ materially include without limitation the following: risks and uncertainties associated with the Australian and global economic environment and capital market conditions, the cyclical nature of the steel industry, the level of activity in the construction, manufacturing, mining, agricultural and automotive industries in Australia and North and South America and, to a lesser extent, the same industries in Asia and New Zealand, mining activity in the Americas, commodity price fluctuations, fluctuations in foreign currency exchange and interest rates, competition, Arrium's relationships with, and the financial condition of, its suppliers and customers, legislative changes, regulatory changes or other changes in the laws which affect Arrium's business, including environmental laws, a carbon tax, mining tax and operational risk. The foregoing list of important factors is not exhaustive. There can be no assurance that actual outcomes will not differ materially from these statements.

This presentation contains certain non-statutory financial measures including underlying EBIT, underlying EBITDA and underlying NPAT. These measures are used to assist the reader understand the financial performance of the company's operations. Non-statutory financial information has not been audited or reviewed as part of KPMG's report on the 2014 Full Year Financial Report. The Directors believe that using these non-statutory financial measures appropriately represents the financial performance of the Group's total operations including continuing and discontinued operations.

All balance sheet items are based on statutory financial information. Except as otherwise expressed, references in this document to net profit/loss after tax refer to net profit/loss attributable to equity holders of the parent. Segment results referred to throughout this presentation are those reported in the 2014 Full Financial Report.

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# Mining Consumables Overview

John Barbagallo
Chief Executive, Mining Consumables









## **Arrium business segments**





## Management team





**John Barbagallo** B.E.(Hons), MBA Chief Executive Arrium Mining Consumables

- 9 years with Arrium
- 28 years in Industry



**Michael Lambourne**, B Com, CPA, MBA General Manager Finance & Business Development

- 23 years with Arrium / BHP
- 23 years in Industry



Lance Dawber B Com, CPA, MBA President, Moly-Cop South America

- 7 years with Arrium
- 19 years in Industry
- · Based in Santiago, Chile



**Michael Parker**, B.Met, MBA General Manager, Moly-Cop Australasia

- 3 years with Arrium
- 34 years in Industry



**Martin Meulendyke** BEng, MBA President, Moly-Cop North America

- 7 years with Arrium
- 35 years in Industry
- · Based in Kansas City, USA



**Jon Hobbs**, MBA, BSc Mech Engineering President AltaSteel<sup>1</sup>

- 10 years with Arrium
- 29 years in Industry
- · Based in Edmonton, Canada



**Paul Griffiths**, B Bus. General Manager HR, Mining Consumables

- 9 years with Arrium
- 28 years in Industry

## **Mining Consumables businesses**



**Grinding Media** 



Ropes



Rail wheels



## **Mining Consumables overview**



## A growth business of scale, with stable margins and a sustainable competitive advantage

#### Grinding media

- Global leader (Moly-Cop)
- Strong earnings and cash generation after funding own growth
- Leveraged to copper and gold mining including declining head grades
- Strong demand growth profile, particularly North & South America
- Positioned in key growth and low cost regions close to customers
- High quality customer base long term relationships and supply agreements with major mining houses
- Competitive position being further strengthened by rollout of next generation SAG ball

#### Mine Ropes

- Global leader in dragline ropes
- #1 in shovel ropes in Australia

#### Rail Wheels

#1 in maintenance wheels in Australia



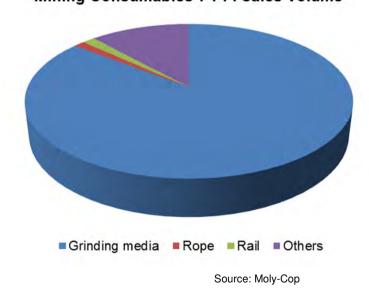
Grinding ball production at Lima, Peru

## Mining Consumables sales volumes

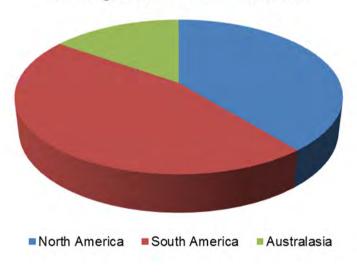


## Strong grinding media focus, particularly North and South America

Mining Consumables FY14 sales volume



Grinding media FY14 sales volume



Source: Moly-Cop

## **International footprint**



Global manufacturing and sales & marketing network with 9 grinding media facilities, 2 integrated EAF steel making operations and rope manufacture



## Long, proud and credible history



## Over 90 years of history in grinding media, ropes and rail wheels

1921 Kansas City Ball Plant Sheffield Steel	1930 Armco acquired Sheffield Steel Grinding M	1941 Moly-Cop trademark registered	1961 First International GM Plant Talcahuano, Chile	1981 - 2001 New GM Facilitie Arequipa, 1981 Kamloops,1986 Mexico, 1991 Kansas City, 199 Lima, 2001	Moly-Cop international acquired by SCAW	<b>2006</b> Mejillones plant completed	2010 Acquired by OneSteel and Arrium Mining Consumables formed
1923 Australian Wire Ropes formed  Ropes	1933 BHP 100% ownership	1940' Investment the note of defence communication	nt to M needs upgrad e and the de	1970's ajor plant des to support evelopment of ining industry	2000 OneSteel Wire Rope following BHP demerger	2004 Largest rope closer installed	<b>2010</b> Integrated into Arrium Mining Consumables
1918 Commonwealth Steel Formed	1939 Specials Steels plant constructed	1956 No1 grinding media plant installed	1998  New grinding media plant Cilegon, Indonesia	~	<b>2004</b> Smorgon acquired Kansas City plant	2007 OneSteel acquired Smorgon	2010 Integrated into Arrium Mining Consumables

## Strategic focus



#### Short to medium term

- Capture at least our strong market share of growth in demand for grinding media in North & South America, and maintain existing strong market position in Australasia
- Complete current capacity expansions in Canada and Peru (~295ktpa) on time and budget
  - Kamloops, Canada commissioning planned for mid 2015 (~120ktpa)
  - La Joya, Peru completion scheduled for mid 2016 (~175ktpa)
- Complete roll out of next generation SAG ball
  - Roll out progressing well with strong customer support
  - Waratah Australia Q2 FY15, Kansas City USA Q2 FY15, Kamloops Canada Q4 FY15, Mejillones Chile Q4 FY15
- Continue long-term supply contracts approach with strategic customers



Grinding balls at Arequipa, Peru

## Strategic focus



## Short to medium term (cont.)

- Capitalise on Waratah "right sizing" and capture any improved rail market upside
- Maintain strong domestic market share position in Ropes and build export market opportunities
- Maintain focus on costs, efficiencies and delivery outcomes
- Maintain strong cash generation

## Medium to longer term

- Geographic expansion opportunities with current products
- Product/services expansion opportunities (mineral processing and mineral extraction)



Despatching grinding balls at Lima, Peru



Grinding balls at Waratah, Australia





## **Key Market Drivers**

John Barbagallo
Chief Executive, Mining Consumables











## Grinding media consumption

- Copper, gold and iron ore "ore milled" key drivers
- Moly-Cop demand:
  - ~80% copper and gold
  - ~20% other
- Copper and gold ore milled expected to grow strongly at ~9% CAGR¹ (FY14-19) in North and South America
- Head grades of copper and gold expected to continue deteriorating over next 10 years – increases grinding media demand



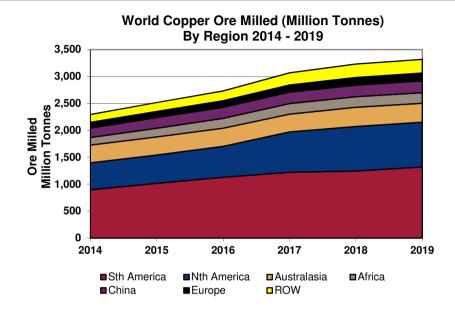
Grinding balls at Lima, Peru

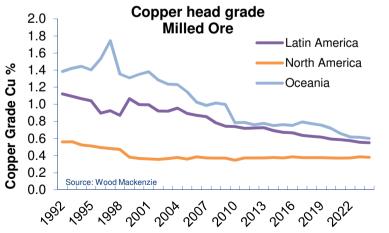
1 Wood Mackenzie data



## Strong growth in copper expected

- Global copper ore milled expected to increase 45% (~8% CAGR¹ 2014 to 2019)
- Most significant growth anticipated in North and South America (~9% CAGR¹ 2014 to 2019)
- Copper head grades forecast<sup>1</sup> to decline over 2014 to 2024
  - South America ~21%
  - North America flat
  - Oceania ~ 20%



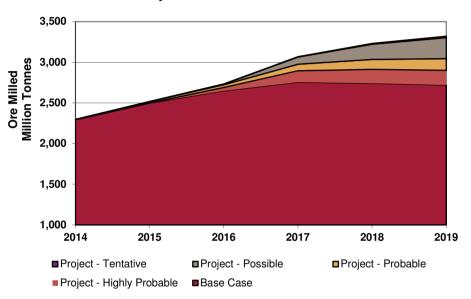




Strong outlook for new copper mines and expansions, in addition to base case production levels

- Mine installed base stable outlook for existing mines with low closures expected
- Growth a large number of projects are expected to drive an increase in ore milled.
  - High confidence level in projects (with 54%¹ of highly probable or probable projects)

#### World Copper Ore Milled (Million Tonnes) By Status 2014 - 2019

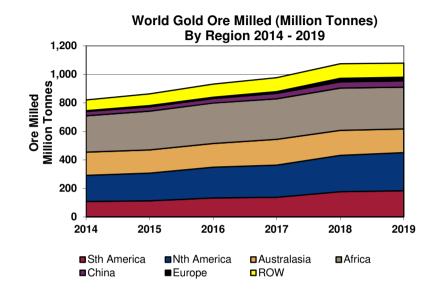


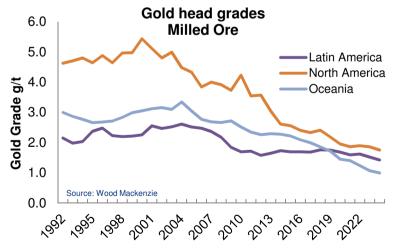
Source: Wood Mackenzie June 2014



## Strong growth in gold expected

- Key markets of North America, South America and Australasia amongst top gold producing regions in the world
- Global gold ore milled expected to increase 32% (~6% CAGR¹ 2014 to 2019)
- Most significant growth anticipated in South America (~11% CAGR¹ 2014 to 2019) and North America (~8% CAGR¹ 2014 to 2019)
- Gold head grades forecast<sup>1</sup> to decline over 2014 to 2024
  - South America ~18%
  - North America ~33%
  - Oceania ~ 56%

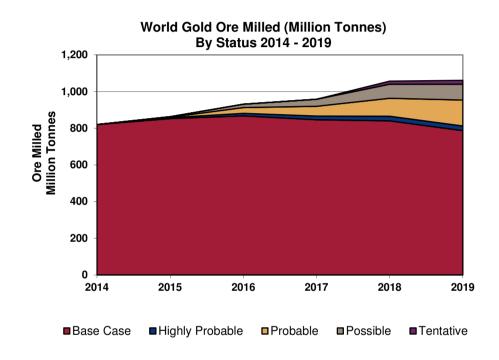






# Strong gold base and expected expansions and restarts

- Growth a large number of projects expected to drive increase in gold ore milled
  - High confidence level (with 61%¹ of highly probable or probable projects)
- Mine installed base expect gradual decline in base to be more than offset by growth in new gold projects



Source: Wood Mackenzie June 2014



## Additional grinding media demand ~460ktpa by FY18 (North & South America)

Country	Forecast Copper & Gold Projects
Chile	<ul> <li>CODELCO MMH – commenced operations</li> <li>Caserones – commenced operations</li> <li>Sierra Gorda – commenced operations</li> <li>BHPB Expansion</li> <li>Vale Brazil Expansion</li> </ul>
Peru	<ul> <li>Toromocho –commenced operations</li> <li>Cerro Verde expansion – under construction</li> <li>Constancia &amp; Las Bambas – under construction</li> <li>Cuajone/Toquepala expansions</li> </ul>
Canada	<ul> <li>Thompson Creek - Mt Milligan, Commenced</li> <li>Imperial Metals – Red Chris, Commissioning</li> <li>Goldcorp – Eleonore, under construction</li> <li>Avanti – Kitsult</li> <li>Yellowhead – Harper Creek</li> </ul>
USA	<ul> <li>Freeport – Morenci Expansion, commenced</li> <li>Hudbay – Rosemont</li> <li>General Moly – Mt Hope</li> </ul>
Mexico/ Central America	<ul> <li>Grupo Mexico – New Cananea, under construction</li> <li>Baja – Boleo, under construction</li> <li>Minera Frisco Expansions</li> <li>First Quantum – Cobre Panama, under construction</li> </ul>



# Key market drivers – grinding media



# Estimated growth in grinding media demand in North and South America ~7% CAGR (FY14 to FY19)<sup>1</sup>

- Top-down approach
  - Wood Mackenzie (June 2014)
  - Publicly available information on mine developments
- Bottom-up approach
  - Direct customer contacts
  - Budgetary quotes (engineering firms and major equipment suppliers)
  - Industry intelligence

### Project visibility

- Line of sight on project developments and time frame
- Customer discussions on grinding media requirements
- First hand information from technical support to project owners
- Provides greater certainty of future volumes



Operations at Mejillones, Chile

# Key market drivers – ropes and rail

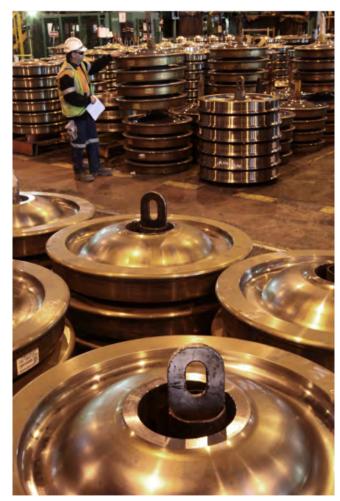


### Mining rope products consumption

- Australian open-cut coal mines
- Stable mining operations with forecast long term growth
- Well positioned through leading market positions to capture expected growth

### Railway products consumption

- Iron ore and coal mining volumes and general freight in Australia
- Maintenance cycle requirements following capital investment



Railway wheels at Waratah, Australia





# Grinding Media Customer Base and Market

John Barbagallo

Chief Executive, Mining Consumables









### High quality customer base



Working with global mining companies across key commodities of copper, gold, iron ore, coal, molybdenum and other base metals

















ETOUR GOLD.

























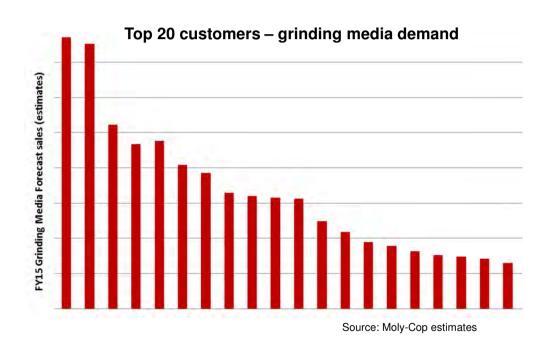


# Long term relationships & large contracts



### Opportunity for further market share growth

- Top 20 customers = ~80% sales
- Key global copper, gold and iron ore mining companies
- Customer contracts and supply agreements typically:
  - 10 to 50ktpa
  - 2 to 5 years duration
- Supply relationships with some customers for over 30 years



# Pricing structure facilitates stable margins



- Scrap price, CRUspi and FX influence selling prices
- Customer pricing directly linked with raw material price movements providing margin stability
- Margins can vary in short term due to movements in CRUspi and scrap<sup>1</sup>
- Majority of bar is sourced from local manufacturers to reduce price and working capital
- Price premium driven by 'value in use' and service levels
- Margin management in Ropes and Rail similarly applied, albeit with different indices

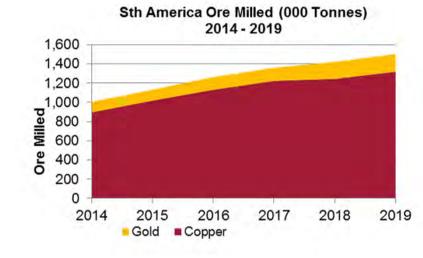


Grinding ball production at Waratah, Australia

### Strong growth in South America

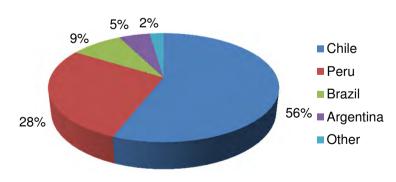


- Moly-Cop has leading market position
- South America market comprises mainly Chile, Peru, Brazil and Argentina
- Market remains buoyant with significant growth forecast
- Copper and gold ore milled forecast<sup>1</sup> to increase 47% by 2019
- Forecast CAGR<sup>1</sup> 2014 to 2019
  - Copper ore milled ~8%
  - Gold ore milled ~11%
- Well positioned to capture at least strong market share of expected grinding media growth



Source: Wood Mackenzie June 2014

#### Moly-Cop South America Grinding Media Sales Volume

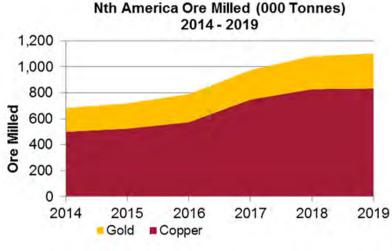


Source: Moly-Cop

### Strong growth in North America

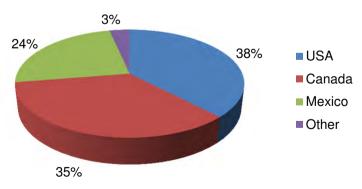


- Moly-Cop has leading market position
- North America market comprises mainly Canada, USA and Mexico / Central America
- Strong growth expected through brownfield and greenfield expansions
- Copper and gold ore milled forecast<sup>1</sup> to increase 67% from 2014 to 2019
- Well positioned to capture at least strong market share of expected grinding media growth



Source: Wood Mackenzie June 2014

### Moly-Cop North America Grinding Media Sales Volume

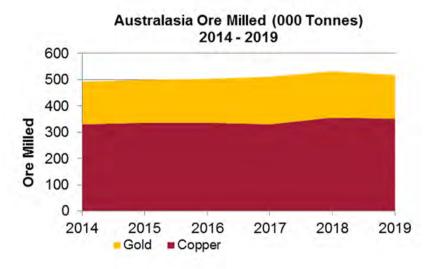


Source: Moly-Cop

### Stable in Australasia

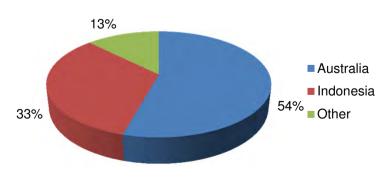


- Australasia market includes mainly Australia, Indonesia, New Zealand, Philippines and PNG
- Forecast CAGR<sup>1</sup> 2014 to 2019
  - Copper ore milled ~1%
  - Gold ore milled ~0.5%
- Well positioned to capture at least strong market share of expected grinding media growth



Source: Wood Mackenzie June 2014

### Moly-Cop Australasia Grinding Media Sales Volume



Source: Moly-Cop

### Australasia – Ropes and Rail



### Coal and iron ore volumes to drive ropes and rail wheel sales

### Ropes

- Well positioned through leading market positions
- Demand largely premised on open-cut coal demand with dragline and shovel fleets
- Growth opportunities being pursued in North and South America in particular



Redbak<sup>TM</sup> plasticated shovel rope

### Rail wheels

 Demand driven by maintenance requirements within coal, iron ore, general and passenger freight in Australia





# Sustainable competitive advantage

John Barbagallo
Chief Executive, Mining Consumables









### **Key strengths**



- Long standing global customer relationships supported by supply agreements
- Leading global player with strong industry reputation
- Strong and highly experienced in-market management teams based close to customers
- Uniquely positioned in regions that will benefit from the projected growth
- Differentiated capabilities: superior quality and product performance, excellent supply capability and highly valued technical support
- Proprietary metallurgical/engineering know-how delivering "value in use" for customers

Moly-Cop Grinding Media	Comsteel Rail Products	Moly-Cop Ropes
<ul> <li>Facilities close to key growth regions</li> <li>Installed capacity is about four times greater than next largest competitor</li> <li>History of expanding capacity ahead of forecast market demand</li> <li>Strong capability to capture market growth</li> </ul>	<ul> <li>No 1 market position in Australia</li> <li>Leading edge heavy haul technology</li> <li>High quality steel manufacturing</li> <li>Well developed and integrated supply chain</li> </ul>	<ul> <li>No 1 market position in Australia</li> <li>No 1 Dragline rope supplier in the world</li> <li>Embedded onsite service engineers</li> <li>Total Ropes Management offering "cradle to grave" service</li> </ul>

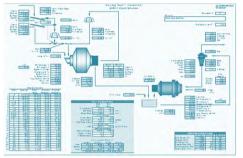
# **Competitive advantage**

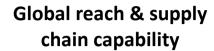


### **Customer and Market** intimacy



**Product development** Value In Use

















Ropes

Grinding Media





Rail



### Grinding media competitive advantage



Sustainable competitive advantage delivered through combination of superior ball quality, supply chain, technical support and capacity advantages

#### **Customer and Market Intimacy**

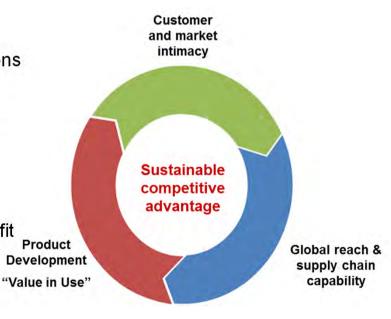
- Moly-Cop is located close to its customers, assuring timely and flexible delivery of products
- Minimises risk of interruption to operations
- On-site support develops an understanding of customers' business operations and requirements that is unparalleled among its competitors

#### **Product Development "Value in Use"**

- Targeted product development activities with tailored solutions to deliver high quality value-in-use outcomes to customers
- Moly-Cop is recognised for its superior product quality and performance, helping customers maximise throughput and yield

#### Global Reach & Supply Chain Capability

- Only supplier that is able to offer global customers the benefit of its global production capability
- Long-term relationships with global mining companies
- Raw materials and suppliers







# Grinding media capacity

John Barbagallo
Chief Executive, Mining Consumables









### **Facilities close to customers**



### **Americas**



### **Australasia**

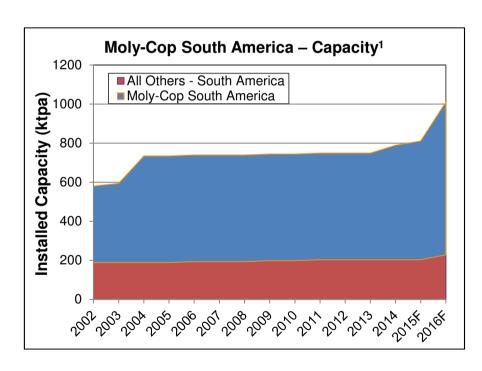


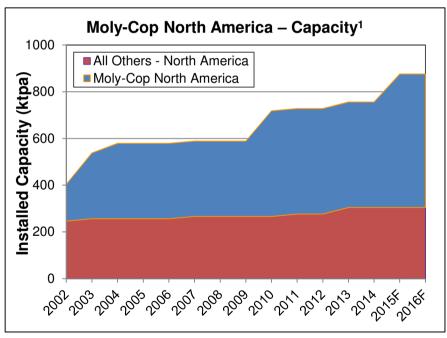
Moly-Cop	FY14			
Grinding media facilities	Capacity	Expansion	Capacity	
Newcastle, Australia	250		250	
Cilegon, Indonesia	80		80	
Kansas City, USA	180		180	
Talcahuano & Mejillones, Chile	430		430	
La Joya, Peru		175 Mid 2016	175	
Lima & Arequipa, Peru	195		195	
El Salto, Mexico	170		170	
Kamloops, Canada	115	120 Mid 2015	235	
Total	1,420	295	1,715	

# Moly-Cop's capacity advantage



- Strategy of building capacity ahead of forecast market demand
- Secures 'first mover' advantage
- Current expansion projects secure longer-term in-region position





<sup>\*</sup> FY14 based on forecast estimates and includes current planned expansions

1 Estimates

### **Moly-Cop expansions**







- Successful production of 65mm and 80mm balls
- New facility is meeting Moly-Cop process quality and metallurgical requirements
- Successful integration of Kansas City and Waratah personnel in commissioning



# Kamloops, Canada Tracking to plan for completion mid 2015

- Building completed and cranes installed
- Process equipment installation well advanced
- Installation of utilities (water, gas and electricity) completed
- Preparations well advanced for commissioning activities

### **Moly-Cop expansions**







# La Joya, Peru

### Progressing well – on time and budget

- ✓ Environmental approvals received
- ✓ Land levelling and site preparation completed
- ✓ Building construction to commence in January 2015
- ✓ Major equipment contracts finalised and under execution
- Plant designed on Moly-Cop best practice: quality, throughput and conversion costs
- Commissioning scheduled for mid 2016

### Substantial capacity advantage

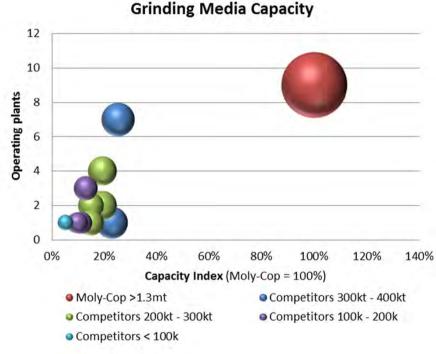


### Moly-Cop

- ~4 times installed capacity of next largest competitor
- Capacity strategically located in key mining regions

### Next largest:

- Sigdo Koppers
  - Magotteaux, Proacer and SABO
  - Magotteaux provides predominantly highchrome cast balls, limited application overlap with Moly-Cop's forged media
  - Proacer and SABO are both local competitors to Moly-Cop Chile
- ME Long Teng
  - Manufacturer and distributor of Chinese manufactured forged ball



Source: Moly-Cop June 2014 (estimates)





# **Australasia Update**

Michael Parker
General Manager, Moly-Cop Australasia









### **Grinding media products**



- Integrated Steelmaking, bar and grinding media manufacturing
  - Quality competitive advantage
  - Integrated supply chain, minimising working capital requirements
  - Implementing global Moly-Cop best practice to lower costs and improve productivity levels
- Indonesia market returning in 1H15 following resolution of Indonesia Minerals Value Adding Tax
  - Sales expected to return to normal levels in 2H15
  - New Cilegon facility on-line adding to "local content" advantage
- Waratah has spare plant capacity¹
  - Opportunity to increase domestic share
  - Lower exchange rate assists export sales

#### **Grinding Media products**



Facilities	Cilegon, Indonesia Waratah, Australia			
Capacity	330ktpa			
Employees	135			
Market Position	Market leader (1st)			
Major Suppliers	Waratah Steelmaking			
Major Customers	Newmont Barrick OZ Minerals Oceana Gold PT Freeport PT Newmont Nusa Tenggara			
Competitors	In-Market Donhad Imports China Magotteaux			

### **Moly-Cop Ropes**



- Market Leader in mining segments
  - Mining ropes account ~75% of sales
  - High quality products underpinned with strong service model
  - Draglines and electric shovels, Cable hauled conveyors and underground mining applications
  - Long term contracts in place with major mining companies in Australia
  - Demand remains solid based on existing mining activity
- Market ropes segments (~25% sales)
  - Electrical industries, agriculture, construction and highway infrastructure
- 'Value in use' focus "cradle to grave"
- Sole rope making plant in Australia

#### Ropes



Facilities	Mayfield, Newcastle
Capacity	~20ktpa
Employees	110
Market Position	Market leader in Australia (1st)
Major Suppliers	OneSteel Wire
Major Customers	BMA Xstrata Rio Tinto Wesfarmers Anglo American
Competitors	Haggie Rand Bridon Wire Co

### **Rail products**



- Focus on premium quality forged rail wheels for heavy haul markets
  - 'Value in use' focus
- Maintenance market is expected to grow with larger coal and iron ore fleets in Australia
- Long term contracts in place with major mining and major freight companies
- Rail products division "right sized" given prevailing market conditions

#### **Rail products**



Facilities	Steelmaking – Ingots Rail Products
Capacity	~105k wheels, ~10k axles
Employees	150
Market Position	Market leader in Australia (1st)
Major Suppliers	Waratah Steelmaking External axle supply
Major Customers	Rio Tinto Aurizon Pacific National Downer United Group Limited (Rail) Bradken BHP Iron Ore Pilbara Iron FMG
Competitors	Imports China Imports Europe





# **Financials**

# **Michael Lambourne**

General Manager, Finance & Business Development







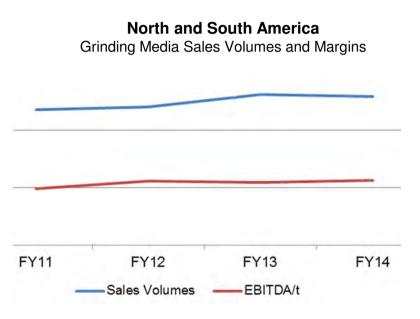






### Continued strong earnings and cash

- EBITDA \$187 million
  - Maintained stable grinding media margins
  - Strong performance in North and South America
  - Australasia EBITDA down 23%
- North and South America continued strong grinding media demand
  - Volumes flat pcp (decision in 1H to forgo some sales)
  - Won more than our strong market share of new projects / expansions in 2H



### **FY14 Mining Consumables results**



- Australasia weaker volumes
  - Rail wheels down 46% pcp delayed investment and maintenance in resource sector, including South Africa
  - Grinding media down 9% new Indonesian tax
    - Production in Indonesia now ramping up
- Waratah, Newcastle right-sized
  - Production and cost base now better aligned
    - New Indonesian facility operational<sup>1</sup>
    - Weaker rail wheel demand
    - Lower steelmaking requirements
  - Workforce reduced by ~120 people (~20%) in FY14
  - Annualised cost savings ~\$15m, Restructuring cost \$15m



Quality testing in Cilegon, Indonesia





# **Outlook and Summary**

**John Barbagallo Chief Executive, Mining Consumables** 









### Outlook



- Continued strong demand for grinding media expected
  - Total grinding media sales volumes up slightly YTD pcp
  - North and South America grinding media sales volumes up 6% YTD pcp
  - Indonesia sales volumes ramping up
- Winning more than market share of new projects and expansions in North and South America
- Stable grinding media margins
- Earnings expected to be weighted to 2H15:
  - Indonesian sales ramping up
  - Full benefit of 'right-sizing of Waratah in 2H
  - Expected benefits from grinding media volume growth



### **Summary**



- A business of scale with stable margins and strong growth outlook
  - Strong earnings since Moly-Cop acquisition
  - Capacity investments key for capturing future sales
  - SAG ball investments adding to "value in use" strategy
- Strong growth forecasts for copper, gold and iron ore
  - Good visibility of new projects and mine expansions (copper, gold, iron ore)
  - Estimated grinding media volume growth 7% CAGR¹ (FY14-19) North & South America
  - Deteriorating mineral head grades
- Moly-Cop is the largest global grinding media manufacturer
  - Market leader in key growth regions with sustainable competitive advantage
  - Customer long term supply agreements important in securing long-term sales
- Leading market positions in Rope and Rail Wheels within Australasia region
- Strong and experienced management team for delivering growth strategy







# **Appendix**









### **Grinding Media – A key mining consumable**



- Grinding media is used in the process of extracting minerals from ore
- Ore is ground down to sufficiently small sizes to liberate the contained metal species, prior to subsequent concentration processes
- Grinding is carried out in large horizontal tumbling mills, partially filled with steel balls or rods (grinding media)
- Grinding media gets consumed so mills require continuous refilling
- Grinding media consumptions are related to the volume of ore processed, ore characteristics (abrasiveness and specific energy input) and final grind size



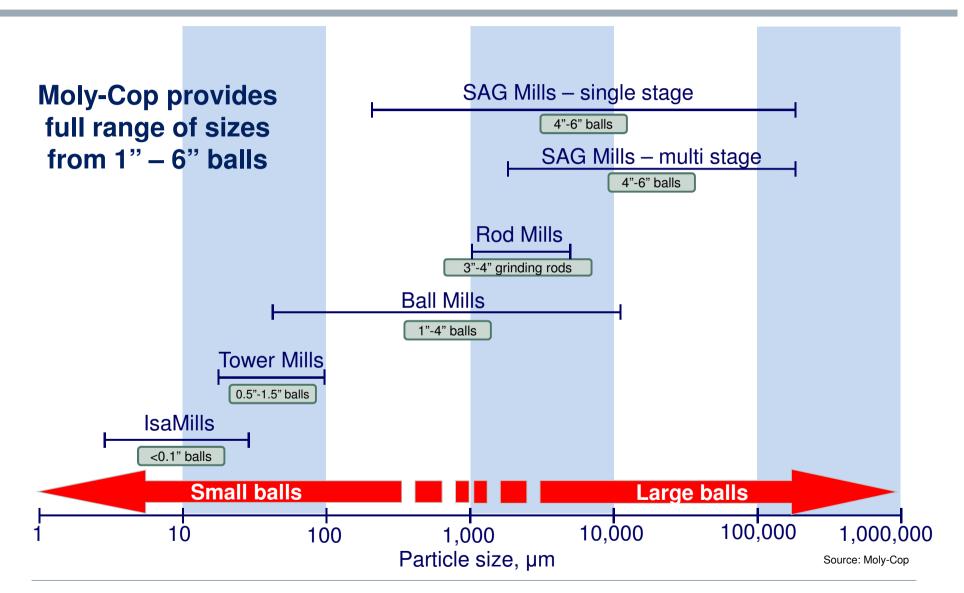
Moly-Cop Talcahuano, Chile



San Gerónimo Mine, Chile

# **Grinding media fundamentals**





### **Grinding Media Business model**



### Buy side

- Integrated internal <u>and</u> external bar suppliers
- Long standing in-region supply relationships
- Security of bar supply is important
- Bar price managed to reduce cost volatility for customers
- Bar quality is important for grinding media

#### Sell side

- Selling prices managed through linkage to bar pricing
- Customer contracts generally up to 5 years with large customers
- Global customer relationships in place, with multi-locations and countries
- Longevity of supply relationships, up to 30 years
- Sell on basis of 'value in use' outcomes
- Security of supply is critical and technical support important
- Freight generally managed by Moly-Cop (so proximity to customer is key)

# **FY14 Mining Consumables results**



	FY14	FY13 <sup>1</sup>	
	\$m	\$m	% change
Total revenue/income	1,538	1,567	(2)
EBITDA	187	195	(4)
EBIT	140	151	(7)
Sales margin	9%	10%	(1 pp)
Assets	2,439	2,460	(1)
Funds employed	2,024	2,060	(2)
Return on funds employed <sup>^</sup>	7%	8%	(1 pp)
Employees (number)	2,005	2,031	(1)
External tonnes despatched (Mt) <sup>2</sup>	1.13	1.14	(1)

<sup>^</sup> FY14 Return on funds employed of Moly-Cop businesses acquired in 2010 is ~14%.

Unless otherwise stated, financial measures are underlying financial measures.

<sup>1</sup> Comparative restated to reflect the application of the revised AASB 119 Employee Benefits

# **Historical performance**



	FY14 \$m	FY13 \$m	FY12 \$m	FY11 <sup>1</sup> \$m	FY10 \$m	FY09 \$m	FY08 \$m
Total revenue/income	1,538.1	1,566.7	1,540.6	1,079.3	680.1	659.8	509.2
EBITDA	187.1	195.3	171.6	97.7	83.2	41.7	82.0
EBIT	139.8	150.7	135.2	65.3	62.3	22.8	65.6
Sales Margin	9.1%	9.6%	8.8%	6.1%	9.2%	3.5%	12.9%
Assets	2,438.6	2,460.5	2,310.3	2,286.4	1,158.5	1,125.0	1,104.3
Funds Employed	2,024.4	2,060.2	1,947.5	1,944.9	1,053.6	1,040.1	1,015.0
Return on funds employed	6.8%	7.5%	6.9%	4.4%	6.0%	2.2%	6.5%
Employees (number)	2,005	2,031	1,973	1,864	924	910	820
External tonnes despatched $\left(Mt\right)^2$	1.13	1.14	1.06	0.73	-	-	-
Internal tonnes despatched (Mt)	0.07	0.09	0.09	0.09	0.10	0.05	-
Steel tonnes produced (Mt)	0.45	0.51	0.50	0.40	0.24	0.24	0.26

The financial measures displayed in this table are based on underlying results.

<sup>1</sup> These statistics include the results of the Moly-Cop Group from 31 December 2010. Assets and liabilities have been restated to reflect the final fair value adjustments arising on acquisition of the Moly-Cop Group in December 2010.

<sup>2</sup> Excludes scrap sales.