



# **Q4 2018 PRODUCTION REPORT**

# STRONG FINAL QUARTER RECORD COPPER PRODUCTION

**Antofagasta plc CEO, Iván Arriagada said:** "The Company has finished the year strongly achieving record production for the quarter of 220,000 tonnes and for the full year of 725,300 tonnes. This is at the top end of our revised guidance.

"Reflecting our continued focus on costs our net cash costs for the quarter were \$0.99/lb, the lowest since 2012, and for the year were only 3% higher than in 2017 despite average grades declining and cost pressure from rising input prices.

"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.

"Our priorities for the year ahead are to continue to strengthen our safety performance and our operational reliability and efficiency, while also starting the construction of the Los Pelambres expansion, which was approved by the Board at the end of last year."

# HIGHLIGHTS

#### PRODUCTION

- **Group copper production in Q4 2018 was 220,000 tonnes**, 16.8% higher compared to the previous quarter as a result of higher production at all of our operations, particularly at Centinela Concentrates which increased production by 68.3%.
- Group copper production for the full year of 725,300 tonnes was at the top end of revised guidance and set a record year for the Company with a 3.0% increase compared with 2017 due to higher production at Los Pelambres and Centinela.
- Throughput at Centinela Concentrates in Q4 was 6% above design capacity at 111,100 tonnes per day.
- Gold production was 90,000 ounces in Q4 2018, an 87.1% increase on Q3 2018 due to higher throughput, grades and recoveries at Centinela. Full year production was 210,100 ounces, the top end of guidance.
- Molybdenum production was 3,300 tonnes in Q4 2018 and 13,600 tonnes for the full year, 29.5% higher than in the previous year on higher throughput, grades and recoveries at Los Pelambres, and above guidance.

# CASH COSTS

- Cash costs before by-product credits in Q4 2018 were \$1.43/lb, 16.9% lower than in Q3 2018 due to tight control of costs and higher production as throughput and grades strengthened, particularly at Centinela Concentrates.
- Cash costs before by-product credits for the full year were \$1.72/lb, 12c/lb higher than last year due to higher input prices and the lower grades at Centinela.

- Net cash costs were \$0.99/lb in Q4 2018, a 22.0% decrease compared with the previous quarter, reflecting the lower cash costs before by-products credits.
- Net cash costs for 2018 were \$1.29/lb, 3.2% higher than in 2017 but below guidance reflecting higher by-product revenues.

#### **2019 GUIDANCE**

- Group production in 2019 is expected to be a record year with 750-790,000 tonnes of copper (as previously announced), 240-260,000 ounces of gold and 11,500-12,500 tonnes of molybdenum.
- Group cash costs in 2019 before and after by-product credits are expected to be similar to 2018's at \$1.70/lb and \$1.30/lb respectively.
- Capital expenditure in 2019 is expected to be \$1.2 billion, including the Los Pelambres expansion project, which will add 60,000 tonnes of copper per annum. Sustaining capital expenditure and mine development will remain at similar levels as 2018.

#### OTHER

• As announced in October 2018, after 26 months without a fatality there was a fatal accident at Los Pelambres in that month. A full investigation has now been completed and the lessons learned have been implemented. Safety remains the Group's top priority.

GROUP PRODUCTION AND CASH COSTS		Ye	ear to Date	е	Q4	Q3	
		2018	2017	%	2018	2018	%
Copper production	kt	725.3	704.3	3.0	220.0	188.3	16.8
Copper sales	kt	717.6	709.0	1.2	218.2	195.5	11.6
Gold production	koz	210.1	212.4	(1.1)	90.0	48.1	87.1
Molybdenum production	kt	13.6	10.5	29.5	3.3	4.4	(25.0)
Cash costs before by-product credits <sup>(1)</sup>	\$/lb	1.72	1.60	7.5	1.43	1.72	(16.9)
Net cash costs <sup>(1)</sup>	\$/lb	1.29	1.25	3.2	0.99	1.27	(22.0)

(1) Cash cost is a non-GAAP measure used by the mining industry to express the cost of production in US dollars per pound of copper produced.

Investors – London
Andrew Lindsay
Telephone
Andres Vergara
Telephone

**Investors – Santiago** Francisco Veloso *Telephone*  alindsay@antofagasta.co.uk +44 20 7808 0988 avergara@antofagasta.co.uk +44 20 7808 0988

fveloso@aminerals.cl +56 2 2798 7000

#### Media – London Carole Cable *Telephone* Will Medvei *Telephone*

antofagasta@brunswickgroup.com +44 20 7404 5959 antofagasta@brunswickgroup.com +44 20 7404 5959

#### Media – Santiago

Pablo Orozcoporozco@aminerals.clCarolina Picacpica@aminerals.clTelephone+56 2 2798 7000

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#### **MINING OPERATIONS**

#### **Los Pelambres**

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.

Copper production in Q4 2018 was 100,100 tonnes, 1.5% higher than in the previous quarter or 12.0% higher if the 9,200 tonnes of stockpiled concentrates declared as production in that quarter are excluded. This increase is mainly due to significantly higher throughput and improved copper grades during the quarter.

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

Molybdenum production at 3,300 tonnes in Q4 2017 was 800 tonnes lower than the previous quarter, primarily due to lower grades. Production for the full year of 13,300 tonnes was 26.7% higher than in 2017, due to record recoveries and higher grades and throughput.

Cash costs before by-product credits fell in Q4 2018 by 16c/lb to \$1.32/lb compared to the previous quarter. This improvement was principally a result of higher throughput due to increased utilisation rates and higher grades. For the full year, cash costs before by-product credits at \$1.52/lb were 5.6% higher than in 2017, following the one-off bonus paid during the year following the labour negotiations and as input prices rose, which were partially offset by higher throughput.

Net cash costs in Q4 2018 at \$0.79/lb were 3.7% lower than in the previous quarter reflecting the lower cash costs before by-product credits partially compensated for by lower by-product credits. Net cash costs for the full year 2018 were \$0.91/lb compared with \$1.02/lb in 2017 due to significantly higher credits from molybdenum production.

LOS PELAMBRES		Ye	ear to Dat	:e	Q4	Q3	
		2018	2017	%	2018	2018	%
Daily ore throughput	kt	169.1	161.6	4.6	180.3	163.7	10.1
Copper grade	%	0.68	0.68	0.0	0.72	0.69	4.3
Copper recovery	%	88.0	89.0	(1.1)	87.5	88.4	(1.0)
Copper production	kt	357.8	343.8	4.1	100.1	98.6	1.5
Copper sales	kt	358.9	344.8	4.1	103.7	109.8	(5.6)
Molybdenum grade	%	0.027	0.023	17.4	0.026	0.031	(16.1)
Molybdenum recovery	%	84.9	79.8	6.4	87.6	85.2	2.8
Molybdenum production	kt	13.3	10.5	26.7	3.3	4.1	(19.5)
Molybdenum sales	kt	13.6	9.6	41.7	4.0	3.5	14.3
Gold production	koz	63.2	55.4	14.1	17.1	18.6	(8.1)
Gold sales	koz	62.6	54.3	15.3	16.8	21.3	(21.1)
Cash costs before by-product credits <sup>(1)</sup>	\$/lb	1.52	1.44	5.6	1.32	1.48	(10.8)
Net cash costs <sup>(1)</sup>	\$/lb	0.91	1.02	(10.8)	0.79	0.82	(3.7)

(1) Includes tolling charges of \$0.23/lb in Q4 2018, \$0.25/lb in Q3 2018, \$0.25/lb in FY2018 and \$0.26/lb in FY2017

## Centinela

Centinela continued to strengthen in the last quarter as expected with the concentrator plant operating at nearly 6% above design capacity and the new Encuentro Oxides plant also achieving its design capacity.

In Q4 2018 copper production was 86,400 tonnes, 49.2% higher than Q3 2018 following a significant increase in throughput and grades at Centinela Concentrates and a stronger performance by Centinela Cathodes. Total production for the full year 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, partially compensated by lower grades in both the sulphide and oxide lines.

Production of copper in concentrates was 60,200 tonnes in Q4 2018, compared with 35,700 tonnes in the previous quarter primarily as a result of improved throughput and higher grades and recoveries. Production for the full year was 155,500 tonnes, 5.1% lower than 2017 mainly reflecting lower average grades and the consequential drop in recoveries, partially compensated for by higher throughput.

Cathode production in Q4 2018 was 26,200 tonnes, an 18.0% increase over Q3 2017 as a result of higher throughput and grades. New production from Encuentro Oxides contributed to cathode production reaching 92,500 tonnes in 2018, 43.4% higher than in the previous full year.

Gold production was 72,900 ounces in Q4 2018, 147.1% higher than in the previous quarter due to increased grades, recoveries and throughput. For the full year 2018 gold production was 146,900 ounces, 6.4% lower than in 2017 mainly due to lower grades and recoveries.

Having successfully commissioned and operated the molybdenum plant earlier in 2018 it did not operate during the quarter as grades were very low. In line with the mine plan the plant is expected to come back into operation during the first half of 2019 as higher grade zones are accessed.

Cash costs before by-product credits were \$1.43/lb in Q4 2018 compared with \$2.00/lb in the previous quarter. This 28.5% decrease in cash costs was mainly due to higher production. Cash costs before by-product credits for the full 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 in Q4 2018 were exceptionally low at \$0.90/lb, \$0.76/lb lower than in the previous quarter reflecting the lower cash costs before by-product credits and improved by-product credits as a result of higher gold production during the quarter.

Net cash costs for the full year 2018 were \$1.51/lb, 11.0% higher than in 2017, reflecting the higher cash costs before by-product credits and lower credits from gold production.

CENTINELA		Ye	ear to Dat	te	Q4	Q3	
		2018	2017	%	2018	2018	%
CONCENTRATES							
Daily ore throughput	kt	96.8	89.7	7.9	111.1	91.8	21.0
Copper grade	%	0.57	0.61	(6.6)	0.76	0.55	38.2
Copper recovery	%	81.7	85.6	(4.6)	82.7	81.0	2.1
Copper production	kt	155.5	163.9	(5.1)	60.2	35.7	68.6
Copper sales	kt	149.7	170.6	(12.3)	51.9	37.7	37.7
Molybdenum grade	%	0.008	-	-	0.005	0.011	(54.5)
Molybdenum recovery	%	81.9	-	-	-	82.4	-
Molybdenum production	kt	0.3	-	-	0.0	0.3	(100.0)
Molybdenum sales	kt	0.4	-	-	0.1	0.3	(66.7)
Gold grade	g/t	0.21	0.22	(4.5)	0.36	0.18	100.0
Gold recovery	%	65.0	69.6	(6.6)	67.3	62.1	8.4
Gold production	koz	146.9	157.0	(6.4)	72.9	29.5	147.1
Gold sales	koz	135.5	163.9	(17.3)	60.9	31.0	96.5
CATHODES							
Daily ore throughput	kt	45.5	28.1	61.9	50.8	48.2	5.4
Copper grade	%	0.73	0.94	(22.3)	0.77	0.69	11.6
Copper recovery	%	71.9	64.3	11.8	69.9	70.1	(0.3)
Copper production – heap leach	kt	86.3	59.1	46.0	24.8	20.6	20.4
Copper production – total <sup>(1)</sup>	kt	92.5	64.5	43.4	26.2	22.2	18.0
Copper sales	kt	91.2	61.6	48.1	24.7	20.3	21.7
Total copper production	kt	248.0	228.3	8.6	86.4	57.9	49.2
Cash costs before by-products <sup>(2)</sup>	\$/lb	1.89	1.81	4.4	1.43	2.00	(28.5)
Net cash costs <sup>(2)</sup>	\$/lb	1.51	1.36	11.0	0.90	1.66	(45.8)

(1) Includes production from ROM material (2) Includes tolling charges of \$0.15/lb in Q4 2018, \$0.17/lb in Q3 2018, \$0.16/lb in FY2018 and \$0.19/lb in FY2017

### Antucoya

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 which affected both throughput and recoveries. However the operation's performance improved during the last quarter of 2018.

Copper production at Antucoya was 20,200 tonnes in Q4 2018, 5.8% higher than in the previous quarter, mainly as daily throughput and recoveries improved. For the full year, Antucoya produced 72,200 tonnes of copper, 10.3% lower than in 2017, due to lower throughput and recoveries.

Cash costs in Q4 2018 were \$1.75/lb compared to \$1.95/lb in Q3, and for the full year were \$1.99/lb, 18.5% higher than in 2017, mainly because of lower production and higher input prices.

ANTUCOYA		Ye	ar to Dat	:e	Q4	Q3	
		2018	2017	%	2018	2018	%
Daily ore throughput	kt	74.7	79.7	(6.3)	72.7	70.6	3.0
Copper grade	%	0.37	0.37	0.0	0.41	0.41	0.0
Copper recovery	%	71.6	73.7	(2.8)	76.0	72.8	4.4
Copper production	kt	72.2	80.5	(10.3)	20.2	19.1	5.8
Copper sales	kt	71.3	80.8	(11.8)	24.3	15.4	57.8
Cash costs	\$/lb	1.99	1.68	18.5	1.75	1.95	(10.3)

## Zaldívar

Copper production at Zaldívar was 13,300 tonnes in Q4 2018, 4.7% higher than the previous quarter as higher throughput and grades were partially offset by lower recoveries. For the full year, Zaldívar produced 47,300 tonnes, 8.5% lower than 2017, mainly due to lower throughput, which was partially compensated for by higher grades and recoveries.

Cash costs decreased to \$1.88/lb in Q4 2018 compared with \$1.95/lb in the previous quarter due to higher production. 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.

ZALDÍVAR		Ye	ar to Dat	:e	Q4	Q3	
		2018	2017	%	2018	2018	%
Daily ore throughput	kt	38.1	47.1	(19.1)	42.8	40.8	4.9
Copper grade	%	0.82	0.77	6.5	0.93	0.87	6.9
Copper recovery <sup>(1)</sup>	%	66.6	60.8	9.5	66.3	69.3	(4.3)
Copper production – heap leach <sup>(2)</sup>	kt	36.2	38.6	(6.2)	10.0	9.8	2.0
Copper production – total <sup>(2,3)</sup>	kt	47.3	51.7	(8.5)	13.3	12.7	4.7
Copper sales <sup>(2)</sup>	kt	46.5	51.3	(9.4)	13.7	12.2	12.3
Cash costs	\$/lb	1.94	1.62	19.8	1.88	1.95	(3.6)

(1) Average over full leach cycle

(2) Group's 50% share

(3) Includes production from secondary leaching

# **Transport Division**

Seven new locomotives were brought into operation during the year as part of the Division's programme to increase the fleet's haulage capacity and replace older rolling stock.

The Division transported 1.6 million tonnes in Q4 2018, 7.8% higher than in the previous quarter. For the year, transport volumes were 6.1 million tonnes, 3.2% lower than in 2017, mainly due to clients' lower production levels.

TRANSPORT DIVISION		Year to Date			Q4	Q3	
		2018	2017	%	2018	2018	%
Rail	kt	4,912	5,045	(2.6)	1,257	1,173	7.2
Road	kt	1,153	1,222	(5.6)	314	285	10.2
Total tonnage transported	kt	6,065	6,268	(3.2)	1,571	1,458	7.8

#### Commodity prices and exchange rates

		Year to Date			Q4	Q3	
		2018	2017	%	2018	2018	%
Copper							
Market price	\$/lb	2.96	2.80	5.9	2.80	2.77	1.1
Realised price	\$/lb	2.81	3.00	(6.3)	2.68	2.67	0.5
Gold							
Market price	\$/oz	1,270	1,258	1.0	1,229	1,213	1.3
Realised price	\$/oz	1,256	1,280	(1.9)	1,253	1,191	5.3
Molybdenum							
Market price	\$/lb	11.9	8.2	45.5	12.1	11.8	2.0
Realised price	\$/lb	12.4	8.7	42.6	12.1	12.2	(1.0)
Exchange rates							
Chilean Peso	per \$	641	649	(1.3)	679	663	2.4

The spot commodity prices for copper, gold and molybdenum as at 31 December 2018 were \$2.70/lb, \$1,282/oz and \$11.3/lb, respectively, compared with \$2.84/lb, \$1,191/oz and \$11.3/lb as at 30 September 2018 and \$3.27/lb, \$1,303/oz and \$7.1/lb as at 31 December 2017.

The provisional pricing adjustments for copper, gold and molybdenum for the fourth quarter were negative \$51.1 million, positive \$0.7 million and positive \$0.8 million respectively.

The provisional pricing adjustments for copper, gold and molybdenum for the year were negative \$187.9 million, negative \$1.9 million and positive \$15.8 million respectively.

#### Depreciation and amortisation

Depreciation and amortisation (including loss on disposals) for the full year is expected to be approximately \$775 million. This is an increase on the previous year as amortisation under IFRIC 20 increases following the revision of the Group's estimation methodology in 2016 and Encuentro Oxides is depreciated for the full year for the first time.

### 2019 Guidance

		Los Pelambres	Centinela	Antucoya	Zaldívar	Group
Production						
Copper	kt	360 – 370	260 – 280	75 – 80	55 — 60	750 – 790
Gold	koz	50 – 60	190 – 200			240 – 260
Molybdenum	kt	9.5 – 10.5	2			11.5 – 12.5
Grade						
Copper	%	0.69%	0.66%	0.39%	0.84%	-
Cash costs						
Cash costs before by-product credits <sup>(1)</sup>	\$/lb	1.50	1.85	2.00	1.75	1.70
Net cash costs <sup>(1, 2)</sup>	\$/lb	1.05	1.35	2.00	1.75	1.30

(1) Assumed CLP/USD exchange rate of 650

(2) Includes by-product credits at a gold price of \$1,300/oz and a molybdenum price of \$10.5/lb

As previously announced, Group copper production for 2019 is expected to be a record with 750-790,000 tonnes, a 3-9% increase on 2018. The increase in production comes mainly from Centinela and Zaldivar, with production decreasing at Centinela in the second half of the year as grades decline. The construction of the expansion project at Los Pelambres will impact the ore stockpile management at the concentrator and this has been factored into the mine's guidance figures.

The expected average grade at Centinela Concentrates and Centinela Cathodes in 2019 is 0.68% and 0.61% respectively.

Group gold production for 2019 is expected to be in the range of 240-260,000 ounces, an increase of 15-25% on 2018, as grades increase at Centinela Concentrates.

Molybdenum production is expected to be in the range of 11,500-12,500 tonnes, 8-15% lower than in 2018 as grades drop at Los Pelambres, which is partially offset by an increase in production at Centinela with its molybdenum plant coming back into operation in early 2019.

Estimated cash costs include targeted savings from operational improvements from the Group's Cost and Competitiveness Programme of some \$100 million, which will compensate for expected upward pressure on costs from increasing input costs and declining grades.

Capital expenditure is expected to be \$1.2 billion, including the development of the Los Pelambres expansion project. Sustaining capital expenditure and mine development will remain at similar levels to 2018.