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Update | Mining companies

15 August 2016

Caledonia Mining

Expansion boosts bottom line

Caledonia Mining (Caledonia) produced 23,300oz (23koz) of gold in H1 2016, a 14% increase on H1 2015, indicating that its investment in infrastructure to expand production is already bearing fruit. The company is on schedule to produce around 50koz of gold in 2016 (2015: 43koz).

Moreover, EPS for H1 2016 was US7.7c, an improvement of 185% from the same period last year. The company has increased its quarterly dividend to an annualised US5.5c per share, which equates to a forecast dividend yield for 2016 of 4.5%.

Caledonia has a 49% interest in the 100-year-old Blanket gold mine, in Zimbabwe, although, through the structure of its indigenisation arrangement, it participates currently in the mine's cash flow at the much higher level of 77%. It is embarking on an internally funded expansion programme to increase gold production to 81koz by 2020.

The company recently upgraded and expanded its resources at Blanket mine and it is estimated that this will extend the mine life from six to 10 years. This will increase the company's NAV substantially from 130.0p in the valuation model of 28 July 2016 to 182.8p today.

It is projected that EPS could be US26.6c in 2016 and US52.6c in 2017 and that the company could increase its annual dividend to US10c and US15c in those years.

Year	Gold prod (koz)	AISC (US$/oz)	Rev. (US$m)	EBITDA (US$m)	EBITDA margin (%)	EPS (USc)
2016f	50	972	63.2	21.8	34%	26.6
2017f	63	801	84.1	37.2	44%	52.6
2018f	65	797	86.8	38.6	45%	45.6

Source: Marten & Co

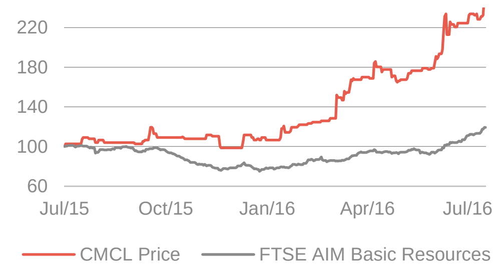
Valuation summary

The valuation analysis, using a long-term gold price of US$1,350/oz, leads to an $NPV^{15\%}$ for Caledonia's share of Blanket mine dividends of 145.4p per share and a NAV for the company of 182.8p per share. This suggests that Caledonia is currently trading in London at a discount of 48% to NAV.

Listed	AIM, TSX
Ticker	CMCL LN, CAL CN
Base currency	GBP
Price	96.00
Daily volume (1-year average)	36,950 shares
1-year high	97.50
1-year low	38.00
1-month performance	10%
3-month performance	39%
1-year performance	141%
Calendar YTD perf.	150%
2016 yield (forecast)	4.5%

Caledonia v AIM Basic Res (rebased)

Time period: 27/07/2015 to 12/08/2016



Source: Bloomberg, Marten & Co

Net cash (US$m)	10.6
$NAV^{15\%}$ p/share	182.8
P/NAV	0.52
Market cap (£m)	49.1
Shares outstanding (m)	52.2

Click here to read our initiation note

An explanation of commonly used mining terms can be found in the glossary available on our website www.quoteddata.com – just type the relevant term in the search box.

Key investment points

This note should be read in conjunction with our initiation report of 28 July 2016

- H1 2016 EPS up 185% (see p2)
- Net profit attributable to Caledonia's shareholders increased substantially from US$1.5m to US$4.2m in H1 2016 and from US$0.3m to US$3.6m in Q2 16 (year-on-year)
- Q2 16 net profit rose from US$0.5m to US$4.5m
- Quarterly dividend increased to an annualised US5.5c per share, indicating a forecast yield for 2016 of 4.5%
- Growth in EPS and dividends projected (see p8)
- Gold production up 14% in H1 2016 and 16% in Q2, quarter-on-quarter (20% year-on-year)
- The mine is on target to produce 50koz in 2016 (see p3)
- US$51m expansion project being funded internally
- Significant elements of expansion programme completed and in operation (see p6)
- New vertical shaft on budget and schedule for mid-2018 completion (see p6)
- Gold production forecast to grow to 81koz by 2020 (see p5 and 6)
- Unit costs trending down as higher-grade resources mined
- Infill drilling programme leads to substantial upgrade of resources (see p4)
- Mine life extended in the valuation model by four years to 10 years on significant increase in resources (see p5)
- Significant lift in NAV$^{15\%}$ to 182.8p per share (see p7)
- Shares currently trading at 48% discount to NAV
- Year-to-date stock-market performance – 150% rise
- Company has cash of US$10.6m and no debt

H1 2016 results

Caledonia reports its financial statements in US dollars on a consolidated basis

Caledonia has reported H1 earnings of US$5.4m (US7.7c/share) against US$2.1m (US2.7c/share) for the corresponding period of 2015, representing a 185% increase in EPS.

When adjusted to reflect underlying performance, EPS was US8.6c per share against US4.1c per share a year earlier.

The improvement came through the combined effects of an increase in revenue and a decrease in costs.

Adjusted EPS up 110% to US8.6c

Revenue from gold sales increased by 16% as a result of higher gold production and a 2% increase in the gold price received.

Gold production for the six months to the end of June was 23.3koz, an increase of 14% from the corresponding period of 2015, with Q2 production increasing by 16% from Q1 16 to 12.5koz, as both tonnes milled and grade increased.

The higher production for the half year came from increased tonnes milled of 235.1kt, with the Q2 figure of 120.6kt a record from underground mining at Blanket mine. The average grade for Q2 of 3.47g/t boosted the grade for the first six months of the year to 3.32g/t.

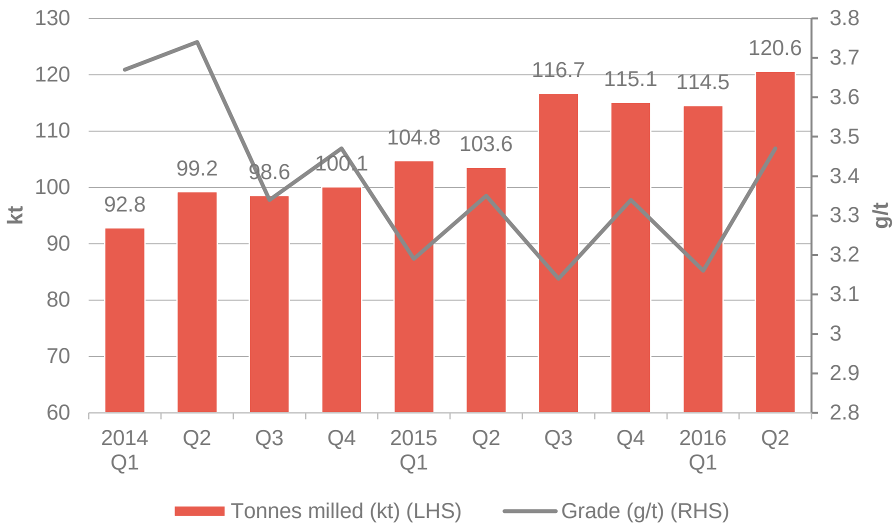
Gold production up in H1 and on track to increase to 50koz for 2016

With the completion of the No. 6 winze (an internal shaft that is sunk downwards, connecting two levels in an underground mine) and the decline below the 750m level earlier this year, the company has been able to mine higher-grade ore, with values ranging from 4.76g/t to 5.32g/t. These have come from below the 750m level in the AR South and Eroica sections of the orebody (see our initiation note for more detail).

With the increased production trend, the company is confident that it can deliver on its gold production target of 50koz for 2016.

Figure 1 shows the improving trend in tonnes milled and grade quarter-by-quarter and the improvement in grade in Q2.

Figure 1: Historic tonnes milled and grade



Source: Caledonia Mining

With improved material handling infrastructure, greater mining and milling capacity and higher grades, the company is forecasting substantial growth in gold production over the next few years.

One benefit of increased production was expected to be a lowering of unit production costs and the Q2 results demonstrate that this has started to happen.

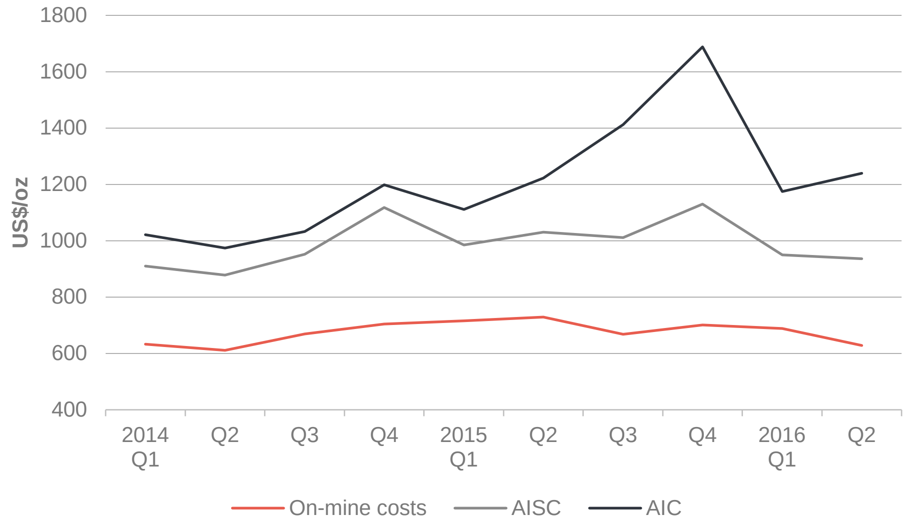
Unit costs are declining

On-mine costs fell to US$658/oz in H1 2016, a reduction of 8% from the previous year.

AISC fell by 7%, to US$943/oz, while AIC rose 3%, to US$1,206/oz, reflecting the increased spending on capital expansion projects.

Figure 2 shows the quarterly trend in unit costs.

Figure 2: Gold unit costs (US$/oz gold sold)



Source: Caledonia Mining

US$10.6m cash and no debt

The company increased its net cash position during Q2 16 to US$10.6m at quarter end, principally through the sale of treasury bills issued by the government of Zimbabwe in 2015 for US$3.2m. The company also repaid a US$4.7m overdraft with a Zimbabwean bank to leave it debt-free.

Blanket mine has resumed dividends

The Blanket mine management committee, which is composed of officers from Caledonia and the indigenous partners, imposed a moratorium on dividends in 2015 to apply cash flow fully to the capital expansion programme. The mine has now resumed paying dividends and thus Caledonia could start to grow its cash position again when capital spending starts to decline from next year.

Increase in resources…

The company has updated its estimate of resources following an 18-month diamond drilling programme at depth below the Blanket section of the mine.

Significant upgrade to resources in July 2016

The results have led to an upgrade of 343kt of inferred resources to the indicated category and the addition of 1,276kt of new inferred resources. Reserves remain unchanged from the 31 December 2015 estimate.

The current reserve and resource position is shown in Figure 3.

Figure 3: Reserves and resources

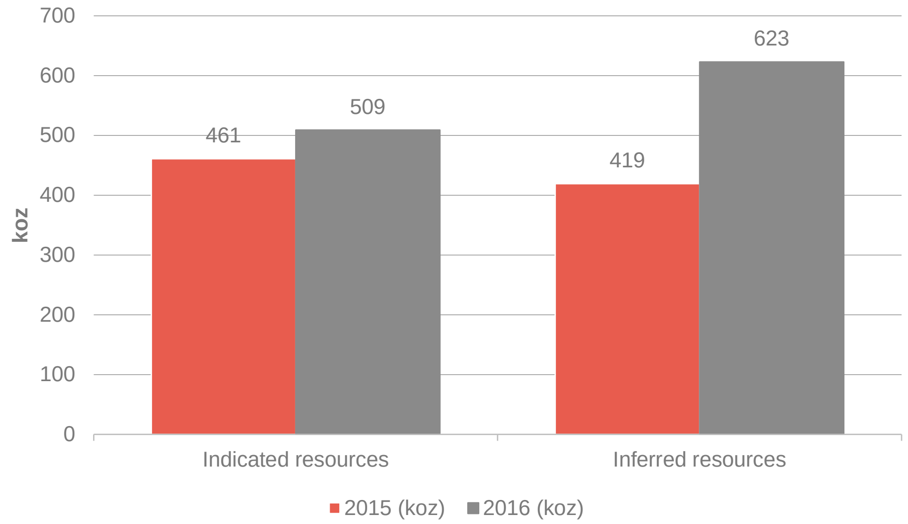
Category	Tonnes (mt)	Grade (g/t)	Gold (koz)
2P reserves	**2.63**	**3.52**	**298**
Measured resources	1.18	4.01	152
Indicated resources	3.68	4.31	509
M&I resources*	**4.85**	**4.23**	**661**
Inferred resources	**3.86**	**5.01**	**623**

Source: Caledonia Mining *Note: M&I resources include reserves Reserves are based on a cut-off of 2.30 g/t and a gold price of US$1,100/oz. Resources are based on a cut-off of 2.11 g/t and a gold price of US$1,200/oz

Resources are higher grade than reserves

The chart in Figure 4 shows the increase in gold contained in resources from the end-2015 estimates to the new estimates published in July 2016.

Figure 4: Resource expansion from December 2015 (koz contained gold)



Source: Caledonia Mining

…leads to an extension of mine life

The company has delivered significant resource upgrades and expansions based on a portion of an infill drilling programme.

The resources are all below the 750m level in the Blanket section of the mine. The company will be able to exploit them through the new Central shaft, which is planned to reach a depth of 1,080m below surface but which could be deepened while sinking is underway. In addition, the other development projects at No 6 winze and the decline below the 750m level will allow access to the resources.

The mine life is extended in the valuation model from six to 10 years

Given the updated resources, there is justification to extend the mine life by four years to 2025.

Furthermore, the company may be able to add further resources by the end of the year in other areas where it has intersected encouraging widths and grades in its drilling programme. This will also lead to a further mine-life extension or possibly an increase in annual production, although no account is taken for this in the mine modelling.

Progress on expansion plan

The Blanket mine is in the second year of a four-year, US$51m capital spending programme designed to increase gold production to 81koz by 2020 through exploitation of resources below 750m level.

Two elements of the expansion plan - the development of a decline from the 750m level and the continuation of the No. 6 winze – were completed by the end of H1 2016 and are already being used to access ore and increase production.

Shaft sinking is on budget and schedule

The third element, the sinking of the new vertical Central shaft, is progressing within budget and on schedule for a mid-2018 completion. As at the beginning of August, the shaft had been sunk to a depth of 170m below surface.

Other development projects underway include a second decline development below 750m at the Blanket orebody; an extraction haulage on 750m level at Eroica, and a footwall haulage on the 870m level to link the Blanket orebodies to the AR South orebody.

Through these initiatives, the mine is on course to increase production to 1,800t/d from Q3 16 from 1,500t/d currently.

The mine and mill will have matched capacity to cater for the increased production

On surface, meanwhile, Blanket mine will increase milling capacity from 1,500t/d to 1,900t/d in Q3 through the installation of a new ball mill to accommodate the increased production from underground.

Exploration

The company continues to drive on-mine exploration at depth with an accelerated drilling programme after commissioning new machines in the first six months of 2016.

Blanket mine is continuing with its aggressive exploration campaign

In Q2 16 the company drilled 6,106m, against the plan of 4,500m, confirming economic mineralisation at the AR South and Blanket ore zones to a depth of 1,300m and at the Eroica south shoot to a depth of 900m.

Board and management additions

Caledonia strengthened its board and management team in July 2016.

John McGloin adds geological and management expertise to the board

John McGloin has joined the board as an independent non-executive director. Mr McGloin was most recently executive chairman and chief executive officer of Amara Mining PLC, which was focused on the Yaoure gold project, in Cote d'Ivoire, in West Africa. In April 2016, Amara merged with Perseus Mining Limited and Mr McGloin now serves on the board of Perseus. He is a geologist with a Masters degree in Mining and Exploration Geology. Prior to joining Amara in 2012, he spent 10 years working in the City of London, initially as a mining analyst and latterly as head of the mining teams at various London-based stockbrokers.

Caledonia has also strengthened its management team with the addition of Maurice Mason as vice president, investor relations and corporate development, and Paul Mathews, as mineral resource manager.

Mr Mason was most recently a securities analyst in the mining sector following a spell working for Anglo American in its platinum and coal divisions.

Mr Mathews is a BSc (Hons) Geology graduate with twenty-five years broad-based experience in the mineral exploration and mining industry in Africa, Australasia and East Asia, ranging from grass-roots exploration to resource definition drilling and mining.

Subsequent to the appointment of Mr Mathews, Dr. Trevor Pearton has stepped down as vice president, exploration, although he will continue to provide consulting services to Caledonia in the future.

Valuation increased significantly

The valuation model below for Caledonia is on a sum-of-the-parts NAV basis through a DCF analysis. It takes into account the after-tax NPV of the future dividend stream from Blanket mine at a discount rate of 15%.

Updating the model has increased the NAV$^{15\%}$ from to 130.0p to 182.8p per share

This approach leads to a NPV$^{15\%}$ for Caledonia's share of Blanket mine dividends of 145.4p per share and a NAV for the company of 182.8p per share, suggesting that Caledonia is currently trading in London at a discount of 48% to that NAV.

Blanket mine dividends are defined as free cash flow (i.e. after all expenses and capital) and the model assumes that 100% is paid out each year to the shareholders from the second half of 2016 onwards. In 2015, and the first half of 2016, Blanket mine management suspended dividend payments to fund the capital expansion programme.

Caledonia will receive 77% of Blanket mine dividends until the vendor loans are repaid, which will be in 2022 according to the model

Despite only holding a 49% equity interest in the Blanket mine, through the mechanics of the indigenisation process completed four years ago, currently Caledonia actually receives over 77% of the dividend flow (including loan repayments) from the mine while the vendor loans it made are being repaid, which the model assumes should happen in 2022 (in the base case). At the higher price sensitivity analyses, Caledonia's interest will revert to the basic 49% earlier as higher dividend payments facilitate faster loan repayment.

The projected production growth, to 81koz by 2020, is based on exploitation of reserves and resources from existing infrastructure above the 750m level in the current mine plan, as well as inferred resources below the 750m level. As explained on p5, this leads to an extension of the modelled life-of-mine (LOM) through to 2025.

The annual production forecasts and cost projections have not altered materially since the initiation note was published.

This LOM extension has a significant impact on the company's NAV. According to the valuation model, Caledonia is valued at 182.8p per share, up from 130.0p per share in our July 2016 initiation note.

The valuation is summarised in the table below.

Figure 5: Base case valuation model for Caledonia

	US$m	£m	p/share
NPV$^{15\%}$ Blanket mine dividends	98.6	75.9	145.4
NPV$^{15\%}$ Blanket mine management fee	14.8	11.4	21.8
Net cash (30 June 2016)	10.6	8.2	15.6
NAV	124.0	95.4	182.8

Source: Marten & Co £/US$ exchange rate = 1.30

Sensitivity analysis

The model uses a 15% discount rate in its base case, but for comparison the NAV values at other discount rates are shown in the figure below.

Figure 6: Sensitivity of NAV at US$1,350/oz gold price to various discount rates

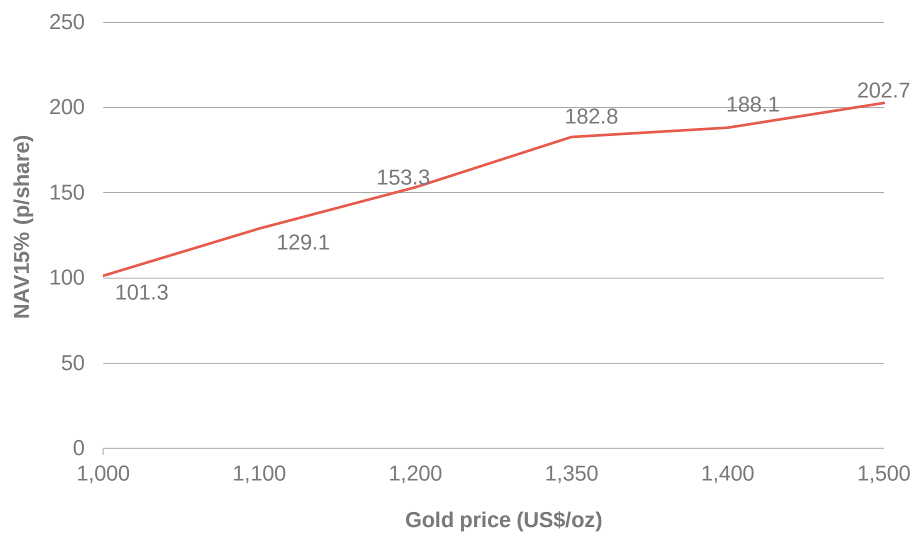
Discount rate	NAV (p/share)
8%	234.3
10%	217.3
12%	202.3
15%	**182.8**
18%	166.3
20%	156.7

Source: Marten & Co

The project has been stress-tested against volatility in the gold price, which is the most critical variable as far as profitability is concerned and is also extremely pertinent given the recent surge in gold prices.

Figure 7 shows how the NAV varies with gold prices.

Figure 7: Caledonia NAV$^{15\%}$ at various gold prices (p/share)



Source: Marten & Co

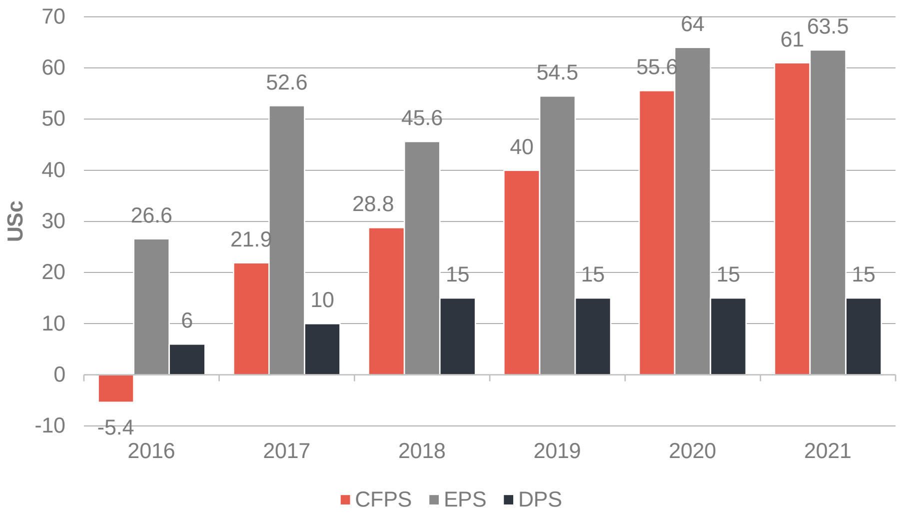
According to the modelling, the company offers significant value even at a long-term US$1,000/oz gold price as this would still imply an NAV$^{15\%}$ of 101.3p per share.

Cash flow, earnings and dividends forecasts

The company could increase dividends to US15c per share by 2018

Based on the assumptions and forecasts in the base case model, the projected per share cash flows, earnings and dividends for Caledonia, on a consolidated basis in US cents, are shown in Figure 8 below.

Figure 8: Cash flow, earnings and dividends forecasts (USc/share)

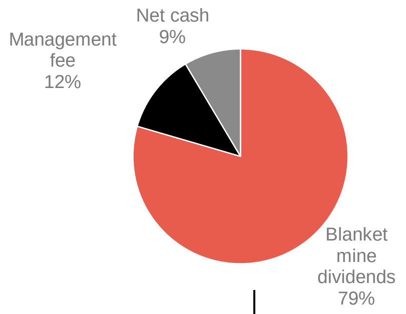


Source: Marten & Co

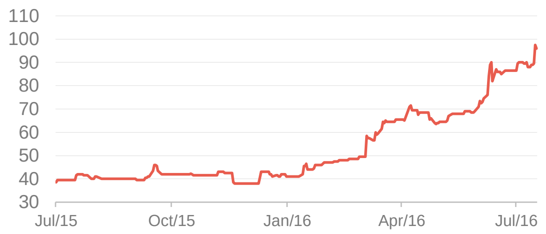
Figure 9: Caledonia Mining summary

Sum-of-the-parts DCF valuation August 2016	US$m	p/share
NPV$^{15\%}$ of Blanket mine dividends	98.6	145.4
NPV$^{15\%}$ of Blanket mine management fee	14.8	21.8
Investments	0	0
Subtotal	113.4	167.2
Net cash	10.6	15.6
NAV	124.0	182.8

Asset valuation summary



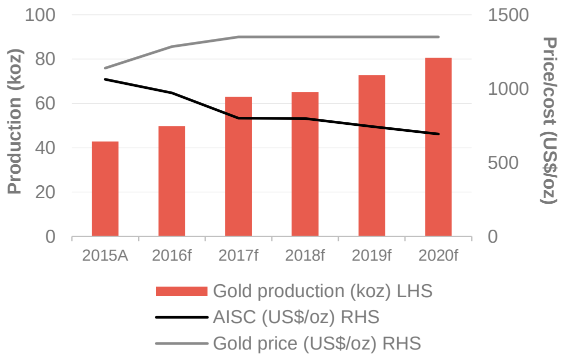
CMCL share price (p/share)



NAV sensitivity analysis (p/share)

	Gold price (US$/oz)					
Disc. rate	1,000	1,100	1,200	1,350	1,400	1,500
8%	130.9	167.8	198.6	234.3	240.0	258.2
10%	121.1	154.9	183.6	217.3	222.9	239.9
12%	112.4	143.6	170.4	202.3	207.7	223.7
15%	101.3	129.1	153.3	182.8	188.1	202.7
18%	92.0	116.9	139.0	166.3	171.4	184.9
20%	86.7	109.9	130.7	156.7	161.7	174.6

Production summary



Gold reserves & resources (July 2016)	Tonnes (mt)	Grade (g/t)	Gold (koz)
2P reserves	2.63	3.52	298
M&I resources	4.85	4.23	661
Inferred resources	3.86	5.01	623

Y/E 31 December, all figures in US$m unless otherwise stated

Forecast assumptions	2015A	2016f	2017f	2018f	2019f
Gold price (US$/oz)	1,139	1,285	1,350	1,350	1,350

Production and costs summary	2015	2016f	2017f	2018f	2019f
Production					
Above 750m level					
Tonnes milled (kt)	440	460	430	380	230
Gold grade (g/t)	3.25	3.30	3.30	3.30	3.30
Below 750m level					
Tonnes milled (kt)	-	35	160	215	390
Gold grade (g/t)	-	4.20	4.30	4.30	4.30
Total tonnes milled (kt)	440	495	590	595	620
Gold grade (g/t)	3.25	3.36	3.57	3.66	3.93
Recovery (%)	93.5	93.0	93.0	93.0	93.0
Gold production (koz)	42.8	49.8	63.0	65.1	72.8
Costs					
Mine site costs (US$/oz)	641	607	512	515	485
Total cash costs (US$/oz)	764	727	623	624	590
AISC (US$/oz)	1,063	972	801	797	743
AIC (US$/oz)	1,355	1,241	992	873	812

Profit & loss summary (consolidated basis)	2015	2016f	2017f	2018f	2019f
Revenues	49.0	63.2	84.0	86.8	97.1
Cost of production	(27.4)	(30.2)	(32.2)	(33.5)	(35.3)
Royalty	(2.4)	(3.2)	(4.2)	(4.3)	(4.9)
G&A	(10.1)	(10.3)	(10.3)	(10.3)	(10.3)
EBITDA	11.1	21.8	37.2	38.6	46.6
Depreciation & amortisation	(3.3)	(3.9)	(4.2)	(7.1)	(8.2)
Interest	(0.5)	(0.5)	0.0	0.0	0.0
Taxation	(2.4)	(3.5)	(5.6)	(7.8)	(10.0)
Net income	5.6	13.9	27.4	23.8	28.4
Average shares outstanding (m)	52.1	52.2	52.2	52.2	52.2
EPS (US$)	8.9	26.6	52.6	45.6	54.5
Dividend (USc per share)	4.5	6.0	10.0	15.0	15.0

Abridged balance sheet Y/E (consolidated basis)	2015A	2016f	2017f	2018f	2019f
Cash & equivalents	12.6	9.8	21.2	36.2	57.1
Fixed assets	60.2	62.9	73.6	74.6	74.3
Total assets	72.8	83.3	105.5	121.5	142.1
Current liabilities	8.4	11.2	6.7	6.7	6.7
Long-term debt	0	0	0	0	0
Other long-term liabilities	14.0	14.0	14.0	14.0	14.0
Total liabilities	22.5	25.2	20.7	20.7	20.7
Shareholders' equity	50.4	58.1	84.8	100.8	121.4

Cash-flow summary (consolidated basis)	2015A	2016f	2017f	2018f	2019f
Cash from operations	6.9	17.8	31.7	30.9	36.6
Capital expenditure	(16.6)	(17.5)	(15.0)	(8.0)	(7.9)
Cash from investing activities	(16.6)	(17.5)	(15.0)	(8.0)	(7.9)
Dividends	(2.5)	(3.1)	(5.2)	(7.8)	(7.8)
Cash from financing activities	(2.5)	(3.1)	(5.2)	(7.8)	(7.8)
Cash at end	10.9	9.8	21.2	36.2	57.1

Profitability	2015	2016f	2017f	2018f	2019f
EBITDA margin (%)	23%	34%	44%	45%	48%

Note that financial tables above are summaries and totals may not always agree

Source: Caledonia Mining, Marten & Co

Previous research publications

Readers interested in further information about Caledonia may wish to read our initiation note *A golden opportunity?,* published on 28 July 2016. The contents page has been reproduced below. You can read the notes by clicking on the menu below or by visiting our website.

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QuotedData

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