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FAIR VALUE STUDY

established by Mr. Anil Bakaya, Pune, India www.buyselltips.net

for the European Shareholders of Bougainville Copper Limited (ESBC)

on May 10th, 2011

I. Summary

Bougainville Copper (BOC) shares represent a long-term option on 4 commodities the prices of which have been in steep ascent: Copper, Gold, Silver and Molybdenum. The proximity of the exercise date inversely impacts on the share price. Previously when it was perceived to be 25 years plus, the price was down to 10 cents plus. That was true some 9 years ago. In the last 7 years as the opinion at the grass roots level in Bougainville turned more favourable and as a BCA Review was announced some 5 years ago, the shares crept up and have traded between a low of 37A cents and \$A2.20. The current price of \$1.28 is at a premium of merely 40% to the 7-year Volume Weighted Price of 91.1 cents and ignores the significant improvements in Bougainville as a result of a concerted awareness campaign and unanimous political support. It must be remembered that both President Momis and his predecessor and main election rival James Tanis are in favour of mining. The Regional MP and Bougainville Affairs and Trade Minister Fedelis Semoso made a statement that the National Government and the Autonomous Bougainville Government are aiming to sign the Panguna Mine Heads of Agreement by end of November 2011. [Source: Post Courier March 28]

Four milestone events in the years ahead that will determine the market price are [anticipated dates and target prices on crossing the milestone are shown in brackets]:

1. New Bougainville Copper Agreement [BCA] is signed by all 4 parties BCL, the National Govt, the Autonomous Bougainville Govt [ABG] and Landowners. [10 months from now?; Target price AUD5 to 8]
2. Financing arranged and mine development commenced [Four months after 1 above; Target price AUD8 to 11]
3. Earnings and dividend stream commences [12 to 18 months after 1, initially with ore mined shipped out and production ramped up; Target price AUD15 to 25]
4. Full capacity production is achieved [36 months after 2; Target price AUD30 to 50]

II. Projected annual revenue

BCL has reported that with new technology the production can be increased by 30% compared with 1987 production levels. The reserves will also be increased by 30% as a result of advances in technology. The mine life will be at least 14 years

Copper production per annum: 392.5 Million pounds times 1.3 or 510.25 M pounds . At the current price of USD 3.98 per pound sales of copper, this would represent revenue of USD2,031 Million.

Gold production per annum: 485,720 times 1.3 or 631,436 ounces. At USD 1,491.60 per troy ounce this will produce annual revenue of = USD942 Million.

Silver: increased production of 2,114,577 ounces at a price of USD35.29 per troy ounce producing annual revenue of USD75 million

Total annual revenue from increased production and prices will be USD 3,048 Million.

Note: 1988 Revenue was 392 M pounds of Copper at USD0.81 per pound plus 485,720 ounces of gold at USD446.7 per ounce or USD318 Million plus 217 Million or USD 535 Million. Earnings per share and dividends per share were USD25 cents per share.

III. Projected Operating Costs

Operating and other expenses stood at 227.5 million or 250.25 million USD at the then exchange rate of K1= USD1.10. We will assume an average USD inflation rate of 5% per annum.

This would mean operating costs in 27 years (from 1987 to 2014) would multiply 3.73 times to USD 933 million per annum

Projected Royalty payable to Landowners

It is proposed to pay a royalty of 3.5% of sales to landowners

This will be USD106.7 Million per annum.

IV. Project Earnings and Dividends per share

Revenue of USD3,048 M less operating cost of USD 933 M less landowners royalty of USD 107 M

Earnings Before Interest and Tax [EBIT] = 2008M; Interest payable in Year 1 on USD 3.5 B = USD187.2 Million

Profit Before Tax [PBT] = 2008-187 = USD1821M,

Tax at 30% = USD 546 M

Profit After Tax [PAT] = USD1275 M; EPS = USD3.18 per share

Loan repayment year 1 = USD 212 M

Dividends = USD 1063 M or USD 2.65 per share

V. Share Price and Intrinsic Value

The attachment shows Volume Weighted Price [VWP] of Bougainville Copper shares. [Data Source: BuySellTips]. The Volume Weighted Price is the summation of turnover [or price at which shares were sold times the volume of shares] divided by the total volume and represents an average based on turnover of all transactions over the period. In the last 12 months the Volume Weighted Price was AUD1.37, up from AUD54 cents in the previous 12 months. Average daily volume of some 77,000 shares rose 56% from 49,460 shares. **The 7-year VWP was A91.1 cents.**

Twelve-month period						
Ended	High	Low	Turnover \$	Volume	Av daily volume	Volume Weighted Price
9 May 11	2.2	0.595	26,280,729	19,248,103	76,992	1.37
9 May 10	0.795	0.45	6,630,372	12,365,127	49,461	0.54
9 May 09	1.75	0.5	6,898,232	7,176,118	28,704	0.96
9 May 08	1.94	0.73	12,543,097	12,142,480	48,570	1.03
9 May 07	1	0.6	5,321,684	6,828,081	27,312	0.78
9 May 06	1.065	0.53	8,401,760	10,560,729	42,243	0.80
9 May 05	1.35	0.37	14,973,621	20,904,354	83,617	0.72

If the company was a going concern operating at full production with no uncertainty about start-up, BCA, financing the Market Capitalisation of the company would be a P/E of at least 12 or USD12 x 1275 M or USD15,300 M market capitalisation on a P/E of 12. This translates to a share price of USD38.15. Alternatively a P/EBIT of at least 7.5 would imply a market capitalization of 2008 x 7.5 = 15060 or share price of USD37.55.

This assumes the company will not issue any new shares and will finance the mine development wholly via bonds.

VI. Further upside [Blue Sky potential]

1. Moratorium on exploration leases

When the shares were trading at \$7 and above in 1987- 88 it was estimated by analysts they would double if the moratorium on leases was lifted. At that time Bougainville Copper was considered to have the lowest operating costs at about 40 UScents a pound of copper. There is a good potential for at least one more ore body to be found in the 7 leases owned by BCL on which the moratorium on exploration is expected to be lifted after production commences.

“And it is worth remembering that BCL has 7 granted tenements adjacent to the Panguna mining lease which are in good standing and await exploration save for a National Government imposed moratorium on exploration on Bougainville. Our geologists believe this area is highly prospective”: Source BCL AGM

2. Ore and waste removed

Ore milled

If we add the 18-year data of the two rows from the Table in the last two pages of the Annual Report we find that:

- Ore and Waste Removed in the 18 years was 1248 M Tonnes
- Ore Milled was 675 M Tonnes
- On average the company mined about 69.3 Million tonnes per year [or 1248/18] and milled about 37.5 Million tonnes per year [or 675/18]. The difference between these two figures is 573 M Tonnes. The fact they always mined more than they milled gives BCL a fantastic headstart in mine development. Soon after kick-off date they will be able to ship the mined ore which is ready for milling overseas.

We do not know what proportion of this stock of ore and waste of 573 Million tonnes is suitable for milling. It is estimated that there is adequate stockpile on the ground for at least 3 years of milling. It is further estimated that the investment on this will be a few hundred million dollars . This investment can be commenced soon after the BCA is signed.

3. Molybdenum

When the company mined in the period 1972- 89 molybdenum prices were a fraction of current prices. The mine has molybdenum but the amount is unknown. Whatever it might be, will add to the bottom line.

VII. Financing of project cost, interest rate and repayment schedule

“The company has sufficient funds to cover its recurrent expenditure under the current plan and is debt free....BCL's liquid assets continue to be cash and Australian equities.It is intended to continue with the current investment strategy until such time as equities need to be sold to fund mine planning and development.” [Source: AGM]

A project cost of USD 3.5 Billion to be raised by BCL issuing bonds or BCL Copper ETF and BCL Gold ETF [commodity Exchange Traded Funds] guaranteed by RIO and perhaps insured by EFIC after a bankable feasibility study and after a New Bougainville Copper Agreement is signed by BCL, elected landowner representatives, the ABG and the National Govt. The bonds or ETFs will be based on “x” tonnes of copper and “y” ounces of gold sold forward.

Interest rate or coupon rate of 5.5% [refer snapshots from Bloomberg RIO bonds are currently trading at a yield to maturity of 5.016% for 2028 bonds, 3.934 for 2020 bonds and 3.648% for 2018 bonds].

The principal and interest amounts will be repaid over a 12-year period commencing at the time when full production levels are achieved. Monthly repayment will be USD33.5 Million. In Year 1 the interest bill will be USD 187.2 Million and the principal repayment will be USD 211.86 Million.

VIII. ASSUMPTIONS based on prices, exchange rates and YTM of RIO bonds as at May 8, 2011

Prices

Gold USD1,491.60 per troy ounce; Copper USD3.98 per pound; Silver at USD35.29 per troy ounce

Exchange rates

K1=USD 0.45; K1=AUD0.42 ; AUD1= 1.07 USD.

Production

Because of improved technology methods BCL expects that production will be 30% higher and reserves 30% higher than 1987 levels.

In 1987 the production was:

Concentrate 585,500 dry tonnes

Contained copper 178,200 tonnes

Concentrate grade was: Copper 30.4%; Gold 25.8 grams/tonne; Silver 86.4 grams/tonne

178,200 tonnes of copper equals 178.2 Million kgs or 392.5 Million pounds of copper

Gold production was 25.8 g times 585.5 thousand tonnes = 15,105,900 grams or 485,720 ounces [1 troy ounce = 31.1 grams]

Silver production was 86.4 grams times 585.5 thousand tonnes or 50,587,200 grams or 1,626,598 ounces

IX. Road Map

The road map to New BCA needs to cover the following 6 points which are currently in progress:

- 1. Good law and order and peace in Bougainville**
 - Weapons surrender [Ten points Weapons Disposal Process]
 - a RAMSI type of joint venture between Bougainville Police and Australian Federal Police or the United Nations
- 2. Landowners elections and united welcome; there is a groundswell of support for mining from the vast majority of landowners which needs to be translated to Mining Forum meetings and unanimous endorsement of the New BCA. In the past 9 months there has been an unusually high spate of reconciliation gatherings amongst landowners; 6 landowner associations have been formed.**
- 3. National Govt delegation of mining powers to the Autonomous Bougainville Govt [ABG]**
- 4. ABG welcome to mining plus lifting of moratorium on exploration "An important event during**

the year was the election of Chief John Momis as President of Bougainville for a five year term. President Momis was elected with an absolute majority, giving him a strong mandate for his programs....the next five years is the period in which the mine should be reopened ...I met the President, at his invitation, during his first week in office and dialogue is ongoing... The President has publicly expressed his support for reopening the mine and he is talking directly with me and BCL. He has established an office in Port Moresby which will allow him to meet directly with BCL and the PNG Government on a regular basis. I believe the company can work well with President Momis and the Cabinet of the Autonomous Bougainville Government.
"[Source: BCL AGM]

The President as well as the Vice President Patrick Nisira have been working on various aspects of this project including mine capacity building at ABG Mining, regular meetings with landowners, Arawa infrastructure and law and order issues.

5. **Financial** benefits sharing [National Govt, ABG, BCL/RIO, Australian Govt: The ABG had been starved of funds in the last 10 years. There have been recent visits by a high level Australian delegation and the PNG Govt has also commenced some cash injection. The mine benefit sharing agreement has yet to be agreed upon. BCL has appointed former PNG Prime Minister Sir Rabbie Namaliu as Director. His strong rapport with President Momis should provide him the opportunity to act as an interlocutor so as to move things forward.
6. Unrestricted access to Panguna [Landowners, ABG] "There has been some remediation work carried out on site as part of the company's commitment to ensure the mine site is safe whether or not mining is taking place. There are plans to do additional work with the co-operation of landowners. President Momis has been proactive in assisting the company carry out safety work." : Source: BCL AGM . That should augur well because Panguna was in the "No Go" zone, inaccessible to BCL for about 22 years.

Disclaimer: The author, Anil Bakaya, holds shares in Bougainville Copper. While this document is based on information sources which are considered reliable, it has been prepared without consideration of your specific investment objectives, financial situation or needs, so you should carry out your own analysis or seek professional investment advice before an investment decision is made. The document contains unbiased, independent equities data from BuySellSignals (Australian Financial Services Licence 222756) who provide round the clock data on every Australian stock and sector. The data is sourced from annual reports and company releases and may not be fully up to date. It should be used as a guide only.