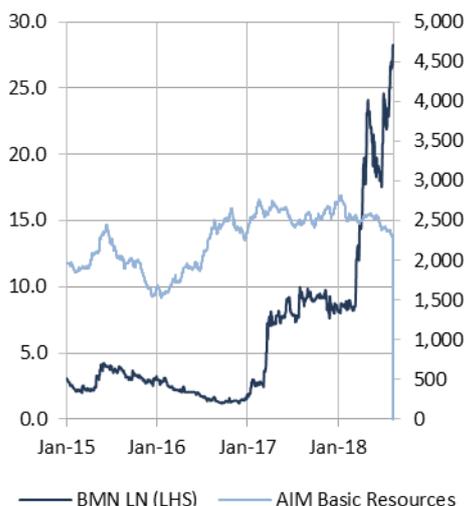


13 August 2018

Stock Data

Ticker	BMN LN
Share Price:	28.25p
Market Cap:	£304m

Price Chart



Strong vanadium & weak ZA Rand lift earnings expectations for Vametco

Valuation: we are raising our valuation and target price to **33.6p from 25p** on the sharp fall in the South African Rand and higher ongoing vanadium prices.

- Bushveld Minerals have the luck of the Irish, an old mining expression from when Irish miners made their fortunes in the gold rush in the US in the early 19th century.
- Bushveld appear to share their good fortune with ongoing strength in vanadium prices combining with dramatic weakening in the South African rand.
- Ferro vanadium prices are a staggering \$80-82/kg for 78% FeV in Europe and \$80-85/kg fob in China according to the Metal Bulletin. Bloomberg report \$78.80/kg for FeV 80%.

Scenario 1:

- If we take the average of \$66/kg through the last 6 months and then assume say \$80/kg for the rest of the year and then do the same with the US\$:ZAR currency rate we get:
- EBITDA = ~US\$165m, Attributable EBITDA = ~US\$97m.
- This lifts our **valuation to 34p.5/s** assuming the US\$:ZAR remains the same and vanadium prices remain at our longer term assumption of US\$35/kg beyond 2019.
- As analysts we generally try to more cautious than this in our forecasting as we would prefer to upgrade our favourite stocks than downgrading them.

Scenario 2:

- If we assume the current vanadium price through the first seven-months of the year \$66/kg is repeated through H2 and remain with the spot SA rand rate then we get:
- EBITDA = ~US\$146m, Attributable EBITDA ~US\$86m, **Valuation to 33.6p/s**

Scenario 2: 100% Vametco		2017	2018	2019e	2020e	2021e
Price V2O5	\$/lb	6.4	15.5	7.9	7.9	7.9
Vanadium flake price	US\$/kg	32.6	66.0	35.0	35.0	35.0
Vanadium sales	kg	2721	3680	3750	5000	5000
Sales	US\$m	82.0	224.4	121.3	161.7	161.7
Operating costs	US\$m	58.2	78.4	76.0	99.9	99.9
Operating costs	US\$/kg	21.4	21.3	20.3	20.0	20.0
Operating profit	US\$m	23.7	146.0	45.3	61.8	61.8
Pre-tax profit	US\$m	23.5	145.0	43.9	60.3	60.2
tax	US\$m	6.7	41.3	12.5	17.2	17.2
Post-tax profit	US\$m	16.8	103.7	31.4	43.1	43.0
EPS	US\$/s	1.6	9.7	2.9	4.0	4.0
PE	x	21.6	3.5	11.5	8.4	8.4
EV/EBITDA	x	15.3	2.5	8.0	5.9	5.9

SP Angel forecasts: Figures based on 100% of Vametco plant. Bushveld now hold an effective 59.1% of the Vametco plant

***An SP Angel mining analyst and nomad have visited the Vametco in South Africa.**

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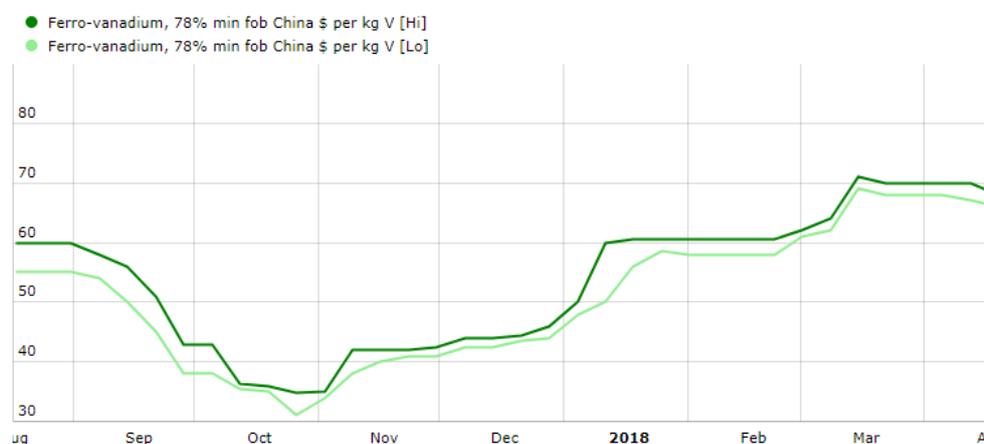
Bushveld Minerals Cont....

Scenario 3:

- There may be a good case for lifting our longer term vanadium price forecast based on the strength of vanadium prices so far this year.
- Vanadium prices have averaged around ~US\$66/kg over the past six months and may well remain elevated in future years though restarting and new supply, such as that planned by ‘Energy Fuels’ is being attracted into the market by higher price levels.
- If we assume US\$66/kg for the year + a **longer-term Ferro-vanadium price of US\$45/kg** vs our current US\$35/kg assumption combined with the current US\$:ZAR rate then this takes our NPV-based **valuation to 51p/s**
- **Production profile:** Vametco plans to continue to increase vanadium production through low cost capital enhancement as follows:
 - o Phase 1 – 3,035 mtV3 – cost US\$0.5m - done
 - o Phase 2 – 3,750 mtV3 – cost US\$2.5m due June
 - o Phase 3 – 5,000 mtV3 – in planning

Vanadium prices: Vanadium prices peaked at US\$81.5/kg in late July according to Bloomberg and at \$83-81.7/kg on 25th July according to Metal Bulletin for 78% fob Europe. Prices remain underpinned by tight vanadium pentoxide (V2O5) supplies according to the Metal Bulletin.

Thinning stocks with traders are reported to be bolstering the market in the US presumably driven by strong US economic activity while the European market has softened on slower summer demand.



Conclusion: Vametco is seeing extraordinary growth in its cash flow generation from much higher than anticipated ferro-vanadium prices which is further supported by a significantly weaker South African rand.

The rand is being driven by the general flow of funds back into the US dollar and ongoing bad press relating to land confiscations from white farmers without compensation in South Africa. In valuation terms, we are raising our target price to 33.6p. This may well prove to be a base case for Bushveld’s share of the Vametco cash flow with potential for a significantly higher valuation if ferro-vanadium prices can find a higher long-term base.

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