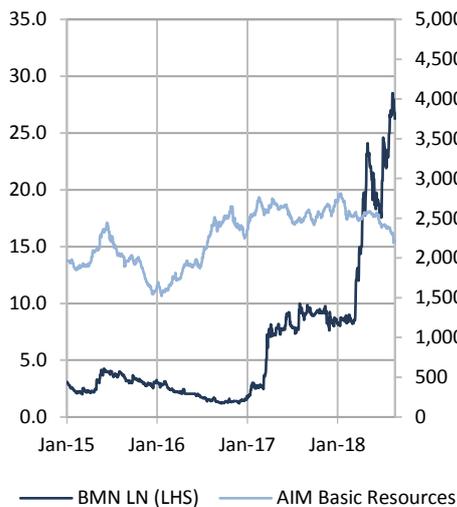


23 August 2018

Stock Data

Ticker	BMN LN
Share Price:	24.9p
Market Cap:	£276m

Price Chart



Ferrovanadium guidance cut as costs rise - second half set to outperform

Valuation: we are reducing our valuation to **30.5p** from **33.6p** on lower management guidance for ferrovanadium production this year.

- Vametco report significantly raised earnings through the first half driven by markedly higher vanadium prices.
- Ferro-vanadium prices rose by 150% yoy through the first half to average US\$65.5/KgV according to the official Metal Bulletin reported price.
- Vametco has now increased its production run rate for Nitrovan (Vametco's premium brand of ferrovanadium which contains added nitrogen) in its Phase Two expansion to 3,750mtV from 3,035mtV achieved after the Phase One expansion in Q3 last year and production should ramp up towards this new capacity through the second half.
- Unfortunately Vametco produced less Nitrovan than anticipated through the second quarter with production at 1,360mtV in H1 vs 1,441mtV through the same period last year.
- The second quarter is disappointing and reflects the high level of activity in the commission of the Phase Two expansion as well as kiln maintenance and 2.5 days of unprotected industrial action and a four-day community protest.
- New guidance for 2,850-3,000t of Nitrovan is significantly below our previous expectation for 3,680t for the year indicating the impact of reduced kiln feed and the challenges of expanding production while running an existing facility, in addition to a 2.5 days of unprotected industrial action and a four-day community protest.

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Vametco: 100% ownership		2017	2018	2019e	2020e	2021e
Price V2O5	\$/lb	6.4	15.4	7.9	7.9	7.9
Vanadium flake price	US\$/kg	32.6	65.5	35.0	35.0	35.0
Vanadium sales	t	2721	2850	3750	5000	5000
Sales	US\$m	82.0	172.5	121.3	161.7	161.7
Operating costs	US\$m	58.2	87.8	74.1	97.3	97.3
Operating costs	US\$/kg	21.4	30.8	19.7	19.5	19.5
Operating profit	US\$m	23.7	84.6	47.2	64.4	64.4
Pre-tax profit	US\$m	23.5	83.7	45.8	62.9	62.8
tax	US\$m	6.7	23.8	13.1	17.9	17.9
Post-tax profit	US\$m	16.8	59.8	32.8	45.0	44.9
EPS	US\$/s	1.5	5.4	3.0	4.1	4.0
PE	x	20.9	5.9	10.7	7.8	7.8
EV/EBITDA	x	14.8	4.1	7.4	5.4	5.4

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.**

Bushveld Minerals Cont....

- Production costs rose by 22% yoy to ZAR 248/KgV (~US\$20/KgV) indicating that the disruption to production, particularly in Q2 had a marked impact on the company's cost base.
- Costs are targeted to be some ZAR230-250kgV for the year resulting in a +11% increase on our modelled cost base for last year and reversing expected unit cost benefits expected for the year.
- However the collapse in the South African rand means that costs have effectively fallen to US\$16-17/KgV at today's ZAR14.411/USD rate offsetting the increase in local production costs.
- The lag in receipt of higher vanadium prices also knocks an estimated \$5m off H1 sales in H1 though this will be effectively made up in Q1 next year.
- Higher costs combine with a lag in receipt of higher vanadium pricing serving to pull profits lower in the first half. We expect this effect to be largely reversed in the second half.
- Production guidance is now lowered to 2,850-3,000mtV for the full year though expectations remain on track for production capacity to increase to 5,000mtV by end 2019.
- Management are taking steps to improve the operation of the mine and process plant alongside ongoing debottlenecking and Phase 2 expansion
- While we are cautiously assuming the lower 2,850t for the year in our modelling it is our view that production could well come in at the top end of the new range unless there are further unforeseen stoppages.
- We have adjusted our model to assume 2,850mtV of Nitrovan for 2018 vs 3,760mtV previously. The delay in the ramp up to Phase 2 production levels sadly reduces our sales forecast and estimated profits for the year and we are considering if there might need to be any changes to our forecast of 3,750t for 2019 and 5,000tpa thereafter .
- **Ferrovanadium prices** are currently at US\$80-81/kgV (Metal Bulletin) and US\$79/kgV (Bloomberg). The average ferrovanadium price was US\$65.5/kgV through H1 and is US\$69.1/kgV for the year-to-date.
- We assume US\$65.5 in our modelling for the full year but are likely to increase this if ferrovanadium prices remain at elevated levels through much of the second half.
- We continue to assume a pullback in ferrovanadium prices to US\$35/kgV in our model though this is looking increasingly conservative given the consistent and stubborn strength of the ferrovanadium price so far this year.
- **Sales** rose by 139% yoy to ZAR 1,050m (US\$85m) in the first half.
- **EBITDA** rose by 430% yoy to ZAR521m (US\$42m).
- **FOREX:** The USD/rand rate averaged 12.3 in H1 and 12.6 YTD. We assume the currency will remain at the spot rate through the rest of the year at 14.411 giving us an average of 13.2 for our assumption for the year. Comments by President Trump this morning relating to the seizure of farms without compensation looks likely to ensure a weaker South African rand for some time.
- While higher production through the second half will help to offset the impact of higher wages, energy and other costs, guidance indicates that costs will be >10% higher than last year in rand terms though we now expect costs to be lower in their US dollar equivalent. The weaker South African rand which is currently at ~14.633/US\$ will serve to offset much of this cost increase.

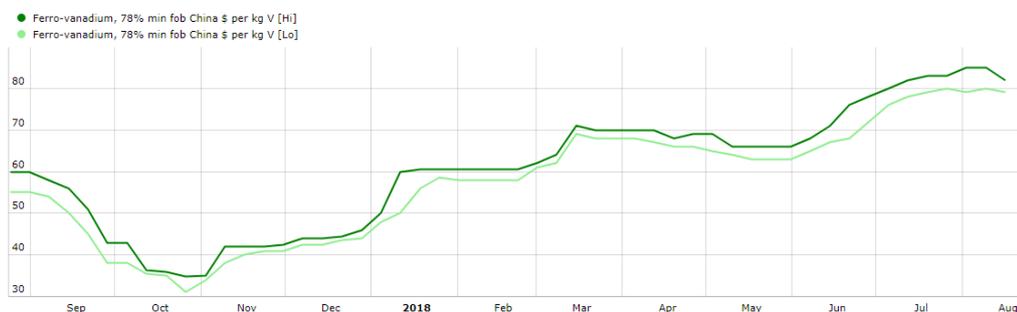
Bushveld Minerals Cont....

Conclusion: Vametco’s performance in Q2 along with the downgrade in production guidance and higher costs for the year is disappointing. Management guidance serves to pullback our sales and profit forecasts for this year to the numbers shown in the table below. However, higher than forecast prices for ferrovanadium and a markedly weaker South African rand look likely to offset much of the impact from lower production. Management have been working hard on the expansion and debottlenecking at the plant and our discussion with them indicates that they are also looking to recover performance in areas that have led to the pullback in guidance.

Note: *Bushveld Minerals controls and holds an effective 59.1% of Vametco*

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

**SP Angel act as Nomad and broker to Bushveld Minerals*



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