

Fine-tuning puts Bass plans on song

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DOUBLING production in just over a year of full ownership is no mean feat, but for Bass Metals, owner of the Graphmada large flake graphite mine in Madagascar, this planned expansion is only the beginning.



Graphite mining at Bass Metals' Graphmada mine in Madagascar.

The one-time base metals company, which bought into the project in late 2015, plans to bring the existing processing operations at the project up to the nameplate capacity of 6000 tonnes per annum by the end of 2017.

But this planned increase will be dwarfed again by the company's future development plans, lifting output to 20,000tpa by late 2018.

Bass CEO Tim McManus told MNN that the company was now working to produce graphite at a consistent rate of 400-500t per month after making a series of upgrades to the project.

"That brings us into a cashflow positive position – a great platform for the company to grow, and we are pretty excited about how the year is going to pan out for us," he said.

Bass took control of the Graphmada project in August last year when the project was in the midst of an upgrade, with previous owner Stratmin Global Resources

improving the primary mill and flotation circuit at the processing facility located the Loharano deposit.

But despite these changes, McManus said the capacity of the plant never exceeded a consistent run-rate of 3000tpa on a monthly basis, a fact said was down to a lack of the proper equipment.

“From a quality and ore feed control perspective, we needed to get some consistency in how the ore was fed to the flotation tanks, and that meant the scrubber up the front end needed replacing,” he said.

“One of the issues when we took over was grade control, and we made a small improvement there by purchasing a very inexpensive auger drill which provided much better information – we could predict the feed for the plant and get that mix more consistent.”

These and other changes saw the company lift its recovery rate from 47% under Stratmin’s management to 59% for feedstock from Loharano by October that year, while the grade after the primary re-grind improved from an average of 61% fixed carbon to 69%.

Plans to follow this with a new dryer and screening system, to improve product handling and allow Bass to produce a variety of niche graphite products was delayed after the company renegotiated its acquisition deal for the project.

Bass bought back a 2.5% five-year production royalty for A\$500,000 and an obligation to issue \$8 million worth of shares to Stratmin for \$2.6 million in cash, payable before September 30, 2017.

“We cut the deal from \$15 million to \$5 million – this is an asset they bought for \$60 million maybe 10 years ago, spent \$16 million on site and we picked it up for \$5 million,” McManus said.

“While we were doing that and we were mindful of the capital needed to make that happen, we thought, let’s just take a little more time to make sure that we get the equipment selection right.”

With this in mind, the company re-ran a series of tests, made time to find a major equipment supplier and visit their manufacturing facilities, and to consult more widely with the industry.

“In the end it is probably 2-3 months extra for a mine that is going to operate for 40 years, and we managed to save US\$500,000 by taking that extra time,” McManus said.

The plant has been configured to accept ores from both the Loharano and nearby Mahefedok deposits, while some of the key elements including the dryer, the generators and workers camp already boasting extra capacity.

Having secured the new equipment, Bass started decommissioning major components of the plant in May, with civil works underway in order to prepare the project for the installation of new equipment in August.

McManus told MNN the company would likely shut down its operations from June to October, but would continue with graphite sales, having stockpiled reserves for the purpose.

“They are not huge sales, because we have had to turn the processing plant and the dryer off at different times and manage different installs, but we think this is minimising the amount of revenue loss over the course of the year and the project,” he said.

McManus said Bass would consider its options for a further capacity expansion to 20,000tpa once the facility was operating at its 6000tpa capacity.

This would likely entail building a second processing plant at Mahefedok, with the company waiting on a maiden resource over the deposit, which has a 3km strike length.

“That will give us a resource base that will underpin the building of the second plant for that 20,000t throughput,” he said, with the company hoping to complete studies in 2018 and begin works in 2019.

“When the resource comes out we will be very quickly developing our mine plan and the objective is to be mining out of there this year when the plant is back up and running,” he said.

“We have got 40-year mining leases and the resource will give us about 20-30 years running time at the 20,000tpa rate, plus we have got further resources to develop as well,” he said.

The company generally produced graphite concentrates at about 94% fixed carbon, which McManus said could be used in the largest range of market segments – including in refractories, foundaries and crucibles for steel manufacturing.

“Everything that we produce – because it is large, jumbo flake – we can sell, and we get asked for more than we can produce,” McManus said.

“We are very confident that the partners that we have in place and some of the new people that we are talking to will more than soak up the 6000tpa.”