

Lifting the (calcrete) lid on the Kalahari Copper Belt

MOD AU / MOD LN

15 May, 2019

Last price: £0.165 / A\$0.30
Target price: £0.36 / A\$0.67

Initiating Coverage: Price Target £0.36 (A\$0.67) /share

Key Points

MOD is a copper development company with a 28ktpa project, T3, in the rapidly developing and exciting Botswanan Kalahari copper belt. Along with T3, which we value at NPV (8%) US\$222 million post tax using the recently released DFS, the company owns a further approximately 11,700km² of licences along the 140km strike of the copper belt. Within this they are discovering (at a 100% hit rate) fresh new deposits exhibiting high grades and understood mineralogy. First production from T3 is expected to come on stream in early 2021. We would expect that shares to be trading at £0.36 well before then. Key points:

Botswana – the best destination for foreign investment in Africa

Botswana is the poster child of African post-colonial success. From being one of the poorest countries at independence in 1966, the country is now considered an upper middle-income country with a stable political environment. GDP growth is still running at a healthy 4.4% rate and it is the least corrupt of major Sub Saharan African countries. This has been built on a sensible approach to the phenomenal diamond discoveries of the 70s, and more recently tourism, and their effect on a relatively small population of now c.2.8 million. There is a simple licensing route, royalty structure and tax code making foreign investment relatively straightforward. There is also a well-educated workforce with experience in geology and mining.

Geological advantages – sedimentary, large scale and decent grade

Sedimentary copper deposits typically carry good grades, often near surface and as such are low in capex intensity making them perfect targets for small to mid-scale mining projects. In Botswana, the trick is finding the discrete lenses of higher grade material and their signature settings especially given the Kalahari copper belt is relatively underexplored. MOD have become proficient at interpreting aeromagnetic as well as airborne EM data and identifying the dome structures hosting the copper deposition. It is highly likely that they will be able to add further material resource at their several other projects

Metallurgical advantages – calcrete, no transition material, strong recoveries

Crucially, unlike the belt further to the north east, the licence area is covered by a c.5-7 metre layer of calcrete. This has prevented weathering of the near surface resource delivering open pitted sulphides that can go through a simple flotation process. Moreover, the mineralogy, chalcocite with bornite and chalcocite, is very amenable to flotation with the company able to achieve 93% recoveries in producing a c.30% copper concentrate with silver byproduct.

Valuation – anomalously low given indicative offer

T3 is bottom decile capex intensity (US\$2.95/lb), with an AISC of US\$1.56/lb and a LoM of 11.5 years. Our NPV for the T3 deposit is US\$222 million (Cu US\$2.93/lb). On top of that there is a very exciting exploration portfolio to which we have assigned a basic, probably very conservative valuation of US\$20 million. A project which has normally gone through the DFS stage should be trading nearer 0.7x NPV, particularly in Botswana, versus the current 0.3x. We understand the project still needs funding but the rise in specialist/private investment institutions with a base and/or precious metal remit, as well as clear appetite in the market, should make financing very competitive. Assuming a 1.5x debt to equity ratio in the financing delivers a funded valuation of A\$0.67 or A\$1.15 unfunded. Remember too, MOD has just come out of a takeover period with an offer of A\$0.38/share on the table from Sandfire pre the release of the DFS. We think its rational to assume further predatory action is likely.

Analysts: David Butler
David Baker

Summary

Last price (A\$/GBP)	0.30/0.165
Target price (A\$/GBP)	0.67/0.36
Projected return (%)	123%

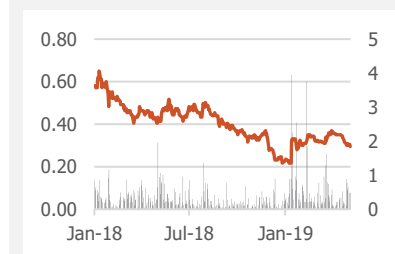
T3 Project

Commodity	Copper
Status	Development

Share Data

Shares o/s (m)	303.7
52-week high/low (A\$)	0.53/0.21
3-mth avg. daily vol ('000)	483
Market cap (basic) (A\$m)	75.3
Net cash/(debt) (A\$m)	13.8
Enterprise value (A\$m)	61.5

Share Price Performance



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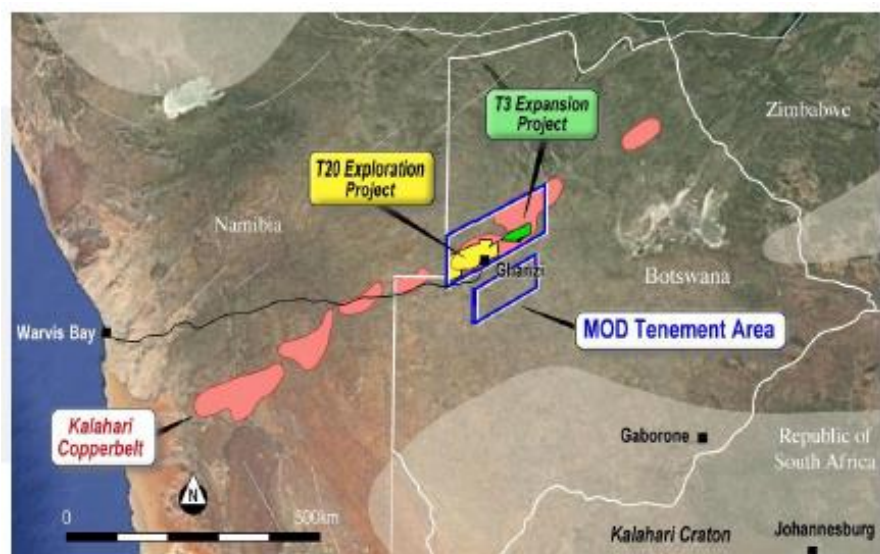
Summary

MOD is a dual listed (ASX and LSE) copper exploration and development company with a large land position in Botswana. Its first project off the ranks is T3; a 28kt pa open cut mine that is expected to come on stream in early 2021. This should be a relatively simple operation costing US\$182 million to build and operating at a C1 cash cost of US\$1.35/lb.

At steady state we estimate it will be generating an EBITDA of approximately US\$100 million p.a. and our post tax NPV(8%) at a US\$2.94/lb long term copper price assumption is US\$222 million. The company has also identified several other deposits on its approximately 11,700km² licence area and the company's geologists continue to refine their understanding of these domes and the underlying Kalahari basin and how it all fits together.

As such we see T3 as just a start for MOD who are one of the main players in the development of the Kalahari copper belt where we are also very likely to witness consolidation in our view.

Figure 1 - Location of the MOD licence area in Botswana



Source: MOD Mining

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Background

MOD listed on the Australian Securities Exchange in 1997 as a medical products company, before moving its focus into the resources space in 2010 through the purchase of Amphion International Limited, a private mining investment vehicle backed by prominent Australian mining investors and high net worth investors.

In 2011, MOD undertook its first investment in Botswana through the acquisition of the GMR Copper project, which would result in the company's maiden resource, the T1 Mahumo discovery (2.7Mt @ 2% Cu & 50g/t Ag)

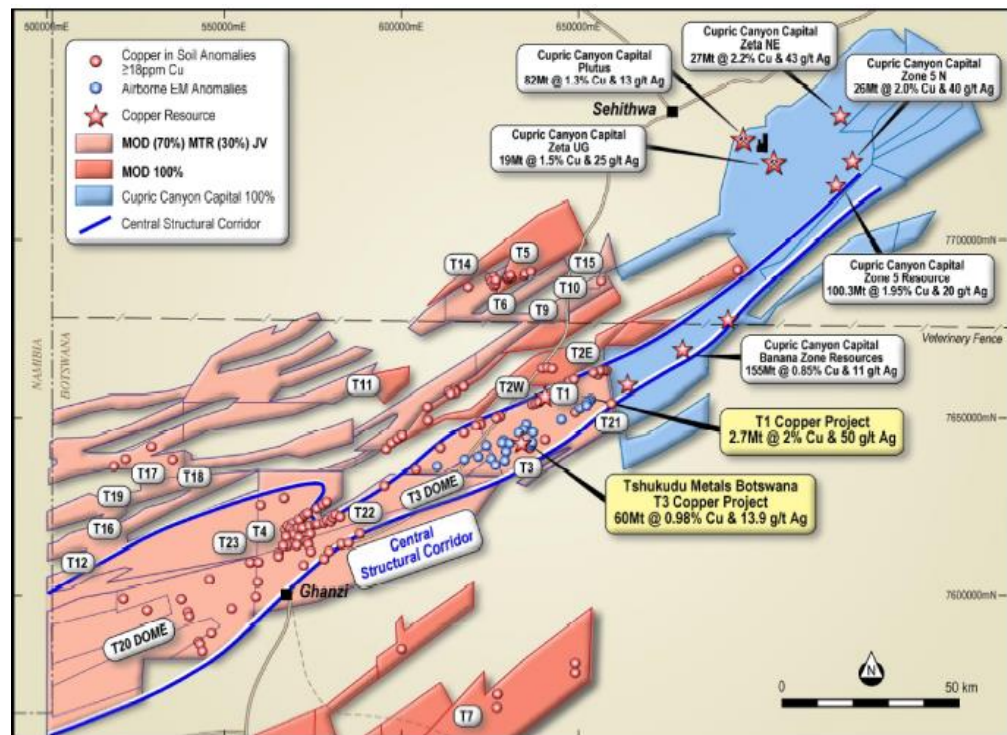
The wider Kalahari Copperbelt licences were acquired in December 2015 from a subsidiary of Discovery Metals, an ASX listed copper producer operating the Boseto mine and 3Mtpa processing plant, placed into administration in February 2015. The transaction was undertaken with mining investment group Metal Tiger Plc (AIM: MTR), who owned 30% of the licences following completion in consideration for providing the initial upfront payment.

The Boseto plant and two open pit mines were acquired from administration by Cupric Canyon Capital ("Cupric"), owned by private equity group GNRI (previously Barclays Natural Resource Investments). Cupric had previously acquired adjacent licences owned by TSX Venture Exchange listed Hana Mining in 2013 for C\$82 million containing the Banana Zone (current resource 191Mt @ 0.6% Cu) and Khoemacau Zone 5 (current resource of 100.3Mt @ 1.95% copper & 20 g/t silver) discoveries.

Development of Khoemacau is underway, Cupric Canyon announced a US\$565 million project funding package in February 2019. Including in the financing package is a US\$265 million silver stream from

Royal Gold (NASDAQ: RGLD) – clearly this would be one financing option for MOD. First concentrate is expected to be produced in 2021.

Figure 2 - Location of the T3 Copper Project and other licences area in Botswana



In March 2016, the discovery hole at the T3 project intersected 52 metres at 2.0% copper and 32g/t silver. Six months later a maiden resource was announced, consisting of 28.4Mt @ 1.24% Cu and 15.7g/t Ag, which was upgraded in 2017 and in 2018, currently comprising 60.0Mt @ 0.98% Cu and 13.9g/t Ag.

In January 2018, MOD released a Pre-Feasibility Study (PFS) at T3 outlining a base case annual production scenario of 23kt Cu and 690koz Ag over a 9-year mine life and an expansion case of 28ktpa Cu and 903kozpa Ag.

On 26 November 2018, MOD shares were admitted to trading on the Standard Segment of the London Stock Exchange's Main Market.

MOD released a Definitive Feasibility Study (DFS) in March 2019, based around a 3.0Mtpa operation, producing approximately 28kt Cu over an 11.5-year life of mine. Estimated development capital costs are US\$142 million, plus an additional US\$40 million in pre-strip mining costs for a total of US\$182 million. Operating costs are expected to be low, average life of mine All-In Sustaining Costs are expected to be US\$1.56/lb after silver credits, placing the company in the first quartile of the cost curve.

Subject to funding, construction will commence in H2/2019, pre-strip work is expected to take place in H1/2020 and first ore is expected to be processed in early 2021 following a 19-month construction period. We go through the key features of T3 in the summary below, along with the other exploration targets. Perhaps the hardest job for management at the moment is establishing a pecking order of projects behind T3 as well as finding other areas of interest such is the prospectivity and size of the tenements as well as the success of the exploration teams. This is made harder, and more urgent, by the threat of a takeover – management and shareholders alike should be fearful that any bid at the moment cannot possibly take into account the blue-sky upside from this land position.

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Asset Summary & Valuation

T3 is now on the runway. Following further studies and infill drilling the company has markedly improved the fundamentals for T3 in the DFS. It now comprises:

- A total reserve size of 34.4Mt grading 1% Cu and 13.2g/t at a cut-off grade of 0.25% Cu. It is contained within an ore body with a strike of 1.5km and 700m wide but it is open both laterally and at depth. Average LoM strip ratio is 5.7:1
- There is now a six-stage development pit with first ore targeted for early 2021. Steady state throughput is planned at 3.0Mtpa with recoveries of 93% producing 28kt of copper in concentrate. This is most likely to be shipped via Walvis Bay to which the concentrate will be trucked
- Capex for T3 is estimated to be US\$182 million including a US\$12 million contingency. C1 Cash costs are US\$1.35/lb and AISC US\$1.56/lb. The company has also built in provisions for closure costs
- Putting it altogether delivers an NPV (8%) of US\$222 million real assuming US\$2.94/lb copper price and US\$14/oz silver
- Near term expansion and mine life extension possible

We would add in this that the company does not have a mining licence; although the preparation of the application is a long way advanced. Permitting is discussed in the asset review section.

Price target of £0.36 with some clear catalysts to come

We have a sum of the parts (SOTP) valuation of US\$338 million for the fully funded T3 mine and exploration properties or £0.36/share. The valuation includes the NPV of the T3 project, a nominal value for the exploration projects and the net cash from the mine build fundraising. We assume the company raises US\$88 million in equity at a share price of A\$0.35/share, and raises US\$132 million in conventional bank debt with interest of 7%.

We don't see an issue for the debt portion of the financing; the company has engaged debt advisers, would clearly be an attractive target to private equity and strategic parties, and of course the market which is clearly discounting an equity issuance. We notice the placement in January in reaction to the Sandfire bid was heavily oversubscribed.

Figure 3 - Funded Valuation

SoTP Valuation	O/ship	US\$m	NAVx	A\$m	A\$/sh	GBP/sh
T3 NPV	100%	222	1.0	313	0.44	0.24
Other Assets	100%	20	1.0	28	0.04	0.02
Cash	100%	5	1.0	7	0.01	0.01
Cash from Equity + Debt Raise	100%	220	1.0	310	0.44	0.24
Cash from Options Exercised	100%	4	1.0	5	0.01	0.01
Debt	100%	(132)	1.0	(186)	(0.26)	(0.14)
Total NAV		338		477	0.67	0.36

Source: Tamesis

Key catalysts & timeline

The company has recently released its T3 definitive feasibility study for which there was an encouraging 10% positive share price reaction.

Next up is the ESIA (Environment and Social Impact Assessment) approval and granting of a Mining Licence which are both targeted for Q3 2019.

We believe financing of the project will not be long after. This will be interesting in its own right. Clearly the company is a potential target so the arrival of a corporate on the register as part of any financing will almost certainly be taken as a positive signal.

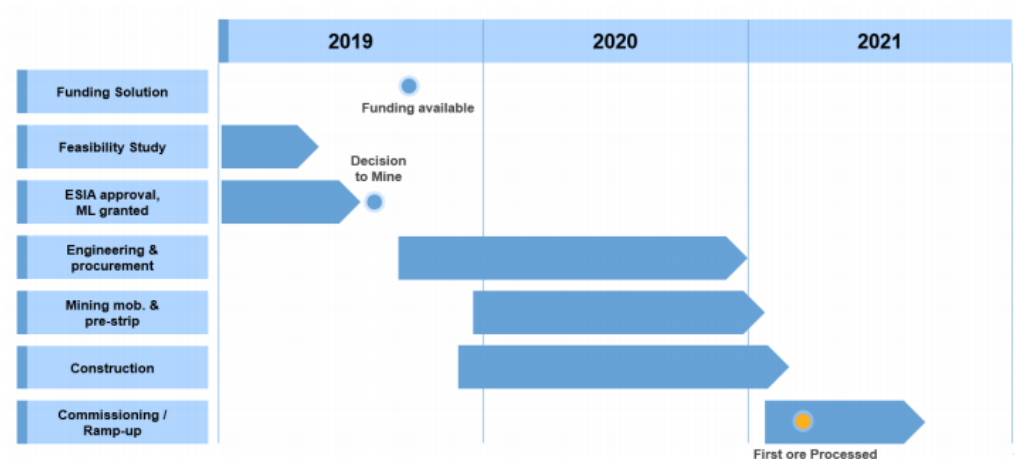
We are then into the construction of the mine. This will hopefully be pretty straightforward – one of the attractions of the investment case is the relatively simple nature of the open cut mine.

Within this though it would be hugely positive if the Botswana Power Company were to deliver the extension of the 220kV grid power transmission line along the A3 near to the mine thus enabling a connection to be made. This is due Q1/2020, ahead of first production.

The company continues to explore, and are spoilt for targets. Just in the environs (25km radius) of T3, there are the A1 and A4 dome structures with some compelling intersections already revealed.

Then there is the T1 copper project which has a 2.7Mt @ 2% Cu & 50g/t silver resource. Further afield there is the T20 exploration project, inside of which there the T23 Dome extending over 390km² and a 750km² area of zinc and copper soil anomalies. It is likely therefore that we should see continuing news flow on the exploration front (annual budget US\$8-10 million for 2019) delivering positive catalysts for the share price.

Figure 2 - T3 Execution Schedule



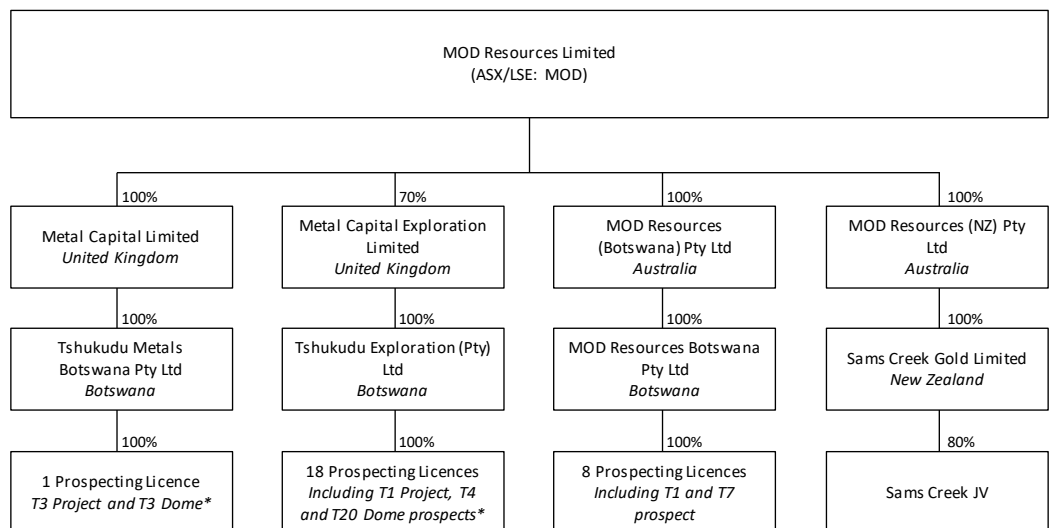
Source: MOD Resources

Corporate and Capital Structure

MOD is listed on both the Australian Securities Exchange and the Standard Segment of the Main Board of the London Stock Exchange, having completed a dual list in November 2018. So far, the London listing has added c.20% to the average daily volume which we would expect to increase as UK institutional investors discover the company. MOD Resources Limited is incorporated in Australia.

Overall, the corporate structure is relatively simple: with the T3 licence and 8 other prospecting licences being held through wholly owned subsidiaries, and the remaining licence areas held through a 70% owned joint venture with Metal Tiger.

Figure 4 - MOD Corporate Structure – funded

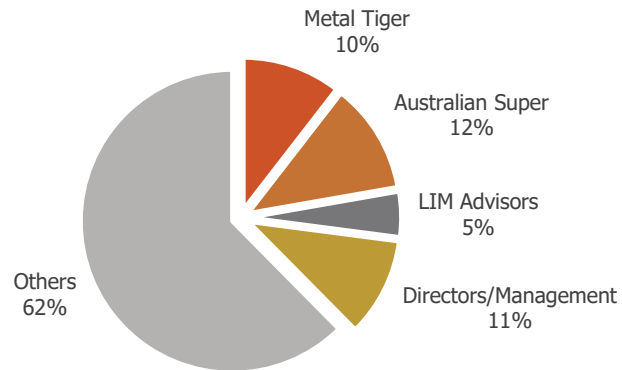


Note: T3 Dome is held in trust for the benefit of Tshukudu Exploration
Source: MOD Resources, Tamesis

Shareholders

A table of shareholders is below. The largest shareholder is Australian Super, the largest Australian superannuation and pension fund. Exploration licence JV partner Metal Tiger Limited are 10% shareholders, through a combination of on-market buying and a consolidation transaction described in the next section in more detail.

Figure 5 - Major Shareholders



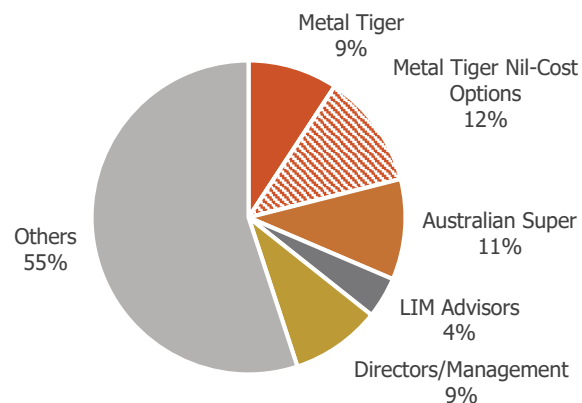
Source: Tamesis

Metal Tiger Transactions

In December 2015, MOD acquired a number of prospecting licences formerly held by defunct Discovery Metals (ASX: DML). These licences would ultimately contain the T3 and T20 dome discoveries, amongst others. In order to fund the upfront cash payment, MOD entered into a Joint Venture with UK investment company Metal Tiger Plc (AIM: MTR) who would have a 30% direct shareholding in the licences.

On 16 November 2018, MOD acquired Metal Tiger's 30% stake in the T3 project and a three year right to purchase Metal Tiger's 30% interest in all other joint venture exploration assets. An all paper transaction, Metal Tiger's shareholding in MOD has been limited at 12.5%, leading to c.40 million nil exercise price options being issued, representing a further 12% of the issued share capital on a diluted basis.

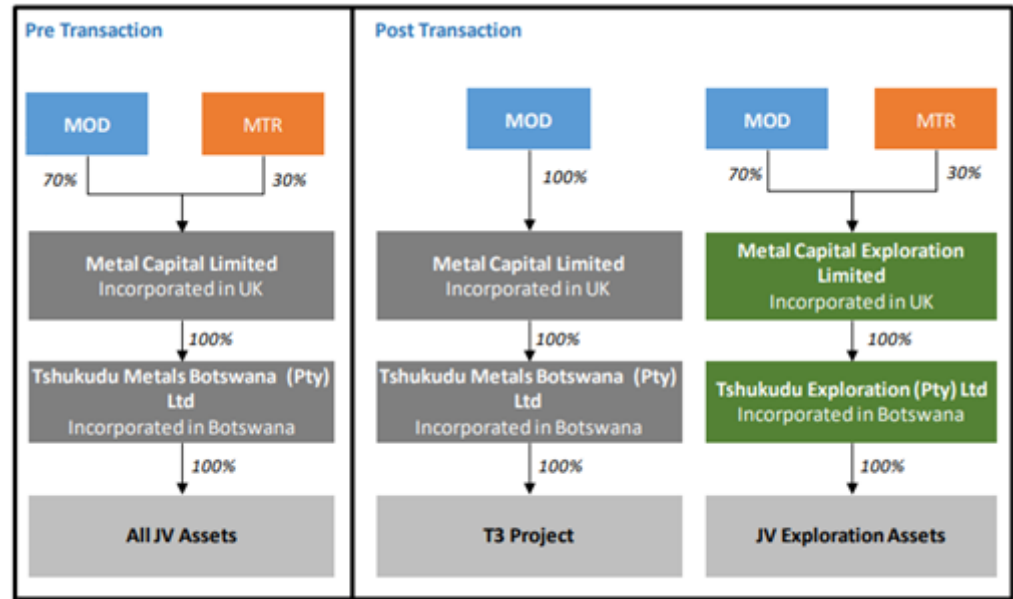
Figure 6 - Major Shareholders including Metal Capital Options



Source: Tamesis

MOD has the right to acquire the remaining 30% of other JV assets when they have achieved scoping study level or at the end of the 3-year period being 15 November 2021. The valuation will be determined looking at the proportional NPV contribution from broker research valuations. A summary of the transaction is as follows:

Figure 7 - A Summary of the Metal Tiger Transaction



Note: excludes MOD's currently 100% owned assets

Source: MOD, Tamesis

Board and Management

Julian Hanna, Managing Director

Mr Hanna is a geologist with over 35 years' experience in the mining industry. This includes 15 years in senior management roles including 12 years as the Managing Director of Western Areas during its transformation from a A\$6 million junior explorer to become Australia's third largest nickel mining company capitalised at more than A\$800 million.

Mark Clements, Executive Chairman and Company Secretary

Mr Clements has over 20 years' experience in corporate accounting and public company administration. Since 1997, Mr Clements has previously held the roles of Chief Financial Officer and Chief Operating Officer of MOD. He is a Fellow of the Institute of Chartered Accountants in Australia and a Member of the Australian Institute of Company Directors.

Steve McGhee, Technical Director

Mr McGhee is a metallurgist with over 30 years' experience in the mining industry covering testwork management, project development, engineering, commissioning and process plant management.

Stef Weber, Chief Financial Officer

Mr Weber is a qualified chartered accountant and company secretary with more than 20 years' experience in the resources industry. Previously, he was employed by Exxaro Resources Ltd for more than 16 years, holding various senior financial roles in their coal and mineral sands divisions.

Jacques Janse van Rensburg, Business Development Manager

Mr Janse van Rensburg is a geologist with over 25 years' experience in African mining projects. He was previously project manager for the Ghanzi project at Hana Mining prior to its acquisition by Cupric Canyon. He has also worked as Exploration Manager for both Pangea Exploration in the Democratic Republic of Congo and Anooraq Resources in South Africa.

Gaba Chinyepi, Country Manager

Mr Chinyepi is a geologist with 19 years' experience covering mining, academic and exploration fields. Mr Chinyepi has worked as a project geologist for BSC Resources in the Insiwa Complex (South Africa) and Chief Geologist for Hunt Metals in the Tati greenstone belt.

Simon Lee AO, Non-Executive Director

Mr Lee AO has a successful track record in the resources industry spanning 27 years. He was instrumental in building gold mining houses Great Victoria Gold NL, Samantha Gold NL and Equigold NL – which was taken over by Lihir Gold for A\$1.1 billion. He was the chairman of MOD Resources from 1997 until 2011.

Bronwyn Barnes, Non-Executive Director

Ms Barnes has had an extensive range of experience across mining in Australia and overseas for companies ranging from BHP Billiton to emerging juniors in director, leadership and operational roles. Most recently she was Executive Chair of Windward Resources Ltd where she oversaw the successful on market takeover of Windward by Independence Group NL and before this spent 4 years as Deputy CEO of AMC Bauxite Ltd. She is currently a non-executive Chair the ASX listed Indiana Resources and a Non-Executive Director of Scorpion Minerals Limited. She is also Chair of Legend Media Group, Director of Perth Racing and a member of the Executive Council of the Association of Mineral and Exploration Companies.

Michael McNeilly, Non-Executive Director

Mr McNeilly is an experienced corporate financier having advised several private, Main Market listed, AIM quoted and ISDX listed companies on a variety of corporate transactions during his tenure at Arden Partners and Allenby Capital respectively.

T3 Project

Introduction

The flagship asset of the company is the T3 deposit, discovered in 2016 when a drill hole intersected 52 metres at 2% copper.

Mineralisation at T3 and across the Kalahari Copperbelt is located under a 5-7 metre calcrete cap, which had hindered discovery by historical exploration techniques as well as preventing weathering of the ore body. This unique feature allows the company to build an initial open cut mine with flotation plant only.

Mineralisation occurs in three distinct zones: initially veins of copper mineralisation (chalcopyrite, chalcocite, and bornite), followed by a low grade "halo" of disseminated material, and finally a high-grade basement zone at the contact with the Ngwako Pan Formation (NPF). This trend has been observed along a 140km strike, shallow dipping, nearing the surface in "domes".

At present, the T3 Project is the nearest observed mineralisation to surface and is clearly amenable to open pitting. We expect study work on other discoveries to also include potential underground extraction methods.

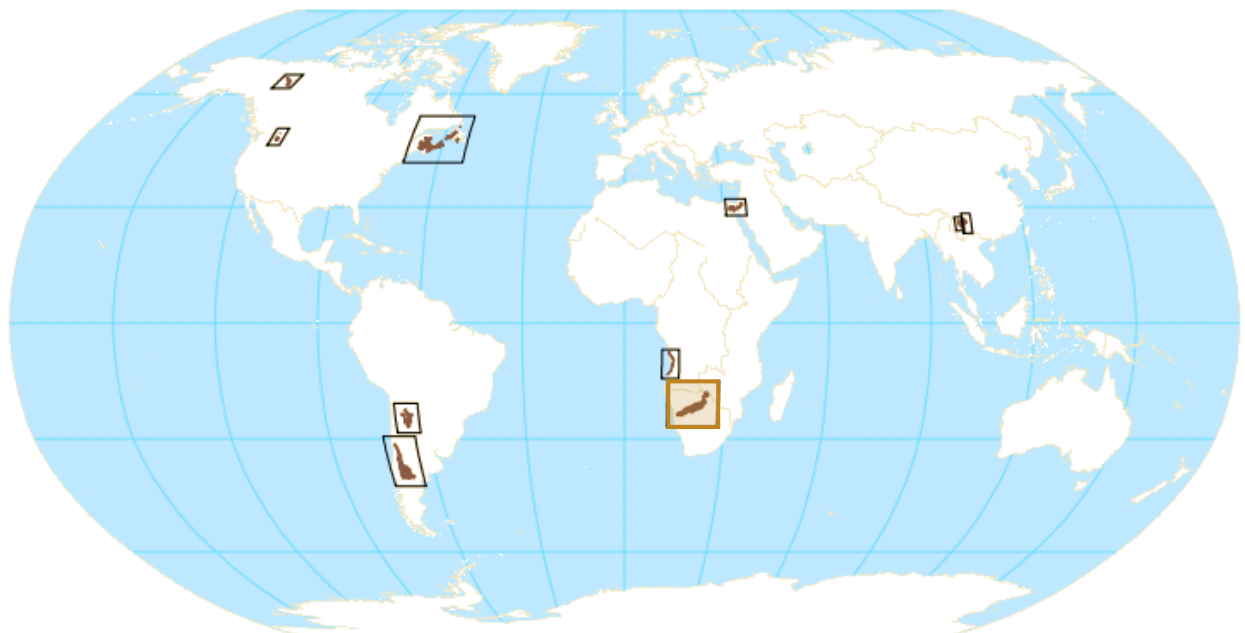
USGS ranked the Kalahari Copperbelt as the most prospective region for undiscovered sediment-hosted stratabound copper deposits globally

Kalahari Copperbelt

The US Geological Survey have produced a number of very good papers on sediment-hosted copper deposits in our view. We have drawn from two in our research on the Kalahari Copperbelt: "Sediment-Hosted Copper Deposits of the World: Deposit Models and Database by Dennis P. Cox et al published 2003, revised 2007", and; "Qualitative Assessment of Selected Areas of the World for Undiscovered Sediment-Hosted Stratabound Copper Deposits by Michael L. Zientek et al published 2015".

The latter ranked the Kalahari Copperbelt as the most prospective region for undiscovered sediment-hosted stratabound copper deposits globally.

Figure 8 - Unexploited Sediment-Hosted Stratabound Copper Deposits – Kalahari Copperbelt Highlighted

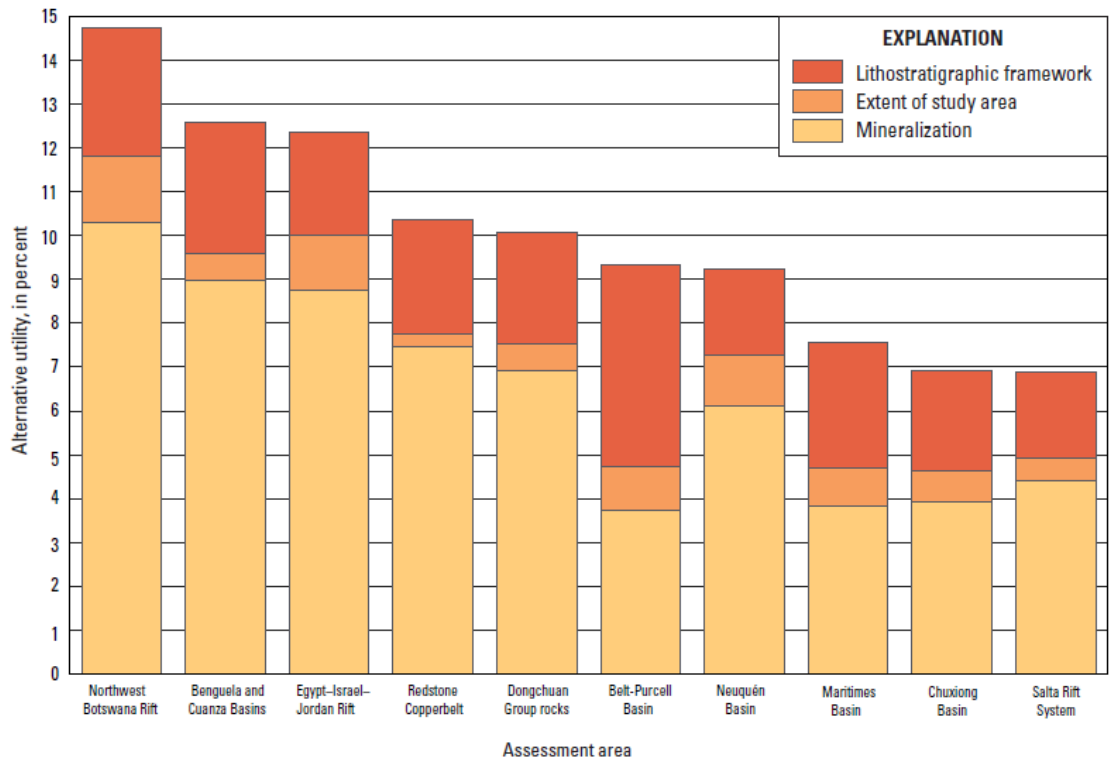


Source: USGS Scientific Investigations Report 2010–5090–Y, Tamesis

USGS geologists compared the main characteristics of each area were compiled (e.g. the age of host rock, geologic setting, stratigraphy, host lithology, deposit subtype(s), known deposits and

occurrences, and mineral system components), and three further criteria (mineralisation, extent of study area, and lithostratigraphic framework, each with multiple sub criteria) to rank the projects.

Figure 9 - USGS determined potential for undiscovered copper



Source: USGS Scientific Investigations Report 2010-5090-Y, Tamesis

Put another way, the ingredients required for strong copper deposition are all present here in the North West of the belt and proven not only at T3 but also Khoemacau and other smaller deposits. The Ghanzi-Chobe basin with late Proterozoic redbeds – tick, have been overlain with a brine rich and hydrologically trapped body of water – tick, from which the copper is deposited.

It will be the understanding of this geology – “lifting the calcrete lid”, led by geologist MD Julian Hanna that will lead to the next phase of value creation

Key to unlocking the “code” for this and further discoveries is understanding and finding the traps for the copper be it stratigraphic units or hydrocarbon or a combination. The domes formed by tectonic compression – also seen in the Lufilian arc – clearly are providing pointers. Khoemacau is basically one limb of an anticline. T3 overlain across another.

Management at MOD are also excited by the NPF and what happens at the intersection of the domes at depths of say 400-500m (see Figure 22)

MOD currently is intersecting high grade material of 2%+ Cu. It will be the understanding of this jigsaw – “lifting the calcrete lid”, led by geologist MD Julian Hanna, whilst T3 is being built that will lead to the next phase of value creation.

Location

The T3 site is located 80km from the town of Ghanzi, the administrative centre of the Ghanzi District in the West of Botswana. Botswana has had a well-established mining industry since the 1960’s with the discovery of some of the world’s largest diamond mines.

Approximately 200km to the north of T3 is an international airport in the town of Maun along the A3 highway, a high-quality paved road. Access to the mine is proposed to be via a 14km road, currently a farm track which can be upgraded to a gravel road. There are no existing buildings or settlements within the mining area.

The easiest access to port is through trucking the concentrate to Walvis Bay in Namibia, approximately 1,000km away. Whilst this is at the upper end of the distance for typical concentrate trucking routes, the quality of the roads are good and well maintained, traffic volumes are light, the

border crossing is modern, and the port of Walvis Bay is accustomed to the typical volumes of mining export materials through the established industry in Namibia.

We would expect spare parts and consumables to be sourced through existing in-country suppliers or South Africa dependent on availability.

Reserves and Resources

On 25 March 2019, MOD announced an updated reserve statement ahead of the release of the DFS. The announcement upgraded the reserve to 34.4Mt at 1.0% Cu and 13.2g/t Ag for 342.7kt Cu and 14.6Moz Ag.

The reserve statement is as follows:

Figure 10 - T3 Reserves Table

T3 Ore Reserve	Tonnes (Mt)	Copper		Silver	
		Grade (%)	Kt	Grade (g/t)	Moz
Proven					
Probable	34.4	1.0	342.7	13.2	14.6
Total Ore Reserve	34.4	1.0	342.7	13.2	14.6

Source: MOD

The company is continuing infill drilling to improve the confidence in the reserve. The first 36 assays from holes of a 60-hole program have already been announced, confirming the high-grade intersections.

Significant intersections released on 29 April 2019 include:

- MO-G-199D with 21m at 1.5% Cu, 30g/t Ag from 118m,
 - including 10m at 2.0% Cu, 44g/t Ag from 118m
- MO-G-200D with 26m at 1.8% Cu, 25g/t Ag from 119m
 - including 6.4m at 4.6% Cu, 75g/t from 120.6m
- MO-G-201D with 16.5m at 1.8% Cu, 18g/t Ag from 83.5m
- MO-G-202D with 60m at 1.0% Cu, 13g/t Ag from 78m
- MO-G-203D with 11.4m at 2.1% Cu, 16g/t Ag from 74.6m
- MO-G-204D with 41.9m at 1.4% Cu, 25g/t Ag from 82m
 - including 4.4m at 2.6% Cu, 141g/t Ag from 87m
- MO-G-212D with 16m at 1.9% Cu, 26g/t Ag from 117m
- MO-G-217D with 20.5m at 2.2%, 44g/t Ag Cu from 105.5m

We expect that there is scope for the reserve to be further increased in both quantity and quality following the completion of the infill drilling through resource conversion into reserves and existing ore reserves moving into the higher classification category.

MOD last announced an updated T3 resource on July 16, 2018. Likewise with the reserve, we expect an increase of quality and potentially quality to the Measured resource category following the conclusion of the infill drilling programme.

Figure 11 - T3 Resources Table (0.4% Cu cutoff)

T3 Ore Resource	Tonnes (Mt)	Copper		Silver	
		Grade (%)	Kt	Grade (g/t)	Moz
Measured	-	-	-	-	-
Indicated	36.6	1.1	15.8	417.0	18.6
Inferred	23.5	0.7	11.0	173.3	8.3
Total Ore Resource	60.2	1.0	13.9	590.3	26.9

Source: MOD

Geology

As discussed, the T3 deposit is a strata-bound, sediment hosted deposit along a >1.5km strike length. Mineralisation takes place in two distinct forms: disseminated sulphides (primarily chalcocite)

in the siltstones/mudstones of the D'Kar Formation, and lenses of quartz carbonate veins which typically host higher grade material, primarily chalcocite, bornite and chalcopyrite.

The orebody is shallow dipping, approximately 20-30 degrees, and is open along strike to the east and west and at depth. Drilling is continuing for potential resource extensions.

Mining

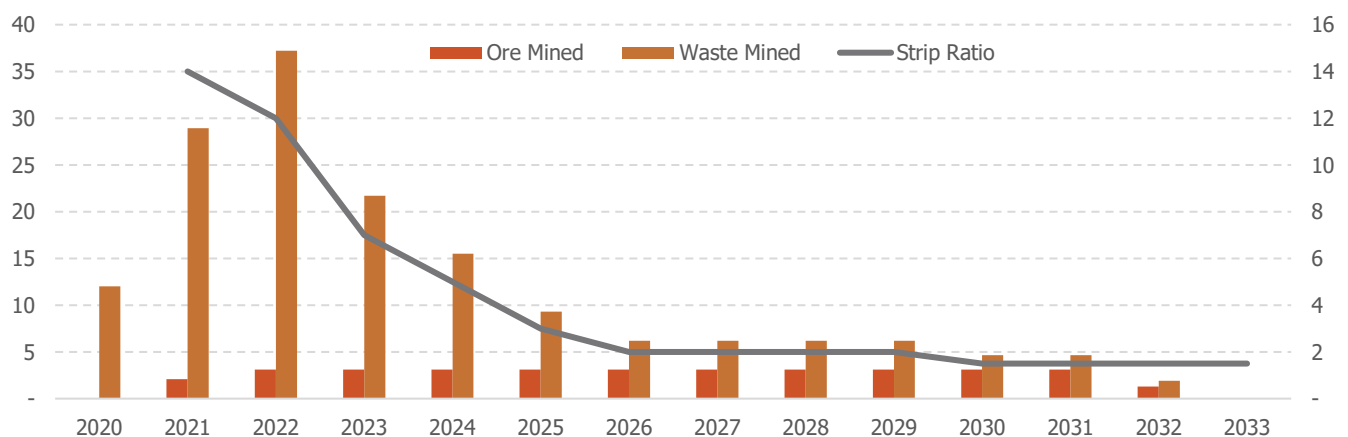
The Feasibility Study for the T3 open pit envisages a contractor mining operation with conventional truck and excavator mining method operated by a contractor. This will reduce the initial capital cost, but the contractor margin will have an impact on operating cost and bring the necessary skillset to the project, lowering the start-up risk.

Optimisation of the final pit design was completed by mining consultants, SRK Consulting. Mining will take place using conventional drill and blast mining methods with 10 metre bench heights. Load and Haul operations will be conducted using excavators and haul trucks, with ore delivered directly to the RoM pad at the crusher to minimise rehandling.

The life of mine strip ratio is 5.7:1, heavily weighted towards the start of the mine life. This additional waste mining could effectively be thought of as additional capital required to develop the open pit – of course offset by cashflow from mine production. US\$40 million of this mining pre-strip is included in the development capital budget of US\$182 million.

Once this initial strip is completed, we expect strip ratios for the final 6 years of the T3 open pit to average between 1.5-2 to 1.

Figure 12 - T3 Open Pit Ore and Waste Volumes (Mt) and Strip Ratio (x)



Source: Tamesis

Haulage is expected to take place with conventional dump trucks and delivered to the RoM stockpile next to the primary crusher or to the waste dumps.

Processing

The Feasibility Study plant design includes a primary jaw crusher feeding a SAG mill producing a primary size grind of $P_{80} = 180\mu\text{m}$, rougher flotation with a natural pH, rougher concentrate regrind at $P_{80} = 90\mu\text{m}$ with cleaner flotation at pH 11 to suppress the pyrite.

Concentrate from the cleaning stage can then be thickened and filtered on site and then transported to Walvis Bay in Namibia by paved primarily single-lane road. We estimate costs of US\$125/t for transport. Shipped concentrate grades are expected to average at 30% contained Cu, with low levels of deleterious elements that can be managed below penalty rate levels through blending.

Tails will be pumped to the HDPE lined storage facility, designed to take the entirety of the thickened tails produced over the 11.5-year life of mine.

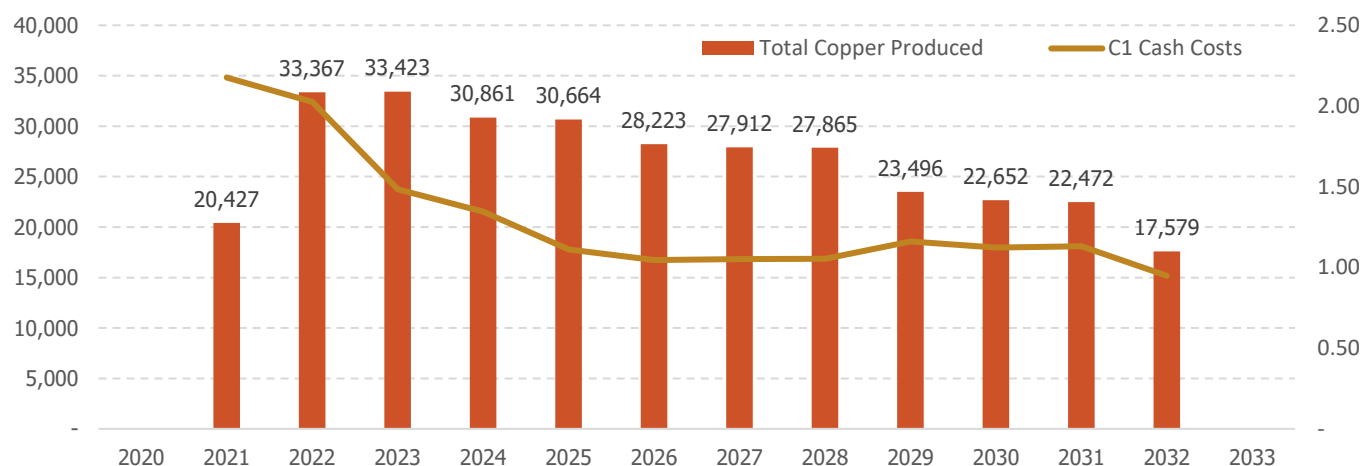
Overall production is expected to average annual production of 28kt Cu over the life of mine, and over 30kt Cu in the first 5 years. Recoveries are estimated to be 92.9% for Cu and 88.0% for Ag.

Production

We forecast first production at the T3 project in 2021, ramping up to 3Mtpa ore processed and over 30kt Cu production in the following year. We assume a concentrate grade averaging 30% Cu over the life of mine, slightly higher in later years as the proportion of bornite processed rises. There is also expected to be 383g/t silver in the concentrate, providing a healthy credit to the cost base – averaging US\$0.28/lb Cu over life of mine.

Production will decline with grade mined over the life of mine, but overall costs on a unit basis are expected to decline as the strip ratio declines to 1.5-2.0x towards the end of the planned open pit.

Figure 13 - T3 Open Pit Copper Production (koz) and C1 Cash Costs (US\$/lb)



Source: Tamesis

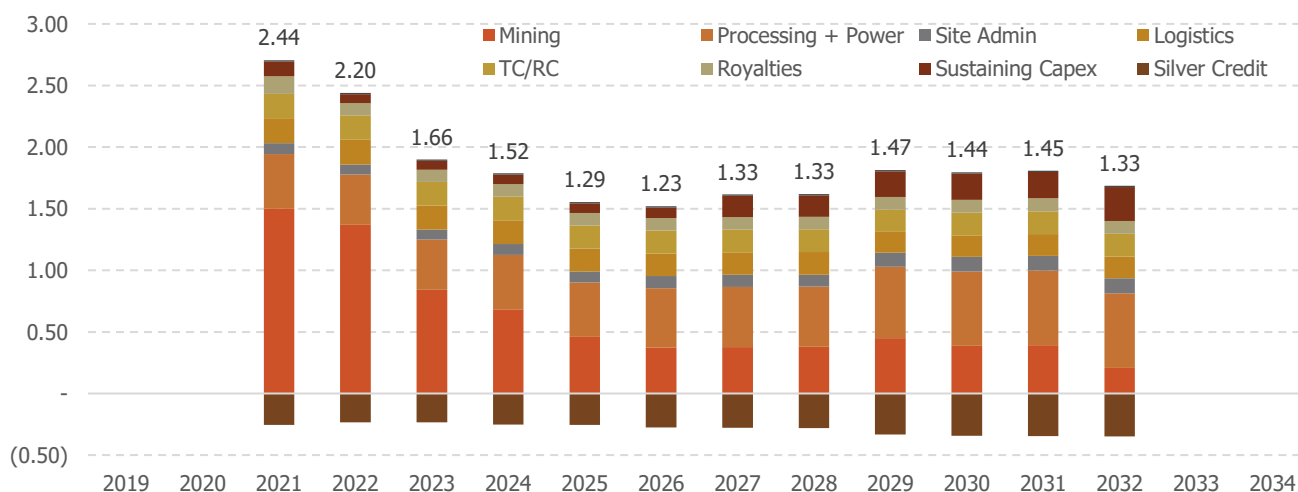
Our production forecast only includes the 34.4 Mt reserve base. Over time, we would expect that a proportion of an updated resource statement (due later in 2019) would be converted into reserves and brought into the mine plan to add further mine life.

Operating Costs

Operating costs are dominated by mining costs in the early years due to the high strip ratio, and then more equally split between mining and processing costs.

Following the first two years of production, we forecast costs to remain low over the life of mine as the strip ratio declines, rising slightly through towards the end of the mine life as grades decline.

Figure 14 - All In Sustaining Cost Breakdown (US\$/lb)

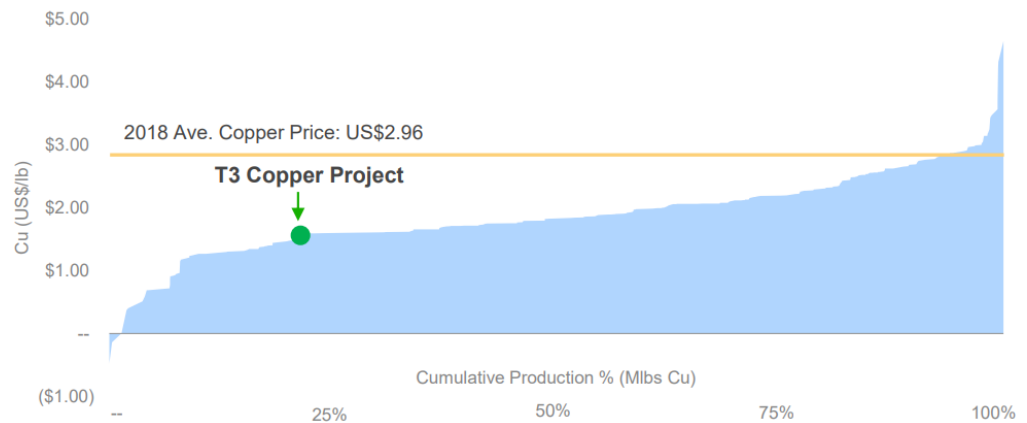


Source: Tamesis

We assume mining costs of US\$2.5/t through contractor mining, and power and processing costs of US\$10/t ore processed. Transport to Walvis Bay is assumed to cost US\$125/t concentrate shipped, and we have an overall G&A charge of US\$2/t mined. Treatment charges are estimated at US\$73/t concentrate and refining charges are estimated at \$0.072/lb Cu and US\$0.4/oz Ag.

On an all in sustaining cost basis, the project's AISC of US\$1.56/lb is in the lowest quartile:

Figure 15 - Copper AISC Cost Curve



Source: MOD, BMO Data

Capex

The capital expenditure estimate from the feasibility study totals US\$182 million including process plant, infrastructure, tailings facility, mining pre-strip costs, and owners and indirect costs. Additionally, MOD have included a US\$12 million contingency which represents potential savings.

Figure 16 - Capital Expenditure summary

	(US\$m)
Direct Costs	
Mine Establishment	1
Process Plant	
Crushing (inc ROM), Stockpile & Reclaim	11
Milling	19
Flotation	6
Tailings Thickening and Disposal	3
Concentrate Filtration and Storage	5
Reagents and Services	5
Site Infrastructure	
Site Preparation, Access Roads and, Fencing	10
General	2
General Buildings	3
HV Power Connection	4
Camp Expansion	4
Tailings and Water Management	
TSF	12
Surface Water Management	1
Pb/Zn Stockpile Liner	1
Indirect Costs	
Project costs (based on EPC)	32
Owners	
Owners Labour (pre start-up, project development, commissioning)	6
Environment Monitoring & Water	1
Corporate and Owners	4
Contingency	12
Mining pre-strip	40
Total Development Capital	182

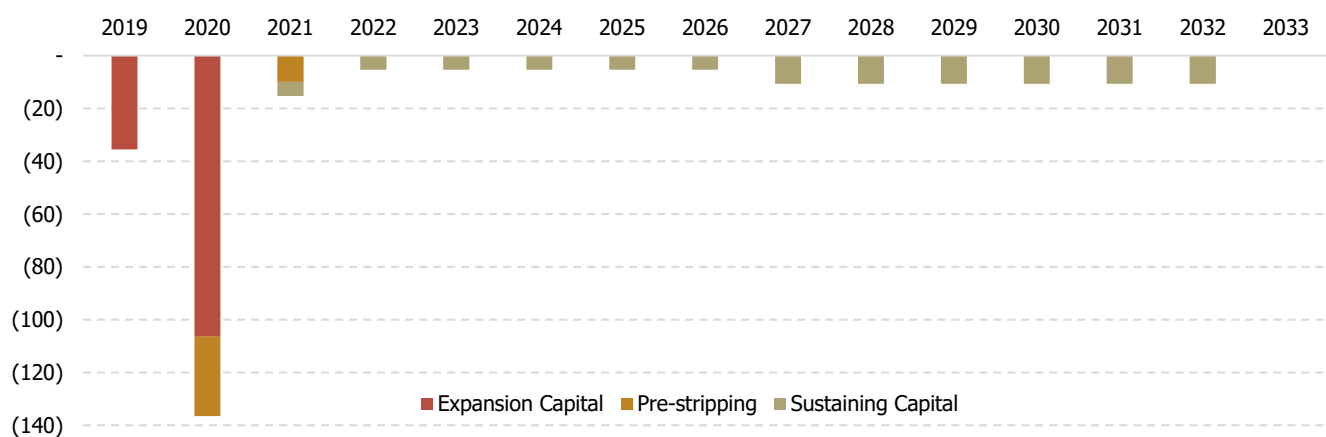
Source: MOD

The bulk of the US\$182 million capital expenditure on the T3 open pit is expected to be spent in FY-2020, ahead of first production in 2021. Use of contractor mining sensibly reduces the initial capital burden in challenging capital markets conditions, albeit at a cost to opex.

We are assuming some expenditure in 2019 including site preparation works and initial mining activity. As announced in the DFS, the capital expenditure estimate includes provisions for some working capital requirements and inventory buildup, sensibly provisioning for this initial outlay in the critical development period.

Sustaining capital is expected to average US\$8 million per annum over the life of mine, weighted towards the end of the mine life when the capital equipment has greater maintenance requirements.

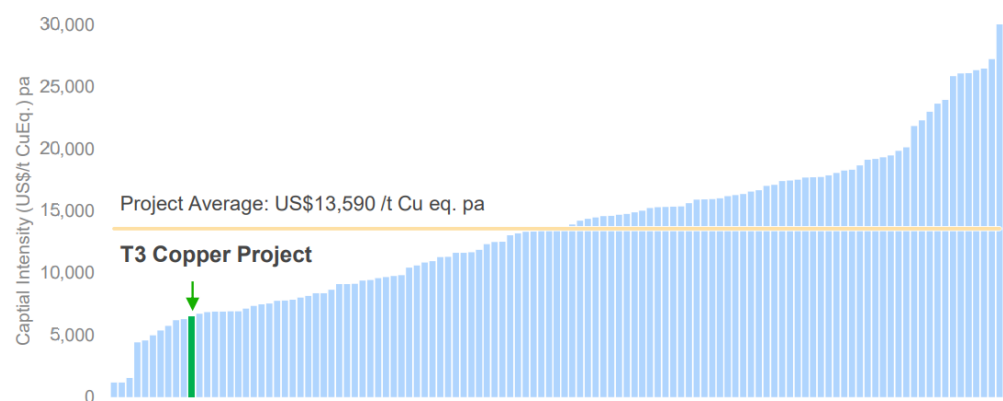
Figure 17 - Capital Cost Breakdown (US\$m)



Source: Tamesis

Development of the T3 Copper Project is expected to have lowest decile capital intensity compared to copper development peers globally, according to Wood Mackenzie's Q4 2018 Possible, Probable and Base case database.

Figure 18 - Project Development Capital Intensity



Source: MOD, Wood MacKenzie

Infrastructure

At the T3 project, MOD has the best of both worlds: both far enough away from densely populated areas to have minimal social impact, but near enough to benefit from first world infrastructure.

Power is expected to be sourced from a high voltage power transmission line that will run along the A3 highway, 14 km by road from the project. MOD will construct a connection station at the intersection of the A3 highway and the site access road, connecting high voltage power lines to a step down transformer with 20 MVA capacity, more than sufficient for T3's requirements.

Contracts have been awarded by the Botswana government for the power transmission line project, expected commissioning is in Q1 2020.

Water is expected to be sourced from boreholes on the property. To date nineteen boreholes have been drilled, testing both dewatering and water supply, and are expected to provide an adequate supply of water for the T3 project and any expansion. Testwork to date shows that the quality of water is acceptable to Botswana drinking water guidelines, and well suited to be used in the processing plant. Licences for water use will need to be obtained from the government.

There are no plans to accommodate workers on site. Mine personnel will be expected to live either in the town of Ghanzi or in a purpose-built village 6km to the north of Ghanzi. The administrative facility is expected to be based in the new village, saving travel time and costs.

Funding

The company has engaged debt advisors to look to fund a proportion of the development capital. The robustness of the T3 project suggests that it could bare a sensible proportion of debt, and we are assuming that 60% of a US\$220 million fundraise (allowing headroom for exploration, for which we ascribe no valuation uplift, and additional corporate expenses through the build phase) could be funded with 7% bank debt.

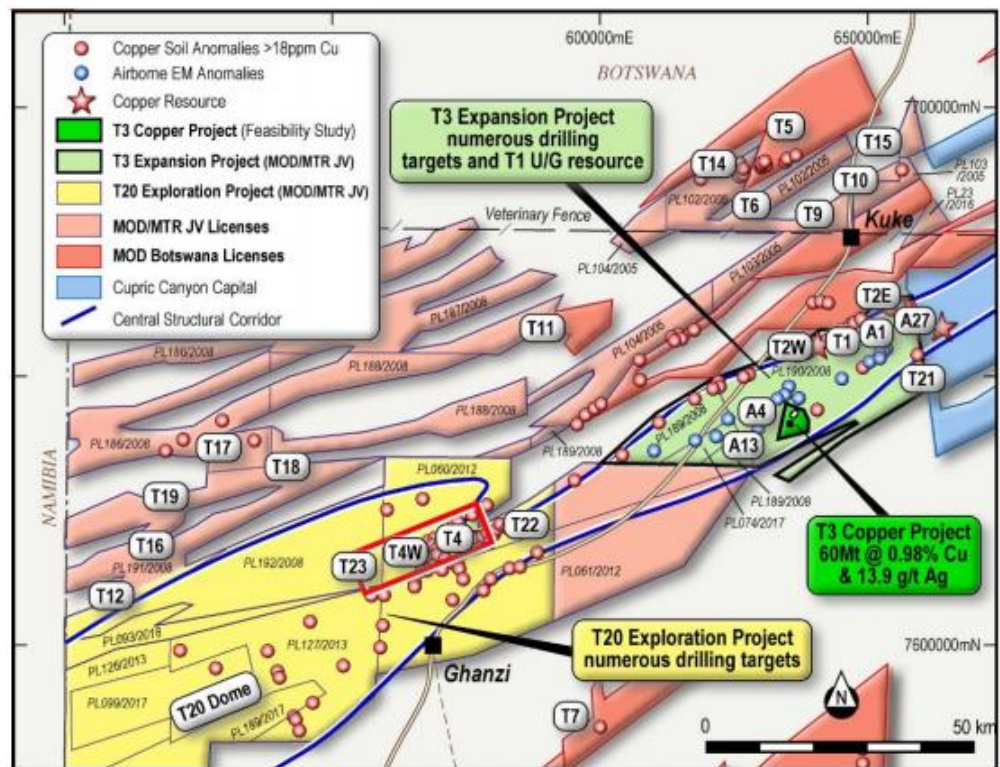
For the balance, we conservatively assume that the remaining US\$88 million will be funded through equity placement at a share price of A\$0.35/share, however there are clearly many alternative funding alternatives available to the company. Given the sensitivity of the fully-funded valuation to the price that the equity is raised, we expect the company to look at royalty and streaming finance (especially on the silver production), as well as funding options as part of construction contracts.

Other Projects and Growth Strategy

Find a dome on the company's c.11,700km² licence area and you are likely to find copper. The company is becoming increasingly proficient at doing so. The tricky bit appears to be the next stage in discerning where there is large ore potential. Obviously, an extension to the T3 resources is a good place to start but there are a number of very prospective sites further afield.

On 7 May 2019, MOD announced it was progressing its growth strategy as the company works towards a decision to mine. Additional discoveries at the T3 underground and the A4 dome could leverage off the existing infrastructure at T3 and provide additional tonnes at very low capital intensity. The T23 Dome prospect within the T20 Exploration Project seeks to test the wider potential of the licence area.

Figure 19 - Licence plan showing T3 Copper Project, T3 Expansion Project and the T20 Exploration Project



Source: MOD

The upcoming planned drilling activity comprises three high priority targets:

Figure 20 - Planned Upcoming Staged Drilling Activity

Drill Target	Planned Drill Program	Targets	Timing
T23	Stage 1: 9 RC and 4 DD	Follow-up drilling 4km of T23 Dome	May 2019
T3 U/G	Stage 1: 16 DD	Resource definition drilling	June 2019
A4 Dome	Stage 1: 6 RC and 1 DD	Preliminary resource scoping drilling	H2/2019

Source: MOD

A summary of MOD's other exploration and development projects are as follows:

T3 Underground

Drilling is ongoing to further understand the extension of the orebody below the planned T3 open pit. Holes to date have intersected shallow dipping high grade veins which are associated with the same disseminated mineralisation as the open pit.

We are expecting a conceptual study to be released at a similar point in time to the maiden resource which is likely in the second half of 2019. Whilst the near-term prospects of extracting ore from the T3 underground are low, access to the deposit via a portal at the bottom of the T3 pit could provide high grade tonnes for the mill and life extension for the T3 plant in combination with other nearby targets.

T1 Mahumo Target

The T1 Mahumo underground project was the first discovery on MOD's Kalahari licences. In March 2015, the company released a maiden open-pit reserve of 2.7Mt at 2.0% Cu and 51.4g/t Ag. MOD is looking to extend the current Mineral Resource and is exploring the possibility of a small high-grade underground operation that would be ~20km from the T3 processing plant.

Figure 21 - T1 Resource Table (1% Cu cutoff)

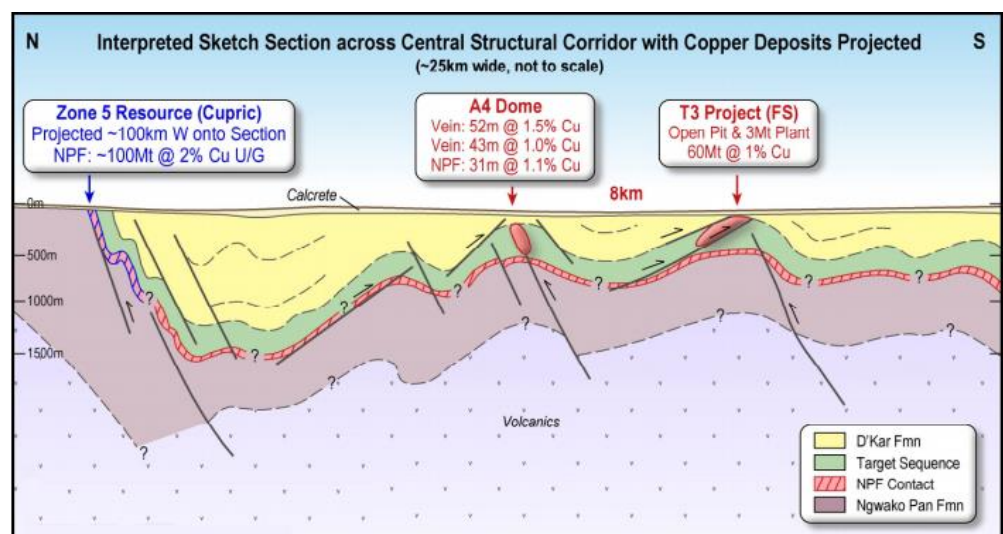
T1 Ore Resource	Tonnes (Mt)	Copper		Silver	
		Grade (%)	Kt	Grade (g/t)	Moz
Measured	0.5	1.9	10.0	48.8	0.8
Indicated	1.7	1.9	32.3	48.0	2.7
Inferred	0.4	2.5	10.9	57.4	0.8
Total Ore Resource	2.7	2.0	53.2	51.4	4.3

Source: MOD

T3 Expansion Project - A4 Target

MOD's exploration strategy has been to utilise airborne electromagnetic (AEM) surveying to map their licence area. The AEM technology has identified highly magnetic "domes" which when drilled, showed copper mineralisation.

Figure 22 - A4 Target Relative to Cupric Canyon and T3



Source: MOD

The A4 target, located 8km from the T3 Project, was the first of these domes to be drilled, and hit some promising intersections: 52 metres at 1.5% Cu and 14 g/t Ag from 232.2 metres downhole depth, including 15.5 metres at 2.9% Cu and 42g/t Ag, and 31.2 metres at 1.1% Cu and 11 g/t Ag

from 560m downhole depth. MOD is continuing to drill at A4 and is working on a conceptual underground study.

T3 Expansion Project – A1 Target

The A1 Dome is 22km north-east of the T3 Projects. One drill hole intersected 52 metres at 0.6% Cu from 624 metres downhole depth.

T20 Exploration Target

The T20 Exploration Project is located 100km west along strike from the T3 project. Using the same AEM exploration technique, the company has identified multiple targets for exploration. The first is the T23 Dome, where drilling in 2018 identified disseminated copper mineralisation including a shallow intersection of 25 metres at 0.36% Cu & 4g/t Ag from 65m downhole depth, including 3 metres at 0.7% Cu & 10g/t Ag from 65m downhole and 1 metre at 1% Cu & 13g/t Ag from 80m downhole. Whilst these grades are not economic, they show that mineralisation is occurring along the same geological trends and will guide future exploration.

Valuation

Overview

We value MOD using a sum of the parts (SoTP) valuation, combining a discounted cashflow (DCF) valuation of the T3 project, cash (including the net proceeds of the cash from the assumed debt and equity financing), debt, and the present value of MOD's corporate costs and SG&A.

Our unrisks NPV for the T3 project is US\$222 million. We have based our assumptions primarily in line with the company's recently released DFS.

We are using a discount rate of 8% which we feel is in line for a copper developer in a quality jurisdiction.

Unfunded Valuation

On a current, unfunded basis, our NPV for T3 is US\$222 million. Adjusting for other assets and current cash we derive a total project NAV of US\$247 million or A\$1.15/share

Figure 23 - Unfunded Valuation

SoTP Valuation	O/ship	US\$m	NAVx	A\$m	A\$/sh	GBP/sh
T3 NPV	100%	222	1.0	313	0.44	0.24
Other Assets	100%	20	1.0	28	0.04	0.02
Cash	100%	5	1.0	7	0.01	0.01
Cash from Equity + Debt Raise	100%					
Cash from Options Exercised	100%					
Debt	100%					
Total NAV		247		348	1.15	0.62

Source: Tamesis

This implies a pre-funded P/NAV multiple of 0.3x which we think is too low given the clear availability of alternative development finance to traditional equity and the takeover interest to date.

Funded Valuation

Currently, MOD has 303.7 million shares in issue, and 52.8 million options, performances rights, and nil-cost options (40.7 million to Metal Tiger as part of the T3 consolidation). Following our estimated equity raise of US\$88 million at a share price of A\$0.35/share, the company will have a fully diluted share count of 710.6 million shares.

Figure 24 - Funded Valuation

SoTP Valuation	O/ship	US\$m	NAVx	A\$m	A\$/sh	GBP/sh
T3 NPV	100%	222	1.0	313	0.44	0.24
Other Assets	100%	20	1.0	28	0.04	0.02
Cash	100%	5	1.0	7	0.01	0.01
Cash from Equity + Debt Raise	100%	220	1.0	310	0.44	0.24
Cash from Options Exercised	100%	4	1.0	5	0.01	0.01
Debt	100%	(132)	1.0	(186)	(0.26)	(0.14)
Total NAV		338		477	0.67	0.36

Source: Tamesis

Fundraising

Our base case fundraising requirement assumes a 1.5:1 debt:equity raise, with MOD raising US\$88 million of equity at a share price of A\$0.35/share. This involves the issuance of approximately 354 million new shares, effectively doubling the issued share capital fully diluted for nil-cost Metal Tiger Options.

This is a simplistic approach to funding – there are many opportunities to raise the required development capital to develop the T3 project outside traditional equity and bank debt, including royalties/streaming companies (especially with the silver credit), private equity or strategic investors, offtake financing, construction finance, or direct lending firms.

Clearly if the company is able to raise equity at a premium to this price then the fully funded valuation per share would increase substantially. We suspect any strategic investor will be expected to invest at a substantial premium to current share prices.

Our analysis of different raise prices at different discount rates is as follows:

Figure 25 - MOD NAV Sensitivity Analysis (A\$/share)

		Discount rate (%)							
		5.0%	6.0%	7.0%	8.0%	9.0%	10.0%	11.0%	12.0%
Raise price (A\$/share)	0.300	0.76	0.71	0.66	0.62	0.58	0.54	0.50	0.47
	0.325	0.80	0.74	0.69	0.65	0.60	0.56	0.53	0.49
	0.350	0.83	0.77	0.72	0.67	0.62	0.58	0.55	0.51
	0.375	0.86	0.80	0.74	0.69	0.65	0.60	0.56	0.53
	0.400	0.88	0.82	0.76	0.72	0.67	0.62	0.58	0.55
	0.425	0.91	0.85	0.79	0.74	0.68	0.64	0.60	0.56
	0.450	0.93	0.87	0.81	0.75	0.70	0.66	0.61	0.58
	0.475	0.95	0.89	0.83	0.77	0.72	0.67	0.63	0.59
	0.500	0.97	0.91	0.84	0.79	0.73	0.69	0.64	0.60

Source: Tamesis

Similarly, if the total amount of equity could be reduced, and funded with less dilutive instruments then there would be a similarly positive impact to our target price.

Our analysis based on the total equity component is as follows:

Figure 26 - MOD NAV Sensitivity Analysis (A\$/share)

		Discount rate (%)							
		5.0%	6.0%	7.0%	8.0%	9.0%	10.0%	11.0%	12.0%
Equity requirement (US\$m)	100	0.80	0.74	0.69	0.65	0.60	0.57	0.53	0.50
	90	0.82	0.77	0.71	0.67	0.62	0.58	0.54	0.51
	88	0.83	0.77	0.72	0.67	0.62	0.58	0.55	0.51
	80	0.85	0.79	0.74	0.68	0.64	0.60	0.56	0.52
	70	0.89	0.82	0.76	0.71	0.66	0.61	0.57	0.53
	60	0.92	0.85	0.79	0.73	0.68	0.63	0.59	0.55

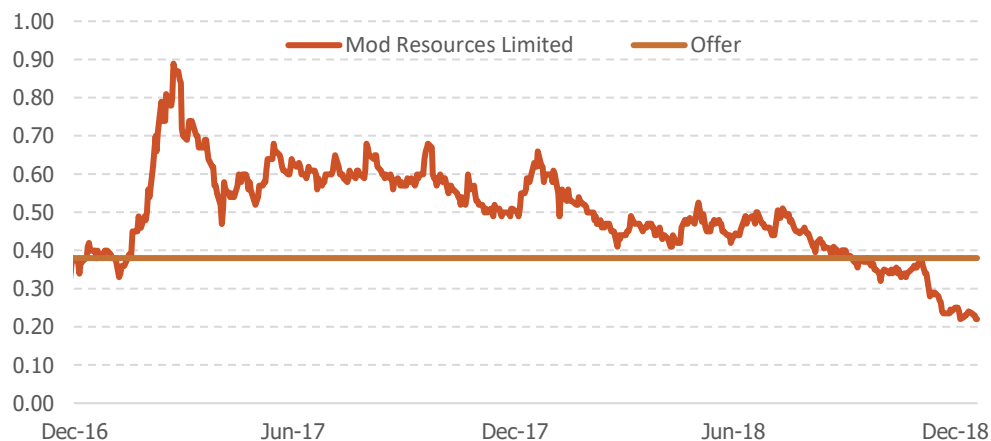
Source: Tamesis

Corporate Update – Sandfire Proposal

On 21 January 2019, MOD announced that it received an unsolicited takeover offer from Sandfire Resources (ASX: SFR, Market Cap US\$746 million) to acquire 100% of the company. The all-share deal at an equivalent price of A\$0.38/share values the company at A\$113 million (US\$79 million). In reaction to the offer, the company announced a fundraising package of A\$15 million through a A\$0.30/share placement and a A\$0.24/share rights issue which secures funding for the 2019 work program.

The offer came at a period when the company's shares were trading at recent lows:

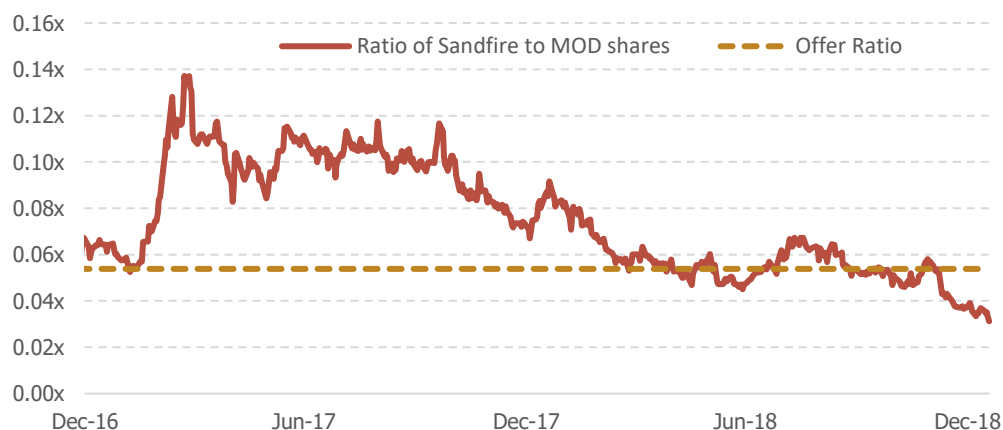
Figure 27 - MOD Share Price vs Sandfire Offer



Source: Tamesis

The offer came at a time where the ratio of Sandfire shares to MOD shares was also at recent lows:

Figure 28 - Ratio of Sandfire Shares to MOD Shares



Source: Tamesis

Initial market reaction to the bid suggested this was an opportunistic approach from Sandfire and was sensibly rejected by the board. The offer substantially undervalues the company and is well below our fully funded target price of A\$0.67/share.

We think it likely that Sandfire will come back with a higher offer at a more realistic premium.

Valuation Comparables

M&A

Recent transactions identified by Tamesis suggest that a successful takeover should demand a substantial premium to the current share price.

Using the most recent identified M&A transaction, the announced takeover of Nzuri Copper by Chengtun, the US\$169/resource ton price paid implies a value of approximately US\$100 million – a 50% premium to the current share price and without taking into consideration any resource upgrades at T3, the existing resource at T1, or value for the remaining exploration portfolio.

Figure 29 - Pre-production Global Copper M&A history

Date	Target	Asset	Acquirer	Consideration (US\$m)	%	Cu Resources (kt, equiv)	US\$/t Cu equiv
Feb-2019	Nzuri	Kalongwe	Chengtun	78	100%	462	169.0
Oct-2018	Solgold	Cascabel	BHP Billiton	50	5.1%	6,011	163.1
Sep-2018	Solgold	Cascabel	BHP Billiton	35	6.1%	6,011	95.5
Aug-2018	Baimskaya	Baimskaya	KAZ Minerals	900	100.0%	14,081	63.9
Jul-2018	Novagold	Galore Creek	Newmont	275	50.0%	3,425	160.6
May-2015	Ivanhoe Mines	Kamoa	Zijin	412	49.5%	24,160	34.5
Jun-2014	Lumina Copper	Taca Taca	First Quantum	383	100.0%	16,062	23.9
Feb-2014	Augusta	Rosemont	Hudbay	372	100.0%	4,478	83.2
Average				347		10,604	99.2

Source: FactSet, Company Filings

On a US\$ per resource tonne, we calculate an average resource acquisition multiple of US\$99.2/t – however this trend is clearly increasing. All of these projects are of a size big enough to attract large cap mining companies and we believe predatory action could well be the key catalyst and crystallisation of the inherent value at MOD.

This is amplified due to the dearth of decent projects globally and overall consolidation in the space.

There are a limited number of construction ready copper development stories available globally and we expect MOD to be in the sights of most mid-to-large cap miners due to both the low capital staged development, low risk jurisdiction, and district stage potential.

Listed Companies

The recent consolidation of the copper development space makes true comps particularly challenging. We include some selected examples below – observing there is a clear premium for development status, jurisdiction and grade.

Given the stage of MOD we expect the company to be valued on a DCF basis in the short term, and a multiples basis on the medium term rather than on a comparable reserves in the ground basis. At US\$140/t though MOD is clearly not an outlier especially given the fact there has already been an unsolicited public approach.

Figure 30 - EV/t Reserves comparison

Company Name	Market Cap (US\$m)	EV (US\$m)	Project	Location	Tonnes (m)	Cu % Equiv	Cu kt Equiv	EV/t resource
NGEx Resources	189.3	170.4	Los Helados	Chile/Argentina	1,008	0.44%	4,454	38
Hot Chili	23.2	27.6	Productora	Chile	117	0.55%	645	43
Polymet Mining	158.1	482.1	NorthMet	USA	1,051	0.24%	2,551	189
Nevada Copper	194.5	194.9	Pumpkin Hollow	USA	350	0.53%	1,842	106
Excelsior Minerals	158.0	161.8	Gunnison	USA	709	0.29%	2,057	79

Rex Minerals	9.6	14.2	Hillside	Australia	82	0.73%	599	24
Rambler Metals	46.5	86.2	Ming	Canada	9	2.04%	178	484
Filo Mining	152.1	114.0	Filo del Sol	Chile/Argentina	259	0.62%	1,602	71
Pacific Booker Minerals	49.3	48.7	Morrison	Canada	203	0.44%	897	54
MOD Resources	62.9	53.3	T3	Botswana	34	1.10%	380	140

Source: FactSet, S&L, Company Filings

Country Overview: Botswana

Botswana is often cited as a shining example of African post-independence success and so it should be. The country became a British Protectorate in 1885 and then achieved independence in 1966. At independence the country was one of the poorest countries in the world with per capita income of \$70 per year, 12km of paved roads and agriculture 40% of GDP at least. In the first four decades after independence, the country registered the highest long-term growth rates of any country in the world, including the Asian Tigers. In the 1980s GDP averaged 13%. Income per capita is now \$18,100.

At the core of this was the discovery of diamondiferous pipes. Alluvial diamonds had been recorded officially back to 1955 but in 1967 De Beers Geologists discovered the Orapa pipe and from there a number of satellite pipes. In 1969 they began prospecting further south below the 20-50m thick Kalahari sands and eventually found Jwaneng in 1972. Orapa came on stream in 1971, Lehtlakane nearby in 1975 and the legendary Jwaneng in 1982. This was at a time when De Beers had almost full control of the world diamond market, so it was no wonder that the economy grew so fast. Jwaneng still accounts for a third of De Beers output. By 2002 mining, basically diamonds, had contributed over half of GDP.

It is some credit to both De Beers and the Government that they split the proceeds from the diamond industry so equitably. Indeed the Government take on De Beers Botswana profit amounts to 81% now once you take into account the 50:50 JV that is Debswana.

One of the Government's biggest issues has been the avoidance of dependence on the industry, Dutch disease. The resources industry contributing to approximately 20% of the country's GDP and approximately 55% of total exports. Inequality is high with a Gini coefficient of 53.3 vs the UK for instance of 33.2. The Government, with the help of the World Bank amongst others, is addressing this through a number of initiatives including the extension of the major power line past T3. It is also worth noting that Botswana has the highest ranking of any sub-Saharan African country in the Transparency International Corruption Perceptions Index for 2017.

Permitting

Generally licensing appears straightforward and the response time to applications relatively quick – for more details refer to the prospectus attached to the recent London listing. We detail some of the salient points below:

Mining

For the T3 project the company will need to apply for a mining licence. With the feasibility study completed this can be done once the Environmental Social Impact Assessment has been approved by the Department of Environmental Affairs. duration is a maximum of 25 years although can be renewed for another 25yrs at the consent of the relevant authority – the MMRGTES (the Botswana Ministry of Mineral Resources, Green Technology and Energy Security).

The time taken to grant such a licence is 6 weeks to 4 months although the latter is exceptional. The company expects its mining licence application to take 6-8 weeks for T3.

Prospecting/Other

Prospecting licences are initially granted for a period that shall not exceed three years and may be renewed at the election of the holder, subject to the consent of MMRGTES, up to two times for up to two additional years. Thereafter, they can be extended further without limitation with the approval of the MMRGTES where a discovery has been made and evaluation work has not, despite proper efforts, been completed.

Fiscal Regime

The fiscal regime that applies in Botswana to the mining and metals industry comprises the following:

1. A royalty regime of 3-10%. MOD will pay 3% on the copper and 5% on the silver bi product.
2. Corporate tax at a rate of 22% to 55% depending on profitability. It is determined by the following formula $70\% - (1500\%/X\%)$ where "X" is the profitability ratio There are no circumstances where the corporate tax rate will fall below 22%. "X" is the profitability

ratio and is calculated as taxable income as a percentage of gross income. For MOD we calculate the effective tax rate to be 28%.

3. Investment incentives. Losses are carried forward indefinitely.
4. Capital allowances 100%, including exploration costs write-offs.
5. Capital Gains tax. This is normally 22% in the country but if the property including a mining or prospecting licence falls within the definition of mining capital the gains are exempt from CGT.

Financial Statements

We have outlined above the fiscal assumptions in creating our financial model. Some key points on the financial statements summarised below:

- EBITDA picks up quickly with a forecast of A\$47.8 million in 2021 rising to A\$100.8 million in 2022. Going back to our assumption of A\$188 million of debt it would mean MOD would be trading on an EV/EBITDA of 5.9x FY 2021 and 2.8x FY2022.
- We are assuming an interest rate of 7% on the above debt based on bank rates and management guidance.
- Depreciation is accounted for in a straight line for accounting purposes and the capital base is 100% accelerated for tax purposes.
- We are not assuming a dividend as we believe the company is focussing on growth at the moment and generally it is too early. Equally we have not assumed an exploration spend as we are not according any valuation to finds or otherwise. We note they are spending A\$8-10 million on exploration at the moment.
- Cash rapidly accumulates and by 2023 the company is net cash of US\$64.5 million.

Income Statement

Figure 31 - Income Statement

Income Statement		2019	2020	2021	2022	2023	2024
Revenue	A\$m	-	-	201.7	327.3	327.8	304.6
COGS	A\$m	-	-	(141.7)	(213.6)	(158.3)	(134.8)
Operating profit	A\$m	-	-	60.0	113.7	169.5	169.8
Admin expenses	A\$m	(5.6)	(5.6)	(5.6)	(5.6)	(5.6)	(5.6)
Depreciation	A\$m	(7.1)	(28.6)	(29.6)	(30.7)	(31.8)	(32.9)
Royalties	A\$m	-	-	(6.5)	(7.3)	(7.3)	(6.8)
Other expenses	A\$m						
Profit before interest & tax	A\$m	(12.8)	(34.2)	18.2	70.0	124.8	124.4
Interest paid	A\$m	-	(6.5)	(13.0)	(13.0)	(11.7)	(9.1)
Interest received	A\$m						
Profit before tax	A\$m						
Corporate tax	A\$m	-	-	-	-	-	-
Profit after tax	A\$m	(12.8)	(40.7)	5.2	57.0	113.1	115.3
Non-controlling interests	A\$m						
Foreign exchange	A\$m						
Net income	A\$m	(12.8)	(40.7)	5.2	57.0	113.1	115.3
EBITDA	A\$m	(5.6)	(5.6)	47.8	100.8	156.6	157.3

Source: FactSet, Company Filings

Cashflow Statement

Figure 32 - Income Statement

Cashflow Statement		2019	2020	2021	2022	2023	2024
Profit before interest & tax	A\$m	(12.8)	(34.2)	18.2	70.0	124.8	124.4
Depreciation	A\$m	7.1	28.6	29.6	30.7	31.8	32.9
Interest received	A\$m	-	-	-	-	-	-
Interest paid	A\$m	-	(6.5)	(13.0)	(13.0)	(11.7)	(9.1)
Movement in working capital	A\$m	-	-	(7.2)	(11.9)	6.6	3.5
Corporate tax	A\$m	-	-	-	-	-	-

Cash flow from operations	A\$m	(5.6)	(12.1)	27.6	75.8	151.4	151.7
Capital expenditure (PP&E)	A\$m	(50.0)	(192.3)	(21.6)	(7.5)	(7.5)	(7.5)
Exploration and evaluation	A\$m						
Net Interest	A\$m						
Cash flow from investing	A\$m	(50.0)	(192.3)	(21.6)	(7.5)	(7.5)	(7.5)
Proceeds of equity offering	A\$m	138.9	-	-	-	-	-
Proceeds from Options Exercise	A\$m	-	-	-	-	-	-
Metal Tiger Contributions	A\$m						
Transaction costs from financing	A\$m	(6.2)	(3.7)	-	-	-	-
Borrowings / (repayments)	A\$m	-	185.9	-	-	(37.2)	(37.2)
Cash flow from financing	A\$m	132.7	182.2	-	-	(37.2)	(37.2)
Net change in cash	A\$m	77.1	(22.2)	6.0	68.3	106.7	107.0
Foreign Exchange	A\$m						
Cash balance	A\$m	82.2	60.0	66.0	134.3	241.0	348.0

Source: FactSet, Company Filings

Balance Sheet

Figure 33 - Income Statement

Balance Sheet		2019	2020	2021	2022	2023	2024
Cash and cash equivalents	A\$m	82.2	60.0	66.0	134.3	241.0	348.0
Inventory	A\$m	-	-	30.4	45.4	32.0	26.6
Trade and other receivables	A\$m	1.6	1.6	12.7	19.6	19.6	18.3
Other assets	A\$m	-	-	-	-	-	-
Total current assets	A\$m	83.8	61.6	109.0	199.2	292.5	392.8
Mining tenements & PP&E	A\$m	86.8	250.5	242.4	219.2	194.9	169.6
Other assets	A\$m	0.0	0.0	0.0	0.0	0.0	0.0
Total non-current assets	A\$m	86.8	250.5	242.4	219.2	195.0	169.6
TOTAL ASSETS	A\$m	170.6	312.1	351.5	418.5	487.5	562.5
Trade and other payables	A\$m	3.7	3.7	23.8	33.8	26.9	23.8
Current debt	A\$m	-	-	-	-	-	-
Other liabilities	A\$m	0.2	0.2	0.2	0.2	0.2	0.2
Total current liabilities	A\$m	3.7	3.7	23.8	33.8	26.9	23.8
Long term debt	A\$m	-	185.9	185.9	185.9	148.7	111.5
Total non-current liabilities	A\$m	-	185.9	185.9	185.9	148.7	111.5
TOTAL LIABILITIES	A\$m	3.7	189.6	209.8	219.7	175.7	135.3
NET ASSETS	A\$m	166.9	122.5	141.7	198.8	311.8	427.1

Source: FactSet, Company Filings

Block Model

MOD Resources		MOD ASX/LSE	
As at	14-May-19		
Share Price (AUD)	0.30	Target Price (AUD/sh)	1.15
Model Derived:			
NAV (A\$m, 8%)	347.9		
Ordinary Shares (M)	304		
Ordinary Shares (M, f/d)	711		
Market Cap (A\$m)	91.1	\$63	
Enterprise Value (A\$m)	77.3	\$53	

Price Assumptions	2019E	2020E	2021E	2022E	2023E
AUD:USD Exchange Rate	0.71	0.71	0.71	0.71	0.71
Copper Price (US\$/t)	6,450	6,450	6,450	6,450	6,450
Copper Price (A\$/t)	9,085	9,085	9,085	9,085	9,085

FINANCIAL SUMMARY - A\$m	2019E	2020E	2021E	2022E	2023E
Revenue	-	-	201.7	327.3	327.8
EBITDA	(5.6)	(5.6)	47.8	100.8	156.6
Profit before Tax	(12.8)	(40.7)	5.2	57.0	113.1
Net Income	(12.8)	(40.7)	5.2	57.0	113.1
EPS (A\$/sh)	(0.04)	(0.14)	0.02	0.19	0.37
Oper. CFPS (A\$/sh)	(0.24)	(0.74)	0.02	0.22	0.47
FCF yield (%)	-	0%	-	12%	18%
P/E	-	-	17.6x	1.6x	0.8x
EV/EBITDA	-	-	1.6x	0.8x	0.5x

PROFIT AND LOSS STATEMENT - A\$m	2019E	2020E	2021E	2022E	2023E
Revenue	-	-	201.7	327.3	327.8
COGS	-	-	(141.7)	(213.6)	(158.3)
Operating profit	-	-	60.0	113.7	169.5
Admin	(5.6)	(5.6)	(5.6)	(5.6)	(5.6)
Depreciation	(7.1)	(28.6)	(29.6)	(30.7)	(31.8)
Royalties	-	-	(6.5)	(7.3)	(7.3)
PBIT	(12.8)	(34.2)	18.2	70.0	124.8
Interest	-	(6.5)	(13.0)	(13.0)	(11.7)
Tax	-	-	-	-	-
Net income	(12.8)	(40.7)	5.2	57.0	113.1
EBITDA	(5.6)	(5.6)	47.8	100.8	156.6

VALUATION	US\$m	AUDm
T3 NPV	222	313
Other Assets	20	28
Cash	5	7
Cash from Equity + Debt Raise	0	0
Cash from Options Exercised	0	0
Debt	0	0
TOTAL NAV	247	348
NPV per Share	0.47	1.15

CASH FLOW ANALYSIS - A\$m	2019E	2020E	2021E	2022E	2023E
Profit / (loss) (A\$m)	(12.8)	(34.2)	18.2	70.0	124.8
Depreciation (A\$m)	7.1	28.6	29.6	30.7	31.8
Interest received (A\$m)	-	-	-	-	-
Interest paid (A\$m)	-	(6.5)	(13.0)	(13.0)	(11.7)
Foreign exchange (A\$m)	-	-	-	-	-
Movement in working capital (A\$m)	-	-	(7.2)	(11.9)	6.6
Corporate tax (A\$m)	-	-	-	-	-
Cash flow from operations (A\$m)	(5.6)	(12.1)	27.6	75.8	151.4
Capital expenditure (PP&E) (A\$m)	(50.0)	(192.3)	(21.6)	(7.5)	(7.5)
Other (A\$m)	-	-	-	-	-
Cash flow from investing (A\$m)	(50.0)	(192.3)	(21.6)	(7.5)	(7.5)
Proceeds of equity offering (A\$m)	132.7	-	-	-	-
Borrowings / (repayments) (A\$m)	-	182.2	-	-	(37.2)
Cash flow from financing (A\$m)	132.7	182.2	-	-	(37.2)
Net change in cash (A\$m)	77.1	(22.2)	6.0	68.3	106.7
Cash balance (A\$m)	82.2	60.0	66.0	134.3	241.0

BALANCE SHEET ANALYSIS - A\$m	2019E	2020E	2021E	2022E	2023E
Current Assets					
Cash and Liquids	82.2	60.0	66.0	134.3	241.0
Inventory, Prepaid and Receivables	1.6	1.6	43.1	65.0	51.5
Other	-	-	-	-	-
Non-Current Assets					
Investments	-	-	-	-	-
Fixed Assets	86.8	250.5	242.4	219.2	194.9
Other	0.0	0.0	0.0	0.0	0.0
Current Liabilities					
Borrowings	-	-	-	-	-
Creditors	3.7	3.7	23.8	33.8	26.9
Other	0.2	0.2	0.2	0.2	0.2
Non-Current Liabilities					
Borrowings	-	185.9	185.9	185.9	148.7
Other	-	-	-	-	-
Equity	166.9	122.5	141.7	198.8	311.8
Net Cash/(Debt)	82.2	(126.0)	(120.0)	(51.7)	92.2

DIVISIONAL CASHFLOW - A\$m	2019E	2020E	2021E	2022E	2023E
T3	-	-	27.2	59.0	98.9
Total	-	-	27.2	59.0	98.9

PRODUCTION	2019E	2020E	2021E	2022E	2023E
Copper (kt)	-	-	20	33	33
Silver (Moz)	-	-	0.8	1.1	1.1
Total	-	-	21	35	35
C1 Costs (US\$/t)	-	-	2.18	2.02	1.48
ASIC (US\$/t)	-	-	2.40	2.20	1.66

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