

SPEC BUY

Current Price \$0.06
Target Price \$0.07

Ticker:	MOD	
Sector:	Materials	
Shares on Issue (m):	1,894.2	
Market Cap (\$m):	109.9	
Net Cash:	12.9	
Enterprise Value (\$m):	97.0	
52 wk High/Low:	\$0.09	\$0.02
12m Av Daily Vol (m):	5.68	

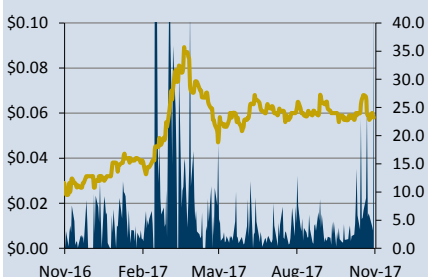
Projects	Stage	
Kalahari Copper Project	Scoping Study	

Mineral Inventory (100% basis)			
	Mt	Grade (Cu%)	Cu kt
Resources (kt)	20.6	1.9	293.2

Directors:	
Mark Clements	Executive Chairman
Julian Hanna	Managing Director
Steve McGhee	Technical Director
Simon Lee AO	Non-Executive Director
Bronwyn Barnes	Non-Executive Director

Substantial Shareholders:	
Australian Super	6.1%
Phoenix Properties	4.9%
Metal Tiger	5.0%

Share Price Graph



MOD Resources

Under the dome

Analyst: Matthew Keane

Quick Read

MOD Resources (MOD) discovered the T3 deposit (70% MOD, 30% Metal Tiger [MRT:LON]) in early 2016 and had quickly defined a shallow copper/silver resource with potential for a ~10 year open pit mine. We believe that while this deposit provides robust economics on a standalone basis, MOD is likely to make further discoveries on its 11,700km² landholding in the underexplored Kalahari Copper Belt in Botswana. A substantial exploration program is underway to test several EM and copper-in-soil anomalies along a prospective 150km long corridor. Exploration and further feasibility studies are well funded with ~\$14m cash in bank.

Overview

T3 deposit: A Scoping Study on the T3 deposit, released late-2016, defined a 10-year operation processing 2Mtpa with 96.5% copper recoveries producing 22ktpa copper and ~665kozpa silver. Pre-production capex is estimated at US\$135m with C1 cash costs of US\$1.29/lb. A PFS is currently underway, due for release in the December Q 2017. First production is slated for H1 2020.

This is not Boseto or Khoemacau: T3 is different to the Boseto and Khoemacau (Cupric Canyon, unlisted) deposits along strike to the east in the Kalahari Copper Belt. These deposits occur along the steeply dipping limbs of folded strata with deep transitional zones from surface. Contrastingly, T3 is interpreted to be on the axis of an antiform (dome) with wider, shallow dipping mineralisation. A calcrete cap has protected mineralisation from oxidation, resulting in fresh sulphides close to surface.

More of an exploration story: MOD has budgeted \$10m for exploration over the next 12 months and currently has 6-7 rigs drilling at the project. The Company is chasing analogous domal features to T3 and has up to 19 EM and soil anomalies in its crosshairs. A number of targeted prospects contain historic copper intercepts, offering a high probability of further economic discoveries. We believe T1 alone could host up to 5-10Mt of mineralisation. In addition to regional exploration, T3 itself is likely to grow. The current 70 diamond drillhole program is testing the potential for underlying stacked veins along with down-dip and along strike extensions to the current planned open pit mineralisation. Previous drilling has hit parallel zones at depth with intercepts of 12m @ 1.2% Cu and 6m @ 1.4% Cu.

Recommendation

Argonaut assigns a SPEC BUY recommendation. Although MOD is trading near our target price of \$0.07/sh, we see upside potential from exploration success from the current drilling program.

Project overview

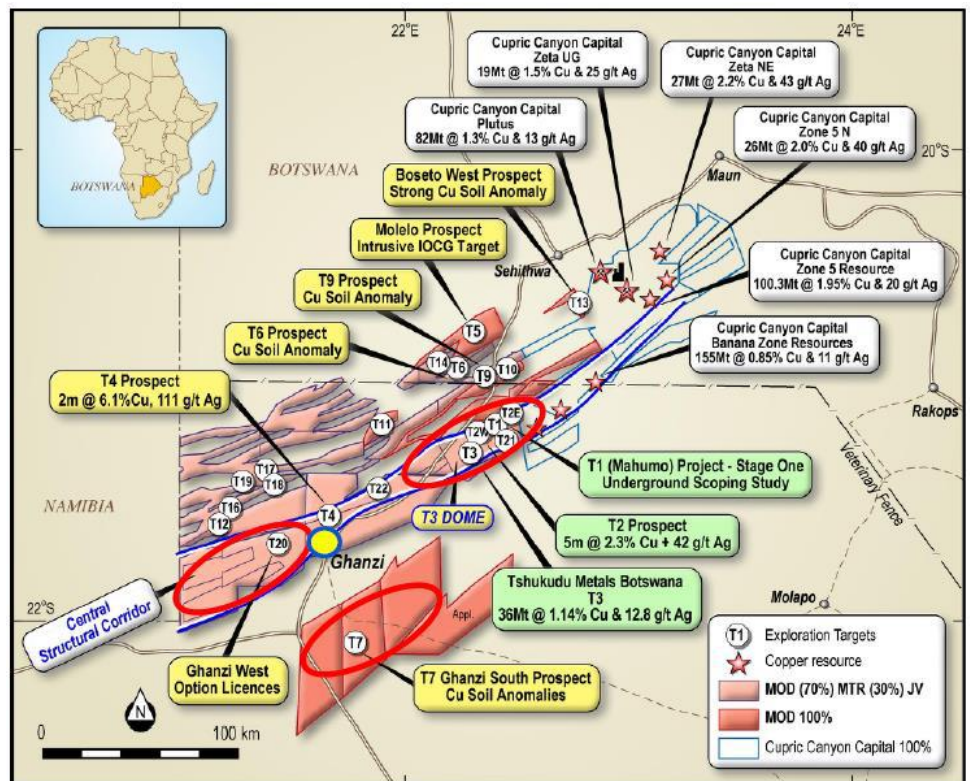
MOD holds 11,700km² of ground in the highly prospective and under explored Kalahari copper belt

The T3 Copper Project is within MOD’s greater Botswana Copper Project located in the ~1,000km long Kalahari Copper Belt which stretched from the Zambian border of Botswana into Namibia. Copper mineralisation is stratiform sediment-hosted in Meso- and Neoproterozoic rocks. The stratigraphy is tightly folded and structurally deformed along a NE-SW trend with a SW plunge. Prospective geology is under deeper sand cover to the SW in Namibia and outcrops to the NE near Cupric Canyon’s Khoemacau Copper Project. MOD has a 11,700km² land holding stretching ~150km of the belt. The ground is prospective for thickened, antiform (domal) hosted copper deposits such as T3. The deposit is shallow dipping with mineralisation up to 100m true width.

The T3 has a resource containing 203kt of copper...

...hosted in shallow stratiform deposit near to surface

Figure 1. Botswana Copper Project Location



Source: MOD

Timeline to development

We anticipate first production in H1 2020

A PFS on the T3 deposit is due out in Q3 2017, which will likely be followed up by a DFS in late-2018. With expected FID soon after the DFS and ~12 months construction time, we see the potential for first production in H1 2020.



Positive Scoping Study

MOD's Scoping Study outlined production of 22ktpa copper and 665kozpa silver...

A Scoping Study (SS) on the T3 deposit, released late-2016, defined a 10-year operation processing 2Mtpa with 96.5% copper recoveries producing 22ktpa copper and ~665kozpa silver. The project has a 6:1 strip ratio for open pit mining which may be reduced to 5:1 following pit optimisation and by applying a lower cut-off grade. Pre-production capex is estimated at US\$135m with C1 cash cost of US\$1.29/lb. A PFS is currently underway, due for release in the December Q 2017. MOD defined a pre-tax NPV₁₀ of US\$297m with a 42% IRR applying a consensus price of US\$3.00/lb.

...with upfront capex of US\$135m and C1 costs of US\$1.29/lb

Table 1. Scoping Study key metrics vs Argonaut modelled

Measure	Metric	Scoping Study	Argonaut Estimate
First Production	Yr	Q4 2019	Q1 2020
Mine Life	Yrs	9.25	10
Inventory	Mt	18	20
Throughput	Mt	2.0	2.0
Grade	% Cu	1.16	1.16
Recovery	%	96.5	93.0
Annual Production	Kt Cu in Conc.	21.8	21.6
Pre-Production Capex	US\$m	135	135
C1 Cost	US\$/t Produced	1.29	1.35
AISC	US\$/t Produced	NA	1.50
Average Cu Price	US\$/lb.	3.00	3.00
Pre-tax NPV ₁₀	US\$m	279	235
Post-tax NPV ₁₀	US\$m	NA	122
Pre tax IRR	%	42	46
Post-tax IRR	%	NA	30

Source: MOD/Argonaut

The site can be accessed by the sealed Ghanzi Highway

Infrastructure

The sealed Ghanzi Highway runs ~300km along Kalahari Copper Belt and within close proximity to MOD's tenements. The town of Ghanzi is the regional centre with ~12,000 people and is ~100km from T3 via the highway. Securing water and power is commonly an issue in Botswana. MOD is planning to install ~12.5MW of on-site power generation, however the region is expected to be connected to grid power from the south in ~2020. Adequate clean water should be available from aquifers under the shallow calcrete cap.

We see significant upside from extensions to the T3 deposit...

Exploration upside

Argonaut sees significant exploration potential from MOD's sizable land holding. We believe the initial 28Mt resource will be substantially increased with exploration both proximal to the T3 Resource and from regional prospects. The Company has budgeted \$10m on exploration over the next 12 months.

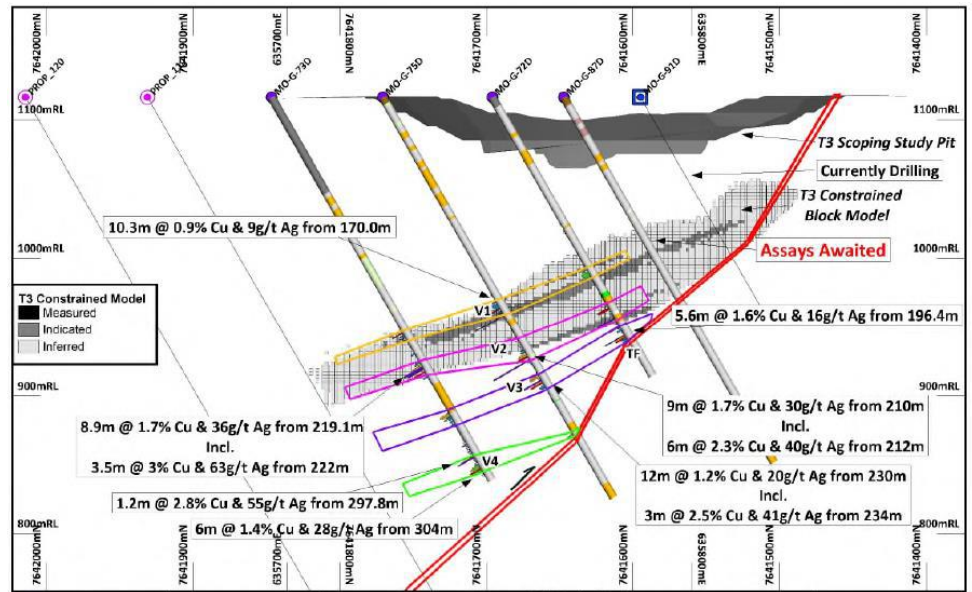
...and from a multitude of regional targets

T3 remains open down-dip, at depth and along strike. Recent drilling has defined stacked high-grade mineralisation opening up under the northeast portion of the existing resource. Key intercepts outside the current resource shell include 12m @ 1.2% Cu from 230m downhole and 20g/t Ag and 6m @ 1.4% Cu and 28g/t Ag from 304m downhole. Higher grade zones within these intercepts graded up to 2.8% Cu over 2-3 metres. While these zones may be beyond the economic extents of an open pit, they open up the prospect of an underground operation.

Recent drilling as identified stacked zones of mineralisation below the T3 Resource...

...indicating potential for an underground mine

Figure 2. Oblique NE to SW cross section highlighting stacked zones below the T3 resource



Source: MOD

Looking for more T3 like domes regionally

Regionally, MOD is looking for more domal deposits similar to T3

Regionally, MOD is planning to drill the 50km extent of the T3 Dome and the 60km extent of the T20 Dome. EM and soil anomalies have been identified along the 150km strike length between the two projects (refer to Figure 1). The domes are interpreted to be large scale antiformal structures containing the copper host stratigraphy. T3 alone has 19 recently identified EM anomalies within the 1,000km² dome. The T20 Dome is interpreted to be the same structural host as the T3 deposit. Infill soil sampling and airborne EM survey are planned over the region.

Valuation

Argonaut’s model assumptions for the mining inventory and mine life are largely in line with the Scoping Study outcomes. We have applied a slightly lower recovery rate of 93% (vs MOD 96.5%) and our long-term copper and silver prices are US\$2.80/lb and US\$18/oz with an AUD/USD exchange rate of 0.75. We derive an NPV₁₂ valuation for T3 of US\$98m (A\$131m, 100% basis) and a sum of parts valuation of A\$126m or \$0.07/sh.

Table 2. MOD Valuation summary

NAV Valuation		
Sum of Parts	AUD M	AUD / Share
B3 Copper Deposit (70%)	91.5	0.05
Exploration upside	60.0	0.03
Corporate NPV	(39.6)	(0.02)
Cash	14.0	0.01
Debt	-	-
Sub Total	126	0.07

Source: Argonaut

Argonaut values MOD at \$0.07/sh